ARCADIS
Infrastructure, environment, facilities

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Environmental

Mr. Jack Schinderle
Michigan Department of Environmental Quality
525 West Allegan Street
Constitution Hall, Atrium North
Lansing, MI 48909-7741

Subject:
RFI Work Plan – Updated Draft RFI Activities Matrix and Figures
General Motors Corporation, Lansing Plants 2, 3, and 6, Lansing, Michigan
USEPA I.D.s MID980700827 and MID005356928

Date:
February 24, 2009

Contact:
Amy L. Hoeksema

Phone:
810-225-1911

Email:
amy.hoeksema@
arcadis-us.com

Our ref:
B0064479
B0064480
B0064481

Dear Mr. Schinderle:

On December 11, 2008, the Michigan Department of Environmental Quality (MDEQ) and General Motors Corporation (GM) representatives met to discuss the Plants 2, 3, and 6 Draft RFI Activities Matrices and Figures submitted to MDEQ on September 17, 2008. Based on that meeting, the Draft RFI Activities Matrices and Figures were modified and are enclosed. The revisions have been shown in red text on the Matrices and only those Figures with changes have been resubmitted.

We look forward to meeting with you to review the Matrices and will be contacting you in the near future to schedule a time that is convenient for both parties. If you have any questions please call either Kurt Blizzard at (517) 885-1155 or me.

Sincerely,

ARCADIS

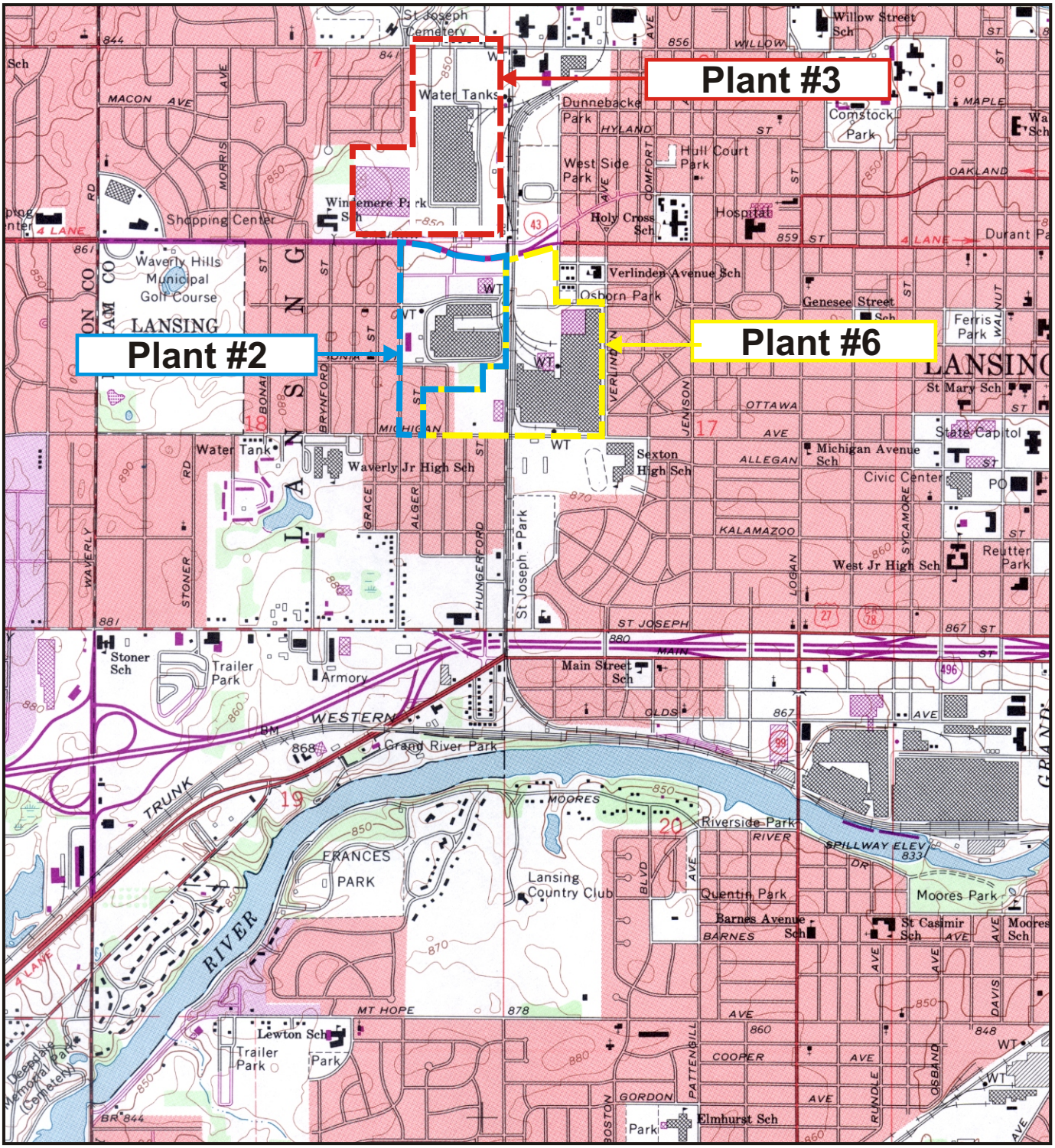
Amy L. Hoeksema

Amy L. Hoeksema, C.P.G.
Project Manager

Copies:
Kurt Blizzard, GM
Jean Caufield, GM
Fred Rindhage, GM
Richard Kapuscinski, ENVIRON
Linda Ziccardi, Exponent
File

Enclosures:
Table 1 – GM Lansing Plant 2 RFI Activities Matrix
Table 2 – GM Lansing Plant 3 RFI Activities Matrix
Table 3 – GM Lansing Plant 6 RFI Activities Matrix
Figures 1 through 21

Figures



REFERENCE: BASE MAP SOURCE: USGS 7.5 MIN. QUAD., LANSING SOUTH, MICHIGAN, 1965.

DRAFT

2000' 0 2000'

Approximate Scale: 1" = 2000'

Area Enlargement

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN

RFI WORK PLAN - PLANTS 2, 3, & 6

SITE LOCATION MAP

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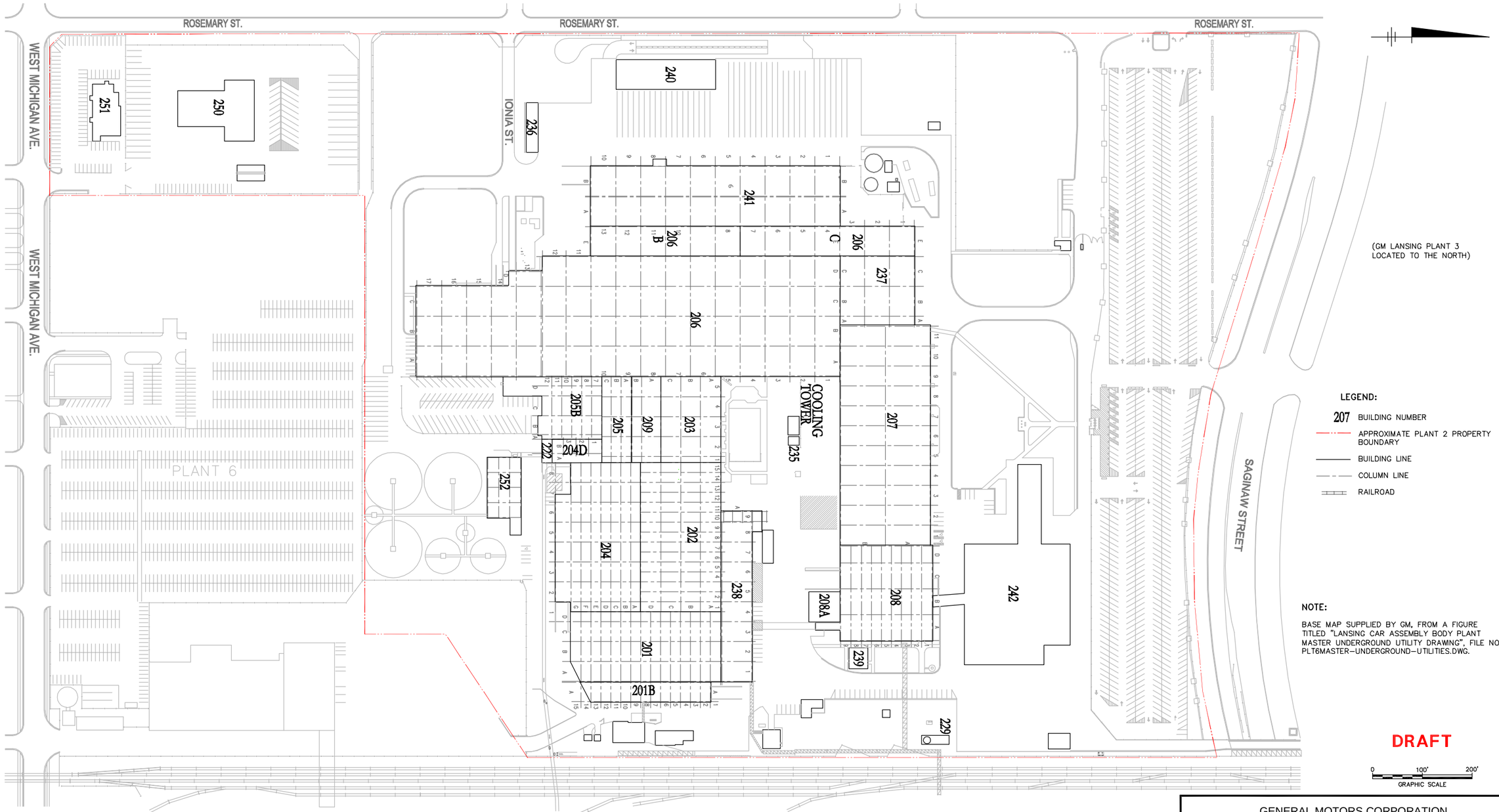
FIGURE
1

07/01/08 SYR-141ENV-DJH
B0064479/0000/00101/CDR/64479N01.CDR



(GM LANSING PLANT 6 LOCATED TO THE SOUTH AND EAST)

(GM LANSING PLANT 3 LOCATED TO THE NORTH)

LEGEND:

- 207 BUILDING NUMBER
- APPROXIMATE PLANT 2 PROPERTY BOUNDARY
- BUILDING LINE
- COLUMN LINE
- RAILROAD

NOTE:

BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER–UNDERGROUND–UTILITIES.DWG.

DRAFT

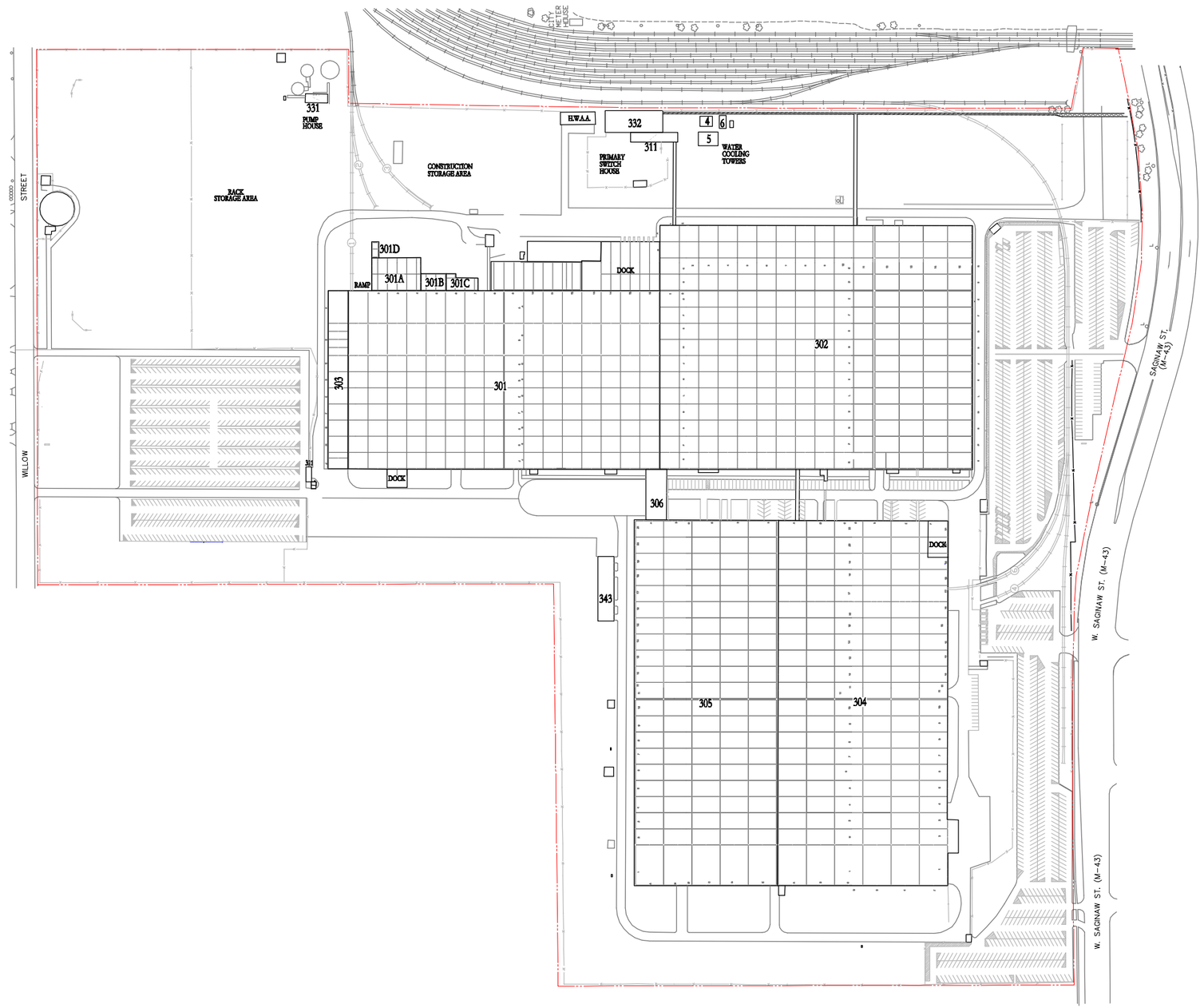
0 100' 200'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

GM LANSING PLANT 2 SITE LAYOUT

ARCADIS

FIGURE
2



LEGEND:

207 BUILDING NUMBER

APPROXIMATE PLANT 3 PROPERTY BOUNDARY

BUILDING LINE

COLUMN LINE

RAILROAD

(GM LANSING PLANT 2 LOCATED TO THE SOUTH)

NOTE:

BASE MAP INFORMATION BASED ON INFORMATION PROVIDED BY URS CONSULTANTS, INC. FROM MAPS ENTITLED "ANALYTES DETECTED IN GROUNDWATER – 4/94 (ug/L)", DATED APRIL, 1994, AND "SOIL BORING LOCATIONS, GM LAD PLANT NO. 3, BLDG. NO. 301C" (UNDATED); BY EDI ENGINEERING & SCIENCE FROM MAPS ENTITLED "TOTAL CHROMIUM CONCENTRATION HORIZ. EXTENT OF CHROMIUM IMPACT" DATED APRIL, 1990, "BORING AND CROSS-SECTION LOCATION MAP", DATED JUNE, 1989, "SOIL BORING LOCATIONS INSIDE OF THE PLANT", DATED JUNE, 1989, "LOCATION OF FRENCH DRAIN", DATED JUNE, 1989, AND "SOIL SAMPLING LOCATIONS", DATED JUNE, 1989, AND BY ENVIRONMENTAL SERVICES DIVISION FROM FIGURE ENTITLED "STORAGE TANK #12" DATED JUNE, 1990.

DRAFT

0 150' 300'

GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, &6

GM LANSING PLANT 3 SITE LAYOUT

ARCADIS

FIGURE 3

CITY:BRIGHTON DIV/GROUP:141 DB:ADF LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
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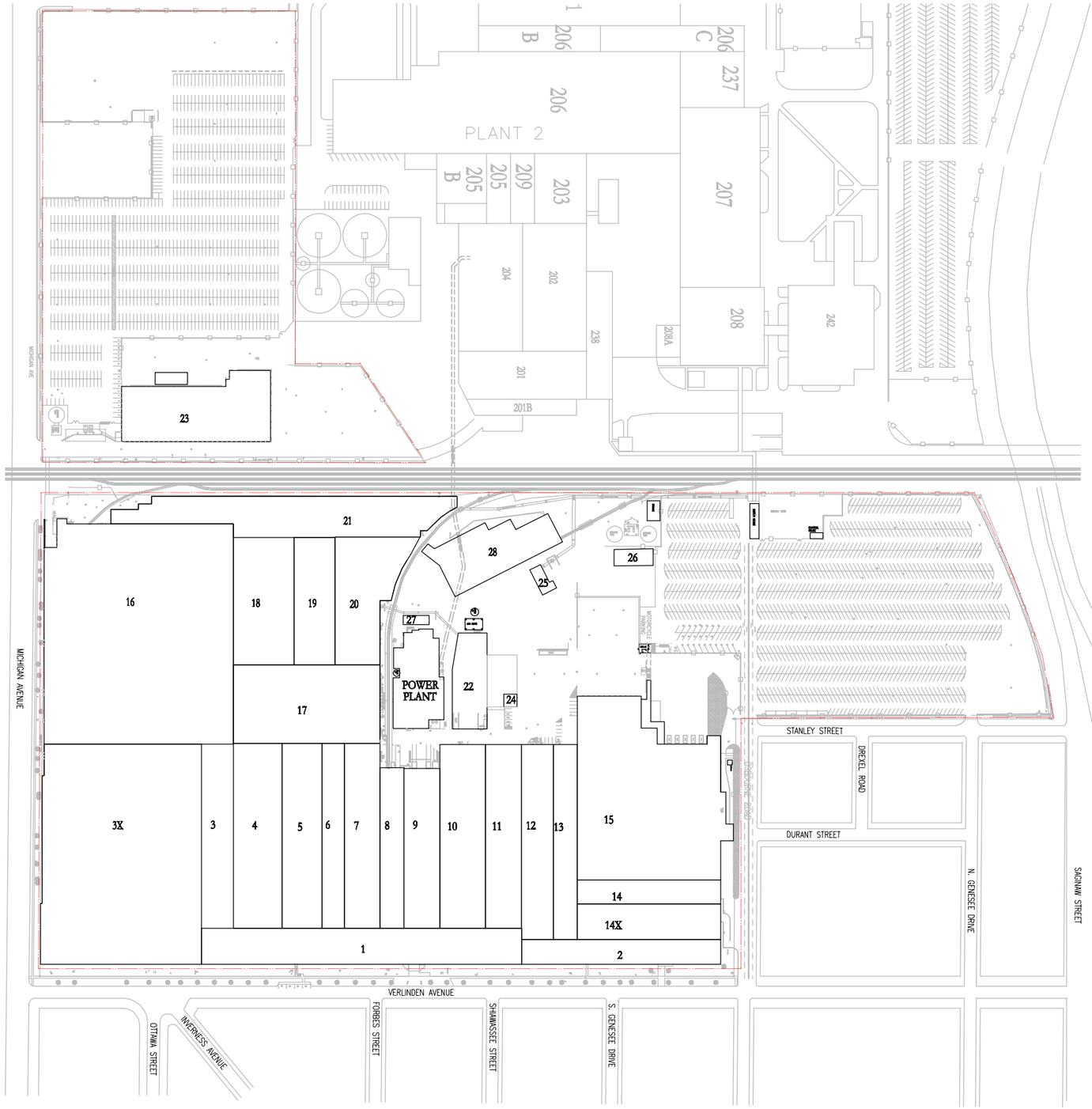

LEGEND:

15 BUILDING NUMBER

APPROXIMATE PLANT 6 PROPERTY BOUNDARY

BUILDING LINE

RAILROAD

NOTE:

BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER–UNDERGROUND–UTILITIES.DWG.

DRAFT

0 150' 300'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

GM LANSING PLANT 6 SITE LAYOUT

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FIGURE
4

CITY:BRIGHTON DIV/GROUP: 141 DB: ADF LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
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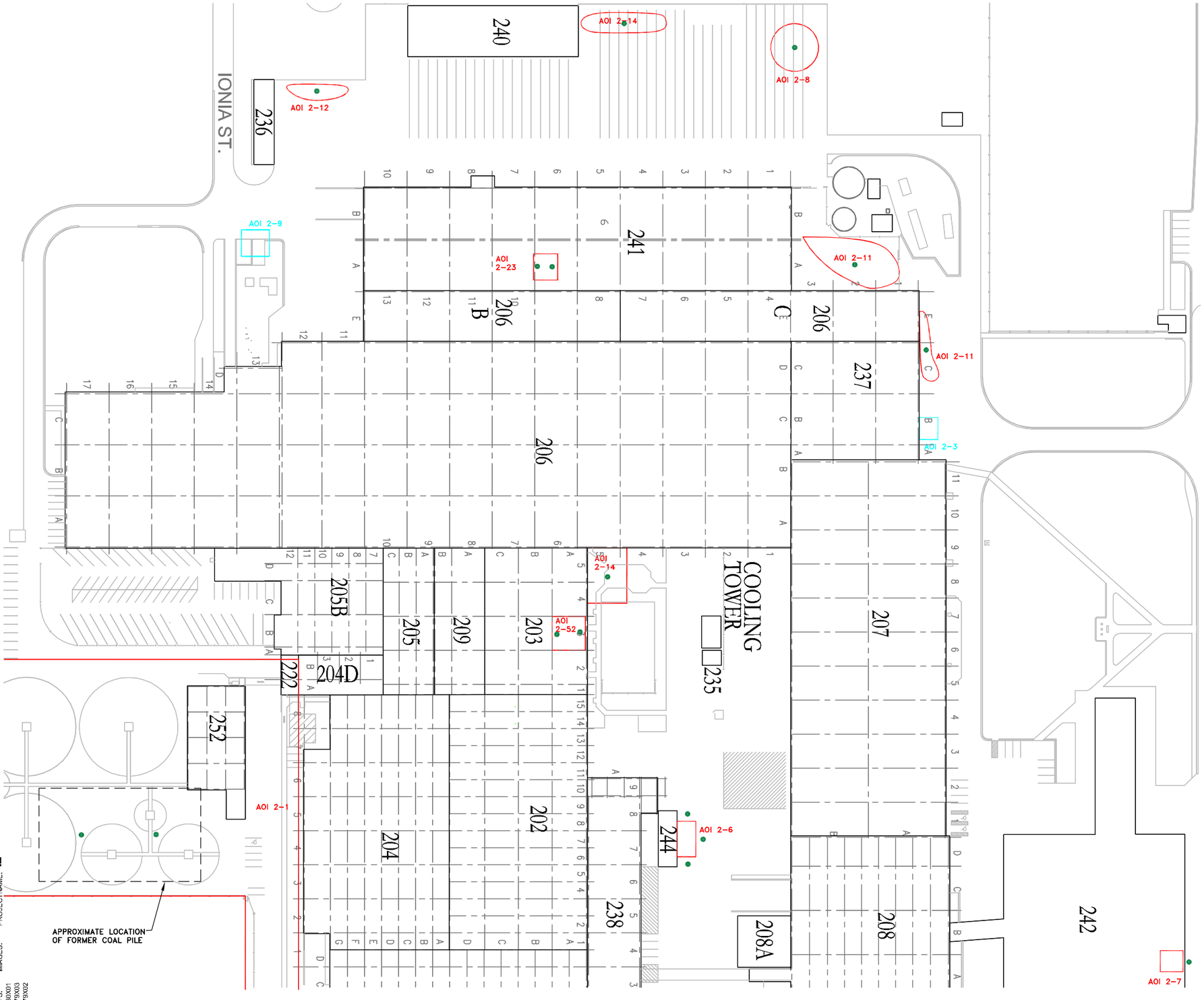
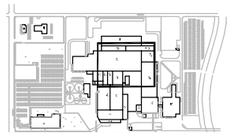
64481X01





LOCATION MAP
NOT TO SCALE

LEGEND:

- AOI 2-1 — AREA OF INTEREST (AOI)
- AOI 2-3 — AOI WITH NO FURTHER ACTION
- 229 — BUILDING NUMBER
- APPROXIMATE PROPERTY BOUNDARY
- BUILDING LINE
- COLUMN LINE
- RAILROAD
- PROPOSED BORING

NOTE:

1. BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER–UNDERGROUND–UTILITIES.DWG.
2. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

0 60' 120'
GRAPHIC SCALE

DRAFT

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 2 PROPOSED SOIL BORINGS - AOIs 2-1, 2-6, 2-7, 2-8, 2-11, 2-12, 2-14, 2-23 & 2-52

ARCADIS

FIGURE 5

CITY:BRIGHTON DIV/GROUP:85 DB:ADF LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
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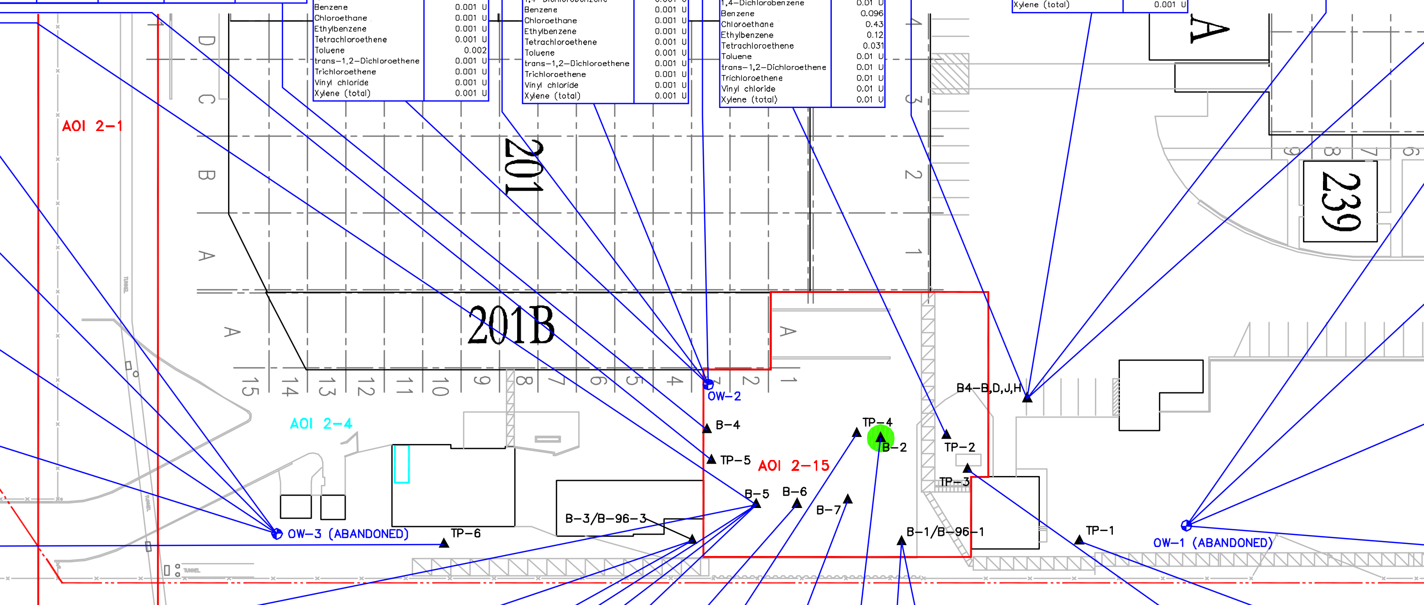


TP-5 (10-20-1993)	2-2(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B-5 (6-12-1989)	0-7.5(ft BGS)	7.5-15(ft BGS)
SVOC		
Fluorene	NS	NS
Naphthalene	NS	NS
Phenanthrene	NS	NS
VOC		
1,1,1-Trichloroethane	0.058	0.0065
1,1,2-Trichloroethane	0.001 U	0.001 U
1,1-Dichloroethane	0.0014	0.001 U
1,1-Dichloroethene	0.0027	0.001 U
1,2-Dichlorobenzene	0.092	0.001 U
1,2-Dichloroethane	0.001 U	0.001 U
1,4-Dichlorobenzene	0.12	0.001 U
Benzene	0.001 U	0.001 U
Chloroethane	0.001 U	0.001 U
Ethylbenzene	0.001 U	0.001 U
Tetrachloroethene	0.001 U	0.001 U
Toluene	0.012	0.0022
trans-1,2-Dichloroethene	0.001 U	0.001 U
Trichloroethene	0.001 U	0.001 U
Vinyl chloride	0.001 U	0.001 U
Xylene (total)	0.01	0.001 U

B-4 (6-14-1989)	0-7.5(ft BGS)	7.5-15(ft BGS)	15-22.5(ft BGS)	22.5-30(ft BGS)
SVOC				
Fluorene	NS	NS	NS	NS
Naphthalene	NS	NS	NS	NS
Phenanthrene	NS	NS	NS	NS
VOC				
1,1,1-Trichloroethane	0.052	0.02	0.0085	0.0081
1,1,2-Trichloroethane	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	0.01	0.0056	0.089	0.07
1,1-Dichloroethene	0.0021	0.0011	0.094 {H}	0.001 U
1,2-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U
Benzene	0.001 U	0.001 U	0.0018	0.0013
Chloroethane	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	0.011	0.0044	0.0034	0.0018
trans-1,2-Dichloroethene	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	0.001 U	0.001 U	0.001 U	0.001 U
Xylene (total)	0.0046	0.0038	0.001 U	0.001 U

B3-J (5-31-1990)	23-25(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.013
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.0058
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.0015
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B3-B (5-31-1990)	3-5(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.07
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.0043

B3-F (5-31-1990)	13-15(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.019
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.0012
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B3-H (5-31-1990)	37-39(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.045
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.094
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.0015
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.007
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.0054

TP-6 (10-20-1993)	7-7(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B5-A (6-1-1990)	3-5(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.0059
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B-96-3 (8-7-1996)	10-11(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B-3 (6-13-1989)	0-7.5(ft BGS)	7.5-15(ft BGS)	15-22.5(ft BGS)	22.5-30(ft BGS)
SVOC				
Fluorene	NS	NS	NS	NS
Naphthalene	NS	NS	NS	NS
Phenanthrene	NS	NS	NS	NS
VOC				
1,1,1-Trichloroethane	0.0061	0.0093	0.02	0.011
1,1,2-Trichloroethane	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	0.001 U	0.001 U	0.0014	0.0011
1,1-Dichloroethene	0.001 U	0.001 U	0.0011	0.001 U
1,2-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U
Benzene	0.001 U	0.001 U	0.001 U	0.0013
Chloroethane	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	0.0025	0.0023	0.0037	0.0019
trans-1,2-Dichloroethene	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	0.001 U	0.001 U	0.001 U	0.001 U
Xylene (total)	0.001 U	0.001 U	0.001 U	0.001 U

B5-E (6-1-1990)	13-15(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.013
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B5-M (6-1-1990)	38-40(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.024
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.0011
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.0017
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

TP-4 (10-31-1993)	2.5-2.5(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.1 U
1,1,2-Trichloroethane	0.1 U
1,1-Dichloroethane	0.1 U
1,1-Dichloroethene	0.1 U
1,2-Dichlorobenzene	0.1 U
1,2-Dichloroethane	0.1 U
1,4-Dichlorobenzene	0.1 U
Benzene	0.13 {E}
Chloroethane	0.1 U
Ethylbenzene	1.3 {G}
Tetrachloroethene	0.1 U
Toluene	1.5
trans-1,2-Dichloroethene	0.1 U
Trichloroethene	0.1 U
Vinyl chloride	0.1 U
Xylene (total)	4.9 {G}

