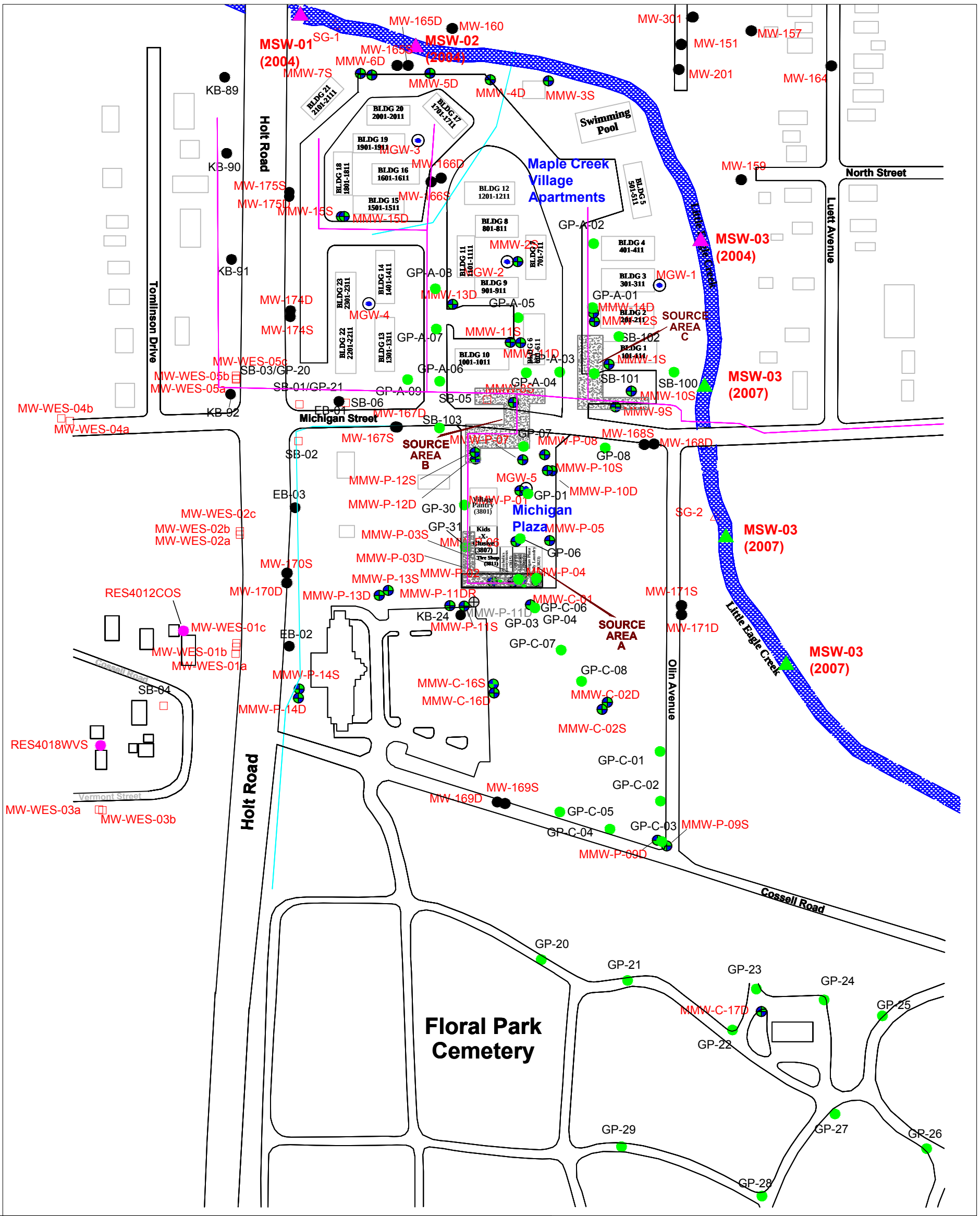

LEGEND

Fence	
MMW-P-06	MUNDELL Monitoring Well
MW-160/ KB-90	ENVIRON Monitoring Well/Soil Boring
MW-WES-O1A/ SB-02	U.S. EPA Monitoring Well/Soil Boring
SG-1	Stream Gauge Location
MGW-O1	MUNDELL Soil Gas Well
GP-29	Soil Boring
	Sanitary Sewer
	Storm Sewer
	Residential Drinking Water Well
	Surface Water Sample Location

**Note that soil borings were advanced adjacent to monitoring wells MMW-8S, MMW-9S, MMW-10S, MMW-11D, MMW-13D, MMW-14D, MMW-P-02, MMW-P-03D, MMW-P-04, MMW-P-07, MMW-P-08, MMW-P-09D, and MMW-P-10D in March and July 2013.

N

SCALE 0 200 feet

ENVIRON/Keramida/EPA Monitoring Well Locations Referenced from December, 2011 EPA Survey.

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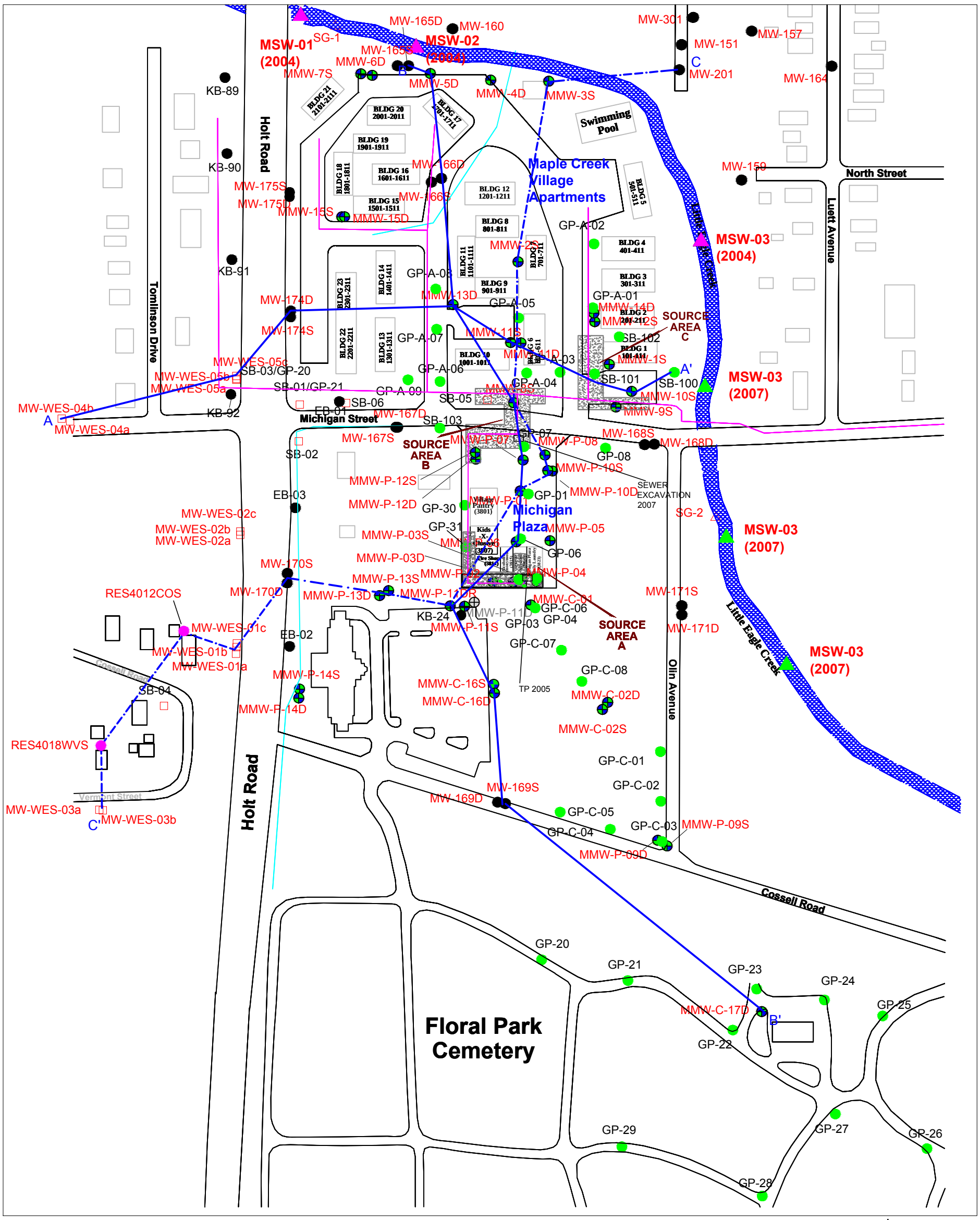
Drawing File: 1Q13 QMR
Date Prepared: 03-11-13
Scale: 1"=200'

SITE PLAN

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE 2a



LEGEND

GP-29	Soil Boring
	Fence
	Sanitary Sewer
MMW-P-06	MUNDELL Monitoring Well
	Storm Sewer
MW-160/ KB-90	ENVIRON Monitoring Well/Soil Boring
	Residential Drinking Water Well
MW-WES-O1A/ SB-02	U.S. EPA Monitoring Well/Soil Boring
SG-1	Stream Gauge Location
MGW-O1	MUNDELL Soil Gas Well

N

SCALE 0 200 feet

ENVIRON/Keramida Monitoring Well Locations Referenced from Keramida Environmental, Inc. Project No. 2829 March 13, 2002

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Drawing File: 2013 RWP
Date Prepared: 8-19-2013
Scale: 1"=200'

CROSS SECTION TRANSECT LINES

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

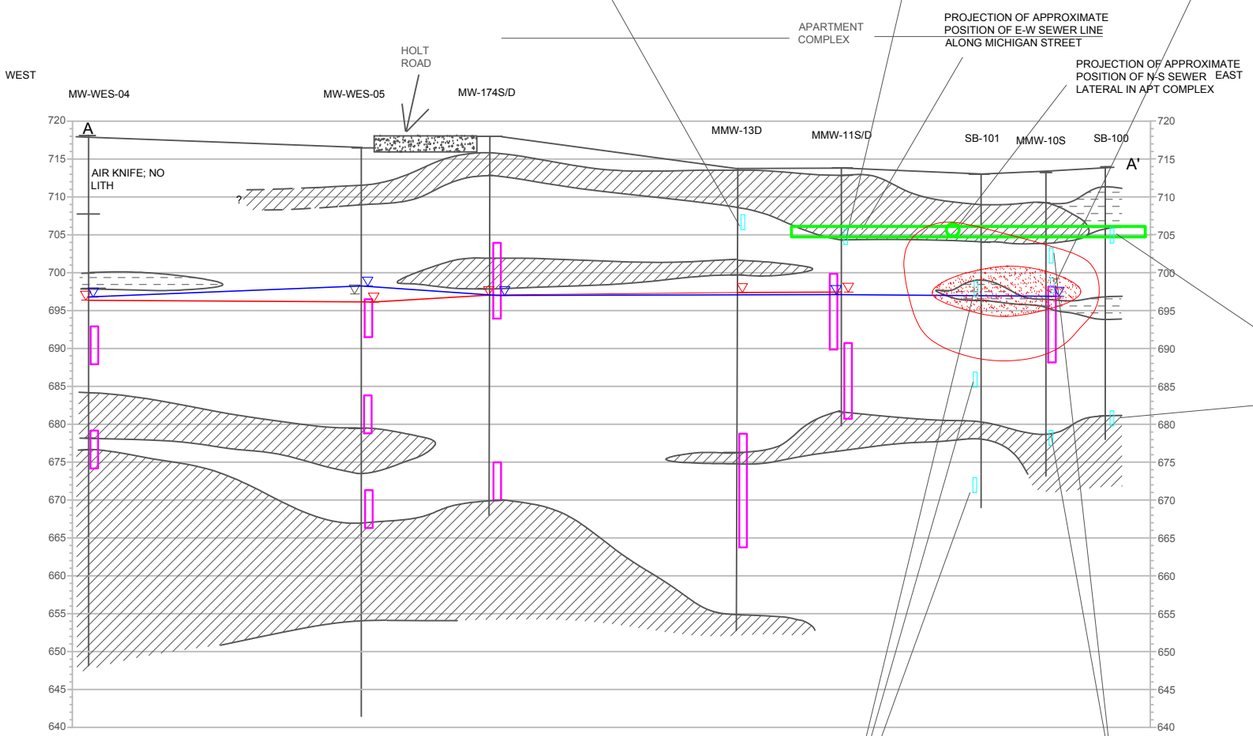
FIGURE 4

11/21/2008	MMW-13D
Depth	6-8'
PCE	<0.0052
TCE	<0.0052
cis-1,2-DCE	<0.0052
trans-1,2-DCE	<0.0052
VC	<0.0052

11/21/2008	MMW-11S
Depth	8-10'
PCE	<0.0057
TCE	<0.0057
cis-1,2-DCE	<0.0057
trans-1,2-DCE	<0.0057
VC	<0.0057

1/11/2007	MMW-10S
Depth	14-16'
PCE	19
TCE	0.023
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

Note: Smear zone soils typically range between 16-19 ft-bgs across site (somewhat shallower adjacent to Little Eagle Creek). Soil results from samples collected below the smear zone (in the saturated soil zone) are highlighted in gray in sample depth header.



