Memorandum

To:	Grant Trigger, RACER	Ref. No.:	017358
From:	Beth Landale/bw/160/Det.	Date:	September 12, 2016
cc:	Mike Reece, GHD		

Re: Focused RCRA Facility Investigation of Out-Parcel II
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) II located at the Former Willow Run Powertrain located in Ypsilanti, Michigan (Site). Parcel II is located west of the former Powertrain building. The location of Parcel II is depicted on Figure 1. Figure 1 also depicts utilities located on or adjacent to Parcel II.

2. Information Review

As part of the FRFI, GHD reviewed historical aerial photographs for Parcel II, 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, analytical data results from soil and groundwater samples collected in 2012 and 2013 as part of a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) for the Site, and analytical data results from a March 2016 supplementary soil sampling event.

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 II as an orchard with the original Ecorse Road bisecting the southern edge of the parcel and a dirt road located along the western edge of the parcel.

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1940: The 1940 aerial photograph depicts the parcels as essentially unchanged from the 1937 aerial photograph.

1949: The 1949 aerial photograph depicts Parcel II with several rectangular and square buildings, concrete pads, and two dirt roads located on it. Remnants of the orchard and surficial scarring are also observed on Parcel II. Ecorse Road has been reconfigured with the original portion being used as an access road for the Former Willow Run Powertrain facility. The current Ecorse Road observed to the north of Parcel II.

1956: The 1956 aerial photograph is essentially unchanged from the 1949 aerial photograph, with the exception that the buildings on Parcel II have been removed.

1961: The 1961 aerial photograph is essentially unchanged from the 1956 aerial photograph, with the exception that trees and brush are observed on Parcel II.

1969: The 1969 aerial photograph is essentially unchanged from the 1961 aerial photograph.

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: The 1997 aerial photograph is essentially unchanged from the 1987 aerial photograph.

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.

No hazardous waste management units were observed at Parcel II.

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

2.2 Benson Ford Research Center Information

GHD reviewed an undated aerial photograph believed to have been taken between 1942 and 1945. The aerial photograph depicts Army barrack-style buildings, several small buildings, and a chapel located on Parcel II. No hazardous waste management units were observed at out-parcels. A copy of this photograph is included as Attachment B.

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 at 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 C.

2.4 RFI Analytical Data Results

During the initial RFI field activities in 2012, a well nest was installed east of the ponds in Parcel II. Soil borings (CRA-726 D, M, and SB) were installed and soil samples collected at Parcel II on March 20, 2012 as part of the RFI activities. Groundwater samples were collected from each groundwater well at CRA-726 D, M, and I on April 25, 2012 and April 10 and 11, 2013. These locations were completed during the RFI as background sampling locations for soil and groundwater as they are side gradient to the main plant operations.

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 concentrations for soil, 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 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 samples. Mercury was detected in one soil sample (CRA-762M, 0-2 ft) at a concentration of 0.052 mg/kg exceeding background levels and the screening criteria for groundwater surface water interface protection criteria, both of which are 0.05 mg/kg.

No VOCs or SVOCs were detected at concentrations above screening criteria in groundwater. PCBs were detected below reporting limits (estimated concentration) in the first sample from each well. Subsequent samples have resulted in PCB results of non-detect. Six metals were detected at concentrations exceeding the drinking water criteria, and three had an exceedance of groundwater surface water interface criteria. All but one exceedance of drinking water and groundwater surface water interface screening criteria is due to elevated turbidity in the samples (>15 to > 1000 NTU). These are all in the deep well and the original sample from the intermediate well. The deep wells are very silty and produce samples with turbidity greater than 1000 NTU in two samples. The one exceedance of a metal (manganese) from a non-turbid well (3.33 NTU) is the second sample from the intermediate well and manganese was detected at 0.052 mg/L above drinking water criteria of 0.05 mg/L.

Tables of analytical results for Parcel II and a figure showing sample locations from the RFI are provided in Attachment D.

2.5 Supplementary Soil Sampling of Out-Parcel II

The supplementary soil sampling was designed to evaluate if previous activities observed west of the ponds in the historical aerials impacted this portion of the Site. As described above there were several activities observed in Parcel II including army barrack-style buildings, several small buildings, and a chapel.

Five soil borings (GHD-1019SB, GHD-1020SB, GHD-1021SB, GHD-1022SB, and GHD-1023SB) were drilled to a depth of approximately 20 feet within Parcel II to determine general soil classification and evaluate any impacts on March 31, 2016. Soil samples were collected from two intervals from each boring; 0-2 feet and the two foot interval above the water table. Field observations including elevated PID readings, visual staining, etc., were not observed during the borings. Samples collected were analyzed for Total Contaminant List (TCL) Volatile Organic Compounds (VOCs), TCL Semi Volatile Compounds (SVOCs), Total Analyte List (TAL) Metals, and Polychlorinated Biphenyls (PCBs).

The soil results were compared to Michigan Part 201 generic cleanup criteria developed by the 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 concentrations for soil, 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 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 samples. Various metals were detected above screening criteria as described below:

- Aluminum was detected in two samples (GHD-1022SB, 0-2.5 feet and GHD-1023SB, 4-5 feet) at concentrations (7,400 and 7,300 mg/kg, respectively) exceeding
  - background levels (5,788 mg/kg) and
  - screening criteria, specifically
    - residential and non-residential drinking water protection criteria (RDWPC and NRDWPC, respectively) (1.0 mg/kg)
- Arsenic was detected in two samples and a duplicate,(GHD-1021SB, 0-2.5 feet and GHD-1023SB, 0-2.5 feet) at concentrations (9.2/18 and 14 mg/kg respectively) exceeding
  - background levels (7.26 mg/kg)
  - screening criteria, specifically
    - RDWPC and NRDWPC (4.6 mg/kg)
    - groundwater surface water protection interface criteria (GSIPC) (4.6 mg/kg)
    - residential direct contact criteria. (7.6 mg/kg)
- Cobalt was detected in three samples (GHD-1019SB, 6-8 feet, GHD-1022SB, 0-2.5 feet, and GHD-1023SB, 4-5 feet) at concentrations (7.8, 6.3, 8.1 mg/kg respectively) exceeding
  - background levels (4.38 mg/kg)
  - screening criteria, specifically
    - RDWPC, NRDWPC (0.8, 2 mg/kg respectively)

        - GSIPC (2 mg/kg)
- Iron was detected in two samples (GHD-1021SB (duplicate), 0-2.5 feet and GHD-1023SB, 4-5 feet) at concentrations (20,000, 14,000 mg/kg respectively) exceeding
    - background levels (13,484 mg/kg)
    - screening criteria, specifically
        - RDWPC, NRDWPC (6 mg/kg)
- Magnesium was detected in five samples (GHD-1019SB, 0-2.5 and 6-8 feet, GHD-1020SB, 4-6 feet, and GHD-1023SB, 0-2.5 and 4-5 feet) at concentrations (12,000, 15,000, 17,000, 15,000, 18,000 mg/kg, respectively) exceeding
    - screening criteria, specifically
        - RDWPC (8,000 mg/kg)
- Manganese was detected in one sample (GHD-1021SB, 0-2.5 feet), but not in the duplicate of that sample at a concentration of (600 mg/kg) exceeding
    - background levels (348 mg/kg)
    - screening criteria, specifically
        - RDWPC, NRDWPC (1 mg/kg)
        - GSIPC (130 mg/kg)
- Selenium was detected in nine samples (all but GHD-1021SB 5.5-7.5 feet) at concentrations ranging from 0.97 to 3.1 mg/kg exceeding
    - background levels (0.83 mg/kg)
    - screening criteria, specifically
        - GSIPC (0.4 mg/kg)

A table of analytical results, the soil boring logs, the data validation memorandum and a figure showing sample locations from the March 2016 sampling for Parcel II are provided in Attachment E.

3. Summary

While Parcel II was associated with historical development activities and current utilities, Parcel II does not appear to have been associated with hazardous waste management units based on a review of historical aerial photographs, a review of undated aerial photograph believed to have been taken between 1942 and 1945, and a figure from the 1980 Hazardous Waste Part A Permit for the Former Willow Run Powertrain. The analytical data from the 2012 and 2013 RFI activities, and March 2016 supplementary soil sampling activities, indicate that the soil and groundwater is not impacted by organic parameters (VOCs, SVOCs, and PCBs) and that some metals are present above screening criteria.

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Client
FORMER POWERTRAIN PLANT YPSILANTI, MICHIGAN

Project
REDEVELOPMENT SUPPORT

No.	Issue	Drawn	Approved	Date
-	-	-	-	-

Drawn **DMG**	Designer
Drafting Check **MR**	Design Check **MR**
Project Manager **B.L.**	Date **Sep 12, 2016**
This document shall not be used for construction unless signed and sealed for construction.	Scale **AS SHOWN**
Original Size **Arch D**	Bar is one inch on original size drawing 0 1"

Project No. **017358-T01**

Title
OUT-PARCELS II

Sheet No.
FIGURE 1

Sheet 1 of 1

Plot Date: 12 September 2016 - 3:42 PM Plotted By: Gary Ushiro Filename: I:\drawings\17000s\17358\17358-MEMO\017358-T01\(MEMO160)\017358-T01\(MEMO160)GN\017358-T01\(MEMO160)GN-DE001.dwg

Attachment A
Historical Aerial Photos

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EDR

INQUIRY #: 4514327.1
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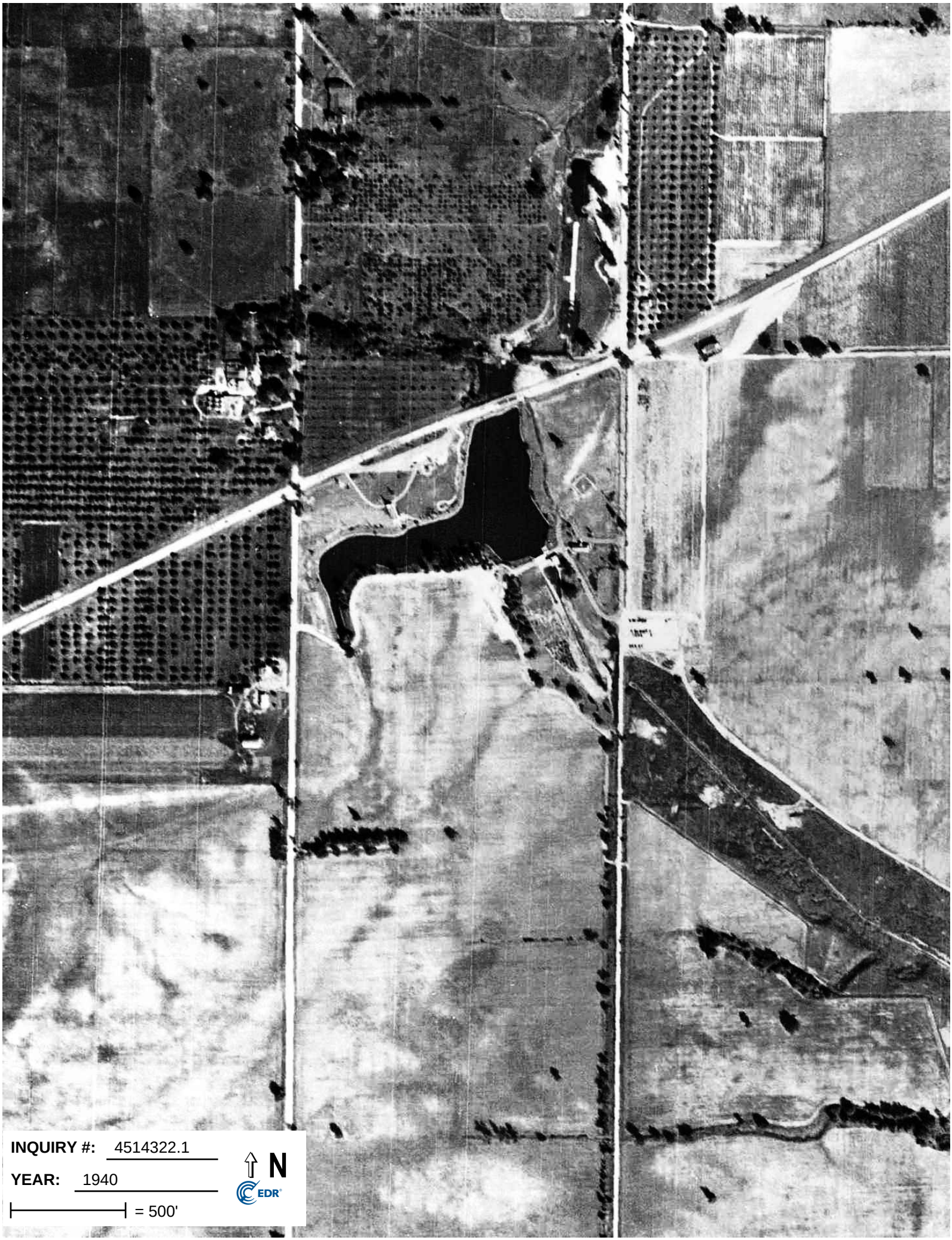
EDR



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EDR

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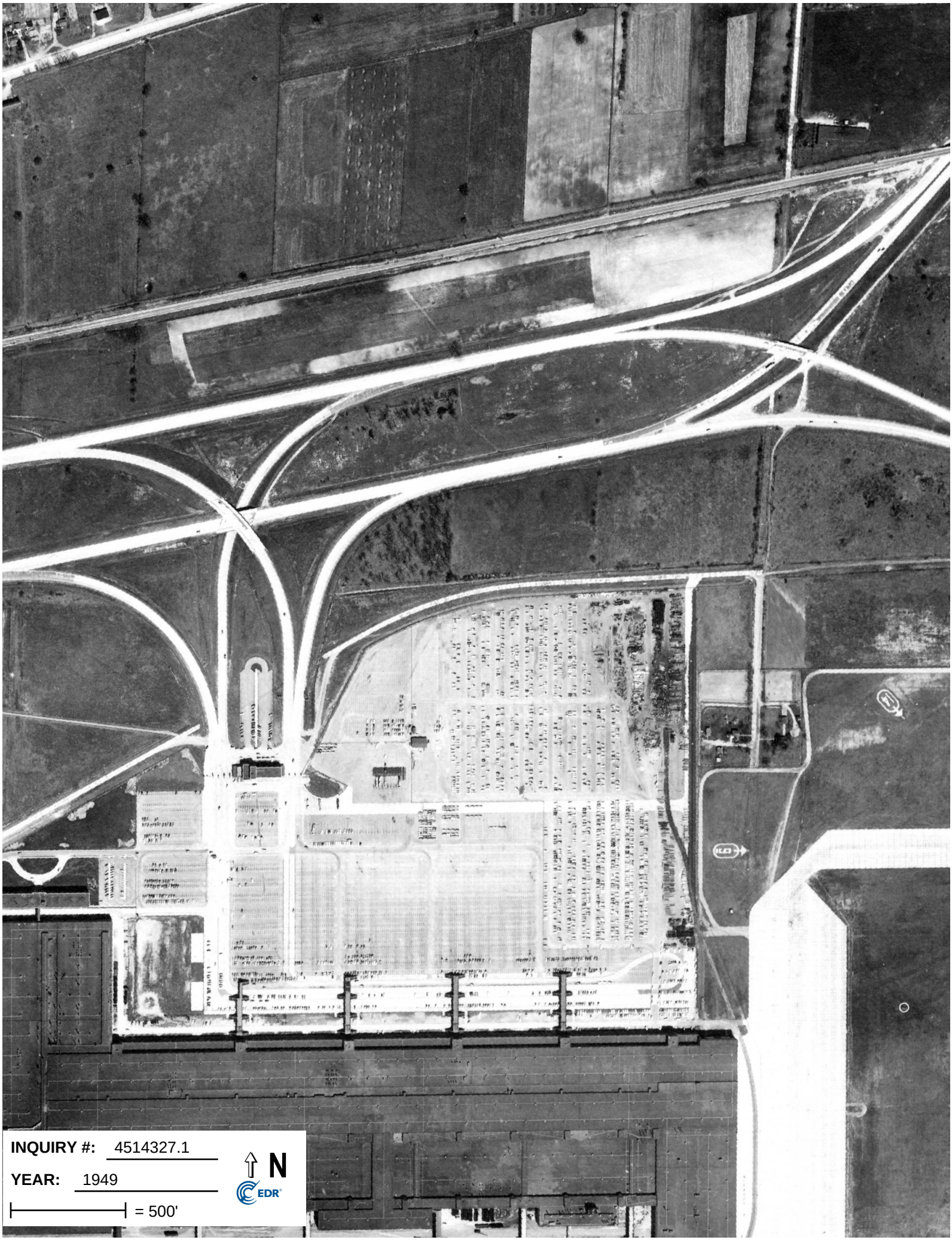

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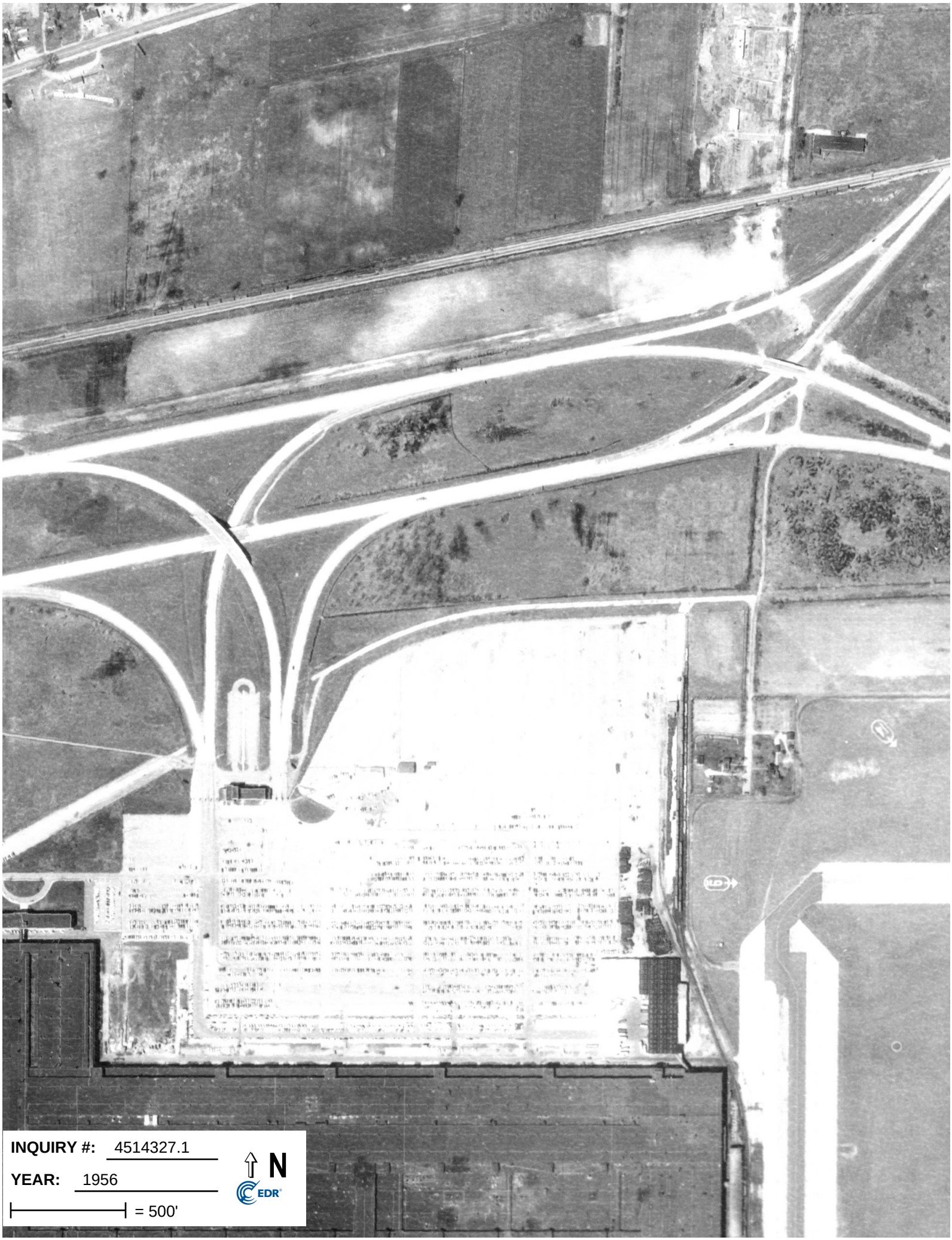

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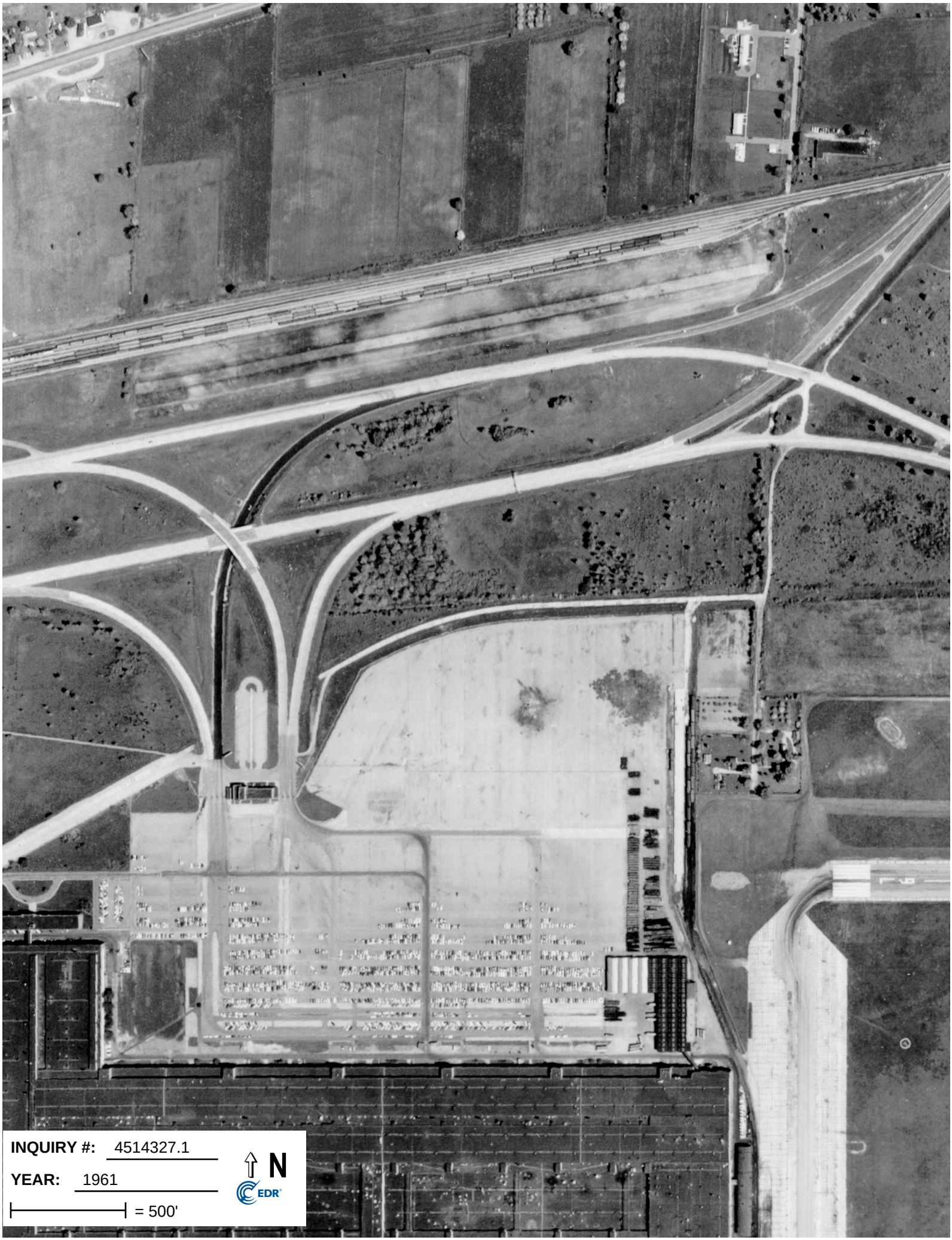
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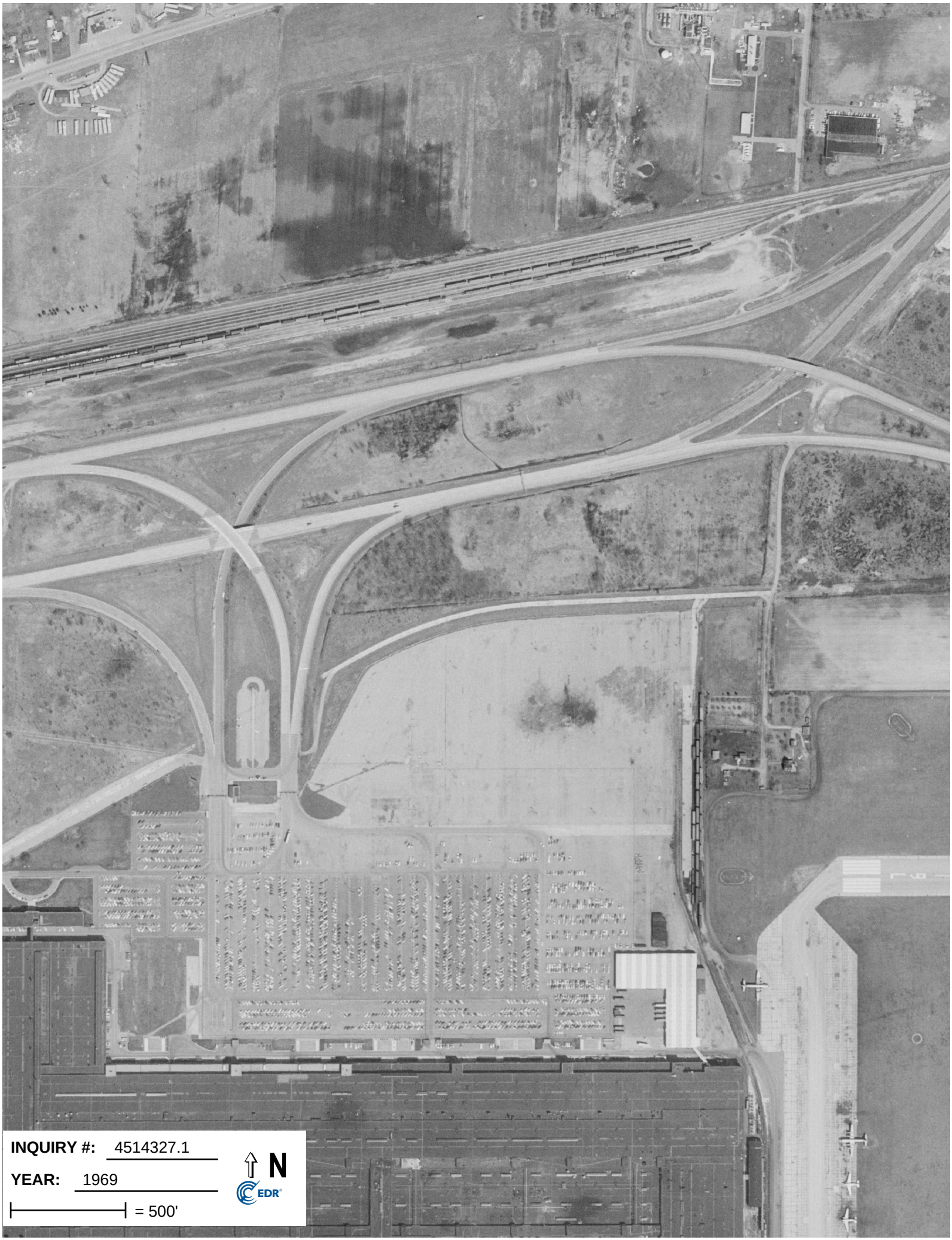
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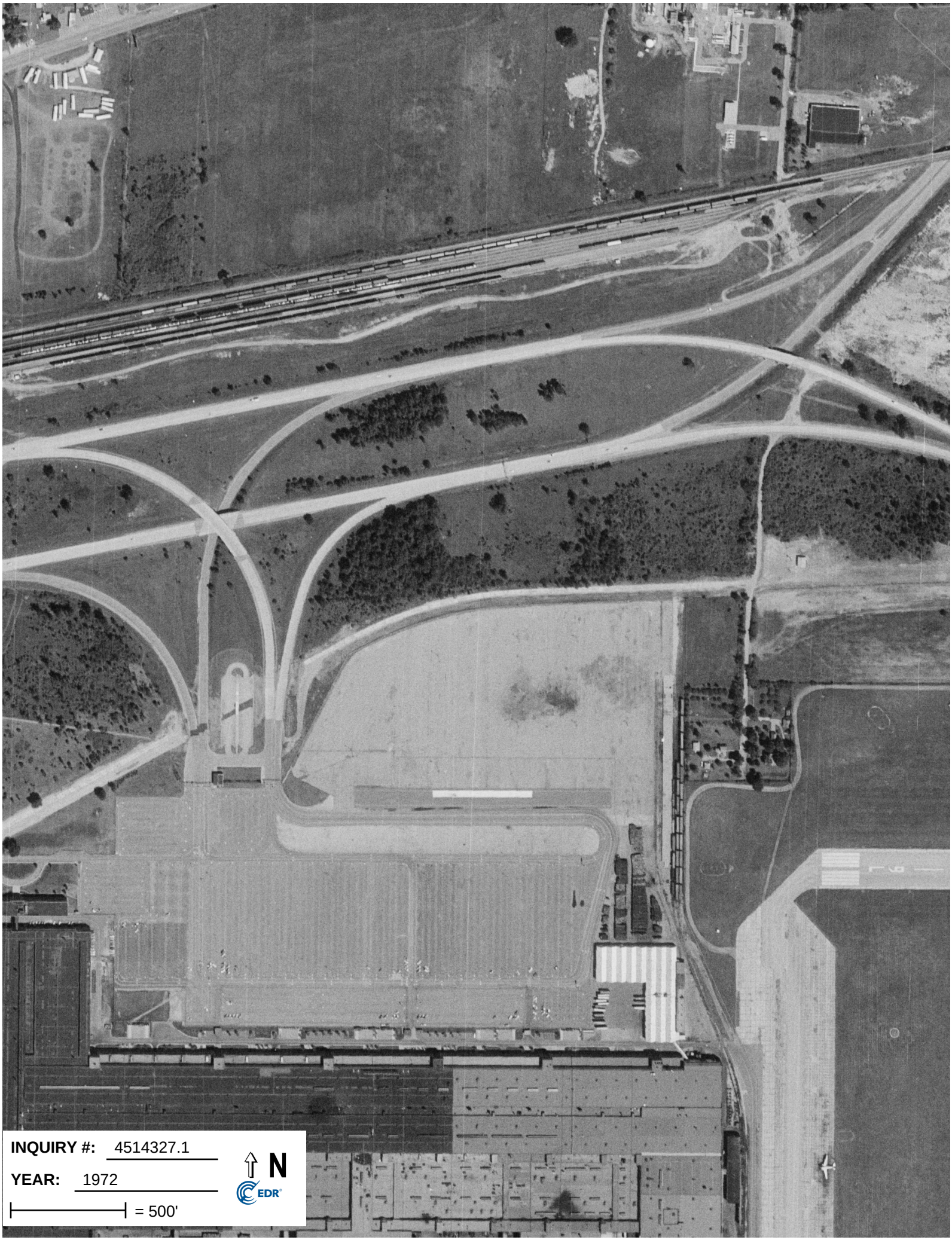
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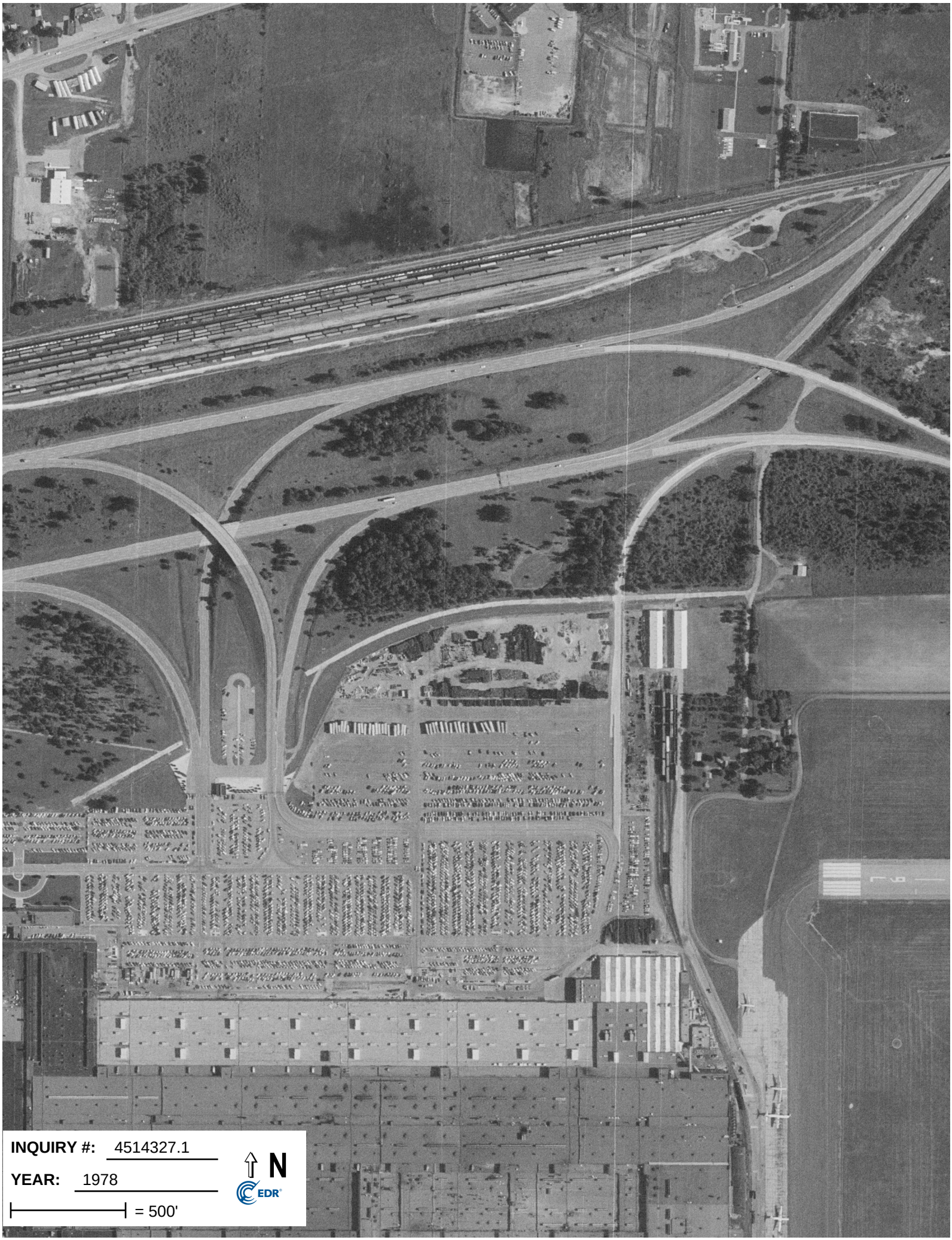
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EDR

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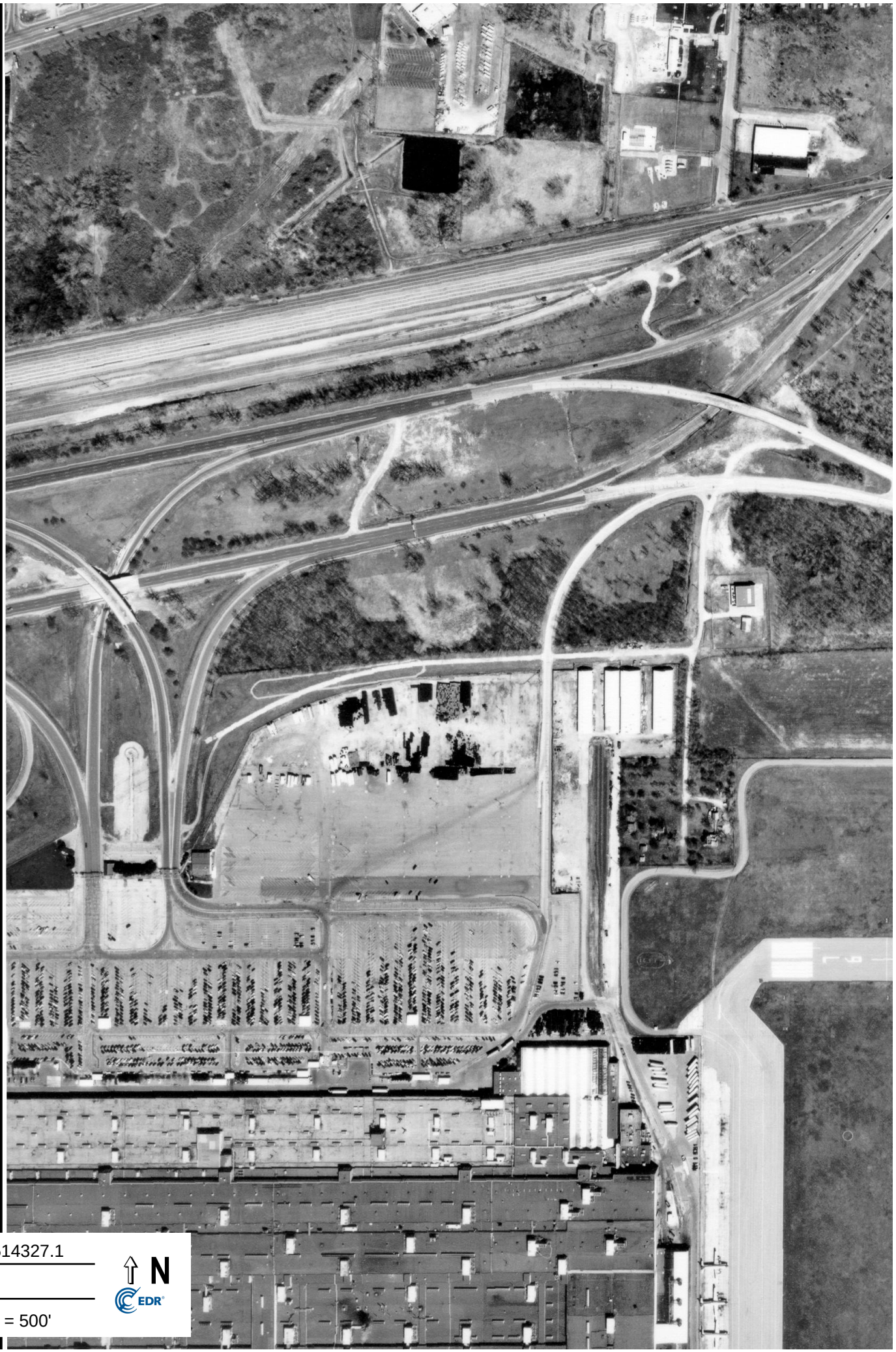
EDR