B-7 (6-12-1989)	0-7.5(ft BGS)	7.5-15(ft BGS)
SVOC		
Fluorene	NS	NS
Naphthalene	NS	NS
Phenanthrene	NS	NS
VOC		
1,1,1-Trichloroethane	310 {EGH}	310 {EGH}
1,1,2-Trichloroethane	0.01 U	0.1 U
1,1-Dichloroethane	0.82	3.9
1,1-Dichloroethene	0.18 {EH}	16 {ABEGHI}
1,2-Dichlorobenzene	0.75 {G}	0.1 U
1,2-Dichloroethane	0.01 U	0.1 U
1,4-Dichlorobenzene	0.5 {G}	0.1 U
Benzene	0.01 U	0.1 U
Chloroethane	0.01 U	0.1 U
Ethylbenzene	0.01 U	0.1 U
Tetrachloroethene	1.1 {EG}	0.12 {E}
Toluene	0.01 U	3.9 {G}
trans-1,2-Dichloroethene	0.01 U	0.1 U
Trichloroethene	0.01 U	0.14 {E}
Vinyl chloride	0.01 U	0.1 U
Xylene (total)	0.01 U	0.1 U

B-96-1 (8-7-1996)	7-9(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B6-H (6-1-1990)	18-20(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.0098
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.0013
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B6-M (6-1-1990)	33-35(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.0069
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.0012
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.0029
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001
Xylene (total)	0.001 U

B5-K (6-1-1990)	28-30(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.026
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B-6 (6-12-1989)	0-7.5(ft BGS)	7.5-15(ft BGS)
SVOC		
Fluorene	NS	NS
Naphthalene	NS	NS
Phenanthrene	NS	NS
VOC		
1,1,1-Trichloroethane	0.018	0.0039
1,1,2-Trichloroethane	0.001 U	0.001 U
1,1-Dichloroethane	0.081	0.0049
1,1-Dichloroethene	0.076 {H}	0.001 U
1,2-Dichlorobenzene	0.032	0.045
1,2-Dichloroethane	0.001 U	0.001 U
1,4-Dichlorobenzene	0.074	0.081
Benzene	0.001 U	0.001 U
Chloroethane	0.001 U	0.001 U
Ethylbenzene	0.001 U	0.001 U
Tetrachloroethene	0.001 U	0.001 U
Toluene	0.005	0.0028
trans-1,2-Dichloroethene	0.001 U	0.001 U
Trichloroethene	0.001 U	0.001 U
Vinyl chloride	0.001 U	0.001 U
Xylene (total)	0.001 U	0.001 U

B-2 (6-15-1989)	0-7.5(ft BGS)	7.5-15(ft BGS)	15-22.5(ft BGS)	22.5-30(ft BGS)
SVOC				
Fluorene	NS	NS	NS	NS
Naphthalene	NS	NS	NS	NS
Phenanthrene	NS	NS	NS	NS
VOC				
1,1,1-Trichloroethane	12 {EG}	0.012	0.0082	0.0057
1,1,2-Trichloroethane	0.1 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	0.7	0.0038	0.0085	0.0062
1,1-Dichloroethene	1.2 {AEHI}	0.091 {H}	0.001 U	0.001 U
1,2-Dichlorobenzene	0.1 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	0.1 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene	0.1 U	0.001 U	0.001 U	0.001 U
Benzene	2.5 {EH}	0.0011	0.0011	0.001 U
Chloroethane	0.1 U	0.067	0.001 U	0.001 U
Ethylbenzene	0.32	0.001 U	0.001 U	0.001 U
Tetrachloroethene	1.5 {EG}	0.001 U	0.001 U	0.001 U
Toluene	2.1	0.0035	0.0024	0.0026
trans-1,2-Dichloroethene	0.1 U	0.001 U	0.001 U	0.001 U
Trichloroethene	0.1 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	0.1 U	0.001 U	0.001 U	0.001 U
Xylene (total)	1.6 {G}	0.001 U	0.001 U	0.001 U

B-1 (6-13-1989)	0-7.5(ft BGS)	7.5-15(ft BGS)	15-22.5(ft BGS)	22.5-30(ft BGS)
SVOC				
Fluorene	NS	NS	NS	NS
Naphthalene	NS	NS	NS	NS
Phenanthrene	NS	NS	NS	NS
VOC				
1,1,1-Trichloroethane	0.0066	0.0013	0.0018	0.012
1,1,2-Trichloroethane	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	0.0018	0.0088	0.0018	0.0012
1,1-Dichloroethene	0.007	0.0099	0.0019	0.084 {H}
1,2-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene	0.001 U	0.001 U	0.001 U	0.001 U
Benzene	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	0.0028	0.0021	0.0025	0.0026
trans-1,2-Dichloroethene	0.001 U	0.001 U	0.001 U	0.001 U
Trichloroethene	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl chloride	0.001 U	0.001 U	0.001 U	0.001 U
Xylene (total)	0.001 U	0.001 U	0.001 U	0.001 U

B6-B (6-1-1990)	3-5(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.0038
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.0012
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.0047

B2-H (5-30-1990)	19.5-21.5(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.029
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.0017
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.0052
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B2-E (5-30-1990)	12-14(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.02
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B4-D (5-31-1990)	8-10(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.014
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.0039
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.0041

B2-L (5-30-1990)	35-35(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.032
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.0017
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.002
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B2-B (5-30-1990)	3-5(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.0081
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

TP-2 (10-20-1993)	3-3(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.59
1,1,2-Trichloroethane	0.01 U
1,1-Dichloroethane	1.3
1,1-Dichloroethene	0.055
1,2-Dichlorobenzene	0.01 U
1,2-Dichloroethane	0.01 U
1,4-Dichlorobenzene	0.01 U
Benzene	0.096
Chloroethane	0.43
Ethylbenzene	0.12
Tetrachloroethene	0.031
Toluene	0.01 U
trans-1,2-Dichloroethene	0.01 U
Trichloroethene	0.01 U
Vinyl chloride	0.01 U
Xylene (total)	0.01 U

B4-H (5-31-1990)	33-35(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.037
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.0014
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.0049
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B4-J (5-31-1990)	23-25(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.022
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.0013
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.0012
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.004
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B4-B (5-31-1990)	3-5(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.0014
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.0055
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.012

B1-E (5-29-1990)	10.5-12.5(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.017
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B1-I (5-29-1990)	20.5-22.5(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.018
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.0014
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

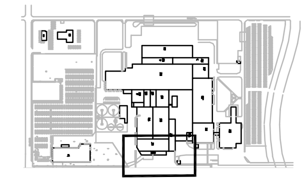
B1-N (5-29-1990)	38-40(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.079
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.0021
1,1-Dichloroethene	0.0012
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.0014
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B1-B (5-29-1990)	3.5-5(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.04
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

TP-1 (10-20-1993)	5-5(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

TP-3 (10-30-1993)	4-4(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.36
1,1-Dichloroethene	0.015
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.001 U
Chloroethane	0.084
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.001 U
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.001 U

B6-K (6-1-1990)	25.5-27.5(ft BGS)
SVOC	
Fluorene	NS
Naphthalene	NS
Phenanthrene	NS
VOC	
1,1,1-Trichloroethane	0.0057
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
1,2-Dichlorobenzene	0.001 U
1,2-Dichloroethane	0.001 U
1,4-Dichlorobenzene	0.001 U
Benzene	0.0014
Chloroethane	0.001 U
Ethylbenzene	0.001 U
Tetrachloroethene	0.001 U
Toluene	0.0057
trans-1,2-Dichloroethene	0.001 U
Trichloroethene	0.001 U
Vinyl chloride	0.001 U
Xylene (total)	0.0038



LOCATION MAP
NOT TO SCALE

LEGEND:

- AOI 2-15 — AREA OF INTEREST (AOI)
- AOI 2-1 — AOI WITH NO FURTHER ACTION
- 229 — BUILDING NUMBER
- ▲ — SOIL BORING LOCATION
- NO ORGANIC ANALYSIS (HISTORICAL)
- MONITORING WELL LOCATION
- GRAB SAMPLE LOCATION
- APPROXIMATE PROPERTY BOUNDARY
- PROPOSED LOCATION FOR RE-OCCUPATION

LOCATION — DATE — DEPTH (FEET BELOW GROUND SURFACE)

SA-5-3 (4-28-2005)	0.7-2.7(ft BGS)
INORG	
Aluminum	1940/2060
Arsenic	0.78/1.02
Cadmium	0.21/0.21
Chromium Total	10.8 J {G}/4.36 J {J}
Cobalt	12.3 {EG}/10.8 {EG}

ANALYTE; VALIDATION CODE; EXCEEDANCE CODE; CONCENTRATION IN mg/kg; DUPLICATE SAMPLE CONCENTRATION IN mg/kg

EXCEEDANCE CODES

A – MDEQ INDUSTRIAL SVIIC
B – MDEQ INDUSTRIAL VSIC
C – MDEQ INDUSTRIAL PSIC
D – MDEQ INDUSTRIAL DC
E – MDEQ RESIDENTIAL DWP
F – RISK-BASED REDEVELOPMENT WORKER CONTACT
G – MDEQ GSIP
H – MDEQ RESIDENTIAL SVIIC
I – MDEQ RESIDENTIAL VCIS
J – MDEQ RESIDENTIAL PSIC
K – MDEQ RESIDENTIAL DC

ACRONYMS

DC– DIRECT CONTACT CRITERIA
DWP– DRINKING WATER PROTECTION CRITERIA
GSIP– GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG– INORGANICS
J– ESTIMATED VALUE
NS– NOT SAMPLED
PCB– POLYCHLORINATED BIPHENYLS
PSIC– PARTICULATE SOIL INHALATION CRITERIA
SVIIC– SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs– SEMI-VOLATILE ORGANIC COMPOUNDS
U– NON-DETECT WITH ASSOCIATED LIMIT
VOCs– VOLATILE ORGANIC COMPOUNDS
VSIC– INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

NOTES:

1. BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER-UNDERGROUND-UTILITIES.DWG.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN THE RESULTS ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIIC, VSIC, PSIC, DC, AND THE RISK-BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE RESULTS ARE HIGHER THAN THE CONSERVATIVE RISK-BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP.
3. ADDITIONAL SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

0 50' 100'
GRAPHIC SCALE

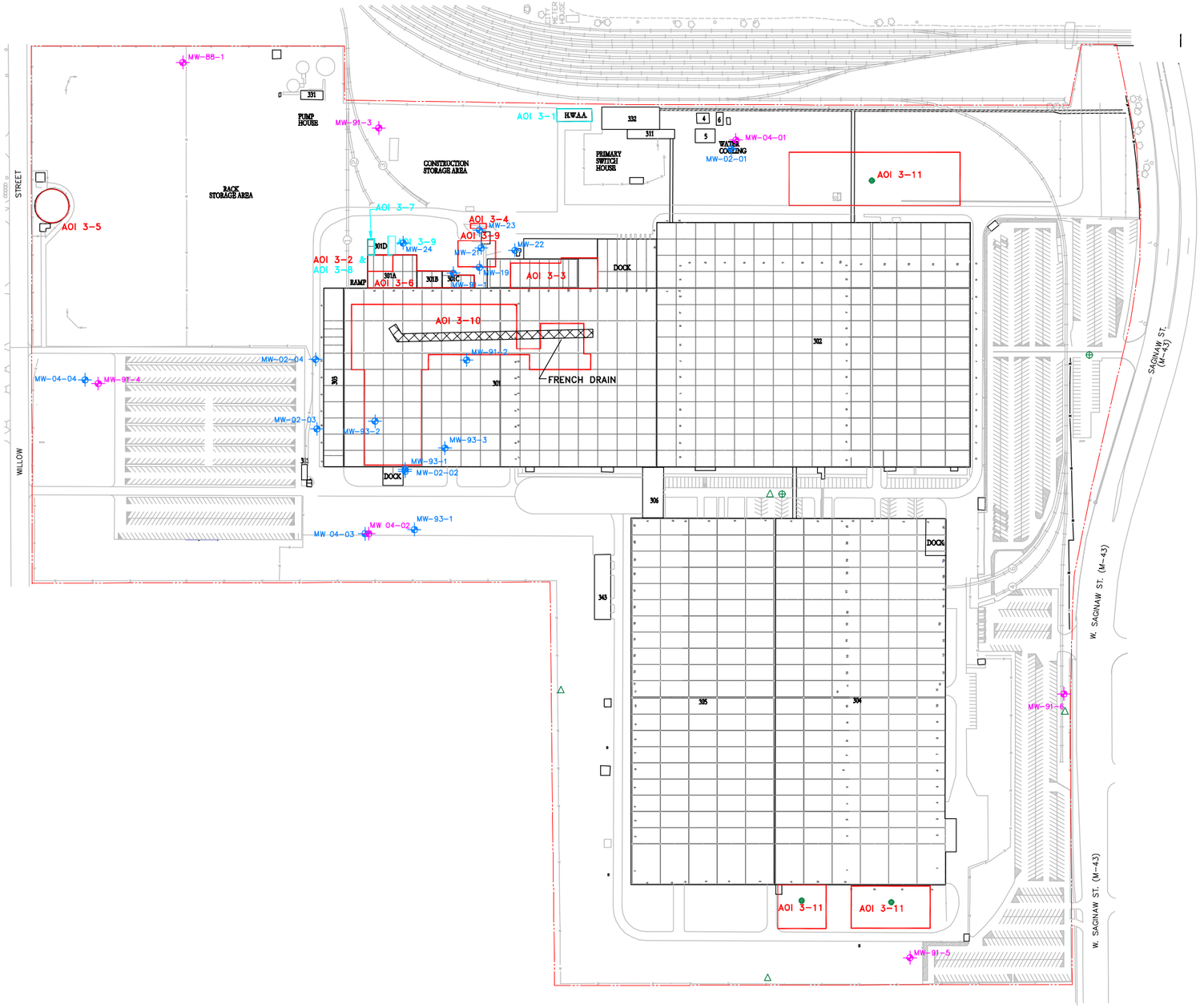
GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 2 PROPOSED SOIL BORINGS - AOI 2-15

ARCADIS

FIGURE
6

CITY: BRIGHTON DIV/GROUP: 85 DB: ADF LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\BRIGHTON\ACT\B0064479\0000\00101\DWG\64479C01.dwg LAYOUT: 6 SAVED: 2/10/2009 9:41 AM ACADVER: 17.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 2/10/2009 9:41 AM BY: FOX, AARON
XREFS: 64479X01 64479X03 64479X02 Plt. 2 Master-Utility-UG IMAGES: PROJECTNAME: ----



LEGEND:

- AOI 3-3 — AREA OF INTEREST (AOI)
- AOI 3-11 — AOI WITH NO FURTHER ACTION
- 301 — BUILDING NUMBER
- APPROXIMATE PROPERTY BOUNDARY
- BUILDING LINE
- COLUMN LINE
- RAILROAD
- OVERBURDEN MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- PROPOSED BEDROCK MONITORING WELL LOCATION
- PROPOSED OVERBURDEN MONITORING WELL LOCATION
- PROPOSED SOIL BORING

NOTE:

1. BASE MAP INFORMATION BASED ON INFORMATION PROVIDED BY URS CONSULTANTS, INC. FROM MAPS ENTITLED "ANALYTES DETECTED IN GROUNDWATER – 4/94 (ug/L)", DATED APRIL, 1994, AND "SOIL BORING LOCATIONS, GM LAD PLANT NO. 3, BLDG. NO. 301C" (UNDATED); BY EDI ENGINEERING & SCIENCE FROM MAPS ENTITLED "TOTAL CHROMIUM CONCENTRATION HORIZ. EXTENT OF CHROMIUM IMPACT" DATED APRIL, 1990, "BORING AND CROSS-SECTION LOCATION MAP", DATED JUNE, 1989, "SOIL BORING LOCATIONS INSIDE OF THE PLANT", DATED JUNE, 1989, "LOCATION OF FRENCH DRAIN", DATED JUNE, 1989, AND "SOIL SAMPLING LOCATIONS", DATED JUNE, 1989, AND BY ENVIRONMENTAL SERVICES DIVISION FROM FIGURE ENTITLED "STORAGE TANK #12" DATED JUNE, 1990.
2. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

DRAFT

0 150' 300'
GRAPHIC SCALE

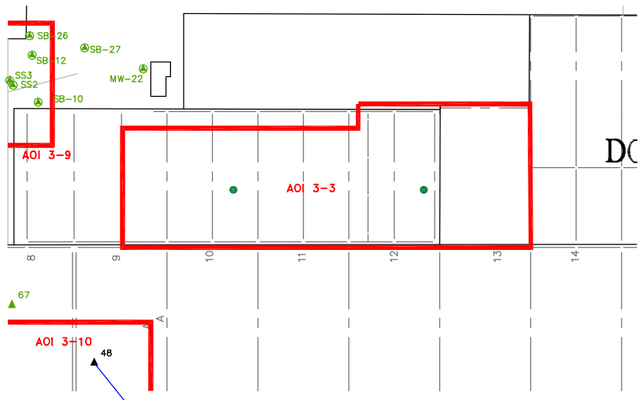
GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 3 PROPOSED MONITORING WELLS AND PROPOSED SOIL BORINGS - AOI 3-11

ARCADIS

FIGURE
7

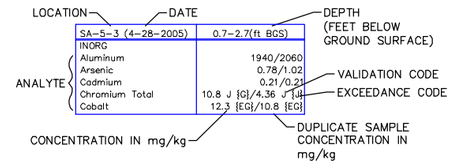
CITY:BRIGHTON DIV/GROUP:85 DB:ADF LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\BRIGHTON\ACT\B0064480\0000\00101\DWG\64480B01.DWG LAYOUT: 7SAVED: 1/19/2009 2:04 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: ----;PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/19/2009 2:04 PM BY: FOX, AARON
XREFS:
64480X03
64480X02
Plt. 3 UnderGround-All
IMAGES:
PROJECTNAME: ----



48 (1-1-1988)	1-2.5	6-7.5	11-12.5	16-17.5	21-22.5
INORG					
Arsenic	7.1	4	4.3/2.7	3.6	3.6
Beryllium	NS	NS	NS/NS	NS	NS
Cadmium	0.4 U	0.4 U	0.4 U/0.4 U	0.4 U	0.4 U
Chromium III (Trivalent)	14.7	7.6	12.7/12.7	13.7	18.7
Chromium Total	Spec	Spec	Spec/Spec	Spec	Spec
Chromium VI (Hexavalent)	0.6 U	0.6 U	0.6 U/0.6 U	0.6 U	0.6 U
Copper	14	8.1	10/9	9.8	14
Cyanide (total)	8 U	8 U	8 U/8 U	8 U	8 U
Lead	7.1	3.3	6.7/4.1	5.2	5.9
Manganese	NS	NS	NS/NS	NS	NS
Nickel	14	7.8	12/11	11	18
Vanadium	NS	NS	NS/NS	NS	NS
Zinc	35	23	28/27	25	40

LEGEND:

- AOI 3-3 — AREA OF INTEREST (AOI)
- AOI 3-11 — AOI WITH NO FURTHER ACTION
- 301 — BUILDING NUMBER
- APPROXIMATE PROPERTY BOUNDARY
- BUILDING LINE
- COLUMN LINE
- RAILROAD
- NO INORGANICS ANALYSIS (HISTORICAL)
- SOIL BORING LOCATION
- PROPOSED BORING



EXCEEDANCE CODES

A – MDEQ INDUSTRIAL SVIIC
B – MDEQ INDUSTRIAL VSIC
C – MDEQ INDUSTRIAL PSIC
D – MDEQ INDUSTRIAL DC
E – MDEQ RESIDENTIAL DWP
F – RISK-BASED REDEVELOPMENT WORKER CONTACT
G – MDEQ GSIP
H – MDEQ RESIDENTIAL SVIIC
I – MDEQ RESIDENTIAL VOIS
J – MDEQ RESIDENTIAL PSIC
K – MDEQ RESIDENTIAL DC

ACRONYMS

DC–	DIRECT CONTACT CRITERIA
DWP–	DRINKING WATER PROTECTION CRITERIA
GSIP–	GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG–	INORGANICS
J–	ESTIMATED VALUE
NS–	NOT SAMPLED
PCB–	POLYCHLORINATED BIPHENYLS
PSIC–	PARTICULATE SOIL INHALATION CRITERIA
SVIIC–	SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs–	SEMI-VOLATILE ORGANIC COMPOUNDS
U–	NON-DETECT WITH ASSOCIATED LIMIT
VOCs–	VOLATILE ORGANIC COMPOUNDS
VSIC–	INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

NOTE:

1. BASE MAP INFORMATION BASED ON INFORMATION PROVIDED BY URS CONSULTANTS, INC. FROM MAPS ENTITLED "ANALYTES DETECTED IN GROUNDWATER – 4/94 (ug/L)", DATED APRIL, 1994, AND "SOIL BORING LOCATIONS, GM LAD PLANT NO. 3, BLDG. NO. 301C" (UNDATED); BY EDI ENGINEERING & SCIENCE FROM MAPS ENTITLED "TOTAL CHROMIUM CONCENTRATION HORIZ. EXTENT OF CHROMIUM IMPACT" DATED APRIL, 1990, "BORING AND CROSS-SECTION LOCATION MAP", DATED JUNE, 1989, "SOIL BORING LOCATIONS INSIDE OF THE PLANT", DATED JUNE, 1989, "LOCATION OF FRENCH DRAIN", DATED JUNE, 1989, AND "SOIL SAMPLING LOCATIONS", DATED JUNE, 1989, AND BY ENVIRONMENTAL SERVICES DIVISION FROM FIGURE ENTITLED "STORAGE TANK #12" DATED JUNE, 1990.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN RESULTS ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIIC, VSIC, PSIC, DC, AND THE RISK-BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATIONARE HIGHLIGHTED WHEN THE RESULTS ARE HIGHER THAN THE CONSERVATIVE RISK-BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP.
3. ADDITIONAL SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

0 80'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 3 PROPOSED SOIL BORINGS - AOI 3-3

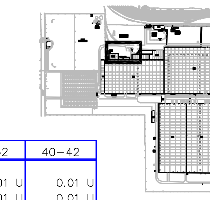
ARCADIS

FIGURE
8

SB20 (8-12-1991)	8-10	18-20	28-30	38-40	48-50	58-60	68-70
VOC							
Benzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Toluene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vinyl chloride	NS	NS	NS	NS	NS	NS	NS
Xylene (total)	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U

SB15 (11-6-1989)	9-11	19-21	29-31	39-41	49-51	59-61
VOC						
Benzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Toluene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vinyl chloride	NS	NS	NS	NS	NS	NS
Xylene (total)	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U

SB16 (11-3-1989)	1-3	9-11	19-21	29-31	39-41	49-51	59-61
VOC							
Benzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Toluene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vinyl chloride	NS	NS	NS	NS	NS	NS	NS
Xylene (total)	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U



LEGEND:

AOI 3-1 🟥	AREA OF INTEREST (AOI)
AOI 3-7 ▢	AOI WITH NO FURTHER INTEREST
301	BUILDING NUMBER
▲	SOIL BORING LOCATION
●	NO ORGANICS ANALYSIS (HISTORIC)
△	SOIL GRAB SAMPLE
●	MONITORING WELL LOCATION
— · —	APPROXIMATE PROPERTY BOUNDARY
●	PROPOSED LOCATION FOR RE-OCCUPATION
●	PROPOSED BORING

SB5 (5-15-1989)	0-7	7-13
VOC		
Benzene	0.058	0.01 U
Ethylbenzene	0.14	0.01
Toluene	0.51	0.026
Vinyl chloride	0.01 U	0.01 U
Xylene (total)	0.52	0.01 U

(11-8-1989)	6-8	9-11	14-16	19-21	29-31	39-41	47-49
Benzene	0.01	0.5 {E}	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.013	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Toluene	0.019	0.018	0.01 U	0.011	0.018	0.01 U	0.01 U
Vinyl chloride	NS	NS	NS	NS	NS	NS	NS
Xylene (total)	0.298	0.03 U	0.03 U	0.03 U	0.041	0.03 U	0.03 U

SB13 (11-8-1989)	0-3	1-3	9-11	14-16
VOC				
Benzene	0.01 U	0.01 U	0.833 {E}	0.01 U
Ethylbenzene	0.016	0.01 U	0.132	0.01 U
Toluene	0.01	0.01 U	0.515	0.01 U
Vinyl chloride	NS	NS	NS	NS
Xylene (total)	0.098	0.03 U	0.697	0.03 U

SB17 (4-24-1990)	1-2	10-12	15-17	20-22	30-32	40-42
VOC						
Benzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Toluene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vinyl chloride	NS	NS	NS	NS	NS	NS
Xylene (total)	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U

SS8 (6-9-1989)	13-13
VOC	
Benzene	0.01 U
Ethylbenzene	0.01 U
Toluene	0.01 U
Vinyl chloride	0.01 U
Xylene (total)	0.03 U

SS7 (6-9-1989)	9-9
VOC	
Benzene	0.01 U
Ethylbenzene	0.01 U
Toluene	0.01 U
Vinyl chloride	0.01 U
Xylene (total)	0.03 U

SS6 (6-9-1989)	10-10
VOC	
Benzene	0.13 {E}
Ethylbenzene	0.083
Toluene	0.31
Vinyl chloride	0.01 U
Xylene (total)	0.5

SS5 (6-9-1989)	13-13
VOC	
Benzene	0.05
Ethylbenzene	0.043
Toluene	0.17
Vinyl chloride	0.01 U
Xylene (total)	0.03 U

SS3 (6-9-1989)	6-6
VOC	
Benzene	0.2 {E}
Ethylbenzene	0.51 {G}
Toluene	0.5
Vinyl chloride	0.01 U
Xylene (total)	2.2 {G}

SB26 (10-14-1993)	2-4	4-9	14-19	19-24	24-29	29-34	34-39
VOC							
Benzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Toluene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vinyl chloride	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Xylene (total)	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U

SB11 (11-9-1989)	1-3	9-11	14-16	19-21	29-31
VOC					
Benzene	0.018	0.01 U	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Toluene	0.018	0.01 U	0.01 U	0.01 U	0.013
Vinyl chloride	NS	NS	NS	NS	NS
Xylene (total)	0.09	0.03 U	0.03 U	0.03 U	0.03 U

SB18 (4-23-1990)	9.5-11	19.5-21	30-31.5	40-41.5	50-51.5
VOC					
Benzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Toluene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vinyl chloride	NS	NS	NS	NS	NS
Xylene (total)	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U

LOCATION — DATE — DEPTH (FEET BELOW GROUND SURFACE)

SA-5-3 (4-28-2005)	0.7-2.7
INORG	
Aluminum	1940/2060
Arsenic	0.78/1.02
Cadmium	0.21/0.21
Chromium Total	10.8 J {G}/4.36 J {J}
Cobalt	12.3 {EG}/10.8 {EG}

ANALYTE

EXCEEDANCE CODE

VALIDATION CODE

CONCENTRATION IN mg/kg

DUPLICATE SAMPLE CONCENTRATION IN mg/kg

SB12 (11-7-1989)	1-3	9-11	14-16
VOC			
Benzene	0.01 U	0.505 {E}	0.207 {E}
Ethylbenzene	0.01 U	0.083	0.01 U
Toluene	0.01 U	1.05	0.031
Vinyl chloride	NS	NS	NS
Xylene (total)	0.03 U	1.63 {G}	0.107

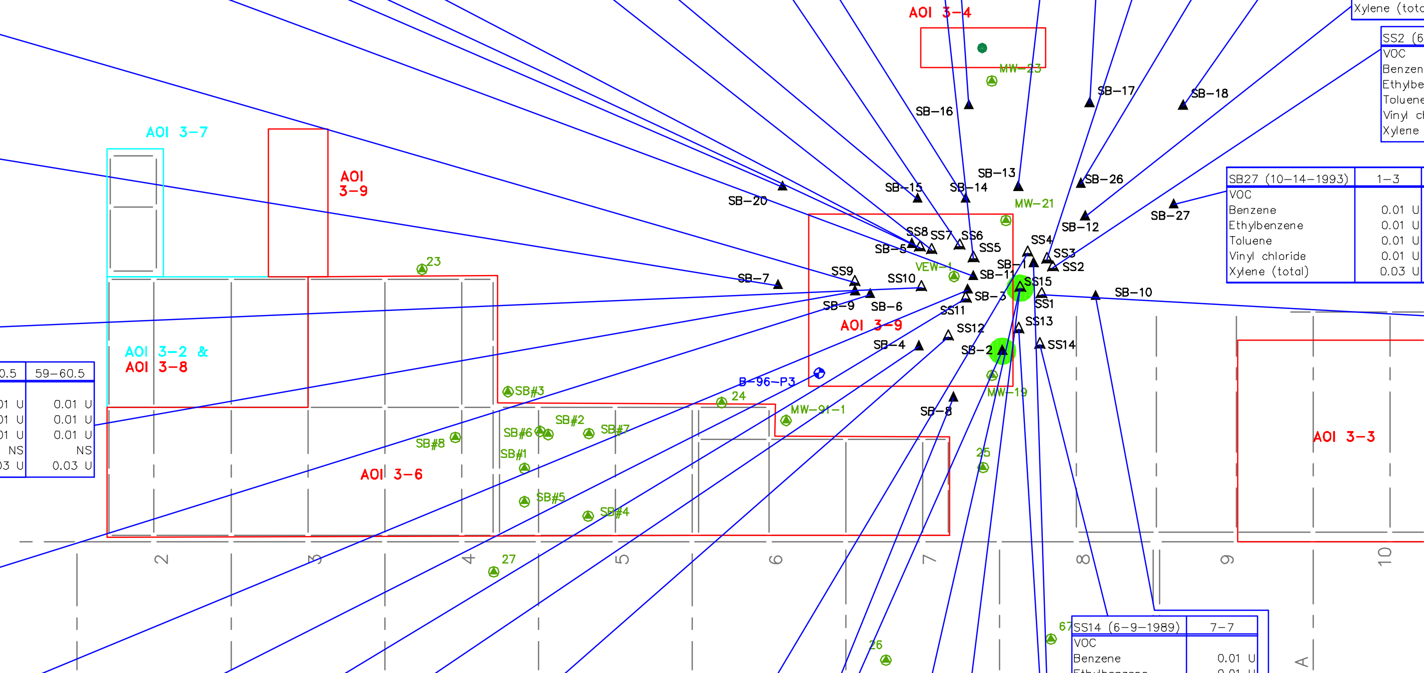
SS9 (6-9-1989)	13-13
VOC	
Benzene	0.01 U
Ethylbenzene	0.01 U
Toluene	0.01 U
Vinyl chloride	0.01 U
Xylene (total)	0.03 U

SS2 (6-9-1989)	7-7
VOC	
Benzene	0.038
Ethylbenzene	0.68 {G}
Toluene	0.27
Vinyl chloride	0.01 U
Xylene (total)	0.43

EXCEEDANCE CODES

A – MDEQ INDUSTRIAL SVIIC
B – MDEQ INDUSTRIAL VSIC
C – MDEQ INDUSTRIAL PSIC
D – MDEQ INDUSTRIAL DC
E – MDEQ RESIDENTIAL DWP
F – RISK-BASED REDEVELOPMENT WORKER CONTACT
G – MDEQ GSIP
H – MDEQ RESIDENTIAL SVIIC
I – MDEQ RESIDENTIAL VCIS
J – MDEQ RESIDENTIAL PSIC
K – MDEQ RESIDENTIAL DC

SB7 (5-16-1989)	0-7	7-13
VOC		
Benzene	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U
Toluene	0.01 U	0.01 U
Vinyl chloride	0.01 U	0.01 U
Xylene (total)	0.03 U	0.03 U



SB27 (10-14-1993)	1-3	3-8	8-13	13-18	18-23	23-28	28-33	33-38
VOC								
Benzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Toluene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vinyl chloride	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Xylene (total)	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U

ACRONYMS

DC– DIRECT CONTACT CRITERIA
DWP– DRINKING WATER PROTECTION CRITERIA
GSIP– GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG– INORGANICS
J– ESTIMATED VALUE
NS– NOT SAMPLED
PCB– POLYCHLORINATED BIPHENYLS
PSIC– PARTICULATE SOIL INHALATION CRITERIA
SVIIC– SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs– SEMI-VOLATILE ORGANIC COMPOUNDS
U– NON-DETECT WITH ASSOCIATED LIMIT
VOCs– VOLATILE ORGANIC COMPOUNDS
VSIC– INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