3/6/2013	SB-100	
Depth	8-10'	32-34'
PCE	<0.0046	<0.0037
TCE	<0.0046	<0.0037
cis-1,2-DCE	<0.0046	<0.0037
trans-1,2-DCE	<0.0046	<0.0037
VC	<0.0046	0.0244

3/6/2013	MMW-10S-A	
Depth	10-12'	34-36'
PCE	1.64	<0.0038
TCE	<0.0052	<0.0038
cis-1,2-DCE	<0.0052	<0.0038
trans-1,2-DCE	<0.0052	<0.0038
VC	<0.0052	0.0256

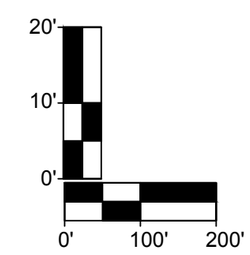
3/6/2013	SB-101		
Depth	14-16'	26-28'	40-42'
PCE	37.3	<0.0045	0.0072
TCE	0.0708	<0.0045	<0.0043
cis-1,2-DCE	0.0363	0.0988	0.0798
trans-1,2-DCE	<0.0045	<0.0045	<0.0043
VC	<0.0045	0.0345	0.0059

Soil		Soil Direct (Exc)	Soil Direct (Com/Ind)	Soil Direct (Res)	Soil MTG
Tetrachloroethene	mg/kg	170	26	7.7	0.045
Trichloroethene	mg/kg	34	20	6.2	0.036
cis-1,2-Dichloroethene	mg/kg	2400	2000	220	0.41
trans-1,2-Dichloroethene	mg/kg	1200	690	210	0.59
Vinyl Chloride	mg/kg	660	17	0.84	0.014

N

LEGEND

- Sand
- Clay
- Silt
- Shale (Bedrock)
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (intermediate EPA well if present)
- Static Water Level 11/12/2012 (Deep)
- Soil - MTG Exceedance
- Soil - Direct Contact Exceedance



Vertical Exaggeration = 10X

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PROJECT NO.:	M01046	FILE NO.:	Cross-Sections.dwg
DRAWING:		PLOT SIZE:	11"X17"
DRAFTED BY:	MB	DATE:	09/11/2013
CHECKED BY:	MB	DATE:	09/17/2013
APPROVED BY:	JAM	DATE:	09/17/2013

GEOLOGIC CROSS-SECTION A - A'

MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE
5

Note: Smear zone soils typically range between 16-19 ft-bgs across site (somewhat shallower adjacent to Little Eagle Creek). Soil results from samples collected below the smear zone (in the saturated soil zone) are highlighted in gray in sample depth header.

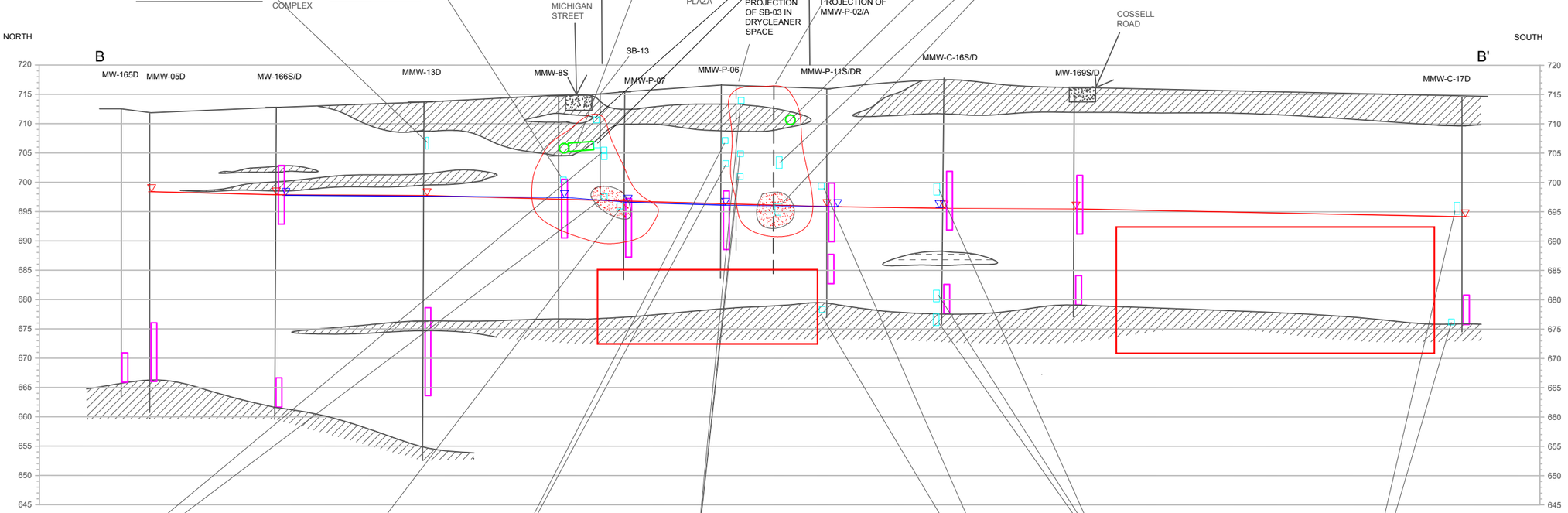
11/21/2008	MMW-13D
Depth	6-8'
PCE	<0.0052
TCE	<0.0052
cis-1,2-DCE	<0.0052
trans-1,2-DCE	<0.0052
VC	<0.0052

1/11/2007	MMW-08S
Depth	14-15'
PCE	11
TCE	0.018
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

10/1/2007	Sewer Exc.	
Depth	4'	9'
PCE	0.243	2.3
TCE	0.0577	0.0554
cis-1,2-DCE	0.0117	0.0154
trans-1,2-DCE	<0.0056	<0.0055
VC	<0.0056	<0.0055

3/7/2013	MMW-P-02-A	
Depth	12-14'	20-22'
PCE	0.118	60.4
TCE	<0.0049	2.85
cis-1,2-DCE	<0.0049	3.64
trans-1,2-DCE	<0.0049	<0.114
VC	<0.0049	<0.114

Soil		Soil Direct (Exc)	Soil Direct (Com/Ind)	Soil Direct (Res)	Soil MTG
Tetrachloroethene	mg/kg	170	26	7.7	0.045
Trichloroethene	mg/kg	34	20	6.2	0.036
cis-1,2-Dichloroethene	mg/kg	2400	2000	220	0.41
trans-1,2-Dichloroethene	mg/kg	1200	690	210	0.59
Vinyl Chloride	mg/kg	660	17	0.84	0.014



6/4/2012	MMW-C-16D		
Depth	18-20'	36-38'	40-42'
PCE	<0.0046	<0.0040	<0.0042
TCE	<0.0046	<0.0040	<0.0042
cis-1,2-DCE	<0.0046	<0.0040	<0.0042
trans-1,2-DCE	<0.0046	<0.0040	<0.0042
VC	<0.0046	0.0646	<0.0042

2/3/2009	SB-13		
Depth	9-10'	10-11'	17-18'
PCE	1.41	1.64	55
TCE	0.0452	0.0557	0.105
cis-1,2-DCE	0.0325	0.0458	0.831
trans-1,2-DCE	<0.0055	<0.0054	0.0081
VC	<0.0055	<0.0054	0.246

1/11/2007	MMW-P-07
Depth	19-20'
PCE	26
TCE	0.12
cis-1,2-DCE	0.064
trans-1,2-DCE	0.0074
VC	<0.002

9/26/2005	GP-06/MMW-P-06	
Depth	9-10'	13-14'
PCE	<0.005	<0.005
TCE	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005
VC	<0.002	<0.002

2/3/2009	SB-03		
Depth	2-3'	11-12'	15-16'
PCE	0.071	6.09	3.60
TCE	<0.005	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005	<0.005
VC	<0.002	<0.002	<0.002

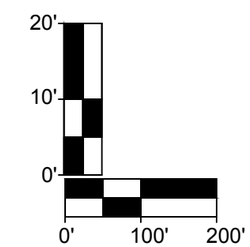
8/31/2011	MMW-P-11D	
Depth	16.0-17.0'	37.0-39.0'
PCE	<0.005	<0.005
TCE	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005
VC	<0.002	<0.002

6/5/2012	MMW-C-17D	
Depth	18-20'	38.0-38.8'
PCE	<0.0043	<0.0042
TCE	<0.0043	<0.0042
cis-1,2-DCE	<0.0043	<0.0042
trans-1,2-DCE	<0.0043	<0.0042
VC	<0.0043	<0.0042

N

LEGEND

- Sand
- Clay
- Silt
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (Deep)
- Soil - MTG Exceedance
- Soil - Direct Contact Exceedance



Vertical Exaggeration = 10X

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PROJECT NO.:	M01046	FILE NO.:	Cross-Sections.dwg
DRAWING:		PLOT SIZE:	11"X17"
DRAFTED BY:	MB	DATE:	09/14/2013
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APPROVED BY:	JAM	DATE:	09/17/2013

GEOLOGIC CROSS-SECTION B - B'