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= 500'

N

EDR

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= 500'
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EDR

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YEAR: 2005
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EDR

INQUIRY #: 4514327.1
YEAR: 2005
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EDR

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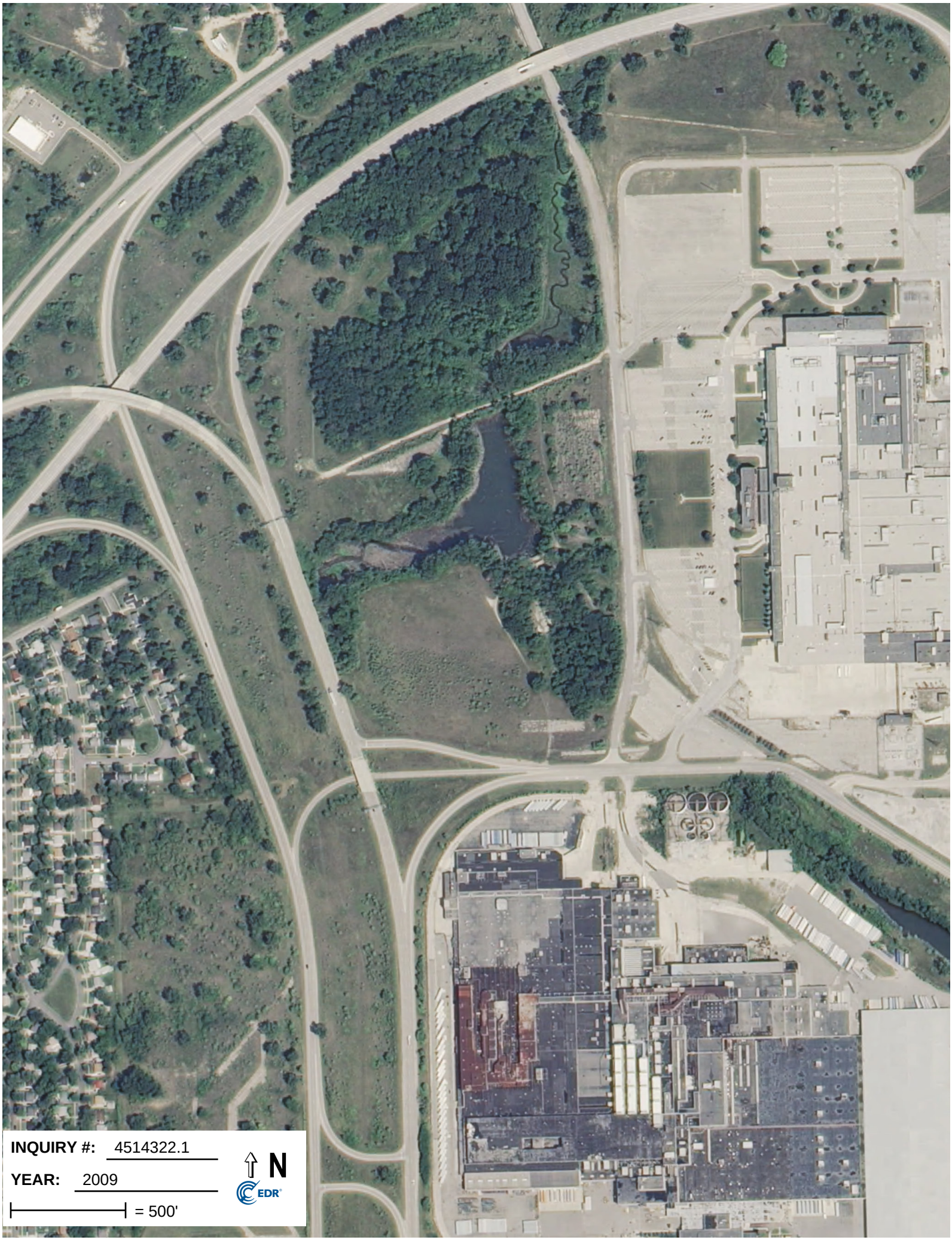
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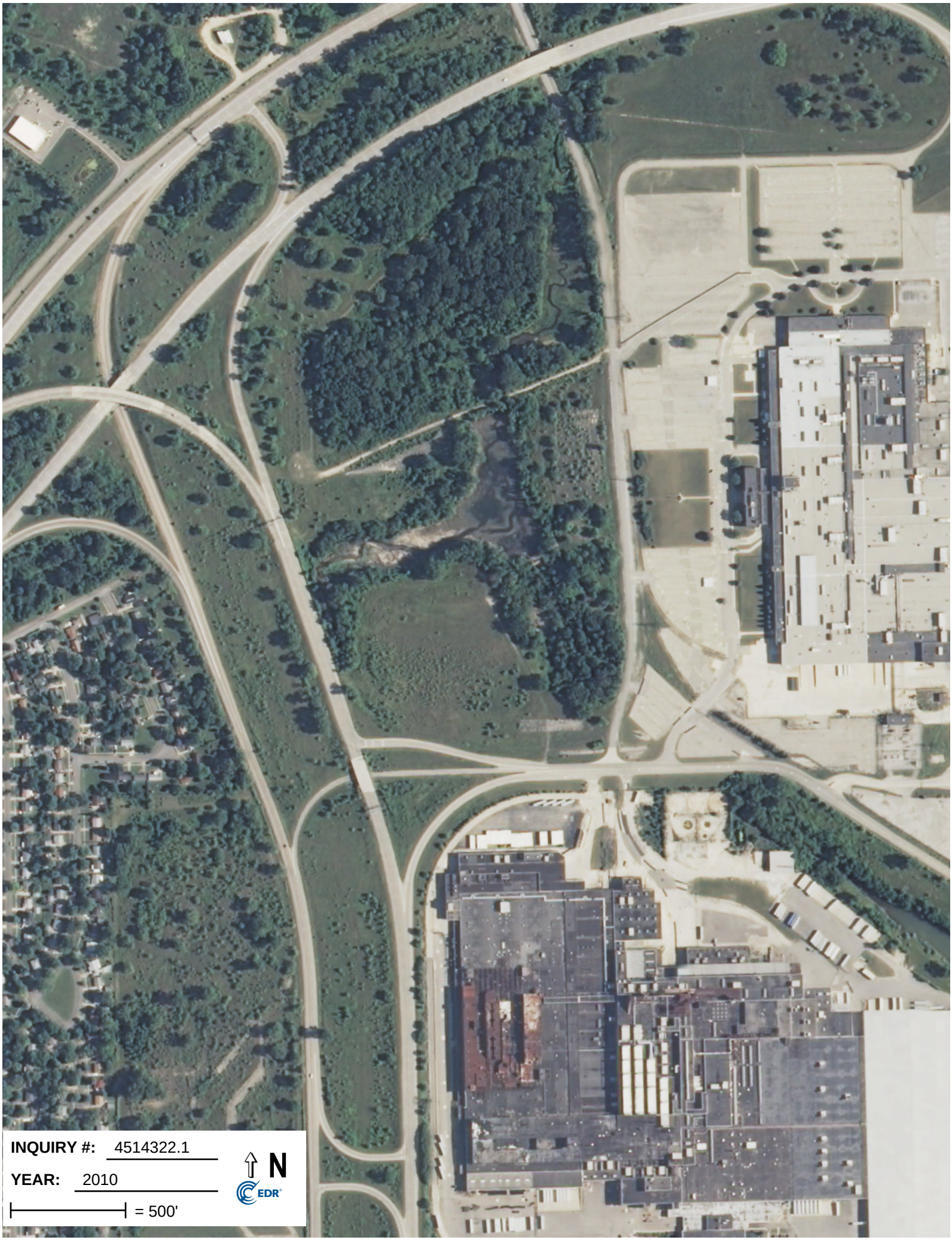
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EDR

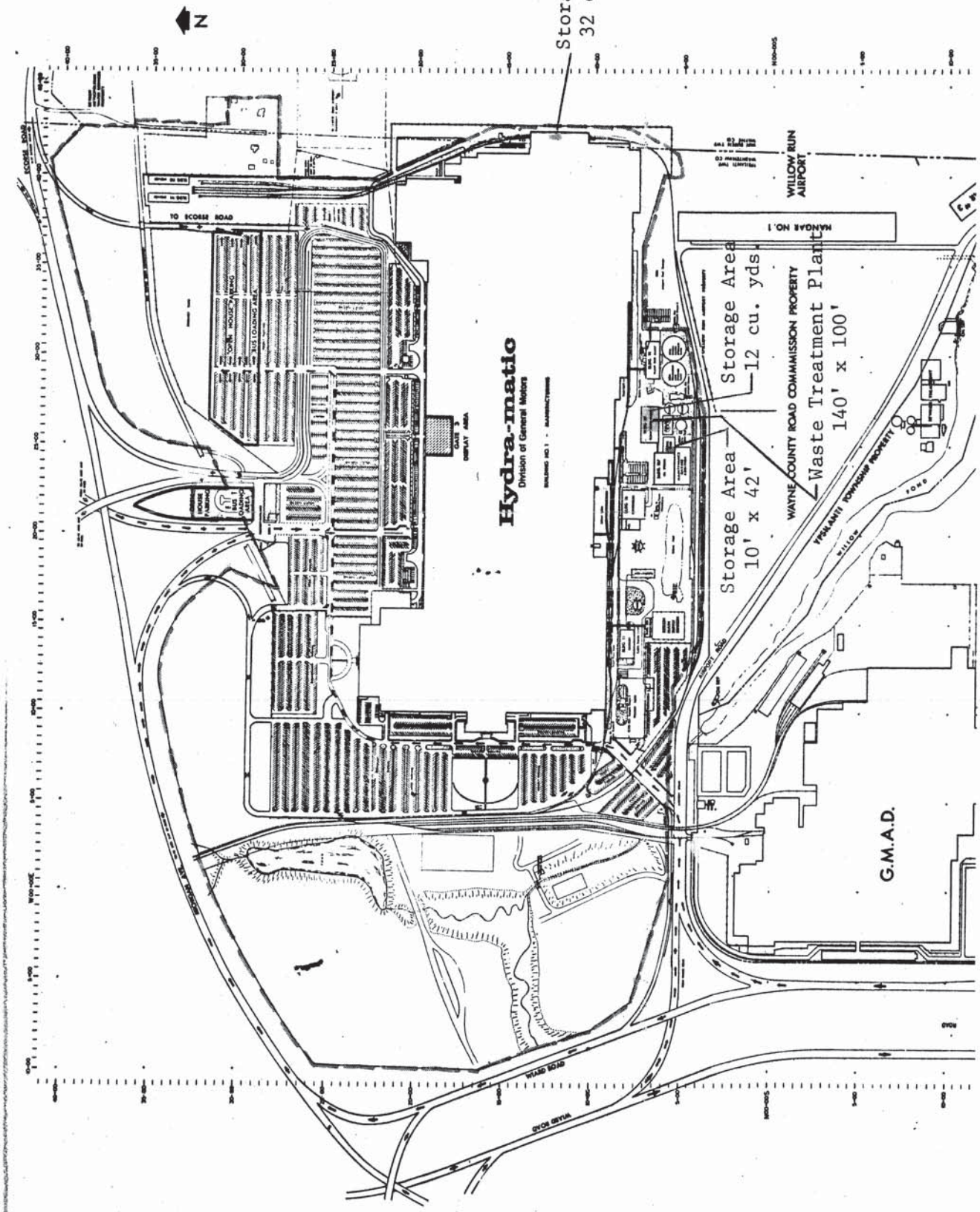
Attachment B
Aerial Photo (taken between 1942 and 1945)

diaryofarosie.com

Attachment C
Figure from Part A TSDF Permit

Form Approved OMB No. 158-S80004 424

V. FACILITY DRAWING *(see page 4)*



Attachment D
RFI Analytical Data Table and Sample Location Figure

Sample Location:		***MDEQ Generic Cleanup Criteria: Residential and Nonresidential*** [1]										
Sample Identification:		Site Background Levels [2]	Drinking Water Protection	NR Drinking Water Protection	Groundwater Surface Water Interface Protection	Soil Volatilization to Indoor Air Inhalation	NR Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation	NR Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	NR Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	NR Finite VSIC for 2 Meter Source Thickness
Sample Date:													
Sample Depth:													
Exceedance Superscript/Sample Depth:		a	b	c	d	e	f	g	h	i	j	k	l
Volatile Organic Compounds (VOCs)	***Units***												
1,1,1-Trichloroethane	mg/kg		4	4	1.8	250	460	3800	4500	12000	15000	28000	31000
1,1,2,2-Tetrachloroethane	mg/kg		0.17	0.7	1.6	4.3	23	10	34	10	34	14	34
1,1,2-Trichloroethane	mg/kg		0.1	0.1	6.6	4.6	24	17	57	21	57	44	120
1,1-Dichloroethane	mg/kg		18	50	15	230	430	2100	2500	5900	6000	14000	14000
1,1-Dichloroethene	mg/kg		0.14	0.14	2.6	0.062	0.33	1.1	3.7	5.3	15	13	37
1,2,4-Trichlorobenzene	mg/kg		4.2	4.2	5.9	9600	18000	28000	34000	28000	34000	28000	34000
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg		0.01	0.01	ID	0.22	1.2	0.26	0.9	0.26	0.9	0.26	0.9
1,2-Dibromoethane (Ethylene dibromide)	mg/kg		0.02	0.02	0.11	0.67	3.6	1.7	5.8	1.7	5.8	3.3	9.8
1,2-Dichlorobenzene	mg/kg		14	14	0.28	11000	20000	39000	46000	39000	46000	52000	55000
1,2-Dichloroethane	mg/kg		0.1	0.1	7.2	2.1	11	6.2	21	11	33	26	74
1,2-Dichloropropane	mg/kg		0.1	0.1	4.6	4	7.4	25	30	50	51	110	120
1,3-Dichlorobenzene	mg/kg		0.17	0.48	0.68	26	48	79	94	79	94	110	110
1,4-Dichlorobenzene	mg/kg		1.7	1.7	0.36	19	100	77	260	77	260	110	340
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg		260	760	44	54000	99000	29000	35000	29000	35000	35000	36000
2-Hexanone	mg/kg		20	58	ID	990	1800	1100	1300	1100	1300	1400	1500
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg		36	100	ID	37000	69000	45000	53000	45000	53000	67000	70000
Acetone	mg/kg		15	42	34	290000	540000	130000	160000	130000	160000	190000	200000
Benzene	mg/kg		0.1	0.1	4	1.6	8.4	13	45	34	99	79	230
Bromodichloromethane	mg/kg		1.6	1.6	ID	1.2	6.4	9.1	31	9.7	31	19	57
Bromoform	mg/kg		1.6	1.6	ID	150	770	900	3100	900	3100	900	3100
Bromomethane (Methyl bromide)	mg/kg		0.2	0.58	0.7	0.86	1.6	11	13	57	57	140	140
Carbon disulfide	mg/kg		16	46	ID	76	140	1300	1600	7900	8000	19000	19000
Carbon tetrachloride	mg/kg		0.1	0.1	0.9	0.19	0.99	3.5	12	12	34	28	79
Chlorobenzene	mg/kg		2	2	0.5	120	220	770	920	990	1100	2100	2100
Chloroethane	mg/kg		8.6	34	22	2900	5300	30000	36000	120000	120000	280000	280000
Chloroform (Trichloromethane)	mg/kg		1.6	1.6	7	7.2	38	45	150	120	340	270	790
Chloromethane (Methyl chloride)	mg/kg		5.2	22	ID	2.3	10	40	120	410	1000	1000	2500
cis-1,2-Dichloroethene	mg/kg		1.4	1.4	12	22	41	180	210	420	430	990	1000
cis-1,3-Dichloropropene	mg/kg												
Cyclohexane	mg/kg												
Dibromochloromethane	mg/kg		1.6	1.6	ID	3.9	21	24	80	24	80	33	98
Dichlorodifluoromethane (CFC-12)	mg/kg		95	270	ID	900	1700	53000	63000	550000	550000	1400000	1400000
Ethylbenzene	mg/kg		1.5	1.5	0.36	87	460	720	2400	1000	3100	2200	6500
Isopropyl benzene	mg/kg		91	260	3.2	400	730	1700	2000	1700	2000	2800	3000
Methyl acetate	mg/kg												
Methyl cyclohexane	mg/kg												
Methyl tert butyl ether (MTBE)	mg/kg		0.8	0.8	140	9900	18000	25000	30000	39000	41000	87000	89000
Methylene chloride	mg/kg		0.1	0.1	30	45	240	210	700	590	1700	1400	4000
Styrene	mg/kg		2.7	2.7	2.1	250	1600	970	3300	970	3300	1400	4200
Tetrachloroethene	mg/kg		0.1	0.1	1.2	11	21	170	210	480	490	1100	1100
Toluene	mg/kg		16	16	5.4	330	610	2800	3300	5100	36000	12000	36000
trans-1,2-Dichloroethene	mg/kg		2	2	30	23	43	280	330	830	840	2000	2000
trans-1,3-Dichloropropene	mg/kg												
Trichloroethene	mg/kg		0.1	0.1	4	1.0	1.9	11	14	25	25	57	58
Trichlorofluoromethane (CFC-11)	mg/kg		52	150		2800	5100	92000	110000	630000	140000000	1500000	140000000
Trifluorotrichloroethane (CFC-113)	mg/kg		9000	9000	1.7	5100	9300	180000	210000	880000	890000	2100000	2100000
Vinyl chloride	mg/kg		0.04	0.04	0.26	0.27	2.8	4.2	29	30	170	73	420
Xylenes (total)	mg/kg		5.6	5.6	0.82	6300	12000	46000	54000	61000	65000	130000	130000
Semi-Volatile Organic Compounds (SVOCs)													
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ethe	mg/kg												
2,4,5-Trichlorophenol	mg/kg		39	110		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2,4,6-Trichlorophenol	mg/kg		2.4	9.4	0.33	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2,4-Dichlorophenol	mg/kg		1.5	4.2	0.33	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2,4-Dimethylphenol	mg/kg		7.4	20	7.6	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2,4-Dinitrophenol	mg/kg												
2,4-Dinitrotoluene	mg/kg		0.43	0.64		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2,6-Dinitrotoluene	mg/kg												
2-Chloronaphthalene	mg/kg		620	1800		ID	ID	ID	ID	ID	ID	ID	ID
2-Chlorophenol	mg/kg		0.9	2.6	0.36	430	800	960	1100	960	1100	960	1100
2-Methylnaphthalene	mg/kg		57	170	4.2	2700	4900	1500	1800	1500	1800	1500	1800

Sample Location:		***MDEQ Generic Cleanup Criteria: Residential and Nonresidential*** [1]											
Sample Identification:		Site Background Levels [2]	Drinking Water Protection	NR Drinking Water Protection	Groundwater Surface Water Interface Protection	Soil Volatilization to Indoor Air Inhalation	NR Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation	NR Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	NR Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	NR Finite VSIC for 2 Meter Source Thickness
Sample Date:													
Sample Depth:													
Exceedance Superscript/Sample Depth:		a	b	c	d	e	f	g	h	i	j	k	l
	Units												
2-Methylphenol	mg/kg		7.4	20	1	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
2-Nitroaniline	mg/kg												
2-Nitrophenol	mg/kg		0.4	1.2	ID	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
3&4-Methylphenol	mg/kg		7.4	20	1	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
3,3'-Dichlorobenzidine	mg/kg		2	2	2	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
3-Nitroaniline	mg/kg												
4,6-Dinitro-2-methylphenol	mg/kg		0.83	0.83		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
4-Bromophenyl phenyl ether	mg/kg												
4-Chloro-3-methylphenol	mg/kg		5.8	16	0.28	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
4-Chloroaniline	mg/kg												
4-Chlorophenyl phenyl ether	mg/kg												
4-Nitroaniline	mg/kg												
4-Nitrophenol	mg/kg												
Acenaphthene	mg/kg		300	880	8.7	190000	350000	81000	97000	81000	97000	81000	97000
Acenaphthylene	mg/kg		5.9	17	ID	1600	3000	2200	2700	2200	2700	2200	2700
Acetophenone	mg/kg		30	88	ID	120000	210000	44000	52000	44000	52000	44000	52000
Anthracene	mg/kg		41	41	ID	1000000	1000000	1400000	1600000	1400000	1600000	1400000	1600000
Atrazine	mg/kg		0.06	0.06	0.15	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Benzaldehyde	mg/kg												
Benzo(a)anthracene	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Benzo(a)pyrene	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Benzo(b)fluoranthene	mg/kg		NLL	NLL	NLL	ID	ID	ID	ID	ID	ID	ID	ID
Benzo(g,h,i)perylene	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Benzo(k)fluoranthene	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Biphenyl (1,1-Biphenyl)	mg/kg												
bis(2-Chloroethoxy)methane	mg/kg												
bis(2-Chloroethyl)ether	mg/kg		0.10	0.17	0.1	8.3	44	3.8	13	3.8	13	3.8	13
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Butyl benzylphthalate (BBP)	mg/kg		2200	5600	120	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Caprolactam	mg/kg		120	340		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Carbazole	mg/kg		9.4	39	1.1	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Chrysene	mg/kg		NLL	NLL	NLL	ID	ID	ID	ID	ID	ID	ID	ID
Dibenz(a,h)anthracene	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Dibenzofuran	mg/kg		ID	ID	1.7	2000	3600	130	160	130	160	130	160
Diethyl phthalate	mg/kg		110	320	2.2	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Dimethyl phthalate	mg/kg		1500	4200		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Di-n-butylphthalate (DBP)	mg/kg		960	2700	11	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Di-n-octyl phthalate (DnOP)	mg/kg		100000	290000	ID	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Fluoranthene	mg/kg		730	730	5.5	1000000	1000000	740000	890000	740000	880000	740000	880000
Fluorene	mg/kg		390	890	5.3	580000	1000000	130000	150000	130000	150000	130000	150000
Hexachlorobenzene	mg/kg		1.8	1.8	0.35	41	220	17	56	17	56	17	56
Hexachlorobutadiene	mg/kg		26	72	0.091	130	710	130	460	130	460	130	460
Hexachlorocyclopentadiene	mg/kg		320	320	ID	30	56	50	60	50	60	50	60
Hexachloroethane	mg/kg		0.43	1.2	1.8	40	79	550	660	930	1400	930	1400
Indeno(1,2,3-cd)pyrene	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Isophorone	mg/kg		15	62	26	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Naphthalene	mg/kg		35	100	0.73	250	470	300	350	300	350	300	350
Nitrobenzene	mg/kg		0.33	0.33	3.6	91	170	54	64	54	64	54	64
N-Nitrosodi-n-propylamine	mg/kg		0.33	0.33		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
N-Nitrosodiphenylamine	mg/kg		5.4	22		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Pentachlorophenol	mg/kg		0.022	0.022	27	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Phenanthrene	mg/kg		56	160	2.1	2800	5100	160	190	160	190	160	190
Phenol	mg/kg		88	260	9	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Pyrene	mg/kg		480	480	ID	1000000	1000000	650000	780000	650000	780000	650000	780000
Metals													
Aluminum	mg/kg	5788	1	1		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Antimony	mg/kg	0.024	4.3	4.3	94	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Arsenic	mg/kg	7.26	4.6	4.6	4.6	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Barium	mg/kg	25.6	1300	1300	1200	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Beryllium	mg/kg	0.196	51	51	950	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Cadmium	mg/kg	0.098	6	6	7.30	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Chromium	mg/kg	11.9	1000000	1000000	6600000	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV

Sample Location:		***MDEQ Generic Cleanup Criteria: Residential and Nonresidential*** [1]											
Sample Identification:		Site Background Levels [2]	Drinking Water Protection	NR Drinking Water Protection	Groundwater Surface Water Interface Protection	Soil Volatilization to Indoor Air Inhalation	NR Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation	NR Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	NR Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	NR Finite VSIC for 2 Meter Source Thickness
Sample Date:													
Sample Depth:													
Exceedance Superscript/Sample Depth:		a	b	c	d	e	f	g	h	i	j	k	l
	Units												
Chromium III (trivalent)	mg/kg	18	1000000	1000000	6600000	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Chromium VI (hexavalent)	mg/kg		30	30	3.3	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Cobalt	mg/kg	4.38	0.8	2	2	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Copper	mg/kg	13.0	5800	5800	170	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Iron	mg/kg	13484	6	6		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Lead	mg/kg	7.14	700	700	11000	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Manganese	mg/kg	348	1	1	130	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Mercury	mg/kg	0.05	1.7	1.7	0.05	48	89	52	62	52	62	52	62
Nickel	mg/kg	11.90	100	100	170	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Selenium	mg/kg	0.83	4	4	0.4	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Silver	mg/kg	0.09	4.5	13	0.1	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Thallium	mg/kg	0.12	2.3	2.3	4.2	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Vanadium	mg/kg	16.7	72	990	430	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Zinc	mg/kg	32	2400	5000	380	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
PCBs													
Aroclor-1016 (PCB-1016)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000
Aroclor-1221 (PCB-1221)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000
Aroclor-1232 (PCB-1232)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000
Aroclor-1242 (PCB-1242)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000
Aroclor-1248 (PCB-1248)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000
Aroclor-1254 (PCB-1254)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000
Aroclor-1260 (PCB-1260)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000
Total PCBs	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000

Notes:

NR - Nonresidential
BGS - below ground surface
U - Not detected at the associated reporting limit.
J - Estimated concentration.
R - Rejected.
NLV - not likely to volatilize under most conditions
NLL - not likely to leach under most soil conditions
ID - insufficient data to develop criterion

superscript - indicates concentration above site specific background and screening criteria

(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-726D**	**CRA-726D**	**CRA-726M**	**CRA-726M**	**CRA-726SB**	**CRA-726SB**
Sample Identification:							**SO-17358-032012-DR-078**	**SO-17358-032012-DR-079**	**SO-17358-032012-CB-211**	**SO-17358-032012-CB-212**	**SO-17358-032012-CB-209**	**SO-17358-032012-CB-210**
Sample Date:		Particulate Soil Inhalation	NR Particulate Soil Inhalation	Direct Contact	NR Direct Contact	Soil Saturation Concentration Screening Levels	**3/20/2012**	**3/20/2012**	**3/20/2012**	**3/20/2012**	**3/20/2012**	**3/20/2012**
Sample Depth:							**(0-2) ft BGS**	**(6.5-8.5) ft BGS**	**(0-2) ft BGS**	**(8-10) ft BGS**	**(0-2) ft BGS**	**(6.5-8.5) ft BGS**
Exceedance Superscript/Sample Depth:		m	n	o	p	q						
	Units											
Volatile Organic Compounds (VOCs)												
1,1,1-Trichloroethane	mg/kg	67000000	29000000	500000	1000000	460	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
1,1,2,2-Tetrachloroethane	mg/kg	54000	68000	53	240	870	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
1,1,2-Trichloroethane	mg/kg	190000	250000	180	840	920	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
1,1-Dichloroethane	mg/kg	33000000	15000000	27000	87000	890	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
1,1-Dichloroethene	mg/kg	62000	78000	200	660	570	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
1,2,4-Trichlorobenzene	mg/kg	25000000	11000000	990	5800	1100	0.26 U	0.26 U	0.21 U	0.21 U	0.23 U	0.19 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	560	700	4400	20000	1.2	0.26 U	0.26 U	0.21 U	0.21 U	0.23 U	0.19 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	14000	18000	0.092	0.43	890	0.26 U	0.26 U	0.21 U	0.21 U	0.23 U	0.19 U
1,2-Dichlorobenzene	mg/kg	100000000	44000000	19000	63000	210	0.1 U	0.1 U	0.086 U	0.085 U	0.092 U	0.077 U
1,2-Dichloroethane	mg/kg	120000	150000	91	420	1200	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
1,2-Dichloropropane	mg/kg	270000	120000	140	660	550	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
1,3-Dichlorobenzene	mg/kg	200000	8800	200	660	170	0.1 U	0.1 U	0.086 U	0.085 U	0.092 U	0.077 U
1,4-Dichlorobenzene	mg/kg	450000	570000	400	1900		0.1 U	0.1 U	0.086 U	0.085 U	0.092 U	0.077 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	67000000	29000000	120000	700000	27000	0.78 U	0.77 U	0.64 U	0.64 U	0.69 U	0.58 U
2-Hexanone	mg/kg	2700000	1200000	32000	100000	2500	2.6 U	2.6 U	2.1 U	2.1 U	2.3 U	1.9 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	140000000	60000000	56000	180000	2700	2.6 U	2.6 U	2.1 U	2.1 U	2.3 U	1.9 U
Acetone	mg/kg	390000000	170000000	23000	73000	110000	0.78 U	0.77 U	0.64 U	0.64 U	0.69 U	0.58 U
Benzene	mg/kg	380000	470000	180	840	400	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
Bromodichloromethane	mg/kg	84000	110000	110	490	1500	0.1 U	0.1 U	0.086 U	0.085 U	0.092 U	0.077 U
Bromoform	mg/kg	2800000	3600000	820	3800	870	0.1 U	0.1 U	0.086 U	0.085 U	0.092 U	0.077 U
Bromomethane (Methyl bromide)	mg/kg	330000	150000	320	1000	2200	0.26 U	0.26 U	0.21 U	0.21 U	0.23 U	0.19 U
Carbon disulfide	mg/kg	47000000	21000000	7200	43000	280	0.26 U	0.26 U	0.21 U	0.21 U	0.23 U	0.19 U
Carbon tetrachloride	mg/kg	130000	170000	96	440	390	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
Chlorobenzene	mg/kg	4700000	2100000	4300	14000	260	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
Chloroethane	mg/kg	670000000	290000000	2600	12000	950	0.26 U	0.26 U	0.21 U	0.21 U	0.23 U	0.19 U
Chloroform (Trichloromethane)	mg/kg	1300000	1600000	1200	5500	1500	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
Chloromethane (Methyl chloride)	mg/kg	4900000	2600000	1600	7400	1100	0.26 U	0.26 U	0.21 U	0.21 U	0.23 U	0.19 U
cis-1,2-Dichloroethene	mg/kg	2300000	1000000	2500	8000	640	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
cis-1,3-Dichloropropene	mg/kg						0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
Cyclohexane	mg/kg						1.2 U	1.2 U	1 U	1 U	1.1 U	0.92 U
Dibromochloromethane	mg/kg	130000	160000	110	500	610	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
Dichlorodifluoromethane (CFC-12)	mg/kg	3300000000	1500000000	52000	17000	1000	0.1 U	0.1 U	0.086 U	0.085 U	0.092 U	0.077 U
Ethylbenzene	mg/kg	10000000	13000000	22000	71000	140	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
Isopropyl benzene	mg/kg	5800000	2600000	25000	80000	390	0.26 U	0.26 U	0.21 U	0.21 U	0.23 U	0.19 U
Methyl acetate	mg/kg						1.2 U	1.2 U	1 U	1 U	1.1 U	0.92 U
Methyl cyclohexane	mg/kg						1.2 U	1.2 U	1 U	1 U	1.1 U	0.92 U
Methyl tert butyl ether (MTBE)	mg/kg	200000000	88000000	1500	7100	5900	0.26 U	0.26 U	0.21 U	0.21 U	0.23 U	0.19 U
Methylene chloride	mg/kg	6600000	8300000	1300	5800	2300	0.26 U	0.26 U	0.21 U	0.21 U	0.23 U	0.19 U
Styrene	mg/kg	5500000	6900000	400	1900	520	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
Tetrachloroethene	mg/kg	2700000	1200000	200	930	88	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
Toluene	mg/kg	27000000	12000000	50000	160000	250	0.1 U	0.1 U	0.086 U	0.085 U	0.092 U	0.077 U
trans-1,2-Dichloroethene	mg/kg	4700000	2100000	3800	12000	1400	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
trans-1,3-Dichloropropene	mg/kg						0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
Trichloroethene	mg/kg	130000	59000	110	660	500	0.052 U	0.051 U	0.043 U	0.042 U	0.046 U	0.038 U
Trichlorofluoromethane (CFC-11)	mg/kg	3800000000	1700000000	79000	260000	560	0.1 U	0.1 U	0.086 U	0.085 U	0.092 U	0.077 U
Trifluorotrichloroethane (CFC-113)	mg/kg	5100000000	2300000000	1000000	1000000	550	0.26 U	0.26 U	0.21 U	0.21 U	0.23 U	0.19 U
Vinyl chloride	mg/kg	350000	890000	3.8	34	490	0.041 U	0.041 U	0.034 U	0.034 U	0.037 U	0.031 U
Xylenes (total)	mg/kg	290000000	130000000	410000	1000000	150	0.16 U	0.15 U	0.13 U	0.13 U	0.14 U	0.12 U
Semi-Volatile Organic Compounds (SVOCs)												
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ethe	mg/kg						0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
2,4,5-Trichlorophenol	mg/kg	23000000	10000000	23000	73000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
2,4,6-Trichlorophenol	mg/kg	1000000	1300000	710	3300		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
2,4-Dichlorophenol	mg/kg	5100000	2300000	660	3900	1800	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
2,4-Dimethylphenol	mg/kg	4700000	2100000	11000	36000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
2,4-Dinitrophenol	mg/kg						0.17 U	R	0.16 U	0.16 U	0.16 U	0.16 U
2,4-Dinitrotoluene	mg/kg	16000	20000	48	220		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
2,6-Dinitrotoluene	mg/kg						0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
2-Chloronaphthalene	mg/kg	ID	ID	56000	180000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
2-Chlorophenol	mg/kg	1200000	530000	1400	4500	19000	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
2-Methylnaphthalene	mg/kg	670000	290000	8100	26000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U