SS10 (6-9-1989)	13-13
VOC	
Benzene	0.1 U
Ethylbenzene	0.1 U
Toluene	0.1 U
Vinyl chloride	0.1 U
Xylene (total)	0.3 U

SS1 (6-9-1989)	13-13
VOC	
Benzene	0.12 {E}
Ethylbenzene	0.01 U
Toluene	0.074
Vinyl chloride	0.01 U
Xylene (total)	0.96 {G}

SB9 (11-13-1989)	1-2	9-11	19-20.5	24-25.5	29-30.5	39-40.5	49-50.5	59-60.5
VOC								
Benzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Toluene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.103	0.01 U	0.01 U
Vinyl chloride	NS	NS	NS	NS	NS	NS	NS	NS
Xylene (total)	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U

NOTE:

1. BASE MAP INFORMATION BASED ON INFORMATION PROVIDED BY URS CONSULTANTS, INC. FROM MAPS ENTITLED "ANALYTES DETECTED IN GROUNDWATER – 4/94 (ug/L)", DATED APRIL, 1994, AND "SOIL BORING LOCATIONS, GM LAD PLANT NO. 3, BLDG. NO. 301C" (UNDATED); BY EDI ENGINEERING & SCIENCE FROM MAPS ENTITLED "TOTAL CHROMIUM CONCENTRATION HORIZ. EXTENT OF CHROMIUM IMPACT" DATED APRIL, 1990, "BORING AND CROSS-SECTION LOCATION MAP", DATED JUNE, 1989, "SOIL BORING LOCATIONS INSIDE OF THE PLANT", DATED JUNE, 1989, "LOCATION OF FRENCH DRAIN", DATED JUNE, 1989, AND "SOIL SAMPLING LOCATIONS", DATED JUNE, 1989, AND BY ENVIRONMENTAL SERVICES DIVISION FROM FIGURE ENTITLED "STORAGE TANK #12" DATED JUNE, 1990.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN THE RESULTS ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIIC, VSIC, PSIC, DC, AND THE RISK-BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE RESULTS ARE HIGHER THAN THE CONSERVATIVE RISK-BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP.
3. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

SB6 (5-16-1989)	0-7	7-13
VOC		
Benzene	0.01 U	0.12 {E}
Ethylbenzene	0.01 U	0.01 U
Toluene	0.019	0.074
Vinyl chloride	0.01 U	0.01 U
Xylene (total)	0.01 U	0.96 {G}

SS14 (6-9-1989)	7-7
VOC	
Benzene	0.01 U
Ethylbenzene	0.01 U
Toluene	0.01 U
Vinyl chloride	0.01 U
Xylene (total)	0.03 U

SB3 (5-15-1989)	0-7	7-13
VOC		
Benzene	0.24 {E}	1.7 {EH}
Ethylbenzene	5.8 {EG}	0.12
Toluene	20 {EG}	0.51
Vinyl chloride	0.01 U	0.19 {E}
Xylene (total)	2.7 {G}	1 {G}

SS15 (6-8-1989)	13-13
VOC	
Benzene	2.5 {EH}
Ethylbenzene	0.06
Toluene	1.3
Vinyl chloride	NS
Xylene (total)	1.3 {G}

B-96-P3 (8-2-1996)	6.5-8.5
VOC	
Benzene	NS
Ethylbenzene	NS
Toluene	NS
Vinyl chloride	0.01 U
Xylene (total)	NS

SB10 (11-14-1989)	1-2	9-10.5	18.5-20	28.5-30	38.5-40	50-51.5	58.5-60
VOC							
Benzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Toluene	0.01 U	0.01 U	0.01 U	0.103	0.015	0.01 U	0.01 U
Vinyl chloride	NS	NS	NS	NS	NS	NS	NS
Xylene (total)	0.03 U	0.01 U	0.03 U	0.03 U	0.035	0.03 U	0.03 U

0 60'
GRAPHIC SCALE

SS11 (6-9-1989)	13-13
VOC	
Benzene	0.1 U
Ethylbenzene	0.1 U
Toluene	0.1 U
Vinyl chloride	0.1 U
Xylene (total)	0.3 U

SS12 (6-9-1989)	10-10
VOC	
Benzene	0.1 U
Ethylbenzene	0.1 U
Toluene	0.1 U
Vinyl chloride	0.1 U
Xylene (total)	0.3 U

SS4 (6-9-1989)	10-10
VOC	
Benzene	0.2 {E}
Ethylbenzene	0.092
Toluene	0.62
Vinyl chloride	0.01 U
Xylene (total)	1.1 {G}

SS15 (6-9-1989)	13-13
VOC	
Benzene	NS
Ethylbenzene	NS
Toluene	NS
Vinyl chloride	0.1 U
Xylene (total)	NS

SS13 (6-9-1989)	9-9
VOC	
Benzene	0.1 U
Ethylbenzene	0.1 U
Toluene	0.1 U
Vinyl chloride	0.1 U
Xylene (total)	0.3 U

SB4 (5-15-1989)	0-7	7-13
VOC		
Benzene	0.012	0.019
Ethylbenzene	0.01 U	0.01 U
Toluene	0.033	0.51
Vinyl chloride	0.01 U	0.01 U
Xylene (total)	0.036	0.01 U

SB8 (5-16-1989)	0-7	7-13
VOC		
Benzene	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U
Toluene	0.019	0.01 U
Vinyl chloride	0.01 U	0.01 U
Xylene (total)	0.03 U	0.03 U

SB2 (5-15-1989)	0-7	7-13
VOC		
Benzene	5.7 {EGH}	0.054
Ethylbenzene	0.1 U	0.1 U
Toluene	0.69	0.15
Vinyl chloride	0.1 U	0.1 U
Xylene (total)	1.5 {G}	0.6

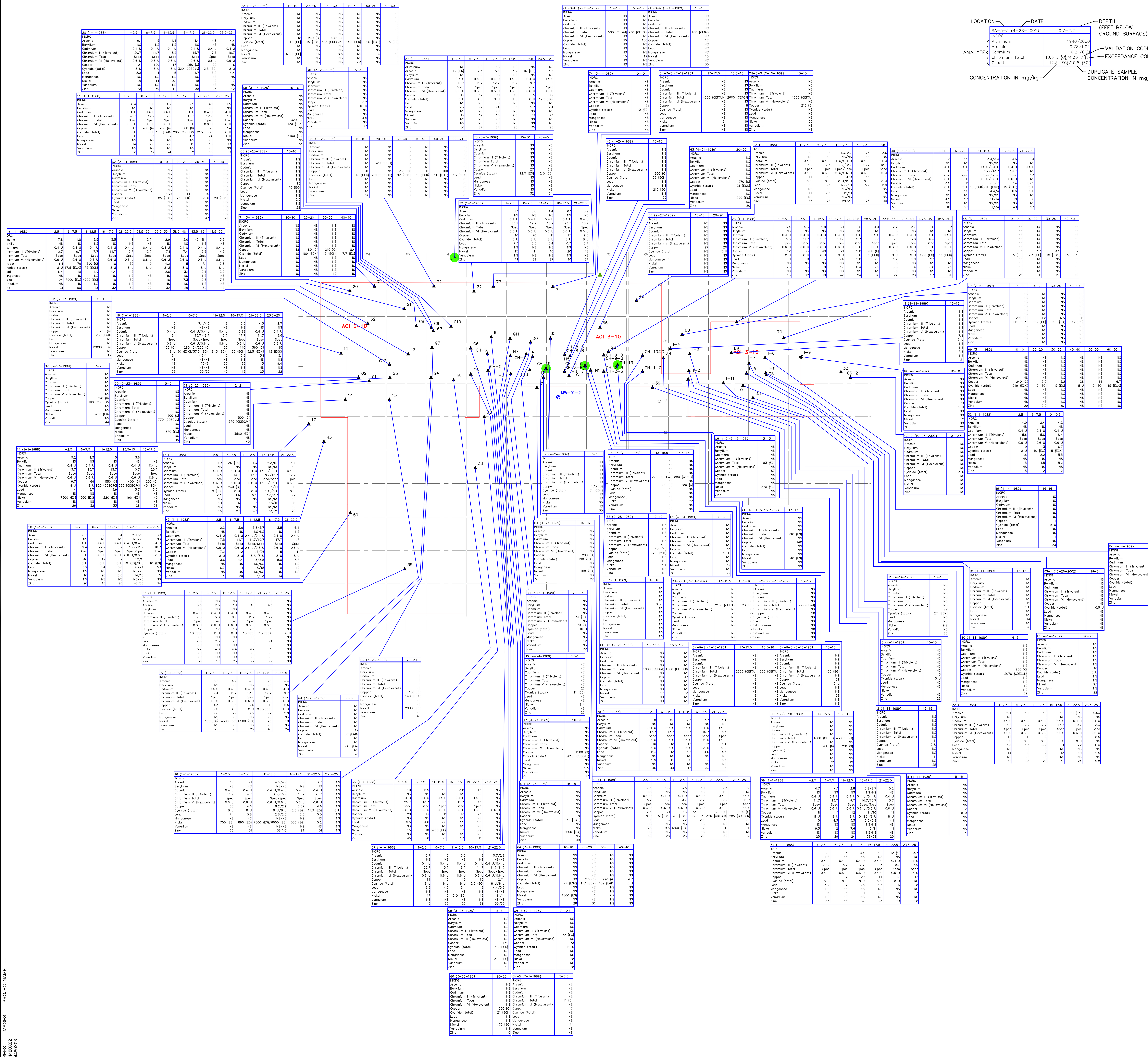
SB1 (5-16-1989)	1-7	7-9.5
VOC		
Benzene	0.51 {E}	0.35 {E}
Ethylbenzene	4.4 {EG}	2.3 {EG}
Toluene	9.5 {G}	10 {G}
Vinyl chloride	0.01 U	0.01 U
Xylene (total)	32 {EG}	19 {EG}

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 3 PROPOSED SOIL BORING - AOI 3-4 AND 3-9

ARCADIS

FIGURE
9



LOCATION — DATE — DEPTH (FEET BELOW GROUND SURFACE)

SA-5-3 (4-28-2005)	0.7-2.7
INORG	
Aluminum	1940/2060
Arsenic	0.78/1.02
Cadmium	0.21/0.21
Chromium Total	10.8 J {G}/4.36 J {J}
Cobalt	12.3 {EG}/10.8 {EG}

ANALYTE — VALIDATION CODE — EXCEEDANCE CODE — CONCENTRATION IN mg/kg — DUPLICATE SAMPLE CONCENTRATION IN mg/kg

LEGEND:

- AOI 3-1 — AREA OF INTEREST (AOI)
- AOI 3-7 — AOI WITH NO FURTHER INTEREST
- 301 — BUILDING NUMBER
- SOIL BORING LOCATION
- NO ORGANICS ANALYSIS (HISTORIC)
- SOIL GRAB SAMPLE
- MONITORING WELL LOCATION
- APPROXIMATE PROPERTY BOUNDARY
- PROPOSED LOCATION FOR RE-OCCUPATION

EXCEEDANCE CODES

A – MDEQ INDUSTRIAL SVIIC
B – MDEQ INDUSTRIAL VSIC
C – MDEQ INDUSTRIAL PSIC
D – MDEQ INDUSTRIAL DC
E – MDEQ RESIDENTIAL DWP
F – RISK-BASED REDEVELOPMENT WORKER CONTACT
G – MDEQ GSIP
H – MDEQ RESIDENTIAL SVIIC
I – MDEQ RESIDENTIAL VCIS
J – MDEQ RESIDENTIAL PSIC
K – MDEQ RESIDENTIAL DC

ACRONYMS

DC–	DIRECT CONTACT CRITERIA
DWP–	DRINKING WATER PROTECTION CRITERIA
GSIP–	GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG–	INORGANICS
J–	ESTIMATED VALUE
NS–	NOT SAMPLED
PCB–	POLYCHLORINATED BIPHENYLS
PSIC–	PARTICULATE SOIL INHALATION CRITERIA
SVIIC–	SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs–	SEMI-VOLATILE ORGANIC COMPOUNDS
U–	NON-DETECT WITH ASSOCIATED LIMIT
VOCs–	VOLATILE ORGANIC COMPOUNDS
VSIC–	INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

NOTE:

1. BASE MAP INFORMATION BASED ON INFORMATION PROVIDED BY URS CONSULTANTS, INC. FROM MAPS ENTITLED "ANALYTES DETECTED IN GROUNDWATER – 4/94 (ug/L)", DATED APRIL, 1994, AND "SOIL BORING LOCATIONS, GM LAD PLANT NO. 3, BLDG. NO. 301C" (UNDATED); BY EDI ENGINEERING & SCIENCE FROM MAPS ENTITLED "TOTAL CHROMIUM CONCENTRATION HORIZ. EXTENT OF CHROMIUM IMPACT" DATED APRIL, 1990, "BORING AND CROSS-SECTION LOCATION MAP", DATED JUNE, 1989, "SOIL BORING LOCATIONS INSIDE OF THE PLANT", DATED JUNE, 1989, "LOCATION OF FRENCH DRAIN", DATED JUNE, 1989, AND "SOIL SAMPLING LOCATIONS", DATED JUNE, 1989, AND BY ENVIRONMENTAL SERVICES DIVISION FROM FIGURE ENTITLED "STORAGE TANK #12" DATED JUNE, 1990.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN FACILITY-RELATED CONCENTRATIONS (SEE NOTE 3) ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIIC, VSIC, PSIC, DC, AND THE RISK-BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE FACILITY-RELATED CONCENTRATIONS ARE HIGHER THAN THE CONSERVATIVE RISK-BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP. SCREENING LEVELS ARE LISTED ON FIGURE 12.
3. FACILITY-RELATED SOIL CONCENTRATIONS ARE THOSE IN EXCESS OF THE BACKGROUND LEVELS. STATEWIDE DEFAULT BACKGROUND LEVELS PUBLISHED WITH PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS ARE USED AS BACKGROUND LEVELS.

0 40' 80'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 3 PROPOSED SOIL BORINGS - AOI 3-10

ARCADIS

FIGURE 10

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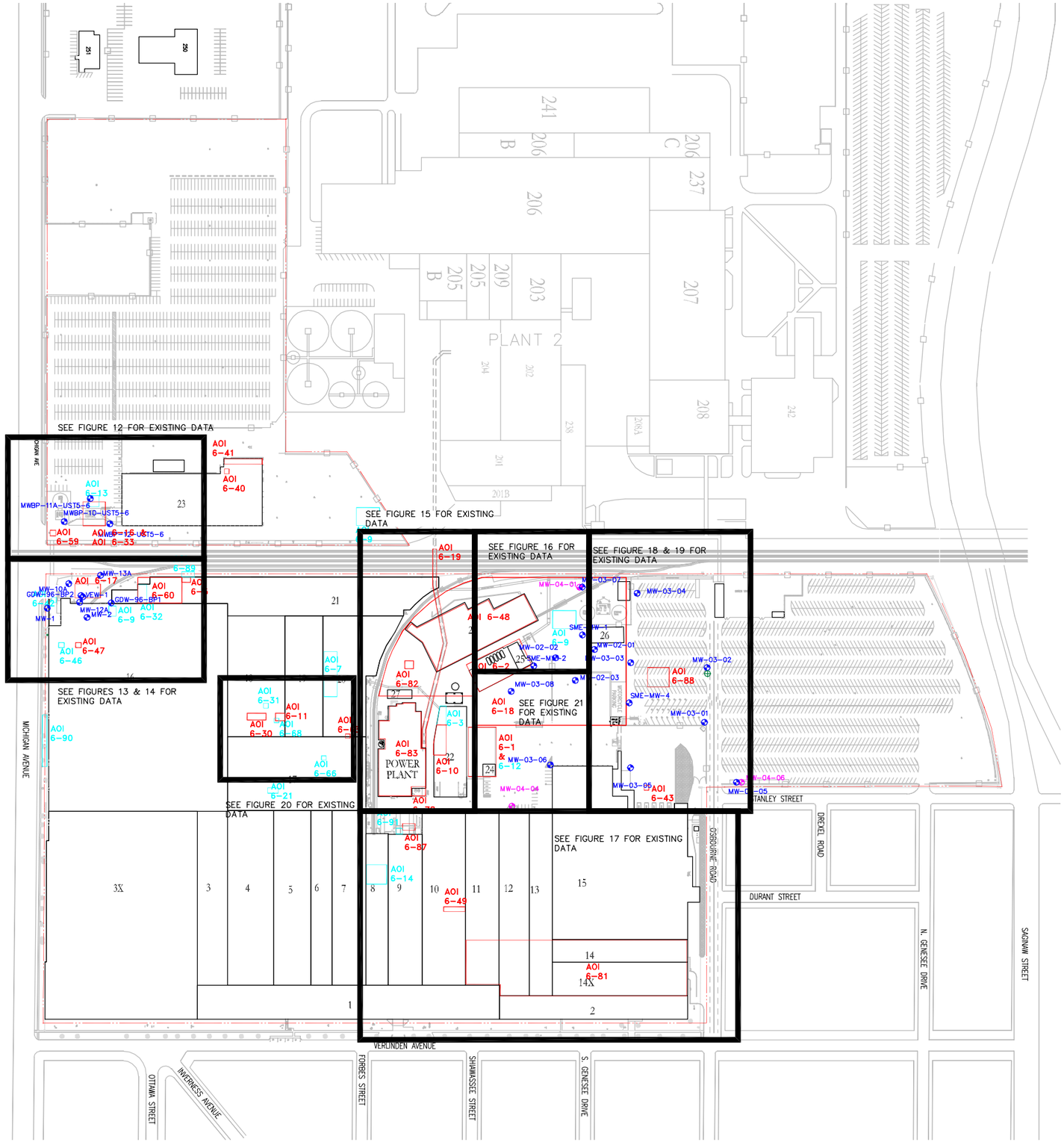

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XREFS: IMAGES: PROJECTNAME: ---
64481X02

CITY: BRIGHTON DIV/GROUP: 85 DB: ADF LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
J:\2008\B0064481\0000\00101\dwg\64481C08.dwg LAYOUT: 12SAVED: 9/16/2008 4:26 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: ----PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 9/16/2008 4:26 PM BY: FOX, AARON
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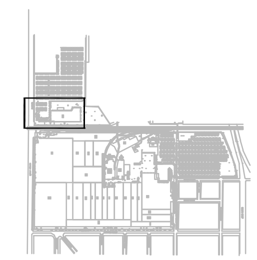


SA-5-3 (4-28-2005)	0.7-2.7(ft BGS)
INORG	
Aluminum	1940/2060
Arsenic	0.78/1.02
Cadmium	0.21/0.21
Chromium Total	10.8 J {G}/4.36 J {J}
Cobalt	12.3 {EG}/10.8 {EG}

LOCATION — DATE — DEPTH (FEET BELOW GROUND SURFACE) — ANALYTE — VALIDATION CODE — EXCEEDANCE CODE — CONCENTRATION IN mg/kg — DUPLICATE SAMPLE CONCENTRATION IN mg/kg

LEGEND:

- AOI 6-75 🟥 AREA OF INTEREST (AOI)
- ▲ SITE ASSESSMENT GEOPROBE LOCATION
- ▲ GEOPROBE LOCATION (SME)
- ● COMPOSITE SAMPLE LOCATION
- ▲ SOIL BORING LOCATION
- ● MONITORING WELL LOCATION
- △ VAPOR EXTRACTION WELL LOCATION
- △ EXCAVATION SOIL SAMPLE LOCATION
- ● NO ORGANICS ANALYSIS (HISTORICAL)
- ▲ NO ORGANIC ANALYSIS, FIELD SOIL SCREENING INFORMATION (SEE FIGURE C-1, APPENDIX C)
- — · · — APPROXIMATE PROPERTY BOUNDARY
- ● PROPOSED LOCATION FOR RE-OCCUPATION

SS-1 (1-11-1992)	3-4(ft BGS)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.01 U

MWBP-11-UST5-6 (10-20-1993)	7-0(ft BGS)	10-0(ft BGS)	16-0(ft BGS)
SVOC			
Naphthalene	0.33 U	0.33 U	0.33 U
VOC			
1,1,1-Trichloroethane	NS	NS	NS
1,1,2-Trichloroethane	NS	NS	NS
1,1-Dichloroethene	NS	NS	NS
Acetone	NS	NS	NS
Benzene	0.01 U	0.01 U	0.01 U
cis-1,2-Dichloroethene	NS	NS	NS
Ethylbenzene	0.01 U	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS	NS
Trichloroethene	NS	NS	NS
Xylene (total)	0.03 U	0.03 U	0.03 U

MWBP-11A-UST5-6 (11-17-1993)	34-39(ft BGS)
SVOC	
Naphthalene	0.33 U
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.03 U

B-BP-6 (8-28-1991)	19-21(ft BGS)	24-26(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	NS	NS
1,1,2-Trichloroethane	NS	NS
1,1-Dichloroethene	NS	NS
Acetone	NS	NS
Benzene	0.01 U	0.01 U
cis-1,2-Dichloroethene	NS	NS
Ethylbenzene	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	NS	NS
Xylene (total)	0.003	0.002

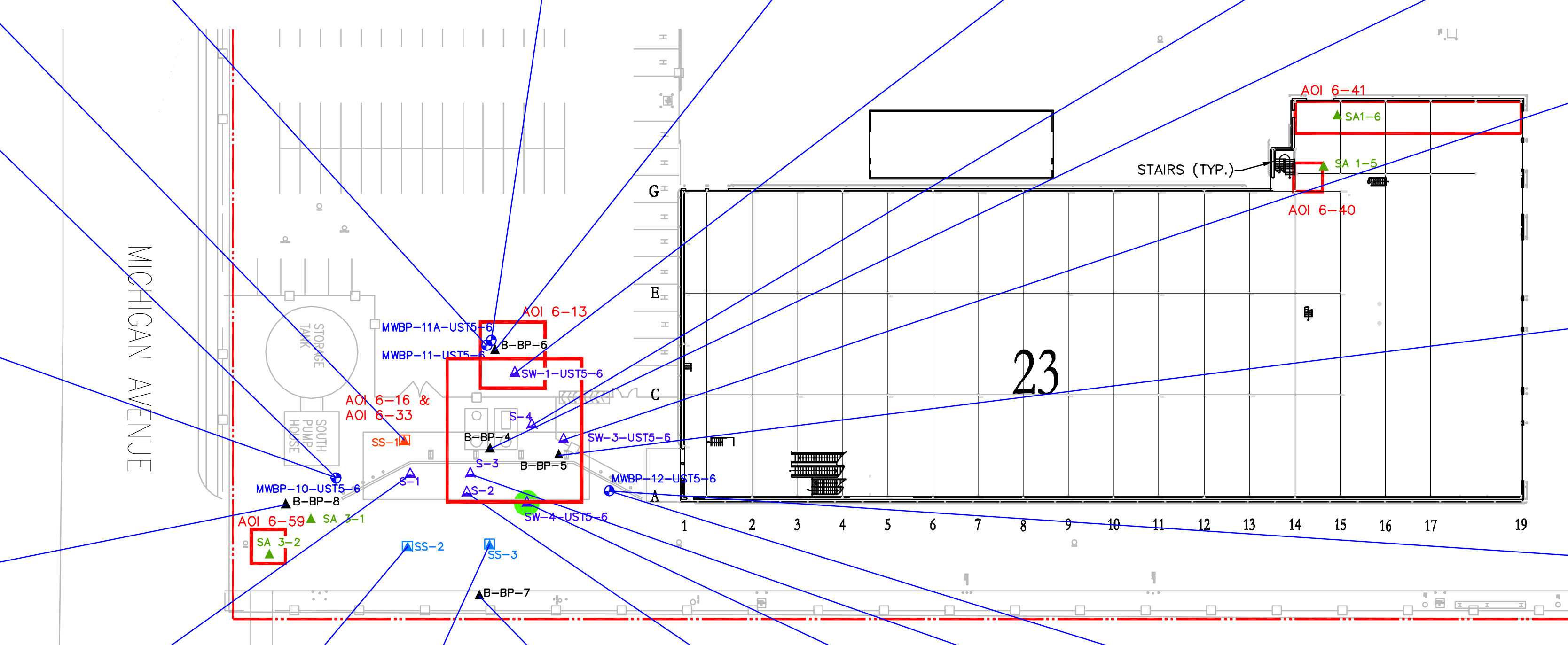
SW-1-UST5-6 (6-7-1991)	0-0(Unknown)
SVOC	
Naphthalene	0.33 U
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.005

S-4 (6-7-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.01 U

B-BP-4 (5-9-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.04

MWBP-10-UST5-6 (10-19-1993)	8-0(ft BGS)	12-14(ft BGS)
SVOC		
Naphthalene	0.33 U	0.33 U
VOC		
1,1,1-Trichloroethane	NS	NS
1,1,2-Trichloroethane	NS	NS
1,1-Dichloroethene	NS	NS
Acetone	NS	NS
Benzene	0.01 U	0.01 U
cis-1,2-Dichloroethene	NS	NS
Ethylbenzene	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	NS	NS
Xylene (total)	0.03 U	0.03 U

SW-3-UST5-6 (6-7-1991)	0-0(Unknown)
SVOC	
Naphthalene	0.33 U
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.041



MWBP-10-UST5-6 (11-16-1993)	34-39(ft BGS)
SVOC	
Naphthalene	0.33 U
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.03 U

B-BP-5 (5-9-1991)	0-0(Unknown)
SVOC	
Naphthalene	0.33 U
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.01 U

B-BP-8 (8-28-1991)	19-21(ft BGS)	24-26(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	NS	NS
1,1,2-Trichloroethane	NS	NS
1,1-Dichloroethene	NS	NS
Acetone	NS	NS
Benzene	0.01 U	0.01 U
cis-1,2-Dichloroethene	NS	NS
Ethylbenzene	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	NS	NS
Xylene (total)	0.01 U	0.002

MWBP-12-UST5-6 (11-16-1993)	33-38(ft BGS)
SVOC	
Naphthalene	0.33 U
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.03 U

MWBP-12-UST5-6 (10-19-1993)	5-0(ft BGS)	9.5-10(ft BGS)
SVOC		
Naphthalene	0.33 U	0.33 U
VOC		
1,1,1-Trichloroethane	NS	NS
1,1,2-Trichloroethane	NS	NS
1,1-Dichloroethene	NS	NS
Acetone	NS	NS
Benzene	0.01 U	0.01 U
cis-1,2-Dichloroethene	NS	NS
Ethylbenzene	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	NS	NS
Xylene (total)	0.03 U	0.03 U

S-1 (6-7-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.01 U

SS-2 (1-11-1992)	3-4(ft BGS)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.012
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.01 U

SS-3 (1-11-1992)	4-5(ft BGS)	5-7(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	NS	NS
1,1,2-Trichloroethane	NS	NS
1,1-Dichloroethene	NS	NS
Acetone	NS	NS
Benzene	0.01 U	0.01 U
cis-1,2-Dichloroethene	NS	NS
Ethylbenzene	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	NS	NS
Xylene (total)	0.01 U	0.01 U

B-BP-7 (8-28-1991)	19-21(ft BGS)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.01 U

S-2 (6-7-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.01 U

SW-4-UST5-6 (6-7-1991)	0-0(Unknown)
SVOC	
Naphthalene	0.33 U
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.022
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.097
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	99 {EFG}

S-3 (6-7-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.01 U

EXCEEDANCE CODES

A – MDEQ INDUSTRIAL SVIIC
B – MDEQ INDUSTRIAL VSIC
C – MDEQ INDUSTRIAL PSIC
D – MDEQ INDUSTRIAL DC
E – MDEQ RESIDENTIAL DWP
F – RISK-BASED REDEVELOPMENT WORKER CONTACT
G – MDEQ GSIP
H – MDEQ RESIDENTIAL SVIIC
I – MDEQ RESIDENTIAL VCIS
J – MDEQ RESIDENTIAL PSIC
K – MDEQ RESIDENTIAL DC

ACRONYMS

DC–	DIRECT CONTACT CRITERIA
DWP–	DRINKING WATER PROTECTION CRITERIA
GSIP–	GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG–	INORGANICS
J–	ESTIMATED VALUE
NS–	NOT SAMPLED
PCB–	POLYCHLORINATED BIPHENYLS
PSIC–	PARTICULATE SOIL INHALATION CRITERIA
SVIIC–	SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs–	SEMI-VOLATILE ORGANIC COMPOUNDS
U–	NON-DETECT WITH ASSOCIATED LIMIT
VOCs–	VOLATILE ORGANIC COMPOUNDS
VSIC–	INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

NOTES:

1. BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER-UNDERGROUND-UTILITIES.DWG.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN THE RESULTS ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIIC, VSIC, PSIC, DC, AND THE RISK BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE RESULTS ARE HIGHER THAN THE CONSERVATIVE RISK BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP.
3. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

0 80'
GRAPHIC SCALE

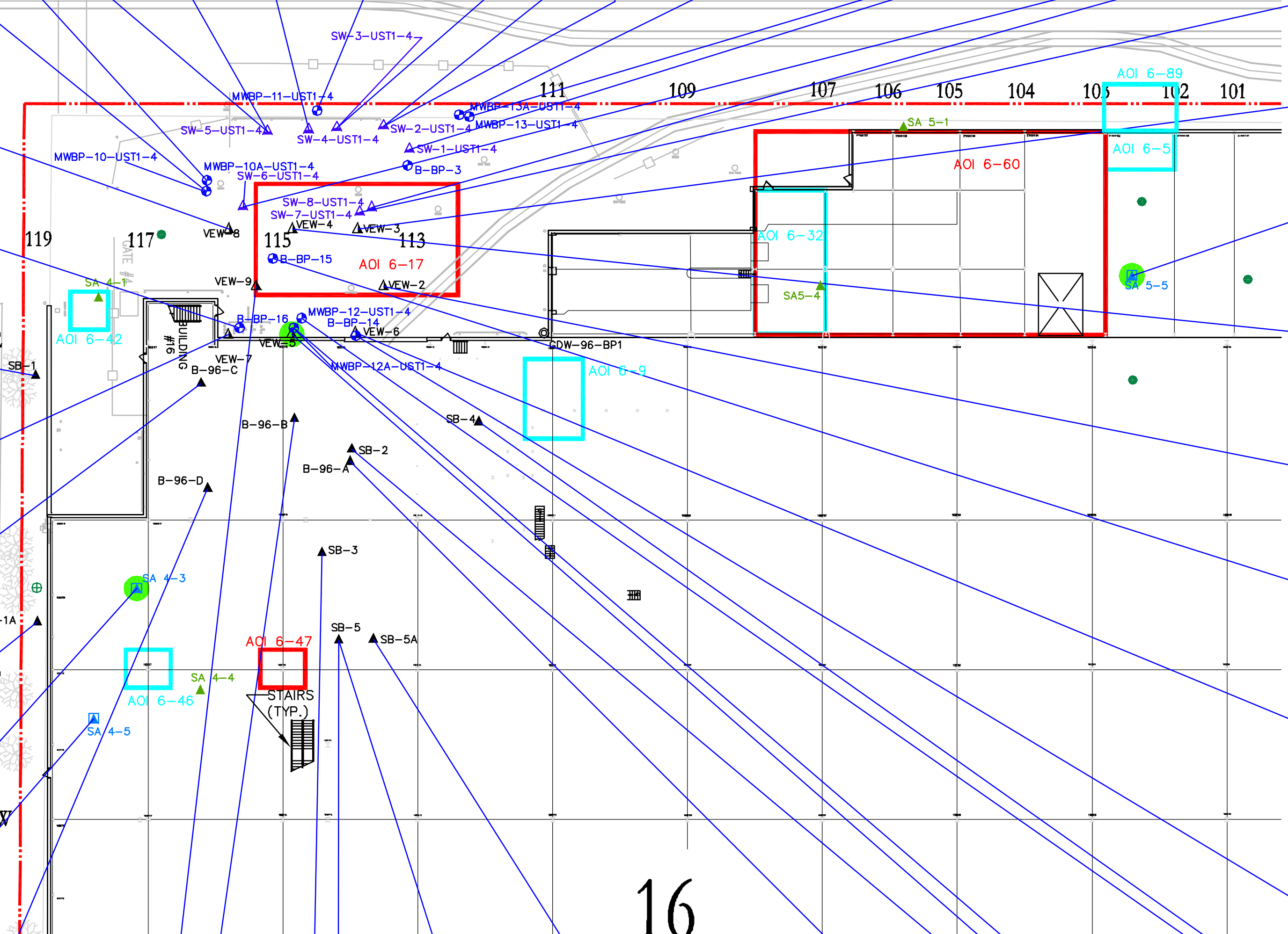
GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 6 PROPOSED SOIL BORINGS - AOI 6-16 AND 6-33