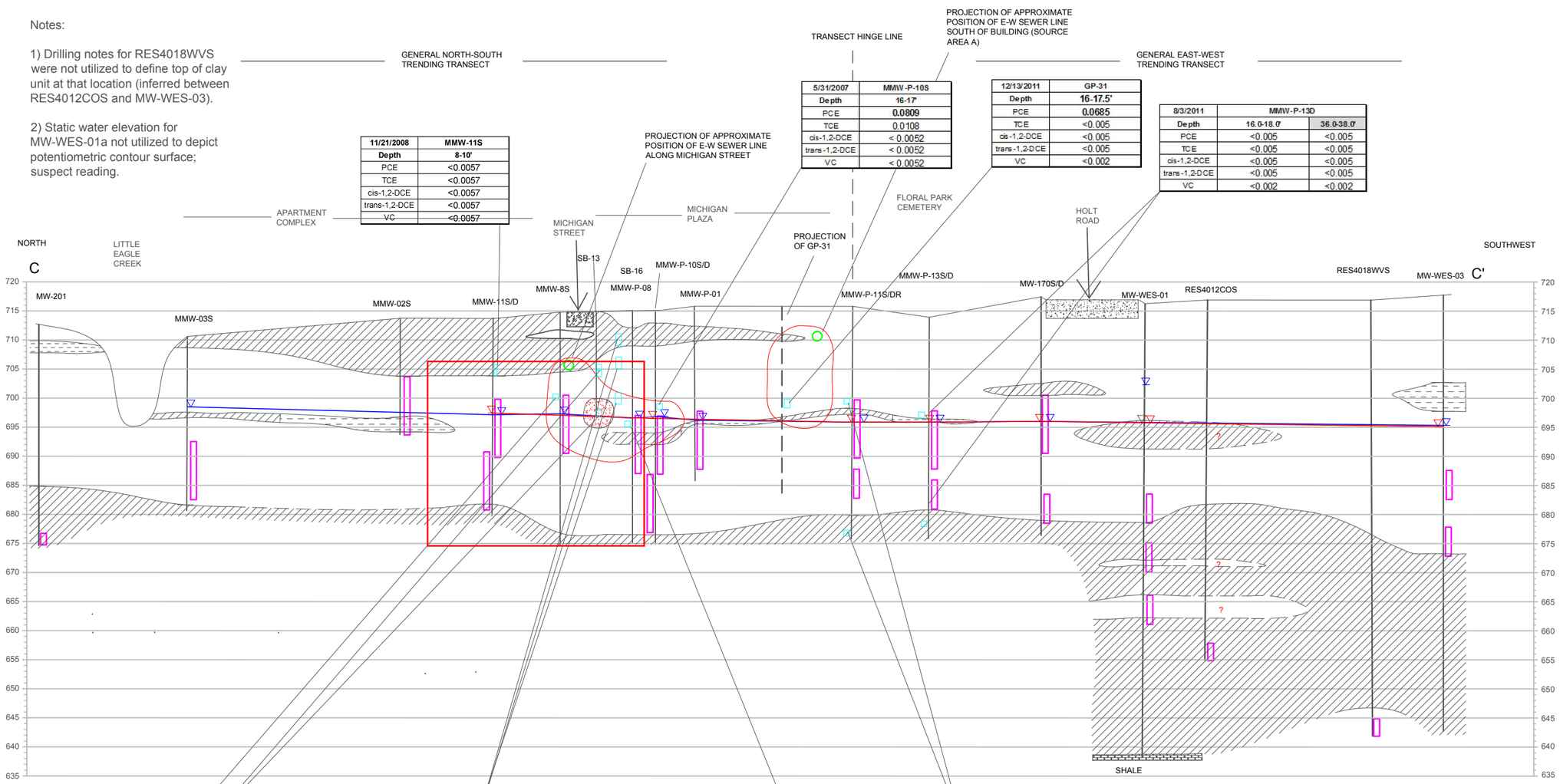
MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE
6

Notes:

1) Drilling notes for RES4018WVS were not utilized to define top of clay unit at that location (inferred between RES4012COS and MW-WES-03).

2) Static water elevation for MW-WES-01a not utilized to depict potentiometric contour surface; suspect reading.



11/21/2008	MMW-11S
Depth	8-10'
PCE	<0.0057
TCE	<0.0057
cis-1,2-DCE	<0.0057
trans-1,2-DCE	<0.0057
VC	<0.0057

5/31/2007	MMW -P-10S
Depth	16-17'
PCE	0.0809
TCE	0.0108
cis-1,2-DCE	< 0.0052
trans-1,2-DCE	< 0.0052
VC	< 0.0052

12/13/2011	GP-31
Depth	16-17.5'
PCE	0.0685
TCE	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

8/3/2011	MMW-P-13D	
Depth	16.0-18.0'	36.0-38.0'
PCE	<0.005	<0.005
TCE	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005
VC	<0.002	<0.002

1/11/2007	MMW-08S
Depth	14-15'
PCE	11
TCE	0.018
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

2/3/2009	SB-13		
Depth	9-10'	10-11'	17-18'
PCE	1.41	1.64	55
TCE	0.0452	0.0557	0.105
cis-1,2-DCE	0.0325	0.0458	0.831
trans-1,2-DCE	<0.0055	<0.0054	0.0081
VC	<0.0055	<0.0054	0.246

2/17/2009	SB-16		
Depth	4-6'	8-10'	12-14'
PCE	<0.0058	0.011	0.091
TCE	<0.0058	<0.0056	0.0088
cis-1,2-DCE	<0.0058	<0.0056	0.0304
trans-1,2-DCE	<0.0058	<0.0056	<0.0054
VC	<0.0058	<0.0056	<0.0054

1/11/2007	MMW-P-08
Depth	19-20'
PCE	9
TCE	0.18
cis-1,2-DCE	0.065
trans-1,2-DCE	0.005
VC	<0.002

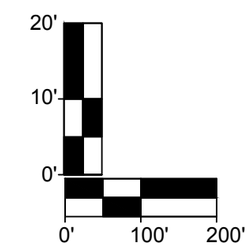
8/31/2011	MMW-P-11D	
Depth	16.0-17.0'	37.0-39.0'
PCE	<0.005	<0.005
TCE	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005
VC	<0.002	<0.002

Soil		Soil Direct (Exc)	Soil Direct (Com/Ind)	Soil Direct (Res)	Soil MTG
Tetrachloroethene	mg/kg	170	26	7.7	0.045
Trichloroethene	mg/kg	34	20	6.2	0.036
cis-1,2-Dichloroethene	mg/kg	2400	2000	220	0.41
trans-1,2-Dichloroethene	mg/kg	1200	690	210	0.59
Vinyl Chloride	mg/kg	660	17	0.84	0.014

Note: Smear zone soils typically range between 16-19 ft-bgs across site (somewhat shallower adjacent to Little Eagle Creek). Soil results from samples collected below the smear zone (in the saturated soil zone) are highlighted in gray in sample depth header.

LEGEND

- Sand
- Clay
- Silt
- Shale (Bedrock)
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (intermediate EPA well if present)
- Static Water Level 11/12/2012 (Deep)
- Soil - MTG Exceedance
- Soil - Direct Contact Exceedance



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PROJECT NO.:	M01046	FILE NO.:	Cross-Sections.dwg
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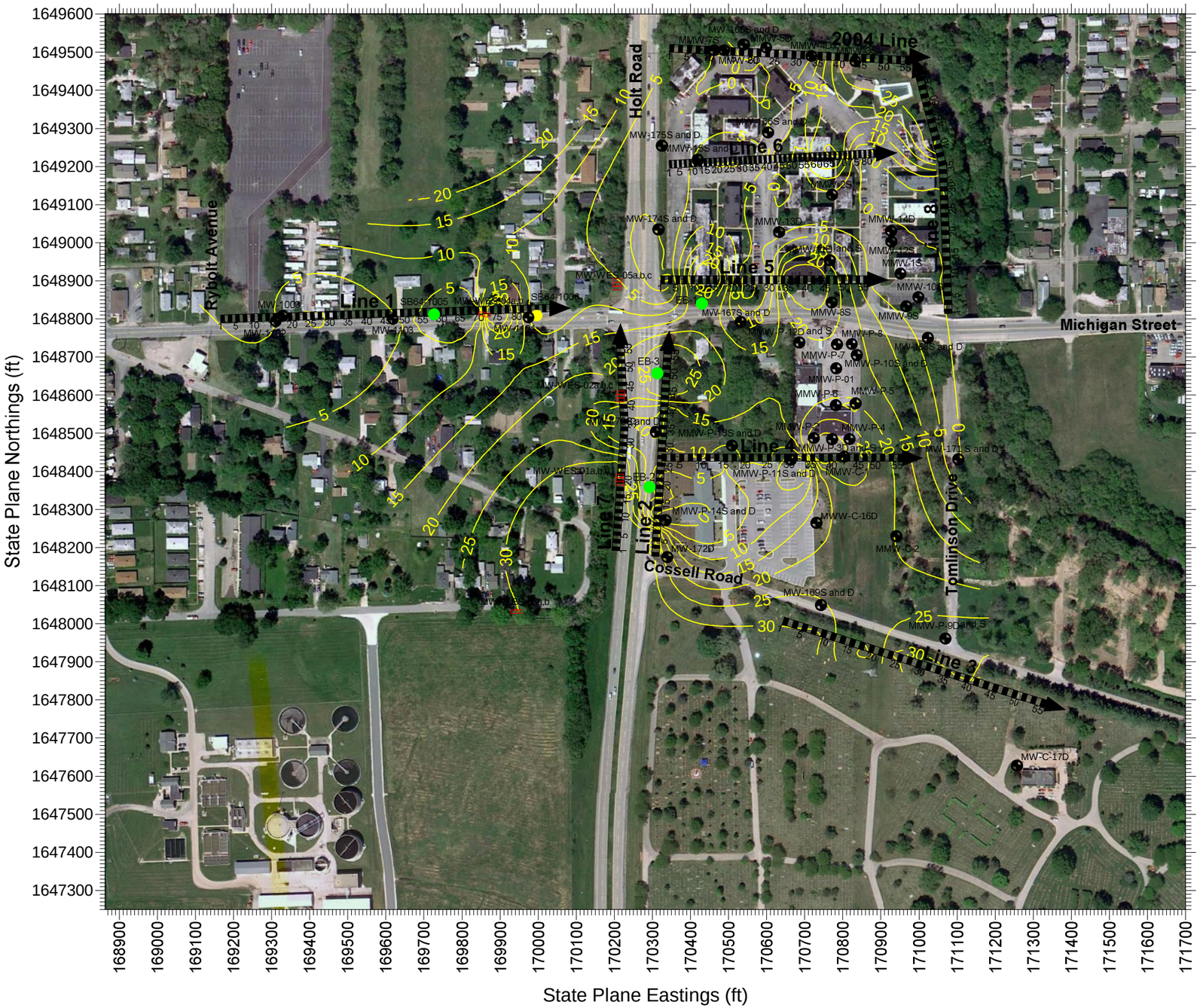
DRAFTED BY:	MB	DATE:	03/11/2013
CHECKED BY:	MB	DATE:	03/12/2013
APPROVED BY:	JAM	DATE:	03/12/2013

GEOLOGIC CROSS-SECTION C - C'

MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE 7



Resistivity Line Location

Till Isopach Contour

Mundell Monitoring Well Location

N

Scale in Feet

0 100 200 300 400 500

1" = 300'