Sample Location:							**CRA-726D**	**CRA-726D**	**CRA-726M**	**CRA-726M**	**CRA-726SB**	**CRA-726SB**
Sample Identification:		Particulate	NR Particulate	Direct	NR Direct	Soil Saturation	**SO-17358-032012-DR-078**	**SO-17358-032012-DR-079**	**SO-17358-032012-CB-211**	**SO-17358-032012-CB-212**	**SO-17358-032012-CB-209**	**SO-17358-032012-CB-210**
Sample Date:		Soil Inhalation	Soil Inhalation	Contact	Contact	Concentration Screening Levels	**3/20/2012**	**3/20/2012**	**3/20/2012**	**3/20/2012**	**3/20/2012**	**3/20/2012**
Sample Depth:							**(0-2) ft BGS**	**(6.5-8.5) ft BGS**	**(0-2) ft BGS**	**(8-10) ft BGS**	**(0-2) ft BGS**	**(6.5-8.5) ft BGS**
Exceedance Superscript/Sample Depth:		m	n	o	p	q						
	Units											
2-Methylphenol	mg/kg	6700000	2900000	11000	36000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
2-Nitroaniline	mg/kg						0.22 U	0.21 U	0.22 U	0.21 U	0.21 U	0.21 U
2-Nitrophenol	mg/kg	ID	ID	630	2000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
3&4-Methylphenol	mg/kg	6700000	2900000	11000	36000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
3,3'-Dichlorobenzidine	mg/kg	6500	8200	6.6	30		1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
3-Nitroaniline	mg/kg						0.22 U	0.21 U	0.22 U	0.21 U	0.21 U	0.21 U
4,6-Dinitro-2-methylphenol	mg/kg	130000	59000	79	260		0.17 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
4-Bromophenyl phenyl ether	mg/kg						0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
4-Chloro-3-methylphenol	mg/kg	ID	ID	4500	15000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
4-Chloroaniline	mg/kg						0.22 U	0.21 U	0.22 U	0.21 U	0.21 U	0.21 U
4-Chlorophenyl phenyl ether	mg/kg						0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
4-Nitroaniline	mg/kg						0.22 U	0.21 U	0.22 U	0.21 U	0.21 U	0.21 U
4-Nitrophenol	mg/kg						0.37 U	0.35 U	0.36 U	0.35 U	0.34 U	0.34 U
Acenaphthene	mg/kg	14000000	6200000	41000	130000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Acenaphthylene	mg/kg	2300000	1000000	1600	5200		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Acetophenone	mg/kg	33000000	14000000	47000	150000	1100	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Anthracene	mg/kg	67000000	29000000	230000	730000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Atrazine	mg/kg	ID	ID	71	330		0.044 U	0.042 U	0.044 U	0.042 U	0.042 U	0.042 U
Benzaldehyde	mg/kg						0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Benzo(a)anthracene	mg/kg	ID	ID	20	80		0.29 U	0.28 U	0.0038 J	0.28 U	0.28 U	0.27 U
Benzo(a)pyrene	mg/kg	1500	1900	2	8		0.29 U	0.28 U	0.29 U	0.28 U	0.0077 J	0.27 U
Benzo(b)fluoranthene	mg/kg	ID	ID	20	80		0.29 U	0.28 U	0.0077 J	0.28 U	0.0086 J	0.27 U
Benzo(g,h,i)perylene	mg/kg	800000	350000	2500	7000		0.29 U	0.28 U	0.29 U	0.28 U	0.0073 J	0.27 U
Benzo(k)fluoranthene	mg/kg	ID	ID	200	800		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Biphenyl (1,1-Biphenyl)	mg/kg						0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
bis(2-Chloroethoxy)methane	mg/kg						0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
bis(2-Chloroethyl)ether	mg/kg	9400	12000	13	58	2200	0.089 U	0.084 U	0.087 U	0.084 U	0.083 U	0.083 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	700000	890000	2800	12000	10000	0.29 U	0.02 J	0.025 J	0.022 J	0.044 J	0.43
Butyl benzylphthalate (BBP)	mg/kg	47000000	21000000	36000	120000	310	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Caprolactam	mg/kg	670000	290000	53000	310000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Carbazole	mg/kg	62000	78000	530	2400		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Chrysene	mg/kg	ID	ID	2000	8000		0.29 U	0.28 U	0.0093 J	0.28 U	0.28 U	0.27 U
Dibenz(a,h)anthracene	mg/kg	ID	ID	2	8		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Dibenzofuran	mg/kg	6700	2900	ID	ID		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Diethyl phthalate	mg/kg	3300000	1500000	170000	550000	740	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Dimethyl phthalate	mg/kg	3300000	1500000	1000000	1000000	790	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Di-n-butylphthalate (DBP)	mg/kg	3300000	1500000	27000	87000	760	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Di-n-octyl phthalate (DnOP)	mg/kg	31000000	14000000	6900	20000	140000	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Fluoranthene	mg/kg	9300000	4100000	46000	130000		0.29 U	0.28 U	0.0089 J	0.28 U	0.01 J	0.27 U
Fluorene	mg/kg	9300000	4100000	27000	87000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Hexachlorobenzene	mg/kg	6800	8500	8.9	37		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Hexachlorobutadiene	mg/kg	140000	180000	100	470	350	0.044 U	0.042 U	0.044 U	0.042 U	0.042 U	0.042 U
Hexachlorocyclopentadiene	mg/kg	13000	5900	2300	6700	720	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Hexachloroethane	mg/kg	230000	100000	230	730		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Indeno(1,2,3-cd)pyrene	mg/kg	ID	ID	20	80		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Isophorone	mg/kg	12000000	8200000	4800	22000	2400	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Naphthalene	mg/kg	200000	88000	16000	52000		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Nitrobenzene	mg/kg	47000	21000	100	340	490	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
N-Nitrosodi-n-propylamine	mg/kg	1600	2000	1.2	5.4	1500	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
N-Nitrosodiphenylamine	mg/kg	2200000	2800000	1700	7800		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Pentachlorophenol	mg/kg	100000	130000	90	320		0.17 U	R	0.16 U	0.16 U	0.16 U	0.16 U
Phenanthrene	mg/kg	6700	2900	1600	5200		0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Phenol	mg/kg	40000000	18000000	40000	230000	12000	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.27 U
Pyrene	mg/kg	6700000	2900000	29000	84000		0.29 U	0.28 U	0.0066 J	0.28 U	0.01 J	0.27 U
Metals												
Aluminum	mg/kg	ID	ID	50000	370000		4800	1400	4100	1700	3600	1800
Antimony	mg/kg	13000	5900	180	670		0.042 J	0.038 J	0.062 J	0.04 J	0.066 J	0.053 J
Arsenic	mg/kg	720	910	7.6	37		2	1.6	3.4	2.1	4.2	3.3
Barium	mg/kg	330000	150000	37000	130000		21	5	21	6.2	16	9
Beryllium	mg/kg	1300	590	410	1600		0.15 U	0.16 U	0.16 U	0.16 U	0.15 U	0.14 U
Cadmium	mg/kg	1700	2200	550	2100		0.08	0.068 J	0.16	0.11	0.15	0.12
Chromium	mg/kg	330000	150000	790000	1000000		6.6	4.1	7.1	4.2	6.2	4.3

Sample Location:							**CRA-726D**	**CRA-726D**	**CRA-726M**	**CRA-726M**	**CRA-726SB**	**CRA-726SB**
Sample Identification:							**SO-17358-032012-DR-078**	**SO-17358-032012-DR-079**	**SO-17358-032012-CB-211**	**SO-17358-032012-CB-212**	**SO-17358-032012-CB-209**	**SO-17358-032012-CB-210**
Sample Date:		Particulate Soil Inhalation	NR Particulate Soil Inhalation	Direct Contact	NR Direct Contact	Soil Saturation Concentration Screening Levels	**3/20/2012**	**3/20/2012**	**3/20/2012**	**3/20/2012**	**3/20/2012**	**3/20/2012**
Sample Depth:							**(0-2) ft BGS**	**(6.5-8.5) ft BGS**	**(0-2) ft BGS**	**(8-10) ft BGS**	**(0-2) ft BGS**	**(6.5-8.5) ft BGS**
Exceedance Superscript/Sample Depth:		m	n	o	p	q						
	Units											
Chromium III (trivalent)	mg/kg	330000	150000	790000	1000000		6.6	4.1	6.6	4.2	6.2	4.3
Chromium VI (hexavalent)	mg/kg	260	240	2500	9200		0.89 U	0.84 U	0.43 J	0.84 U	0.84 U	0.83 U
Cobalt	mg/kg	13000	5900	2600	9000		2.5	1.7	3.5	2	4.2	2.4
Copper	mg/kg	130000	59000	20000	73000		3.1	3.6	6.7	4.6	11	6.7
Iron	mg/kg	ID	ID	160000	580000		6900	4400	8400	5000	9700	6000
Lead	mg/kg	100000	44000	400	900		3.5	2.1	6.9	2.5	4.5	3.2
Manganese	mg/kg	3300	1500	25000	90000		71	120	200	150	240	200
Mercury	mg/kg	20000	8800	160	580		0.045 U	0.043 U	**0.052**[d]	0.037 U	0.041 U	0.044 U
Nickel	mg/kg	13000	16000	40000	150000		6.2	4.8	7.8	5.4	9.6	6.5
Selenium	mg/kg	130000	59000	2600	9600		0.16 J	0.099 J	0.21 J	0.1 J	0.2 J	0.13 J
Silver	mg/kg	6700	2900	2500	9000		0.073 U	0.082 U	0.078 U	0.078 U	0.076 U	0.072 U
Thallium	mg/kg	13000	5900	35	130		0.073 U	0.082 U	0.096 U	0.078 U	0.11 U	0.092 U
Vanadium	mg/kg	ID	ID	750	5500		9.2	5.8	12	5.7	12	6.6
Zinc	mg/kg	ID	ID	170000	630000		15	12	19	14	22	16
PCBs												
Aroclor-1016 (PCB-1016)	mg/kg	5200	6500	4	16		0.037 U	0.035 U	0.036 U	0.035 U	0.034 U	0.034 U
Aroclor-1221 (PCB-1221)	mg/kg	5200	6500	4	16		0.037 U	0.035 U	0.036 U	0.035 U	0.034 U	0.034 U
Aroclor-1232 (PCB-1232)	mg/kg	5200	6500	4	16		0.037 U	0.035 U	0.036 U	0.035 U	0.034 U	0.034 U
Aroclor-1242 (PCB-1242)	mg/kg	5200	6500	4	16		0.037 U	0.035 U	0.036 U	0.035 U	0.034 U	0.034 U
Aroclor-1248 (PCB-1248)	mg/kg	5200	6500	4	16		0.037 U	0.035 U	0.036 U	0.035 U	0.034 U	0.034 U
Aroclor-1254 (PCB-1254)	mg/kg	5200	6500	4	16		0.037 U	0.035 U	0.036 U	0.035 U	0.034 U	0.034 U
Aroclor-1260 (PCB-1260)	mg/kg	5200	6500	4	16		0.037 U	0.035 U	0.036 U	0.035 U	0.034 U	0.034 U
Total PCBs	mg/kg	5200	6500	4	16		ND	ND	ND	ND	ND	ND

Notes:

NR - Nonresidential
BGS - below ground surface
U - Not detected at the associated reporting limit.
J - Estimated concentration.
R - Rejected.
NLV - not likely to volatilize under most conditions
NLL - not likely to leach under most soil conditions
ID - insufficient data to develop criterion

superscript - indicat
(1) MDEQ Generic cleanup criteria for residential and nonresiden
(2) Site-Specific Background Level calculations and background ir

Sample Location:		MDEQ Generic Groundwater Cleanup Criteria: Residential and Nonresidential (1)							**CRA-726D**	**CRA-726D**	**CRA-726D**	**CRA-726I**
Sample Identification:									**GW-17358-042512-**	**GW-17358-041013**	**GW-17358-041113-**	**GW-17358-042512-**
Sample Date:		Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface	Residential Groundwater Volatilization to Indoor Air Inhalation	Non-Residential Groundwater Volatilization to Indoor Air Inhalation	Water Solubility	Flammability and Explosivity Screening Levels	**CB-1100**	**-DR-081**	**DR-087**	**CB-1099**
Sample Type:									**4/25/2012**	**4/10/2013**	**4/11/2013**	**4/25/2012**
Exceedance Superscript:		a	b	c	d	e	f	g				
Volatile Organic Compounds (VOCs)	**Units**											
1,1,1-Trichloroethane	mg/L	0.2	0.2	0.089	660	1300	1330	ID	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.0085	0.035	0.078	12	77	2970	ID	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.005	0.005	0.33	17	110	4420		0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.88	2.5	0.74	1000	2300	5060	380	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.007	0.007	0.13	0.2	1.3	2250	97	0.001 U	0.001 U	0.001 U	0.001 U
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	0.099	300	300	300		0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002		0.22	1.2	1.23		0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	0.0057	2.4	15	4200	ID	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.6	0.6	0.013	160	160	156		0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.005	0.005	0.36	9.6	59	8520	2500	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane	mg/L	0.005	0.005	0.23	16	36	2800	550	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene	mg/L	0.0066	0.019	0.028	18	41	111	ID	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene	mg/L	0.075	0.075	0.017	16	74	73.8		0.001 U	0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	13	38	2.2	240000	240000	240000	ID	0.01 U	0.01 U	0.01 U	0.01 U
2-Hexanone	mg/L	1	2.9	ID	4200	8700	16000		0.01 U	0.01 U	0.01 U	0.01 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	1.8	5.2	ID	20000	20000	20000	ID	0.01 U	0.01 U	0.01 U	0.01 U
Acetone	mg/L	0.73	2.1	1.7	1000000	1000000	1000000	15000	0.01 U	0.01 U	0.003 J	0.01 U
Benzene	mg/L	0.005	0.005	0.2	5.6	35	1750	68	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	0.08	0.08	ID	4.8	37	6740	ID	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.08	0.08	ID	470	3100	3100	ID	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.01	0.029	0.035	4	9	14500	ID	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.8	2.3	ID	250	550	1190	13	0.005 U	0.00022 J	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.005	0.005	0.045	0.37	2.4	793	ID	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.1	0.1	0.025	210	470	472	160	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane	mg/L	0.43	1.7	1.1	5700	5700	5740	110	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.08	0.08	0.35	28	180	7920	ID	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.26	1.1	ID	8.6	45	6340	36	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.62	93	210	3500	530	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
Cyclohexane	mg/L								0.001 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane	mg/L	0.08	0.08	ID	14	110	2600	ID	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane (CFC-12)	mg/L	1.7	4.8	ID	220	300	300	ID	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	mg/L	0.074	0.074	0.018	110	170	169	43	0.001 U	0.001 U	0.001 U	0.001 U
Isopropyl benzene	mg/L	0.8	2.3	0.028	56	56	56	29	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
Methyl cyclohexane	mg/L								0.001 U	0.001 U	0.001 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	0.04	0.04	7.1	47000	47000	46800	ID	0.005 U	0.001 U	0.001 U	0.005 U
Methylene chloride	mg/L	0.005	0.005	1.5	220	1400	17000	ID	0.005 U	0.005 U	0.005 U	0.005 U
Styrene	mg/L	0.1	0.1	0.08	170	310	310	140	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.005	0.005	0.06	25	170	200	ID	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.79	0.79	0.27	530	530	526	61	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.1	0.1	1.5	85	200	6300	230	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
Trichloroethene	mg/L	0.005	0.005	0.2	2.2	4.9	1100	ID	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	2.6	7.3		1100	1100	1100	ID	0.001 U	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (CFC-113)	mg/L	170	170	0.032	170	170	170	ID	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	mg/L	0.002	0.002	0.013	1.1	13	2760	33	0.001 U	0.001 U	0.001 U	0.001 U
Xylenes (total)	mg/L	0.28	0.28	0.041	190	190	186	70	0.002 U	0.002 U	0.002 U	0.002 U
Semi-Volatile Organic Compounds (SVOCs)												
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/L								0.0053 U	0.0051 U	0.0051 U	0.0059 U
2,4,5-Trichlorophenol	mg/L	0.73	2.1		NLV	NLV	1200	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
2,4,6-Trichlorophenol	mg/L	0.12	0.47	0.005	NLV	NLV	800	ID	0.0042 U	0.004 U	0.0041 U	0.0047 U
2,4-Dichlorophenol	mg/L	0.073	0.21	0.011	NLV	NLV	4500	ID	0.011 U	0.01 U	0.01 U	0.012 U
2,4-Dimethylphenol	mg/L	0.37	1	0.38	NLV	NLV	7870	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
2,4-Dinitrophenol	mg/L								0.021 U	0.02 U	0.02 U	0.024 U
2,4-Dinitrotoluene	mg/L	0.0077	0.032		NLV	NLV	270	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
2,6-Dinitrotoluene	mg/L								0.0053 U	0.0051 U	0.0051 U	0.0059 U
2-Chloronaphthalene	mg/L	1.8	5.2		ID	ID	6.74	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
2-Chlorophenol	mg/L	0.045	0.13	0.018	ID	ID	22000	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
2-Methylnaphthalene	mg/L	0.26	0.75	0.019	25	25	24.6	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
2-Methylphenol	mg/L	0.37	1	0.03	NLV	NLV	28000		0.0053 U	0.0051 U	0.0051 U	0.0059 U
2-Nitroaniline	mg/L								0.021 U	0.02 U	0.02 U	0.024 U
2-Nitrophenol	mg/L	0.02	0.058	ID	NLV	NLV	2500	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
3&4-Methylphenol	mg/L	0.37	1	0.03	NLV	NLV	28000		0.0053 U	0.0051 U	0.0051 U	0.0059 U

Sample Location:		MDEQ Generic Groundwater Cleanup Criteria: Residential and Nonresidential (1)							**CRA-726D**	**CRA-726D**	**CRA-726D**	**CRA-726I**
Sample Identification:									**GW-17358-042512-**	**GW-17358-041013**	**GW-17358-041113-**	**GW-17358-042512-**
Sample Date:		Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface	Residential Groundwater Volatilization to Indoor Air Inhalation	Non-Residential Groundwater Volatilization to Indoor Air Inhalation	Water Solubility	Flammability and Explosivity Screening Levels	**CB-1100**	**-DR-081**	**DR-087**	**CB-1099**
Sample Type:									**4/25/2012**	**4/10/2013**	**4/11/2013**	**4/25/2012**
Exceedance Superscript:		a	b	c	d	e	f	g				
3,3'-Dichlorobenzidine	mg/L	0.0011	0.0043	0.0003	NLV	NLV	3.11	ID	0.0011 U	0.001 U	0.001 U	0.0012 U
3-Nitroaniline	mg/L								0.021 U	0.02 U	0.02 U	0.024 U
4,6-Dinitro-2-methylphenol	mg/L	0.02	0.02		NLV	NLV	200	ID	0.021 U	0.02 U	0.02 U	0.024 U
4-Bromophenyl phenyl ether	mg/L								0.0053 U	0.0051 U	0.0051 U	0.0059 U
4-Chloro-3-methylphenol	mg/L	0.15	0.42	0.0074	NLV	NLV	3900	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
4-Chloroaniline	mg/L								0.011 U	0.01 U	0.01 U	0.012 U
4-Chlorophenyl phenyl ether	mg/L								0.0053 U	0.0051 U	0.0051 U	0.0059 U
4-Nitroaniline	mg/L								0.021 U	0.02 U	0.02 U	0.024 U
4-Nitrophenol	mg/L								0.021 U	0.02 U	0.02 U	0.024 U
Acenaphthene	mg/L	1.3	3.8	0.038	4.2	4.2	4.24	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
Acenaphthylene	mg/L	0.052	0.15	ID	3.9	3.9	3.93	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
Acetophenone	mg/L	1.5	4.4		6100	6100	6100	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
Anthracene	mg/L	0.043	0.043	ID	0.043	0.043	0.0434	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
Atrazine	mg/L	0.003	0.003	0.0073	NLV	NLV	70	ID	0.0032 U	0.003 U	0.0031 U	0.0035 U
Benzaldehyde	mg/L								0.0053 U	0.0051 U	0.0051 U	0.0059 U
Benzo(a)anthracene	mg/L	0.0021	0.0085	ID	NLV	NLV	0.0094	ID	0.0011 U	0.001 U	0.001 U	0.0012 U
Benzo(a)pyrene	mg/L	0.005	0.005	ID	NLV	NLV	0.00162	ID	0.0011 U	0.001 U	0.001 U	0.0012 U
Benzo(b)fluoranthene	mg/L	0.0015	0.0015	ID	ID	ID	0.0015	ID	0.0011 U	0.001 U	0.001 U	0.0012 U
Benzo(g,h,i)perylene	mg/L	0.001	0.001		NLV	NLV	0.00026	ID	0.0011 U	0.001 U	0.001 U	0.0012 U
Benzo(k)fluoranthene	mg/L	0.001	0.001		NLV	NLV	0.0008	ID	0.0011 U	0.001 U	0.001 U	0.0012 U
Biphenyl (1,1-Biphenyl)	mg/L								0.0053 U	0.0051 U	0.0051 U	0.0059 U
bis(2-Chloroethoxy)methane	mg/L								0.0053 U	0.0051 U	0.0051 U	0.0059 U
bis(2-Chloroethyl)ether	mg/L	0.002	0.0083	0.001	38	210	17200	17000	0.0011 U	0.001 U	0.001 U	0.0012 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	0.025	NLV	NLV	0.34		0.0053 U	0.0051 U	0.0051 U	0.0025 J
Butyl benzylphthalate (BBP)	mg/L	1.2	2.7	0.067	NLV	NLV	2.69	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
Caprolactam	mg/L	5.8	17		NLV	NLV	5250000		0.011 U	0.01 U	0.01 U	0.012 U
Carbazole	mg/L	0.085	0.35	0.01	NLV	NLV	7.48	ID	0.011 U	0.01 U	0.01 U	0.012 U
Chrysene	mg/L	0.0016	0.0016	ID	ID	ID	0.0016	ID	0.0011 U	0.001 U	0.001 U	0.0012 U
Dibenz(a,h)anthracene	mg/L	0.002	0.002	ID	NLV	NLV	0.00249	ID	0.0021 U	0.002 U	0.002 U	0.0024 U
Dibenzofuran	mg/L	ID	ID	0.004	10	10	10	ID	0.0042 U	0.004 U	0.0041 U	0.0047 U
Diethyl phthalate	mg/L	5.5	16	0.11	NLV	NLV	1080		0.0053 U	0.0051 U	0.0051 U	0.0059 U
Dimethyl phthalate	mg/L	73	210		NLV	NLV	4190		0.0053 U	0.0051 U	0.0051 U	0.0059 U
Di-n-butylphthalate (DBP)	mg/L	0.88	2.5	0.0097	NLV	NLV	11.2		0.0053 U	0.0051 U	0.0051 U	0.0059 U
Di-n-octyl phthalate (DnOP)	mg/L	0.13	0.38	ID	NLV	NLV	3	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
Fluoranthene	mg/L	0.21	0.21	0.0016	0.21	0.21	0.206	ID	0.0011 U	0.001 U	0.001 U	0.0012 U
Fluorene	mg/L	0.88	2	0.012	2	2	1.98	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
Hexachlorobenzene	mg/L	0.001	0.001	0.0002	0.44	3	6.2	ID	0.00021 U	0.0002 U	0.0002 U	0.00024 U
Hexachlorobutadiene	mg/L	0.015	0.042	0.000053	1.6	3.2	3.23	ID	0.0011 U	0.001 U	0.001 U	0.0012 U
Hexachlorocyclopentadiene	mg/L	0.05	0.05	ID	0.13	0.42	1.8	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
Hexachloroethane	mg/L	0.0073	0.021	0.0067	27	50	50	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
Indeno(1,2,3-cd)pyrene	mg/L	0.002	0.002	ID	NLV	NLV	0.000022	ID	0.0021 U	0.002 U	0.002 U	0.0024 U
Isophorone	mg/L	0.77	3.1	1.3	NLV	NLV	12000		0.0053 U	0.0051 U	0.0051 U	0.0059 U
Naphthalene	mg/L	0.52	1.5	0.011	31	31	31		0.0053 U	0.0051 U	0.0051 U	0.0059 U
Nitrobenzene	mg/L	0.0034	0.0096	0.18	280	550	2090		0.0032 U	0.003 U	0.0031 U	0.0035 U
N-Nitrosodi-n-propylamine	mg/L	0.005	0.005		NLV	NLV	9890	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
N-Nitrosodiphenylamine	mg/L	0.27	1.1		NLV	NLV	35.1	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
Pentachlorophenol	mg/L	0.001	0.001	0.0028	NLV	NLV	1850	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
Phenanthrene	mg/L	0.052	0.15	0.002	1	1	1	ID	0.0021 U	0.002 U	0.002 U	0.0024 U
Phenol	mg/L	4.4	13	0.45	NLV	NLV	82800		0.0053 U	0.0051 U	0.0051 U	0.0059 U
Pyrene	mg/L	0.14	0.14	ID	0.14	0.14	0.135	ID	0.0053 U	0.0051 U	0.0051 U	0.0059 U
PCBs												
Aroclor-1016 (PCB-1016)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.00011 U	0.000098 U	0.000096 U	0.000095 U
Aroclor-1221 (PCB-1221)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.00011 U	0.000098 U	0.000096 U	0.000095 U
Aroclor-1232 (PCB-1232)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.00011 U	0.000098 U	0.000096 U	0.000095 U
Aroclor-1242 (PCB-1242)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.00011 U	0.000098 U	0.000096 U	0.000095 U

Sample Location:		MDEQ Generic Groundwater Cleanup Criteria: Residential and Nonresidential (1)							**CRA-726D**	**CRA-726D**	**CRA-726D**	**CRA-726I**
Sample Identification:									**GW-17358-042512-**	**GW-17358-041013**	**GW-17358-041113-**	**GW-17358-042512-**
Sample Date:		Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface	Residential Groundwater Volatilization to Indoor Air Inhalation	Non-Residential Groundwater Volatilization to Indoor Air Inhalation	Water Solubility	Flammability and Explosivity Screening Levels	**CB-1100**	**-DR-081**	**DR-087**	**CB-1099**
Sample Type:									**4/25/2012**	**4/10/2013**	**4/11/2013**	**4/25/2012**
Exceedance Superscript:		a	b	c	d	e	f	g				
Aroclor-1248 (PCB-1248)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.00011 U	0.000098 U	0.000096 U	0.000095 U
Aroclor-1254 (PCB-1254)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.000038 J	0.000098 U	0.000096 U	0.000034 J
Aroclor-1260 (PCB-1260)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.00011 U	0.000098 U	0.000096 U	0.000095 U
Aroclor-1262 (PCB-1262)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.00011 U	0.000098 U	0.000096 U	0.000095 U
Aroclor-1268 (PCB-1268)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.00011 U	0.000098 U	0.000096 U	0.000095 U
Total PCBs	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.000038 J	ND	ND	0.000034 J
Metals												
Aluminum	mg/L	0.05	0.05		NLV	NLV		ID	**0.2**[ab]	**3.5 J**[ab]	**29 J**[ab]	**0.34**[ab]
Aluminum (dissolved)	mg/L	0.05	0.05		NLV	NLV		ID	--	--	**11**[ab]	--
Antimony	mg/L	0.006	0.006	0.13	NLV	NLV		ID	0.00041 J	0.002 U	0.002 U	0.0042
Antimony (dissolved)	mg/L	0.006	0.006	0.13	NLV	NLV		ID	--	--	0.002 U	--
Arsenic	mg/L	0.01	0.01	0.01	NLV	NLV		ID	0.00086 J	**0.012**[abc]	**0.02**[abc]	**0.072**[abc]
Arsenic (dissolved)	mg/L	0.01	0.01	0.01	NLV	NLV		ID	--	--	**0.014**[abc]	--
Barium	mg/L	2	2	1.87	NLV	NLV		ID	0.073 J	0.077 J	0.28	0.73
Barium (dissolved)	mg/L	2	2	1.87	NLV	NLV		ID	--	--	0.15	--
Beryllium	mg/L	0.004	0.004	0.075	NLV	NLV		ID	0.001 U	0.00022 J	0.0014	0.001 U
Beryllium (dissolved)	mg/L	0.004	0.004	0.075	NLV	NLV		ID	--	--	0.00053 J	--
Cadmium	mg/L	0.005	0.005	0.006	NLV	NLV		ID	0.001 U	0.00014 J	0.00031 J	0.001 U
Cadmium (dissolved)	mg/L	0.005	0.005	0.006	NLV	NLV		ID	--	--	0.001 U	--
Chromium	mg/L	0.1	0.1	G,X	NLV	NLV		ID	0.01 U	0.008 J	0.053	0.01 U
Chromium (dissolved)	mg/L	0.1	0.1	G,X	NLV	NLV		ID	--	--	0.021	--
Chromium III (trivalent)	mg/L	0.1	0.1	0.23	NLV	NLV		ID	--	--	--	--
Chromium VI (hexavalent)	mg/L	0.1	0.1	0.011	NLV	NLV		ID	--	--	--	--
Cobalt	mg/L	0.04	0.1	0.1	NLV	NLV		ID	0.02 U	0.0028 J	0.019 J	0.0036 J
Cobalt (dissolved)	mg/L	0.04	0.1	0.1	NLV	NLV		ID	--	--	0.0089 J	--
Copper	mg/L	1	1	0.029	NLV	NLV		ID	0.004 U	0.0067 J	**0.034**[c]	0.0007 J
Copper (dissolved)	mg/L	1	1	0.029	NLV	NLV		ID	--	--	0.019	--
Iron	mg/L	0.3	0.3		NLV	NLV		ID	0.14 J	**5.2**[ab]	**44**[ab]	**4.4**[ab]
Iron (dissolved)	mg/L	0.3	0.3		NLV	NLV		ID	--	--	**19**[ab]	--
Lead	mg/L	0.004	0.004	0.059	NLV	NLV		ID	0.003 U	0.0038	**0.015**[ab]	0.00044 J
Lead (dissolved)	mg/L	0.004	0.004	0.059	NLV	NLV		ID	--	--	**0.0069**[ab]	--
Manganese	mg/L	0.05	0.05	6.52	NLV	NLV		ID	**0.056**[ab]	**0.072**[ab]	**0.69**[ab]	**3.1**[ab]
Manganese (dissolved)	mg/L	0.05	0.05	6.52	NLV	NLV		ID	--	--	**0.33**[ab]	--
Mercury	mg/L	0.002	0.002	0.0000013	0.056	0.056	0.056	ID	0.04 U	0.0002 U	0.0002 U	0.04 U
Mercury (dissolved)	mg/L	0.002	0.002	0.0000013	0.056	0.056	0.056	ID	--	--	0.0002 U	--
Nickel	mg/L	0.1	0.1	0.16	NLV	NLV		ID	0.0015 J	0.0092 J	0.055	0.024
Nickel (dissolved)	mg/L	0.1	0.1	0.16	NLV	NLV		ID	--	--	0.028	--
Selenium	mg/L	0.05	0.05	0.005	NLV	NLV		ID	0.00064 J	0.005 U	0.0026 J	0.005 U
Selenium (dissolved)	mg/L	0.05	0.05	0.005	NLV	NLV		ID	--	--	0.0019 J	--
Silver	mg/L	0.034	0.098	0.0002	NLV	NLV		ID	0.0002 U	0.0002 U	0.000089 J	0.0002 U
Silver (dissolved)	mg/L	0.034	0.098	0.0002	NLV	NLV		ID	--	--	0.0002 U	--
Thallium	mg/L	0.002	0.002	0.0037	NLV	NLV		ID	0.002 U	0.00087 J	0.00083 J	0.002 U
Thallium (dissolved)	mg/L	0.002	0.002	0.0037	NLV	NLV		ID	--	--	0.00051 J	--
Vanadium	mg/L	0.0045	0.062	0.027	NLV	NLV		ID	0.00061 J	**0.01**[a]	**0.078**[abc]	0.0014 J
Vanadium (dissolved)	mg/L	0.0045	0.062	0.027	NLV	NLV		ID	--	--	**0.028**[ac]	--
Zinc	mg/L	2.4	5	0.38	NLV	NLV		ID	0.05 U	0.16	0.15 U	0.05 U
Zinc (dissolved)	mg/L	2.4	5	0.38	NLV	NLV		ID	--	--	0.11 U	--

Sample Location:		MDEQ Generic Groundwater Cleanup Criteria: Residential and Nonresidential (1)							**CRA-726D**	**CRA-726D**	**CRA-726D**	**CRA-726I**
Sample Identification:									**GW-17358-042512-CB-1100**	**GW-17358-041013-DR-081**	**GW-17358-041113-DR-087**	**GW-17358-042512-CB-1099**
Sample Date:		Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface	Residential Groundwater Volatilization to Indoor Air Inhalation	Non-Residential Groundwater Volatilization to Indoor Air Inhalation	Water Solubility	Flammability and Explosivity Screening Levels	**4/25/2012**	**4/10/2013**	**4/11/2013**	**4/25/2012**
Sample Type:												
Exceedance Superscript:		a	b	c	d	e	f	g				
General Chemistry												
Phosphorus	mg/L	63	240	EE	NLV	NLV		ID	--	0.095 J	0.79	--
Field Parameters												
Conductivity, field	mS/cm								0.333	0.353	0.353	0.67
Dissolved oxygen (DO), field	mg/L								0.57	9.82	9.82	2.26
Oxidation reduction potential (ORP), field	millivolts								-192	-44	-44	94
pH, field	s.u.	6.5 - 8.5	6.5 - 8.5						**8.91**[ab]	8.17	8.17	7.1
Temperature, field	Deg C								14	10.23	10.23	12.43
Turbidity, field	NTU								> 1000	230	> 1000	15.5

Notes:

NR - Nonresidential
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
NLV - not likely to volatilize under most conditions
ID - insufficient data to develop criterion

[superscript] - indicates concentration above site specific background and screening criteria
(1) MDEQ Generic cleanup criteria for residential and nonresidential category, administrative rule **R 299.44,** respectively, effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended

Sample Location:		MDEQ Generic Groundwater Cleanup Criteria: Residential and Nonresidential (1)							**CRA-726I**	**CRA-726M**	**CRA-726M**
Sample Identification:									**GW-17358-041013-**	**GW-17358-042512-**	**GW-17358-041013-**
Sample Date:		Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface	Residential Groundwater Volatilization to Indoor Air Inhalation	Non-Residential Groundwater Volatilization to Indoor Air Inhalation	Water Solubility	Flammability and Explosivity Screening Levels	**DR-080 4/10/2013**	**CB-1101 4/25/2012**	**DR-082 4/10/2013**
Sample Type:											
Exceedance Superscript:		a	b	c	d	e	f	g			
Volatile Organic Compounds (VOCs)	**Units**										
1,1,1-Trichloroethane	mg/L	0.2	0.2	0.089	660	1300	1330	ID	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	mg/L	0.0085	0.035	0.078	12	77	2970	ID	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	mg/L	0.005	0.005	0.33	17	110	4420		0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	mg/L	0.88	2.5	0.74	1000	2300	5060	380	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	mg/L	0.007	0.007	0.13	0.2	1.3	2250	97	0.001 U	0.001 U	0.001 U
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	0.099	300	300	300		0.001 U	0.001 U	0.001 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002		0.22	1.2	1.23		0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	0.0057	2.4	15	4200	ID	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	mg/L	0.6	0.6	0.013	160	160	156		0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	mg/L	0.005	0.005	0.36	9.6	59	8520	2500	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane	mg/L	0.005	0.005	0.23	16	36	2800	550	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene	mg/L	0.0066	0.019	0.028	18	41	111	ID	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene	mg/L	0.075	0.075	0.017	16	74	73.8		0.001 U	0.001 U	0.001 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	13	38	2.2	240000	240000	240000	ID	0.01 U	0.01 U	0.01 U
2-Hexanone	mg/L	1	2.9	ID	4200	8700	16000		0.01 U	0.01 U	0.01 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	1.8	5.2	ID	20000	20000	20000	ID	0.01 U	0.01 U	0.01 U
Acetone	mg/L	0.73	2.1	1.7	1000000	1000000	1000000	15000	0.01 U	0.01 U	0.01 U
Benzene	mg/L	0.005	0.005	0.2	5.6	35	1750	68	0.001 U	0.001 U	0.001 U
Bromodichloromethane	mg/L	0.08	0.08	ID	4.8	37	6740	ID	0.001 U	0.001 U	0.001 U
Bromoform	mg/L	0.08	0.08	ID	470	3100	3100	ID	0.001 U	0.001 U	0.001 U
Bromomethane (Methyl bromide)	mg/L	0.01	0.029	0.035	4	9	14500	ID	0.001 U	0.001 U	0.001 U
Carbon disulfide	mg/L	0.8	2.3	ID	250	550	1190	13	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	mg/L	0.005	0.005	0.045	0.37	2.4	793	ID	0.001 U	0.001 U	0.001 U
Chlorobenzene	mg/L	0.1	0.1	0.025	210	470	472	160	0.001 U	0.001 U	0.001 U
Chloroethane	mg/L	0.43	1.7	1.1	5700	5700	5740	110	0.001 U	0.001 U	0.001 U
Chloroform (Trichloromethane)	mg/L	0.08	0.08	0.35	28	180	7920	ID	0.001 U	0.001 U	0.001 U
Chloromethane (Methyl chloride)	mg/L	0.26	1.1	ID	8.6	45	6340	36	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.62	93	210	3500	530	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	mg/L								0.001 U	0.001 U	0.001 U
Cyclohexane	mg/L								0.001 U	0.001 U	0.001 U
Dibromochloromethane	mg/L	0.08	0.08	ID	14	110	2600	ID	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane (CFC-12)	mg/L	1.7	4.8	ID	220	300	300	ID	0.001 U	0.001 U	0.001 U
Ethylbenzene	mg/L	0.074	0.074	0.018	110	170	169	43	0.001 U	0.001 U	0.001 U
Isopropyl benzene	mg/L	0.8	2.3	0.028	56	56	56	29	0.001 U	0.001 U	0.001 U
Methyl acetate	mg/L								0.01 U	0.01 U	0.01 U
Methyl cyclohexane	mg/L								0.001 U	0.001 U	0.001 U
Methyl tert butyl ether (MTBE)	mg/L	0.04	0.04	7.1	47000	47000	46800	ID	0.001 U	0.005 U	0.001 U
Methylene chloride	mg/L	0.005	0.005	1.5	220	1400	17000	ID	0.005 U	0.005 U	0.005 U
Styrene	mg/L	0.1	0.1	0.08	170	310	310	140	0.001 U	0.001 U	0.001 U
Tetrachloroethene	mg/L	0.005	0.005	0.06	25	170	200	ID	0.001 U	0.001 U	0.001 U
Toluene	mg/L	0.79	0.79	0.27	530	530	526	61	0.001 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	mg/L	0.1	0.1	1.5	85	200	6300	230	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	mg/L								0.001 U	0.001 U	0.001 U
Trichloroethene	mg/L	0.005	0.005	0.2	2.2	4.9	1100	ID	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (CFC-11)	mg/L	2.6	7.3		1100	1100	1100	ID	0.001 U	0.001 U	0.001 U
Trifluorotrichloroethane (CFC-113)	mg/L	170	170	0.032	170	170	170	ID	0.001 U	0.001 U	0.001 U
Vinyl chloride	mg/L	0.002	0.002	0.013	1.1	13	2760	33	0.001 U	0.001 U	0.001 U
Xylenes (total)	mg/L	0.28	0.28	0.041	190	190	186	70	0.002 U	0.002 U	0.002 U
Semi-Volatile Organic Compounds (SVOCs)											
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) et	mg/L								0.0049 U	0.0054 U	0.0053 U
2,4,5-Trichlorophenol	mg/L	0.73	2.1		NLV	NLV	1200	ID	0.0049 U	0.0054 U	0.0053 U
2,4,6-Trichlorophenol	mg/L	0.12	0.47	0.005	NLV	NLV	800	ID	0.0039 U	0.0043 U	0.0042 U
2,4-Dichlorophenol	mg/L	0.073	0.21	0.011	NLV	NLV	4500	ID	0.0098 U	0.011 U	0.011 U
2,4-Dimethylphenol	mg/L	0.37	1	0.38	NLV	NLV	7870	ID	0.0049 U	0.0054 U	0.0053 U
2,4-Dinitrophenol	mg/L								0.02 U	0.022 U	0.021 U
2,4-Dinitrotoluene	mg/L	0.0077	0.032		NLV	NLV	270	ID	0.0049 U	0.0054 U	0.0053 U
2,6-Dinitrotoluene	mg/L								0.0049 U	0.0054 U	0.0053 U
2-Chloronaphthalene	mg/L	1.8	5.2		ID	ID	6.74	ID	0.0049 U	0.0054 U	0.0053 U
2-Chlorophenol	mg/L	0.045	0.13	0.018	ID	ID	22000	ID	0.0049 U	0.0054 U	0.0053 U
2-Methylnaphthalene	mg/L	0.26	0.75	0.019	25	25	24.6	ID	0.0049 U	0.0054 U	0.0053 U
2-Methylphenol	mg/L	0.37	1	0.03	NLV	NLV	28000		0.0049 U	0.0054 U	0.0053 U
2-Nitroaniline	mg/L								0.02 U	0.022 U	0.021 U
2-Nitrophenol	mg/L	0.02	0.058	ID	NLV	NLV	2500	ID	0.0049 U	0.0054 U	0.0053 U
3&4-Methylphenol	mg/L	0.37	1	0.03	NLV	NLV	28000		0.0049 U	0.0054 U	0.0053 U