ARCADIS

FIGURE
12

CITY: BRIGHTON DIV/GROUP: 85 DB: ADF LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
J:\2008\B0064481\0000\00101\dwg\64481C01.dwg LAYOUT: 13SAVED: 9/16/2008 4:27 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: ---PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 9/17/2008 8:14 AM BY: FOX, AARON
XREFS: 64481X02 64481X03 64481X07 IMAGES: PROJECTNAME: ----

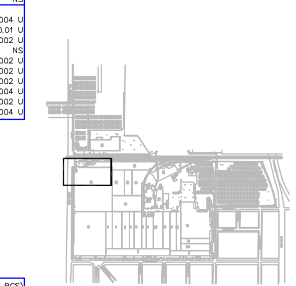


LOCATION — SA-5-3 (4-28-2005) — DATE	0.7-2.7(ft BGS) — DEPTH (FEET BELOW GROUND SURFACE)
INORG	
Aluminum	1940/2060
Arsenic	0.78/1.02
Cadmium	0.21/0.21
Chromium Total	10.8 J {G}/4.36 J {J}
Cobalt	12.3 {EG}/10.8 {EG}

ANALYTE; VALIDATION CODE; EXCEEDANCE CODE; CONCENTRATION IN mg/kg; DUPLICATE SAMPLE CONCENTRATION IN mg/kg

LEGEND:

- AOI 6-75 — SITE ASSESSMENT AREA OF INTEREST GROUPING (AOI)
- AOI 6-46 — AOI WITH NO FURTHER ACTION
- SITE ASSESSMENT GEOPROBE LOCATION
- GEOPROBE LOCATION (SME)
- COMPOSITE SAMPLE LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- VAPOR EXTRACTION WELL LOCATION
- EXCAVATION SOIL SAMPLE LOCATION
- NO ORGANICS ANALYSIS (HISTORICAL)
- NO ORGANIC ANALYSIS, FIELD SOIL SCREENING INFORMATION (SEE FIGURE D-1, APPENDIX D)
- APPROXIMATE PROPERTY BOUNDARY
- PROPOSED BORING
- PROPOSED MONITORING WELL
- PROPOSED LOCATION FOR RE-OCCUPATION



LOCATION MAP
NOT TO SCALE

EXCEEDANCE CODES

A – MDEQ INDUSTRIAL SVIIC
B – MDEQ INDUSTRIAL VSIC
C – MDEQ INDUSTRIAL PSIC
D – MDEQ INDUSTRIAL DC
E – MDEQ RESIDENTIAL DWP
F – RISK-BASED REDEVELOPMENT WORKER CONTACT
G – MDEQ GSIP
H – MDEQ RESIDENTIAL SVIIC
I – MDEQ RESIDENTIAL VCIS
J – MDEQ RESIDENTIAL PSIC
K – MDEQ RESIDENTIAL DC

ACRONYMS

DC– DIRECT CONTACT CRITERIA
DWP– DRINKING WATER PROTECTION CRITERIA
GSIP– GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG– INORGANICS
J– ESTIMATED VALUE
NS– NOT SAMPLED
PCB– POLYCHLORINATED BIPHENYLS
PSIC– PARTICULATE SOIL INHALATION CRITERIA
SVIIC– SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs– SEMI-VOLATILE ORGANIC COMPOUNDS
U– NON-DETECT WITH ASSOCIATED LIMIT
VOCs– VOLATILE ORGANIC COMPOUNDS
VSIC– INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

MWBP-10A-UST1-4 (11-12-1993)	24-25(ft BGS)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.01 U
1,1,2-Trichloroethane	0.01 U
1,1-Dichloroethene	0.01 U
Acetone	0.01 U
Benzene	0.01 U
cis-1,2-Dichloroethene	0.01 U
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	0.01 U
Xylene (total)	0.03 U

SW-5-UST1-4 (6-7-1991)	0-0(Unknown)
SVOC	
Naphthalene	0.33 U
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.01 U

SW-5-UST1-4 (6-26-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethene	0.002
Acetone	NS
Benzene	0.001 U
cis-1,2-Dichloroethene	0.001 U
Ethylbenzene	0.001 U
Methyl Tert Butyl Ether	NS
Trichloroethene	0.004
Xylene (total)	0.001 U

MWBP-11-UST1-4 (8-27-1991)	9-11(ft BGS)	24-26(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	0.001 U	0.001 U
1,1,2-Trichloroethane	0.001 U	0.001 U
1,1-Dichloroethene	0.001 U	0.001 U
Acetone	0.05 U	0.05 U
Benzene	0.001 U	0.001 U
cis-1,2-Dichloroethene	0.001 U	0.001 U
Ethylbenzene	0.001 U	0.001 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	0.001 U	0.001 U
Xylene (total)	0.001 U	0.001 U

SW-2-UST1-4 (6-7-1991)	0-0(Unknown)
SVOC	
Naphthalene	0.33 U
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.01 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.01 U

SW-2-UST1-4 (6-26-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
Acetone	NS
Benzene	0.001 U
cis-1,2-Dichloroethene	0.001 U
Ethylbenzene	0.001 U
Methyl Tert Butyl Ether	NS
Trichloroethene	0.001 U
Xylene (total)	0.001 U

MWBP-13-UST1-4 (8-27-1991)	19-21(ft BGS)	24-26(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	0.001 U	0.001 U
1,1,2-Trichloroethane	0.001 U	0.001 U
1,1-Dichloroethene	0.001 U	0.001 U
Acetone	0.05 U	0.041
Benzene	0.001 U	0.006
cis-1,2-Dichloroethene	0.001 U	0.001 U
Ethylbenzene	0.001 U	0.001 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	0.004	0.001 U
Xylene (total)	0.001 U	0.001 U

SW-6-UST1-4 (6-26-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
Acetone	NS
Benzene	0.001 U
cis-1,2-Dichloroethene	0.001 U
Ethylbenzene	0.01
Methyl Tert Butyl Ether	NS
Trichloroethene	0.001 U
Xylene (total)	0.18

MWBP-10-UST1-4 (8-28-1991)	14-16(ft BGS)	19-21(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	0.001 U	0.001 U
1,1,2-Trichloroethane	0.001	0.001 U
1,1-Dichloroethene	0.001 U	0.001 U
Acetone	0.26	0.05 U
Benzene	0.001 U	0.001 U
cis-1,2-Dichloroethene	0.001 U	0.001 U
Ethylbenzene	0.001 U	0.001 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	0.001 U	0.004
Xylene (total)	0.002	0.001 U

SW-4-UST1-4 (6-26-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001
1,1-Dichloroethene	0.001 U
Acetone	NS
Benzene	0.001 U
cis-1,2-Dichloroethene	0.001 U
Ethylbenzene	0.001 U
Methyl Tert Butyl Ether	NS
Trichloroethene	0.001 U
Xylene (total)	0.001 U

SW-3-UST1-4 (6-26-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
Acetone	NS
Benzene	0.001 U
cis-1,2-Dichloroethene	0.001 U
Ethylbenzene	0.001 U
Methyl Tert Butyl Ether	NS
Trichloroethene	0.003
Xylene (total)	0.002

MWBP-13A-UST1-4 (11-10-1993)	23-25(ft BGS)	28-30(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	0.01 U	0.01 U
1,1,2-Trichloroethane	0.01 U	0.01 U
1,1-Dichloroethene	0.01 U	0.01 U
Acetone	0.01 U	0.01 U
Benzene	0.01 U	0.01 U
cis-1,2-Dichloroethene	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	0.01 U	0.01 U
Xylene (total)	0.03 U	0.03 U

SW-1-UST1-4 (6-26-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.001
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
Acetone	NS
Benzene	0.001 U
cis-1,2-Dichloroethene	0.001 U
Ethylbenzene	0.001 U
Methyl Tert Butyl Ether	NS
Trichloroethene	0.001 U
Xylene (total)	0.001 U

SW-8-UST1-4 (6-26-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
Acetone	NS
Benzene	0.001 U
cis-1,2-Dichloroethene	0.001 U
Ethylbenzene	0.007
Methyl Tert Butyl Ether	NS
Trichloroethene	0.001 U
Xylene (total)	0.136

SW-7-UST1-4 (6-26-1991)	0-0(Unknown)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.001 U
1,1,2-Trichloroethane	0.001 U
1,1-Dichloroethene	0.001 U
Acetone	NS
Benzene	0.001 U
cis-1,2-Dichloroethene	0.001 U
Ethylbenzene	0.001 U
Methyl Tert Butyl Ether	NS
Trichloroethene	0.001 U
Xylene (total)	0.004

VEW-8 (3-26-1995)	2-4(ft BGS)	4-6(ft BGS)	6-8(ft BGS)	8-10(ft BGS)	10-12(ft BGS)
SVOC					
Naphthalene	NS	NS	NS	NS	NS
VOC					
1,1,1-Trichloroethane	0.004 U	0.004 U	0.02	0.004 U M	0.004 U M
1,1,2-Trichloroethane	0.01 U	0.01 U	0.01 U M	0.01 U M	0.01 U M
1,1-Dichloroethene	0.002 U	0.002 U	0.004 U	0.004 U	0.008 U
Acetone	NS	NS	NS	NS	NS
Benzene	0.002 U	0.002 U	0.008	0.02	0.008 U
cis-1,2-Dichloroethene	0.002 U	0.002 U	0.004 U	0.004 U	0.008 U
Ethylbenzene	0.002 U	0.002 U	0.004 U	0.14	0.1
Methyl Tert Butyl Ether	0.004 U	0.004 U	0.008 U	0.008 U	0.016 U
Trichloroethene	0.002 U	0.002 U	0.004 U	0.2 {E}	0.16 {E}
Xylene (total)	0.004 U	0.004 U	0.008 U	0.1	0.092

B-BP-16 (11-4-1993)	6-0(ft BGS)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.01 U
1,1,2-Trichloroethane	0.01 U
1,1-Dichloroethene	0.01 U
Acetone	0.01 U
Benzene	0.01 U
cis-1,2-Dichloroethene	0.01 U
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	0.01 U
Xylene (total)	0.03 U

SB-1 (11-2-1995)	5-7(ft BGS)	7-9(ft BGS)	9-11(ft BGS)
SVOC			
Naphthalene	0.33 U	0.33 U	0.33 U
VOC			
1,1,1-Trichloroethane	NS	NS	NS
1,1,2-Trichloroethane	0.01 U	0.01 U	0.01 U
1,1-Dichloroethene	0.01 U	0.01 U	0.01 U
Acetone	NS	NS	NS
Benzene	0.01 U	0.01 U	0.01 U
cis-1,2-Dichloroethene	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS	NS
Trichloroethene	NS	NS	NS
Xylene (total)	0.02 U	0.02 U	0.02 U

VEW-7 (3-26-1995)	2-4(ft BGS)	4-6(ft BGS)	6-8(ft BGS)	8-10(ft BGS)	10-12(ft BGS)
SVOC					
Naphthalene	NS	NS	NS	NS	NS
VOC					
1,1,1-Trichloroethane	0.004 U	0.004 U	0.2	1.6	0.018
1,1,2-Trichloroethane	0.01 U	0.01 U	0.01 U M	0.01 U M	0.01 U M
1,1-Dichloroethene	0.002 U	0.002 U	0.002 U	0.004 U	0.002 U
Acetone	NS	NS	NS	NS	NS
Benzene	0.002 U	0.002 U	0.06	0.3 {E}	0.012
cis-1,2-Dichloroethene	0.002 U	0.002 U	0.002 U	0.004 U	0.002 U
Ethylbenzene	0.002 U	0.002 U	0.072	2.6 {EG}	0.002 U
Methyl Tert Butyl Ether	0.004 U	0.004 U	0.004 U	0.008 U	0.004 U
Trichloroethene	0.002 U	0.002 U	0.07	0.7 {E}	0.002 U
Xylene (total)	0.004 U	0.004 U	0.04	2.8 {G}	0.004 U

B-96-C (8-3-1996)	7-9(ft BGS)	10-11(ft BGS)	12-13(ft BGS)
SVOC			
Naphthalene	NS	NS	NS
VOC			
1,1,1-Trichloroethane	0.01 U	0.01 U	0.01 U
1,1,2-Trichloroethane	0.01 U	0.01 U	0.01 U
1,1-Dichloroethene	0.01 U	0.01 U	0.01 U
Acetone	NS	NS	NS
Benzene	0.01 U	0.01 U	0.01 U
cis-1,2-Dichloroethene	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS	NS
Trichloroethene	0.01 U	0.01 U	0.01 U
Xylene (total)	0.01 U	0.01 U	0.01 U

SB-1A (9-9-1996)	7-9(ft BGS)	9-11(ft BGS)	11-13(ft BGS)
SVOC			
Naphthalene	NS	NS	NS
VOC			
1,1,1-Trichloroethane	0.01 U	0.01 U	0.01 U
1,1,2-Trichloroethane	0.01 U	0.01 U	0.01 U
1,1-Dichloroethene	0.01 U	0.01 U	0.01 U
Acetone	NS	NS	NS
Benzene	0.01 U	0.01 U	0.01 U
cis-1,2-Dichloroethene	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS	NS
Trichloroethene	0.01 U	0.01 U	0.01 U
Xylene (total)	0.01 U	0.01 U	0.01 U

SA 4-3 (11-10-2005)	12-14(ft BGS)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.6 U
1,1,2-Trichloroethane	0.6 U
1,1-Dichloroethene	0.6 UJ
Acetone	R
Benzene	0.2 J {E}
cis-1,2-Dichloroethene	0.6 U
Ethylbenzene	23.5 {EG}
Methyl Tert Butyl Ether	3 U
Trichloroethene	0.6 U
Xylene (total)	137 {EFG}

SA 4-5 (11-10-2005)	9-11(ft BGS)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.05 U
1,1,2-Trichloroethane	0.05 U
1,1-Dichloroethene	0.05 UJ
Acetone	R
Benzene	0.05 U
cis-1,2-Dichloroethene	0.05 U
Ethylbenzene	0.55 {G}
Methyl Tert Butyl Ether	0.3 U
Trichloroethene	0.05 U
Xylene (total)	0.29 J

B-96-D (8-3-1996)	7-9(ft BGS)	9-11(ft BGS)	11-13(ft BGS)
SVOC			
Naphthalene	NS	NS	NS
VOC			
1,1,1-Trichloroethane	0.1 U	0.5 U	0.01 U
1,1,2-Trichloroethane	0.6 {E}	0.5 U	0.01 U
1,1-Dichloroethene	0.1 U	0.5 U	0.01 U
Acetone	NS	NS	NS
Benzene	0.1 U	0.5 U	0.01 U
cis-1,2-Dichloroethene	0.1 U	0.5 U	0.01 U
Ethylbenzene	0.1 U	0.5 U	0.01 U
Methyl Tert Butyl Ether	NS	NS	NS
Trichloroethene	0.1 U	0.5 U	0.01 U
Xylene (total)	0.1 U	0.5 U	0.01 U

VEW-9 (3-26-1995)	2-4(ft BGS)	4-6(ft BGS)	6-8(ft BGS)	8-10(ft BGS)	10-12(ft BGS)
SVOC					
Naphthalene	NS	NS	NS	NS	NS
VOC					
1,1,1-Trichloroethane	0.004 U	0.004 U	0.002 U	0.01	0.02
1,1,2-Trichloroethane	0.01 U	0.01 U M	0.01 U M	0.01 U M	0.01 U M
1,1-Dichloroethene	0.002 U	0.002 U	0.002 U	0.002 U	0.004 U
Acetone	NS	NS	NS	NS	NS
Benzene	0.002 U	0.002 U	0.002 U	0.016	0.026
cis-1,2-Dichloroethene	0.002 U	0.002 U	0.002 U	0.002	0.018
Ethylbenzene	0.002 U	0.016	0.014	0.14	0.17
Methyl Tert Butyl Ether	0.004 U	0.004 U	0.004 U	0.008 U	0.008 U
Trichloroethene	0.002 U	0.005	0.006	0.005	0.02
Xylene (total)	0.004 U	0.018	0.005	0.452	0.95 {G}

B-96-B (8-3-1996)	7-9(ft BGS)	9-11(ft BGS)	11-13(ft BGS)
SVOC			
Naphthalene	NS	NS	NS
VOC			
1,1,1-Trichloroethane	0.1 U	0.5 U	0.01 U
1,1,2-Trichloroethane	0.6 {E}	0.5 U	0.01 U
1,1-Dichloroethene	0.1 U	0.5 U	0.01 U
Acetone	NS	NS	NS
Benzene	0.1 U	3.4 {EH}	0.01 U
cis-1,2-Dichloroethene	0.1 U	0.5 U	0.01 U
Ethylbenzene	0.1 U	12 {EG}	0.01 U
Methyl Tert Butyl Ether	NS	NS	NS
Trichloroethene	0.1 U	0.5 U	0.01 U
Xylene (total)	0.2	299 {ADEFGHK}	0.01 U

SB-5 (1-14-1996)	13-0(ft BGS)	16.5-0(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	NS	NS
1,1,2-Trichloroethane	NS	NS
1,1-Dichloroethene	NS	NS
Acetone	NS	NS
Benzene	0.01 U	0.01 U
cis-1,2-Dichloroethene	NS	NS
Ethylbenzene	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	NS	NS
Xylene (total)	0.01 U	0.01 U

SB-5 (1-16-1996)	16.8-0(ft BGS)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	NS
1,1,2-Trichloroethane	NS
1,1-Dichloroethene	NS
Acetone	NS
Benzene	0.001 U
cis-1,2-Dichloroethene	NS
Ethylbenzene	0.001
Methyl Tert Butyl Ether	NS
Trichloroethene	NS
Xylene (total)	0.004

SB-3 (1-6-1996)	12-0(ft BGS)	14-0(ft BGS)	17-0(ft BGS)	17.5-0(ft BGS)
SVOC				
Naphthalene	NS	NS	NS	NS
VOC				
1,1,1-Trichloroethane	NS	NS	NS	NS
1,1,2-Trichloroethane	NS	NS	NS	NS
1,1-Dichloroethene	NS	NS	NS	NS
Acetone	NS	NS	NS	NS
Benzene	0.01 U	1.72 {EH}	0.3 {E}	0.028
cis-1,2-Dichloroethene	NS	NS	NS	NS
Ethylbenzene	0.01 U	0.1	0.01 U	0.001 U
Methyl Tert Butyl Ether	NS	NS	NS	NS
Trichloroethene	NS	NS	NS	NS
Xylene (total)	0.01 U	0.34	0.05	0.002

SB-5A (9-9-1996)	10-13(ft BGS)	14-16(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	0.01 U	0.01 U
1,1,2-Trichloroethane	0.01 U	0.01 U
1,1-Dichloroethene	0.01 U	0.01 U
Acetone	NS	NS
Benzene	NS	NS
cis-1,2-Dichloroethene	0.01 U	0.01 U
Ethylbenzene	NS	NS
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	0.01 U	0.01 U
Xylene (total)	NS	NS

B-96-A (8-3-1996)	15-17(ft BGS)	17-19(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	NS	NS
1,1,2-Trichloroethane	NS	NS
1,1-Dichloroethene	NS	NS
Acetone	NS	NS
Benzene	0.01 U	0.01 U
cis-1,2-Dichloroethene	NS	NS
Ethylbenzene	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	NS	NS
Xylene (total)	0.01 U	0.01 U

SB-2 (11-2-1995)	7-9(ft BGS)	9-11(ft BGS)	11-13(ft BGS)	13-15(ft BGS)
SVOC				
Naphthalene	0.33 U	9.2 {G}	0.33 U	0.33 U
VOC				
1,1,1-Trichloroethane	NS	NS	NS	NS
1,1,2-Trichloroethane	0.01 U	0.01 U	0.01 U	0.01 U
1,1-Dichloroethene	0.01 U	0.01 U	0.01 U	0.01 U
Acetone	NS	NS	NS	NS
Benzene	0.39 {E}	29.7 {AEFGHI}	2.9 {EH}	0.69 {E}
cis-1,2-Dichloroethene	0.01 U	0.01 U	0.01 U	0.01 U
Ethylbenzene	0.67 {G}	122 {EGH}	0.17	0.2
Methyl Tert Butyl Ether	NS	NS	NS	NS
Trichloroethene	NS	NS	NS	NS
Xylene (total)	0.73	125 {EFG}	0.78 {G}	0.2

MWBP-12A-UST1-4 (11-4-1993)	40-0(ft BGS)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.01 U
1,1,2-Trichloroethane	0.01 U
1,1-Dichloroethene	0.01 U
Acetone	0.01 U
Benzene	0.01 U
cis-1,2-Dichloroethene	0.01 U
Ethylbenzene	0.01 U
Methyl Tert Butyl Ether	NS
Trichloroethene	0.01 U
Xylene (total)	0.03 U

VEW-5 (3-19-1995)	2-4(ft BGS)	4-6(ft BGS)	6-8(ft BGS)	8-10(ft BGS)
SVOC				
Naphthalene	NS	NS	NS	NS
VOC				
1,1,1-Trichloroethane	0.004 U	0.004 U	3.5	9 {EG}
1,1,2-Trichloroethane	0.01 U	0.01 U	0.01 U M	0.01 U M
1,1-Dichloroethene	0.002 U	0.002 U	0.13 {H}	0.5 {AEH}
Acetone	NS	NS	NS	NS
Benzene	0.002 U	0.002 U	2 {EH}	7 {EGH}
cis-1,2-Dichloroethene	0.002 U	0.002 U	4 {E}	12 {E}
Ethylbenzene	0.002 U	0.002 U	0.18	0.6 {G}
Methyl Tert Butyl Ether	0.004 U	0.004 U	3.9 {E}	10 {E}
Trichloroethene	0.002 U	0.002 U	0.4 {E}	1.2 {E}
Xylene (total)	0.004 U	0.004 U	0.182	0.72

MWBP-12-UST1-4 (8-27-1991)	9-11(ft BGS)	19-21(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	0.001 U	0.001 U
1,1,2-Trichloroethane	0.001 U	0.001 U
1,1-Dichloroethene	0.001 U	0.001 U
Acetone	0.041	0.05 U
Benzene	0.58 {E}	0.001 U
cis-1,2-Dichloroethene	0.001 U	0.001 U
Ethylbenzene	3.4 {EG}	0.001 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	0.001 U	0.001 U
Xylene (total)	0.005 U	0.002

SB-4 (1-14-1996)	8.5-0(ft BGS)	14-0(ft BGS)	17-0(ft BGS)
SVOC			
Naphthalene	NS	NS	NS
VOC			
1,1,1-Trichloroethane	NS	NS	NS
1,1,2-Trichloroethane	NS	NS	NS
1,1-Dichloroethene	NS	NS	NS
Acetone	NS	NS	NS
Benzene	0.01 U	0.01 U	0.01 U
cis-1,2-Dichloroethene	NS	NS	NS
Ethylbenzene	0.01 U	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS	NS
Trichloroethene	NS	NS	NS
Xylene (total)	0.01 U	0.01 U	0.01 U

B-BP-14 (11-4-1993)	8-9(ft BGS)	18-20(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	0.01 U	0.01 U
1,1,2-Trichloroethane	0.01 U	0.01 U
1,1-Dichloroethene	0.01 U	0.01 U
Acetone	0.01 U	0.01 U
Benzene	0.01 U	0.01 U
cis-1,2-Dichloroethene	0.01 U	0.01 U
Ethylbenzene	0.014	0.01 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	0.01 U	0.01 U
Xylene (total)	0.03 U	0.03 U

VEW-6 (3-26-1995)	2-4(ft BGS)	4-6(ft BGS)	6-8(ft BGS)	8-10(ft BGS)	10-12(ft BGS)
SVOC					
Naphthalene	NS	NS	NS	NS	NS
VOC					
1,1,1-Trichloroethane	0.004 U	0.004 U	0.004 U M	0.004 U M	0.004 U M
1,1,2-Trichloroethane	0.01 U	0.01 U	0.01 U M	0.01 U M	0.01 U M
1,1-Dichloroethene	0.002 U	0.002 U	0.004 U	0.004 U	0.002 U
Acetone	NS	NS	NS	NS	NS
Benzene	0.002 U	0.002 U	0.004 U	0.004 U	0.002 U
cis-1,2-Dichloroethene	0.002 U	0.002 U	0.004 U	0.004 U	0.002 U
Ethylbenzene	0.002 U	0.002 U	0.03	0.13	0.002 U
Methyl Tert Butyl Ether	0.004 U	0.004 U	0.008 U	0.008 U	0.004 U
Trichloroethene	0.002 U	0.002 U	0.002 U M	0.002 U M	0.002 U
Xylene (total)	0.004 U	0.004 U	0.038	0.148	0.004 U

B-BP-15 (11-4-1993)	8-10(ft BGS)	18-20(ft BGS)
SVOC		
Naphthalene	NS	NS
VOC		
1,1,1-Trichloroethane	0.01 U	0.01 U
1,1,2-Trichloroethane	0.041	0.01 U
1,1-Dichloroethene	0.01 U	0.01 U
Acetone	0.01 U	0.01 U
Benzene	0.01 U	0.01 U
cis-1,2-Dichloroethene	0.01 U	0.01 U
Ethylbenzene	0.01 U	0.01 U
Methyl Tert Butyl Ether	NS	NS
Trichloroethene	0.01 U	0.01 U
Xylene (total)	0.03 U	0.03 U

VEW-2 (3-19-1995)	2-4(ft BGS)	4-6(ft BGS)	6-8(ft BGS)	8-10(ft BGS)
SVOC				
Naphthalene	NS	NS	NS	NS
VOC				
1,1,1-Trichloroethane	0.004 U	0.004 U	0.004 U	0.004 U
1,1,2-Trichloroethane	0.01 U	0.01 U	0.01 U	0.01 U
1,1-Dichloroethene	0.002 U	0.002 U	0.002 U	0.002 U
Acetone	NS	NS	NS	NS
Benzene	0.002 U	0.002 U	0.002 U	0.002 U
cis-1,2-Dichloroethene	0.002 U	0.002 U	0.002 U	0.002 U
Ethylbenzene	0.002 U	0.002 U	0.002 U	0.002 U
Methyl Tert Butyl Ether	0.004 U	0.004 U	0.004 U	0.004 U
Trichloroethene	0.002 U	0.002 U	0.002 U	0.002 U
Xylene (total)	0.004 U	0.004 U	0.004 U	0.004 U

VEW-4 (3-19-1995)	2-4(ft BGS)	4-6(ft BGS)	6-8(ft BGS)	8-10(ft BGS)
SVOC				
Naphthalene	NS	NS	NS	NS
VOC				
1,1,1-Trichloroethane	0.004 U	0.004 U	0.004 U	0.004 U
1,1,2-Trichloroethane	0.01 U	0.01 U	0.01 U	0.01 U
1,1-Dichloroethene	0.002 U	0.002 U	0.002 U	0.002 U
Acetone	NS	NS	NS	NS
Benzene	0.002 U	0.002 U	0.002 U	0.002 U
cis-1,2-Dichloroethene	0.002 U	0.002 U	0.002 U	0.002 U
Ethylbenzene	0.002 U	0.002 U	0.002 U	0.002 U
Methyl Tert Butyl Ether	0.004 U	0.004 U	0.004 U	0.004 U
Trichloroethene	0.002 U	0.002 U	0.002 U	0.002 U
Xylene (total)	0.004 U	0.004 U	0.004 U	0.004 U

SA 5-5 (11-10-2005)	8-10(ft BGS)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.5 U
1,1,2-Trichloroethane	0.5 U
1,1-Dichloroethene	0.5 U
Acetone	35 {E}
Benzene	0.5 U
cis-1,2-Dichloroethene	0.5 U
Ethylbenzene	6.1 {EG}
Methyl Tert Butyl Ether	2 U
Trichloroethene	0.5 U
Xylene (total)	34.5 {EG}

VEW-3 (3-19-1995)	2-4(ft BGS)	4-6(ft BGS)	6-8(ft BGS)	8-10(ft BGS)
SVOC				
Naphthalene	NS	NS	NS	NS
VOC				
1,1,1-Trichloroethane	0.004 U	0.004 U	0.004 U	0.004 U
1,1,2-Trichloroethane	0.01 U	0.01 U	0.01 U	0.01 U
1,1-Dichloroethene	0.002 U	0.002 U	0.002 U	0.002 U
Acetone	NS	NS	NS	NS
Benzene	0.002 U	0.002 U	0.002 U	0.002 U
cis-1,2-Dichloroethene	0.002 U	0.002 U	0.002 U	0.002 U
Ethylbenzene	0.002 U	0.002 U	0.002 U	0.002 U
Methyl Tert Butyl Ether	0.004 U	0.004 U	0.004 U	0.004 U
Trichloroethene	0.002 U	0.002 U	0.002 U	0.002 U
Xylene (total)	0.004 U	0.004 U	0.004 U	0.004 U

NOTES:

1. BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER-UNDERGROUND-UTILITIES.DWG.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN THE RESULTS ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIIC, VSIC, PSIC, DC, AND THE RISK BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE RESULTS ARE HIGHER THAN THE CONSERVATIVE RISK BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP.
3. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

DRAFT

0 30' 60'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 6 PROPOSED SOIL BORINGS & MONITORING WELLS - AOIs 6-17 & 6-60

ARCADIS

FIGURE
13

SA 4-1 (11-11-2005)	9-11(ft BGS)
INORG	
Antimony	0.08 J
Arsenic	0.6
Barium	9.4
Beryllium	0.05 J
Cadmium	0.2 U
Chromium Total	1.6 J
Cobalt	1.33
Copper	1.9
Lead	7.7
Manganese	118
Nickel	3.1
Selenium	0.17 J
Silver	0.1 U
Vanadium	2.2
Zinc	4.5