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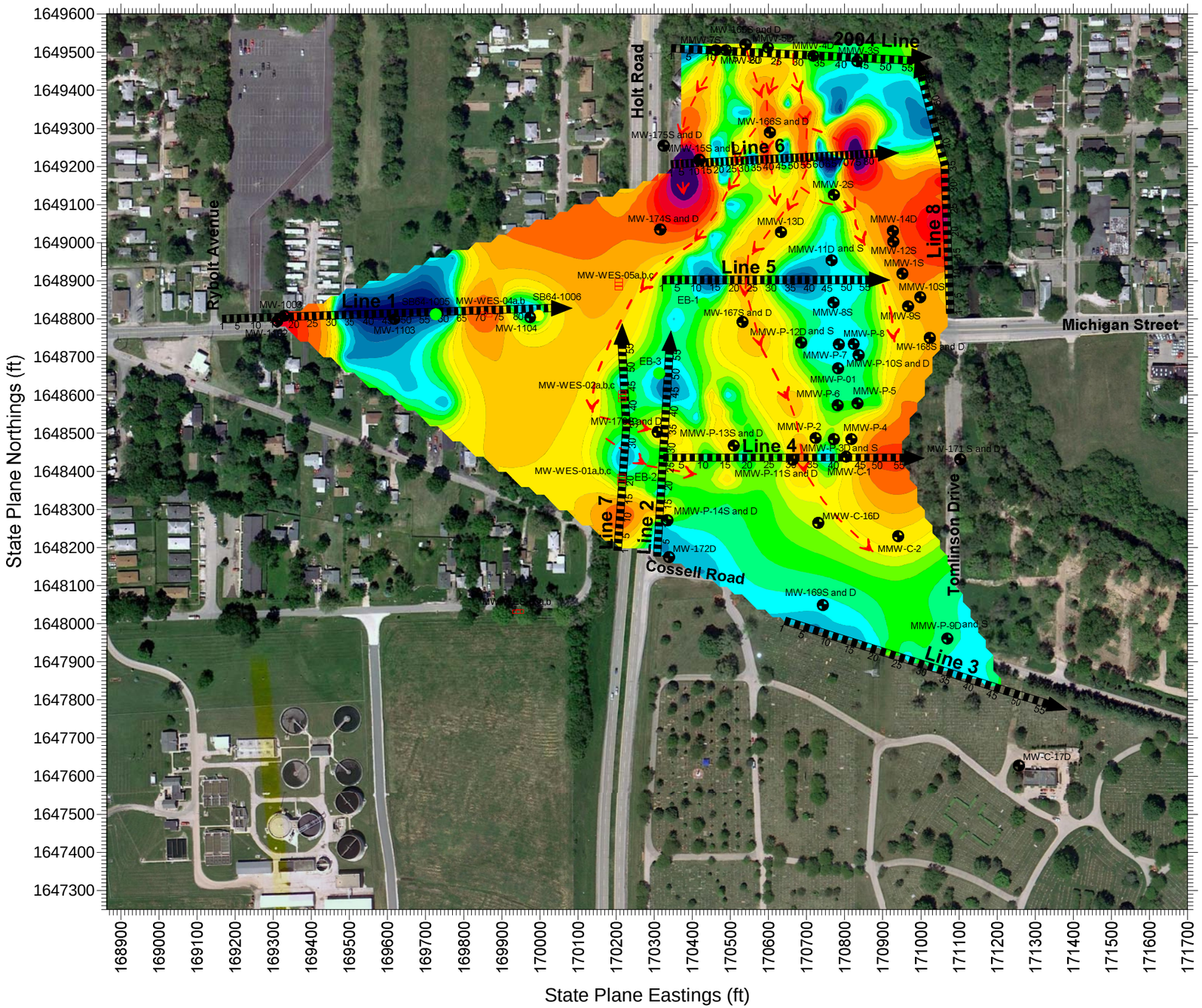
PROJECT NO.: M01046	FILE NO.: 2011 Resistivity.srf
DRAWING:	PLOT SIZE: 11"x17"
DRAFTED BY: GJH	DATE: 09/13/13
CHECKED BY: GJH	DATE: 09/13/13
APPROVED BY: JAM	DATE: 09/13/13

Till Thickness Isopach Map (Borings and Geophysical Data)

Michigan Street
Indianapolis, Indiana
MUNDELL Project No. M01046

FIGURE 8



Resistivity Line Location

Mundell Monitoring Well Location

Depression in the Till

N

Scale in Feet

0 100 200 300 400 500

1" = 300'

Resistivity (Ohm-meters)

-100 0 5 10 15 20 30 40 50 60 70 80 90 100 125 150 200 300 400 500 750 1000

Increased Zones of Silt and Clay (Shallow); Shale Bedrock (Deep)

Increased Zones of Sand and Gravel (Shallow); Limestone Bedrock (Deep)

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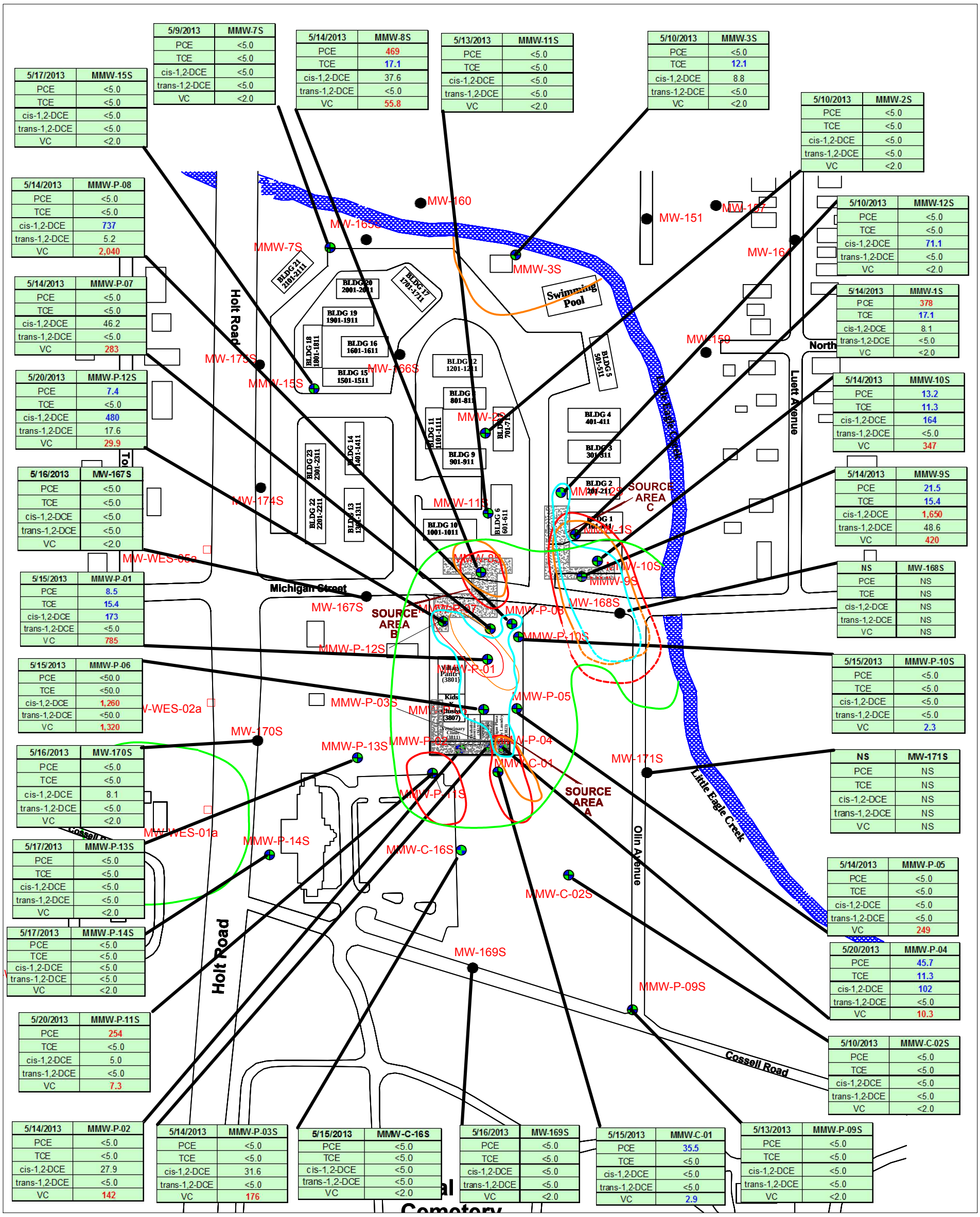
APPROVED BY: JAM	DATE: 09/13/13

Resistivity Slice Map
(670 Ft. Elevation)
Michigan Street
Indianapolis, Indiana
MUNDELL Project No. M01046

FIGURE
9



5/9/2013	MMW-7S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-8S
PCE	469
TCE	17.1
cis-1,2-DCE	37.6
trans-1,2-DCE	<5.0
VC	55.8

5/13/2013	MMW-11S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/10/2013	MMW-3S
PCE	<5.0
TCE	12.1
cis-1,2-DCE	8.8
trans-1,2-DCE	<5.0
VC	<2.0

5/17/2013	MMW-15S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/10/2013	MMW-2S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-08
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	737
trans-1,2-DCE	5.2
VC	2,040

5/10/2013	MMW-12S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	71.1
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-07
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	46.2
trans-1,2-DCE	<5.0
VC	283

5/14/2013	MMW-1S
PCE	378
TCE	17.1
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

5/20/2013	MMW-P-12S
PCE	7.4
TCE	<5.0
cis-1,2-DCE	480
trans-1,2-DCE	17.6
VC	29.9

5/14/2013	MMW-10S
PCE	13.2
TCE	11.3
cis-1,2-DCE	164
trans-1,2-DCE	<5.0
VC	347

5/16/2013	MW-167S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-9S
PCE	21.5
TCE	15.4
cis-1,2-DCE	1,650
trans-1,2-DCE	48.6
VC	420

NS	MW-168S
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/15/2013	MMW-P-01
PCE	8.5
TCE	15.4
cis-1,2-DCE	173
trans-1,2-DCE	<5.0
VC	785

5/15/2013	MMW-P-06
PCE	<50.0
TCE	<50.0
cis-1,2-DCE	1,260
trans-1,2-DCE	<50.0
VC	1,320

5/15/2013	MMW-P-10S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	2.3

5/16/2013	MW-170S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

NS	MW-171S
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/17/2013	MMW-P-13S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-05
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	249

5/17/2013	MMW-P-14S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/20/2013	MMW-P-04
PCE	45.7
TCE	11.3
cis-1,2-DCE	102
trans-1,2-DCE	<5.0
VC	10.3

5/20/2013	MMW-P-11S
PCE	254
TCE	<5.0
cis-1,2-DCE	5.0
trans-1,2-DCE	<5.0
VC	7.3

5/10/2013	MMW-C-02S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-02
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	27.9
trans-1,2-DCE	<5.0
VC	142

5/14/2013	MMW-P-03S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	31.6
trans-1,2-DCE	<5.0
VC	176

5/15/2013	MMW-C-16S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/16/2013	MW-169S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/15/2013	MMW-C-01
PCE	35.5
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	2.9

5/13/2013	MMW-P-09S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

LEGEND

MMW-P-06 — MUNDELL Monitoring Well

MW-160 — ENVIRON Monitoring Well

MW-WES-01A — U.S. EPA Monitoring Well

Inferred Extent of PCE > 5 ug/L

Inferred Extent of TCE > 5 ug/L

Inferred Extent of Cis-1,2 - DCE > 70 ug/L

Inferred Extent of VC > 2 ug/L

NS = Not Sampled

	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride
	ug/l				
IDEM RISC Default Industrial Cleanup Level	55	31	1,000	2,000	4
IDEM RISC Default Residential Cleanup Level; IDEM 2012 RCG Tap Residential	5	5	70	100	2

5/14/2013	MMW-1S
PCE	378
TCE	17.1
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

All Values Over IDEM RISC Industrial Default Cleanup Levels in Red
All Values Over IDEM RISC Residential Default Cleanup Levels/2012 RCG Tap - Residential Screening Level in Blue
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
ug/l = micrograms per liter
NS = Not Sampled
All analytical results presented in micrograms per liter (ug/l)