Sample Location:		MDEQ Generic Groundwater Cleanup Criteria: Residential and Nonresidential (1)							**CRA-726I**	**CRA-726M**	**CRA-726M**
Sample Identification:									**GW-17358-041013-**	**GW-17358-042512-**	**GW-17358-041013-**
Sample Date:		Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface	Residential Groundwater Volatilization to Indoor Air Inhalation	Non-Residential Groundwater Volatilization to Indoor Air Inhalation	Water Solubility	Flammability and Explosivity Screening Levels	**DR-080 4/10/2013**	**CB-1101 4/25/2012**	**DR-082 4/10/2013**
Sample Type:											
Exceedance Superscript:		a	b	c	d	e	f	g			
3,3'-Dichlorobenzidine	mg/L	0.0011	0.0043	0.0003	NLV	NLV	3.11	ID	0.00098 U	0.0011 U	0.0011 U
3-Nitroaniline	mg/L								0.02 U	0.022 U	0.021 U
4,6-Dinitro-2-methylphenol	mg/L	0.02	0.02		NLV	NLV	200	ID	0.02 U	0.022 U	0.021 U
4-Bromophenyl phenyl ether	mg/L								0.0049 U	0.0054 U	0.0053 U
4-Chloro-3-methylphenol	mg/L	0.15	0.42	0.0074	NLV	NLV	3900	ID	0.0049 U	0.0054 U	0.0053 U
4-Chloroaniline	mg/L								0.0098 U	0.011 U	0.011 U
4-Chlorophenyl phenyl ether	mg/L								0.0049 U	0.0054 U	0.0053 U
4-Nitroaniline	mg/L								0.02 U	0.022 U	0.021 U
4-Nitrophenol	mg/L								0.02 U	0.022 U	0.021 U
Acenaphthene	mg/L	1.3	3.8	0.038	4.2	4.2	4.24	ID	0.0049 U	0.0054 U	0.0053 U
Acenaphthylene	mg/L	0.052	0.15	ID	3.9	3.9	3.93	ID	0.0049 U	0.0054 U	0.0053 U
Acetophenone	mg/L	1.5	4.4		6100	6100	6100	ID	0.0049 U	0.0054 U	0.0053 U
Anthracene	mg/L	0.043	0.043	ID	0.043	0.043	0.0434	ID	0.0049 U	0.0054 U	0.0053 U
Atrazine	mg/L	0.003	0.003	0.0073	NLV	NLV	70	ID	0.0029 U	0.0032 U	0.0032 U
Benzaldehyde	mg/L								0.0049 U	0.0054 U	0.0053 U
Benzo(a)anthracene	mg/L	0.0021	0.0085	ID	NLV	NLV	0.0094	ID	0.00098 U	0.0011 U	0.0011 U
Benzo(a)pyrene	mg/L	0.005	0.005	ID	NLV	NLV	0.00162	ID	0.00098 U	0.0011 U	0.0011 U
Benzo(b)fluoranthene	mg/L	0.0015	0.0015	ID	ID	ID	0.0015	ID	0.00098 U	0.0011 U	0.0011 U
Benzo(g,h,i)perylene	mg/L	0.001	0.001		NLV	NLV	0.00026	ID	0.00098 U	0.0011 U	0.0011 U
Benzo(k)fluoranthene	mg/L	0.001	0.001		NLV	NLV	0.0008	ID	0.00098 U	0.0011 U	0.0011 U
Biphenyl (1,1-Biphenyl)	mg/L								0.0049 U	0.0054 U	0.0053 U
bis(2-Chloroethoxy)methane	mg/L								0.0049 U	0.0054 U	0.0053 U
bis(2-Chloroethyl)ether	mg/L	0.002	0.0083	0.001	38	210	17200	17000	0.00098 U	0.0011 U	0.0011 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	0.025	NLV	NLV	0.34		0.0049 U	0.0054 U	0.0053 U
Butyl benzylphthalate (BBP)	mg/L	1.2	2.7	0.067	NLV	NLV	2.69	ID	0.0049 U	0.0054 U	0.0053 U
Caprolactam	mg/L	5.8	17		NLV	NLV	5250000		0.0098 U	0.011 U	0.011 U
Carbazole	mg/L	0.085	0.35	0.01	NLV	NLV	7.48	ID	0.0098 U	0.011 U	0.011 U
Chrysene	mg/L	0.0016	0.0016	ID	ID	ID	0.0016	ID	0.00098 U	0.0011 U	0.0011 U
Dibenz(a,h)anthracene	mg/L	0.002	0.002	ID	NLV	NLV	0.00249	ID	0.002 U	0.0022 U	0.0021 U
Dibenzofuran	mg/L	ID	ID	0.004	10	10	10	ID	0.0039 U	0.0043 U	0.0042 U
Diethyl phthalate	mg/L	5.5	16	0.11	NLV	NLV	1080		0.0049 U	0.0054 U	0.0053 U
Dimethyl phthalate	mg/L	73	210		NLV	NLV	4190		0.0049 U	0.0054 U	0.0053 U
Di-n-butylphthalate (DBP)	mg/L	0.88	2.5	0.0097	NLV	NLV	11.2		0.0049 U	0.0054 U	0.0053 U
Di-n-octyl phthalate (DnOP)	mg/L	0.13	0.38	ID	NLV	NLV	3	ID	0.0049 U	0.0054 U	0.0053 U
Fluoranthene	mg/L	0.21	0.21	0.0016	0.21	0.21	0.206	ID	0.00098 U	0.0011 U	0.0011 U
Fluorene	mg/L	0.88	2	0.012	2	2	1.98	ID	0.0049 U	0.0054 U	0.0053 U
Hexachlorobenzene	mg/L	0.001	0.001	0.0002	0.44	3	6.2	ID	0.0002 U	0.00022 U	0.00021 U
Hexachlorobutadiene	mg/L	0.015	0.042	0.000053	1.6	3.2	3.23	ID	0.00098 U	0.0011 U	0.0011 U
Hexachlorocyclopentadiene	mg/L	0.05	0.05	ID	0.13	0.42	1.8	ID	0.0049 U	0.0054 U	0.0053 U
Hexachloroethane	mg/L	0.0073	0.021	0.0067	27	50	50	ID	0.0049 U	0.0054 U	0.0053 U
Indeno(1,2,3-cd)pyrene	mg/L	0.002	0.002	ID	NLV	NLV	0.000022	ID	0.002 U	0.0022 U	0.0021 U
Isophorone	mg/L	0.77	3.1	1.3	NLV	NLV	12000		0.0049 U	0.0054 U	0.0053 U
Naphthalene	mg/L	0.52	1.5	0.011	31	31	31		0.0049 U	0.0054 U	0.0053 U
Nitrobenzene	mg/L	0.0034	0.0096	0.18	280	550	2090		0.0029 U	0.0032 U	0.0032 U
N-Nitrosodi-n-propylamine	mg/L	0.005	0.005		NLV	NLV	9890	ID	0.0049 U	0.0054 U	0.0053 U
N-Nitrosodiphenylamine	mg/L	0.27	1.1		NLV	NLV	35.1	ID	0.0049 U	0.0054 U	0.0053 U
Pentachlorophenol	mg/L	0.001	0.001	0.0028	NLV	NLV	1850	ID	0.0049 U	0.0054 U	0.0053 U
Phenanthrene	mg/L	0.052	0.15	0.002	1	1	1	ID	0.002 U	0.0022 U	0.0021 U
Phenol	mg/L	4.4	13	0.45	NLV	NLV	82800		0.0049 U	0.0054 U	0.0053 U
Pyrene	mg/L	0.14	0.14	ID	0.14	0.14	0.135	ID	0.0049 U	0.0054 U	0.0053 U
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.000097 U	0.00012 U	0.0001 U
Aroclor-1221 (PCB-1221)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.000097 U	0.00012 U	0.0001 U
Aroclor-1232 (PCB-1232)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.000097 U	0.00012 U	0.0001 U
Aroclor-1242 (PCB-1242)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.000097 U	0.00012 U	0.0001 U

Sample Location:		MDEQ Generic Groundwater Cleanup Criteria: Residential and Nonresidential (1)							**CRA-726I**	**CRA-726M**	**CRA-726M**
Sample Identification:									**GW-17358-041013-DR-080**	**GW-17358-042512-CB-1101**	**GW-17358-041013-DR-082**
Sample Date:		Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface	Residential Groundwater Volatilization to Indoor Air Inhalation	Non-Residential Groundwater Volatilization to Indoor Air Inhalation	Water Solubility	Flammability and Explosivity Screening Levels	**4/10/2013**	**4/25/2012**	**4/10/2013**
Sample Type:											
Exceedance Superscript:		a	b	c	d	e	f	g			
Aroclor-1248 (PCB-1248)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.000097 U	0.00012 U	0.0001 U
Aroclor-1254 (PCB-1254)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.000097 U	0.00011 J	0.0001 U
Aroclor-1260 (PCB-1260)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.000097 U	0.00012 U	0.0001 U
Aroclor-1262 (PCB-1262)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.000097 U	0.00012 U	0.0001 U
Aroclor-1268 (PCB-1268)	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	0.000097 U	0.00012 U	0.0001 U
Total PCBs	mg/L	0.0005	0.0005	0.0002	0.045	0.045	0.0447	ID	ND	0.00011 J	ND
Metals											
Aluminum	mg/L	0.05	0.05		NLV	NLV		ID	0.019 J	0.05 U	0.05 U
Aluminum (dissolved)	mg/L	0.05	0.05		NLV	NLV		ID	--	--	--
Antimony	mg/L	0.006	0.006	0.13	NLV	NLV		ID	0.002 U	0.002 U	0.002 U
Antimony (dissolved)	mg/L	0.006	0.006	0.13	NLV	NLV		ID	--	--	--
Arsenic	mg/L	0.01	0.01	0.01	NLV	NLV		ID	0.0008 J	0.00063 J	0.005 U
Arsenic (dissolved)	mg/L	0.01	0.01	0.01	NLV	NLV		ID	--	--	--
Barium	mg/L	2	2	1.87	NLV	NLV		ID	0.11	0.015 J	0.016 J
Barium (dissolved)	mg/L	2	2	1.87	NLV	NLV		ID	--	--	--
Beryllium	mg/L	0.004	0.004	0.075	NLV	NLV		ID	0.00057 J	0.001 U	0.001 U
Beryllium (dissolved)	mg/L	0.004	0.004	0.075	NLV	NLV		ID	--	--	--
Cadmium	mg/L	0.005	0.005	0.006	NLV	NLV		ID	0.00033 J	0.001 U	0.001 U
Cadmium (dissolved)	mg/L	0.005	0.005	0.006	NLV	NLV		ID	--	--	--
Chromium	mg/L	0.1	0.1	G,X	NLV	NLV		ID	0.01 U	0.01 U	0.01 U
Chromium (dissolved)	mg/L	0.1	0.1	G,X	NLV	NLV		ID	--	--	--
Chromium III (trivalent)	mg/L	0.1	0.1	0.23	NLV	NLV		ID	--	0.01 U	--
Chromium VI (hexavalent)	mg/L	0.1	0.1	0.011	NLV	NLV		ID	--	0.01 UJ	--
Cobalt	mg/L	0.04	0.1	0.1	NLV	NLV		ID	0.00049 J	0.02 U	0.00008 J
Cobalt (dissolved)	mg/L	0.04	0.1	0.1	NLV	NLV		ID	--	--	--
Copper	mg/L	1	1	0.029	NLV	NLV		ID	0.004 U	0.004 U	0.004 U
Copper (dissolved)	mg/L	1	1	0.029	NLV	NLV		ID	--	--	--
Iron	mg/L	0.3	0.3		NLV	NLV		ID	0.2 U	0.2 U	0.2 U
Iron (dissolved)	mg/L	0.3	0.3		NLV	NLV		ID	--	--	--
Lead	mg/L	0.004	0.004	0.059	NLV	NLV		ID	0.0004 J	0.003 U	0.003 U
Lead (dissolved)	mg/L	0.004	0.004	0.059	NLV	NLV		ID	--	--	--
Manganese	mg/L	0.05	0.05	6.52	NLV	NLV		ID	**0.052**[ab]	0.0068 J	0.05 U
Manganese (dissolved)	mg/L	0.05	0.05	6.52	NLV	NLV		ID	--	--	--
Mercury	mg/L	0.002	0.002	0.0000013	0.056	0.056	0.056	ID	0.0002 U	0.04 U	0.0002 U
Mercury (dissolved)	mg/L	0.002	0.002	0.0000013	0.056	0.056	0.056	ID	--	--	--
Nickel	mg/L	0.1	0.1	0.16	NLV	NLV		ID	0.0012 J	0.02 U	0.02 U
Nickel (dissolved)	mg/L	0.1	0.1	0.16	NLV	NLV		ID	--	--	--
Selenium	mg/L	0.05	0.05	0.005	NLV	NLV		ID	0.0012 J	0.005 U	0.00062 J
Selenium (dissolved)	mg/L	0.05	0.05	0.005	NLV	NLV		ID	--	--	--
Silver	mg/L	0.034	0.098	0.0002	NLV	NLV		ID	0.0002 U	0.0002 U	0.0002 U
Silver (dissolved)	mg/L	0.034	0.098	0.0002	NLV	NLV		ID	--	--	--
Thallium	mg/L	0.002	0.002	0.0037	NLV	NLV		ID	0.0013 J	0.002 U	0.00046 J
Thallium (dissolved)	mg/L	0.002	0.002	0.0037	NLV	NLV		ID	--	--	--
Vanadium	mg/L	0.0045	0.062	0.027	NLV	NLV		ID	0.004 U	0.004 U	0.004 U
Vanadium (dissolved)	mg/L	0.0045	0.062	0.027	NLV	NLV		ID	--	--	--
Zinc	mg/L	2.4	5	0.38	NLV	NLV		ID	0.05 U	0.05 U	0.05 U
Zinc (dissolved)	mg/L	2.4	5	0.38	NLV	NLV		ID	--	--	--

Sample Location:		MDEQ Generic Groundwater Cleanup Criteria: Residential and Nonresidential (1)							**CRA-726I**	**CRA-726M**	**CRA-726M**
Sample Identification:									**GW-17358-041013-**	**GW-17358-042512-**	**GW-17358-041013-**
Sample Date:		Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface	Residential Groundwater Volatilization to Indoor Air Inhalation	Non-Residential Groundwater Volatilization to Indoor Air Inhalation	Water Solubility	Flammability and Explosivity Screening Levels	**DR-080**	**CB-1101**	**DR-082**
Sample Type:									**4/10/2013**	**4/25/2012**	**4/10/2013**
Exceedance Superscript:		a	b	c	d	e	f	g			
General Chemistry											
Phosphorus	mg/L	63	240	EE	NLV	NLV		ID	0.1 U	--	0.1 U
Field Parameters											
Conductivity, field	mS/cm								0.776	0.584	0.584
Dissolved oxygen (DO), field	mg/L								0.77	6.06	7.18
Oxidation reduction potential (ORP), field	millivolts								36	65	44
pH, field	s.u.	6.5 - 8.5	6.5 - 8.5						7.16	7.38	7.22
Temperature, field	Deg C								10.81	11.88	9.72
Turbidity, field	NTU								3.33	2.66	4.2

Notes:

NR - Nonresidential
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
NLV - not likely to volatilize under most conditions
ID - insufficient data to develop criterion

superscript - indicates concentration above site specific background and screening criteria
(1) MDEQ Generic cleanup criteria for residential and nonresidential category, administrative rule **R 299.44,** respectively, effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended

0 100 200ft

FORMER POWERTRAIN PLANT
YPSILANTI, MICHIGAN
REDEVELOPMENT SUPPORT

017358-T01

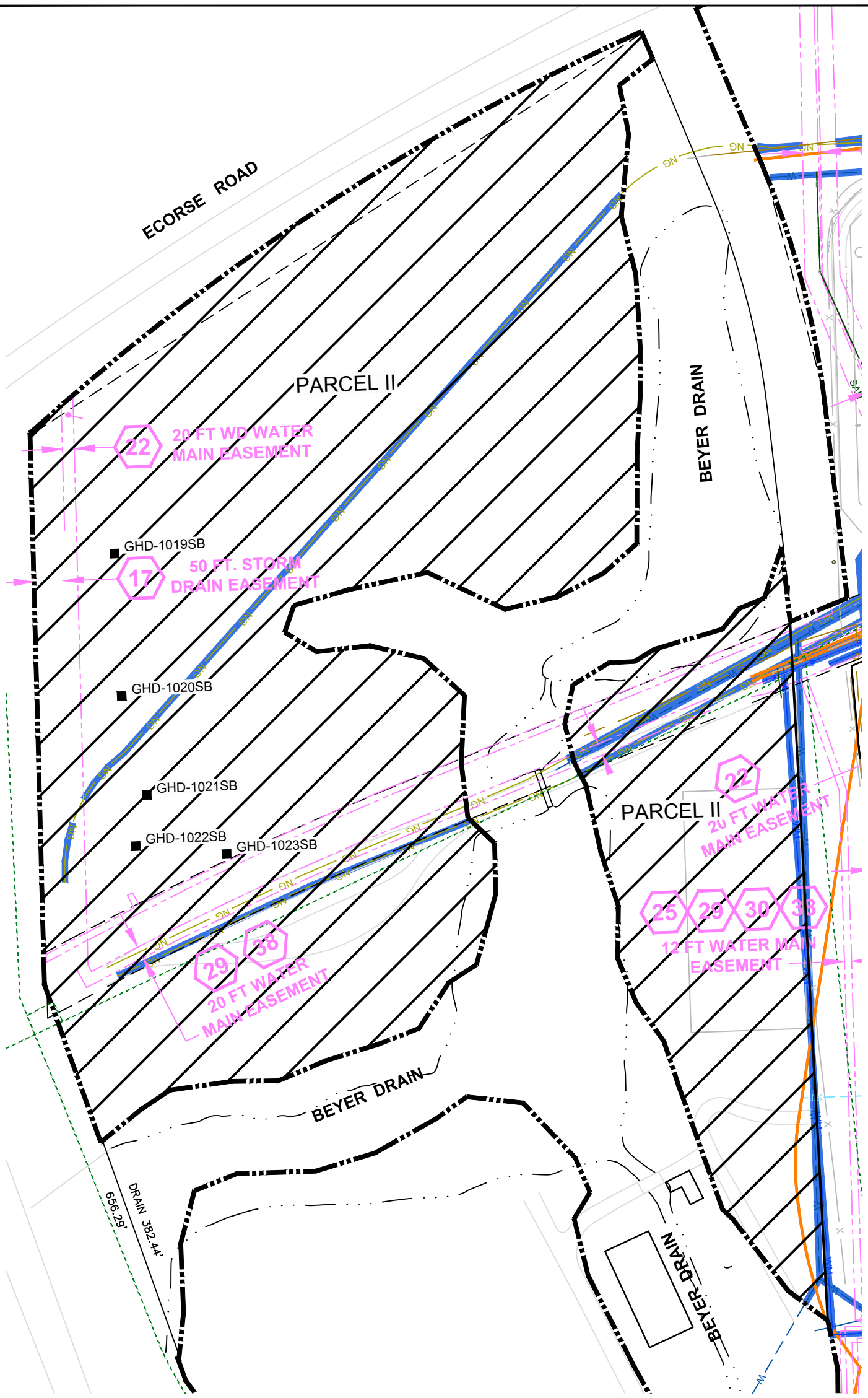
Apr 20, 2016

OUT-PARCEL II

FIGURE D-1

CAD File: I:\drawings\17000s\17358\17358-MEMO\017358-T01(MEMO160)\017358-T01(MEMO160)GN\017358-T01(MEMO160)GN-DE002.dwg

Attachment E
March 2016 Analytical Data Table and Sample Location Figure



0 100 200ft

FORMER POWERTRAIN PLANT
YPSILANTI, MICHIGAN
REDEVELOPMENT SUPPORT

017358-T01
Jun 15, 2016

OUT-PARCEL II

FIGURE E-1

CAD File: I:\drawings\17000s\17358\17358-MEMO\017358-T01(MEMO160)\017358-T01(MEMO160)GN\017358-T01(MEMO160)GN-DE003.dwg

Sample Location:		***MDEQ Generic Cleanup Criteria: Residential and Nonresidential*** [1]												
Sample Identification:		Site Background Levels [2]	Drinking Water Protection	NR Drinking Water Protection	Groundwater Surface Water Interface Protection	Soil Volatilization to Indoor Air Inhalation	NR Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation	NR Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	NR Finite VSIC for 5 Meter Source Thickness	nite VSIC 5 Meter Sour Thickness	lential Finite Meter Sourc Thickness	Particulate Soil Inhalation	NR Particulate Soil Inhalation
Sample Date:															
Sample Type:															
Sample Depth:															
	Units	a	b	c	d	e	f	g	h	i	j	k	l	m	n
Volatile Organic Compounds (VOCs)															
1,1,1-Trichloroethane	mg/kg		4	4	1.8	250	460	3800	4500	12000	15000	28000	31000	67000000	29000000
1,1,2,2-Tetrachloroethane	mg/kg		0.17	0.7	1.6	4.3	23	10	34	10	34	14	34	54000	68000
1,1,2-Trichloroethane	mg/kg		0.1	0.1	6.6	4.6	24	17	57	21	57	44	120	190000	250000
1,1-Dichloroethane	mg/kg		18	50	15	230	430	2100	2500	5900	6000	14000	14000	33000000	15000000
1,1-Dichloroethene	mg/kg		0.14	0.14	2.6	0.062	0.33	1.1	3.7	5.3	15	13	37	62000	78000
1,2,4-Trichlorobenzene	mg/kg		4.2	4.2	5.9	9600	18000	28000	34000	28000	34000	28000	34000	25000000	11000000
1,2-Dibromo-3-chloropropane (DI	mg/kg		0.01	0.01	ID	0.22	1.2	0.26	0.9	0.26	0.9	0.26	0.9	560	700
1,2-Dibromoethane (Ethylene dib	mg/kg		0.02	0.02	0.11	0.67	3.6	1.7	5.8	1.7	5.8	3.3	9.8	14000	18000
1,2-Dichlorobenzene	mg/kg		14	14	0.28	11000	20000	39000	46000	39000	46000	52000	55000	100000000	44000000
1,2-Dichloroethane	mg/kg		0.1	0.1	7.2	2.1	11	6.2	21	11	33	26	74	120000	150000
1,2-Dichloropropane	mg/kg		0.1	0.1	4.6	4	7.4	25	30	50	51	110	120	270000	120000
1,3-Dichlorobenzene	mg/kg		0.17	0.48	0.68	26	48	79	94	79	94	110	110	200000	8800
1,4-Dichlorobenzene	mg/kg		1.7	1.7	0.36	19	100	77	260	77	260	110	340	450000	570000
2-Butanone (Methyl ethyl ketone)	mg/kg		260	760	44	54000	99000	29000	35000	29000	35000	35000	36000	67000000	29000000
2-Hexanone	mg/kg		20	58	ID	990	1800	1100	1300	1100	1300	1400	1500	2700000	1200000
4-Methyl-2-pentanone (Methyl isc	mg/kg		36	100	ID	37000	69000	45000	53000	45000	53000	67000	70000	140000000	60000000
Acetone	mg/kg		15	42	34	290000	540000	130000	160000	130000	160000	190000	200000	390000000	170000000
Benzene	mg/kg		0.1	0.1	4	1.6	8.4	13	45	34	99	79	230	380000	470000
Bromodichloromethane	mg/kg		1.6	1.6	ID	1.2	6.4	9.1	31	9.7	31	19	57	84000	110000
Bromoform	mg/kg		1.6	1.6	ID	150	770	900	3100	900	3100	900	3100	2800000	3600000
Bromomethane (Methyl bromide)	mg/kg		0.2	0.58	0.7	0.86	1.6	11	13	57	57	140	140	330000	150000
Carbon disulfide	mg/kg		16	46	ID	76	140	1300	1600	7900	8000	19000	19000	47000000	21000000
Carbon tetrachloride	mg/kg		0.1	0.1	0.9	0.19	0.99	3.5	12	12	34	28	79	130000	170000
Chlorobenzene	mg/kg		2	2	0.5	120	220	770	920	990	1100	2100	2100	4700000	2100000
Chloroethane	mg/kg		8.6	34	22	2900	5300	30000	36000	120000	120000	280000	280000	670000000	290000000
Chloroform (Trichloromethane)	mg/kg		1.6	1.6	7	7.2	38	45	150	120	340	270	790	1300000	1600000
Chloromethane (Methyl chloride)	mg/kg		5.2	22	ID	2.3	10	40	120	410	1000	1000	2500	4900000	2600000
cis-1,2-Dichloroethene	mg/kg		1.4	1.4	12	22	41	180	210	420	430	990	1000	2300000	1000000
cis-1,3-Dichloropropene	mg/kg														
Cyclohexane	mg/kg														
Dibromochloromethane	mg/kg		1.6	1.6	ID	3.9	21	24	80	24	80	33	98	130000	160000
Dichlorodifluoromethane (CFC-12	mg/kg		95	270	ID	900	1700	53000	63000	550000	550000	1400000	1400000	3300000000	1500000000
Ethylbenzene	mg/kg		1.5	1.5	0.36	87	460	720	2400	1000	3100	2200	6500	10000000	13000000
Isopropyl benzene	mg/kg		91	260	3.2	400	730	1700	2000	1700	2000	2800	3000	5800000	2600000
Methyl acetate	mg/kg														
Methyl cyclohexane	mg/kg														
Methyl tert butyl ether (MTBE)	mg/kg		0.8	0.8	140	9900	18000	25000	30000	39000	41000	87000	89000	200000000	88000000
Methylene chloride	mg/kg		0.1	0.1	30	45	240	210	700	590	1700	1400	4000	6600000	8300000
Styrene	mg/kg		2.7	2.7	2.1	250	1600	970	3300	970	3300	1400	4200	5500000	6900000
Tetrachloroethene	mg/kg		0.1	0.1	1.2	11	21	170	210	480	490	1100	1100	2700000	1200000
Toluene	mg/kg		16	16	5.4	330	610	2800	3300	5100	36000	12000	36000	27000000	12000000
trans-1,2-Dichloroethene	mg/kg		2	2	30	23	43	280	330	830	840	2000	2000	4700000	2100000
trans-1,3-Dichloropropene	mg/kg														
Trichloroethene	mg/kg		0.1	0.1	4	1.0	1.9	11	14	25	25	57	58	130000	59000
Trichlorofluoromethane (CFC-11)	mg/kg		52	150		2800	5100	92000	110000	630000	140000000	1500000	140000000	3800000000	1700000000
Trifluorotrichloroethane (CFC-113	mg/kg		9000	9000	1.7	5100	9300	180000	210000	880000	890000	2100000	2100000	5100000000	2300000000
Vinyl chloride	mg/kg		0.04	0.04	0.26	0.27	2.8	4.2	29	30	170	73	420	350000	890000

Sample Location:		***MDEQ Generic Cleanup Criteria: Residential and Nonresidential*** [1]												
Sample Identification:		Site Background Levels [2]	Drinking Water Protection	NR Drinking Water Protection	Groundwater Surface Water Interface Protection	Soil Volatilization to Indoor Air Inhalation	NR Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation	NR Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	NR Finite VSIC for 5 Meter Source Thickness	ite VSIC Meter Sour Thickness	lential Finite Meter Sourc Thickness	Particulate Soil Inhalation	NR Particulate Soil Inhalation
Sample Date:															
Sample Type:															
Sample Depth:															
	Units	a	b	c	d	e	f	g	h	i	j	k	l	m	n
Xylenes (total)	mg/kg		5.6	5.6	0.82	6300	12000	46000	54000	61000	65000	130000	130000	290000000	130000000
Semi-Volatile Organic Compounds (SVOCs)															
2,2'-Oxybis(1-chloropropane) (bis	mg/kg														
2,4,5-Trichlorophenol	mg/kg		39	110		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	23000000	10000000
2,4,6-Trichlorophenol	mg/kg		2.4	9.4	0.33	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	1000000	1300000
2,4-Dichlorophenol	mg/kg		1.5	4.2	0.33	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	5100000	2300000
2,4-Dimethylphenol	mg/kg		7.4	20	7.6	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	4700000	2100000
2,4-Dinitrophenol	mg/kg														
2,4-Dinitrotoluene	mg/kg		0.43	0.64		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	16000	20000
2,6-Dinitrotoluene	mg/kg														
2-Chloronaphthalene	mg/kg		620	1800		ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
2-Chlorophenol	mg/kg		0.9	2.6	0.36	430	800	960	1100	960	1100	960	1100	1200000	530000
2-Methylnaphthalene	mg/kg		57	170	4.2	2700	4900	1500	1800	1500	1800	1500	1800	670000	290000
2-Methylphenol	mg/kg		7.4	20	1	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	6700000	2900000
2-Nitroaniline	mg/kg														
2-Nitrophenol	mg/kg		0.4	1.2	ID	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID
3&4-Methylphenol	mg/kg		7.4	20	1	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	6700000	2900000
3,3'-Dichlorobenzidine	mg/kg		2	2	2	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	6500	8200
3-Nitroaniline	mg/kg														
4,6-Dinitro-2-methylphenol	mg/kg		0.83	0.83		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	130000	59000
4-Bromophenyl phenyl ether	mg/kg														
4-Chloro-3-methylphenol	mg/kg		5.8	16	0.28	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID
4-Chloroaniline	mg/kg														
4-Chlorophenyl phenyl ether	mg/kg														
4-Nitroaniline	mg/kg														
4-Nitrophenol	mg/kg														
Acenaphthene	mg/kg		300	880	8.7	190000	350000	81000	97000	81000	97000	81000	97000	14000000	6200000
Acenaphthylene	mg/kg		5.9	17	ID	1600	3000	2200	2700	2200	2700	2200	2700	2300000	1000000
Acetophenone	mg/kg		30	88	ID	120000	210000	44000	52000	44000	52000	44000	52000	33000000	14000000
Anthracene	mg/kg		41	41	ID	1000000	1000000	1400000	1600000	1400000	1600000	1400000	1600000	67000000	29000000
Atrazine	mg/kg		0.06	0.06	0.15	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID
Benzaldehyde	mg/kg														
Benzo(a)anthracene	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID
Benzo(a)pyrene	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	1500	1900
Benzo(b)fluoranthene	mg/kg		NLL	NLL	NLL	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Benzo(g,h,i)perylene	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	800000	350000
Benzo(k)fluoranthene	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID
Biphenyl (1,1-Biphenyl)	mg/kg														
bis(2-Chloroethoxy)methane	mg/kg														
bis(2-Chloroethyl)ether	mg/kg		0.10	0.17	0.1	8.3	44	3.8	13	3.8	13	3.8	13	9400	12000
bis(2-Ethylhexyl)phthalate (DEHF	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	700000	890000
Butyl benzylphthalate (BBP)	mg/kg		2200	5600	120	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	47000000	21000000
Caprolactam	mg/kg		120	340		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	670000	290000
Carbazole	mg/kg		9.4	39	1.1	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	62000	78000
Chrysene	mg/kg		NLL	NLL	NLL	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Dibenz(a,h)anthracene	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID
Dibenzofuran	mg/kg		ID	ID	1.7	2000	3600	130	160	130	160	130	160	6700	2900

Sample Location:		***MDEQ Generic Cleanup Criteria: Residential and Nonresidential*** [1]													
Sample Identification:		Site Background Levels [2]	Drinking Water Protection	NR Drinking Water Protection	Groundwater Surface Water Interface Protection	Soil Volatilization to Indoor Air Inhalation	NR Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation	NR Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	NR Finite VSIC for 5 Meter Source Thickness	ıite VSIC for /leter Source Thickness	lential Finite Meter Source Thickness	Particulate Soil Inhalation	NR Particulate Soil Inhalation
Sample Date:															
Sample Type:															
Sample Depth:		a	b	c	d	e	f	g	h	i	j	k	l	m	n
	Units														
Diethyl phthalate	mg/kg		110	320	2.2	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	3300000	1500000
Dimethyl phthalate	mg/kg		1500	4200		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	3300000	1500000
Di-n-butylphthalate (DBP)	mg/kg		960	2700	11	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	3300000	1500000
Di-n-octyl phthalate (DnOP)	mg/kg		100000	290000	ID	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	31000000	14000000
Fluoranthene	mg/kg		730	730	5.5	1000000	1000000	740000	890000	740000	880000	740000	880000	9300000	4100000
Fluorene	mg/kg		390	890	5.3	580000	1000000	130000	150000	130000	150000	130000	150000	9300000	4100000
Hexachlorobenzene	mg/kg		1.8	1.8	0.35	41	220	17	56	17	56	17	56	6800	8500
Hexachlorobutadiene	mg/kg		26	72	0.091	130	710	130	460	130	460	130	460	140000	180000
Hexachlorocyclopentadiene	mg/kg		320	320	ID	30	56	50	60	50	60	50	60	13000	5900
Hexachloroethane	mg/kg		0.43	1.2	1.8	40	79	550	660	930	1400	930	1400	230000	100000
Indeno(1,2,3-cd)pyrene	mg/kg		NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID
Isophorone	mg/kg		15	62	26	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	12000000	8200000
Naphthalene	mg/kg		35	100	0.73	250	470	300	350	300	350	300	350	200000	88000
Nitrobenzene	mg/kg		0.33	0.33	3.6	91	170	54	64	54	64	54	64	47000	21000
N-Nitrosodi-n-propylamine	mg/kg		0.33	0.33		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	1600	2000
N-Nitrosodiphenylamine	mg/kg		5.4	22		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	2200000	2800000
Pentachlorophenol	mg/kg		0.022	0.022	27	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	100000	130000
Phenanthrene	mg/kg		56	160	2.1	2800	5100	160	190	160	190	160	190	6700	2900
Phenol	mg/kg		88	260	9	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	40000000	18000000
Pyrene	mg/kg		480	480	ID	1000000	1000000	650000	780000	650000	780000	650000	780000	6700000	2900000
PCBs															
Aroclor-1016 (PCB-1016)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000	5200	6500
Aroclor-1221 (PCB-1221)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000	5200	6500
Aroclor-1232 (PCB-1232)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000	5200	6500
Aroclor-1242 (PCB-1242)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000	5200	6500
Aroclor-1248 (PCB-1248)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000	5200	6500
Aroclor-1254 (PCB-1254)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000	5200	6500
Aroclor-1260 (PCB-1260)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000	5200	6500
Aroclor-1262 (PCB-1262)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000	5200	6500
Aroclor-1268 (PCB-1268)	mg/kg		NLL	NLL	NLL	3000	16000	240	810	7900	28000	7900	28000	5200	6500
Metals															
Aluminum	mg/kg	5788	1	1		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID
Antimony	mg/kg	0.024	4.3	4.3	94	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	13000	5900
Arsenic	mg/kg	7.26	4.6	4.6	4.6	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	720	910
Barium	mg/kg	25.6	1300	1300	1200	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	330000	150000
Beryllium	mg/kg	0.196	51	51	950	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	1300	590
Cadmium	mg/kg	0.098	6	6	7.30	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	1700	2200
Calcium	mg/kg														
Chromium	mg/kg	11.9	1000000	1000000	6600000	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	330000	150000
Cobalt	mg/kg	4.38	0.8	2	2	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	13000	5900
Copper	mg/kg	13.0	5800	5800	170	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	130000	59000
Iron	mg/kg	13484	6	6		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID
Lead	mg/kg	7.14	700	700	11000	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	100000	44000
Magnesium	mg/kg		8000	22000		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	6700000	2900000

Sample Location:		***MDEQ Generic Cleanup Criteria: Residential and Nonresidential*** [1]													
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Sample Date:															
Sample Type:															
Sample Depth:		a	b	c	d	e	f	g	h	i	j	k	l	m	n
	Units														
Manganese	mg/kg	348	1	1	130	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	3300	1500
Mercury	mg/kg	0.05	1.7	1.7	0.05	48	89	52	62	52	62	52	62	20000	8800
Nickel	mg/kg	11.90	100	100	170	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	13000	16000
Potassium	mg/kg														
Selenium	mg/kg	0.83	4	4	0.4	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	130000	59000
Silver	mg/kg	0.09	4.5	13	0.1	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	6700	2900
Sodium	mg/kg		4600	7000		NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID
Thallium	mg/kg	0.12	2.3	2.3	4.2	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	13000	5900
Vanadium	mg/kg	16.7	72	990	430	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID
Zinc	mg/kg	32	2400	5000	380	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	ID

Notes:

NR - Nonresidential
BGS - below ground surface
U - Not detected at the associated reporting limit.
J - Estimated concentration.
NLV - not likely to volatilize under most conditions
NLL - not likely to leach under most soil conditions
ID - insufficient data to develop criterion

superscript - indicates concentration above site specific background and screening criteria