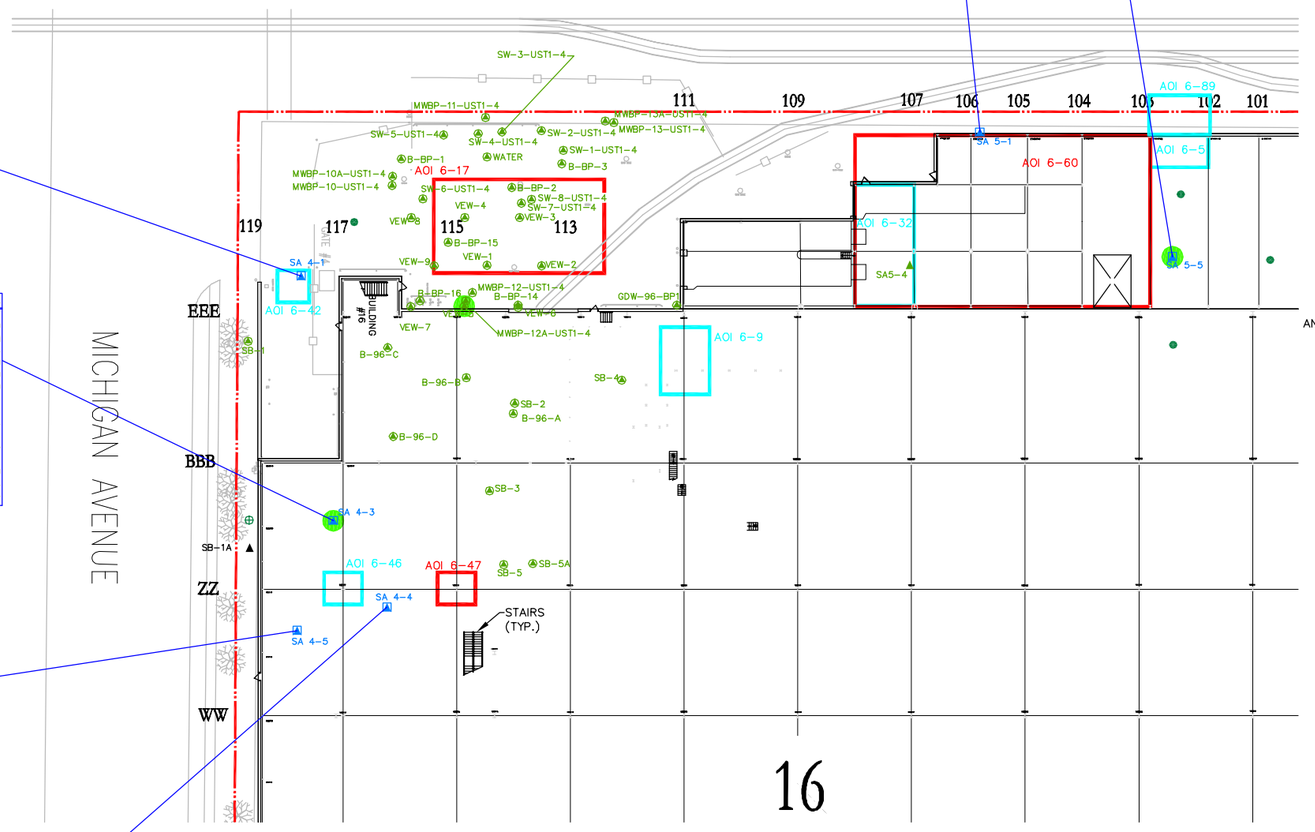
SA 4-3 (11-10-2005)	12-14(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.11
Barium	4.5
Beryllium	0.07 J
Cadmium	0.06 J
Chromium Total	1.8 J
Cobalt	1.37
Copper	4.7
Lead	3
Manganese	126
Nickel	2.9
Selenium	0.44
Silver	0.03 J
Vanadium	2.5
Zinc	10

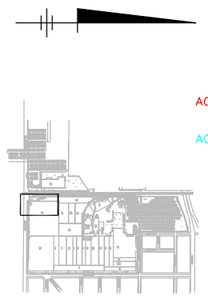
SA 4-5 (11-10-2005)	9-11(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.42
Barium	8.8
Beryllium	0.07 J
Cadmium	0.05 J
Chromium Total	3.2
Cobalt	1.92
Copper	6
Lead	4.2
Manganese	195
Nickel	4.2
Selenium	0.28
Silver	0.1 U
Vanadium	3.5
Zinc	11.7

SA 4-4 (11-10-2005)	14-16(ft BGS)
INORG	
Antimony	0.09 J/0.3 U
Arsenic	1.07/2.17
Barium	31.6/46.2
Beryllium	0.27 J/0.33 J
Cadmium	0.38/0.34
Chromium Total	7.2 [G]/8.9 [G]
Cobalt	3.06/5
Copper	13.4/21.6
Lead	7.3/7.7
Manganese	43.1 J/169 J
Nickel	13.6/17.1
Selenium	1.03 [G]/1.26 [G]
Silver	0.41 J/0.07 J
Vanadium	11.4/15.6
Zinc	36.1/35.7

SA 5-1 (11-10-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U/0.3 U
Arsenic	1.16/1.22
Barium	36.4/34.1
Beryllium	0.17 J/0.17 J
Cadmium	0.08 J/0.08 J
Chromium Total	5.9 [G]/5.5 [G]
Cobalt	3.89/3.72
Copper	6.2/6.1
Lead	3.9/4
Manganese	276/235
Nickel	9.4/8
Selenium	0.35/0.17 J
Silver	0.1 U/0.1 U
Vanadium	6.9/6.7
Zinc	13.9/13.1

SA 5-5 (11-10-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.8
Barium	6
Beryllium	0.04 J
Cadmium	0.06 J
Chromium Total	1.8 J
Cobalt	1.01
Copper	3.9
Lead	2.3
Manganese	132
Nickel	2.3
Selenium	0.36
Silver	0.1 U
Vanadium	2
Zinc	6.9





LOCATION MAP
NOT TO SCALE

LEGEND:

- AOI 6-75 — SITE ASSESSMENT AREA OF INTEREST GROUPING (AOI)
- AOI 6-46 — AOI WITH NO FURTHER ACTION
- SITE ASSESSMENT GEOPROBE LOCATION
- GEOPROBE LOCATION (SME)
- COMPOSITE SAMPLE LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- VAPOR EXTRACTION WELL LOCATION
- EXCAVATION SOIL SAMPLE LOCATION
- NO INORGANICS ANALYSIS (HISTORICAL)
- NO INORGANIC ANALYSIS, FIELD SOIL SCREENING INFORMATION (SEE FIGURE D-1, APPENDIX D)
- APPROXIMATE PROPERTY BOUNDARY
- PROPOSED BORING
- PROPOSED MONITORING WELL
- PROPOSED LOCATION FOR RE-OCCUPATION

LOCATION — DATE — DEPTH (FEET BELOW GROUND SURFACE)

SA-5-3 (4-28-2005)	0.7-2.7(ft BGS)
INORG	
Aluminum	1940/2060
Arsenic	0.78/1.02
Cadmium	0.21/0.21
Chromium Total	10.8 J [G]/4.36 J [J]
Cobalt	12.3 [EG]/10.8 [EG]

ANALYTE — VALIDATION CODE — EXCEEDANCE CODE

CONCENTRATION IN mg/kg — DUPLICATE SAMPLE CONCENTRATION IN mg/kg

EXCEEDANCE CODES

- A – MDEQ INDUSTRIAL SVIIC
- B – MDEQ INDUSTRIAL VSIC
- C – MDEQ INDUSTRIAL PSIC
- D – MDEQ INDUSTRIAL DC
- E – MDEQ RESIDENTIAL DWP
- F – RISK-BASED REDEVELOPMENT WORKER CONTACT
- G – MDEQ GSIP
- H – MDEQ RESIDENTIAL SVIIC
- I – MDEQ RESIDENTIAL VCIS
- J – MDEQ RESIDENTIAL PSIC
- K – MDEQ RESIDENTIAL DC

ACRONYMS

DC–	DIRECT CONTACT CRITERIA
DWP–	DRINKING WATER PROTECTION CRITERIA
GSIP–	GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG–	INORGANICS
J–	ESTIMATED VALUE
NS–	NOT SAMPLED
PCB–	POLYCHLORINATED BIPHENYLS
PSIC–	PARTICULATE SOIL INHALATION CRITERIA
SVIIC–	SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs–	SEMI-VOLATILE ORGANIC COMPOUNDS
U–	NON-DETECT WITH ASSOCIATED LIMIT
VOCs–	VOLATILE ORGANIC COMPOUNDS
VSIC–	INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

NOTES:

1. BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER-UNDERGROUND-UTILITIES.DWG.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN FACILITY-RELATED CONCENTRATIONS (SEE NOTE 3) ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIIC, VSIC, PSIC, DC, AND THE RISK BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE FACILITY-RELATED CONCENTRATIONS ARE HIGHER THAN THE CONSERVATIVE RISK BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP.
3. FACILITY RELATED SOIL CONCENTRATIONS ARE THOSE IN EXCESS OF THE BACKGROUND LEVELS. STATEWIDE DEFAULT BACKGROUND LEVELS PUBLISHED WITH PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS ARE USED AS BACKGROUND LEVELS.
4. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN ON THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

DRAFT

0 30' 60'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 6 PROPOSED SOIL BORINGS & MONITORING WELLS - AOIs 6-17 & 6-60

ARCADIS

FIGURE
14

CITY: BRIGHTON DIV/GROUP:85 DB: ADF LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(On)ON=*;OFF=*REF* ---PLOTSTYLETABLE:
J:\2008\B0064811\0000\001\01\dwg\64481C02.dwg LAYOUT: 14SAVED: 9/16/2008 3:53 PM BY: FOX, AARON
XREFS: IMAGES: PROJECTNAME: ---
64481X02
64481X03
64481X06

CITY: BRIGHTON DIV/GROUP: 85 DB:ADF LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\BRIGHTON\ACT\B0064481\0000\00101\DWG\64481C05.dwg LAYOUT: 15 SAVED: 1/19/2009 4:51 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 2/10/2009 9:56 AM BY: FOX, AARON
XREFS: 64481X02 64481X03 64481X06 IMAGES: PROJECTNAME: ----

SA 6-11 (11-4-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.06
Barium	26.3
Beryllium	0.5 U
Cadmium	0.06 J
Chromium Total	4.5 {G}
Cobalt	1.51
Lead	3.2
Manganese	164
Nickel	5.4
Selenium	0.37
Silver	0.1 U
Vanadium	5.5

SA 20-3 (11-4-2005)	7-9(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.19
Barium	96.8
Beryllium	0.5 U
Cadmium	0.26
Chromium Total	16.1 {G}
Cobalt	7.21
Lead	10.9
Manganese	283
Nickel	18.9
Selenium	0.52
Silver	0.1 U
Vanadium	14.1

SA 6-10 (11-3-2005)	14-16(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.06
Barium	26.3
Beryllium	0.5 U
Cadmium	0.2 U
Chromium Total	7.7 {G}
Cobalt	3.21
Lead	2.5
Manganese	183
Nickel	8.3
Selenium	0.22 U
Silver	0.1 U
Vanadium	8.1

SA 20-1 (11-4-2005)	4-6(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.31
Barium	45.2
Beryllium	0.5 U
Cadmium	0.1 J
Chromium Total	13.7 {G}
Cobalt	7.9 {E}
Lead	5.7
Manganese	326
Nickel	17.4
Selenium	0.84 {G}
Silver	0.1 U
Vanadium	12.8

SA 20-2 (11-4-2005)	14-16(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.62
Barium	36.8
Beryllium	0.5 U
Cadmium	0.09 J
Chromium Total	11.9 {G}
Cobalt	5.09
Lead	3.7
Manganese	252
Nickel	13
Selenium	1.01 {G}
Silver	0.02 J
Vanadium	11.4

SA 20-4 (11-4-2005)	10-12(ft BGS)
INORG	
Antimony	0.3 U/0.3 U
Arsenic	2.41/1.56
Barium	24/29.2
Beryllium	0.19 J/0.5 U
Cadmium	0.07 J/0.08 J
Chromium Total	4.1 {G}/9 {G}
Cobalt	2.59/4.63
Lead	3.9/4.5
Manganese	277/250
Nickel	5.6/10.6
Selenium	0.67/0.87 {G}
Silver	0.02 J/0.1 U
Vanadium	7.1/9.1

SA 7-5 (11-7-2005)	12-14(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.01
Barium	50
Beryllium	0.22 J
Cadmium	0.12 J
Chromium Total	18.5 {G}
Cobalt	7.5
Lead	6.1
Manganese	282
Nickel	20
Selenium	0.89 {G}
Silver	0.1 U
Vanadium	14.3

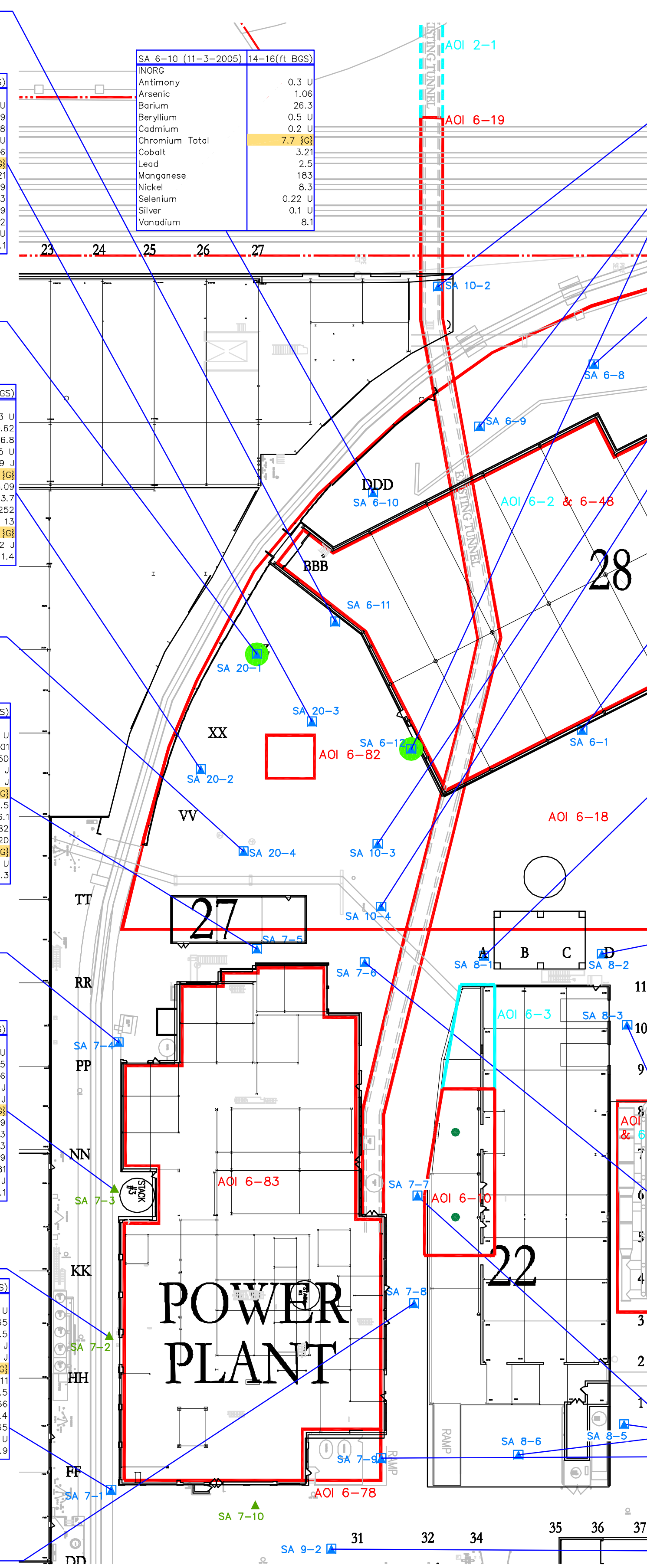
SA 7-4 (11-8-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.53
Barium	35
Beryllium	0.2 J
Cadmium	0.11 J
Chromium Total	7.9 {G}
Cobalt	3.58
Lead	4.1
Manganese	224
Nickel	10.6
Selenium	1.31 {G}
Silver	0.04 J
Vanadium	9.3

SA 7-3 (11-8-2005)	7-9(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.5
Barium	50.6
Beryllium	0.21 J
Cadmium	0.11 J
Chromium Total	7.9 {G}
Cobalt	7.29
Lead	5.3
Manganese	363
Nickel	11.9
Selenium	0.81
Silver	0.02 J
Vanadium	9.1

SA 7-2 (11-8-2005)	4-6(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.43
Barium	36
Beryllium	0.19 J
Cadmium	0.09 J
Chromium Total	7.5 {G}
Cobalt	4.06
Lead	4.6
Manganese	275
Nickel	9.5
Selenium	0.55
Silver	0.1 U
Vanadium	8.9

SA 7-1 (11-8-2005)	9-11(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.65
Barium	42.5
Beryllium	0.2 J
Cadmium	0.08 J
Chromium Total	10.3 {G}
Cobalt	4.11
Lead	4.5
Manganese	366
Nickel	11.4
Selenium	0.65
Silver	0.1 U
Vanadium	10.9

SA 7-8 (11-7-2005)	10-12(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.95
Barium	40.1
Beryllium	0.19 J
Cadmium	0.1 J
Chromium Total	18.1 {G}
Cobalt	5.76
Lead	4.9
Manganese	256
Nickel	17.7
Selenium	0.94 {G}
Silver	0.1 U
Vanadium	16.9



SA 10-2 (11-3-2005)	2-4(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.98
Barium	3.3
Beryllium	0.5 U
Cadmium	0.2 U
Chromium Total	1.6 J
Cobalt	1.01
Lead	1.4
Manganese	84
Nickel	2.4
Selenium	0.2 U
Silver	0.1 U
Vanadium	2.3

SA 6-9 (11-3-2005)	6-8(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.12
Barium	30.2
Beryllium	0.21 J
Cadmium	0.08 J
Chromium Total	6.6 {G}
Cobalt	4.15
Lead	4.1
Manganese	308
Nickel	10.3
Selenium	0.29 U
Silver	0.1 U
Vanadium	8.3

SA 6-12 (11-4-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.08
Barium	43.6
Beryllium	0.5 U
Cadmium	0.06 J
Chromium Total	16.1 {G}
Cobalt	8.35 {E}
Lead	5
Manganese	352
Nickel	18.5
Selenium	0.56
Silver	0.1 U
Vanadium	12.7

SA 6-8 (11-3-2005)	3-5(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.12
Barium	75.4
Beryllium	0.68
Cadmium	0.16 J
Chromium Total	9.4 {G}
Cobalt	5.39
Lead	10.2
Manganese	101
Nickel	9.7
Selenium	0.29 U
Silver	0.1 U
Vanadium	14.7

SA 10-3 (11-7-2005)	14-16(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.01
Barium	79.6
Beryllium	0.15 J
Cadmium	0.08 J
Chromium Total	14.7 {G}
Cobalt	6.44
Lead	4.4
Manganese	253
Nickel	16
Selenium	0.63
Silver	0.1 U
Vanadium	14.2

SA 10-4 (11-4-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.05
Barium	52.9
Beryllium	0.5 U
Cadmium	0.09 J
Chromium Total	13.9 {G}
Cobalt	6.55
Lead	4.9
Manganese	335
Nickel	16
Selenium	0.78
Silver	0.1 U
Vanadium	12.7

SA 6-1 (11-3-2005)	2.5-4.5(ft BGS)
INORG	
Antimony	0.57
Arsenic	2.22
Barium	29.3
Beryllium	0.15 J
Cadmium	0.57
Chromium Total	5.8 {G}
Cobalt	1.91
Lead	72.5 {G}
Manganese	71.7
Nickel	5.6
Selenium	1.76 U
Silver	0.1 U
Vanadium	3.8

SA 8-1 (11-9-2005)	9-11(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.31
Barium	35
Beryllium	0.18 J
Cadmium	0.09 J
Chromium Total	6.1 {G}
Cobalt	4.07
Lead	4.2
Manganese	359
Nickel	9.5
Selenium	0.33
Silver	0.1 U
Vanadium	7.1

SA 8-2 (11-9-2005)	14-16(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.05
Barium	19.9
Beryllium	0.12 J
Cadmium	0.08 J
Chromium Total	3.6 {G}
Cobalt	2.54
Lead	3.2
Manganese	205
Nickel	5.7
Selenium	0.24
Silver	0.1 U
Vanadium	4.6

SA 8-3 (11-8-2005)	14-16(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.61
Barium	21.5
Beryllium	0.12 J
Cadmium	0.18 J
Chromium Total	4.4 {G}
Cobalt	2.66
Lead	3.2
Manganese	227
Nickel	6.8
Selenium	0.52
Silver	0.02 J
Vanadium	5.8

SA 7-6 (11-7-2005)	14-16(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.95
Barium	59.3
Beryllium	0.23 J
Cadmium	0.13 J
Chromium Total	20.8 {G}
Cobalt	7.38
Lead	6.4
Manganese	352
Nickel	22.3
Selenium	0.92 {G}
Silver	0.02 J
Vanadium	14.7

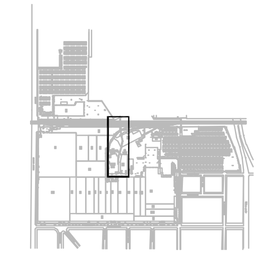
SA 7-7 (11-7-2005)	9-11(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.06
Barium	71.3
Beryllium	0.19 J
Cadmium	0.1 J
Chromium Total	18.3 {G}
Cobalt	10.6 {EG}
Lead	7
Manganese	655 {E}
Nickel	24.2
Selenium	0.4
Silver	0.1 U
Vanadium	14.7

SA 8-5 (11-8-2005)	7-9(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.76
Barium	29.5
Beryllium	0.13 J
Cadmium	0.09 J
Chromium Total	6.2 {G}
Cobalt	3.21
Lead	3.2
Manganese	417
Nickel	7.7
Selenium	0.63
Silver	0.1 U
Vanadium	6.9

SA 8-6 (11-7-2005)	12-14(ft BGS)
INORG	
Antimony	0.3 U/0.3 U
Arsenic	0.95/1.64
Barium	39/38
Beryllium	0.13 J/0.17 J
Cadmium	0.09 J/0.15 J
Chromium Total	12.4 {G}/8 {G}
Cobalt	5.74/3.65
Lead	4/4.6
Manganese	226/245
Nickel	14.1/8.2
Selenium	0.28/0.48
Silver	0.02 J/0.08 J
Vanadium	11.3/8

SA 9-2 (11-8-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.4
Barium	50.4
Beryllium	0.19 J
Cadmium	0.1 J
Chromium Total	7.7 {G}
Cobalt	4.34
Lead	3.7
Manganese	250
Nickel	10.3
Selenium	0.51
Silver	0.02 J
Vanadium	8.8

SA 7-9 (11-7-2005)	7-9(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.91
Barium	43.8
Beryllium	0.18 J
Cadmium	0.09 J
Chromium Total	17.1 {G}
Cobalt	7.03
Lead	5.7
Manganese	280
Nickel	20.2
Selenium	0.58
Silver	0.1 U
Vanadium	14.2



LOCATION MAP
NOT TO SCALE

LEGEND:

- AOI 6-75 🟥 SITE ASSESSMENT AREA OF INTEREST GROUPING (AOI)
- AOI 6-46 ▢ AOI WITH NO FURTHER ACTION
- ▲ SITE ASSESSMENT GEOPROBE LOCATION
- ▲ GEOPROBE LOCATION (SME)
- ● COMPOSITE SAMPLE LOCATION
- ▲ SOIL BORING LOCATION
- ● MONITORING WELL LOCATION
- ▲ VAPOR EXTRACTION WELL LOCATION
- ▲ EXCAVATION SOIL SAMPLE LOCATION
- ▲ NO INORGANICS ANALYSIS (HISTORICAL)
- ▲ NO INORGANIC ANALYSIS, FIELD SOIL SCREENING INFORMATION (SEE FIGURE D-1, APPENDIX D)
- —·· APPROXIMATE PROPERTY BOUNDARY
- ● PROPOSED LOCATION FOR RE-OCCUPATION
- ● PROPOSED BORIING

LOCATION — DATE — DEPTH (FEET BELOW GROUND SURFACE)

SA-5-3 (4-28-2005)	0.7-2.7(ft BGS)
INORG	
Aluminum	1940/2060
Arsenic	0.78/1.02
Cadmium	0.21/0.21
Chromium Total	10.8 J {G}/4.36 J {J}
Cobalt	12.3 {EG}/10.8 {EG}

ANALYTE — VALIDATION CODE — EXCEEDANCE CODE
CONCENTRATION IN mg/kg — DUPLICATE SAMPLE CONCENTRATION IN mg/kg

EXCEEDANCE CODES

A – MDEQ INDUSTRIAL SVIIC
B – MDEQ INDUSTRIAL VSIC
C – MDEQ INDUSTRIAL PSIC
D – MDEQ INDUSTRIAL DC
E – MDEQ RESIDENTIAL DWP
F – RISK-BASED REDEVELOPMENT WORKER CONTACT
G – MDEQ GSIP
H – MDEQ RESIDENTIAL SVIIC
I – MDEQ RESIDENTIAL VCIS
J – MDEQ RESIDENTIAL PSIC
K – MDEQ RESIDENTIAL DC

ACRONYMS

DC– DIRECT CONTACT CRITERIA
DWP– DRINKING WATER PROTECTION CRITERIA
GSIP– GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG– INORGANICS
J– ESTIMATED VALUE
NS– NOT SAMPLED
PCB– POLYCHLORINATED BIPHENYLS
PSIC– PARTICULATE SOIL INHALATION CRITERIA
SVIIC– SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs– SEMI-VOLATILE ORGANIC COMPOUNDS
U– NON-DETECT WITH ASSOCIATED LIMIT
VOCs– VOLATILE ORGANIC COMPOUNDS
VSIC– INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

NOTES:

1. BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER-UNDERGROUND-UTILITIES.DWG.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN FACILITY-RELATED CONCENTRATIONS (SEE NOTE 3) ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIIC, VSIC, PSIC, DC, AND THE RISK BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE FACILITY-RELATED CONCENTRATIONS ARE HIGHER THAN THE CONSERVATIVE RISK BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP.
3. FACILITY RELATED SOIL CONCENTRATIONS ARE THOSE IN EXCESS OF THE BACKGROUND LEVELS. STATEWIDE DEFAULT BACKGROUND LEVELS PUBLISHED WITH PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS ARE USED AS BACKGROUND LEVELS.
4. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

DRAFT

0 40' 80'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 6 PROPOSED SOIL BORINGS & MONITORING WELLS - AOIs 6-10, 6-48 & 6-82

ARCADIS

FIGURE
15

SA 6-7 (11-3-2005)	4-6(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.07
Barium	45.2
Beryllium	0.25 J
Cadmium	0.13 J
Chromium Total	6.6 [G]
Cobalt	5.62
Lead	5.9
Manganese	601 [E]
Nickel	9.1
Selenium	0.6 U
Silver	0.1 U
Vanadium	9.4

E-12 (11-31-1993)	1.5-20(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	4.2
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

SA 6-2 (11-3-2005)	4-6(ft BGS)
INORG	
Antimony	0.19 J/0.5
Arsenic	1.15 J/1.97 J
Barium	11.4/9.3
Beryllium	0.5 U/0.5 U
Cadmium	0.09 J/0.08 J
Chromium Total	3.3/4.1 [G]
Cobalt	1.11/0.98
Lead	34.7 [G]/39.2 [G]
Manganese	53.4/49.8
Nickel	3.6/3.5
Selenium	0.2 U/0.2 U
Silver	0.1 U/0.1 U
Vanadium	3.2/4.6

E-3 (12-31-1993)	1.5-20(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	1.8
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

E-4 (12-31-1993)	1.5-22(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	7.9
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

SA 6-3 (11-3-2005)	3-5(ft BGS)
INORG	
Antimony	0.42
Arsenic	1.56
Barium	40.5
Beryllium	0.5 U
Cadmium	0.19 J
Chromium Total	3.5 [G]
Cobalt	3.22
Lead	121 [G]
Manganese	238
Nickel	4.9
Selenium	0.28 U
Silver	0.1 U
Vanadium	2.9

G-8 (12-31-1992)	1.5-49.1(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	7.8
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

G-2 (12-31-1992)	1.5-35(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	7.7
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

G-1 (12-31-1992)	1.5-35(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	4.3
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

G-3 (12-31-1992)	1.5-50(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	19.4
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

E-8 (12-31-1993)	1.5-20(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	5.6
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

G-5 (12-31-1992)	1.5-35(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	6.9
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

E-31 (12-31-1993)	0-2(ft BGS)	4-6(ft BGS)	8-10(ft BGS)	13-15(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	35.7 [G]	17	4.4	3.7
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS

SME-MW-2 (3-15-1996)	5-0(ft BGS)	10-0(ft BGS)	15-0(ft BGS)	20-0(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	2.9	6	1.3	3.4
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS

E-5 (12-31-1993)	1.5-20(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	7.9
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

E-9 (12-31-1993)	1.5-20(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	5.5
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

SA 6-4 (11-3-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U/0.3 U
Arsenic	1.33/1.62
Barium	54/51.7
Beryllium	0.36 J/0.36 J
Cadmium	0.29/0.18 J
Chromium Total	6.9 [G]/7.8 [G]
Cobalt	4.04/3.62
Lead	6.7/8.1
Manganese	373 J/681 J
Nickel	7.8/8.2
Selenium	0.32 U/0.2 U
Silver	0.1 U/0.1 U
Vanadium	10.3/9.6

SA 6-6 (11-3-2005)	3-5(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.15
Barium	15.5
Beryllium	0.5 U
Cadmium	0.06 J
Chromium Total	2.8
Cobalt	1.6
Lead	3.8
Manganese	164
Nickel	3.5
Selenium	0.2 U
Silver	0.1 U
Vanadium	3.5

SA 6-5 (11-3-2005)	3-5(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.48
Barium	22.8
Beryllium	0.5 U
Cadmium	0.18 J
Chromium Total	3.5 [G]
Cobalt	2.35
Lead	13
Manganese	311
Nickel	6.1
Selenium	0.33 U
Silver	0.1 U
Vanadium	4.1

E-20 (12-31-1993)	1-3(ft BGS)	4-6(ft BGS)	8-10(ft BGS)	13-15(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	4.1	4.4	3.4	2.3
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS

E-19 (12-31-1993)	1-3(ft BGS)	4-6(ft BGS)	8-10(ft BGS)	13-15(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	267 [G]	8.5	5.2	0.005 U
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS

E-18 (12-31-1993)	1-3(ft BGS)	4-6(ft BGS)	8-10(ft BGS)	13-15(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	188 [G]	5.9	6	2.7
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS

E-41A (12-31-1993)	3-7(ft BGS)	14-0(ft BGS)
INORG		
Antimony	NS	NS
Arsenic	NS	NS
Barium	NS	NS
Beryllium	NS	NS
Cadmium	NS	NS
Chromium Total	NS	NS
Cobalt	NS	NS
Lead	4.8	2.8
Manganese	NS	NS
Nickel	NS	NS
Selenium	NS	NS
Silver	NS	NS
Vanadium	NS	NS

E-21 (12-31-1993)	1-3(ft BGS)	4-6(ft BGS)	8-10(ft BGS)	13-15(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	10.4	4.4	3.5	2.7
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS

E-17 (12-31-1993)	4-6(ft BGS)	9-11(ft BGS)	14-16(ft BGS)	19-21(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	1480 [DEGK]	314 [G]	63 [G]	5.6
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS

E-41 (12-31-1993)	1-5(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	17.3
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

E-29 (12-31-1993)	0-2(ft BGS)	4-6(ft BGS)	8-10(ft BGS)	13-15(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	1.8	4.9	4.5	3.2
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS

SME-MW-1 (3-15-1996)	2-0(ft BGS)	5-0(ft BGS)	10-0(ft BGS)	15-0(ft BGS)	20-0(ft BGS)
INORG					
Antimony	NS	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS	NS
Barium	NS	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS	NS
Lead	4.8	8.6	6.1	4.1	4
Manganese	NS	NS	NS	NS	NS
Nickel	NS	NS	NS	NS	NS
Selenium	NS	NS	NS	NS	NS
Silver	NS	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS	NS

E-40 (12-31-1993)	1-5(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	7.3
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

E-40A (12-31-1993)	1-15(ft BGS)	6-0(ft BGS)
INORG		
Antimony	NS	NS/NS
Arsenic	NS	NS/NS
Barium	NS	NS/NS
Beryllium	NS	NS/NS
Cadmium	NS	NS/NS
Chromium Total	NS	NS/NS
Cobalt	NS	NS/NS
Lead	12	5.2/5.8
Manganese	NS	NS/NS
Nickel	NS	NS/NS
Selenium	NS	NS/NS
Silver	NS	NS/NS
Vanadium	NS	NS/NS

E-25 (12-31-1993)	0-2(ft BGS)	4-6(ft BGS)	8-10(ft BGS)	13-15(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	4030 [DEGK]	25.2 [G]	15.7	9.1
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS

E-23 (12-31-1993)	0-2(ft BGS)	6-8(ft BGS)	8-10(ft BGS)	13-15(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	829 [EGK]	9.8	15.4	10.7
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS

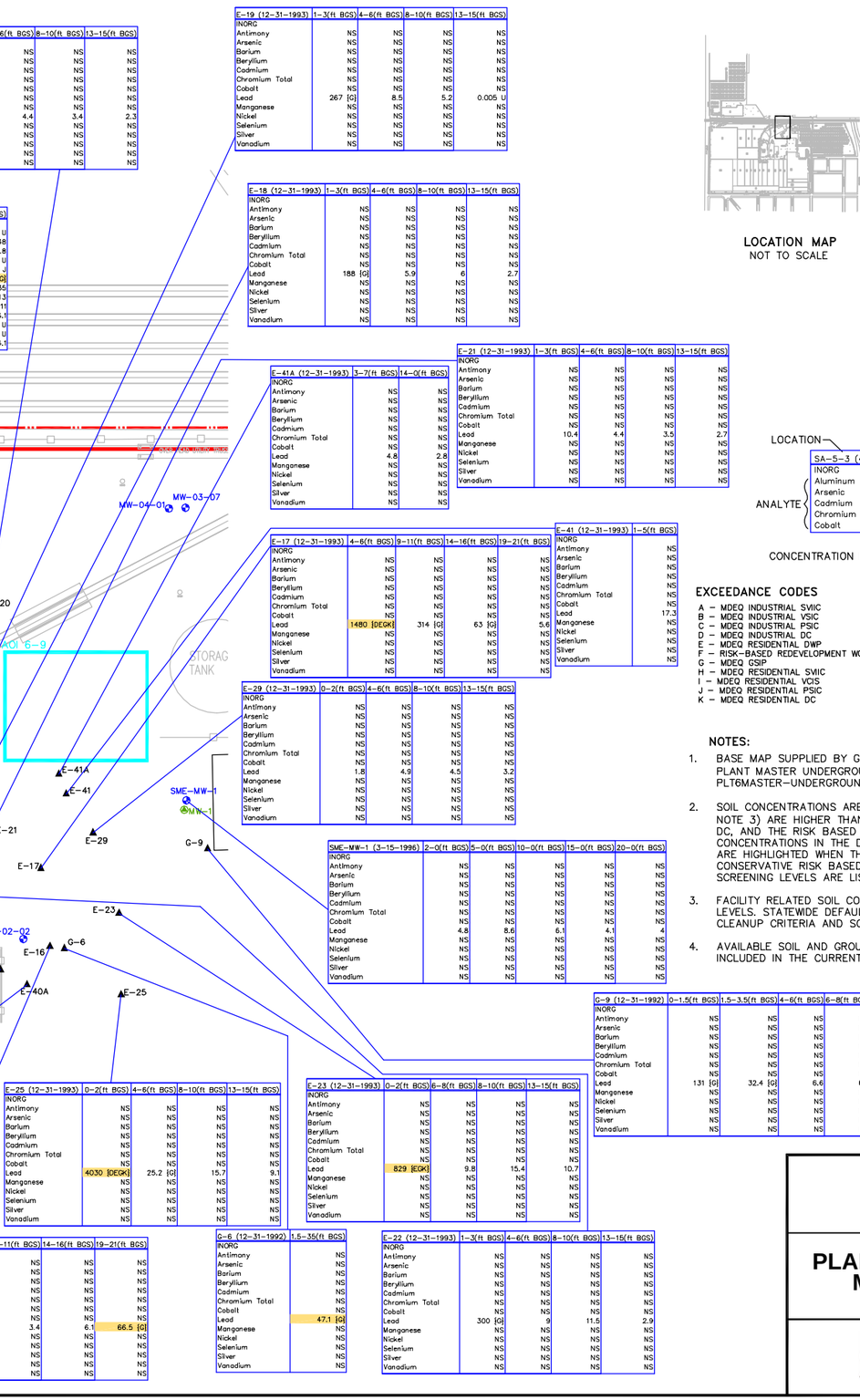
G-9 (12-31-1992)	0-1.5(ft BGS)	1.5-3.5(ft BGS)	4-6(ft BGS)	6-8(ft BGS)	8-10(ft BGS)	13-15(ft BGS)
INORG						
Antimony	NS	NS	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS	NS	NS
Barium	NS	NS	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS	NS	NS
Lead	131 [G]	32.4 [G]	6.6	6.3	7.2	4.2
Manganese	NS	NS	NS	NS	NS	NS
Nickel	NS	NS	NS	NS	NS	NS
Selenium	NS	NS	NS	NS	NS	NS
Silver	NS	NS	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS	NS	NS

E-24 (12-31-1993)	1-3(ft BGS)	4-6(ft BGS)	8-10(ft BGS)	13-15(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	5	7	16.9	23.1
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS

E-16 (12-31-1993)	4-6(ft BGS)	9-11(ft BGS)	14-16(ft BGS)	19-21(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	1290 [DEGK]	3.4	6.1	66.5 [G]
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS

G-6 (12-31-1992)	1.5-35(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	47.1 [G]
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

E-22 (12-31-1993)	1-3(ft BGS)	4-6(ft BGS)	8-10(ft BGS)	13-15(ft BGS)
INORG				
Antimony	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS
Barium	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS
Lead	300 [G]	9	11.5	2.9
Manganese	NS	NS	NS	NS
Nickel	NS	NS	NS	NS
Selenium	NS	NS	NS	NS
Silver	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS



LOCATION MAP
NOT TO SCALE

LEGEND:

- AOI 6-75 — SITE ASSESSMENT AREA OF INTEREST GROUPING (AOI)
- AOI 6-46 — AOI WITH NO FURTHER ACTION
- SITE ASSESSMENT GEOPROBE LOCATION
- GEOPROBE LOCATION (SME)
- COMPOSITE SAMPLE LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- VAPOR EXTRACTION WELL LOCATION
- EXCAVATION SOIL SAMPLE LOCATION
- NO INORGANICS ANALYSIS (HISTORICAL)
- NO INORGANIC ANALYSIS, FIELD SOIL SCREENING INFORMATION (SEE FIGURE D-1, APPENDIX D)
- APPROXIMATE PROPERTY BOUNDARY
- PROPOSED LOCATION FOR RE-OCCUPATION

LOCATION	DATE	DEPTH (FEET BELOW GROUND SURFACE)
SA-5-3 (4-28-2005)		0.7-2.7(ft BGS)
ANALYTE: INORG		
	Aluminum	1940/2060
	Arsenic	0.78/1.02
	Cadmium	0.21/0.23
	Chromium Total	10.8 J [G]/4.36 J [G]
	Cobalt	12.3 [EG]/10.8 [EG]

VALIDATION CODE
EXCEEDANCE CODE
CONCENTRATION IN mg/kg
DUPLICATE SAMPLE CONCENTRATION IN mg/kg

EXCEEDANCE CODES

- A – MDEQ INDUSTRIAL SVIC
- B – MDEQ INDUSTRIAL VSIC
- C – MDEQ INDUSTRIAL PSIC
- D – MDEQ INDUSTRIAL DC
- E – MDEQ RESIDENTIAL DWP
- F – RISK-BASED REDEVELOPMENT WORKER CONTACT
- G – MDEQ GSIP
- H – MDEQ RESIDENTIAL SVIC
- I – MDEQ RESIDENTIAL VOIS
- J – MDEQ RESIDENTIAL PSIC
- K – MDEQ RESIDENTIAL DC

ACRONYMS

DC–	DIRECT CONTACT CRITERIA
DWP–	DRINKING WATER PROTECTION CRITERIA
GSIP–	GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG–	INORGANICS
J–	ESTIMATED VALUE
NS–	NOT SAMPLED
PCB–	POLYCHLORINATED BIPHENYLS
PSIC–	PARTICULATE SOIL INHALATION CRITERIA
SVIC–	SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs–	SEMI-VOLATILE ORGANIC COMPOUNDS
U–	NON-DETECT WITH ASSOCIATED LIMIT
VOCs–	VOLATILE ORGANIC COMPOUNDS
VSIC–	INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

NOTES:

1. BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER-UNDERGROUND-UTILITIES.DWG.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN FACILITY-RELATED CONCENTRATIONS (SEE NOTE 3) ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIC, VSIC, PSIC, DC, AND THE RISK BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE FACILITY-RELATED CONCENTRATIONS ARE HIGHER THAN THE CONSERVATIVE RISK BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP. SCREENING LEVELS ARE LISTED ON FIGURE 10.
3. FACILITY RELATED SOIL CONCENTRATIONS ARE THOSE IN EXCESS OF THE BACKGROUND LEVELS. STATEWIDE DEFAULT BACKGROUND LEVELS PUBLISHED WITH PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS ARE USED AS BACKGROUND LEVELS.
4. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

DRAFT

0 30' 60'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 6 PROPOSED SOIL BORINGS & MONITORING WELLS - AOI 6-48

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FIGURE
16

SA 22-3 (11-2-2005)	2-4(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.79
Barium	142
Beryllium	0.39 J
Cadmium	0.16 J
Chromium Total	10.6 [G]
Cobalt	5.5
Lead	5.9
Manganese	368
Nickel	10
Selenium	0.17 J
Silver	0.02 J
Vanadium	14.5

SA 22-2 (11-2-2005)	2-4(ft BGS)
INORG	
Antimony	0.09 J
Arsenic	1.12
Barium	100
Beryllium	0.42 J
Cadmium	0.32
Chromium Total	5.8 [G]
Cobalt	4.32
Lead	7.9
Manganese	98.2
Nickel	5.1
Selenium	1.01 [G]
Silver	0.14
Vanadium	9.5

SA 11-1 (11-2-2005)	3-5(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.44
Barium	180
Beryllium	0.84
Cadmium	0.28
Chromium Total	18.3 [G]
Cobalt	8.08 [E]
Lead	6.9
Manganese	671 [E]
Nickel	18.4
Selenium	0.27
Silver	0.03 J
Vanadium	20.2

SA 11-2 (11-1-2005)	6-8(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.21
Barium	37.7
Beryllium	0.25 J
Cadmium	0.06 J
Chromium Total	9 [G]
Cobalt	3.45
Lead	3.5
Manganese	197
Nickel	10.1
Selenium	0.29
Silver	0.02 J
Vanadium	10

SA 14-1 (11-9-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.9
Barium	18.9
Beryllium	0.12 J
Cadmium	0.1 J
Chromium Total	2.8
Cobalt	1.54
Lead	15.9
Manganese	125
Nickel	3.1
Selenium	0.2 U
Silver	0.1 U
Vanadium	3.4

SA 11-6 (10-31-2005)	2-4(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.37
Barium	29.9
Beryllium	0.16 J
Cadmium	0.06 J
Chromium Total	7.1 [G]
Cobalt	3.54
Lead	3.8
Manganese	214
Nickel	9.3
Selenium	0.46
Silver	0.1 U
Vanadium	8.7

SA 11-7 (10-31-2005)	4-6(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.36
Barium	36.1
Beryllium	0.25 J
Cadmium	0.06 J
Chromium Total	11.5 [G]
Cobalt	7.46
Lead	4.6
Manganese	246
Nickel	11.3
Selenium	0.42
Silver	0.19
Vanadium	11.2

SA 11-8 (10-31-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.18
Barium	40.1
Beryllium	0.21 J
Cadmium	0.08 J
Chromium Total	8 [G]
Cobalt	4.52
Lead	4
Manganese	255
Nickel	10.4
Selenium	0.56
Silver	0.1 U
Vanadium	9.1

SA 11-16 (11-1-2005)	2-4(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	2.39
Barium	29.8
Beryllium	0.23 J
Cadmium	0.07 J
Chromium Total	8.1 [G]
Cobalt	5.33
Lead	4.6
Manganese	293
Nickel	12.8
Selenium	0.49
Silver	0.1 U
Vanadium	10

SA 11-9 (11-2-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.8
Barium	60.9
Beryllium	0.33 J
Cadmium	0.1 J
Chromium Total	19.3 [G]
Cobalt	6.39
Lead	5.2
Manganese	340
Nickel	20.3
Selenium	0.65
Silver	0.02 J
Vanadium	14

SA 11-3 (10-31-2005)	5.5-7.5(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.74
Barium	19.3
Beryllium	0.08 J
Cadmium	0.05 J
Chromium Total	3.4
Cobalt	1.82
Lead	3.4
Manganese	154
Nickel	4.4
Selenium	0.38
Silver	0.1 U
Vanadium	4

SA 11-17 (11-1-2005)	4-6(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	2.95
Barium	68.3
Beryllium	0.28 J
Cadmium	0.1 J
Chromium Total	10.7 [G]
Cobalt	5.45
Lead	5.1
Manganese	286
Nickel	13.4
Selenium	0.72
Silver	0.05 J
Vanadium	14.6

SA 11-18 (11-1-2005)	6-8(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	3.23
Barium	54.1
Beryllium	0.35 J
Cadmium	0.08 J
Chromium Total	14.9 [G]
Cobalt	6.61
Lead	6.2
Manganese	303
Nickel	17.4
Selenium	0.79
Silver	0.02 J
Vanadium	17.4

SA 11-4 (10-31-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	3.02
Barium	56.8
Beryllium	0.31 J
Cadmium	0.08 J
Chromium Total	13.3 [G]
Cobalt	6.58
Lead	6.6
Manganese	290
Nickel	14.2
Selenium	0.79
Silver	0.08 J
Vanadium	13.9

SA 11-10 (11-2-2005)	3-5(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.06
Barium	31.2
Beryllium	0.34 J
Cadmium	0.16 J
Chromium Total	7.1 [G]
Cobalt	3.58
Lead	6.7
Manganese	282
Nickel	8.3
Selenium	0.29
Silver	0.03 J
Vanadium	8.1

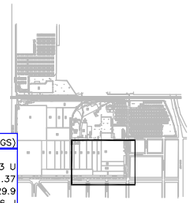
SA 11-11 (11-1-2005)	4-6(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	3.1
Barium	70.5
Beryllium	0.32 J
Cadmium	0.07 J
Chromium Total	11.5 [G]
Cobalt	6.69
Lead	5.8
Manganese	453 [E]
Nickel	16.1
Selenium	0.8
Silver	0.02 J
Vanadium	16.6

SA 11-12 (11-1-2005)	2-4(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.81
Barium	420
Beryllium	0.47 J
Cadmium	0.06 J
Chromium Total	12.7 [G]
Cobalt	3.1
Lead	8.9
Manganese	81.6
Nickel	11.3
Selenium	0.46
Silver	0.03 J
Vanadium	17.1

SA 11-5 (10-31-2005)	0.7-2.7(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.59
Barium	202
Beryllium	1.04
Cadmium	0.35
Chromium Total	25 [G]
Cobalt	12.6 [EG]
Lead	9.3
Manganese	1180 [E]
Nickel	29.1
Selenium	0.32
Silver	0.03 J
Vanadium	27.2

SA 11-14 (11-1-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	2.62
Barium	31.8
Beryllium	0.17 J
Cadmium	0.08 J
Chromium Total	8.5 [G]
Cobalt	4.32
Lead	3.8
Manganese	258
Nickel	11.2
Selenium	0.64
Silver	0.1 U
Vanadium	8.5

SA 11-15 (11-1-2005)	0-2(ft BGS)
INORG	
Antimony	0.3 U/0.15 J
Arsenic	5.19/7.34
Barium	45.5/98.7
Beryllium	0.29 J/0.48 J
Cadmium	0.08 J/0.1 J
Chromium Total	10.4 [G]/20.9 [G]
Cobalt	6.15/7.53
Lead	5.3/6.3
Manganese	312/320
Nickel	13.9/17.2
Selenium	0.71 J/0.2 UJ
Silver	0.02 J/0.15
Vanadium	12.4/29.9



LOCATION MAP
NOT TO SCALE

LEGEND:

- AOI 6-75 — SITE ASSESSMENT AREA OF INTEREST GROUPING (AOI)
- AOI 6-46 — AOI WITH NO FURTHER ACTION
- SITE ASSESSMENT GEOPROBE LOCATION
- GEOPROBE LOCATION (SME)
- COMPOSITE SAMPLE LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- VAPOR EXTRACTION WELL LOCATION
- EXCAVATION SOIL SAMPLE LOCATION
- NO INORGANICS ANALYSIS (HISTORICAL)
- NO INORGANIC ANALYSIS, FIELD SOIL SCREENING INFORMATION (SEE FIGURE D-1, APPENDIX D)
- APPROXIMATE PROPERTY BOUNDARY
- PROPOSED LOCATION FOR RE-OCCUPATION

LOCATION	DATE	DEPTH (FEET BELOW GROUND SURFACE)
SA-5-3 (4-28-2005)		0.7-2.7(ft BGS)
ANALYTE: INORG		
Aluminum		1940/2060
Arsenic		0.78/1.02
Cadmium		0.21/0.21
Chromium Total		10.8 J [G]/4.36 J [J]
Cobalt		12.3 [EG]/10.8 [EG]

CONCENTRATION IN mg/kg

VALIDATION CODE
EXCEEDANCE CODE
DUPLICATE SAMPLE CONCENTRATION IN mg/kg

EXCEEDANCE CODES

A – MDEQ INDUSTRIAL SVIIC
B – MDEQ INDUSTRIAL VSIC
C – MDEQ INDUSTRIAL PSIC
D – MDEQ INDUSTRIAL DC
E – MDEQ RESIDENTIAL DWP
F – RISK-BASED REDEVELOPMENT WORKER CONTACT
G – MDEQ GSIP
H – MDEQ RESIDENTIAL SVIIC
I – MDEQ RESIDENTIAL VCIS
J – MDEQ RESIDENTIAL PSIC
K – MDEQ RESIDENTIAL DC

ACRONYMS

DC– DIRECT CONTACT CRITERIA
DWP– DRINKING WATER PROTECTION CRITERIA
GSIP– GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG– INORGANICS
J– ESTIMATED VALUE
NS– NOT SAMPLED
PCB– POLYCHLORINATED BIPHENYLS
PSIC– PARTICULATE SOIL INHALATION CRITERIA
SVIIC– SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs– SEMI-VOLATILE ORGANIC COMPOUNDS
U– NON-DETECT WITH ASSOCIATED LIMIT
VOCs– VOLATILE ORGANIC COMPOUNDS
VSIC– INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

NOTES:

1. BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER-UNDERGROUND-UTILITIES.DWG.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN FACILITY-RELATED CONCENTRATIONS (SEE NOTE 3) ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIIC, VSIC, PSIC, DC, AND THE RISK BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE FACILITY-RELATED CONCENTRATIONS ARE HIGHER THAN THE CONSERVATIVE RISK BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP. SCREENING LEVELS ARE LISTED ON FIGURE 10.
3. FACILITY RELATED SOIL CONCENTRATIONS ARE THOSE IN EXCESS OF THE BACKGROUND LEVELS. STATEWIDE DEFAULT BACKGROUND LEVELS PUBLISHED WITH PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS ARE USED AS BACKGROUND LEVELS.
4. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

DRAFT

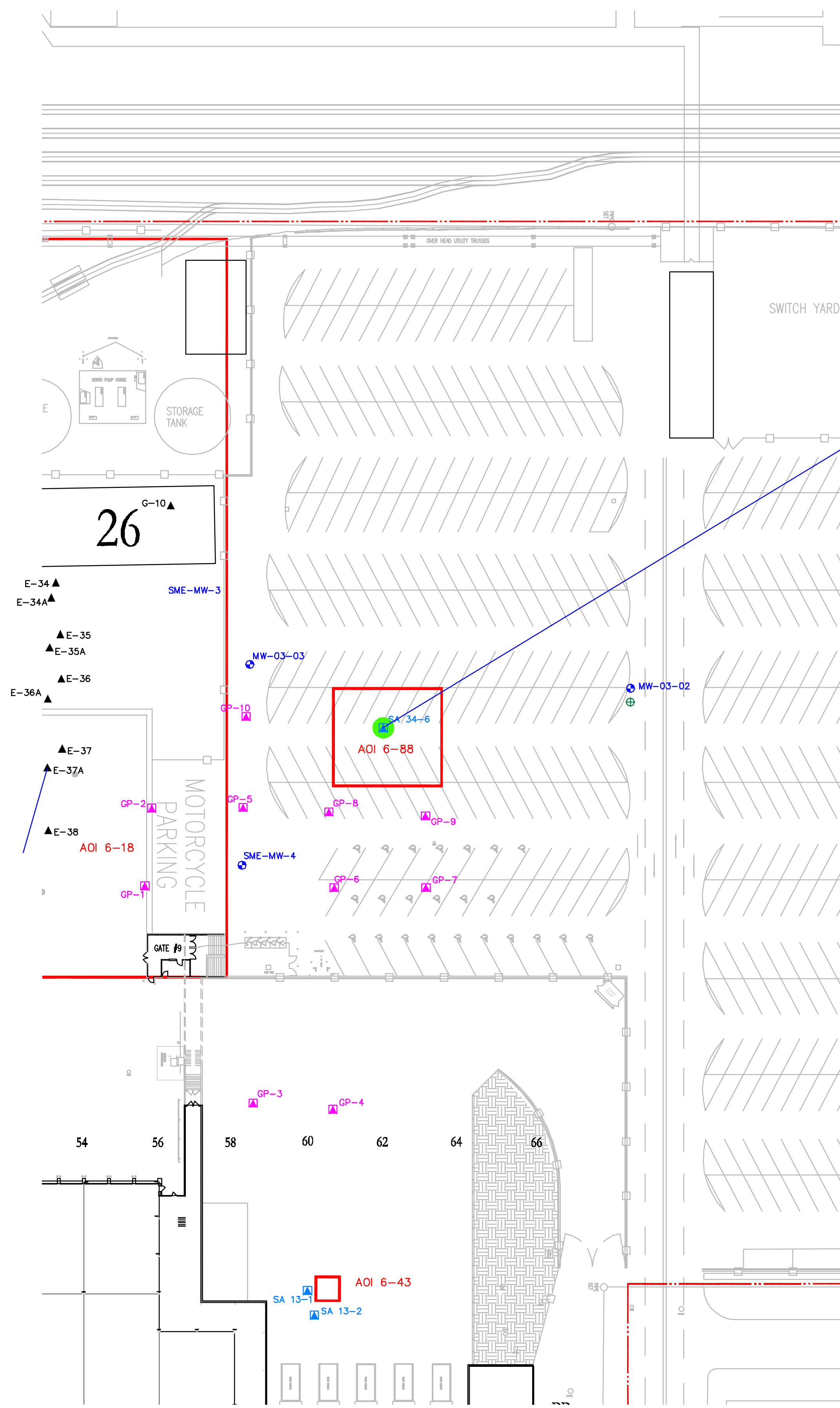
0 60' 120'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

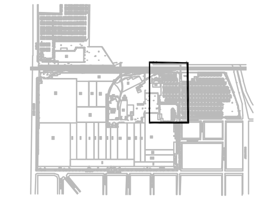
PLANT 6 PROPOSED SOIL BORINGS & MONITORING WELLS - AOI 6-81

ARCADIS

FIGURE 17



SA 34-6 (11-11-2005)	6-8(ft BGS)
SVOC	
Naphthalene	NS
VOC	
1,1,1-Trichloroethane	0.08 U
1,1,2-Trichloroethane	0.08 U
1,1-Dichloroethene	0.08 U
Acetone	1 U
Benzene	0.16 {E}
cis-1,2-Dichloroethene	0.08 U
Ethylbenzene	1.23 {G}
Methyl Tert Butyl Ether	0.4 U
Trichloroethene	0.08 U
Xylene (total)	8.11 {EG}



LOCATION MAP
NOT TO SCALE

LEGEND:

- AOI 6-75 🟥 SITE ASSESSMENT AREA OF INTEREST GROUPING (AOI)
- AOI 6-46 ▢ AOI WITH NO FURTHER ACTION
- ▲ SITE ASSESSMENT GEOPROBE LOCATION
- ▲ GEOPROBE LOCATION (SME)
- ● COMPOSITE SAMPLE LOCATION
- ▲ SOIL BORING LOCATION
- ● MONITORING WELL LOCATION
- △ VAPOR EXTRACTION WELL LOCATION
- △ EXCAVATION SOIL SAMPLE LOCATION
- △ NO INORGANICS ANALYSIS (HISTORICAL)
- ▲ NO INORGANIC ANALYSIS, FIELD SOIL SCREENING INFORMATION (SEE FIGURE D-1, APPENDIX D)
- —··— APPROXIMATE PROPERTY BOUNDARY
- ● PROPOSED LOCATION FOR RE-OCCUPATION
- ⊕ PROPOSED BEDROCK MONITORING WELL LOCATION

LOCATION — DATE — DEPTH (FEET BELOW GROUND SURFACE)

SA-5-3 (4-28-2005)	0.7-2.7(ft BGS)
INORG	
Aluminum	1940/2060
Arsenic	0.78/1.02
Cadmium	0.21/0.21
Chromium Total	10.8 J {G}/4.36 J {J}
Cobalt	12.3 {EG}/10.8 {EG}

ANALYTE — VALIDATION CODE — EXCEEDANCE CODE — CONCENTRATION IN mg/kg — DUPLICATE SAMPLE CONCENTRATION IN mg/kg

EXCEEDANCE CODES

A – MDEQ INDUSTRIAL SVIIC
B – MDEQ INDUSTRIAL VSIC
C – MDEQ INDUSTRIAL PSIC
D – MDEQ INDUSTRIAL DC
E – MDEQ RESIDENTIAL DWP
F – RISK-BASED REDEVELOPMENT WORKER CONTACT
G – MDEQ GSIP
H – MDEQ RESIDENTIAL SVIIC
I – MDEQ RESIDENTIAL VCIS
J – MDEQ RESIDENTIAL PSIC
K – MDEQ RESIDENTIAL DC

ACRONYMS

DC– DIRECT CONTACT CRITERIA
DWP– DRINKING WATER PROTECTION CRITERIA
GSIP– GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG– INORGANICS
J– ESTIMATED VALUE
NS– NOT SAMPLED
PCB– POLYCHLORINATED BIPHENYLS
PSIC– PARTICULATE SOIL INHALATION CRITERIA
SVIIC– SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs– SEMI-VOLATILE ORGANIC COMPOUNDS
U– NON-DETECT WITH ASSOCIATED LIMIT
VOCs– VOLATILE ORGANIC COMPOUNDS
VSIC– INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

NOTES:

1. BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER-UNDERGROUND-UTILITIES.DWG.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN FACILITY-RELATED CONCENTRATIONS (SEE NOTE 3) ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIIC, VSIC, PSIC, DC, AND THE RISK BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE FACILITY-RELATED CONCENTRATIONS ARE HIGHER THAN THE CONSERVATIVE RISK BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP.
3. FACILITY RELATED SOIL CONCENTRATIONS ARE THOSE IN EXCESS OF THE BACKGROUND LEVELS. STATEWIDE DEFAULT BACKGROUND LEVELS PUBLISHED WITH PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS ARE USED AS BACKGROUND LEVELS.
4. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

DRAFT

0 40' 80'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 6 PROPOSED SOIL BORINGS & MONITORING WELLS - AOI 6-88

ARCADIS

FIGURE
18

CITY: BRIGHTON DIV/GROUP: 85 DB: ADF LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\BRIGHTON\ACT\B0064481\0000\00101\DWG\64481C03.dwg LAYOUT: 18 SAVED: 2/10/2009 3:20 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: ----PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 2/10/2009 3:20 PM BY: FOX, AARON
XREFS: 64481X02 64481X03 64481X06 IMAGES: PROJECTNAME: ----

E-34A (12-31-1993)	0-15(ft BGS)	15-0(ft BGS)
INORG		
Antimony	NS	NS
Arsenic	NS	NS
Barium	NS	NS
Beryllium	NS	NS
Cadmium	NS	NS
Chromium Total	NS	NS
Cobalt	NS	NS
Lead	1200 {DEGK}	210 {G}
Manganese	NS	NS
Nickel	NS	NS
Selenium	NS	NS
Silver	NS	NS
Vanadium	NS	NS

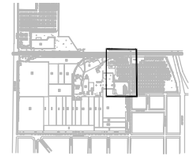
E-34 (12-31-1993)	1-5(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	384 {G}
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

E-35 (12-31-1993)	1-5(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	62.5 {G}
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

G-10 (12-31-1992)	0-1.5(ft BGS)	1.5-3.5(ft BGS)	4-6(ft BGS)	8-10(ft BGS)	13-15(ft BGS)
INORG					
Antimony	NS	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS	NS
Barium	NS	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS	NS
Lead	48.5 {G}	28.3 {G}	9.2	3.2	3.6
Manganese	NS	NS	NS	NS	NS
Nickel	NS	NS	NS	NS	NS
Selenium	NS	NS	NS	NS	NS
Silver	NS	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS	NS

SME-MW-3 (3-15-1996)	2-0(ft BGS)	5-0(ft BGS)	10-0(ft BGS)	15-0(ft BGS)	20-0(ft BGS)
INORG					
Antimony	NS	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS	NS
Barium	NS	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS	NS
Lead	22.9	48.5 {G}	3.2	3.6	4.5
Manganese	NS	NS	NS	NS	NS
Nickel	NS	NS	NS	NS	NS
Selenium	NS	NS	NS	NS	NS
Silver	NS	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS	NS

GP-10 (10-23-1996)	5-0(ft BGS)	9-0(ft BGS)
INORG		
Antimony	NS	NS
Arsenic	NS	NS
Barium	NS	NS
Beryllium	NS	NS
Cadmium	NS	NS
Chromium Total	NS	NS
Cobalt	NS	NS
Lead	217 {G}	36.1 {G}
Manganese	NS	NS
Nickel	NS	NS
Selenium	NS	NS
Silver	NS	NS
Vanadium	NS	NS



LOCATION MAP
NOT TO SCALE

E-35A (12-31-1993)	3.5-8.5(ft BGS)	13.5-0(ft BGS)
INORG		
Antimony	NS	NS
Arsenic	NS	NS
Barium	NS	NS
Beryllium	NS	NS
Cadmium	NS	NS
Chromium Total	NS	NS
Cobalt	NS	NS
Lead	6.9	3.1
Manganese	NS	NS
Nickel	NS	NS
Selenium	NS	NS
Silver	NS	NS
Vanadium	NS	NS

SA 34-6 (11-11-2005)	6-8(ft BGS)
INORG	
Antimony	30 {E}
Arsenic	1.24
Barium	119
Beryllium	0.57
Cadmium	2.6
Chromium Total	9.9 {G}
Cobalt	0.98
Lead	22.2
Manganese	12.7
Nickel	11.9
Selenium	1.09 {G}
Silver	0.1 U
Vanadium	9.6

GP-5 (10-23-1996)	5-0(ft BGS)	10-0(ft BGS)
INORG		
Antimony	NS	NS
Arsenic	NS	NS
Barium	NS	NS
Beryllium	NS	NS
Cadmium	NS	NS
Chromium Total	NS	NS
Cobalt	NS	NS
Lead	36.1 {G}	18.6
Manganese	NS	NS
Nickel	NS	NS
Selenium	NS	NS
Silver	NS	NS
Vanadium	NS	NS

E-36 (12-31-1993)	1-5(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	244 {G}
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

GP-8 (10-23-1996)	5-0(ft BGS)	10-0(ft BGS)
INORG		
Antimony	NS	NS
Arsenic	NS	NS
Barium	NS	NS
Beryllium	NS	NS
Cadmium	NS	NS
Chromium Total	NS	NS
Cobalt	NS	NS
Lead	4	6.5
Manganese	NS	NS
Nickel	NS	NS
Selenium	NS	NS
Silver	NS	NS
Vanadium	NS	NS

E-36A (12-31-1993)	4-9.5(ft BGS)	14-0(ft BGS)
INORG		
Antimony	NS	NS
Arsenic	NS	NS
Barium	NS	NS
Beryllium	NS	NS
Cadmium	NS	NS
Chromium Total	NS	NS
Cobalt	NS	NS
Lead	5.4	3.5
Manganese	NS	NS
Nickel	NS	NS
Selenium	NS	NS
Silver	NS	NS
Vanadium	NS	NS

E-37A (12-31-1993)	3.3-8.5(ft BGS)	11.5-0(ft BGS)
INORG		
Antimony	NS	NS
Arsenic	NS	NS
Barium	NS	NS
Beryllium	NS	NS
Cadmium	NS	NS
Chromium Total	NS	NS
Cobalt	NS	NS
Lead	320 {G}	2.8
Manganese	NS	NS
Nickel	NS	NS
Selenium	NS	NS
Silver	NS	NS
Vanadium	NS	NS