N

SCALE 0 200 feet

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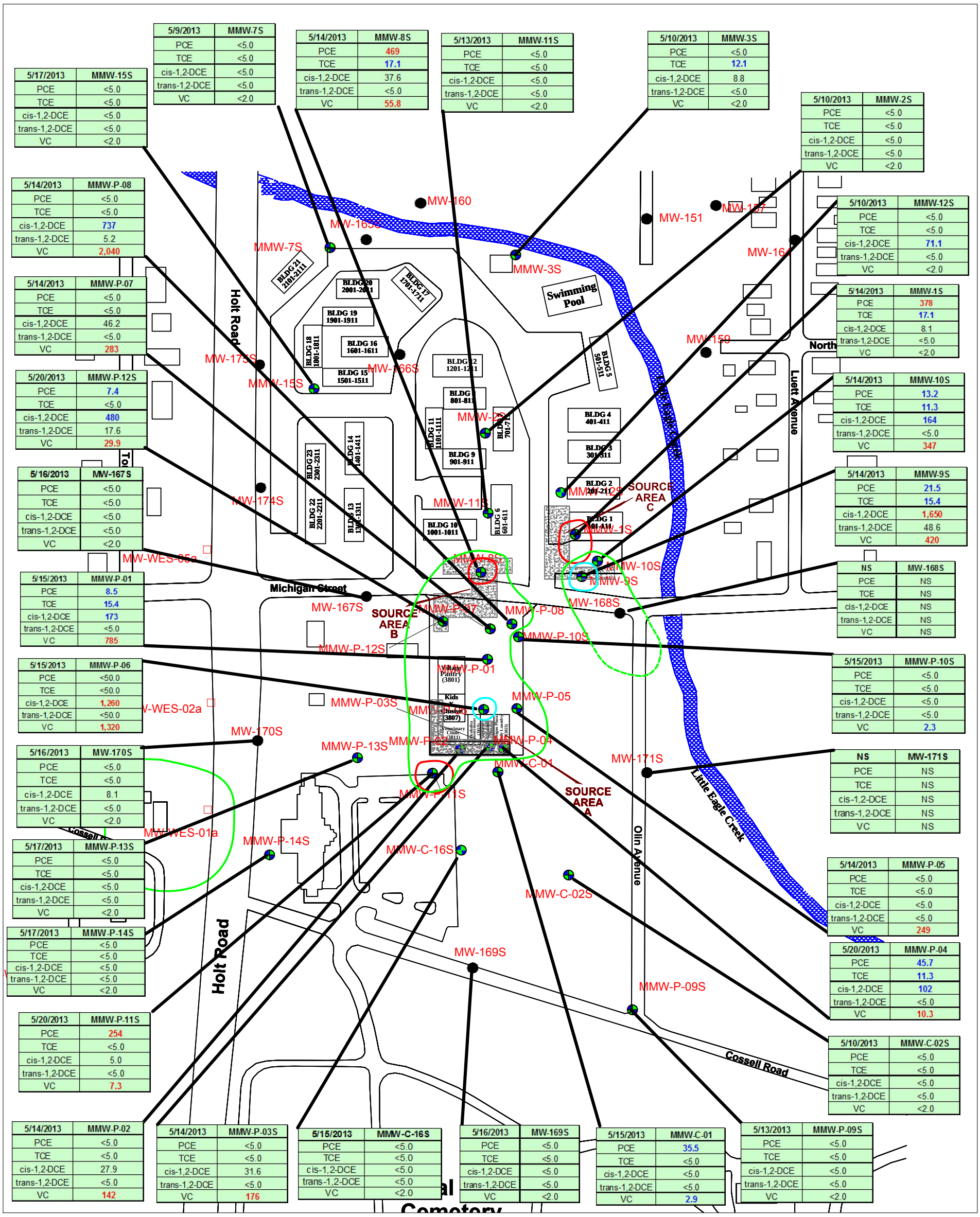
Project Number: M01046
Drawing File: 2Q13 QMR
Date Prepared: 9-17-2013
Scale: 1"=200'

GROUNDWATER ANALYTICAL MAP - SHALLOW 2ND QUARTER 2013 (RDCL-RCG TAP RESIDENTIAL EXCEEDANCES)

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE 17a



5/9/2013	MMW-7S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-8S
PCE	469
TCE	17.1
cis-1,2-DCE	37.6
trans-1,2-DCE	<5.0
VC	55.8

5/13/2013	MMW-11S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/10/2013	MMW-3S
PCE	<5.0
TCE	12.1
cis-1,2-DCE	8.8
trans-1,2-DCE	<5.0
VC	<2.0

5/17/2013	MMW-15S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/10/2013	MMW-2S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-08
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	737
trans-1,2-DCE	5.2
VC	2,040

5/10/2013	MMW-12S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	71.1
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-07
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	46.2
trans-1,2-DCE	<5.0
VC	283

5/14/2013	MMW-1S
PCE	378
TCE	17.1
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

5/20/2013	MMW-P-12S
PCE	7.4
TCE	<5.0
cis-1,2-DCE	480
trans-1,2-DCE	17.6
VC	29.9

5/14/2013	MMW-10S
PCE	13.2
TCE	11.3
cis-1,2-DCE	164
trans-1,2-DCE	<5.0
VC	347

5/16/2013	MW-167S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-9S
PCE	21.5
TCE	15.4
cis-1,2-DCE	1,650
trans-1,2-DCE	48.6
VC	420

NS	MW-168S
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/15/2013	MMW-P-01
PCE	8.5
TCE	15.4
cis-1,2-DCE	173
trans-1,2-DCE	<5.0
VC	785

5/15/2013	MMW-P-06
PCE	<50.0
TCE	<50.0
cis-1,2-DCE	1,260
trans-1,2-DCE	<50.0
VC	1,320

5/15/2013	MMW-P-10S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	2.3

5/16/2013	MW-170S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

NS	MW-171S
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/17/2013	MMW-P-13S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-05
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	249

5/17/2013	MMW-P-14S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/20/2013	MMW-P-04
PCE	45.7
TCE	11.3
cis-1,2-DCE	102
trans-1,2-DCE	<5.0
VC	10.3

5/20/2013	MMW-P-11S
PCE	254
TCE	<5.0
cis-1,2-DCE	5.0
trans-1,2-DCE	<5.0
VC	7.3

5/10/2013	MMW-C-02S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-02
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	27.9
trans-1,2-DCE	<5.0
VC	142

5/14/2013	MMW-P-03S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	31.6
trans-1,2-DCE	<5.0
VC	176

5/15/2013	MMW-C-16S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/16/2013	MW-169S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/15/2013	MMW-C-01
PCE	35.5
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	2.9

5/13/2013	MMW-P-09S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

LEGEND

MMW-P-06 — MUNDELL Monitoring Well

MW-160 — ENVIRON Monitoring Well

MW-WES-01A — U.S. EPA Monitoring Well

Inferred Extent of PCE > 55 ug/L

Inferred Extent of TCE > 31 ug/L

Inferred Extent of Cis-1,2 - DCE > 1,000 ug/L

Inferred Extent of VC > 4 ug/L

NS = Not Sampled

	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride
	ug/l				
IDEM RISC Default Industrial Cleanup Level	55	31	1,000	2,000	4
IDEM RISC Default Residential Cleanup Level; IDEM 2012 RCG Tap Residential	5	5	70	100	2

5/14/2013	MMW-1S
PCE	378
TCE	17.1
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

All Values Over IDEM RISC Industrial Default Cleanup Levels in Red
All Values Over IDEM RISC Residential Default Cleanup Levels/2012 RCG Tap - Residential Screening Level in Blue
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
ug/l = micrograms per liter
NS = Not Sampled
All analytical results presented in micrograms per liter (ug/l)

N

SCALE 0 200 feet

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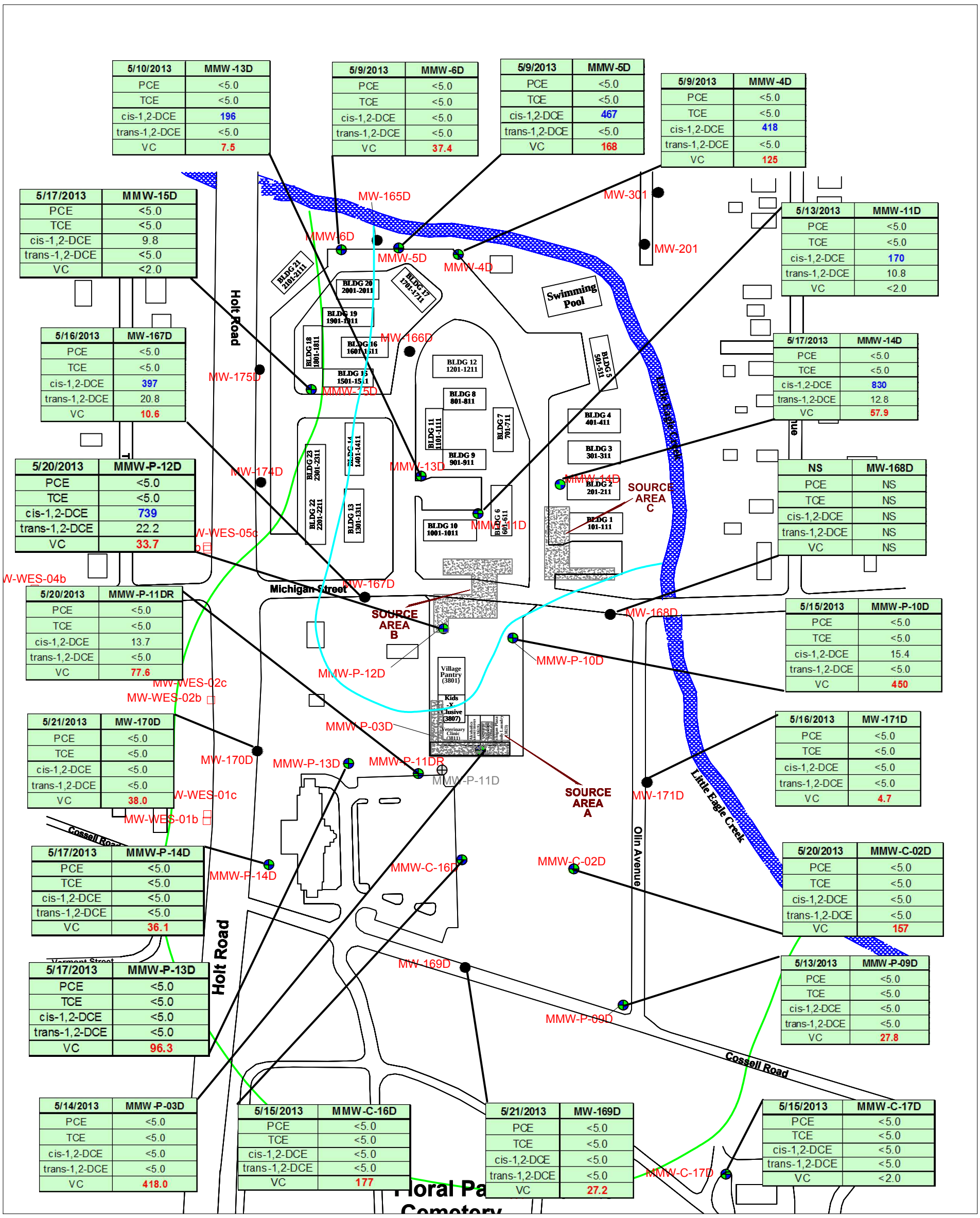
Scale: 1"=200'

GROUNDWATER ANALYTICAL MAP - SHALLOW 2ND QUARTER 2013 (IDCL EXCEEDANCES)

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE 17b



5/10/2013	MMW-13D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	196
trans-1,2-DCE	<5.0
VC	7.5

5/9/2013	MMW-6D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	37.4

5/9/2013	MMW-5D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	467
trans-1,2-DCE	<5.0
VC	168

5/9/2013	MMW-4D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	418
trans-1,2-DCE	<5.0
VC	125