(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:					***GHD-1019SB***	***GHD-1019SB***	***GHD-1020SB***	***GHD-1020SB***	***GHD-1020SB***	***GHD-1021SB***	***GHD-1021SB***	***GHD-1021SB***
Sample Identification:		Direct	NR Direct	Soil Saturation	***S-17358-033116-BW-015***	***S-17358-033116-BW-016***	***S-17358-033116-BW-017***	***S-17358-033116-BW-018***	***S-17358-033116-BW-019***	***S-17358-033116-BW-020***	***S-17358-033116-BW-021***	***S-17358-033116-BW-022***
Sample Date:		Contact	Contact	Concentration	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***
Sample Type:				Screening Levels				***Duplicate***			***Duplicate***	
Sample Depth:		o	p	q	***(0-2.5) ft BGS***	***(6-8) ft BGS***	***(0-2.5) ft BGS***	***(0-2.5) ft BGS***	***(4-6) ft BGS***	***(0-2.5) ft BGS***	***(0-2.5) ft BGS***	***(5.5-7.5) ft BGS***
Volatile Organic Compounds (VOCs)	***Units***											
1,1,1-Trichloroethane	mg/kg	500000	1000000	460	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
1,1,2,2-Tetrachloroethane	mg/kg	53	240	870	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
1,1,2-Trichloroethane	mg/kg	180	840	920	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
1,1-Dichloroethane	mg/kg	27000	87000	890	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
1,1-Dichloroethene	mg/kg	200	660	570	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
1,2,4-Trichlorobenzene	mg/kg	990	5800	1100	0.35 U	0.25 U	0.25 U	0.28 U	0.25 U	0.27 U	0.1 J	0.25 U
1,2-Dibromo-3-chloropropane (DI	mg/kg	4400	20000	1.2	0.35 U	0.25 U	0.25 U	0.28 U	0.25 U	0.27 U	0.25 U	0.25 U
1,2-Dibromoethane (Ethylene dib	mg/kg	0.092	0.43	890	0.35 U	0.25 U	0.25 U	0.28 U	0.25 U	0.27 U	0.25 U	0.25 U
1,2-Dichlorobenzene	mg/kg	19000	63000	210	0.14 U	0.098 U	0.099 U	0.11 U	0.1 U	0.11 U	0.099 U	0.1 U
1,2-Dichloroethane	mg/kg	91	420	1200	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
1,2-Dichloropropane	mg/kg	140	660	550	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
1,3-Dichlorobenzene	mg/kg	200	660	170	0.14 U	0.098 U	0.099 U	0.11 U	0.1 U	0.11 U	0.099 U	0.1 U
1,4-Dichlorobenzene	mg/kg	400	1900		0.14 U	0.098 U	0.099 U	0.11 U	0.1 U	0.11 U	0.099 U	0.1 U
2-Butanone (Methyl ethyl ketone)	mg/kg	120000	700000	27000	1 U	0.74 U	0.75 U	0.83 U	0.75 U	0.8 U	0.74 U	0.76 U
2-Hexanone	mg/kg	32000	100000	2500	3.5 U	2.5 U	2.5 U	2.8 U	2.5 U	2.7 U	2.5 U	2.5 U
4-Methyl-2-pentanone (Methyl isc	mg/kg	56000	180000	2700	3.5 U	2.5 U	2.5 U	2.8 U	2.5 U	2.7 U	2.5 U	2.5 U
Acetone	mg/kg	23000	73000	110000	1 U	0.74 U	0.75 U	0.83 U	0.75 U	0.8 U	0.74 U	0.76 U
Benzene	mg/kg	180	840	400	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
Bromodichloromethane	mg/kg	110	490	1500	0.14 U	0.098 U	0.099 U	0.11 U	0.1 U	0.11 U	0.099 U	0.1 U
Bromoform	mg/kg	820	3800	870	0.14 U	0.098 U	0.099 U	0.11 U	0.1 U	0.11 U	0.099 U	0.1 U
Bromomethane (Methyl bromide)	mg/kg	320	1000	2200	0.35 U	0.25 U	0.25 U	0.28 U	0.25 U	0.27 U	0.25 U	0.25 U
Carbon disulfide	mg/kg	7200	43000	280	0.35 U	0.25 U	0.25 U	0.28 U	0.25 U	0.27 U	0.25 U	0.25 U
Carbon tetrachloride	mg/kg	96	440	390	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
Chlorobenzene	mg/kg	4300	14000	260	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
Chloroethane	mg/kg	2600	12000	950	0.35 U	0.25 U	0.25 U	0.28 U	0.25 U	0.27 U	0.25 U	0.25 U
Chloroform (Trichloromethane)	mg/kg	1200	5500	1500	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
Chloromethane (Methyl chloride)	mg/kg	1600	7400	1100	0.35 U	0.25 U	0.25 U	0.28 U	0.25 U	0.27 U	0.25 U	0.25 U
cis-1,2-Dichloroethene	mg/kg	2500	8000	640	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
cis-1,3-Dichloropropene	mg/kg				0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
Cyclohexane	mg/kg				1.7 U	1.2 U	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.2 U
Dibromochloromethane	mg/kg	110	500	610	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
Dichlorodifluoromethane (CFC-12	mg/kg	52000	17000	1000	0.14 U	0.098 U	0.099 U	0.11 U	0.1 U	0.11 U	0.099 U	0.1 U
Ethylbenzene	mg/kg	22000	71000	140	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
Isopropyl benzene	mg/kg	25000	80000	390	0.35 U	0.25 U	0.25 U	0.28 U	0.25 U	0.27 U	0.25 U	0.25 U
Methyl acetate	mg/kg				1.7 U	1.2 U	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.2 U
Methyl cyclohexane	mg/kg				1.7 U	1.2 U	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.2 U
Methyl tert butyl ether (MTBE)	mg/kg	1500	7100	5900	0.35 U	0.25 U	0.25 U	0.28 U	0.25 U	0.27 U	0.25 U	0.25 U
Methylene chloride	mg/kg	1300	5800	2300	0.35 U	0.25 U	0.25 U	0.28 U	0.25 U	0.27 U	0.25 U	0.25 U
Styrene	mg/kg	400	1900	520	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
Tetrachloroethene	mg/kg	200	930	88	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
Toluene	mg/kg	50000	160000	250	0.14 U	0.098 U	0.099 U	0.11 U	0.1 U	0.11 U	0.099 U	0.1 U
trans-1,2-Dichloroethene	mg/kg	3800	12000	1400	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
trans-1,3-Dichloropropene	mg/kg				0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
Trichloroethene	mg/kg	110	660	500	0.069 U	0.049 U	0.05 U	0.055 U	0.05 U	0.053 U	0.05 U	0.051 U
Trichlorofluoromethane (CFC-11)	mg/kg	79000	260000	560	0.14 U	0.098 U	0.099 U	0.11 U	0.1 U	0.11 U	0.099 U	0.1 U
Trifluorotrichloroethane (CFC-113	mg/kg	1000000	1000000	550	0.35 U	0.25 U	0.25 U	0.28 U	0.25 U	0.27 U	0.25 U	0.25 U
Vinyl chloride	mg/kg	3.8	34	490	0.055 U	0.039 U	0.04 U	0.044 U	0.04 U	0.043 U	0.04 U	0.041 U

Sample Location:					***GHD-1019SB***	***GHD-1019SB***	***GHD-1020SB***	***GHD-1020SB***	***GHD-1020SB***	***GHD-1021SB***	***GHD-1021SB***	***GHD-1021SB***
Sample Identification:		Direct	NR Direct	Soil Saturation	***S-17358-033116-BW-015***	***S-17358-033116-BW-016***	***S-17358-033116-BW-017***	***S-17358-033116-BW-018***	***S-17358-033116-BW-019***	***S-17358-033116-BW-020***	***S-17358-033116-BW-021***	***S-17358-033116-BW-022***
Sample Date:		Contact	Contact	Concentration	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***
Sample Type:				Screening Levels				***Duplicate***			***Duplicate***	
Sample Depth:		o	p	q	***(0-2.5) ft BGS***	***(6-8) ft BGS***	***(0-2.5) ft BGS***	***(0-2.5) ft BGS***	***(4-6) ft BGS***	***(0-2.5) ft BGS***	***(0-2.5) ft BGS***	***(5.5-7.5) ft BGS***
	Units											
Xylenes (total)	mg/kg	410000	1000000	150	0.21 U	0.15 U	0.15 U	0.17 U	0.15 U	0.16 U	0.15 U	0.15 U
Semi-Volatile Organic Compounds (SV												
2,2'-Oxybis(1-chloropropane) (bis	mg/kg				0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
2,4,5-Trichlorophenol	mg/kg	23000	73000		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
2,4,6-Trichlorophenol	mg/kg	710	3300		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
2,4-Dichlorophenol	mg/kg	660	3900	1800	0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
2,4-Dimethylphenol	mg/kg	11000	36000		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
2,4-Dinitrophenol	mg/kg				0.17 U	0.17 U	0.16 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
2,4-Dinitrotoluene	mg/kg	48	220		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
2,6-Dinitrotoluene	mg/kg				0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
2-Chloronaphthalene	mg/kg	56000	180000		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
2-Chlorophenol	mg/kg	1400	4500	19000	0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
2-Methylnaphthalene	mg/kg	8100	26000		0.031 J	0.29 U	0.28 U	0.3 U	0.0065 J	0.29 U	0.028 J	0.3 U
2-Methylphenol	mg/kg	11000	36000		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
2-Nitroaniline	mg/kg				0.22 U	0.22 U	0.21 U	0.23 U	0.23 U	0.22 U	0.22 U	0.23 U
2-Nitrophenol	mg/kg	630	2000		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
3&4-Methylphenol	mg/kg	11000	36000		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
3,3'-Dichlorobenzidine	mg/kg	6.6	30		1.8 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
3-Nitroaniline	mg/kg				0.22 U	0.22 U	0.21 U	0.23 U	0.23 U	0.22 U	0.22 U	0.23 U
4,6-Dinitro-2-methylphenol	mg/kg	79	260		0.17 U	0.17 U	0.16 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
4-Bromophenyl phenyl ether	mg/kg				0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
4-Chloro-3-methylphenol	mg/kg	4500	15000		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
4-Chloroaniline	mg/kg				0.22 U	0.22 U	0.21 U	0.23 U	0.23 U	0.22 U	0.22 U	0.23 U
4-Chlorophenyl phenyl ether	mg/kg				0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
4-Nitroaniline	mg/kg				0.22 U	0.22 U	0.21 U	0.23 U	0.23 U	0.22 U	0.22 U	0.23 U
4-Nitrophenol	mg/kg				0.37 U	0.37 U	0.35 U	0.37 U	0.38 U	0.37 U	0.37 U	0.38 U
Acenaphthene	mg/kg	41000	130000		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Acenaphthylene	mg/kg	1600	5200		0.29 U	0.29 U	0.28 U	0.013 J	0.3 U	0.29 U	0.0044 J	0.3 U
Acetophenone	mg/kg	47000	150000	1100	0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Anthracene	mg/kg	230000	730000		0.29 U	0.29 U	0.28 U	0.0069 J	0.3 U	0.0042 J	0.0084 J	0.3 U
Atrazine	mg/kg	71	330		0.045 U	0.044 U	0.043 U	0.045 U	0.046 U	0.045 U	0.044 U	0.045 U
Benzaldehyde	mg/kg				0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.014 J	0.29 U	0.3 U
Benzo(a)anthracene	mg/kg	20	80		0.0088 J	0.29 U	0.28 U	0.035 J	0.3 U	0.024 J	0.024 J	0.3 U
Benzo(a)pyrene	mg/kg	2	8		0.0084 J	0.29 U	0.28 U	0.064 J	0.3 U	0.034 J	0.025 J	0.3 U
Benzo(b)fluoranthene	mg/kg	20	80		0.016 J	0.29 U	0.28 U	0.11 J	0.3 U	0.052 J	0.04 J	0.3 U
Benzo(g,h,i)perylene	mg/kg	2500	7000		0.0071 J	0.012 J	0.28 U	0.07 J	0.019 J	0.031 J	0.02 J	0.3 U
Benzo(k)fluoranthene	mg/kg	200	800		0.29 U	0.29 U	0.28 U	0.053 J	0.3 U	0.023 J	0.012 J	0.3 U
Biphenyl (1,1-Biphenyl)	mg/kg				0.0039 J	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
bis(2-Chloroethoxy)methane	mg/kg				0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
bis(2-Chloroethyl)ether	mg/kg	13	58	2200	0.089 U	0.089 U	0.086 U	0.09 U	0.091 U	0.089 U	0.089 U	0.091 U
bis(2-Ethylhexyl)phthalate (DEHF	mg/kg	2800	12000	10000	0.29 U	0.29 U	0.28 U	0.021 J	0.3 U	0.29 U	0.29 U	0.3 U
Butyl benzylphthalate (BBP)	mg/kg	36000	120000	310	0.29 U	0.29 U	0.28 U	0.037 J	0.3 U	0.033 J	0.29 U	0.3 U
Caprolactam	mg/kg	53000	310000		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Carbazole	mg/kg	530	2400		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Chrysene	mg/kg	2000	8000		0.012 J	0.006 J	0.28 U	0.06 J	0.016 J	0.041 J	0.031 J	0.3 U
Dibenz(a,h)anthracene	mg/kg	2	8		0.29 U	0.29 U	0.28 U	0.018 J	0.3 U	0.29 U	0.29 U	0.3 U
Dibenzofuran	mg/kg	ID	ID		0.0073 J	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.014 J	0.3 U

Sample Location:					***GHD-1019SB***	***GHD-1019SB***	***GHD-1020SB***	***GHD-1020SB***	***GHD-1020SB***	***GHD-1021SB***	***GHD-1021SB***	***GHD-1021SB***
Sample Identification:		Direct	NR Direct	Soil Saturation	***S-17358-033116-BW-015***	***S-17358-033116-BW-016***	***S-17358-033116-BW-017***	***S-17358-033116-BW-018***	***S-17358-033116-BW-019***	***S-17358-033116-BW-020***	***S-17358-033116-BW-021***	***S-17358-033116-BW-022***
Sample Date:		Contact	Contact	Concentration	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***
Sample Type:				Screening Levels				***Duplicate***			***Duplicate***	
Sample Depth:		o	p	q	***(0-2.5) ft BGS***	***(6-8) ft BGS***	***(0-2.5) ft BGS***	***(0-2.5) ft BGS***	***(4-6) ft BGS***	***(0-2.5) ft BGS***	***(0-2.5) ft BGS***	***(5.5-7.5) ft BGS***
	Units											
Diethyl phthalate	mg/kg	170000	550000	740	0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Dimethyl phthalate	mg/kg	1000000	1000000	790	0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Di-n-butylphthalate (DBP)	mg/kg	27000	87000	760	0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Di-n-octyl phthalate (DnOP)	mg/kg	6900	20000	140000	0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Fluoranthene	mg/kg	46000	130000		0.018 J	0.29 U	0.28 U	0.067 J	0.0063 J	0.059 J	0.048 J	0.01 J
Fluorene	mg/kg	27000	87000		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Hexachlorobenzene	mg/kg	8.9	37		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Hexachlorobutadiene	mg/kg	100	470	350	0.045 U	0.044 U	0.043 U	0.045 U	0.046 U	0.045 U	0.044 U	0.045 U
Hexachlorocyclopentadiene	mg/kg	2300	6700	720	0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Hexachloroethane	mg/kg	230	730		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Indeno(1,2,3-cd)pyrene	mg/kg	20	80		0.0058 J	0.29 U	0.28 U	0.055 J	0.3 U	0.024 J	0.015 J	0.3 U
Isophorone	mg/kg	4800	22000	2400	0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Naphthalene	mg/kg	16000	52000		0.024 J	0.29 U	0.28 U	0.0038 J	0.004 J	0.29 U	0.011 J	0.3 U
Nitrobenzene	mg/kg	100	340	490	0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
N-Nitrosodi-n-propylamine	mg/kg	1.2	5.4	1500	0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
N-Nitrosodiphenylamine	mg/kg	1700	7800		0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Pentachlorophenol	mg/kg	90	320		0.17 U	0.17 U	0.16 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Phenanthrene	mg/kg	1600	5200		0.019 J	0.29 U	0.28 U	0.025 J	0.011 J	0.025 J	0.062 J	0.0091 J
Phenol	mg/kg	40000	230000	12000	0.29 U	0.29 U	0.28 U	0.3 U	0.3 U	0.29 U	0.29 U	0.3 U
Pyrene	mg/kg	29000	84000		0.014 J	0.0073 J	0.28 U	0.063 J	0.014 J	0.055 J	0.046 J	0.0066 J
PCBs												
Aroclor-1016 (PCB-1016)	mg/kg	4	16		0.037 U	0.037 U	0.036 U	0.037 U	0.037 U	0.036 U	0.036 U	0.037 U
Aroclor-1221 (PCB-1221)	mg/kg	4	16		0.037 U	0.037 U	0.036 U	0.037 U	0.037 U	0.036 U	0.036 U	0.037 U
Aroclor-1232 (PCB-1232)	mg/kg	4	16		0.037 U	0.037 U	0.036 U	0.037 U	0.037 U	0.036 U	0.036 U	0.037 U
Aroclor-1242 (PCB-1242)	mg/kg	4	16		0.037 U	0.037 U	0.036 U	0.037 U	0.037 U	0.036 U	0.036 U	0.037 U
Aroclor-1248 (PCB-1248)	mg/kg	4	16		0.037 U	0.037 U	0.036 U	0.037 U	0.037 U	0.036 U	0.036 U	0.037 U
Aroclor-1254 (PCB-1254)	mg/kg	4	16		0.037 U	0.037 U	0.036 U	0.037 U	0.037 U	0.036 U	0.036 U	0.037 U
Aroclor-1260 (PCB-1260)	mg/kg	4	16		0.037 U	0.037 U	0.036 U	0.037 U	0.037 U	0.036 U	0.036 U	0.037 U
Aroclor-1262 (PCB-1262)	mg/kg	4	16		0.037 U	0.037 U	0.036 U	0.037 U	0.037 U	0.036 U	0.036 U	0.037 U
Aroclor-1268 (PCB-1268)	mg/kg	4	16		0.037 U	0.037 U	0.036 U	0.037 U	0.037 U	0.036 U	0.036 U	0.037 U
Metals												
Aluminum	mg/kg	50000	370000		3200	5300	3900	4800	3100	3300	4800	1400
Antimony	mg/kg	180	670		0.17 U	0.14 U	0.12 U	0.19 J	0.11 J	0.13 J	0.091 J	0.023 J
Arsenic	mg/kg	7.6	37		4.5	2.2	3.7	5.3	5.1	**9.2**[bcdo]	**18**[bcdo]	4
Barium	mg/kg	37000	130000		18	24	15	21	13	17	37	11
Beryllium	mg/kg	410	1600		0.17	0.27	0.23	0.21	0.14 J	0.18	0.25	0.088 J
Cadmium	mg/kg	550	2100		0.21	0.25	0.1	0.14	0.16	0.15	0.18	0.082 J
Calcium	mg/kg				42000 J	52000 J	23000 J	20000 J	91000 J	16000 J	1700 J	31000 J
Chromium	mg/kg	790000	1000000		5.4	8.8	7.6	8.8	7	6.9	9.1	4
Cobalt	mg/kg	2600	9000		2.4	**7.8**[bcd]	3.6	3.1	3.9	3	4.1	1.3
Copper	mg/kg	20000	73000		9	13	7.4	9.2	10	6.8	5.6	4.5
Iron	mg/kg	160000	580000		6200	7200	7400	9600	7500	12000	**20000**[bc]	6200
Lead	mg/kg	400	900		14	5.2	3.6 J	12 J	5.3 J	12 J	10 J	2.1 J
Magnesium	mg/kg	1000000	1000000		**12000 J**[b]	**15000 J**[b]	4700 J	4000	**17000**[b]	4500 J	1300 J	3600

Sample Location:					***GHD-1019SB***	***GHD-1019SB***	***GHD-1020SB***	***GHD-1020SB***	***GHD-1020SB***	***GHD-1021SB***	***GHD-1021SB***	***GHD-1021SB***
Sample Identification:		Direct	NR Direct	Soil Saturation	***S-17358-033116-BW-015***	***S-17358-033116-BW-016***	***S-17358-033116-BW-017***	***S-17358-033116-BW-018***	***S-17358-033116-BW-019***	***S-17358-033116-BW-020***	***S-17358-033116-BW-021***	***S-17358-033116-BW-022***
Sample Date:		Contact	Contact	Concentration	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***
Sample Type:				Screening Levels				***Duplicate***			***Duplicate***	
Sample Depth:		o	p	q	***(0-2.5) ft BGS***	***(6-8) ft BGS***	***(0-2.5) ft BGS***	***(0-2.5) ft BGS***	***(4-6) ft BGS***	***(0-2.5) ft BGS***	***(0-2.5) ft BGS***	***(5.5-7.5) ft BGS***
	Units											
Manganese	mg/kg	25000	90000		170	150	150	150 J	220 J	340 J	**600 J[bcd]**	190 J
Mercury	mg/kg	160	580		0.041 U	0.049 U	0.038 U	0.047 U	0.048 U	0.016 J	0.019 J	0.045 U
Nickel	mg/kg	40000	150000		6.7	20	11	9.8	11	8.9	9.3	6
Potassium	mg/kg				330 J	900	290 J	360 J	620	340	320 J	260 J
Selenium	mg/kg	2600	9600		**0.97[d]**	**1.9[d]**	**2.2[d]**	**1.8[d]**	**1.5[d]**	**1.3[d]**	**1.7[d]**	0.61
Silver	mg/kg	2500	9000		0.062 J	0.026 J	0.0081 J	0.017 J	0.021 J	0.017 J	0.018 J	0.0088 J
Sodium	mg/kg	1000000	1000000		43 J	75	33 J	83 U	140 U	65 U	81 U	86 U
Thallium	mg/kg	35	130		0.1	0.3	0.084	0.11	0.19	0.099	0.15	0.061 J
Vanadium	mg/kg	750	5500		8.7	14	11	15	11	11	15	5.9
Zinc	mg/kg	170000	630000		32	45	24	30	31	34	33	17

Notes:

NR - Nonresidential
BGS - below ground surface
U - Not detected at the associated reporti
J - Estimated concentration.
NLV - not likely to volatilize under most cc
NLL - not likely to leach under most soil c
ID - insufficient data to develop criterion

superscript - indicat
(1) MDEQ Generic cleanup criteria for res
(2) Site-Specific Background Level calcula

Sample Location:		***GHD-1022SB***	***GHD-1022SB***	***GHD-1023SB***	***GHD-1023SB***
Sample Identification:		***S-17358-033116-BW-013***	***S-17358-033116-BW-014***	***S-17358-033116-BW-011***	***S-17358-033116-BW-012***
Sample Date:		***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***
Sample Type:					
Sample Depth:		***(0-2.5) ft BGS***	***(6-8) ft BGS***	***(0-2.5) ft BGS***	***(4-5) ft BGS***
	Units				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
1,1,2,2-Tetrachloroethane	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
1,1,2-Trichloroethane	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
1,1-Dichloroethane	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
1,1-Dichloroethene	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
1,2,4-Trichlorobenzene	mg/kg	0.27 U	0.44 U	0.28 U	0.27 U
1,2-Dibromo-3-chloropropane (DI	mg/kg	0.27 U	0.44 U	0.28 U	0.27 U
1,2-Dibromoethane (Ethylene dib	mg/kg	0.27 U	0.44 U	0.28 U	0.27 U
1,2-Dichlorobenzene	mg/kg	0.11 U	0.17 U	0.11 U	0.11 U
1,2-Dichloroethane	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
1,2-Dichloropropane	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
1,3-Dichlorobenzene	mg/kg	0.11 U	0.17 U	0.11 U	0.11 U
1,4-Dichlorobenzene	mg/kg	0.11 U	0.17 U	0.11 U	0.11 U
2-Butanone (Methyl ethyl ketone)	mg/kg	0.8 U	1.3 U	0.84 U	0.8 U
2-Hexanone	mg/kg	2.7 U	4.4 U	2.8 U	2.7 U
4-Methyl-2-pentanone (Methyl isc	mg/kg	2.7 U	4.4 U	2.8 U	2.7 U
Acetone	mg/kg	0.8 U	1.3 U	0.84 U	0.8 U
Benzene	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
Bromodichloromethane	mg/kg	0.11 U	0.17 U	0.11 U	0.11 U
Bromoform	mg/kg	0.11 U	0.17 U	0.11 U	0.11 U
Bromomethane (Methyl bromide)	mg/kg	0.27 U	0.44 U	0.28 U	0.27 U
Carbon disulfide	mg/kg	0.27 U	0.44 U	0.28 U	0.27 U
Carbon tetrachloride	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
Chlorobenzene	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
Chloroethane	mg/kg	0.27 U	0.44 U	0.28 U	0.27 U
Chloroform (Trichloromethane)	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
Chloromethane (Methyl chloride)	mg/kg	0.27 U	0.44 U	0.28 U	0.27 U
cis-1,2-Dichloroethene	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
cis-1,3-Dichloropropene	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
Cyclohexane	mg/kg	1.3 U	2.1 U	1.3 U	1.3 U
Dibromochloromethane	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
Dichlorodifluoromethane (CFC-12	mg/kg	0.11 U	0.17 U	0.11 U	0.11 U
Ethylbenzene	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
Isopropyl benzene	mg/kg	0.27 U	0.44 U	0.28 U	0.27 U
Methyl acetate	mg/kg	1.3 U	2.1 U	0.12 J	1.3 U
Methyl cyclohexane	mg/kg	1.3 U	2.1 U	1.3 U	1.3 U
Methyl tert butyl ether (MTBE)	mg/kg	0.27 U	0.44 U	0.28 U	0.27 U
Methylene chloride	mg/kg	0.27 U	0.44 U	0.28 U	0.27 U
Styrene	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
Tetrachloroethene	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
Toluene	mg/kg	0.11 U	0.17 U	0.11 U	0.11 U
trans-1,2-Dichloroethene	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
trans-1,3-Dichloropropene	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
Trichloroethene	mg/kg	0.054 U	0.087 U	0.056 U	0.053 U
Trichlorofluoromethane (CFC-11)	mg/kg	0.11 U	0.17 U	0.11 U	0.11 U
Trifluorotrichloroethane (CFC-113	mg/kg	0.27 U	0.44 U	0.28 U	0.27 U
Vinyl chloride	mg/kg	0.043 U	0.07 U	0.045 U	0.043 U

Sample Location:		***GHD-1022SB***	***GHD-1022SB***	***GHD-1023SB***	***GHD-1023SB***
Sample Identification:		***S-17358-033116-BW-013***	***S-17358-033116-BW-014***	***S-17358-033116-BW-011***	***S-17358-033116-BW-012***
Sample Date:		***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***
Sample Type:					
Sample Depth:		***(0-2.5) ft BGS***	***(6-8) ft BGS***	***(0-2.5) ft BGS***	***(4-5) ft BGS***
	Units				
Xylenes (total)	mg/kg	0.16 U	0.26 U	0.17 U	0.16 U
Semi-Volatile Organic Compounds (SV					
2,2'-Oxybis(1-chloropropane) (bis	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
2,4,5-Trichlorophenol	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
2,4,6-Trichlorophenol	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
2,4-Dichlorophenol	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
2,4-Dimethylphenol	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
2,4-Dinitrophenol	mg/kg	0.18 U	0.19 U	0.17 U	0.17 U
2,4-Dinitrotoluene	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
2,6-Dinitrotoluene	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
2-Chloronaphthalene	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
2-Chlorophenol	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
2-Methylnaphthalene	mg/kg	0.31 U	0.33 U	0.3 U	0.0065 J
2-Methylphenol	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
2-Nitroaniline	mg/kg	0.24 U	0.25 U	0.22 U	0.22 U
2-Nitrophenol	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
3&4-Methylphenol	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
3,3'-Dichlorobenzidine	mg/kg	1.9 U	2 U	1.8 U	1.8 U
3-Nitroaniline	mg/kg	0.24 U	0.25 U	0.22 U	0.22 U
4,6-Dinitro-2-methylphenol	mg/kg	0.18 U	0.19 U	0.17 U	0.17 U
4-Bromophenyl phenyl ether	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
4-Chloro-3-methylphenol	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
4-Chloroaniline	mg/kg	0.24 U	0.25 U	0.22 U	0.22 U
4-Chlorophenyl phenyl ether	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
4-Nitroaniline	mg/kg	0.24 U	0.25 U	0.22 U	0.22 U
4-Nitrophenol	mg/kg	0.39 U	0.41 U	0.37 U	0.37 U
Acenaphthene	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Acenaphthylene	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Acetophenone	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Anthracene	mg/kg	0.31 U	0.33 U	0.0052 J	0.29 U
Atrazine	mg/kg	0.047 U	0.05 U	0.045 U	0.044 U
Benzaldehyde	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Benzo(a)anthracene	mg/kg	0.31 U	0.33 U	0.028 J	0.29 U
Benzo(a)pyrene	mg/kg	0.31 U	0.33 U	0.028 J	0.29 U
Benzo(b)fluoranthene	mg/kg	0.31 U	0.33 U	0.037 J	0.29 U
Benzo(g,h,i)perylene	mg/kg	0.31 U	0.33 U	0.021 J	0.017 J
Benzo(k)fluoranthene	mg/kg	0.31 U	0.33 U	0.017 J	0.29 U
Biphenyl (1,1-Biphenyl)	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
bis(2-Chloroethoxy)methane	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
bis(2-Chloroethyl)ether	mg/kg	0.095 U	0.1 U	0.089 U	0.089 U
bis(2-Ethylhexyl)phthalate (DEHF	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Butyl benzylphthalate (BBP)	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Caprolactam	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Carbazole	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Chrysene	mg/kg	0.31 U	0.33 U	0.035 J	0.011 J
Dibenz(a,h)anthracene	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Dibenzofuran	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U

Sample Location:		***GHD-1022SB***	***GHD-1022SB***	***GHD-1023SB***	***GHD-1023SB***
Sample Identification:		***S-17358-033116-BW-013***	***S-17358-033116-BW-014***	***S-17358-033116-BW-011***	***S-17358-033116-BW-012***
Sample Date:		***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***
Sample Type:					
Sample Depth:		***(0-2.5) ft BGS***	***(6-8) ft BGS***	***(0-2.5) ft BGS***	***(4-5) ft BGS***
	Units				
Diethyl phthalate	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Dimethyl phthalate	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Di-n-butylphthalate (DBP)	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Di-n-octyl phthalate (DnOP)	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Fluoranthene	mg/kg	0.31 U	0.33 U	0.051 J	0.0044 J
Fluorene	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Hexachlorobenzene	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Hexachlorobutadiene	mg/kg	0.047 U	0.05 U	0.045 U	0.044 U
Hexachlorocyclopentadiene	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Hexachloroethane	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.31 U	0.33 U	0.018 J	0.29 U
Isophorone	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Naphthalene	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Nitrobenzene	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
N-Nitrosodi-n-propylamine	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
N-Nitrosodiphenylamine	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Pentachlorophenol	mg/kg	0.18 U	0.19 U	0.17 U	0.17 U
Phenanthrene	mg/kg	0.31 U	0.33 U	0.021 J	0.0094 J
Phenol	mg/kg	0.31 U	0.33 U	0.3 U	0.29 U
Pyrene	mg/kg	0.31 U	0.33 U	0.045 J	0.012 J
PCBs					
Aroclor-1016 (PCB-1016)	mg/kg	0.039 U	0.042 U	0.037 U	0.038 U
Aroclor-1221 (PCB-1221)	mg/kg	0.039 U	0.042 U	0.037 U	0.038 U
Aroclor-1232 (PCB-1232)	mg/kg	0.039 U	0.042 U	0.037 U	0.038 U
Aroclor-1242 (PCB-1242)	mg/kg	0.039 U	0.042 U	0.037 U	0.038 U
Aroclor-1248 (PCB-1248)	mg/kg	0.039 U	0.042 U	0.037 U	0.038 U
Aroclor-1254 (PCB-1254)	mg/kg	0.039 U	0.042 U	0.037 U	0.038 U
Aroclor-1260 (PCB-1260)	mg/kg	0.039 U	0.042 U	0.037 U	0.038 U
Aroclor-1262 (PCB-1262)	mg/kg	0.039 U	0.042 U	0.037 U	0.038 U
Aroclor-1268 (PCB-1268)	mg/kg	0.039 U	0.042 U	0.037 U	0.038 U
Metals					
Aluminum	mg/kg	**7400[bc]**	2500	3100	**7300[bc]**
Antimony	mg/kg	0.14 U	0.17 U	0.17 U	0.18 U
Arsenic	mg/kg	6.2	2.9	**14[bcdo]**	3.4
Barium	mg/kg	45	7.6	16	36
Beryllium	mg/kg	0.39	0.12 J	0.18	0.38
Cadmium	mg/kg	0.088	0.03 J	0.18	0.28
Calcium	mg/kg	2200 J	1100 J	28000 J	58000 J
Chromium	mg/kg	13	6.2	7.6	12
Cobalt	mg/kg	**6.3[bcd]**	1.8	3.3	**8.1[bcd]**
Copper	mg/kg	12	6.5	7.4	16
Iron	mg/kg	13000	6700	13000	**14000[bc]**
Lead	mg/kg	6.1	3	5	7.3
Magnesium	mg/kg	1900 J	1100 J	**15000 J[b]**	**18000 J[b]**

Sample Location:		***GHD-1022SB***	***GHD-1022SB***	***GHD-1023SB***	***GHD-1023SB***
Sample Identification:		***S-17358-033116-BW-013***	***S-17358-033116-BW-014***	***S-17358-033116-BW-011***	***S-17358-033116-BW-012***
Sample Date:		***3/31/2016***	***3/31/2016***	***3/31/2016***	***3/31/2016***
Sample Type:					
Sample Depth:		***(0-2.5) ft BGS***	***(6-8) ft BGS***	***(0-2.5) ft BGS***	***(4-5) ft BGS***
	Units				
Manganese	mg/kg	200	40	210	340
Mercury	mg/kg	0.018 J	0.045 U	0.044 U	0.043 U
Nickel	mg/kg	17	6.7	9.3	23
Potassium	mg/kg	470	320 J	240 J	1200
Selenium	mg/kg	**3.1[d]**	**1.1[d]**	**1.3[d]**	**2.6[d]**
Silver	mg/kg	0.023 J	0.011 J	0.014 J	0.043 J
Sodium	mg/kg	17 J	31 J	55 J	170
Thallium	mg/kg	0.17	0.048 J	0.057 J	0.28
Vanadium	mg/kg	20	8.5	12	19
Zinc	mg/kg	41	19	23	52

Notes:

NR - Nonresidential
BGS - below ground surface
U - Not detected at the associated reporti
J - Estimated concentration.
NLV - not likely to volatilize under most cc
NLL - not likely to leach under most soil c
ID - insufficient data to develop criterion

superscript - indicat
(1) MDEQ Generic cleanup criteria for res
(2) Site-Specific Background Level calcula

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER-WILLOW RUN
PROJECT NUMBER: 017358-T01
CLIENT: RACER
LOCATION: YPSILANTI, MI

HOLE DESIGNATION: GHD-1019SB
DATE COMPLETED: March 31, 2016
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	TOPSOIL	0.30	BACKFILLED WITH BENTONITE CHIPS; 2-1/2" BOREHOLE	0-2.5' -015				0.1
2	SC-CLAYEY SAND, few fine and coarse gravel, compact, fine grained, brown, moist			1GP		70		
4								0.1
6	SW/GW-SAND/GRAVEL, trace silt, compact, fine to coarse sand, fine to coarse gravel, multicolored brown, moist	4.60						0.1
8	- wet at 8.0ft BGS			6-8' -016 2GP		70		0.2
10	ML-SILT, with clay, dense, trace plasticity, gray, moist	9.70 10.00						0.1
12	SM-SILTY SAND, dense, fine grained, gray, wet			3GP		90		
14								0.1
16								0.1
18				4GP		90		
20	CL-SILTY CLAY, firm, gray, moist	19.80 20.00						0.2
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 017358-WI-RACER.GPJ CRA_CORP.GDT 4/25/16

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER-WILLOW RUN
PROJECT NUMBER: 017358-T01
CLIENT: RACER
LOCATION: YPSILANTI, MI

HOLE DESIGNATION: GHD-1020SB
DATE COMPLETED: March 31, 2016
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	TOPSOIL	0.40	BACKFILLED WITH BENTONITE CHIPS	0-2.5' -017				0.2
2	SW-SAND, few fine gravel, trace coarse gravel, compact, fine to coarse grained, brown, moist	2.00	2-1/2" BOREHOLE	1GP		60		0.2
4	SC-CLAYEY SAND, trace fine gravel, compact, slight plasticity, brown, moist	3.30		4-6' -019				0.1
6	SW-SAND, few fine and coarse gravel, subangular to subrounded, compact, fine to coarse grained, multicolored brown, moist - wet at 6.0ft BGS	7.00		2GP		90		--
8	CL-SILTY CLAY, firm, gray, moist	8.90						--
10	SM-SILTY SAND, dense, very fine grained, gray, wet			3GP		90		0.1
12	- silty clay lens from 13.2 to 13.4ft BGS							0.2
14	- black, oxidation staining at 14.1ft BGS - black, oxidation staining at 14.4ft BGS			4GP				0.2
16								
18	CL-SILTY CLAY, firm, gray, moist	17.20						
20	SM-SILTY SAND, dense, very fine grained, gray, wet	18.40 19.10						
22	CL-SILTY CLAY, firm to stiff, gray, moist	20.00						
24	END OF BOREHOLE @ 20.0ft BGS							
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 017358-WI-RACER.GPJ CRA_CORP.GDT 4/25/16

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER-WILLOW RUN
PROJECT NUMBER: 017358-T01
CLIENT: RACER
LOCATION: YPSILANTI, MI

HOLE DESIGNATION: GHD-1021SB
DATE COMPLETED: March 31, 2016
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	TOPSOIL	0.40	BACKFILLED WITH BENTONITE CHIPS; 2-1/2" BOREHOLE	0-2.5' -020				0.2
2	SP-SAND, trace clay, trace fine gravel, loose, brown, moist			1GP		60		0.2
4		4.60						
	SW-SAND, trace fine gravel, compact, fine to coarse grained, multicolored brown, moist	5.30						
6	SP-SAND, trace silt, trace fine gravel, compact, medium brown, moist			5.5-7.5' -022				0.4
8		7.60		2GP		60		0.3
	SP-SAND, with silt, compact, fine grained, brown/gray - wet at 8.0ft BGS							
10	SM-SILTY SAND, dense, very fine grained, gray, wet	10.10						0.4
12				3GP		90		
14								0.3
	CL-SILTY CLAY, firm, gray, moist	15.00						
16		16.60						0.4
	SM-SILTY SAND, dense, fine grained, gray, wet	17.20		4GP		90		
18	CL-SILTY CLAY, firm, gray, moist	18.80						0.4
	SM-SILTY SAND, dense, fine grained, gray, wet	19.10						
20	CL-SILTY CLAY, firm, gray, moist	20.00						
	END OF BOREHOLE @ 20.0ft BGS							
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 017358-WI-RACER.GPJ CRA_CORP.GDT 4/25/16

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER-WILLOW RUN
PROJECT NUMBER: 017358-T01
CLIENT: RACER
LOCATION: YPSILANTI, MI

HOLE DESIGNATION: GHD-1022SB
DATE COMPLETED: March 31, 2016
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	TOPSOIL	0.30	BACKFILLED WITH BENTONITE CHIPS	0-2.5' -013				0.5
	SP-SAND, few fine gravel, trace vegetation, loose, fine grained, dark brown, moist	1.20	2-1/2" BOREHOLE	1GP		60		0.5
	SC-CLAYEY SAND, trace fine gravel, compact, fine grained, brown, moist	3.60						
	SP-SAND, trace silt, compact, fine grained, brown, moist	5.30						0.3
	SW-SAND, trace fine gravel, compact, fine to coarse grained, multicolored gray, moist	7.50		6-8' -014 2GP		70		0.7
	CL-SILTY CLAY, trace fine sand, firm, mottled gray, moist	8.50						
	SP-SAND, with silt, dense, fine grained, brown/gray, wet	10.50						0.1
	SM-SILTY SAND, dense, fine grained, gray, wet			3GP		70		0.2
	CL-SILTY CLAY, stiff, gray, moist	17.80						0.3
	SM-SILTY SAND, dense, very fine grained, gray, wet	18.90		4GP		90		0.4
	CL-SILTY CLAY, stiff, lean, gray, moist	19.50						
	END OF BOREHOLE @ 20.0ft BGS	20.00						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 017358-WI-RACER.GPJ CRA_CORP.GDT 4/25/16

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: RACER-WILLOW RUN
PROJECT NUMBER: 017358-T01
CLIENT: RACER
LOCATION: YPSILANTI, MI

HOLE DESIGNATION: GHD-1023SB
DATE COMPLETED: March 30, 2016
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: B. WILLIAMS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	TOPSOIL	0.40	BACKFILLED WITH BENTONITE CHIPS	0-2.5' -011				0.1
2	SP-SAND, few fine and coarse gravel, trace silt, trace vegetation, compact, fine grained, brown, moist	2.60	2-1/2" BOREHOLE	1GP		60		
4	SW-SAND, with fine gravel, trace silt, compact, fine to coarse grained, multicolored brown, moist			4-5' -012				0.1
6	- wet at 5.2ft BGS CL-SILTY CLAY, firm, gray, moist	5.30						0.1
8	SP-SAND, with silt, compact, fine grained, gray, wet	7.30		2GP		60		0.4
10	SM-SILTY SAND, dense, very fine grained, gray, wet	10.00						0.1
12				3GP		80		
14								0.4
16	- silty clay seam from 16.0 to 16.2ft BGS							0.3
18	CL-SILTY CLAY, lean, hard, gray, moist - REFUSAL at 18.0ft BGS END OF BOREHOLE @ 18.0ft BGS	17.10 18.00		4GP		1908		--
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (0-2.5' -011, 4-5' -012)

OVERBURDEN LOG 017358-WI-RACER.GPJ CRA_CORP.GDT 4/25/16

Memorandum

To:	Beth Landale	Ref. No.:	17358-T01-08Y16
From:	Ruth Mickle/ma/163/Det	Date:	May 2, 2016

Re: **Analytical Results and Reduced Validation**
North Lot & West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March-April 2016

1. Introduction

The following document details a reduced validation of analytical results for groundwater and soil samples collected in support of the North Lot & West Out sampling at the Willow Run Powertrain Site between March 30-April 1, 2016. Samples were submitted to TestAmerica Laboratories, Inc., located in North Canton, Ohio and Buffalo, New York. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2A and 2B. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes, laboratory control samples (LCS), matrix spikes and field QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable documents entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", United States Environmental Protection Agency (USEPA) 540/R-99-008, October 1999

ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review", USEPA 540/R-94-013, February 1994

Items i) and ii) will subsequently be referred to as the "Guidelines" in this Memorandum

2. Sample Holding Time and Preservation

The sample holding time requirements for the analyses are summarized in Table 3. The sample chain of custody documents and analytical reports were used to determine sample holding times. The samples were prepared and analyzed within the required holding times.