GP-9 (10-23-1996)	5-0(ft BGS)	7-0(ft BGS)	8-0(ft BGS)
INORG			
Antimony	NS	NS	NS
Arsenic	NS	NS	NS
Barium	NS	NS	NS
Beryllium	NS	NS	NS
Cadmium	NS	NS	NS
Chromium Total	NS	NS	NS
Cobalt	NS	NS	NS
Lead	7.9	10	4
Manganese	NS	NS	NS
Nickel	NS	NS	NS
Selenium	NS	NS	NS
Silver	NS	NS	NS
Vanadium	NS	NS	NS

E-38 (12-31-1993)	1-5(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	141 {G}
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

GP-7 (10-23-1996)	5-0(ft BGS)	8-0(ft BGS)
INORG		
Antimony	NS	NS
Arsenic	NS	NS
Barium	NS	NS
Beryllium	NS	NS
Cadmium	NS	NS
Chromium Total	NS	NS
Cobalt	NS	NS
Lead	77.9 {G}	3.8
Manganese	NS	NS
Nickel	NS	NS
Selenium	NS	NS
Silver	NS	NS
Vanadium	NS	NS

GP-6 (10-23-1996)	5-0(ft BGS)	8-0(ft BGS)
INORG		
Antimony	NS	NS
Arsenic	NS	NS
Barium	NS	NS
Beryllium	NS	NS
Cadmium	NS	NS
Chromium Total	NS	NS
Cobalt	NS	NS
Lead	24.3	8.2
Manganese	NS	NS
Nickel	NS	NS
Selenium	NS	NS
Silver	NS	NS
Vanadium	NS	NS

E-37 (12-31-1993)	1-5(ft BGS)
INORG	
Antimony	NS
Arsenic	NS
Barium	NS
Beryllium	NS
Cadmium	NS
Chromium Total	NS
Cobalt	NS
Lead	51.7 {G}
Manganese	NS
Nickel	NS
Selenium	NS
Silver	NS
Vanadium	NS

SME-MW-4 (3-15-1996)	2-0(ft BGS)	5-0(ft BGS)	10-0(ft BGS)	15-0(ft BGS)	20-0(ft BGS)
INORG					
Antimony	NS	NS	NS	NS	NS
Arsenic	NS	NS	NS	NS	NS
Barium	NS	NS	NS	NS	NS
Beryllium	NS	NS	NS	NS	NS
Cadmium	NS	NS	NS	NS	NS
Chromium Total	NS	NS	NS	NS	NS
Cobalt	NS	NS	NS	NS	NS
Lead	23.1	454 {GK}	3.7	4.3	4.7
Manganese	NS	NS	NS	NS	NS
Nickel	NS	NS	NS	NS	NS
Selenium	NS	NS	NS	NS	NS
Silver	NS	NS	NS	NS	NS
Vanadium	NS	NS	NS	NS	NS

GP-2 (10-23-1996)	3-0(ft BGS)	5-0(ft BGS)	8-0(ft BGS)
INORG			
Antimony	NS	NS	NS
Arsenic	NS	NS	NS
Barium	NS	NS	NS
Beryllium	NS	NS	NS
Cadmium	NS	NS	NS
Chromium Total	NS	NS	NS
Cobalt	NS	NS	NS
Lead	400 > {G}	400 > {G}	400 > {G}
Manganese	NS	NS	NS
Nickel	NS	NS	NS
Selenium	NS	NS	NS
Silver	NS	NS	NS
Vanadium	NS	NS	NS

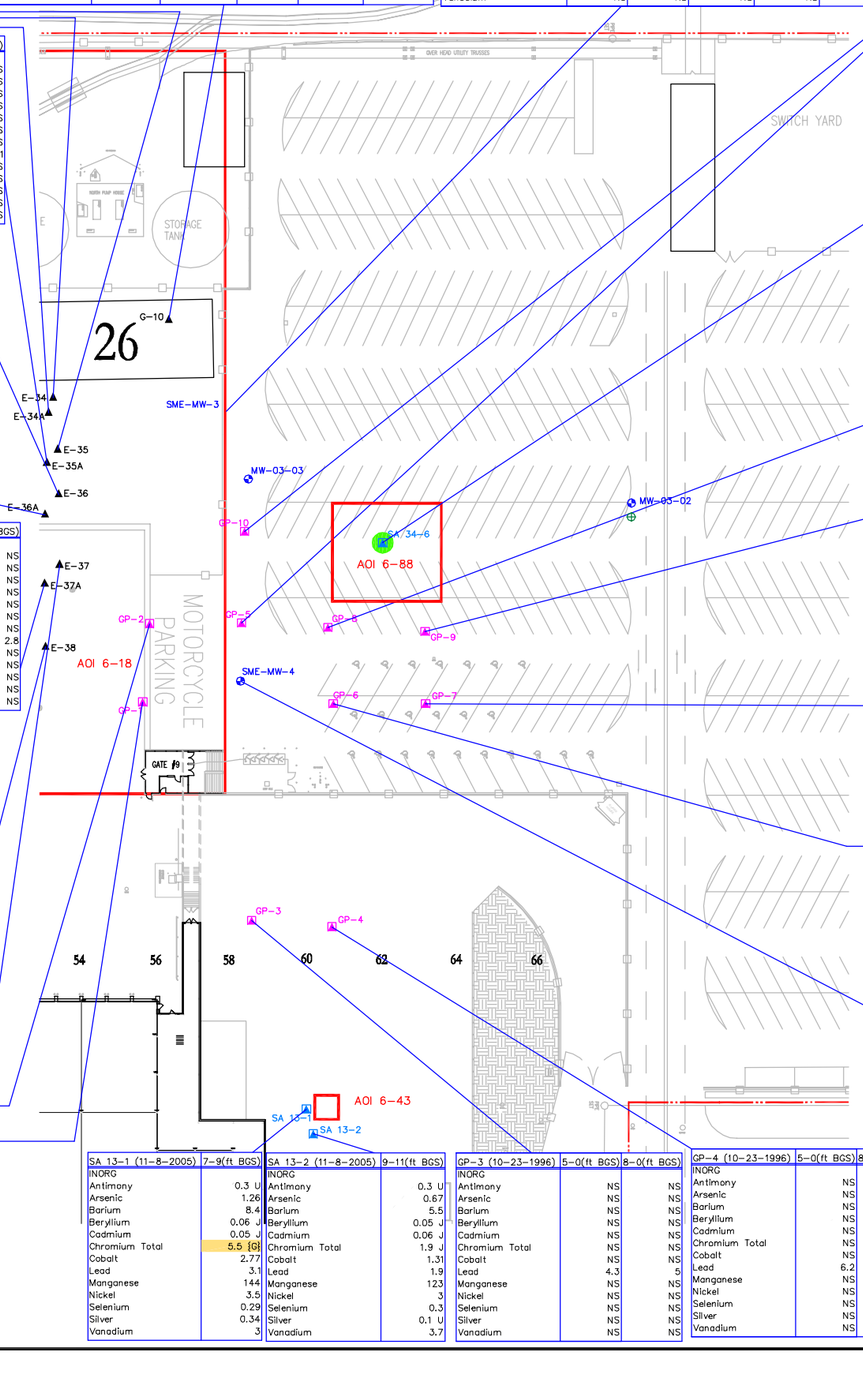
GP-1 (10-23-1996)	5-0(ft BGS)	6-0(ft BGS)	8-0(ft BGS)
INORG			
Antimony	NS	NS	NS
Arsenic	NS	NS	NS
Barium	NS	NS	NS
Beryllium	NS	NS	NS
Cadmium	NS	NS	NS
Chromium Total	NS	NS	NS
Cobalt	NS	NS	NS
Lead	6.6	6.3	4.7
Manganese	NS	NS	NS
Nickel	NS	NS	NS
Selenium	NS	NS	NS
Silver	NS	NS	NS
Vanadium	NS	NS	NS

SA 13-1 (11-8-2005)	7-9(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.26
Barium	8.4
Beryllium	0.06 J
Cadmium	0.05 J
Chromium Total	5.5 {G}
Cobalt	2.77
Lead	3.1
Manganese	144
Nickel	3.5
Selenium	0.29
Silver	0.34
Vanadium	3

SA 13-2 (11-8-2005)	9-11(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.67
Barium	5.5
Beryllium	0.05 J
Cadmium	0.06 J
Chromium Total	1.9 J
Cobalt	1.31
Lead	1.9
Manganese	123
Nickel	3
Selenium	0.3
Silver	0.1 U
Vanadium	3.7

GP-3 (10-23-1996)	5-0(ft BGS)	8-0(ft BGS)
INORG		
Antimony	NS	NS
Arsenic	NS	NS
Barium	NS	NS
Beryllium	NS	NS
Cadmium	NS	NS
Chromium Total	NS	NS
Cobalt	NS	NS
Lead	4.3	5
Manganese	NS	NS
Nickel	NS	NS
Selenium	NS	NS
Silver	NS	NS
Vanadium	NS	NS

GP-4 (10-23-1996)	5-0(ft BGS)	8-0(ft BGS)
INORG		
Antimony	NS	NS
Arsenic	NS	NS
Barium	NS	NS
Beryllium	NS	NS
Cadmium	NS	NS
Chromium Total	NS	NS
Cobalt	NS	NS
Lead	6.2	5.6
Manganese	NS	NS
Nickel	NS	NS
Selenium	NS	NS
Silver	NS	NS
Vanadium	NS	NS



LOCATION — DATE — DEPTH (FEET BELOW GROUND SURFACE)

SA-5-3 (4-28-2005)	0.7-2.7(ft BGS)
INORG	
Aluminum	1940/2060
Arsenic	0.78/1.02
Cadmium	0.21/0.21
Chromium Total	10.8 J {G}/4.36 J {G}
Cobalt	12.3 {EG}/10.8 {EG}

ANALYTE — VALIDATION CODE — EXCEEDANCE CODE

CONCENTRATION IN mg/kg — DUPLICATE SAMPLE CONCENTRATION IN mg/kg

LEGEND:

- AOI 6-75 — SITE ASSESSMENT AREA OF INTEREST GROUPING (AOI)
- AOI 6-46 — AOI WITH NO FURTHER ACTION
- SITE ASSESSMENT GEOPROBE LOCATION
- GEOPROBE LOCATION (SME)
- COMPOSITE SAMPLE LOCATION
- SOIL BORING LOCATION
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- EXCAVATION SOIL SAMPLE LOCATION
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- NO INORGANIC ANALYSIS, FIELD SOIL SCREENING INFORMATION (SEE FIGURE D-1, APPENDIX D)
- APPROXIMATE PROPERTY BOUNDARY
- PROPOSED LOCATION FOR RE-OCCUPATION
- PROPOSED BEDROCK MONITORING WELL LOCATION

EXCEEDANCE CODES

A – MDEQ INDUSTRIAL SVIC
B – MDEQ INDUSTRIAL VSIC
C – MDEQ INDUSTRIAL PSIC
D – MDEQ INDUSTRIAL DC
E – MDEQ RESIDENTIAL DWP
F – RISK-BASED REDEVELOPMENT WORKER CONTACT
G – MDEQ GSIP
H – MDEQ RESIDENTIAL SVIC
I – MDEQ RESIDENTIAL VOIS
J – MDEQ RESIDENTIAL PSIC
K – MDEQ RESIDENTIAL DC

ACRONYMS

DC– DIRECT CONTACT CRITERIA
DWP– DRINKING WATER PROTECTION CRITERIA
GSIP– GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG– INORGANICS
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NS– NOT SAMPLED
PCB– POLYCHLORINATED BIPHENYLS
PSIC– PARTICULATE SOIL INHALATION CRITERIA
SVIC– SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs– SEMI-VOLATILE ORGANIC COMPOUNDS
U– NON-DETECT WITH ASSOCIATED LIMIT
VOCs– VOLATILE ORGANIC COMPOUNDS
VSIC– INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

NOTES:

1. BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER-UNDERGROUND-UTILITIES.DWG.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN FACILITY-RELATED CONCENTRATIONS (SEE NOTE 3) ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIC, VSIC, PSIC, DC, AND THE RISK BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE FACILITY-RELATED CONCENTRATIONS ARE HIGHER THAN THE CONSERVATIVE RISK BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP.
3. FACILITY RELATED SOIL CONCENTRATIONS ARE THOSE IN EXCESS OF THE BACKGROUND LEVELS. STATEWIDE DEFAULT BACKGROUND LEVELS PUBLISHED WITH PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS ARE USED AS BACKGROUND LEVELS.
4. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

DRAFT

0 40' 80'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 6 PROPOSED SOIL BORINGS & MONITORING WELLS - AOI 6-88

ARCADIS

FIGURE
19

CITY: BRIGHTON DIV/GROUP: 85 DB: ADF LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
J:\2008\B0064481\000\001\01\dwg\64481C04.dwg LAYOUT: 19SAVED: 9/16/2008 4:16 PM BY: FOX, AARON
XREFS: IMAGES: PROJECTNAME: ---- STYLETABLE: PLTFULL.CTB PLOTTED: 9/16/2008 4:16 PM ACADVER: 17.1S (LMS TECH) PAGESETUP: ---PLOTSTYLETABLE:
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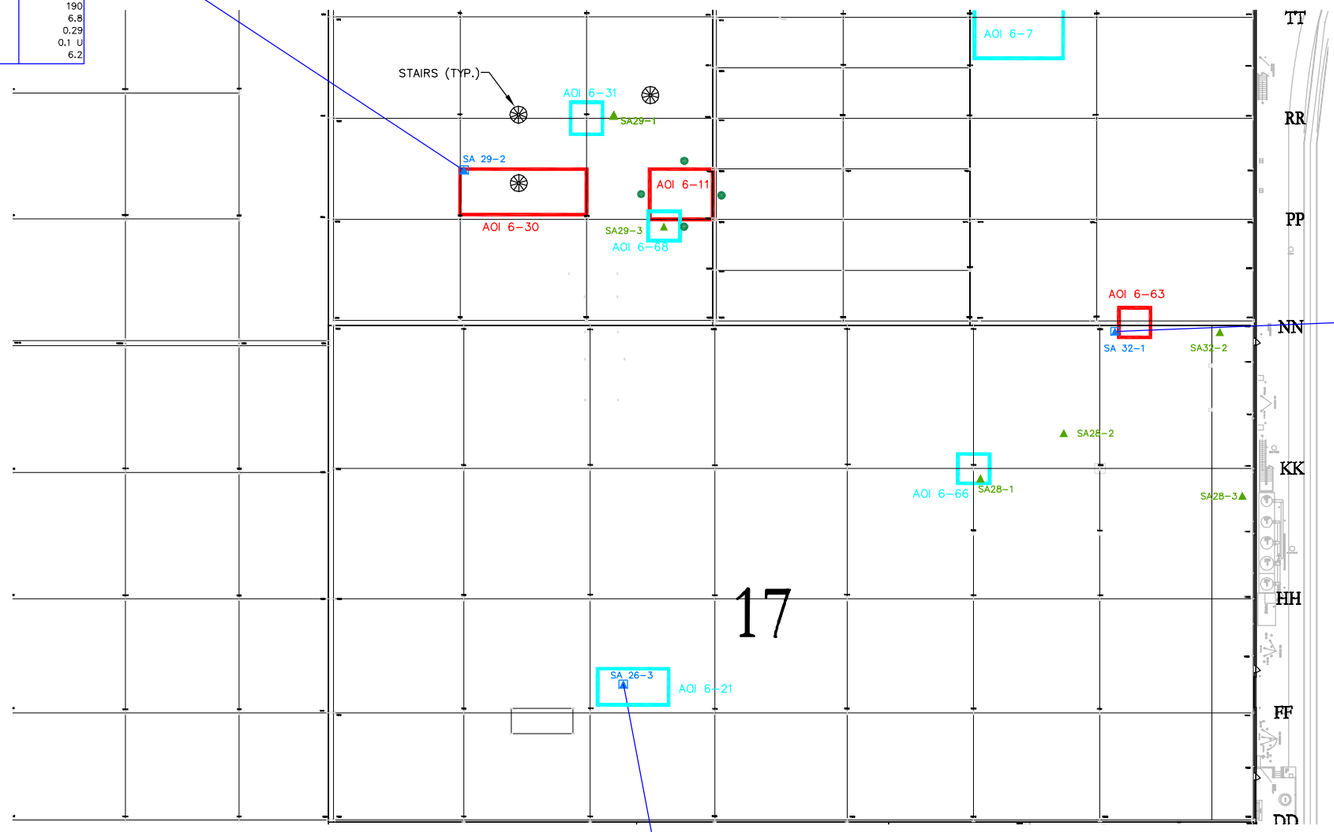
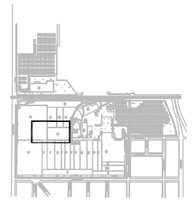
64481X03
64481X06



SA 29-2 (11-9-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.05
Barium	26.1
Beryllium	0.15 J
Cadmium	0.09 J
Chromium Total	5.6 [G]
Cobalt	3.29
Lead	3.6
Manganese	190
Nickel	6.8
Selenium	0.29
Silver	0.1 U
Vanadium	6.2

SA 26-3 (11-10-2005)	3-5(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.89
Barium	7
Beryllium	0.05 J
Cadmium	0.05 J
Chromium Total	1.8 J
Cobalt	1.39
Lead	2.2
Manganese	121
Nickel	2.8
Selenium	0.2 U
Silver	0.1 U
Vanadium	2.6



LOCATION MAP
NOT TO SCALE

LEGEND:

- AOI 6-75 — SITE ASSESSMENT AREA OF INTEREST GROUPING (AOI)
- AOI 6-46 — AOI WITH NO FURTHER ACTION
- SITE ASSESSMENT GEOPROBE LOCATION
- GEOPROBE LOCATION (SME)
- COMPOSITE SAMPLE LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- VAPOR EXTRACTION WELL LOCATION
- EXCAVATION SOIL SAMPLE LOCATION
- NO INORGANICS ANALYSIS (HISTORICAL)
- NO INORGANIC ANALYSIS, FIELD SOIL SCREENING INFORMATION (SEE FIGURE D-1, APPENDIX D)
- APPROXIMATE PROPERTY BOUNDARY
- PROPOSED BORING

LOCATION — DATE — DEPTH (FEET BELOW GROUND SURFACE)

SA-5-3 (4-28-2005)	0.7-2.7(ft BGS)
INORG	
ANALYTE: Aluminum	1940/2060
Arsenic	0.78/1.02
Cadmium	0.21/0.21
Chromium Total	10.8 J [G]/4.36 J [J]
Cobalt	12.3 [EG]/10.8 [EG]

VALIDATION CODE
EXCEEDANCE CODE
DUPLICATE SAMPLE CONCENTRATION IN mg/kg

CONCENTRATION IN mg/kg

SA 32-1 (11-9-2005)	8-10(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	1.34
Barium	58.1
Beryllium	0.26 J
Cadmium	0.09 J
Chromium Total	9 [G]
Cobalt	6.25
Lead	5.5
Manganese	350
Nickel	13.1
Selenium	0.49
Silver	0.1 U
Vanadium	10.1

EXCEEDANCE CODES

- A – MDEQ INDUSTRIAL SVIC
- B – MDEQ INDUSTRIAL VSIC
- C – MDEQ INDUSTRIAL PSIC
- D – MDEQ INDUSTRIAL DC
- E – MDEQ RESIDENTIAL DWP
- F – RISK-BASED REDEVELOPMENT WORKER CONTACT
- G – MDEQ GSIP
- H – MDEQ RESIDENTIAL SVIC
- I – MDEQ RESIDENTIAL VCIS
- J – MDEQ RESIDENTIAL PSIC
- K – MDEQ RESIDENTIAL DC

ACRONYMS

- DC– DIRECT CONTACT CRITERIA
- DWP– DRINKING WATER PROTECTION CRITERIA
- GSIP– GROUNDWATER SURFACE WATER INTERFACE PROTECTION
- INORG– INORGANICS
- J– ESTIMATED VALUE
- NS– NOT SAMPLED
- PCB– POLYCHLORINATED BIPHENYLS
- PSIC– PARTICULATE SOIL INHALATION CRITERIA
- SVIIC– SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
- SVOCs– SEMI-VOLATILE ORGANIC COMPOUNDS
- U– NON-DETECT WITH ASSOCIATED LIMIT
- VOCs– VOLATILE ORGANIC COMPOUNDS
- VSIC– INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

NOTES:

1. BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER-UNDERGROUND-UTILITIES.DWG.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN FACILITY-RELATED CONCENTRATIONS (SEE NOTE 3) ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIIC, VSIC, PSIC, DC, AND THE RISK BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE FACILITY-RELATED CONCENTRATIONS ARE HIGHER THAN THE CONSERVATIVE RISK BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP. SCREENING LEVELS ARE LISTED ON FIGURE 12.
3. FACILITY RELATED SOIL CONCENTRATIONS ARE THOSE IN EXCESS OF THE BACKGROUND LEVELS. STATEWIDE DEFAULT BACKGROUND LEVELS PUBLISHED WITH PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS ARE USED AS BACKGROUND LEVELS.
4. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN ON THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

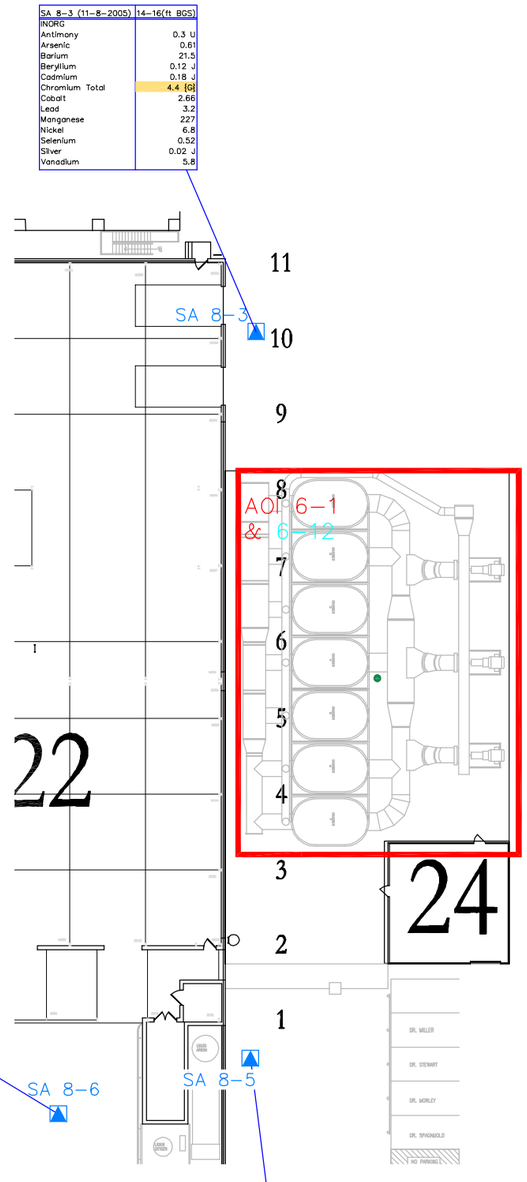
0 60'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 6 PROPOSED SOIL BORINGS - AOI 6-11

ARCADIS

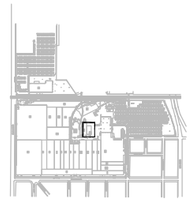
FIGURE
20



SA 8-3 (11-8-2005)	14-16(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.61
Barium	21.5
Beryllium	0.12 J
Cadmium	0.18 J
Chromium Total	4.4 [G]
Cobalt	2.66
Lead	3.2
Manganese	227
Nickel	6.8
Selenium	0.52
Silver	0.02 J
Vanadium	5.8

SA 8-6 (11-7-2005)	12-14(ft BGS)
INORG	
Antimony	0.3 U/0.3 U
Arsenic	0.95/1.64
Barium	39/38
Beryllium	0.13 J/0.17 J
Cadmium	0.09 J/0.15 J
Chromium Total	12.4 [G]/8 [G]
Cobalt	5.74/3.65
Lead	4/4.6
Manganese	226/245
Nickel	14.1/8.2
Selenium	0.28/0.48
Silver	0.02 J/0.08 J
Vanadium	11.3/8

SA 8-5 (11-8-2005)	7-9(ft BGS)
INORG	
Antimony	0.3 U
Arsenic	0.76
Barium	29.5
Beryllium	0.13 J
Cadmium	0.09 J
Chromium Total	6.2 [G]
Cobalt	3.21
Lead	3.2
Manganese	417
Nickel	7.7
Selenium	0.63
Silver	0.1 U
Vanadium	6.9



LOCATION MAP
NOT TO SCALE

LEGEND:

- AOI 6-75 — SITE ASSESSMENT AREA OF INTEREST GROUPING (AOI)
- AOI 6-46 — AOI WITH NO FURTHER ACTION
- SITE ASSESSMENT GEOPROBE LOCATION
- GEOPROBE LOCATION (SME)
- COMPOSITE SAMPLE LOCATION
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- VAPOR EXTRACTION WELL LOCATION
- EXCAVATION SOIL SAMPLE LOCATION
- NO INORGANICS ANALYSIS (HISTORICAL)
- NO INORGANIC ANALYSIS, FIELD SOIL SCREENING INFORMATION (SEE FIGURE D-1, APPENDIX D)
- APPROXIMATE PROPERTY BOUNDARY
- PROPOSED LOCATION FOR RE-OCCUPATION
- PROPOSED SOIL BORING

LOCATION	DATE	DEPTH (FEET BELOW GROUND SURFACE)
SA-5-3 (4-28-2005)		0.7-2.7(ft BGS)
INORG		
ANALYTE: Aluminum		1940/2060
Arsenic		0.78/1.02
Cadmium		0.21/0.21
Chromium Total		10.8 J [G]/4.36 J [G]
Cobalt		12.3 [EG]/10.8 [EG]

VALIDATION CODE
EXCEEDANCE CODE
CONCENTRATION IN mg/kg
DUPLICATE SAMPLE CONCENTRATION IN mg/kg

EXCEEDANCE CODES

A – MDEQ INDUSTRIAL SVIIC
B – MDEQ INDUSTRIAL VSIC
C – MDEQ INDUSTRIAL PSIC
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E – MDEQ RESIDENTIAL DWP
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G – MDEQ GSIP
H – MDEQ RESIDENTIAL SVIIC
I – MDEQ RESIDENTIAL VCIS
J – MDEQ RESIDENTIAL PSIC
K – MDEQ RESIDENTIAL DC

ACRONYMS

DC-	DIRECT CONTACT CRITERIA
DWP-	DRINKING WATER PROTECTION CRITERIA
GSIP-	GROUNDWATER SURFACE WATER INTERFACE PROTECTION
INORG-	INORGANICS
J-	ESTIMATED VALUE
NS-	NOT SAMPLED
PCB-	POLYCHLORINATED BIPHENYLS
PSIC-	PARTICULATE SOIL INHALATION CRITERIA
SVIIC-	SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA
SVOCs-	SEMI-VOLATILE ORGANIC COMPOUNDS
U-	NON-DETECT WITH ASSOCIATED LIMIT
VOCs-	VOLATILE ORGANIC COMPOUNDS
VSIC-	INFINITE SOURCE VOLATILE SOIL INHALATION CRITERIA

NOTES:

1. BASE MAP SUPPLIED BY GM, FROM A FIGURE TITLED "LANSING CAR ASSEMBLY BODY PLANT MASTER UNDERGROUND UTILITY DRAWING", FILE NO. PLT6MASTER-UNDERGROUND-UTILITIES.DWG.
2. SOIL CONCENTRATIONS ARE HIGHLIGHTED WHEN FACILITY-RELATED CONCENTRATIONS (SEE NOTE 3) ARE HIGHER THAN THE RESIDENTIAL SCREENING LEVELS FOR RSVIIC, VSIC, PSIC, DC, AND THE RISK BASED REDEVELOPMENT WORKER CONTACT. ADDITIONAL CONCENTRATIONS IN THE DEEPEST SAMPLES COLLECTED FROM EACH SAMPLING LOCATION ARE HIGHLIGHTED WHEN THE FACILITY-RELATED CONCENTRATIONS ARE HIGHER THAN THE CONSERVATIVE RISK BASED SCREENING LEVELS FOR RESIDENTIAL DWP AND GSIP.
3. FACILITY RELATED SOIL CONCENTRATIONS ARE THOSE IN EXCESS OF THE BACKGROUND LEVELS. STATEWIDE DEFAULT BACKGROUND LEVELS PUBLISHED WITH PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS ARE USED AS BACKGROUND LEVELS.
4. AVAILABLE SOIL AND GROUNDWATER ANALYTICAL DATA ARE SHOWN IN THE FIGURES INCLUDED IN THE CURRENT CONDITIONS REPORT.