5/17/2013	MMW-15D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	9.8
trans-1,2-DCE	<5.0
VC	<2.0

5/13/2013	MMW-11D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	170
trans-1,2-DCE	10.8
VC	<2.0

5/16/2013	MW-167D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	397
trans-1,2-DCE	20.8
VC	10.6

5/17/2013	MMW-14D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	830
trans-1,2-DCE	12.8
VC	57.9

5/20/2013	MMW-P-12D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	739
trans-1,2-DCE	22.2
VC	33.7

NS	MW-168D
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/20/2013	MMW-P-11DR
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	13.7
trans-1,2-DCE	<5.0
VC	77.6

5/15/2013	MMW-P-10D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	15.4
trans-1,2-DCE	<5.0
VC	450

5/21/2013	MW-170D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	38.0

5/16/2013	MW-171D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	4.7

5/17/2013	MMW-P-14D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	36.1

5/20/2013	MMW-C-02D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	157

5/17/2013	MMW-P-13D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	96.3

5/13/2013	MMW-P-09D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	27.8

5/14/2013	MMW-P-03D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	418.0

5/15/2013	MMW-C-16D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	177

5/21/2013	MW-169D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	27.2

5/15/2013	MMW-C-17D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

LEGEND

MMW-P-09D — MUNDELL Monitoring Well

MW-169D — ENVIRON Monitoring Well

MW-WES-05C — U.S. EPA Monitoring Well

Inferred Extent of PCE > 5 ug/L

Inferred Extent of TCE > 5 ug/L

Inferred Extent of Cis-1,2 - DCE > 70 ug/L

Inferred Extent of VC > 2 ug/L

NS = Not Sampled

	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride
	ug/l				
IDEM RISC Default Industrial Cleanup Level	55	31	1,000	2,000	4
IDEM RISC Default Residential Cleanup Level; IDEM 2012 RCG Tap Residential	5	5	70	100	2

4/25/2012	MMW-1S
PCE	270
TCE	11.2
cis-1,2-DCE	34.2
trans-1,2-DCE	<5.0
VC	39

All Values Over IDEM RISC Industrial Default Cleanup Levels in Red
All Values Over IDEM RISC Residential Default Cleanup Levels/2012 RCG Tap - Residential Screening Level in Blue
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
ug/l = micrograms per liter
NS = Not Sampled
All analytical results presented in micrograms per liter (ug/l)

N

SCALE 0 200 feet

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Date Prepared: 9-17-13
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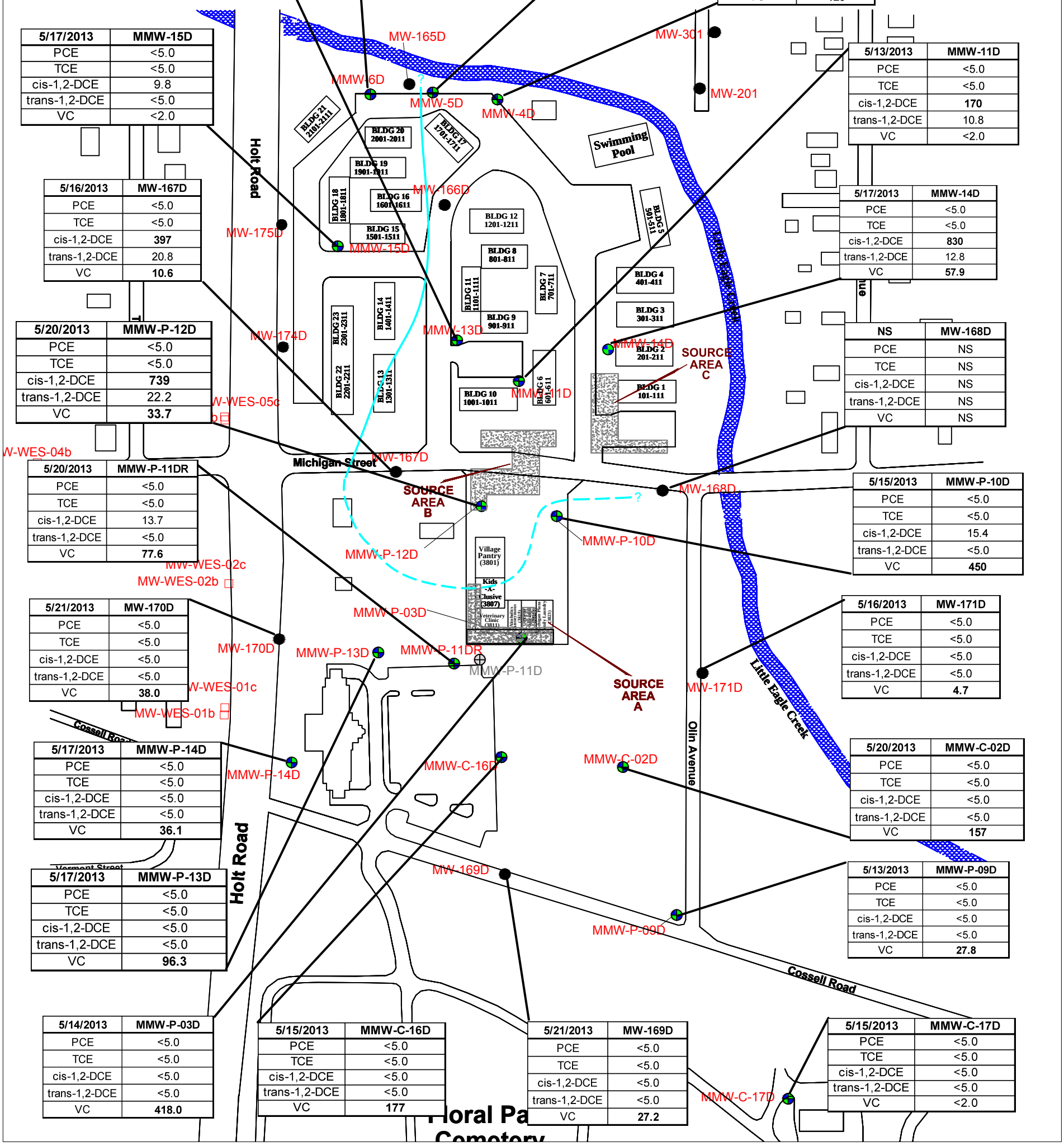
GROUNDWATER ANALYTICAL MAP - DEEP 2ND QUARTER 2013 (RDCL-RCG TAP RESIDENTIAL EXCEEDANCES)

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE 18



5/10/2013	MMW-13D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	**196**
trans-1,2-DCE	<5.0
VC	**7.5**

5/9/2013	MMW-6D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	**37.4**

5/9/2013	MMW-5D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	**467**
trans-1,2-DCE	<5.0
VC	**168**

5/9/2013	MMW-4D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	**418**
trans-1,2-DCE	<5.0
VC	**125**

5/17/2013	MMW-15D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	9.8
trans-1,2-DCE	<5.0
VC	<2.0

5/13/2013	MMW-11D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	**170**
trans-1,2-DCE	10.8
VC	<2.0

5/16/2013	MW-167D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	**397**
trans-1,2-DCE	20.8
VC	**10.6**

5/17/2013	MMW-14D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	**830**
trans-1,2-DCE	12.8
VC	**57.9**

5/20/2013	MMW-P-12D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	**739**
trans-1,2-DCE	22.2
VC	**33.7**

NS	MW-168D
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/20/2013	MMW-P-11DR
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	13.7
trans-1,2-DCE	<5.0
VC	**77.6**

5/15/2013	MMW-P-10D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	15.4
trans-1,2-DCE	<5.0
VC	**450**

5/21/2013	MW-170D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	**38.0**

5/16/2013	MW-171D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	**4.7**

5/17/2013	MMW-P-14D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	**36.1**

5/20/2013	MMW-C-02D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	**157**

5/17/2013	MMW-P-13D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	**96.3**

5/13/2013	MMW-P-09D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	**27.8**

5/14/2013	MMW-P-03D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	**418.0**

5/15/2013	MMW-C-16D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	**177**

5/21/2013	MW-169D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	**27.2**

5/15/2013	MMW-C-17D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

LEGEND

MMW-P-09D — MUNDELL Monitoring Well

MW-169D — ENVIRON Monitoring Well

MW-WES-05C — U.S. EPA Monitoring Well

Inferred Extent of PCE > 5 ug/L

Inferred Extent of TCE > 5 ug/L

Inferred Extent of Cis-1,2 - DCE > 70 ug/L

Inferred Extent of VC > 2 ug/L

NS = Not Sampled

	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride
	ug/l				
IDEM RISC Default Industrial Cleanup Level	55	31	1,000	2,000	4
IDEM RISC Default Residential Cleanup Level; IDEM 2012 RCG Tap Residential	5	5	70	100	2

4/25/2012	MMW-1S
PCE	270
TCE	11.2
cis-1,2-DCE	34.2
trans-1,2-DCE	<5.0
VC	39

All Values Over IDEM RISC Industrial Default Cleanup Levels in Red
All Values Over IDEM RISC Residential Default Cleanup Levels/2012 RCG Tap - Residential Screening Level in Blue
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
ug/l = micrograms per liter
NS = Not Sampled
All analytical results presented in micrograms per liter (ug/l)

N

SCALE 0 200 feet

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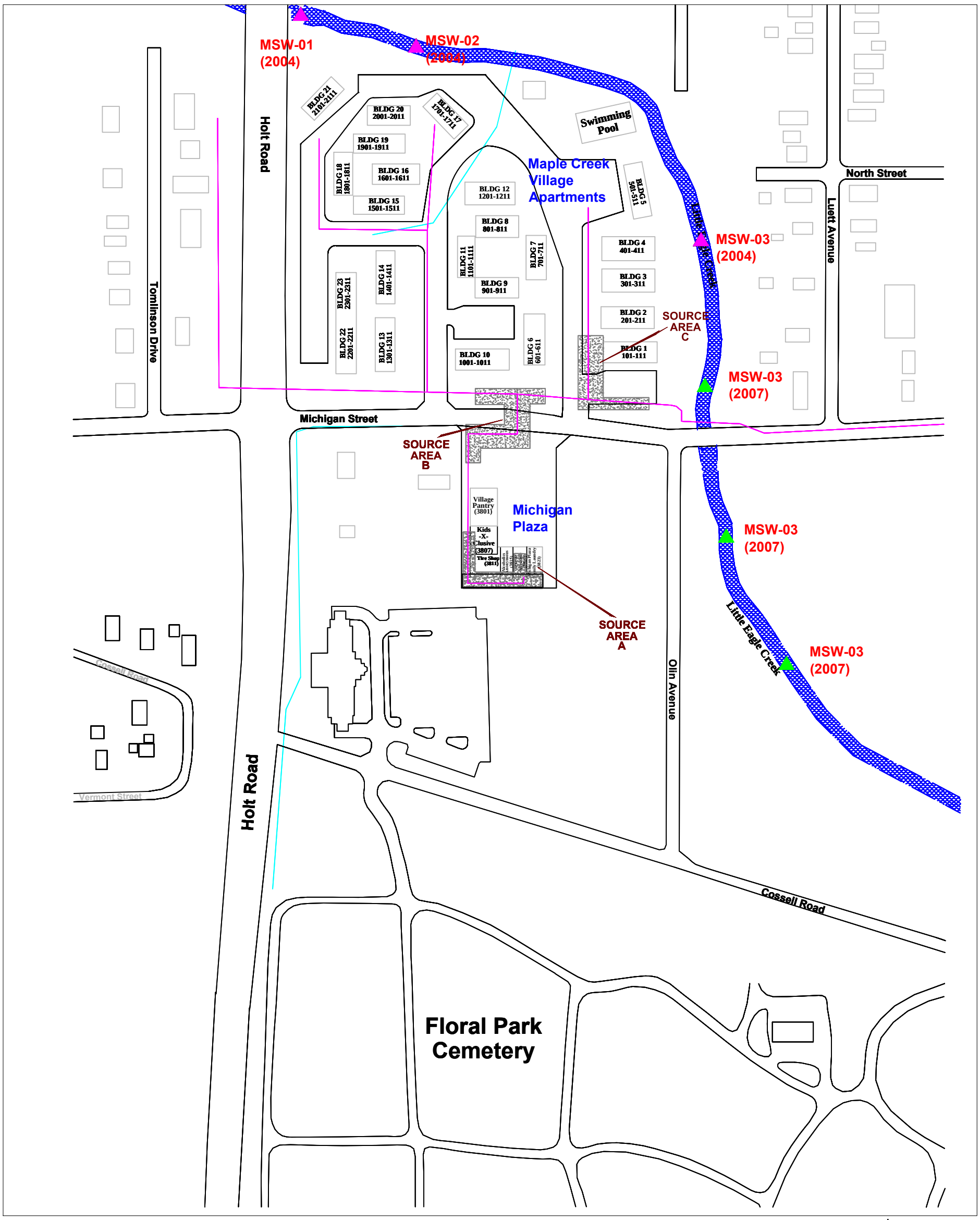
Project Number: M01046
Drawing File: 2Q13 QMR
Date Prepared: 6-7-13
Scale: 1"=200'