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The samples were properly preserved and delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

Several low concentrations of target parameters were detected in the method blanks which indicate a potential for laboratory contamination. The associated samples that contained similar concentrations of these compounds were assumed to be a reflection of laboratory contamination and the results were qualified non-detect, as detailed in Table 4.

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for polychlorinated biphenyl (PCB), volatile organic compound (VOC) and semi-volatile organic compound (SVOC) determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the laboratory control limits with the exception of SVOC analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. The surrogate recoveries met the above criteria or an outlying percent recovery did not result in qualification.

5. Laboratory Control Sample (LCS) Analyses

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

For this study, LCS were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

5.1 Organic Analyses

The LCS contained all compounds of interest. Table 5 presents outlying LCS data. The associated VOC results were qualified estimated, as noted in the table.

5.2 Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". The LCS recoveries were within the control limits.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the extraction or digestion process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS or MS/MSD samples. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1. The laboratory performed additional site-specific MS/MSD analyses internally.

6.1 Organic Analyses

The matrix samples were spiked with all compounds of interest, except PCBs which were spiked with the compounds specified in the method.

The percent recoveries were within the control limits, demonstrating acceptable analytical accuracy and precision.

6.2 Inorganic Analyses

The matrix spike samples were spiked with the analytes of interest and the results were evaluated using the "Guidelines".

Table 6 presents the outlying matrix spike data. The associated metals results were qualified estimated, as noted in the table. The remaining percent recoveries and RPD values were within the control limits.

7. Field QA/QC Samples

The field QA/QC consisted of three trip blank samples and three field duplicate samples.

7.1 Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, three trip blanks were submitted to the laboratory for VOC analysis. With the exception of acetone detections, the trip blanks were nondetect for VOC parameters. Table 7 presents the associated acetone detections that were qualified nondetect based on trip blank results.

7.2 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, three field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 and 100 percent for water and soil samples, respectively. If the reported

concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one or two times the RL value for water and soil samples, respectively.

The majority of field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision. Table 8 presents the noncomparable results. The associated sample data were qualified estimated, as noted in the table.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the reporting limit (RL) but greater than the MDL were qualified as estimated (J) in Table 2A and 2B unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2A and 2B.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2A and 2B are acceptable with the specific qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
North Lot & West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March-April 2016

Sample Identification	Location	Initial Sample Depth (ft. bgs.)	Final Sample Depth (ft. bgs.)	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters: TCL VOCs	TCL SVOCs	PCBs	TAL Metals	orthophosphate	Phosphorus	Comments
TestAmerica Lab SDG: 240-62912-1													
S-17358-033016-BW-001	GHD-1024SB	0	2.5	soil	03/30/2016	14:00	X	X	X	X	--	--	MS/MSD (partial parameter)
S-17358-033016-BW-002	GHD-1024SB	7	9	soil	03/30/2016	14:10	X	X	X	X	--	--	
S-17358-033016-BW-003	GHD-1025SB	0	2.5	soil	03/30/2016	15:00	X	X	X	X	--	--	
S-17358-033016-BW-004	GHD-1025SB	14	15	soil	03/30/2016	15:15	X	X	X	X	--	--	
S-17358-033016-BW-005	GHD-1026SB	0	2.5	soil	03/30/2016	16:10	X	X	X	X	--	--	MS/MSD (partial parameter)
S-17358-033016-BW-006	GHD-1026SB	9	11	soil	03/30/2016	16:18	X	X	X	X	--	--	
S-17358-033016-BW-007	GHD-1027SB	0	2.5	soil	03/30/2016	16:40	X	X	X	X	--	--	
S-17358-033016-BW-008	GHD-1027SB	8	10	soil	03/30/2016	16:45	X	X	X	X	--	--	
S-17358-033116-BW-009	GHD-1028SB	0	2.5	soil	03/31/2016	7:30	X	X	X	X	--	--	
S-17358-033116-BW-010	GHD-1028SB	7	9	soil	03/31/2016	7:40	X	X	X	X	--	--	
S-17358-033116-BW-011	GHD-1023SB	0	2.5	soil	03/31/2016	8:45	X	X	X	X	--	--	
S-17358-033116-BW-012	GHD-1023SB	4	5	soil	03/31/2016	8:50	X	X	X	X	--	--	
S-17358-033116-BW-013	GHD-1022SB	0	2.5	soil	03/31/2016	9:47	X	X	X	X	--	--	
S-17358-033116-BW-014	GHD-1022SB	6	8	soil	03/31/2016	9:53	X	X	X	X	--	--	
S-17358-033116-BW-015	GHD-1019SB	0	2.5	soil	03/31/2016	10:30	X	X	X	X	--	--	
S-17358-033116-BW-016	GHD-1019SB	6	8	soil	03/31/2016	10:40	X	X	X	X	--	--	
S-17358-033116-BW-017	GHD-1020SB	0	2.5	soil	03/31/2016	12:10	X	X	X	X	--	--	
S-17358-033116-BW-018	GHD-1020SB	0	2.5	soil	03/31/2016	12:20	X	X	X	X	--	--	Field Duplicate of BW-017, MS/MSD (partial parameter)
S-17358-033116-BW-019	GHD-1020SB	4	6	soil	03/31/2016	12:30	X	X	X	X	--	--	
S-17358-033116-BW-020	GHD-1021SB	0	2.5	soil	03/31/2016	13:00	X	X	X	X	--	--	
S-17358-033116-BW-021	GHD-1021SB	0	2.5	soil	03/31/2016	13:07	X	X	X	X	--	--	Field Duplicate of BW-020
S-17358-033116-BW-022	GHD-1021SB	5.5	7.5	soil	03/31/2016	13:18	X	X	X	X	--	--	MS/MSD (partial parameter)
TRIP BLANK	Trip Blank				03/31/2016	--	X	--	--	--	--	--	Trip Blank
TestAmerica Lab SDG: 240-62920-1													
GW-17358-033116-JY-022	GHD-1013M	--	--	water	03/31/2016	8:45	--	--	--	--	X	X	
GW-17358-033116-JY-023	GHD-1014M	--	--	water	03/31/2016	10:15	--	--	--	--	X	X	
TestAmerica Lab SDG: 240-62956-1													
TB-17358-033116	Trip Blank	--	--	water	03/31/2016	--	X	--	--	--	--	--	Trip Blank
GW-17358-033116-JY-022	GHD-1013M	--	--	water	03/31/2016	8:45	X	X	X	X	--	--	
GW-17358-033116-JY-023	GHD-1014M	--	--	water	03/31/2016	10:15	X	X	X	X	--	--	MS/MSD (partial parameter)
TestAmerica Lab SDG: 240-62978-1													
GW-17358-040116-JY-024	GHD-1015M	--	--	water	04/01/2016	9:05	--	--	--	--	X	X	
GW-17358-040116-JY-025	GHD-1016M	--	--	water	04/01/2016	10:45	--	--	--	--	X	X	
GW-17358-040116-JY-026	GHD-1016M	--	--	water	04/01/2016	10:55	--	--	--	--	X	X	Field Duplicate of JY-025
GW-17358-040116-JY-027	GHD-1017M	--	--	water	04/01/2016	10:05	--	--	--	--	X	X	MS/MSD (partial parameter)
GW-17358-040116-JY-028	GHD-1018M	--	--	water	04/01/2016	12:25	--	--	--	--	X	X	

Table 1

Sample Collection and Analysis Summary
North Lot & West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March-April 2016

Sample Identification	Location	Initial Sample Depth (ft. bgs.)	Final Sample Depth (ft. bgs.)	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters: TCL VOCs	TCL SVOCs	PCBs	TAL Metals	orthophosphate	Phosphorus	Comments
TestAmerica Lab SDG: 240-62981-1													
TB-17358-040116	Trip Blank	--	--	water	04/01/2016	--	X	--	--	--	--	--	Trip Blank
GW-17358-040116-JY-024	GHD-1015M	--	--	water	04/01/2016	9:05	X	X	X	X	--	--	
GW-17358-040116-JY-025	GHD-1016M	--	--	water	04/01/2016	10:45	X	X	X	X	--	--	
GW-17358-040116-JY-026	GHD-1016M	--	--	water	04/01/2016	10:55	X	X	X	X	--	--	Field Duplicate of JY-025
GW-17358-040116-JY-027	GHD-1017M	--	--	water	04/01/2016	10:05	X	X	X	X	--	--	
GW-17358-040116-JY-028	GHD-1018M	--	--	water	04/01/2016	12:25	X	X	X	X	--	--	

Notes:

MS/MSD	- Matrix Spike/Matrix Spike Duplicate
PCBs	- Polychlorinated Biphenyl Compounds
SDG	- Sample Delivery Group
SVOCs	- Semi-Volatile Organic Compounds
TCL	- Target Compound List
VOCs	- Volatile Organic Compounds

Table 2A

Validated Analytical Data Summary - Groundwater
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1013M	GHD-1014M	GHD-1015M	GHD-1016M	GHD-1016M
Sample Name:		GW-17358-033116-JY-022	GW-17358-033116-JY-023	GW-17358-040116-JY-024	GW-17358-040116-JY-025	GW-17358-040116-JY-026
Sample Date:		03/31/2016	03/31/2016	04/01/2016	04/01/2016	04/01/2016
Depth:		--	--	--	--	--
						Duplicate
Parameters	Unit					
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	10 U	10 U	10 U	10 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2A

Validated Analytical Data Summary - Groundwater
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1013M	GHD-1014M	GHD-1015M	GHD-1016M	GHD-1016M
Sample Name:		GW-17358-033116-JY-022	GW-17358-033116-JY-023	GW-17358-040116-JY-024	GW-17358-040116-JY-025	GW-17358-040116-JY-026
Sample Date:		03/31/2016	03/31/2016	04/01/2016	04/01/2016	04/01/2016
Depth:		--	--	--	--	--
						Duplicate
Parameters	Unit					
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Semivolatile Organic Compounds						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2,4,5-Trichlorophenol	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2,4,6-Trichlorophenol	µg/L	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
2,4-Dichlorophenol	µg/L	9.5 U	9.6 U	9.5 U	9.5 U	9.5 U
2,4-Dimethylphenol	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2,4-Dinitrophenol	µg/L	19 U	19 U	19 U	19 U	19 U
2,4-Dinitrotoluene	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2,6-Dinitrotoluene	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2-Chloronaphthalene	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2-Chlorophenol	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2-Methylnaphthalene	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2-Methylphenol	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2-Nitroaniline	µg/L	19 U	19 U	19 U	19 U	19 U
2-Nitrophenol	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
3&4-Methylphenol	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
3,3'-Dichlorobenzidine	µg/L	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U
3-Nitroaniline	µg/L	19 U	19 U	19 U	19 U	19 U
4,6-Dinitro-2-methylphenol	µg/L	19 U	19 U	19 U	19 U	19 U
4-Bromophenyl phenyl ether	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
4-Chloro-3-methylphenol	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
4-Chloroaniline	µg/L	9.5 U	9.6 U	9.5 U	9.5 U	9.5 U
4-Chlorophenyl phenyl ether	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
4-Nitroaniline	µg/L	19 U	19 U	19 U	19 U	19 U
4-Nitrophenol	µg/L	19 U	19 U	19 U	19 U	19 U
Acenaphthene	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Acenaphthylene	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Acetophenone	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Anthracene	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Atrazine	µg/L	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U
Benzaldehyde	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Benzo(a)anthracene	µg/L	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U

Table 2A

Validated Analytical Data Summary - Groundwater
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1013M	GHD-1014M	GHD-1015M	GHD-1016M	GHD-1016M
Sample Name:		GW-17358-033116-JY-022	GW-17358-033116-JY-023	GW-17358-040116-JY-024	GW-17358-040116-JY-025	GW-17358-040116-JY-026
Sample Date:		03/31/2016	03/31/2016	04/01/2016	04/01/2016	04/01/2016
Depth:		--	--	--	--	--
						Duplicate
Parameters	**Unit**					
Benzo(a)pyrene	µg/L	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U
Benzo(b)fluoranthene	µg/L	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U
Benzo(g,h,i)perylene	µg/L	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U
Benzo(k)fluoranthene	µg/L	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U
Biphenyl (1,1-Biphenyl)	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
bis(2-Chloroethoxy)methane	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
bis(2-Chloroethyl)ether	µg/L	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	4.8 U	2.8 J	4.8 U	4.8 U	4.8 U
Butyl benzylphthalate (BBP)	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Caprolactam	µg/L	9.5 U	9.6 U	9.5 U	9.5 U	9.5 U
Carbazole	µg/L	9.5 U	9.6 U	9.5 U	9.5 U	9.5 U
Chrysene	µg/L	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U
Di-n-butylphthalate (DBP)	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Di-n-octyl phthalate (DnOP)	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Dibenz(a,h)anthracene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Dibenzofuran	µg/L	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Diethyl phthalate	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Dimethyl phthalate	µg/L	4.8 U	0.29 J	4.8 U	4.8 U	4.8 U
Fluoranthene	µg/L	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U
Fluorene	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Hexachlorobenzene	µg/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Hexachlorobutadiene	µg/L	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U
Hexachlorocyclopentadiene	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Hexachloroethane	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Indeno(1,2,3-cd)pyrene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Isophorone	µg/L	4.8 U	4.8 U	0.27 J	0.26 J	4.8 U
N-Nitrosodi-n-propylamine	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
N-Nitrosodiphenylamine	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Naphthalene	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Nitrobenzene	µg/L	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U
Pentachlorophenol	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Phenanthrene	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Phenol	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Pyrene	µg/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Metals						
Aluminum	µg/L	65	120	400	86	74
Antimony	µg/L	2.0 U	2.0 U	0.58 J	0.27 J	0.22 J
Arsenic	µg/L	2.6 J	2.4 J	9.0	1.1 J	1.0 J
Barium	µg/L	99 J	92 J	110	98 J	96 J
Beryllium	µg/L	0.21 J	0.066 J	1.0 U	1.0 U	1.0 U

Table 2A

Validated Analytical Data Summary - Groundwater
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1013M	GHD-1014M	GHD-1015M	GHD-1016M	GHD-1016M
Sample Name:		GW-17358-033116-JY-022	GW-17358-033116-JY-023	GW-17358-040116-JY-024	GW-17358-040116-JY-025	GW-17358-040116-JY-026
Sample Date:		03/31/2016	03/31/2016	04/01/2016	04/01/2016	04/01/2016
Depth:		--	--	--	--	--
						Duplicate
Parameters	**Unit**					
Cadmium	µg/L	0.26 J	0.11 J	1.0 U	1.0 U	1.0 U
Calcium	µg/L	71000	71000	75000	99000	96000
Chromium	µg/L	10 U	10 U	0.83 J	10 U	10 U
Cobalt	µg/L	1.3 J	0.75 J	0.75 J	1.9 J	1.9 J
Copper	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Iron	µg/L	110 J	140 J	720	120 J	110 J
Lead	µg/L	0.50 J	0.34 J	0.29 J	0.17 J	0.15 J
Magnesium	µg/L	12000	12000	15000	14000	13000
Manganese	µg/L	140	160	190	450	440
Mercury	µg/L	0.20 U	0.20 U	0.19 J	0.20 U	0.20 U
Nickel	µg/L	2.5 J	2.2 J	2.2 J	5.4 J	5.2 J
Potassium	µg/L	1400	1800	2000	2500	2400
Selenium	µg/L	5.0 U	5.0 U	0.37 J	0.27 J	5.0 U
Silver	µg/L	0.025 J	0.20 U	0.20 U	0.20 U	0.20 U
Sodium	µg/L	130000	280000	99000	230000	230000
Thallium	µg/L	0.18 J	0.078 J	2.0 U	2.0 U	2.0 U
Vanadium	µg/L	0.46 J	0.76 J	1.0 J	0.35 J	0.33 J
Zinc	µg/L	50 U	50 U	50 U	50 U	50 U
Pesticides/PCBs						
Aroclor-1016 (PCB-1016)	µg/L	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U
Aroclor-1221 (PCB-1221)	µg/L	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U
Aroclor-1232 (PCB-1232)	µg/L	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U
Aroclor-1242 (PCB-1242)	µg/L	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U
Aroclor-1248 (PCB-1248)	µg/L	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U
Aroclor-1254 (PCB-1254)	µg/L	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U
Aroclor-1260 (PCB-1260)	µg/L	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U
Aroclor-1262 (PCB-1262)	µg/L	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U
Aroclor-1268 (PCB-1268)	µg/L	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U
Wet Chemistry						
Orthophosphate	mg/L	0.015 J	0.014 J	0.038	0.048 J	0.021 J
Phosphorus	mg/L	0.010 U	0.010 U	0.017	0.010 U	0.010 U

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated

Table 2A

Validated Analytical Data Summary - Groundwater
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1017M	GHD-1018M	Trip Blank	Trip Blank
Sample Name:		GW-17358-040116-JY-027	GW-17358-040116-JY-028	TB-17358-033116	TB-17358-040116
Sample Date:		04/01/2016	04/01/2016	03/31/2016	04/01/2016
Depth:		--	--	--	--
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	10 U	4.2 J	5.8 J
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	10 U	10 U	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 2A

Validated Analytical Data Summary - Groundwater
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1017M	GHD-1018M	Trip Blank	Trip Blank
Sample Name:		GW-17358-040116-JY-027	GW-17358-040116-JY-028	TB-17358-033116	TB-17358-040116
Sample Date:		04/01/2016	04/01/2016	03/31/2016	04/01/2016
Depth:		--	--	--	--
Parameters	**Unit**				
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 UJ	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Semivolatile Organic Compounds					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	4.8 U	4.8 U	--	--
2,4,5-Trichlorophenol	µg/L	4.8 U	4.8 U	--	--
2,4,6-Trichlorophenol	µg/L	3.8 U	3.8 U	--	--
2,4-Dichlorophenol	µg/L	9.5 U	9.6 U	--	--
2,4-Dimethylphenol	µg/L	4.8 U	4.8 U	--	--
2,4-Dinitrophenol	µg/L	19 U	19 U	--	--
2,4-Dinitrotoluene	µg/L	4.8 U	4.8 U	--	--
2,6-Dinitrotoluene	µg/L	4.8 U	4.8 U	--	--
2-Chloronaphthalene	µg/L	4.8 U	4.8 U	--	--
2-Chlorophenol	µg/L	4.8 U	4.8 U	--	--
2-Methylnaphthalene	µg/L	4.8 U	4.8 U	--	--
2-Methylphenol	µg/L	4.8 U	4.8 U	--	--
2-Nitroaniline	µg/L	19 U	19 U	--	--
2-Nitrophenol	µg/L	4.8 U	4.8 U	--	--
3&4-Methylphenol	µg/L	4.8 U	4.8 U	--	--
3,3'-Dichlorobenzidine	µg/L	0.95 U	0.96 U	--	--
3-Nitroaniline	µg/L	19 U	19 U	--	--
4,6-Dinitro-2-methylphenol	µg/L	19 U	19 U	--	--
4-Bromophenyl phenyl ether	µg/L	4.8 U	4.8 U	--	--
4-Chloro-3-methylphenol	µg/L	4.8 U	4.8 U	--	--
4-Chloroaniline	µg/L	9.5 U	9.6 U	--	--
4-Chlorophenyl phenyl ether	µg/L	4.8 U	4.8 U	--	--
4-Nitroaniline	µg/L	19 U	19 U	--	--
4-Nitrophenol	µg/L	19 U	19 U	--	--
Acenaphthene	µg/L	4.8 U	4.8 U	--	--
Acenaphthylene	µg/L	4.8 U	4.8 U	--	--
Acetophenone	µg/L	4.8 U	4.8 U	--	--
Anthracene	µg/L	4.8 U	4.8 U	--	--
Atrazine	µg/L	2.9 U	2.9 U	--	--
Benzaldehyde	µg/L	4.8 U	4.8 U	--	--
Benzo(a)anthracene	µg/L	0.95 U	0.96 U	--	--

Table 2A

Validated Analytical Data Summary - Groundwater
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1017M	GHD-1018M	Trip Blank	Trip Blank
Sample Name:		GW-17358-040116-JY-027	GW-17358-040116-JY-028	TB-17358-033116	TB-17358-040116
Sample Date:		04/01/2016	04/01/2016	03/31/2016	04/01/2016
Depth:		--	--	--	--
Parameters	**Unit**				
Benzo(a)pyrene	µg/L	0.95 U	0.96 U	--	--
Benzo(b)fluoranthene	µg/L	0.95 U	0.96 U	--	--
Benzo(g,h,i)perylene	µg/L	0.95 U	0.96 U	--	--
Benzo(k)fluoranthene	µg/L	0.95 U	0.96 U	--	--
Biphenyl (1,1-Biphenyl)	µg/L	4.8 U	4.8 U	--	--
bis(2-Chloroethoxy)methane	µg/L	4.8 U	4.8 U	--	--
bis(2-Chloroethyl)ether	µg/L	0.95 U	0.96 U	--	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	4.8 U	4.8 U	--	--
Butyl benzylphthalate (BBP)	µg/L	4.8 U	4.8 U	--	--
Caprolactam	µg/L	9.5 U	9.6 U	--	--
Carbazole	µg/L	9.5 U	9.6 U	--	--
Chrysene	µg/L	0.95 U	0.96 U	--	--
Di-n-butylphthalate (DBP)	µg/L	4.8 U	4.8 U	--	--
Di-n-octyl phthalate (DnOP)	µg/L	4.8 U	4.8 U	--	--
Dibenz(a,h)anthracene	µg/L	1.9 U	1.9 U	--	--
Dibenzofuran	µg/L	3.8 U	3.8 U	--	--
Diethyl phthalate	µg/L	4.8 U	4.8 U	--	--
Dimethyl phthalate	µg/L	4.8 U	4.8 U	--	--
Fluoranthene	µg/L	0.95 U	0.96 U	--	--
Fluorene	µg/L	4.8 U	4.8 U	--	--
Hexachlorobenzene	µg/L	0.19 U	0.19 U	--	--
Hexachlorobutadiene	µg/L	0.95 U	0.96 U	--	--
Hexachlorocyclopentadiene	µg/L	4.8 U	4.8 U	--	--
Hexachloroethane	µg/L	4.8 U	4.8 U	--	--
Indeno(1,2,3-cd)pyrene	µg/L	1.9 U	1.9 U	--	--
Isophorone	µg/L	4.8 U	4.8 U	--	--
N-Nitrosodi-n-propylamine	µg/L	4.8 U	4.8 U	--	--
N-Nitrosodiphenylamine	µg/L	4.8 U	4.8 U	--	--
Naphthalene	µg/L	4.8 U	4.8 U	--	--
Nitrobenzene	µg/L	2.9 U	2.9 U	--	--
Pentachlorophenol	µg/L	4.8 U	4.8 U	--	--
Phenanthrene	µg/L	1.9 U	1.9 U	--	--
Phenol	µg/L	4.8 U	4.8 U	--	--
Pyrene	µg/L	4.8 U	4.8 U	--	--
Metals					
Aluminum	µg/L	750	740	--	--
Antimony	µg/L	0.59 J	0.20 J	--	--
Arsenic	µg/L	2.4 J	2.4 J	--	--
Barium	µg/L	150	100	--	--
Beryllium	µg/L	0.28 J	1.0 U	--	--

Table 2A

Validated Analytical Data Summary - Groundwater
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1017M	GHD-1018M	Trip Blank	Trip Blank
Sample Name:		GW-17358-040116-JY-027	GW-17358-040116-JY-028	TB-17358-033116	TB-17358-040116
Sample Date:		04/01/2016	04/01/2016	03/31/2016	04/01/2016
Depth:		--	--	--	--
Parameters	**Unit**				
Cadmium	µg/L	0.20 J	1.0 U	--	--
Calcium	µg/L	120000	140000	--	--
Chromium	µg/L	2.1 J	2.0 J	--	--
Cobalt	µg/L	2.0 J	1.4 J	--	--
Copper	µg/L	5.1 U	4.0 U	--	--
Iron	µg/L	1200	2800	--	--
Lead	µg/L	0.68 J	0.62 J	--	--
Magnesium	µg/L	18000	23000	--	--
Manganese	µg/L	330	280	--	--
Mercury	µg/L	0.20 U	0.20 U	--	--
Nickel	µg/L	4.3 J	3.0 J	--	--
Potassium	µg/L	6300	2600	--	--
Selenium	µg/L	1.9 J	2.4 J	--	--
Silver	µg/L	0.029 J	0.20 U	--	--
Sodium	µg/L	680000	650000	--	--
Thallium	µg/L	0.16 J	2.0 U	--	--
Vanadium	µg/L	2.9 J	2.1 J	--	--
Zinc	µg/L	50 U	50 U	--	--
Pesticides/PCBs					
Aroclor-1016 (PCB-1016)	µg/L	0.095 U	0.096 U	--	--
Aroclor-1221 (PCB-1221)	µg/L	0.095 U	0.096 U	--	--
Aroclor-1232 (PCB-1232)	µg/L	0.095 U	0.096 U	--	--
Aroclor-1242 (PCB-1242)	µg/L	0.095 U	0.096 U	--	--
Aroclor-1248 (PCB-1248)	µg/L	0.095 U	0.096 U	--	--
Aroclor-1254 (PCB-1254)	µg/L	0.095 U	0.096 U	--	--
Aroclor-1260 (PCB-1260)	µg/L	0.095 U	0.096 U	--	--
Aroclor-1262 (PCB-1262)	µg/L	0.095 U	0.096 U	--	--
Aroclor-1268 (PCB-1268)	µg/L	0.095 U	0.096 U	--	--
Wet Chemistry					
Orthophosphate	mg/L	0.056	0.042	--	--
Phosphorus	mg/L	0.0082 J	0.017	--	--

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1019SB	GHD-1019SB	GHD-1020SB	GHD-1020SB	GHD-1020SB
Sample Name:		S-17358-033116-BW-016	S-17358-033116-BW-015	S-17358-033116-BW-019	S-17358-033116-BW-017	S-17358-033116-BW-018
Sample Date:		03/31/2016	03/31/2016	03/31/2016	03/31/2016	03/31/2016
Depth:		6-8 ft BGS	0-2.5 ft BGS	4-6 ft BGS	0-2.5 ft BGS	0-2.5 ft BGS Duplicate
Parameters	**Unit**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/kg	49 U	69 U	50 U	50 U	55 U
1,1,2,2-Tetrachloroethane	µg/kg	49 U	69 U	50 U	50 U	55 U
1,1,2-Trichloroethane	µg/kg	49 U	69 U	50 U	50 U	55 U
1,1-Dichloroethane	µg/kg	49 U	69 U	50 U	50 U	55 U
1,1-Dichloroethene	µg/kg	49 U	69 U	50 U	50 U	55 U
1,2,4-Trichlorobenzene	µg/kg	250 U	350 U	250 U	250 U	280 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	250 U	350 U	250 U	250 U	280 U
1,2-Dibromoethane (Ethylene dibromide)	µg/kg	250 U	350 U	250 U	250 U	280 U
1,2-Dichlorobenzene	µg/kg	98 U	140 U	100 U	99 U	110 U
1,2-Dichloroethane	µg/kg	49 U	69 U	50 U	50 U	55 U
1,2-Dichloropropane	µg/kg	49 U	69 U	50 U	50 U	55 U
1,3-Dichlorobenzene	µg/kg	98 U	140 U	100 U	99 U	110 U
1,4-Dichlorobenzene	µg/kg	98 U	140 U	100 U	99 U	110 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/kg	740 U	1000 U	750 U	750 U	830 U
2-Hexanone	µg/kg	2500 U	3500 U	2500 U	2500 U	2800 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/kg	2500 U	3500 U	2500 U	2500 U	2800 U
Acetone	µg/kg	740 U	1000 U	750 U	750 U	830 U
Benzene	µg/kg	49 U	69 U	50 U	50 U	55 U
Bromodichloromethane	µg/kg	98 U	140 U	100 U	99 U	110 U
Bromoform	µg/kg	98 U	140 U	100 U	99 U	110 U
Bromomethane (Methyl bromide)	µg/kg	250 U	350 U	250 U	250 U	280 U
Carbon disulfide	µg/kg	250 U	350 U	250 U	250 U	280 U
Carbon tetrachloride	µg/kg	49 U	69 U	50 U	50 U	55 U
Chlorobenzene	µg/kg	49 U	69 U	50 U	50 U	55 U
Chloroethane	µg/kg	250 U	350 U	250 U	250 U	280 U
Chloroform (Trichloromethane)	µg/kg	49 U	69 U	50 U	50 U	55 U
Chloromethane (Methyl chloride)	µg/kg	250 U	350 U	250 U	250 U	280 U
cis-1,2-Dichloroethene	µg/kg	49 U	69 U	50 U	50 U	55 U
cis-1,3-Dichloropropene	µg/kg	49 U	69 U	50 U	50 U	55 U
Cyclohexane	µg/kg	1200 U	1700 U	1200 U	1200 U	1300 U
Dibromochloromethane	µg/kg	49 U	69 U	50 U	50 U	55 U
Dichlorodifluoromethane (CFC-12)	µg/kg	98 U	140 U	100 U	99 U	110 U
Ethylbenzene	µg/kg	49 U	69 U	50 U	50 U	55 U
Isopropyl benzene	µg/kg	250 U	350 U	250 U	250 U	280 U
Methyl acetate	µg/kg	1200 U	1700 U	1200 U	1200 U	1300 U
Methyl cyclohexane	µg/kg	1200 U	1700 U	1200 U	1200 U	1300 U
Methyl tert butyl ether (MTBE)	µg/kg	250 U	350 U	250 U	250 U	280 U
Methylene chloride	µg/kg	250 U	350 U	250 U	250 U	280 U
Styrene	µg/kg	49 U	69 U	50 U	50 U	55 U
Tetrachloroethene	µg/kg	49 U	69 U	50 U	50 U	55 U

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1019SB	GHD-1019SB	GHD-1020SB	GHD-1020SB	GHD-1020SB
Sample Name:		S-17358-033116-BW-016	S-17358-033116-BW-015	S-17358-033116-BW-019	S-17358-033116-BW-017	S-17358-033116-BW-018
Sample Date:		03/31/2016	03/31/2016	03/31/2016	03/31/2016	03/31/2016
Depth:		6-8 ft BGS	0-2.5 ft BGS	4-6 ft BGS	0-2.5 ft BGS	0-2.5 ft BGS Duplicate
Parameters	**Unit**					
Toluene	µg/kg	98 U	140 U	100 U	99 U	110 U
trans-1,2-Dichloroethene	µg/kg	49 U	69 U	50 U	50 U	55 U
trans-1,3-Dichloropropene	µg/kg	49 U	69 U	50 U	50 U	55 U
Trichloroethene	µg/kg	49 U	69 U	50 U	50 U	55 U
Trichlorofluoromethane (CFC-11)	µg/kg	98 U	140 U	100 U	99 U	110 U
Trifluorotrichloroethane (CFC-113)	µg/kg	250 U	350 U	250 U	250 U	280 U
Vinyl chloride	µg/kg	39 U	55 U	40 U	40 U	44 U
Xylenes (total)	µg/kg	150 U	210 U	150 U	150 U	170 U
Semivolatile Organic Compounds						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	290 U	290 U	300 U	280 U	300 U
2,4,5-Trichlorophenol	µg/kg	290 U	290 U	300 U	280 U	300 U
2,4,6-Trichlorophenol	µg/kg	290 U	290 U	300 U	280 U	300 U
2,4-Dichlorophenol	µg/kg	290 U	290 U	300 U	280 U	300 U
2,4-Dimethylphenol	µg/kg	290 U	290 U	300 U	280 U	300 U
2,4-Dinitrophenol	µg/kg	170 U	170 U	170 U	160 U	170 U
2,4-Dinitrotoluene	µg/kg	290 U	290 U	300 U	280 U	300 U
2,6-Dinitrotoluene	µg/kg	290 U	290 U	300 U	280 U	300 U
2-Chloronaphthalene	µg/kg	290 U	290 U	300 U	280 U	300 U
2-Chlorophenol	µg/kg	290 U	290 U	300 U	280 U	300 U
2-Methylnaphthalene	µg/kg	290 U	31 J	6.5 J	280 U	300 U
2-Methylphenol	µg/kg	290 U	290 U	300 U	280 U	300 U
2-Nitroaniline	µg/kg	220 U	220 U	230 U	210 U	230 U
2-Nitrophenol	µg/kg	290 U	290 U	300 U	280 U	300 U
3&4-Methylphenol	µg/kg	290 U	290 U	300 U	280 U	300 U
3,3'-Dichlorobenzidine	µg/kg	1800 U	1800 U	1800 U	1700 U	1800 U
3-Nitroaniline	µg/kg	220 U	220 U	230 U	210 U	230 U
4,6-Dinitro-2-methylphenol	µg/kg	170 U	170 U	170 U	160 U	170 U
4-Bromophenyl phenyl ether	µg/kg	290 U	290 U	300 U	280 U	300 U
4-Chloro-3-methylphenol	µg/kg	290 U	290 U	300 U	280 U	300 U
4-Chloroaniline	µg/kg	220 U	220 U	230 U	210 U	230 U
4-Chlorophenyl phenyl ether	µg/kg	290 U	290 U	300 U	280 U	300 U
4-Nitroaniline	µg/kg	220 U	220 U	230 U	210 U	230 U
4-Nitrophenol	µg/kg	370 U	370 U	380 U	350 U	370 U
Acenaphthene	µg/kg	290 U	290 U	300 U	280 U	300 U
Acenaphthylene	µg/kg	290 U	290 U	300 U	280 U	13 J
Acetophenone	µg/kg	290 U	290 U	300 U	280 U	300 U
Anthracene	µg/kg	290 U	290 U	300 U	280 U	6.9 J
Atrazine	µg/kg	44 U	45 U	46 U	43 U	45 U
Benzaldehyde	µg/kg	290 U	290 U	300 U	280 U	300 U
Benzo(a)anthracene	µg/kg	290 U	8.8 J	300 U	280 U	35 J