DRAFT

0 20' 40'
GRAPHIC SCALE

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN
RFI WORK PLAN - PLANTS 2, 3, & 6

PLANT 6 PROPOSED SOIL BORINGS - AOI 6-1

ARCADIS

FIGURE 21

ARCADIS

Tables

UPDATED DRAFT

TABLE 1
GM LANSING PLANT 2 RFI ACTIVITIES MATRIX

RFI WORK PLAN
GENERAL MOTORS CORPORATION
LANSING, MICHIGAN

AOI Identification	Figure #	AOI Title	AOI Description/Components	AOI Location Building Number Column/Bay	AOI Approximate Depth Below Grade (ft)	Materials Handled	Constituents Detected above Part 201 Cleanup Criteria	Associated Soil Boring	Maximum Concentration Observed in AOI (mg/kg)	Proposed RFI Activities	Proposed Analytical Parameters Associated with RFI Samples
2-1	5	SWMU 1 - Waste Water Treatment System/Former Coal Pile	Treats wastewater containing ELPO, oil, suspended solids, and heavy metal wastes	South of Building 204	0	Waste Water/Coal	NA	NA	NA	- Advance two soil borings to the water table or bedrock, whichever is encountered first, and collect a surface soil sample, a soil sample at the interval below the depth of the AOI, a soil sample at the interval showing the highest PID reading (if present), and a soil sample at the interval directly above the water table/bedrock.	- TAL Metals
2-6	5	SWMU 6 - Former Oily Waste Treatment System	Three 10,000-gallon concrete tanks, two treatment tanks, two gravity separators, chemical storage tanks	North of Building 244	<15	Oily Waste	NA	NA	NA	- Advance three soil borings to the water table or bedrock, whichever is encountered first. Screen the borings and select which boring(s) to analyze according to the November 2005 Site Assessment Screening Methodology (presented in the *Current Conditions Report* (ARCADIS, 2008). If the November 2005 Site Assessment Screening Methodology indicates that a boring should be analyzed, collect a surface soil sample, a soil sample at the interval with the highest PID reading or visual contamination, and a soil sample at the interval directly above the water table/bedrock. If the November 2005 Site Assessment Screening Methodology indicates that no boring(s) should be analyzed, analyze one of the borings by collecting a surface soil sample, a soil sample at the interval below the depth of the AOI, and a soil sample at the interval directly above the water table/bedrock.	- If the November 2005 Site Assessment Screening Methodology indicates that samples should be analyzed, analyze the samples according to the November 2005 Site Assessment Screening Methodology - If the November 2005 Site Assessment Screening Methodology indicates that samples should not be analyzed, analyze the samples from one boring for TCL SVOCs and TAL metals
2-7	5	SWMU 7 - Building 242 Former Drum Storage Area	Likely stored paint waste, spent solvents, and used oil. Stored PCB waste.	Inside the North End of Building 242	10	Waste Paints, Waste Solvents, Used Oil, PCB Wastes	NA	NA	NA	- Advance one soil boring to the water table or bedrock, whichever is encountered first, and collect a surface soil sample, a soil sample at the interval below the depth of the AOI, a soil sample at the interval showing the highest PID reading (if present), and a soil sample at the interval directly above the water table/bedrock.	- TCL VOCS, TCL SVOCs, TAL metals and PCBs
2-8	5	SWMU 8 - Former Outdoor Storage Area	Likely stored waste paint, spent solvent, and used oils on a concrete pad.	Northwest of Building 241	0	Waste Paints, Waste Solvents, Used Oil	NA	NA	NA	- Advance one soil boring to the water table or bedrock, whichever is encountered first, and collect a surface soil sample, a soil sample at the interval below the depth of the AOI, a soil sample at the interval showing the highest PID reading (if present), and a soil sample at the interval directly above the water table/bedrock.	- TCL VOCs, TCL SVOCs and TAL metals
2-11	5	SWMU 11 - Former Gondola Storage Area	Two paved outdoor areas; stored 1-to 3-cubic yard steel gondolas	Northwest of Building 206C	0	Oil Filters, Air Filters, Oil and Grease	NA	NA	NA	- Advance two soil borings (one in each area) to the water table or bedrock, whichever is encountered first. Screen the borings and select which boring(s) to analyze according to the November 2005 Site Assessment Screening Methodology (presented in the *Current Conditions Report* (ARCADIS, 2008). If the November 2005 Site Assessment Screening Methodology indicates that a boring should be analyzed, collect a surface soil sample, a soil sample at the interval with the highest PID reading or visual contamination, and a soil sample at the interval directly above the water table/bedrock. If the November 2005 Site Assessment Screening Methodology indicates that no boring(s) should be analyzed, analyze one of the borings by collecting a surface soil sample, a soil sample at the interval below the depth of the AOI, and a soil sample at the interval directly above the water table/bedrock.	- If the November 2005 Site Assessment Screening Methodology indicates that samples should be analyzed, analyze the samples according to the November 2005 Site Assessment Screening Methodology - If the November 2005 Site Assessment Screening Methodology indicates that samples should not be analyzed, analyze the samples from one boring for TCL SVOCs and TAL metals
2-12	5	SWMU 12 - Former Empty Container Storage Area	Empty 55-gallon drums generated from facility operations	Southwest of Building 241	0	Empty 55 Gallon Drums	NA	NA	NA	- Advance one soil boring to the water table or bedrock, whichever is encountered first, and collect a surface soil sample, a soil sample at the interval below the depth of the AOI, a soil sample at the interval showing the highest PID reading (if present), and a soil sample at the interval directly above the water table/bedrock.	- TCL VOCs, TCL SVOCs and TAL metals
2-14	5	SWMU 14 - Former Scrap Metal Storage Areas	Stored non-hazardous scrap metal (machining chips, turnings, trimmings, and scrap parts)	West of Building 241 and East of Building 206	0	Scrap Metal	NA	NA	NA	- Advance two soil borings to the water table or bedrock, whichever is encountered first, and collect a surface soil sample, a soil sample at the interval below the depth of the AOI, a soil sample at the interval showing the highest PID reading (if present), and a soil sample at the interval directly above the water table/bedrock.	- TCL SVOCs and TAL metals

TABLE 1
GM LANSING PLANT 2 RFI ACTIVITIES MATRIX

RFI WORK PLAN
GENERAL MOTORS CORPORATION
LANSING, MICHIGAN

2-15	6	AOC 1 - Building 225 UST Farm	Eight former 30,000-gallon tanks. Removed 1989. Closure report submitted 10/1/96.	South of Building 225	<15	Used Oil, Quench Oil, Cutting Oil and Lube Oil	1,1,1-Trichloroethane	B-7 7.5-15(ft BGS)	310 {EGH}	- Reoccupy B-2 and collect a sample from the 0-2 ft interval, the interval showing the highest PID reading, and the interval either directly above the water table or bedrock, whichever is encountered first.	- TLC VOCs
							1,1-Dichloroethene	B-7 7.5-15(ft BGS)	16 {ABEGHI}		
							1,2-Dichlorobenzene	B-7 0-7.5(ft BGS)	0.75 {G}		
							1,4-Dichlorobenzene	B-7 0-7.5(ft BGS)	0.5 {G}		
							Benzene	B-2 0-7.5(ft BGS)	2.5 {EH}		
							Ethylbenzene	TP-4 2.5-2.5(ft BGS)	1.3 {G}		
							Tetrachloroethene	B-2 0-7.5(ft BGS)	1.5 {EG}		
							Toluene	B-7 7.5-15(ft BGS)	3.9 {G}		
							Trichloroethene	B-7 7.5-15(ft BGS)	0.14 {E}		
							Xylene (total)	TP-4 2.5-2.5(ft BGS)	4.9 {G}		
2-23	5	Acid House and Two Storage Tanks of Unknown Operations	Two storage tanks with unknown contents were located immediately south of acid house.	West of Building 206, North of Basketball Court	15	Unknown (Likely Acids)	NA	NA	NA	- Advance two soil borings to the water table or bedrock, whichever is encountered first, and collect a surface soil sample, a soil sample at the interval below the depth of the AOI, a soil sample at the interval showing the highest PID reading (if present), and a soil sample at the interval directly above the water table/bedrock.	- TAL metals
2-52	5	Pickling Room	Concrete wall and acid-resistant floor	Building 203 A3	0	Unknown (Likely Acids)	NA	NA	NA	- Advance two soil borings to the water table or bedrock, whichever is encountered first, and collect a surface soil sample, a soil sample at the interval below the depth of the AOI, a soil sample at the interval showing the highest PID reading (if present), and a soil sample at the interval directly above the water table/bedrock.	- TAL metals

Footnotes
NA - not applicable
Csat - Part 201 Soil Saturation Concentration Screening Levels
DC - Direct Contact Criteria
DWP - Drinking Water Protection Criteria
GSIP - Groundwater Surface Water Interface Protection
PA/VSI - Preliminary Assessment / Visual Site Inspection Report (PRC Environmental Management, Inc., 1994)
PCBs - Polychlorinated biphenyls
PSIC - Particulate Soil Inhalation Criteria
SVIIC - Soil Volatilization to Indoor Air Inhalation Criteria
SVOCs - Semi-Volatile Organic Compounds
VOCs - Volatile Organic Compounds
VSIC - Infinite Source Volatile Soil Inhalation Criteria
RWC - Risk-based Redevelopment Worker Contact
TAL - target analyte list (for metals) - note: will include speciation of chromium (trivalent and hexavalent)
TCL - target compound list (for VOCs and SVOCs)

Sample Concentration Exceedance Codes:
{A} - MDEQ Part 201 Industrial SVIIC
{B} - MDEQ Part 201 Industrial VSIC
{C} - MDEQ Part 201 Industrial PSIC
{D} - MDEQ Part 201 Industrial DC
{E} - MDEQ Part 201 Residential DWP
{F} - Risk-based Redevelopment Worker Contact
{G} - MDEQ Part 201 GSIP
{H} - MDEQ Part 201 Residential SVIIC
{I} - MDEQ Part 201 Residential VSIC
{J} - MDEQ Part 201 Residential PSIC
{K} - MDEQ Part 201 Residential DC
{L} - MDEQ Part 201 Soil Saturation Concentration Screening Levels

Items in red were added based on the edits and suggestions received in the December 11, 2008 MDEQ meeting

TABLE 2
GM LANSING PLANT 3 RFI ACTIVITIES MATRIX

RFI WORK PLAN
GENERAL MOTORS CORPORATION
LANSING, MICHIGAN

AOI Identification	Figure #	AOI Title	AOI Description/Components	AOI Location Building Number Column/Bay	AOI Approximate Depth Below Grade (ft)	Materials Handled	Constituents Detected above Part 201 Cleanup Criteria	Associated Soil Boring	Maximum Concentration Observed in AOI (mg/kg)	Proposed RFI Activities	Proposed Analytical Parameters Associated with RFI Samples
3-2	7	SWMU 16 - Oily Waste Treatment System	Treated oily wastewater; 2 concrete used oil holding tanks, 2 concrete oily sludge tanks	Northeast Portion of Building 301A	20	Oil Waste	NA	NA	NA	- Inspect the integrity of the tanks during ongoing demolition activities	NA
3-3	8	SWMU 17 - Scrap Metal Pits and Bins	Scrap Yard Dock Area, 24 Scrap Pits (10' by 10' by 13'), 4,000 Gallon Soluble Oil Sump Pit, 2,000 Gallon Cutting Oil Sump Pit	Outside of Building 301, West of RR Tracks and East of Building 301, A8-11	10	Scrap Metal	NA	NA	NA	- Advance two soil borings to the water table or bedrock whichever is encountered first and collect a surface soil sample, a soil sample at the interval below the depth of the AOI, a soil sample at the interval showing the highest PID reading (if present), and a soil sample at the interval directly above the water table/bedrock.	- TCL SVOCs and TAL metals
3-4	9	SWMU 18 - Machining Residue Storage Area	20 Cubic Yard Roll-off Box located .	East of scrap metal conveyor	0	Machining Residue	NA	NA	NA	- Advance one soil boring to the water table or bedrock, whichever is encountered first, and collect a surface soil sample, a soil sample at the interval below the depth of the AOI, a soil sample at the interval showing the highest PID reading (if present), and a soil sample at the interval directly above the water table/bedrock.	- TCL SVOCs and TAL metals
3-5	7	SWMU 19 - Clarifier	Circular concrete below-grade clarifier	South of Willow Road	<15	Storm Water, Oil and Sediments	NA	NA	NA	- Inspect the integrity of the tank during ongoing demolition activities	NA
3-6	7	SWMU 20 - Former Electroplating Waste Treatment System	Treated electroplating wastes (copper, nickel, and chromium). Included an Acid Wash Tank, Sludge Storage Tank, Waste Acid Storage Tank,	Building 301A Whole Building Buildings 301A and 301D Whole Building	10	Electroplating Waste	Chromium Total	SB#2 3.5-7(ft BGS)	20 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances - Collect groundwater samples from existing and proposed monitoring wells as described below to address the DWP exceedances	- See (1) for outfall samples - See below for groundwater samples
							Nickel	SB#2 0-3.5(ft BGS)	6300 {EG}		
3-9	9	AOC 2 - Building 301 UST Farm	6 USTs, stored polymer, sulfuric acid, soluble oil, gasoline, hydraulic oil, and APCO cleaner; Were removed in 1989.	East of Building 301	<15	Polymer, Sulfuric Acid, Soluble Oil, Gasoline, Hydraulic Oil, APCO Cleaner	Benzene	SB2 0-7(ft BGS)	5.7 {EGH}	- Reoccupy SB-2 and collect a sample from the 0-2 ft interval, the interval showing the highest PID reading, and the interval either directly above the water table or bedrock, whichever is encountered first. - Reoccupy SS-15 and collect a sample from the 0-2 ft interval, the interval showing the highest PID reading, and the interval either directly above the water table or bedrock, whichever is encountered first.	- TCL VOCs
							Ethylbenzene	SB3 0-7(ft BGS)	5.8 {EG}		
							Toluene	SB3 0-7(ft BGS)	20 {EG}		
							Vinyl chloride	SB3 7-13(ft BGS)	0.19 {E}		
							Xylene (total)	SB1 1-7(ft BGS)	32 {EG}		
3-10	7 and 10	AOC 4 - Former Electroplating Area	(1) Electroplating operations (2) New and Reworked Storage Tanks, Chromic Acid Reclaim, 7' diameter by 9' tall (3) 17 Acid Copper Plating Tanks (4) Sludge Sump Under Nickel Storage Tank, 1350 Gallons (5) 3 Washwater Tanks (1900 gal each) in Plating Area (6) Nickel Plating Tanks 1, 2, 3, 4, 6, 7, 8, and 9 (7) Copper Buffing Wash and Rinse Tanks (8) Bumper Plating Sumps (9) Dur'ni Nickel Operations Area, Tanks, Sumps and Drain Deck	North-Central Portion of Building 301	15	Electroplating Materials	Arsenic	13 43.5-45(ft BGS)	42 {EK}	- Reoccupy location 27 and collect a sample from the 1 - 3 foot interval - Reoccupy locations CH-13, CH-14 and CH-15 and collect samples from the 0 - 2 and 10 - 12 foot intervals. If the laboratory data from the 10 - 12 foot interval shows elevated risks, submit the samples from the 0 - 2 foot intervals. - Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances - Collect groundwater samples from existing and proposed monitoring wells as described below to address the DWP exceedances - Continue to pump groundwater from the French Drain quarterly. - Collect groundwater samples from the French Drain yearly to monitor the concentrations of constituents from the groundwater that is being pumped.	- Arsenic for location 27 - Chromium for locations CH-13, CH-14 and CH-15 - See (1) for outfall samples - See below for groundwater samples
							Chromium Total	CH-15 15.5-18(ft BGS)	4600 {CEFGJK}		
							Copper	G1 2-2(ft BGS)	1500 {G}		
							Cyanide (total)	I10 6-6(ft BGS)	2070 {CDEGJK}		
							Nickel	G12 15-15(ft BGS)	12000 {EFG}		

UPDATED DRAFT

TABLE 2
GM LANSING PLANT 3 RFI ACTIVITIES MATRIX

RFI WORK PLAN
GENERAL MOTORS CORPORATION
LANSING, MICHIGAN

AOI Identification	Figure #	AOI Title	AOI Description/Components	AOI Location Building Number Column/Bay	AOI Approximate Depth Below Grade (ft)	Materials Handled	Constituents Detected above Part 201 Cleanup Criteria	Associated Soil Boring	Maximum Concentration Observed in AOI (mg/kg)	Proposed RFI Activities	Proposed Analytical Parameters Associated with RFI Samples
3-11	7	SWMU 14 - Former Scrap Metal Storage Areas	Stored scrap metal	West of Building 304 and East of Building 302	<5	Scrap Metal	NA	NA	NA	- Advance three soil borings (one in each area) to the water table or bedrock, whichever is encountered first. Screen the borings and select which boring(s) to analyze according to the November 2005 Site Assessment Screening Methodology (presented in the *Current Conditions Report* (ARCADIS, 2008). If the November 2005 Site Assessment Screening Methodology indicates that a boring should be analyzed, collect a surface soil sample, a soil sample at the interval with the highest PID reading or visual contamination, and a soil sample at the interval directly above the water table/bedrock. If the November 2005 Site Assessment Screening Methodology indicates that no boring(s) should be analyzed, analyze one of the borings by collecting a surface soil sample, a soil sample at the interval below the depth of the AOI, and a soil sample at the interval directly above the water table/bedrock.	- If the November 2005 Site Assessment Screening Methodology indicates that samples should be analyzed, analyze the samples according to the November 2005 Site Assessment Screening Methodology - If the November 2005 Site Assessment Screening Methodology indicates that samples should not be analyzed, analyze the samples from one boring for TCL SVOCs and TAL metals

Proposed RFI Activity	Figure #	Purpose	Location	Depth	Sampling	Proposed Analytical Parameters
Sample all existing monitoring wells	7	- To assess current groundwater quality conditions	- All accessible existing well locations	NA	- Collect one groundwater sample from each well	- TCL VOCs, TCL SVOCs, TAL metals for groundwater samples
Install and sample two new monitoring wells	7	- To better define groundwater flow characteristics and characterize groundwater quality	- Two wells will be installed to the west and southwest of MW-04-01.	- Wells to be installed in the upper shaly sandstone unit (depth varies based on location)	- Collect soil samples from the 0-2 foot depth interval and direclty above the water table or bedrock, whichever is encountered first. - Collect two groundwater samples from each new well at least one month apart	- TCL VOCs, TCL SVOCs and TAL metals for soil and groundwater samples

Footnotes:
(1) The outfall samples will be analyzed for all constituents that show a GSIP exceedance. This consists of arsenic, chromium (speciated), cyanide and nickel. Additional constituents may be added based on the results of the proposed soil sampling activities.
NA - not applicable
Csat - Part 201 Soil Saturation Concentration Screening Levels
DC - Direct Contact Criteria
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VOCs - Volatile Organic Compounds
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RC - restrictive covenant
RWC - Risk-based Redevelopment Worker Contact
TAL - target analyte list (for metals) - note: will include speciation of chromium (trivalent and hexavalent)
TCL - target compound list (for VOCs and SVOCs)

Sample Concentration Exceedance Codes:
{A} - MDEQ Part 201 Industrial SVIIC
{B} - MDEQ Part 201 Industrial VSIC
{C} - MDEQ Part 201 Industrial PSIC
{D} - MDEQ Part 201 Industrial DC
{E} - MDEQ Part 201 Residential DWP
{F} - Risk-based Redevelopment Worker Contact
{G} - MDEQ Part 201 GSIP
{H} - MDEQ Part 201 Residential SVIIC
{I} - MDEQ Part 201 Residential VSIC
{J} - MDEQ Part 201 Residential PSIC
{K} - MDEQ Part 201 Residential DC
{L} - MDEQ Part 201 Soil Saturation Concentration Screening Levels

Items in red were added based on the edits and suggestions received in the December 11, 2008 MDEQ meeting

UPDATED DRAFT

TABLE 3
GM LANSING PLANT 6 RFI ACTIVITIES MATRIX

RFI WORK PLAN
GENERAL MOTORS CORPORATION
LANSING, MICHIGAN

AOI Identification	Figure #	AOI Title	AOI Description/Components	AOI Location Building # Column/Bay	AOI Approximate Depth Below Grade (ft)	Materials Handled	Constituents Detected above Part 201 Cleanup Criteria	Associated Soil Boring	Maximum Concentration Observed in AOI (mg/kg)	Proposed RFI Activities	Proposed Analytical Parameters Associated With RFI Samples[1]
6-1	21	SWMU 1 - Original Hazardous Waste Storage Area	40'x100' concrete area surrounded by trench; stored ELPO and paint-related wastes; Removed and replaced by Air Pollution Control System (ACSP) Incinerator	North of Building 22	5	ELPO and Paint Related Wastes	NA	NA	NA	- Advance one soil boring to the water table or bedrock, whichever is encountered first, and collect a surface soil sample, a soil sample at the interval below the depth of the AOI, a soil sample at the interval showing the highest PID reading (if present), and a soil sample at the interval directly above the water table/bedrock.	- TCL VOCs, TCL SVOCs and TAL metals
6-10	15	SWMU 10 - Non-Hazardous Waste Consolidation Area	40'x80' roofed area on a concrete base; managed epoxy purge, grinding waste, oven condensate, trim purge, and used hydraulic oil	South of Building 22	0	Epoxy Purge, Grinding Waste, Oven Condensate, Trim Purge and Used Hydraulic Oil	NA	NA	NA	- Advance two soil borings to the water table or bedrock, whichever is encountered first. Screen the borings and select which boring(s) to analyze according to the November 2005 Site Assessment Screening Methodology (presented in the *Current Conditions Report* (ARCADIS, 2008). If the November 2005 Site Assessment Screening Methodology indicates that a boring should be analyzed, collect a surface soil sample, a soil sample at the interval with the highest PID reading or visual contamination, and a soil sample at the interval directly above the water table/bedrock. If the November 2005 Site Assessment Screening Methodology indicates that no boring(s) should be analyzed, analyze one of the borings by collecting a surface soil sample, a soil sample at the interval below the depth of the AOI, and a soil sample at the interval directly above the water table/bedrock.	- If the November 2005 Site Assessment Screening Methodology indicates that samples should be analyzed, analyze the samples according to the November 2005 Site Assessment Screening Methodology - If the November 2005 Site Assessment Screening Methodology indicates that samples should not be analyzed, analyze the samples from one boring for TCL SVOCs and TAL metals
6-11	20	SWMU 11 -- Wastewater Cistern (Industrial waste treatment pit)	300,000 gallons; managed wash water from rinsing automobile bodies and the overflow of phosphoric acid from phosphoric acid pickling tanks	Building 18 PP-QQ/11-12	<20	Automobile Body Wash Water and Phosphoric Acid	NA	NA	NA	- Advance four soil borings to the water table or bedrock, whichever is encountered first. Screen the borings and select which boring(s) to analyze according to the November 2005 Site Assessment Screening Methodology (presented in the *Current Conditions Report* (ARCADIS, 2008). If the November 2005 Site Assessment Screening Methodology indicates that a boring should be analyzed, collect a surface soil sample, a soil sample at the interval with the highest PID reading or visual contamination, and a soil sample at the interval directly above the water table/bedrock. If the November 2005 Site Assessment Screening Methodology indicates that no boring(s) should be analyzed, analyze one of the borings by collecting a surface soil sample, a soil sample at the interval below the depth of the AOI, and a soil sample at the interval directly above the water table/bedrock.	- If the November 2005 Site Assessment Screening Methodology indicates that samples should be analyzed, analyze the samples according to the November 2005 Site Assessment Screening Methodology - If the November 2005 Site Assessment Screening Methodology indicates that samples should not be analyzed, analyze the samples from one boring for TAL metals
6-16 6-33	11 and 12	AOC 1 - Tanks 5 and 6; Tank Farm	Tank 5: 4,000-gallon steel diesel fuel storage tank; Tank 6: 15,000-gallon steel gasoline storage tank 16' bgs; stores purge thinner/diesel fuel; Double walled tank with leak detection system; Installed in the same location as AOI 6-16	South of Building 23	15	Diesel and Gasoline, Metals Purge Thinner and Diesel Fuel	Ethylbenzene	MWBP-12 9-11(ft BGS)	3.4 {EG}	- Re-occupy SW-4-UST-5-6 and collect a sample from the 0-2 ft interval, the interval showing the highest PID reading, and the interval either directly above the water table or bedrock, whichever is encountered first. - Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances - Collect groundwater samples from existing monitoring wells as described below to address the DWP exceedances	- For SW-4-UST-5-6 sample for TCL VOCs - See (1) for outfall samples - See below for groundwater samples
							Xylene (total)	SW-4 0-0(unknown)	99 {EFG}		
6-17	13 and 14	AOC 2 - Tanks 1 (SWMU 4) and 3 (SWMU 8)	Tank 1 (SWMU 4): 7,500-gallon carbon steel virgin thinner storage tank; Tank 3 (SWMU 8): 12,000-gallon carbon steel virgin thinner storage tank	Southwest of Building 16	15	Virgin Thinner	Benzene	SA 4-3 12-14(ft BGS)	0.2 J {E}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances - Collect groundwater samples from existing monitoring wells as described below to address the DWP exceedances. One monitoring well will be installed south of boring SA-4-3 in the overburden saturated unit, if present, to evaluate the potential for off-site migration of COCs in excess of Part 201 criteria. - Re-occupy SA 4-3 and collect a sample from the 0-2 ft interval, the interval showing the highest PID reading, and the interval either directly above the water table or bedrock, whichever is encountered first. - Complete a boring south of VEW-5 to delineate the horizontal extent of VOC exceedances. Collect a sample from the 0-2 ft interval, the interval showing the highest PID reading, and the interval either directly above the water table or bedrock, whichever is encountered first. - Re-occupy VEW-5 and collect a sample from the 0-2 ft interval, the interval showing the highest PID reading, and the interval either directly above the water table or bedrock, whichever is encountered first.	- See (1) for outfall samples - See below for groundwater samples - VOCs for soil samples
							Ethylbenzene	SA 4-3 12-14(ft BGS)	23.5 {EG}		
							1,1-Dichloroethene	VEW-5 8-10(ft BGS)	0.5 {AEH}		
							Naphthalene	SB-2 9-11(ft BGS)	9.2 {G}		
							Trichloroethene	VEW-5 8-10(ft BGS)	1.2 {E}		
							Xylene (total)	B-96-B 9-11(ft BGS)	299 {ADEFGHKL}		
6-18	11	Lead in Soil Area	Lead smelter	West of Buildings 10, 11, 12, 13 and15	0	Metals	Chromium Total	SA 12-2 10-12(ft BGS)	25.7 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances - Collect groundwater samples from existing monitoring wells as described below to address the DWP exceedances	- See (1) for outfall samples - See below for groundwater samples
							Cobalt	SA 12-2 10-12(ft BGS)	22.8 {EG}		
							Lead	E-25 0-2(ft BGS)	4030 {DEK}		
							Manganese	SA 12-1 9-11(ft BGS)	548 {EG}		
6-19	NA	Process Waste Tunnel	Runs underneath Building 28 and 21; exits Site to the west and continues to GM Lansing Plant 2	West of the Power Plant	15	Process Waste	Chromium Total	SA 10-3 14-16(ft BGS)	14.7 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances	- See (1) for outfall samples
6-30	NA	New Weld Pit	18'x50'x4'	Building 18 QQ8-10	4	Metals	Chromium Total	SA 29-2 8-10(ft BGS)	5.6 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances	- See (1) for outfall samples
6-43	NA	Stormceptor	Includes stormceptor oil and sediment separator	West of Building 15	15	Storm Water, Oil and Sediments	Chromium Total	SA 13-1 7-9(ft BGS)	5.5 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances	- See (1) for outfall samples
6-47	NA	Leaking Industrial Waste Line	N/A	Building 16 ZZ115	15	Process Waste	Chromium Total	SA 4-4 14-16(ft BGS)	8.9 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances	- See (1) for outfall samples
							Selenium	SA 4-4 14-16(ft BGS)	1.26 {G}		
6-48	15 and 16	Former Coal Pile	Was replaced by Bldg. 28	Building 28 Whole Building	0	Coal	Chromium Total	SA 6-12 8-10(ft BGS)	16.1 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances - Reoccupy soil borings SA6-7 and SA6-12 to evaluate the DWP exceedances. Collect a sample from the 0-2 ft interval, the interval showing the highest PID reading, and the interval either directly above the water table or bedrock, whichever is encountered first.	- See (1) for outfall samples - Cobalt and manganese for soil samples
							Cobalt	SA 6-12 8-10(ft BGS)	8.35 {E}		
							Manganese	SA 6-7 4-6(ft BGS)	601 {EG}		
6-49	NA	2nd Lacquer Booth	Associated with former paint shop	Building 10 Q-R/34-36	5	Paint and Thinner	Chromium Total	SA 22-3 2-4(ft BGS)	10.6 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances	- See (1) for outfall samples
							Selenium	SA 22-2 2-4(ft BGS)	1.01 {G}		
6-59	NA	Stormceptor	Includes stormceptor oil and sediment separator	South of Building 23	15	Storm Water	Chromium Total	SA 3-1 14-16(ft BGS)	3.8 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances	- See (1) for outfall samples

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AOI Identification	Figure #	AOI Title	AOI Description/Components	AOI Location Building # Column/Bay	AOI Approximate Depth Below Grade (ft)	Materials Handled	Constituents Detected above Part 201 Cleanup Criteria	Associated Soil Boring	Maximum Concentration Observed in AOI (mg/kg)	Proposed RFI Activities	Proposed Analytical Parameters Associated With RFI Samples[1]
6-60	13 and 14	Paint Mix Room	N/A	Building 21 EEE-KKK/8-103	0	Paint and Thinner	Acetone	SA 5-5 8-10(ft BGS)	35 {E}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances - Collect groundwater samples from existing monitoring wells as described below to address the DWP exceedances - Complete borings to the north, east and west of SA-5-5 to horizontally delineate the DWP exceedances - Reoccupy soil boring SA5-5 to evaluate the DWP exceedances. Collect a sample from the 0-2 ft interval, the interval showing the highest PID reading, and the interval either directly above the water table or bedrock, whichever is encountered first.	- See (1) for outfall samples - See below for groundwater samples - VOCs for soil samples
							Chromium Total	SA 5-1 8-10(ft BGS)	5.9 {G}		
							Ethylbenzene	SA 5-5 8-10(ft BGS)	6.1 {EG}		
							Xylene (total)	SA 5-5 8-10(ft BGS)	34.5 {EG}		
6-63	NA	Sump	N/A	Building 20 NN21	5	Unknown	Chromium Total	SA 32-1 8-10(ft BGS)	9 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances	- See (1) for outfall samples
6-78	NA	Former PCB Transformers	N/A	East of the Power Plant	0	PCBs Oil	Chromium Total	SA 7-9 7-9(ft BGS)	17.1 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances	- See (1) for outfall samples
6-81	17	Former Paint Shop Area	N/A	Buildings 11, 12, 13, 14 and 14X A-M/37-66	10	Paint and Thinner	Chromium Total	SA 11-5 0.7-2.7(ft BGS)	25 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances - Reoccupy soil borings SA11-1, SA11-5 and SA11-11 to evaluate the DWP exceedances. Collect a sample from the 0-2 ft interval, the interval showing the highest PID reading, and the interval either directly above the water table or bedrock, whichever is encountered first.	- See (1) for outfall samples - For soil samples, cobalt and manganese
							Cobalt	SA 11-5 0.7-2.7(ft BGS)	12.6 {EG}		
							Manganese	SA 11-5 0.7-2.7(ft BGS)	1180 {EG}		
6-82	15	Former Coal Chute Building	Basement filled with water at the time of the site walkthrough	South of Building 28	15	Coal	Chromium Total	SA 20-3 7-9(ft BGS)	16.1 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances - Reoccupy soil borings SA20-1 to evaluate the DWP exceedances. Collect a sample from the 0-2 ft interval, the interval showing the highest PID reading, and the interval either directly above the water table or bedrock, whichever is encountered first.	- See (1) for outfall samples - For soil samples, cobalt
							Cobalt	SA 20-1 4-6(ft BGS)	7.9 {E}		
							Selenium	SA 20-2 14-16(ft BGS)	1.01 {G}		
6-83	NA	Whole Bldg. (Sumps, Pits, Trenches, Former WWTP)	N/A	Power Plant Whole Building	15	Waste Water Treatment Sludge	Chromium Total	SA 7-6 14-16(ft BGS)	20.8 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances	- See (1) for outfall samples
							Selenium	SA 7-4 8-10(ft BGS)	1.31 {G}		
6-87	NA	Oil/Water Separator	Associated with truck dock operations	West of Building 9	5	Used Oil	Chromium Total	SA 9-2 8-10(ft BGS)	7.7 {G}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances	- See (1) for outfall samples
6-88	18 and 19	Parking Lot Exceedance	NA	NA	0	Unknown	Antimony	SA 34-6 6-8(ft BGS)	30 {E}	- Collect samples from the storm sewers downstream (and upstream, if present) of the site to address the GSIP exceedances - Reoccupy soil borings SA34-6 to evaluate the DWP exceedances. Collect a sample from the 0-2 ft interval, the interval showing the highest PID reading, and the interval either directly above the water table or bedrock, whichever is encountered first.	- See (1) for outfall samples - VOCs for soil samples
							Benzene	SA 34-6 6-8(ft BGS)	0.16 {E}		
							Chromium Total	SA 34-6 6-8(ft BGS)	9.9 {G}		
							Ethylbenzene	SA 34-6 6-8(ft BGS)	1.23 {G}		
							Selenium	SA 34-6 6-8(ft BGS)	1.09 {G}		
							Xylene (total)	SA 34-6 6-8(ft BGS)	8.11 {EG}		

Proposed RFI Activity	Figure #	Purpose	Location	Depth	Sampling	Proposed Analytical Parameters
Sample all existing monitoring wells	11	- To assess current groundwater quality conditions	- All accessible existing well locations	NA	- Collect one groundwater sample from each well	- TCL VOCs, TCL SVOCs, and TAL metals for groundwater
Install and sample one new bedrock monitoring well	11	- To better define groundwater flow characteristics and characterize groundwater quality	- Near existing well MW-03-02	- To be installed in the upper shaly sandstone bedrock unit (depth will depend on field observations)	- Collect a surface soil sample and samples from the 0-2 foot depth interval and direclty above the water table or bedrock, whichever is encountered first. - Collect two groundwater samples at least one month apart	- TCL VOCs, TCL SVOCs, and TAL metals for soil samples - TCL VOCs, TCL SVOCs, and TAL metals for groundwater samples

Footnotes
(1) The outfall samples will be analyzed for all constituents that show a GSIP exceedances. This consists of VOCs, chromium (speciated), cobalt, manganese and selenium. Additional constituents may be added based on the results of the proposed soil sampling activities.
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Csat - Part 201 Soil Saturation Concentration Screening Levels
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{G} - MDEQ Part 201 GSIP
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{K} - MDEQ Part 201 Residential DC
{L} - MDEQ Part 201 Soil Saturation Concentration Screening Levels

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