GROUNDWATER ANALYTICAL MAP - DEEP
2ND QUARTER 2013

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE 18



LEGEND

- Surface Water Sampling Point (2004)
- Surface Water Sampling Point (2007)
- SanitarySewer
- Storm Sewer

SCALE 0 200 feet

ENVIRON/Keramida Monitoring Well Locations Referenced from Keramida Environmental, Inc. Project No. 2829 March 13, 2002

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Project Number:	M01046
Drawing File:	2013 RWP
Date Prepared:	7-31-2013
Scale:	1"=200'

SURFACE WATER SAMPLE LOCATIONS

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE 19

3/6/2013	SB-101		
Depth	14-16'	26-28'	40-42'
PCE	37.3	<0.0045	0.0072
TCE	0.0708	<0.0045	<0.0043
cis-1,2-DCE	0.0363	0.0986	0.0796
trans-1,2-DCE	<0.0045	<0.0045	<0.0043
VC	<0.0045	0.0345	0.0059

3/7/2013	MMW-14D-A	
Depth	44-46'	50-52'
PCE	<0.0048	<0.005
TCE	<0.0048	<0.005
cis-1,2-DCE	4.98	2.93
trans-1,2-DCE	0.0055	<0.005
VC	0.0263	0.0262

9/10/2004	MMW-01S
Depth	14-15'
PCE	2.1
TCE	0.019
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

3/11/2013	MMW-13D-A	
Depth	44-46'	50-52'
PCE	<0.005	<0.0037
TCE	<0.005	<0.0037
cis-1,2-DCE	0.197	0.0806
trans-1,2-DCE	<0.005	<0.0037
VC	0.0147	0.0103

3/6/2013	MMW-10S-A	
Depth	10-12'	34-36'
PCE	1.64	<0.0038
TCE	<0.0052	<0.0038
cis-1,2-DCE	<0.0052	<0.0038
trans-1,2-DCE	<0.0052	<0.0038
VC	<0.0052	0.0256

8/31/2011	MMW-P-11D	
Depth	16.0-17.0'	37.0-39.0'
PCE	<0.005	<0.005
TCE	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005
VC	<0.002	<0.002

1/11/2007	MMW-10S
Depth	14-16'
PCE	19
TCE	0.023
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

2/17/2009	SB-17		
Depth	4-6'	10-12'	12-14'
PCE	0.0772	10.5	31.6
TCE	<0.0058	0.0096	0.0158
cis-1,2-DCE	<0.0058	<0.0055	<0.0053
trans-1,2-DCE	<0.0058	<0.0055	<0.0053
VC	<0.0058	<0.0055	<0.0053

3/6/2013	SB-100	
Depth	8-10'	32-34'
PCE	<0.0046	<0.0037
TCE	<0.0046	<0.0037
cis-1,2-DCE	<0.0046	<0.0037
trans-1,2-DCE	<0.0046	<0.0037
VC	<0.0046	0.0244

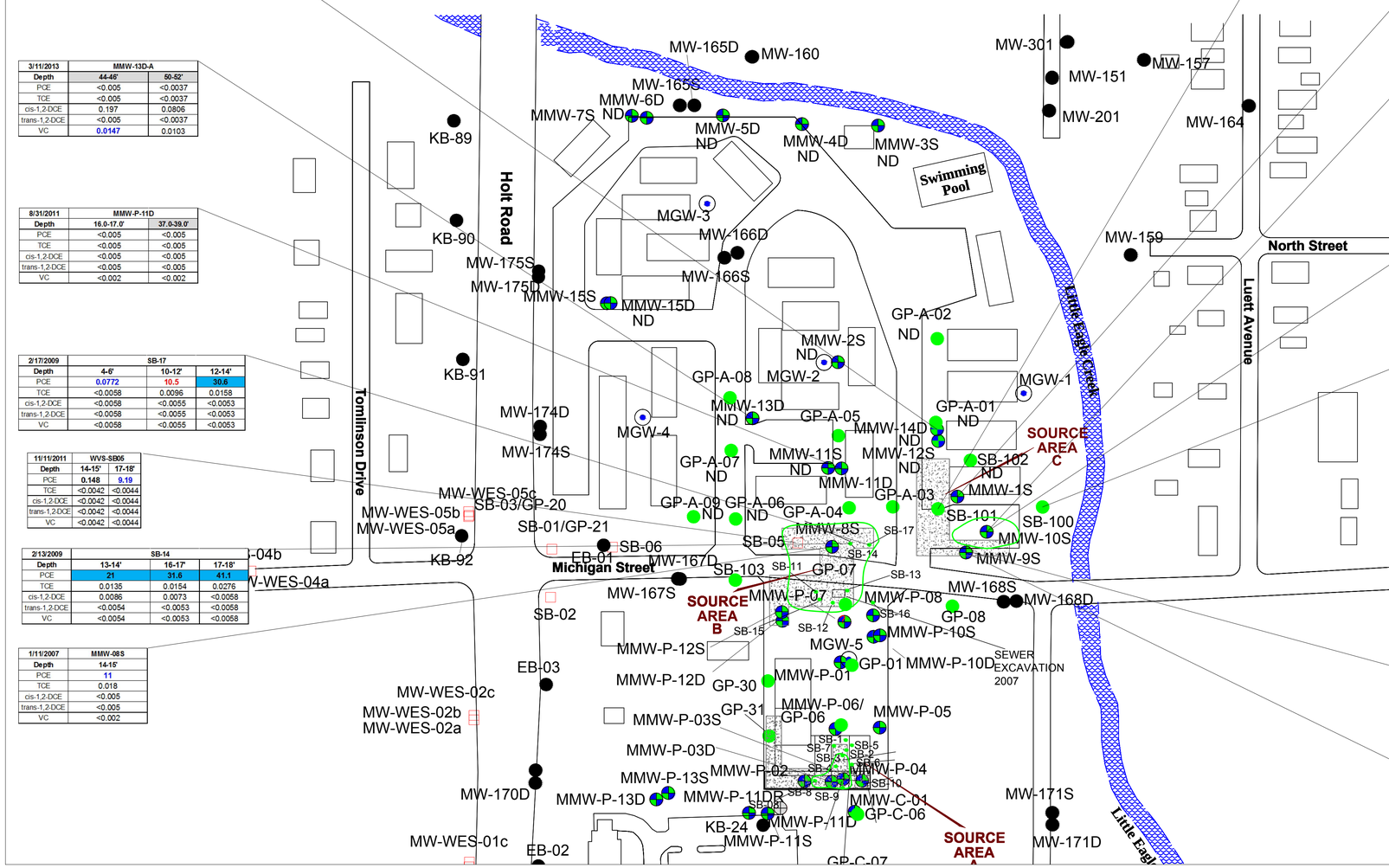
11/11/2011	WVS-SB05	
Depth	14-15'	17-18'
PCE	0.148	9.19
TCE	<0.0042	<0.0044
cis-1,2-DCE	<0.0042	<0.0044
trans-1,2-DCE	<0.0042	<0.0044
VC	<0.0042	<0.0044

2/13/2009	SB-14		
Depth	13-14'	16-17'	17-18'
PCE	21	31.6	41.1
TCE	0.0135	0.0154	0.0276
cis-1,2-DCE	0.0086	0.0073	<0.0058
trans-1,2-DCE	<0.0054	<0.0053	<0.0058
VC	<0.0054	<0.0053	<0.0058

1/11/2007	MMW-08S
Depth	14-15'
PCE	11
TCE	0.018
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

1/11/2007	MMW-09S
Depth	15-16'
PCE	4.1
TCE	0.11
cis-1,2-DCE	0.081
trans-1,2-DCE	0.014
VC	<0.002

3/6/2013	MMW-P-09S-A	
Depth	16-18'	32-34'
PCE	0.0439	<0.0040
TCE	0.0051	<0.0040
cis-1,2-DCE	4.02	<0.0040
trans-1,2-DCE	0.0161	<0.0040
VC	0.192	0.0066



LEGEND

RCG Exceedance (Vadose Soil)

Fence

MMW-P-06 MUNDELL Monitoring Well

MW-160 ENVIRON Monitoring Well/Soil Boring

MW-WES-O1A/ SB-02 U.S. EPA Monitoring Well/Soil Boring

N

Soil		Soil Direct (Exc)	Soil Direct (Com/Ind)	Soil Direct (Res)	Soil MTG
Tetrachloroethene	mg/kg	170	26	7.7	0.045
Trichloroethene	mg/kg	34	20	6.2	0.036
cis-1,2-Dichloroethene	mg/kg	2400	2000	220	0.41
trans-1,2-Dichloroethene	mg/kg	1200	690	210	0.59
Vinyl Chloride	mg/kg	660	17	0.84	0.014

0 200' 400'

SCALE IN FEET

Note: Smear zone soils typically range between 16-19 feet bgs across site (somewhat shallower adjacent to Little Eagle Creek). Soil results from samples collected below the smear zone (in the saturated soil zone) are highlighted in gray in sample depth header.