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1019SB	GHD-1019SB	GHD-1020SB	GHD-1020SB	GHD-1020SB
Sample Name:		S-17358-033116-BW-016	S-17358-033116-BW-015	S-17358-033116-BW-019	S-17358-033116-BW-017	S-17358-033116-BW-018
Sample Date:		03/31/2016	03/31/2016	03/31/2016	03/31/2016	03/31/2016
Depth:		6-8 ft BGS	0-2.5 ft BGS	4-6 ft BGS	0-2.5 ft BGS	0-2.5 ft BGS Duplicate
Parameters	**Unit**					
Benzo(a)pyrene	µg/kg	290 U	8.4 J	300 U	280 U	64 J
Benzo(b)fluoranthene	µg/kg	290 U	16 J	300 U	280 U	110 J
Benzo(g,h,i)perylene	µg/kg	12 J	7.1 J	19 J	280 U	70 J
Benzo(k)fluoranthene	µg/kg	290 U	290 U	300 U	280 U	53 J
Biphenyl (1,1-Biphenyl)	µg/kg	290 U	3.9 J	300 U	280 U	300 U
bis(2-Chloroethoxy)methane	µg/kg	290 U	290 U	300 U	280 U	300 U
bis(2-Chloroethyl)ether	µg/kg	89 U	89 U	91 U	86 U	90 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	290 U	290 U	300 U	280 U	21 J
Butyl benzylphthalate (BBP)	µg/kg	290 U	290 U	300 U	280 U	37 J
Caprolactam	µg/kg	290 U	290 U	300 U	280 U	300 U
Carbazole	µg/kg	290 U	290 U	300 U	280 U	300 U
Chrysene	µg/kg	6.0 J	12 J	16 J	280 U	60 J
Di-n-butylphthalate (DBP)	µg/kg	290 U	290 U	300 U	280 U	300 U
Di-n-octyl phthalate (DnOP)	µg/kg	290 U	290 U	300 U	280 U	300 U
Dibenz(a,h)anthracene	µg/kg	290 U	290 U	300 U	280 U	18 J
Dibenzofuran	µg/kg	290 U	7.3 J	300 U	280 U	300 U
Diethyl phthalate	µg/kg	290 U	290 U	300 U	280 U	300 U
Dimethyl phthalate	µg/kg	290 U	290 U	300 U	280 U	300 U
Fluoranthene	µg/kg	290 U	18 J	6.3 J	280 U	67 J
Fluorene	µg/kg	290 U	290 U	300 U	280 U	300 U
Hexachlorobenzene	µg/kg	290 U	290 U	300 U	280 U	300 U
Hexachlorobutadiene	µg/kg	44 U	45 U	46 U	43 U	45 U
Hexachlorocyclopentadiene	µg/kg	290 U	290 U	300 U	280 U	300 U
Hexachloroethane	µg/kg	290 U	290 U	300 U	280 U	300 U
Indeno(1,2,3-cd)pyrene	µg/kg	290 U	5.8 J	300 U	280 U	55 J
Isophorone	µg/kg	290 U	290 U	300 U	280 U	300 U
N-Nitrosodi-n-propylamine	µg/kg	290 U	290 U	300 U	280 U	300 U
N-Nitrosodiphenylamine	µg/kg	290 U	290 U	300 U	280 U	300 U
Naphthalene	µg/kg	290 U	24 J	4.0 J	280 U	3.8 J
Nitrobenzene	µg/kg	290 U	290 U	300 U	280 U	300 U
Pentachlorophenol	µg/kg	170 U	170 U	170 U	160 U	170 U
Phenanthrene	µg/kg	290 U	19 J	11 J	280 U	25 J
Phenol	µg/kg	290 U	290 U	300 U	280 U	300 U
Pyrene	µg/kg	7.3 J	14 J	14 J	280 U	63 J
Metals						
Aluminum	mg/kg	5300	3200	3100	3900	4800
Antimony	mg/kg	0.14 U	0.17 U	0.11 J	0.12 U	0.19 J
Arsenic	mg/kg	2.2	4.5	5.1	3.7	5.3
Barium	mg/kg	24	18	13	15	21
Beryllium	mg/kg	0.27	0.17	0.14 J	0.23	0.21

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1019SB	GHD-1019SB	GHD-1020SB	GHD-1020SB	GHD-1020SB
Sample Name:		S-17358-033116-BW-016	S-17358-033116-BW-015	S-17358-033116-BW-019	S-17358-033116-BW-017	S-17358-033116-BW-018
Sample Date:		03/31/2016	03/31/2016	03/31/2016	03/31/2016	03/31/2016
Depth:		6-8 ft BGS	0-2.5 ft BGS	4-6 ft BGS	0-2.5 ft BGS	0-2.5 ft BGS Duplicate
Parameters	**Unit**					
Cadmium	mg/kg	0.25	0.21	0.16	0.10	0.14
Calcium	mg/kg	52000 J	42000 J	91000 J	23000 J	20000 J
Chromium	mg/kg	8.8	5.4	7.0	7.6	8.8
Cobalt	mg/kg	7.8	2.4	3.9	3.6	3.1
Copper	mg/kg	13	9.0	10	7.4	9.2
Iron	mg/kg	7200	6200	7500	7400	9600
Lead	mg/kg	5.2	14	5.3 J	3.6 J	12 J
Magnesium	mg/kg	15000 J	12000 J	17000	4700 J	4000
Manganese	mg/kg	150	170	220 J	150	150 J
Mercury	mg/kg	0.049 U	0.041 U	0.048 U	0.038 U	0.047 U
Nickel	mg/kg	20	6.7	11	11	9.8
Potassium	mg/kg	900	330 J	620	290 J	360 J
Selenium	mg/kg	1.9	0.97	1.5	2.2	1.8
Silver	mg/kg	0.026 J	0.062 J	0.021 J	0.0081 J	0.017 J
Sodium	mg/kg	75	43 J	140 U	33 J	83 U
Thallium	mg/kg	0.30	0.10	0.19	0.084	0.11
Vanadium	mg/kg	14	8.7	11	11	15
Zinc	mg/kg	45	32	31	24	30
Pesticides/PCBs						
Aroclor-1016 (PCB-1016)	µg/kg	37 U	37 U	37 U	36 U	37 U
Aroclor-1221 (PCB-1221)	µg/kg	37 U	37 U	37 U	36 U	37 U
Aroclor-1232 (PCB-1232)	µg/kg	37 U	37 U	37 U	36 U	37 U
Aroclor-1242 (PCB-1242)	µg/kg	37 U	37 U	37 U	36 U	37 U
Aroclor-1248 (PCB-1248)	µg/kg	37 U	37 U	37 U	36 U	37 U
Aroclor-1254 (PCB-1254)	µg/kg	37 U	37 U	37 U	36 U	37 U
Aroclor-1260 (PCB-1260)	µg/kg	37 U	37 U	37 U	36 U	37 U
Aroclor-1262 (PCB-1262)	µg/kg	37 U	37 U	37 U	36 U	37 U
Aroclor-1268 (PCB-1268)	µg/kg	37 U	37 U	37 U	36 U	37 U

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1021SB	GHD-1021SB	GHD-1021SB	GHD-1022SB	GHD-1022SB
Sample Name:		S-17358-033116-BW-022	S-17358-033116-BW-020	S-17358-033116-BW-021	S-17358-033116-BW-014	S-17358-033116-BW-013
Sample Date:		03/31/2016	03/31/2016	03/31/2016	03/31/2016	03/31/2016
Depth:		5.5-7.5 ft BGS	0-2.5 ft BGS	0-2.5 ft BGS Duplicate	6-8 ft BGS	0-2.5 ft BGS
Parameters	Unit					
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/kg	51 U	53 U	50 U	87 U	54 U
1,1,2,2-Tetrachloroethane	µg/kg	51 U	53 U	50 U	87 U	54 U
1,1,2-Trichloroethane	µg/kg	51 U	53 U	50 U	87 U	54 U
1,1-Dichloroethane	µg/kg	51 U	53 U	50 U	87 U	54 U
1,1-Dichloroethene	µg/kg	51 U	53 U	50 U	87 U	54 U
1,2,4-Trichlorobenzene	µg/kg	250 U	270 U	100 J	440 U	270 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	250 U	270 U	250 U	440 U	270 U
1,2-Dibromoethane (Ethylene dibromide)	µg/kg	250 U	270 U	250 U	440 U	270 U
1,2-Dichlorobenzene	µg/kg	100 U	110 U	99 U	170 U	110 U
1,2-Dichloroethane	µg/kg	51 U	53 U	50 U	87 U	54 U
1,2-Dichloropropane	µg/kg	51 U	53 U	50 U	87 U	54 U
1,3-Dichlorobenzene	µg/kg	100 U	110 U	99 U	170 U	110 U
1,4-Dichlorobenzene	µg/kg	100 U	110 U	99 U	170 U	110 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/kg	760 U	800 U	740 U	1300 U	800 U
2-Hexanone	µg/kg	2500 U	2700 U	2500 U	4400 U	2700 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/kg	2500 U	2700 U	2500 U	4400 U	2700 U
Acetone	µg/kg	760 U	800 U	740 U	1300 U	800 U
Benzene	µg/kg	51 U	53 U	50 U	87 U	54 U
Bromodichloromethane	µg/kg	100 U	110 U	99 U	170 U	110 U
Bromoform	µg/kg	100 U	110 U	99 U	170 U	110 U
Bromomethane (Methyl bromide)	µg/kg	250 U	270 U	250 U	440 U	270 U
Carbon disulfide	µg/kg	250 U	270 U	250 U	440 U	270 U
Carbon tetrachloride	µg/kg	51 U	53 U	50 U	87 U	54 U
Chlorobenzene	µg/kg	51 U	53 U	50 U	87 U	54 U
Chloroethane	µg/kg	250 U	270 U	250 U	440 U	270 U
Chloroform (Trichloromethane)	µg/kg	51 U	53 U	50 U	87 U	54 U
Chloromethane (Methyl chloride)	µg/kg	250 U	270 U	250 U	440 U	270 U
cis-1,2-Dichloroethene	µg/kg	51 U	53 U	50 U	87 U	54 U
cis-1,3-Dichloropropene	µg/kg	51 U	53 U	50 U	87 U	54 U
Cyclohexane	µg/kg	1200 U	1300 U	1200 U	2100 U	1300 U
Dibromochloromethane	µg/kg	51 U	53 U	50 U	87 U	54 U
Dichlorodifluoromethane (CFC-12)	µg/kg	100 U	110 U	99 U	170 U	110 U
Ethylbenzene	µg/kg	51 U	53 U	50 U	87 U	54 U
Isopropyl benzene	µg/kg	250 U	270 U	250 U	440 U	270 U
Methyl acetate	µg/kg	1200 U	1300 U	1200 U	2100 U	1300 U
Methyl cyclohexane	µg/kg	1200 U	1300 U	1200 U	2100 U	1300 U
Methyl tert butyl ether (MTBE)	µg/kg	250 U	270 U	250 U	440 U	270 U
Methylene chloride	µg/kg	250 U	270 U	250 U	440 U	270 U
Styrene	µg/kg	51 U	53 U	50 U	87 U	54 U
Tetrachloroethene	µg/kg	51 U	53 U	50 U	87 U	54 U

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1021SB	GHD-1021SB	GHD-1021SB	GHD-1022SB	GHD-1022SB
Sample Name:		S-17358-033116-BW-022	S-17358-033116-BW-020	S-17358-033116-BW-021	S-17358-033116-BW-014	S-17358-033116-BW-013
Sample Date:		03/31/2016	03/31/2016	03/31/2016	03/31/2016	03/31/2016
Depth:		5.5-7.5 ft BGS	0-2.5 ft BGS	0-2.5 ft BGS Duplicate	6-8 ft BGS	0-2.5 ft BGS
Parameters	Unit					
Toluene	µg/kg	100 U	110 U	99 U	170 U	110 U
trans-1,2-Dichloroethene	µg/kg	51 U	53 U	50 U	87 U	54 U
trans-1,3-Dichloropropene	µg/kg	51 U	53 U	50 U	87 U	54 U
Trichloroethene	µg/kg	51 U	53 U	50 U	87 U	54 U
Trichlorofluoromethane (CFC-11)	µg/kg	100 U	110 U	99 U	170 U	110 U
Trifluorotrichloroethane (CFC-113)	µg/kg	250 U	270 U	250 U	440 U	270 U
Vinyl chloride	µg/kg	41 U	43 U	40 U	70 U	43 U
Xylenes (total)	µg/kg	150 U	160 U	150 U	260 U	160 U
Semivolatile Organic Compounds						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	300 U	290 U	290 U	330 U	310 U
2,4,5-Trichlorophenol	µg/kg	300 U	290 U	290 U	330 U	310 U
2,4,6-Trichlorophenol	µg/kg	300 U	290 U	290 U	330 U	310 U
2,4-Dichlorophenol	µg/kg	300 U	290 U	290 U	330 U	310 U
2,4-Dimethylphenol	µg/kg	300 U	290 U	290 U	330 U	310 U
2,4-Dinitrophenol	µg/kg	170 U	170 U	170 U	190 U	180 U
2,4-Dinitrotoluene	µg/kg	300 U	290 U	290 U	330 U	310 U
2,6-Dinitrotoluene	µg/kg	300 U	290 U	290 U	330 U	310 U
2-Chloronaphthalene	µg/kg	300 U	290 U	290 U	330 U	310 U
2-Chlorophenol	µg/kg	300 U	290 U	290 U	330 U	310 U
2-Methylnaphthalene	µg/kg	300 U	290 U	28 J	330 U	310 U
2-Methylphenol	µg/kg	300 U	290 U	290 U	330 U	310 U
2-Nitroaniline	µg/kg	230 U	220 U	220 U	250 U	240 U
2-Nitrophenol	µg/kg	300 U	290 U	290 U	330 U	310 U
3&4-Methylphenol	µg/kg	300 U	290 U	290 U	330 U	310 U
3,3'-Dichlorobenzidine	µg/kg	1800 U	1800 U	1800 U	2000 U	1900 U
3-Nitroaniline	µg/kg	230 U	220 U	220 U	250 U	240 U
4,6-Dinitro-2-methylphenol	µg/kg	170 U	170 U	170 U	190 U	180 U
4-Bromophenyl phenyl ether	µg/kg	300 U	290 U	290 U	330 U	310 U
4-Chloro-3-methylphenol	µg/kg	300 U	290 U	290 U	330 U	310 U
4-Chloroaniline	µg/kg	230 U	220 U	220 U	250 U	240 U
4-Chlorophenyl phenyl ether	µg/kg	300 U	290 U	290 U	330 U	310 U
4-Nitroaniline	µg/kg	230 U	220 U	220 U	250 U	240 U
4-Nitrophenol	µg/kg	380 U	370 U	370 U	410 U	390 U
Acenaphthene	µg/kg	300 U	290 U	290 U	330 U	310 U
Acenaphthylene	µg/kg	300 U	290 U	4.4 J	330 U	310 U
Acetophenone	µg/kg	300 U	290 U	290 U	330 U	310 U
Anthracene	µg/kg	300 U	4.2 J	8.4 J	330 U	310 U
Atrazine	µg/kg	45 U	45 U	44 U	50 U	47 U
Benzaldehyde	µg/kg	300 U	14 J	290 U	330 U	310 U
Benzo(a)anthracene	µg/kg	300 U	24 J	24 J	330 U	310 U

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1021SB	GHD-1021SB	GHD-1021SB	GHD-1022SB	GHD-1022SB
Sample Name:		S-17358-033116-BW-022	S-17358-033116-BW-020	S-17358-033116-BW-021	S-17358-033116-BW-014	S-17358-033116-BW-013
Sample Date:		03/31/2016	03/31/2016	03/31/2016	03/31/2016	03/31/2016
Depth:		5.5-7.5 ft BGS	0-2.5 ft BGS	0-2.5 ft BGS Duplicate	6-8 ft BGS	0-2.5 ft BGS
Parameters	Unit					
Benzo(a)pyrene	µg/kg	300 U	34 J	25 J	330 U	310 U
Benzo(b)fluoranthene	µg/kg	300 U	52 J	40 J	330 U	310 U
Benzo(g,h,i)perylene	µg/kg	300 U	31 J	20 J	330 U	310 U
Benzo(k)fluoranthene	µg/kg	300 U	23 J	12 J	330 U	310 U
Biphenyl (1,1-Biphenyl)	µg/kg	300 U	290 U	290 U	330 U	310 U
bis(2-Chloroethoxy)methane	µg/kg	300 U	290 U	290 U	330 U	310 U
bis(2-Chloroethyl)ether	µg/kg	91 U	89 U	89 U	100 U	95 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	300 U	290 U	290 U	330 U	310 U
Butyl benzylphthalate (BBP)	µg/kg	300 U	33 J	290 U	330 U	310 U
Caprolactam	µg/kg	300 U	290 U	290 U	330 U	310 U
Carbazole	µg/kg	300 U	290 U	290 U	330 U	310 U
Chrysene	µg/kg	300 U	41 J	31 J	330 U	310 U
Di-n-butylphthalate (DBP)	µg/kg	300 U	290 U	290 U	330 U	310 U
Di-n-octyl phthalate (DnOP)	µg/kg	300 U	290 U	290 U	330 U	310 U
Dibenz(a,h)anthracene	µg/kg	300 U	290 U	290 U	330 U	310 U
Dibenzofuran	µg/kg	300 U	290 U	14 J	330 U	310 U
Diethyl phthalate	µg/kg	300 U	290 U	290 U	330 U	310 U
Dimethyl phthalate	µg/kg	300 U	290 U	290 U	330 U	310 U
Fluoranthene	µg/kg	10 J	59 J	48 J	330 U	310 U
Fluorene	µg/kg	300 U	290 U	290 U	330 U	310 U
Hexachlorobenzene	µg/kg	300 U	290 U	290 U	330 U	310 U
Hexachlorobutadiene	µg/kg	45 U	45 U	44 U	50 U	47 U
Hexachlorocyclopentadiene	µg/kg	300 U	290 U	290 U	330 U	310 U
Hexachloroethane	µg/kg	300 U	290 U	290 U	330 U	310 U
Indeno(1,2,3-cd)pyrene	µg/kg	300 U	24 J	15 J	330 U	310 U
Isophorone	µg/kg	300 U	290 U	290 U	330 U	310 U
N-Nitrosodi-n-propylamine	µg/kg	300 U	290 U	290 U	330 U	310 U
N-Nitrosodiphenylamine	µg/kg	300 U	290 U	290 U	330 U	310 U
Naphthalene	µg/kg	300 U	290 U	11 J	330 U	310 U
Nitrobenzene	µg/kg	300 U	290 U	290 U	330 U	310 U
Pentachlorophenol	µg/kg	170 U	170 U	170 U	190 U	180 U
Phenanthrene	µg/kg	9.1 J	25 J	62 J	330 U	310 U
Phenol	µg/kg	300 U	290 U	290 U	330 U	310 U
Pyrene	µg/kg	6.6 J	55 J	46 J	330 U	310 U
Metals						
Aluminum	mg/kg	1400	3300	4800	2500	7400
Antimony	mg/kg	0.023 J	0.13 J	0.091 J	0.17 U	0.14 U
Arsenic	mg/kg	4.0	9.2	18	2.9	6.2
Barium	mg/kg	11	17	37	7.6	45
Beryllium	mg/kg	0.088 J	0.18	0.25	0.12 J	0.39

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1021SB	GHD-1021SB	GHD-1021SB	GHD-1022SB	GHD-1022SB
Sample Name:		S-17358-033116-BW-022	S-17358-033116-BW-020	S-17358-033116-BW-021	S-17358-033116-BW-014	S-17358-033116-BW-013
Sample Date:		03/31/2016	03/31/2016	03/31/2016	03/31/2016	03/31/2016
Depth:		5.5-7.5 ft BGS	0-2.5 ft BGS	0-2.5 ft BGS Duplicate	6-8 ft BGS	0-2.5 ft BGS
Parameters	**Unit**					
Cadmium	mg/kg	0.082 J	0.15	0.18	0.030 J	0.088
Calcium	mg/kg	31000 J	16000 J	1700 J	1100 J	2200 J
Chromium	mg/kg	4.0	6.9	9.1	6.2	13
Cobalt	mg/kg	1.3	3.0	4.1	1.8	6.3
Copper	mg/kg	4.5	6.8	5.6	6.5	12
Iron	mg/kg	6200	12000	20000	6700	13000
Lead	mg/kg	2.1 J	12 J	10 J	3.0	6.1
Magnesium	mg/kg	3600	4500 J	1300 J	1100 J	1900 J
Manganese	mg/kg	190 J	340 J	600 J	40	200
Mercury	mg/kg	0.045 U	0.016 J	0.019 J	0.045 U	0.018 J
Nickel	mg/kg	6.0	8.9	9.3	6.7	17
Potassium	mg/kg	260 J	340	320 J	320 J	470
Selenium	mg/kg	0.61	1.3	1.7	1.1	3.1
Silver	mg/kg	0.0088 J	0.017 J	0.018 J	0.011 J	0.023 J
Sodium	mg/kg	86 U	65 U	81 U	31 J	17 J
Thallium	mg/kg	0.061 J	0.099	0.15	0.048 J	0.17
Vanadium	mg/kg	5.9	11	15	8.5	20
Zinc	mg/kg	17	34	33	19	41
Pesticides/PCBs						
Aroclor-1016 (PCB-1016)	µg/kg	37 U	36 U	36 U	42 U	39 U
Aroclor-1221 (PCB-1221)	µg/kg	37 U	36 U	36 U	42 U	39 U
Aroclor-1232 (PCB-1232)	µg/kg	37 U	36 U	36 U	42 U	39 U
Aroclor-1242 (PCB-1242)	µg/kg	37 U	36 U	36 U	42 U	39 U
Aroclor-1248 (PCB-1248)	µg/kg	37 U	36 U	36 U	42 U	39 U
Aroclor-1254 (PCB-1254)	µg/kg	37 U	36 U	36 U	42 U	39 U
Aroclor-1260 (PCB-1260)	µg/kg	37 U	36 U	36 U	42 U	39 U
Aroclor-1262 (PCB-1262)	µg/kg	37 U	36 U	36 U	42 U	39 U
Aroclor-1268 (PCB-1268)	µg/kg	37 U	36 U	36 U	42 U	39 U

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1023SB	GHD-1023SB	GHD-1024SB	GHD-1024SB	GHD-1025SB
Sample Name:		S-17358-033116-BW-012	S-17358-033116-BW-011	S-17358-033016-BW-002	S-17358-033016-BW-001	S-17358-033016-BW-004
Sample Date:		03/31/2016	03/31/2016	03/30/2016	03/30/2016	03/30/2016
Depth:		4-5 ft BGS	0-2.5 ft BGS	7-9 ft BGS	0-2.5 ft BGS	14-15 ft BGS
Parameters	**Unit**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/kg	53 U	56 U	47 U	73 U	60 U
1,1,2,2-Tetrachloroethane	µg/kg	53 U	56 U	47 U	73 U	60 U
1,1,2-Trichloroethane	µg/kg	53 U	56 U	47 U	73 U	60 U
1,1-Dichloroethane	µg/kg	53 U	56 U	47 U	73 U	60 U
1,1-Dichloroethene	µg/kg	53 U	56 U	47 U	73 U	60 U
1,2,4-Trichlorobenzene	µg/kg	270 U	280 U	230 U	64 J	300 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	270 U	280 U	230 U	360 U	300 U
1,2-Dibromoethane (Ethylene dibromide)	µg/kg	270 U	280 U	230 U	360 U	300 U
1,2-Dichlorobenzene	µg/kg	110 U	110 U	94 U	150 U	120 U
1,2-Dichloroethane	µg/kg	53 U	56 U	47 U	73 U	60 U
1,2-Dichloropropane	µg/kg	53 U	56 U	47 U	73 U	60 U
1,3-Dichlorobenzene	µg/kg	110 U	110 U	94 U	150 U	120 U
1,4-Dichlorobenzene	µg/kg	110 U	110 U	94 U	150 U	120 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/kg	800 U	840 U	700 U	1100 U	900 U
2-Hexanone	µg/kg	2700 U	2800 U	2300 U	3600 U	3000 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/kg	2700 U	2800 U	2300 U	3600 U	3000 U
Acetone	µg/kg	800 U	840 U	700 U	1100 U	900 U
Benzene	µg/kg	53 U	56 U	47 U	73 U	60 U
Bromodichloromethane	µg/kg	110 U	110 U	94 U	150 U	120 U
Bromoform	µg/kg	110 U	110 U	94 U	150 U	120 U
Bromomethane (Methyl bromide)	µg/kg	270 U	280 U	230 U	360 U	300 U
Carbon disulfide	µg/kg	270 U	280 U	230 U	360 U	300 U
Carbon tetrachloride	µg/kg	53 U	56 U	47 U	73 U	60 U
Chlorobenzene	µg/kg	53 U	56 U	47 U	73 U	60 U
Chloroethane	µg/kg	270 U	280 U	230 U	360 U	300 U
Chloroform (Trichloromethane)	µg/kg	53 U	56 U	47 U	73 U	60 U
Chloromethane (Methyl chloride)	µg/kg	270 U	280 U	230 U	360 U	300 U
cis-1,2-Dichloroethene	µg/kg	53 U	56 U	47 U	73 U	60 U
cis-1,3-Dichloropropene	µg/kg	53 U	56 U	47 U	73 U	60 U
Cyclohexane	µg/kg	1300 U	1300 U	1100 U	1700 U	1400 U
Dibromochloromethane	µg/kg	53 U	56 U	47 U	73 U	60 U
Dichlorodifluoromethane (CFC-12)	µg/kg	110 U	110 U	94 U	150 U	120 U
Ethylbenzene	µg/kg	53 U	56 U	47 U	73 U	60 U
Isopropyl benzene	µg/kg	270 U	280 U	230 U	360 U	300 U
Methyl acetate	µg/kg	1300 U	120 J	72 J	210 J	1400 U
Methyl cyclohexane	µg/kg	1300 U	1300 U	1100 U	1700 U	1400 U
Methyl tert butyl ether (MTBE)	µg/kg	270 U	280 U	230 U	360 U	300 U
Methylene chloride	µg/kg	270 U	280 U	230 U	360 U	300 U
Styrene	µg/kg	53 U	56 U	47 U	73 U	60 U
Tetrachloroethene	µg/kg	53 U	56 U	47 U	73 U	60 U

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1023SB	GHD-1023SB	GHD-1024SB	GHD-1024SB	GHD-1025SB
Sample Name:		S-17358-033116-BW-012	S-17358-033116-BW-011	S-17358-033016-BW-002	S-17358-033016-BW-001	S-17358-033016-BW-004
Sample Date:		03/31/2016	03/31/2016	03/30/2016	03/30/2016	03/30/2016
Depth:		4-5 ft BGS	0-2.5 ft BGS	7-9 ft BGS	0-2.5 ft BGS	14-15 ft BGS
Parameters	Unit					
Toluene	µg/kg	110 U	110 U	94 U	150 U	120 U
trans-1,2-Dichloroethene	µg/kg	53 U	56 U	47 U	73 U	60 U
trans-1,3-Dichloropropene	µg/kg	53 U	56 U	47 U	73 U	60 U
Trichloroethene	µg/kg	53 U	56 U	47 U	73 U	60 U
Trichlorofluoromethane (CFC-11)	µg/kg	110 U	110 U	94 U	150 U	120 U
Trifluorotrichloroethane (CFC-113)	µg/kg	270 U	280 U	230 U	360 U	300 U
Vinyl chloride	µg/kg	43 U	45 U	38 U	58 U	48 U
Xylenes (total)	µg/kg	160 U	170 U	140 U	220 U	180 U
Semivolatile Organic Compounds						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	290 U	300 U	290 U	310 U	300 U
2,4,5-Trichlorophenol	µg/kg	290 U	300 U	290 U	310 U	300 U
2,4,6-Trichlorophenol	µg/kg	290 U	300 U	290 U	310 U	300 U
2,4-Dichlorophenol	µg/kg	290 U	300 U	290 U	310 U	300 U
2,4-Dimethylphenol	µg/kg	290 U	300 U	290 U	310 U	300 U
2,4-Dinitrophenol	µg/kg	170 U	170 U	160 U	180 U	170 U
2,4-Dinitrotoluene	µg/kg	290 U	300 U	290 U	310 U	300 U
2,6-Dinitrotoluene	µg/kg	290 U	300 U	290 U	310 U	300 U
2-Chloronaphthalene	µg/kg	290 U	300 U	290 U	310 U	300 U
2-Chlorophenol	µg/kg	290 U	300 U	290 U	310 U	300 U
2-Methylnaphthalene	µg/kg	6.5 J	300 U	290 U	6.3 J	300 U
2-Methylphenol	µg/kg	290 U	300 U	290 U	310 U	300 U
2-Nitroaniline	µg/kg	220 U	220 U	220 U	240 U	230 U
2-Nitrophenol	µg/kg	290 U	300 U	290 U	310 U	300 U
3&4-Methylphenol	µg/kg	290 U	300 U	290 U	310 U	300 U
3,3'-Dichlorobenzidine	µg/kg	1800 U	1800 U	1700 U	1900 U	1800 U
3-Nitroaniline	µg/kg	220 U	220 U	220 U	240 U	230 U
4,6-Dinitro-2-methylphenol	µg/kg	170 U	170 U	160 U	180 U	170 U
4-Bromophenyl phenyl ether	µg/kg	290 U	300 U	290 U	310 U	300 U
4-Chloro-3-methylphenol	µg/kg	290 U	300 U	290 U	310 U	300 U
4-Chloroaniline	µg/kg	220 U	220 U	220 U	240 U	230 U
4-Chlorophenyl phenyl ether	µg/kg	290 U	300 U	290 U	310 U	300 U
4-Nitroaniline	µg/kg	220 U	220 U	220 U	240 U	230 U
4-Nitrophenol	µg/kg	370 U	370 U	360 U	390 U	380 U
Acenaphthene	µg/kg	290 U	300 U	290 U	310 U	300 U
Acenaphthylene	µg/kg	290 U	300 U	290 U	310 U	300 U
Acetophenone	µg/kg	290 U	300 U	290 U	310 U	300 U
Anthracene	µg/kg	290 U	5.2 J	290 U	310 U	300 U
Atrazine	µg/kg	44 U	45 U	43 U	47 U	46 U
Benzaldehyde	µg/kg	290 U	300 U	290 U	310 U	300 U
Benzo(a)anthracene	µg/kg	290 U	28 J	290 U	12 J	300 U

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1023SB	GHD-1023SB	GHD-1024SB	GHD-1024SB	GHD-1025SB
Sample Name:		S-17358-033116-BW-012	S-17358-033116-BW-011	S-17358-033016-BW-002	S-17358-033016-BW-001	S-17358-033016-BW-004
Sample Date:		03/31/2016	03/31/2016	03/30/2016	03/30/2016	03/30/2016
Depth:		4-5 ft BGS	0-2.5 ft BGS	7-9 ft BGS	0-2.5 ft BGS	14-15 ft BGS
Parameters	**Unit**					
Benzo(a)pyrene	µg/kg	290 U	28 J	290 U	11 J	300 U
Benzo(b)fluoranthene	µg/kg	290 U	37 J	290 U	19 J	300 U
Benzo(g,h,i)perylene	µg/kg	17 J	21 J	290 U	310 U	300 U
Benzo(k)fluoranthene	µg/kg	290 U	17 J	290 U	5.8 J	300 U
Biphenyl (1,1-Biphenyl)	µg/kg	290 U	300 U	290 U	310 U	300 U
bis(2-Chloroethoxy)methane	µg/kg	290 U	300 U	290 U	310 U	300 U
bis(2-Chloroethyl)ether	µg/kg	89 U	89 U	87 U	95 U	92 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	290 U	300 U	290 U	310 U	300 U
Butyl benzylphthalate (BBP)	µg/kg	290 U	300 U	290 U	35 J	300 U
Caprolactam	µg/kg	290 U	300 U	290 U	310 U	300 U
Carbazole	µg/kg	290 U	300 U	290 U	310 U	300 U
Chrysene	µg/kg	11 J	35 J	290 U	12 J	300 U
Di-n-butylphthalate (DBP)	µg/kg	290 U	300 U	290 U	310 U	300 U
Di-n-octyl phthalate (DnOP)	µg/kg	290 U	300 U	290 U	310 U	300 U
Dibenz(a,h)anthracene	µg/kg	290 U	300 U	290 U	310 U	300 U
Dibenzofuran	µg/kg	290 U	300 U	290 U	310 U	300 U
Diethyl phthalate	µg/kg	290 U	300 U	290 U	310 U	300 U
Dimethyl phthalate	µg/kg	290 U	300 U	290 U	310 U	300 U
Fluoranthene	µg/kg	4.4 J	51 J	290 U	20 J	300 U
Fluorene	µg/kg	290 U	300 U	290 U	310 U	300 U
Hexachlorobenzene	µg/kg	290 U	300 U	290 U	310 U	300 U
Hexachlorobutadiene	µg/kg	44 U	45 U	43 U	47 U	46 U
Hexachlorocyclopentadiene	µg/kg	290 U	300 U	290 U	310 U	300 U
Hexachloroethane	µg/kg	290 U	300 U	290 U	310 U	300 U
Indeno(1,2,3-cd)pyrene	µg/kg	290 U	18 J	290 U	310 U	300 U
Isophorone	µg/kg	290 U	300 U	290 U	310 U	300 U
N-Nitrosodi-n-propylamine	µg/kg	290 U	300 U	290 U	310 U	300 U
N-Nitrosodiphenylamine	µg/kg	290 U	300 U	290 U	310 U	300 U
Naphthalene	µg/kg	290 U	300 U	290 U	5.2 J	300 U
Nitrobenzene	µg/kg	290 U	300 U	290 U	310 U	300 U
Pentachlorophenol	µg/kg	170 U	170 U	160 U	180 U	170 U
Phenanthrene	µg/kg	9.4 J	21 J	290 U	11 J	300 U
Phenol	µg/kg	290 U	300 U	290 U	310 U	300 U
Pyrene	µg/kg	12 J	45 J	290 U	22 J	300 U
Metals						
Aluminum	mg/kg	7300	3100	1700	5700	2200
Antimony	mg/kg	0.18 U	0.17 U	0.13 U	0.23 J	0.17 U
Arsenic	mg/kg	3.4	14	2.7	4.4	2.9
Barium	mg/kg	36	16	4.7	40	8.1
Beryllium	mg/kg	0.38	0.18	0.10 J	0.21	0.11 J

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1023SB	GHD-1023SB	GHD-1024SB	GHD-1024SB	GHD-1025SB
Sample Name:		S-17358-033116-BW-012	S-17358-033116-BW-011	S-17358-033016-BW-002	S-17358-033016-BW-001	S-17358-033016-BW-004
Sample Date:		03/31/2016	03/31/2016	03/30/2016	03/30/2016	03/30/2016
Depth:		4-5 ft BGS	0-2.5 ft BGS	7-9 ft BGS	0-2.5 ft BGS	14-15 ft BGS
Parameters	**Unit**					
Cadmium	mg/kg	0.28	0.18	0.091	0.16	0.14
Calcium	mg/kg	58000 J	28000 J	46000 J	6100 J	40000 J
Chromium	mg/kg	12	7.6	4.6	9.3	4.7
Cobalt	mg/kg	8.1	3.3	1.9	3.5	3.1
Copper	mg/kg	16	7.4	7.6	6.9	6.7
Iron	mg/kg	14000	13000	4800	9100	5900
Lead	mg/kg	7.3	5.0	2.7	6.6	2.9
Magnesium	mg/kg	18000 J	15000 J	7300 J	2700 J	6400 J
Manganese	mg/kg	340	210	120	300	160
Mercury	mg/kg	0.043 U	0.044 U	0.045 U	0.053 U	0.055 U
Nickel	mg/kg	23	9.3	6.5	8.6	7.8
Potassium	mg/kg	1200	240 J	290 J	250 J	340 J
Selenium	mg/kg	2.6	1.3	1.1	0.89	1.1
Silver	mg/kg	0.043 J	0.014 J	0.0078 J	0.016 J	0.012 J
Sodium	mg/kg	170	55 J	48 J	54 J	45 J
Thallium	mg/kg	0.28	0.057 J	0.071	0.097	0.069 J
Vanadium	mg/kg	19	12	6.2	12	8.2
Zinc	mg/kg	52	23	19	29	18
Pesticides/PCBs						
Aroclor-1016 (PCB-1016)	µg/kg	38 U	37 U	35 U	40 U	39 U
Aroclor-1221 (PCB-1221)	µg/kg	38 U	37 U	35 U	40 U	39 U
Aroclor-1232 (PCB-1232)	µg/kg	38 U	37 U	35 U	40 U	39 U
Aroclor-1242 (PCB-1242)	µg/kg	38 U	37 U	35 U	40 U	39 U
Aroclor-1248 (PCB-1248)	µg/kg	38 U	37 U	35 U	40 U	39 U
Aroclor-1254 (PCB-1254)	µg/kg	38 U	37 U	35 U	40 U	39 U
Aroclor-1260 (PCB-1260)	µg/kg	38 U	37 U	35 U	40 U	39 U
Aroclor-1262 (PCB-1262)	µg/kg	38 U	37 U	35 U	40 U	39 U
Aroclor-1268 (PCB-1268)	µg/kg	38 U	37 U	35 U	40 U	39 U

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1025SB	GHD-1026SB	GHD-1026SB	GHD-1027SB	GHD-1027SB
Sample Name:		S-17358-033016-BW-003	S-17358-033016-BW-006	S-17358-033016-BW-005	S-17358-033016-BW-008	S-17358-033016-BW-007
Sample Date:		03/30/2016	03/30/2016	03/30/2016	03/30/2016	03/30/2016
Depth:		0-2.5 ft BGS	9-11 ft BGS	0-2.5 ft BGS	8-10 ft BGS	0-2.5 ft BGS
Parameters	Unit					
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/kg	56 U	52 U	57 U	54 U	48 U
1,1,2,2-Tetrachloroethane	µg/kg	56 U	52 U	57 U	54 U	48 U
1,1,2-Trichloroethane	µg/kg	56 U	52 U	57 U	54 U	48 U
1,1-Dichloroethane	µg/kg	56 U	52 U	57 U	54 U	48 U
1,1-Dichloroethene	µg/kg	56 U	52 U	57 U	54 U	48 U
1,2,4-Trichlorobenzene	µg/kg	280 U	260 U	280 U	270 U	240 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	280 U	260 U	280 U	270 U	240 U
1,2-Dibromoethane (Ethylene dibromide)	µg/kg	280 U	260 U	280 U	270 U	240 U
1,2-Dichlorobenzene	µg/kg	110 U	100 U	110 U	110 U	97 U
1,2-Dichloroethane	µg/kg	56 U	52 U	57 U	54 U	48 U
1,2-Dichloropropane	µg/kg	56 U	52 U	57 U	54 U	48 U
1,3-Dichlorobenzene	µg/kg	110 U	100 U	110 U	110 U	97 U
1,4-Dichlorobenzene	µg/kg	110 U	100 U	110 U	110 U	97 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/kg	830 U	780 U	850 U	810 U	730 U
2-Hexanone	µg/kg	2800 U	2600 U	2800 U	2700 U	2400 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/kg	2800 U	2600 U	2800 U	2700 U	2400 U
Acetone	µg/kg	830 U	780 U	850 U	810 U	730 U
Benzene	µg/kg	56 U	52 U	57 U	54 U	48 U
Bromodichloromethane	µg/kg	110 U	100 U	110 U	110 U	97 U
Bromoform	µg/kg	110 U	100 U	110 U	110 U	97 U
Bromomethane (Methyl bromide)	µg/kg	280 U	260 U	280 U	270 U	240 U
Carbon disulfide	µg/kg	280 U	260 U	280 U	270 U	240 U
Carbon tetrachloride	µg/kg	56 U	52 U	57 U	54 U	48 U
Chlorobenzene	µg/kg	56 U	52 U	57 U	54 U	48 U
Chloroethane	µg/kg	280 U	260 U	280 U	270 U	240 U
Chloroform (Trichloromethane)	µg/kg	56 U	52 U	57 U	54 U	48 U
Chloromethane (Methyl chloride)	µg/kg	280 U	260 U	280 U	270 U	240 U
cis-1,2-Dichloroethene	µg/kg	56 U	52 U	57 U	54 U	48 U
cis-1,3-Dichloropropene	µg/kg	56 U	52 U	57 U	54 U	48 U
Cyclohexane	µg/kg	1300 U	1300 U	1400 U	1300 U	1200 U
Dibromochloromethane	µg/kg	56 U	52 U	57 U	54 U	48 U
Dichlorodifluoromethane (CFC-12)	µg/kg	110 U	100 U	110 U	110 U	97 U
Ethylbenzene	µg/kg	56 U	52 U	57 U	54 U	48 U
Isopropyl benzene	µg/kg	280 U	260 U	280 U	270 U	240 U
Methyl acetate	µg/kg	1300 U	1300 U	130 J	230 J	1200 U
Methyl cyclohexane	µg/kg	1300 U	1300 U	1400 U	1300 U	1200 U
Methyl tert butyl ether (MTBE)	µg/kg	280 U	260 U	280 U	270 U	240 U
Methylene chloride	µg/kg	280 U	260 U	280 U	270 U	240 U
Styrene	µg/kg	56 U	52 U	57 U	54 U	48 U
Tetrachloroethene	µg/kg	56 U	52 U	57 U	54 U	48 U

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1025SB	GHD-1026SB	GHD-1026SB	GHD-1027SB	GHD-1027SB
Sample Name:		S-17358-033016-BW-003	S-17358-033016-BW-006	S-17358-033016-BW-005	S-17358-033016-BW-008	S-17358-033016-BW-007
Sample Date:		03/30/2016	03/30/2016	03/30/2016	03/30/2016	03/30/2016
Depth:		0-2.5 ft BGS	9-11 ft BGS	0-2.5 ft BGS	8-10 ft BGS	0-2.5 ft BGS
Parameters	**Unit**					
Toluene	µg/kg	110 U	100 U	110 U	110 U	97 U
trans-1,2-Dichloroethene	µg/kg	56 U	52 U	57 U	54 U	48 U
trans-1,3-Dichloropropene	µg/kg	56 U	52 U	57 U	54 U	48 U
Trichloroethene	µg/kg	56 U	52 U	57 U	54 U	48 U
Trichlorofluoromethane (CFC-11)	µg/kg	110 U	100 U	110 U	110 U	97 U
Trifluorotrichloroethane (CFC-113)	µg/kg	280 U	260 U	280 U	270 U	240 U
Vinyl chloride	µg/kg	45 U	42 U	45 U	43 U	39 U
Xylenes (total)	µg/kg	170 U	160 U	170 U	160 U	150 U
Semivolatile Organic Compounds						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	320 U	280 U	290 U	280 U	290 U
2,4,5-Trichlorophenol	µg/kg	320 U	280 U	290 U	280 U	290 U
2,4,6-Trichlorophenol	µg/kg	320 U	280 U	290 U	280 U	290 U
2,4-Dichlorophenol	µg/kg	320 U	280 U	290 U	280 U	290 U
2,4-Dimethylphenol	µg/kg	320 U	280 U	290 U	280 U	290 U
2,4-Dinitrophenol	µg/kg	180 U	160 U	170 U	160 U	160 U
2,4-Dinitrotoluene	µg/kg	320 U	280 U	290 U	280 U	290 U
2,6-Dinitrotoluene	µg/kg	320 U	280 U	290 U	280 U	290 U
2-Chloronaphthalene	µg/kg	320 U	280 U	290 U	280 U	290 U
2-Chlorophenol	µg/kg	320 U	280 U	290 U	280 U	290 U
2-Methylnaphthalene	µg/kg	320 U	280 U	290 U	280 U	290 U
2-Methylphenol	µg/kg	320 U	280 U	290 U	280 U	290 U
2-Nitroaniline	µg/kg	240 U	210 U	220 U	210 U	220 U
2-Nitrophenol	µg/kg	320 U	280 U	290 U	280 U	290 U
3&4-Methylphenol	µg/kg	320 U	280 U	290 U	280 U	290 U
3,3'-Dichlorobenzidine	µg/kg	1900 U	1700 U	1800 U	1700 U	1700 U
3-Nitroaniline	µg/kg	240 U	210 U	220 U	210 U	220 U
4,6-Dinitro-2-methylphenol	µg/kg	180 U	160 U	170 U	160 U	160 U
4-Bromophenyl phenyl ether	µg/kg	320 U	280 U	290 U	280 U	290 U
4-Chloro-3-methylphenol	µg/kg	320 U	280 U	290 U	280 U	290 U
4-Chloroaniline	µg/kg	240 U	210 U	220 U	210 U	220 U
4-Chlorophenyl phenyl ether	µg/kg	320 U	280 U	290 U	280 U	290 U
4-Nitroaniline	µg/kg	240 U	210 U	220 U	210 U	220 U
4-Nitrophenol	µg/kg	400 U	350 U	360 U	350 U	360 U
Acenaphthene	µg/kg	320 U	280 U	290 U	280 U	290 U
Acenaphthylene	µg/kg	320 U	280 U	290 U	280 U	4.5 J
Acetophenone	µg/kg	320 U	280 U	290 U	280 U	290 U
Anthracene	µg/kg	320 U	280 U	290 U	280 U	290 U
Atrazine	µg/kg	48 U	43 U	44 U	42 U	43 U
Benzaldehyde	µg/kg	320 U	280 U	290 U	280 U	290 U
Benzo(a)anthracene	µg/kg	320 U	280 U	290 U	280 U	8.9 J

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1025SB	GHD-1026SB	GHD-1026SB	GHD-1027SB	GHD-1027SB
Sample Name:		S-17358-033016-BW-003	S-17358-033016-BW-006	S-17358-033016-BW-005	S-17358-033016-BW-008	S-17358-033016-BW-007
Sample Date:		03/30/2016	03/30/2016	03/30/2016	03/30/2016	03/30/2016
Depth:		0-2.5 ft BGS	9-11 ft BGS	0-2.5 ft BGS	8-10 ft BGS	0-2.5 ft BGS
Parameters	**Unit**					
Benzo(a)pyrene	µg/kg	320 U	280 U	290 U	280 U	12 J
Benzo(b)fluoranthene	µg/kg	320 U	280 U	290 U	280 U	16 J
Benzo(g,h,i)perylene	µg/kg	320 U	280 U	290 U	280 U	12 J
Benzo(k)fluoranthene	µg/kg	320 U	280 U	290 U	280 U	8.7 J
Biphenyl (1,1-Biphenyl)	µg/kg	320 U	280 U	290 U	280 U	290 U
bis(2-Chloroethoxy)methane	µg/kg	320 U	280 U	290 U	280 U	290 U
bis(2-Chloroethyl)ether	µg/kg	96 U	86 U	88 U	84 U	87 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	320 U	280 U	290 U	280 U	290 U
Butyl benzylphthalate (BBP)	µg/kg	320 U	280 U	290 U	280 U	290 U
Caprolactam	µg/kg	320 U	280 U	290 U	280 U	290 U
Carbazole	µg/kg	320 U	280 U	290 U	280 U	290 U
Chrysene	µg/kg	320 U	280 U	5.5 J	280 U	15 J
Di-n-butylphthalate (DBP)	µg/kg	320 U	280 U	290 U	280 U	290 U
Di-n-octyl phthalate (DnOP)	µg/kg	320 U	280 U	290 U	280 U	290 U
Dibenz(a,h)anthracene	µg/kg	320 U	280 U	290 U	280 U	290 U
Dibenzofuran	µg/kg	320 U	280 U	290 U	280 U	290 U
Diethyl phthalate	µg/kg	320 U	280 U	290 U	280 U	290 U
Dimethyl phthalate	µg/kg	320 U	280 U	290 U	280 U	290 U
Fluoranthene	µg/kg	320 U	280 U	290 U	4.8 J	21 J
Fluorene	µg/kg	320 U	280 U	290 U	280 U	290 U
Hexachlorobenzene	µg/kg	320 U	280 U	290 U	280 U	290 U
Hexachlorobutadiene	µg/kg	48 U	43 U	44 U	42 U	43 U
Hexachlorocyclopentadiene	µg/kg	320 U	280 U	290 U	280 U	290 U
Hexachloroethane	µg/kg	320 U	280 U	290 U	280 U	290 U
Indeno(1,2,3-cd)pyrene	µg/kg	320 U	280 U	290 U	280 U	11 J
Isophorone	µg/kg	320 U	280 U	290 U	280 U	290 U
N-Nitrosodi-n-propylamine	µg/kg	320 U	280 U	290 U	280 U	290 U
N-Nitrosodiphenylamine	µg/kg	320 U	280 U	290 U	280 U	290 U
Naphthalene	µg/kg	320 U	280 U	290 U	280 U	290 U
Nitrobenzene	µg/kg	320 U	280 U	290 U	280 U	290 U
Pentachlorophenol	µg/kg	180 U	160 U	170 U	160 U	160 U
Phenanthrene	µg/kg	320 U	280 U	290 U	5.7 J	8.9 J
Phenol	µg/kg	320 U	280 U	290 U	280 U	290 U
Pyrene	µg/kg	320 U	280 U	290 U	5.3 J	21 J
Metals						
Aluminum	mg/kg	1400	2500	2900	2200	4200
Antimony	mg/kg	0.14 U	0.15 U	0.13 U	0.13 U	0.15 J
Arsenic	mg/kg	2.0	3.6	3.2	7.5	3.9
Barium	mg/kg	5.5	6.2	9.6	13	12
Beryllium	mg/kg	0.064 J	0.14 J	0.13	0.13	0.20

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1025SB	GHD-1026SB	GHD-1026SB	GHD-1027SB	GHD-1027SB
Sample Name:		S-17358-033016-BW-003	S-17358-033016-BW-006	S-17358-033016-BW-005	S-17358-033016-BW-008	S-17358-033016-BW-007
Sample Date:		03/30/2016	03/30/2016	03/30/2016	03/30/2016	03/30/2016
Depth:		0-2.5 ft BGS	9-11 ft BGS	0-2.5 ft BGS	8-10 ft BGS	0-2.5 ft BGS
Parameters	**Unit**					
Cadmium	mg/kg	0.074	0.13	0.12	0.49	0.091
Calcium	mg/kg	21000 J	61000 J	56000 J	75000 J	780 J
Chromium	mg/kg	3.2	6.1	5.0	6.2	7.3
Cobalt	mg/kg	1.5	2.7	2.2	5.7	3.3
Copper	mg/kg	3.5	7.9	6.0	14	7.4
Iron	mg/kg	3500	8500	5600	8200	8700
Lead	mg/kg	1.7	3.5	2.9	4.4	6.3
Magnesium	mg/kg	3000 J	14000 J	7100 J	18000 J	1500 J
Manganese	mg/kg	94	220	190	260	170
Mercury	mg/kg	0.043 U	0.042 U	0.041 U	0.047 U	0.020 J
Nickel	mg/kg	4.5	8.2	7.9	11	8.9
Potassium	mg/kg	190 J	390	260 J	350	250 J
Selenium	mg/kg	0.68	1.2	1.3	1.3	1.5
Silver	mg/kg	0.0034 J	0.0064 J	0.0064 J	0.0077 J	0.0067 J
Sodium	mg/kg	29 J	61 J	47 J	78	76 U
Thallium	mg/kg	0.041 J	0.060 J	0.053 J	0.13	0.071 J
Vanadium	mg/kg	4.7	9.8	7.4	9.2	12
Zinc	mg/kg	10	27	16	29	21
Pesticides/PCBs						
Aroclor-1016 (PCB-1016)	µg/kg	39 U	36 U	35 U	35 U	36 U
Aroclor-1221 (PCB-1221)	µg/kg	39 U	36 U	35 U	35 U	36 U
Aroclor-1232 (PCB-1232)	µg/kg	39 U	36 U	35 U	35 U	36 U
Aroclor-1242 (PCB-1242)	µg/kg	39 U	36 U	35 U	35 U	36 U
Aroclor-1248 (PCB-1248)	µg/kg	39 U	36 U	35 U	35 U	36 U
Aroclor-1254 (PCB-1254)	µg/kg	39 U	36 U	35 U	35 U	36 U
Aroclor-1260 (PCB-1260)	µg/kg	39 U	36 U	35 U	35 U	36 U
Aroclor-1262 (PCB-1262)	µg/kg	39 U	36 U	35 U	35 U	36 U
Aroclor-1268 (PCB-1268)	µg/kg	39 U	36 U	35 U	35 U	36 U

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1028SB	GHD-1028SB	Trip Blank
Sample Name:		S-17358-033116-BW-010	S-17358-033116-BW-009	TRIP BLANK
Sample Date:		03/31/2016	03/31/2016	03/31/2016
Depth:		7-9 ft BGS	0-2.5 ft BGS	--
Parameters	**Unit**			
Volatile Organic Compounds				
1,1,1-Trichloroethane	µg/kg	52 U	57 U	40 U
1,1,2,2-Tetrachloroethane	µg/kg	52 U	57 U	40 U
1,1,2-Trichloroethane	µg/kg	52 U	57 U	40 U
1,1-Dichloroethane	µg/kg	52 U	57 U	40 U
1,1-Dichloroethene	µg/kg	52 U	57 U	40 U
1,2,4-Trichlorobenzene	µg/kg	260 U	280 U	200 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	260 U	280 U	200 U
1,2-Dibromoethane (Ethylene dibromide)	µg/kg	260 U	280 U	200 U
1,2-Dichlorobenzene	µg/kg	100 U	110 U	80 U
1,2-Dichloroethane	µg/kg	52 U	57 U	40 U
1,2-Dichloropropane	µg/kg	52 U	57 U	40 U
1,3-Dichlorobenzene	µg/kg	100 U	110 U	80 U
1,4-Dichlorobenzene	µg/kg	100 U	110 U	80 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/kg	790 U	850 U	600 U
2-Hexanone	µg/kg	2600 U	2800 U	2000 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/kg	2600 U	2800 U	2000 U
Acetone	µg/kg	790 U	850 U	600 U
Benzene	µg/kg	52 U	57 U	40 U
Bromodichloromethane	µg/kg	100 U	110 U	80 U
Bromoform	µg/kg	100 U	110 U	80 U
Bromomethane (Methyl bromide)	µg/kg	260 U	280 U	200 U
Carbon disulfide	µg/kg	260 U	280 U	200 U
Carbon tetrachloride	µg/kg	52 U	57 U	40 U
Chlorobenzene	µg/kg	52 U	57 U	40 U
Chloroethane	µg/kg	260 U	280 U	200 U
Chloroform (Trichloromethane)	µg/kg	52 U	57 U	40 U
Chloromethane (Methyl chloride)	µg/kg	260 U	280 U	200 U
cis-1,2-Dichloroethene	µg/kg	52 U	57 U	40 U
cis-1,3-Dichloropropene	µg/kg	52 U	57 U	40 U
Cyclohexane	µg/kg	1300 U	1400 U	960 U
Dibromochloromethane	µg/kg	52 U	57 U	40 U
Dichlorodifluoromethane (CFC-12)	µg/kg	100 U	110 U	80 U
Ethylbenzene	µg/kg	52 U	57 U	40 U
Isopropyl benzene	µg/kg	260 U	280 U	200 U
Methyl acetate	µg/kg	1300 U	200 J	960 U
Methyl cyclohexane	µg/kg	1300 U	1400 U	960 U
Methyl tert butyl ether (MTBE)	µg/kg	260 U	280 U	200 U
Methylene chloride	µg/kg	260 U	280 U	200 U
Styrene	µg/kg	52 U	57 U	40 U
Tetrachloroethene	µg/kg	52 U	57 U	40 U

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1028SB	GHD-1028SB	Trip Blank
Sample Name:		S-17358-033116-BW-010	S-17358-033116-BW-009	TRIP BLANK
Sample Date:		03/31/2016	03/31/2016	03/31/2016
Depth:		7-9 ft BGS	0-2.5 ft BGS	--
Parameters	**Unit**			
Toluene	µg/kg	100 U	110 U	80 U
trans-1,2-Dichloroethene	µg/kg	52 U	57 U	40 U
trans-1,3-Dichloropropene	µg/kg	52 U	57 U	40 U
Trichloroethene	µg/kg	52 U	57 U	40 U
Trichlorofluoromethane (CFC-11)	µg/kg	100 U	110 U	80 U
Trifluorotrichloroethane (CFC-113)	µg/kg	260 U	280 U	200 U
Vinyl chloride	µg/kg	42 U	45 U	32 U
Xylenes (total)	µg/kg	160 U	170 U	120 U
Semivolatile Organic Compounds				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	310 U	300 U	--
2,4,5-Trichlorophenol	µg/kg	310 U	300 U	--
2,4,6-Trichlorophenol	µg/kg	310 U	300 U	--
2,4-Dichlorophenol	µg/kg	310 U	300 U	--
2,4-Dimethylphenol	µg/kg	310 U	300 U	--
2,4-Dinitrophenol	µg/kg	170 U	170 U	--
2,4-Dinitrotoluene	µg/kg	310 U	300 U	--
2,6-Dinitrotoluene	µg/kg	310 U	300 U	--
2-Chloronaphthalene	µg/kg	310 U	300 U	--
2-Chlorophenol	µg/kg	310 U	300 U	--
2-Methylnaphthalene	µg/kg	310 U	300 U	--
2-Methylphenol	µg/kg	310 U	300 U	--
2-Nitroaniline	µg/kg	230 U	230 U	--
2-Nitrophenol	µg/kg	310 U	300 U	--
3&4-Methylphenol	µg/kg	310 U	300 U	--
3,3'-Dichlorobenzidine	µg/kg	1900 U	1800 U	--
3-Nitroaniline	µg/kg	230 U	230 U	--
4,6-Dinitro-2-methylphenol	µg/kg	170 U	170 U	--
4-Bromophenyl phenyl ether	µg/kg	310 U	300 U	--
4-Chloro-3-methylphenol	µg/kg	310 U	300 U	--
4-Chloroaniline	µg/kg	230 U	230 U	--
4-Chlorophenyl phenyl ether	µg/kg	310 U	300 U	--
4-Nitroaniline	µg/kg	230 U	230 U	--
4-Nitrophenol	µg/kg	380 U	380 U	--
Acenaphthene	µg/kg	310 U	300 U	--
Acenaphthylene	µg/kg	310 U	5.9 J	--
Acetophenone	µg/kg	310 U	300 U	--
Anthracene	µg/kg	310 U	300 U	--
Atrazine	µg/kg	46 U	46 U	--
Benzaldehyde	µg/kg	310 U	300 U	--
Benzo(a)anthracene	µg/kg	5.5 J	17 J	--

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1028SB	GHD-1028SB	Trip Blank
Sample Name:		S-17358-033116-BW-010	S-17358-033116-BW-009	TRIP BLANK
Sample Date:		03/31/2016	03/31/2016	03/31/2016
Depth:		7-9 ft BGS	0-2.5 ft BGS	--
Parameters	**Unit**			
Benzo(a)pyrene	µg/kg	6.5 J	20 J	--
Benzo(b)fluoranthene	µg/kg	6.7 J	31 J	--
Benzo(g,h,i)perylene	µg/kg	6.8 J	18 J	--
Benzo(k)fluoranthene	µg/kg	310 U	19 J	--
Biphenyl (1,1-Biphenyl)	µg/kg	310 U	300 U	--
bis(2-Chloroethoxy)methane	µg/kg	310 U	300 U	--
bis(2-Chloroethyl)ether	µg/kg	93 U	92 U	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	310 U	300 U	--
Butyl benzylphthalate (BBP)	µg/kg	310 U	36 J	--
Caprolactam	µg/kg	310 U	300 U	--
Carbazole	µg/kg	310 U	300 U	--
Chrysene	µg/kg	6.4 J	26 J	--
Di-n-butylphthalate (DBP)	µg/kg	310 U	300 U	--
Di-n-octyl phthalate (DnOP)	µg/kg	310 U	300 U	--
Dibenz(a,h)anthracene	µg/kg	310 U	300 U	--
Dibenzofuran	µg/kg	310 U	300 U	--
Diethyl phthalate	µg/kg	310 U	300 U	--
Dimethyl phthalate	µg/kg	310 U	300 U	--
Fluoranthene	µg/kg	9.0 J	38 J	--
Fluorene	µg/kg	310 U	300 U	--
Hexachlorobenzene	µg/kg	310 U	300 U	--
Hexachlorobutadiene	µg/kg	46 U	46 U	--
Hexachlorocyclopentadiene	µg/kg	310 U	300 U	--
Hexachloroethane	µg/kg	310 U	300 U	--
Indeno(1,2,3-cd)pyrene	µg/kg	310 U	14 J	--
Isophorone	µg/kg	310 U	300 U	--
N-Nitrosodi-n-propylamine	µg/kg	310 U	300 U	--
N-Nitrosodiphenylamine	µg/kg	310 U	300 U	--
Naphthalene	µg/kg	310 U	300 U	--
Nitrobenzene	µg/kg	310 U	300 U	--
Pentachlorophenol	µg/kg	170 U	170 U	--
Phenanthrene	µg/kg	4.2 J	15 J	--
Phenol	µg/kg	310 U	300 U	--
Pyrene	µg/kg	8.4 J	34 J	--
Metals				
Aluminum	mg/kg	3700	5300	--
Antimony	mg/kg	0.16 U	0.23 J	--
Arsenic	mg/kg	19	4.8	--
Barium	mg/kg	16	31	--
Beryllium	mg/kg	0.19	0.23	--

Table 2B

Validated Analytical Data Summary - Soil
North Lot West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March - April 2016

Location ID:		GHD-1028SB	GHD-1028SB	Trip Blank
Sample Name:		S-17358-033116-BW-010	S-17358-033116-BW-009	TRIP BLANK
Sample Date:		03/31/2016	03/31/2016	03/31/2016
Depth:		7-9 ft BGS	0-2.5 ft BGS	--
Parameters	**Unit**			
Cadmium	mg/kg	0.11	0.17	--
Calcium	mg/kg	15000 J	8600 J	--
Chromium	mg/kg	6.8	8.1	--
Cobalt	mg/kg	2.9	4.4	--
Copper	mg/kg	9.2	7.6	--
Iron	mg/kg	8000	11000	--
Lead	mg/kg	6.7	12	--
Magnesium	mg/kg	4300 J	4100 J	--
Manganese	mg/kg	130	330	--
Mercury	mg/kg	0.041 U	0.047 U	--
Nickel	mg/kg	8.6	9.5	--
Potassium	mg/kg	370 J	280 J	--
Selenium	mg/kg	1.1	1.1	--
Silver	mg/kg	0.015 J	0.017 J	--
Sodium	mg/kg	33 J	23 J	--
Thallium	mg/kg	0.078	0.088	--
Vanadium	mg/kg	11	13	--
Zinc	mg/kg	22	35	--
Pesticides/PCBs				
Aroclor-1016 (PCB-1016)	µg/kg	38 U	39 U	--
Aroclor-1221 (PCB-1221)	µg/kg	38 U	39 U	--
Aroclor-1232 (PCB-1232)	µg/kg	38 U	39 U	--
Aroclor-1242 (PCB-1242)	µg/kg	38 U	39 U	--
Aroclor-1248 (PCB-1248)	µg/kg	38 U	39 U	--
Aroclor-1254 (PCB-1254)	µg/kg	38 U	39 U	--
Aroclor-1260 (PCB-1260)	µg/kg	38 U	39 U	--
Aroclor-1262 (PCB-1262)	µg/kg	38 U	39 U	--
Aroclor-1268 (PCB-1268)	µg/kg	38 U	39 U	--

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.

Table 3

Analytical Methods
North Lot & West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March-April 2016

Parameter	Method [1]	Matrix	Holding Time: Collection to Extraction (Days)	Holding Time: Collection or Extraction to Analysis (Days)
TCL VOCs	SW 8260B	water	-	14
		soil	-	14
TCL SVOCs	SW 8270C	water	7	40
		soil	14	40
PCBs	SW 8082	water	7	40
		soil	14	40
TAL Metals	SW-846 6020/6010B	water	-	180 (Mercury - 28 days)
		soil	-	180 (Mercury - 28 days)
General Chemistry				
orthophosphate	SM 4500 PE	water	-	48 hours
Phosphorus	SM 4500 PE	water	-	28

Notes:

[1] Method References:

SW - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
SM - "Standards Methods for the Examination of Water and Wastewater", current edition
PCBs - Polychlorinated biphenyls
SVOCs - Semi-Volatile Organic Compounds
VOCs - Volatile Organic Compounds
TAL -Target Analyte List
TCL - Target Compound List

Table 4

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
North Lot & West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March-April 2016

Parameter	Analyte	Analysis Date	Blank Result	Sample ID	Original Result	Qualified Result	Units
TCL VOCs	Acetone	4/5/2016	256 J	S-17358-033016-BW-001	690 JB	1100 U	ug/kg
				S-17358-033016-BW-002	370 JB	700 U	ug/kg
				S-17358-033016-BW-003	480 JB	830 U	ug/kg
				S-17358-033016-BW-008	690 JB	810 U	ug/kg
				S-17358-033116-BW-017	310 JB	750 U	ug/kg
				S-17358-033116-BW-019	450 JB	750 U	ug/kg
TAL Metals	Beryllium	4/6/2016	0.054 J	GW-17358-040116-JY-024	0.073 JB	1.0 U	ug/L
				GW-17358-040116-JY-025	0.058 JB	1.0 U	ug/L
				GW-17358-040116-JY-028	0.076 JB	1.0 U	ug/L
TAL Metals	Selenium	4/5/2016	0.846 J	GW-17358-033116-JY-022	1.5 JB	5.0 U	ug/L
				GW-17358-033116-JY-023	0.60 JB	5.0 U	ug/L
TAL Metals	Sodium	4/5/2016	68.4 J	S-17358-033116-BW-018	81 JB	83 U	mg/kg
				S-17358-033116-BW-019	140 B	140 U	mg/kg
				S-17358-033116-BW-020	64 JB	65 U	mg/kg
				S-17358-033116-BW-021	57 JB	81 U	mg/kg
				S-17358-033116-BW-022	76 JB	86 U	mg/kg
TAL Metals	Zinc	4/6/2016	2.75 J	GW-17358-040116-JY-027	8.6 JB	50 U	ug/L
TAL Metals	Copper	4/6/2016	8.5 J	GW-17358-040116-JY-024	2.3 JB	4.0 U	ug/L
				GW-17358-040116-JY-025	2.8 JB	4.0 U	ug/L
				GW-17358-040116-JY-026	2.6 JB	4.0 U	ug/L
				GW-17358-040116-JY-027	5.1 B	5.1 U	ug/L
				GW-17358-040116-JY-028	3.3 JB	4.0 U	ug/L
TAL Metals	Copper	4/5/2016	1.05 J	GW-17358-033116-JY-022	0.96 JB	4.0 U	ug/L
				GW-17358-033116-JY-023	1.1 JB	4.0 U	ug/L

Table 4

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
North Lot & West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March-April 2016

Parameter	Analyte	Analysis Date	Blank Result	Sample ID	Original Result	Qualified Result	Units
TAL Metals	Antimony	4/6/2016	0.026 J	S-17358-033016-BW-002	0.089 JB	0.13 U	mg/kg
				S-17358-033016-BW-003	0.049 JB	0.14 U	mg/kg
				S-17358-033016-BW-004	0.057 JB	0.17 U	mg/kg
				S-17358-033016-BW-005	0.064 JB	0.13 U	mg/kg
				S-17358-033016-BW-006	0.069 JB	0.15 U	mg/kg
				S-17358-033016-BW-008	0.089 JB	0.13 U	mg/kg
				S-17358-033116-BW-010	0.047 JB	0.16 U	mg/kg
				S-17358-033116-BW-011	0.049 JB	0.17 U	mg/kg
				S-17358-033116-BW-012	0.098 JB	0.18 U	mg/kg
				S-17358-033116-BW-013	0.096 JB	0.14 U	mg/kg
				S-17358-033116-BW-014	0.045 JB	0.17 U	mg/kg
				S-17358-033116-BW-015	0.13 JB	0.17 U	mg/kg
				S-17358-033116-BW-016	0.10 JB	0.14 U	mg/kg
				S-17358-033116-BW-017	0.047 JB	0.12 U	mg/kg
TAL Metals	Antimony	4/5/2016	0.314 J	GW-17358-033116-JY-022	0.73 JB	2.0 U	ug/L
				GW-17358-033116-JY-023	0.53 JB	2.0 U	ug/L

Notes:

TAL - Target Analyte List
TCL - Target Compound List
VOCs - Volatile Organic Compounds
B - Laboratory qualifier - result detected in associated method blank
J - Estimated concentration
U - Not detected at the associated reporting limit

Table 5

Qualified Sample Results Due to Outlying Laboratory Control Sample Results
North Lot & West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March-April 2016

Parameter	LCS Date	Analyte	LCS % Recovery	Control Limits % Recovery	Associated Sample ID	Qualified Result	Units
TCL VOC	04/08/2016	Trichlorofluoromethane (CFC-11)	55	61-133	GW-17358-033116-JY-022	1.0 UJ	ug/L
					GW-17358-033116-JY-023	1.0 UJ	ug/L
TCL VOC	04/11/2016	Trichlorofluoromethane (CFC-11)	59	61-133	TB-17358-033116	1.0 UJ	ug/L

Notes:

LCS - Laboratory Control Sample

UJ - Not detected; associated reporting limit is estimated

Table 6

Qualified Sample Results Due to Outlying MS/MSD Results
North Lot & West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March-April 2016

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits % Recovery	Control Limits RPD	Associated Samples	Qualified Result	Units
TAL Metals	S-17358-033016-BW-001	Calcium	55	284	83	75-125	20	S-17358-033016-BW-001	6100 J	mg/kg
								S-17358-033016-BW-002	46000 J	mg/kg
								S-17358-033016-BW-003	21000 J	mg/kg
								S-17358-033016-BW-004	40000 J	mg/kg
								S-17358-033016-BW-005	56000 J	mg/kg
								S-17358-033016-BW-006	61000 J	mg/kg
								S-17358-033016-BW-007	780 J	mg/kg
								S-17358-033016-BW-008	75000 J	mg/kg
								S-17358-033116-BW-009	8600 J	mg/kg
								S-17358-033116-BW-010	15000 J	mg/kg
								S-17358-033116-BW-011	28000 J	mg/kg
								S-17358-033116-BW-012	58000 J	mg/kg
								S-17358-033116-BW-013	2200 J	mg/kg
								S-17358-033116-BW-014	1100 J	mg/kg
								S-17358-033116-BW-015	42000 J	mg/kg
								S-17358-033116-BW-016	52000 J	mg/kg
								S-17358-033116-BW-017	23000 J	mg/kg
TAL Metals	S-17358-033016-BW-001	Magnesium	77	198	65	75-125	20	S-17358-033016-BW-001	2700 J	mg/kg
								S-17358-033016-BW-002	7300 J	mg/kg
								S-17358-033016-BW-003	3000 J	mg/kg
								S-17358-033016-BW-004	6400 J	mg/kg
								S-17358-033016-BW-005	7100 J	mg/kg
								S-17358-033016-BW-006	14000 J	mg/kg
								S-17358-033016-BW-007	1500 J	mg/kg
								S-17358-033016-BW-008	18000 J	mg/kg
								S-17358-033116-BW-009	4100 J	mg/kg
								S-17358-033116-BW-010	4300 J	mg/kg
								S-17358-033116-BW-011	15000 J	mg/kg
								S-17358-033116-BW-012	18000 J	mg/kg
								S-17358-033116-BW-013	1900 J	mg/kg
								S-17358-033116-BW-014	1100 J	mg/kg
								S-17358-033116-BW-015	12000 J	mg/kg
								S-17358-033116-BW-016	15000 J	mg/kg
								S-17358-033116-BW-017	4700 J	mg/kg

Table 6

Qualified Sample Results Due to Outlying MS/MSD Results
North Lot & West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March-April 2016

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits % Recovery	Control Limits RPD	Associated Samples	Qualified Result	Units
TAL Metals	S-17358-033116-BW-018	Calcium	39	349	54	75-125	20	S-17358-033116-BW-018	20000 J	mg/kg
								S-17358-033116-BW-019	91000 J	mg/kg
								S-17358-033116-BW-020	16000 J	mg/kg
								S-17358-033116-BW-021	1700 J	mg/kg
								S-17358-033116-BW-022	31000 J	mg/kg
TAL Metals	S-17358-033116-BW-018	Lead	73	74	2	75-125	20	S-17358-033116-BW-018	12 J	mg/kg
								S-17358-033116-BW-019	5.3 J	mg/kg
								S-17358-033116-BW-020	12 J	mg/kg
								S-17358-033116-BW-021	10 J	mg/kg
								S-17358-033116-BW-022	2.1 J	mg/kg
TAL Metals	S-17358-033116-BW-018	Manganese	28	57	9	75-125	20	S-17358-033116-BW-018	150 J	mg/kg
								S-17358-033116-BW-019	220 J	mg/kg
								S-17358-033116-BW-020	340 J	mg/kg
								S-17358-033116-BW-021	600 J	mg/kg
								S-17358-033116-BW-022	190 J	mg/kg
TAL Metals	S-17358-033016-BW-001	Antimony	46	49	6	75-125	20	S-17358-033016-BW-001	0.23 J	mg/kg
								S-17358-033016-BW-007	0.15 J	mg/kg
								S-17358-033016-BW-009	0.23 J	mg/kg
TAL Metals	S-17358-033116-BW-018	Antimony	45	45	0	75-125	20	S-17358-033116-BW-018	0.19 J	mg/kg
								S-17358-033116-BW-019	0.11 J	mg/kg
								S-17358-033116-BW-020	0.13 J	mg/kg
								S-17358-033116-BW-021	0.091 J	mg/kg
								S-17358-033116-BW-022	0.023 J	mg/kg

Notes:

MS - Matrix Spike
MSD - Matrix Spike Duplicate
RPD - Relative Percent Difference
J - Estimated concentration

Table 7

Qualified Sample Data Due to Analyte Concentrations in the Trip Blanks
North Lot & West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March-April 2016

Parameter	Blank Date (mm/dd/yyyy)	Analyte	Blank Result	Associated Sample ID	Original Result	Qualified Result	Units
TCL VOC	4/1/2016 TB-17358-040116	Acetone	5.8 J	GW-17358-040116-JY-027 GW-17358-040116-JY-024	6.5 J 2.6 J	10 U 10 U	ug/L ug/L
TCL VOC	3/31/2016 TB-17358-033116	Acetone	4.2 J	GW-17358-033116-JY-023	2.8 J	10 U	ug/L

Notes:

U - Not detected at the associated reporting limit

J - Estimated concentration

Table 8

Qualified Sample Data Due to Variability in Field Duplicate Results
North Lot & West Out Sampling
Willow Run Powertrain
Ypsilanti, Michigan
March-April 2016

Parameter	Analyte	RPD/Diff	Sample ID	Qualified Results	Field Duplicate Sample ID	Qualified Results	Units
General Chemistry	Orthophosphate	Diff=0.027	GW-17358-040116-JY-025	0.048 J	GW-17358-040116-JY-026	0.021 J	mg/L
TAL Metals	Lead	RPD=110	S-17358-033116-BW-017	3.6 J	S-17358-033116-BW-018	12 J	mg/kg
TAL Metals	Calcium Magnesium	RPD =160 RPD =110	S-17358-033116-BW-020	16000J 4500 J	S-17358-033116-BW-021	1700 J 1300 J	mg/kg mg/kg

Notes:

Diff - Difference (i.e., >1X RL for waters or >2XRL for soils)
RPD - Relative Percent Difference
J - Estimated concentration