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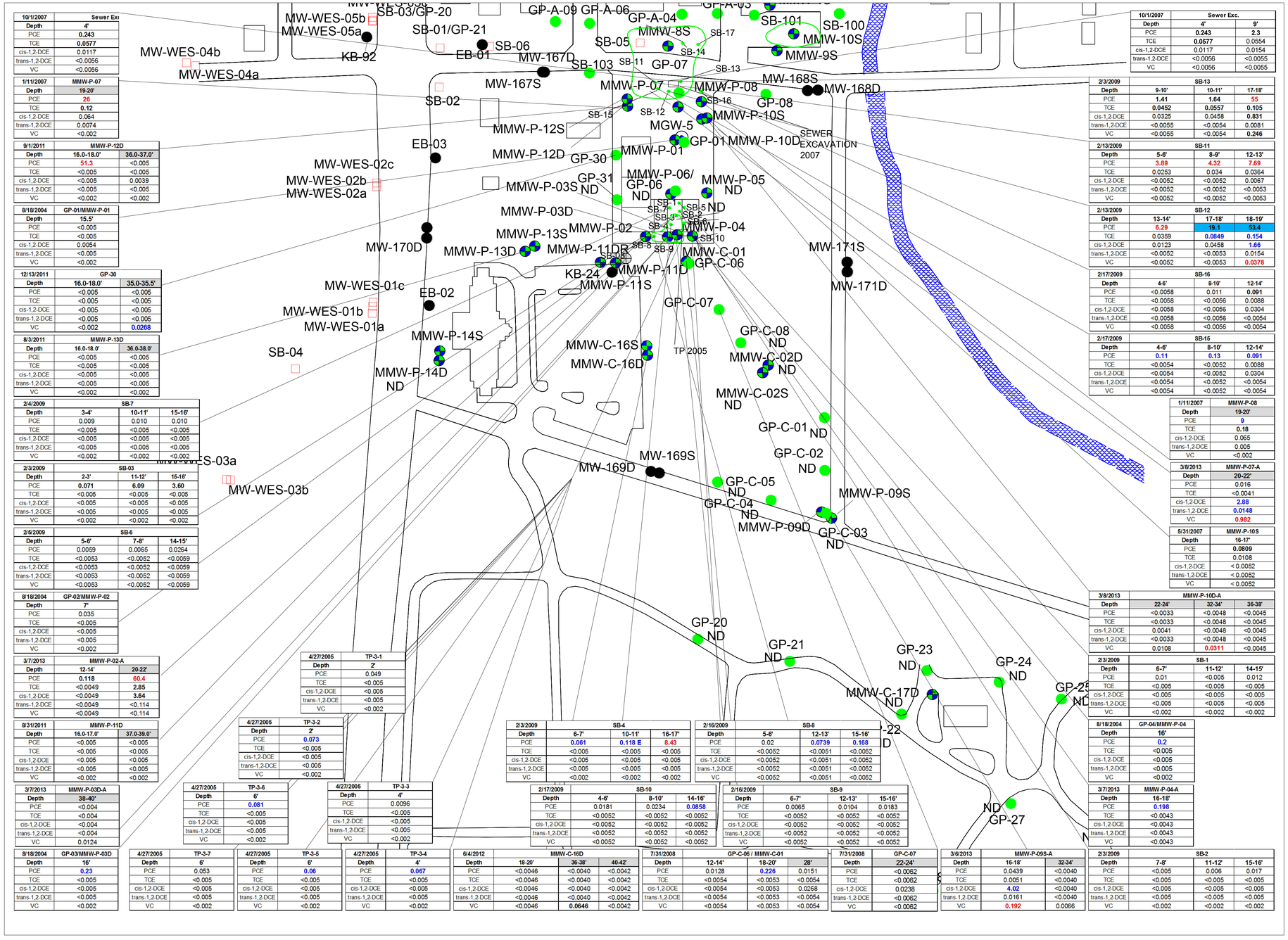
REV.	DATE	DESCRIPTION	BY	APPR.

PROJECT NO.:	M01046	FILE NO.:	GW Quarterly.DWG
DRAWING:	1"=100'	PLOT SIZE:	ANSI D
DRAFTED BY:	SVE	DATE:	5/31/13
CHECKED BY:	MTB	DATE:	5/31/13
APPROVED BY:	MEB	DATE:	9/15/13

Historical Soil Analytical North of Michigan Street

Michigan Plaza
3801 - 3823 Michigan Street
Indianapolis, Indiana

FIGURE 20a



10/1/2007	Sewer Exc
Depth	4'
PCE	0.243
TCE	0.0577
cis-1,2-DCE	0.0117
trans-1,2-DCE	<0.0056
VC	<0.0056

1/11/2007	MMW-P-07
Depth	19-20'
PCE	26
TCE	0.12
cis-1,2-DCE	0.064
trans-1,2-DCE	0.0074
VC	<0.002

9/1/2011	MMW-P-12D	
Depth	16.0-18.0'	36.0-37.0'
PCE	51.3	<0.005
TCE	<0.005	<0.005
cis-1,2-DCE	<0.005	0.0039
trans-1,2-DCE	<0.005	<0.005
VC	<0.002	<0.002

8/18/2004	GP-01/MMW-P-01
Depth	15.5'
PCE	<0.005
TCE	<0.005
cis-1,2-DCE	0.0054
trans-1,2-DCE	<0.005
VC	<0.002

12/13/2011	GP-30	
Depth	16.0-18.0'	35.0-35.5'
PCE	<0.005	<0.005
TCE	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005
VC	<0.002	0.0268

8/3/2011	MMW-P-13D	
Depth	16.0-18.0'	36.0-38.0'
PCE	<0.005	<0.005
TCE	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005
VC	<0.002	<0.002

2/4/2009	SB-7		
Depth	3-4'	10-11'	15-16'
PCE	0.009	0.010	0.010
TCE	<0.005	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005	<0.005
VC	<0.002	<0.002	<0.002

2/3/2009	SB-03		
Depth	2-3'	11-12'	15-16'
PCE	0.071	6.09	3.60
TCE	<0.005	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005	<0.005
VC	<0.002	<0.002	<0.002

2/5/2009	SB-6		
Depth	5-6'	7-8'	14-15'
PCE	0.0059	0.0065	0.0264
TCE	<0.0053	<0.0052	<0.0059
cis-1,2-DCE	<0.0053	<0.0052	<0.0059
trans-1,2-DCE	<0.0053	<0.0052	<0.0059
VC	<0.0053	<0.0052	<0.0059

8/18/2004	GP-02/MMW-P-02
Depth	7'
PCE	0.035
TCE	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

3/7/2013	MMW-P-02-A	
Depth	12-14'	20-22'
PCE	0.118	60.4
TCE	<0.0049	2.85
cis-1,2-DCE	<0.0049	3.64
trans-1,2-DCE	<0.0049	<0.114
VC	<0.0049	<0.114

8/31/2011	MMW-P-11D	
Depth	16.0-17.0'	37.0-39.0'
PCE	<0.005	<0.005
TCE	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005
VC	<0.002	<0.002

3/7/2013	MMW-P-03D-A
Depth	38-40'
PCE	<0.004
TCE	<0.004
cis-1,2-DCE	<0.004
trans-1,2-DCE	<0.004
VC	0.0124

8/18/2004	GP-03/MMW-P-03D
Depth	16'
PCE	0.23
TCE	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

4/27/2005	TP-3-1
Depth	2'
PCE	0.049
TCE	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

4/27/2005	TP-3-2
Depth	2'
PCE	0.073
TCE	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

4/27/2005	TP-3-6
Depth	6'
PCE	0.081
TCE	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

4/27/2005	TP-3-3
Depth	4'
PCE	0.0096
TCE	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

4/27/2005	TP-3-7
Depth	6'
PCE	0.053
TCE	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

4/27/2005	TP-3-5
Depth	6'
PCE	0.06
TCE	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

4/27/2005	TP-3-4
Depth	4'
PCE	0.067
TCE	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

2/3/2009	SB-4		
Depth	6-7'	10-11'	16-17'
PCE	0.061	0.118 E	8.43
TCE	<0.005	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005	<0.005
VC	<0.002	<0.002	<0.002

2/16/2009	SB-8		
Depth	5-6'	12-13'	15-16'
PCE	0.02	0.0739	0.168
TCE	<0.0052	<0.0051	<0.0052
cis-1,2-DCE	<0.0052	<0.0051	<0.0052
trans-1,2-DCE	<0.0052	<0.0051	<0.0052
VC	<0.0052	<0.0051	<0.0052

2/17/2009	SB-10		
Depth	4-6'	8-10'	14-16'
PCE	0.0181	0.0234	0.0858
TCE	<0.0052	<0.0052	<0.0052
cis-1,2-DCE	<0.0052	<0.0052	<0.0052
trans-1,2-DCE	<0.0052	<0.0052	<0.0052
VC	<0.0052	<0.0052	<0.0052

2/16/2009	SB-9		
Depth	6-7'	12-13'	15-16'
PCE	0.0065	0.0104	0.0183
TCE	<0.0052	<0.0052	<0.0052
cis-1,2-DCE	<0.0052	<0.0052	<0.0052
trans-1,2-DCE	<0.0052	<0.0052	<0.0052
VC	<0.0052	<0.0052	<0.0052

6/4/2012	MMW-C-16D		
Depth	18-20'	36-38'	40-42'
PCE	<0.0046	<0.0040	<0.0042
TCE	<0.0046	<0.0040	<0.0042
cis-1,2-DCE	<0.0046	<0.0040	<0.0042
trans-1,2-DCE	<0.0046	<0.0040	<0.0042
VC	<0.0046	0.0646	<0.0042

7/31/2008	GP-C-06 / MMW-C-01		
Depth	12-14'	18-20'	28'
PCE	0.0128	0.226	0.0151
TCE	<0.0054	<0.0053	<0.0054
cis-1,2-DCE	<0.0054	<0.0053	0.0268
trans-1,2-DCE	<0.0054	<0.0053	<0.0054
VC	<0.0054	<0.0053	<0.0054

7/31/2008	GP-C-07
Depth	22-24'
PCE	<0.0062
TCE	<0.0062
cis-1,2-DCE	0.0238
trans-1,2-DCE	<0.0062
VC	<0.0062

3/6/2013	MMW-P-09S-A	
Depth	16-18'	32-34'
PCE	0.0439	<0.0040
TCE	0.0051	<0.0040
cis-1,2-DCE	4.02	<0.0040
trans-1,2-DCE	0.0161	<0.0040
VC	0.192	0.0066

10/1/2007	Sewer Exc.	
Depth	4'	9'
PCE	0.243	2.3
TCE	0.0577	0.0554
cis-1,2-DCE	0.0117	0.0154
trans-1,2-DCE	<0.0056	<0.0055
VC	<0.0056	<0.0055

2/3/2009	SB-13		
Depth	9-10'	10-11'	17-18'
PCE	1.41	1.64	55
TCE	0.0452	0.0557	0.105
cis-1,2-DCE	0.0325	0.0458	0.831
trans-1,2-DCE	<0.0055	<0.0054	0.0081
VC	<0.0055	<0.0054	0.246

2/13/2009	SB-11		
Depth	5-6'	8-9'	12-13'
PCE	3.89	4.32	7.69
TCE	0.0253	0.034	0.0364
cis-1,2-DCE	<0.0052	<0.0052	0.0067
trans-1,2-DCE	<0.0052	<0.0052	<0.0053
VC	<0.0052	<0.0052	<0.0053

2/13/2009	SB-12		
Depth	13-14'	17-18'	18-19'
PCE	6.29	19.1	53.4
TCE	0.0359	0.0849	0.154
cis-1,2-DCE	0.0123	0.0458	1.66
trans-1,2-DCE	<0.0052	<0.0053	0.0154
VC	<0.0052	<0.0053	0.0378

2/17/2009	SB-16		
Depth	4-6'	8-10'	12-14'
PCE	<0.0058	0.011	0.091
TCE	<0.0058	<0.0056	0.0088
cis-1,2-DCE	<0.0058	<0.0056	0.0304
trans-1,2-DCE	<0.0058	<0.0056	<0.0054
VC	<0.0058	<0.0056	<0.0054

2/17/2009	SB-15		
Depth	4-6'	8-10'	12-14'
PCE	0.11	0.13	0.091
TCE	<0.0054	<0.0052	0.0088
cis-1,2-DCE	<0.0054	<0.0052	0.0304
trans-1,2-DCE	<0.0054	<0.0052	<0.0054
VC	<0.0054	<0.0052	<0.0054

1/11/2007	MMW-P-08
Depth	19-20'
PCE	9
TCE	0.18
cis-1,2-DCE	0.065
trans-1,2-DCE	0.005
VC	<0.002

3/8/2013	MMW-P-07-A
Depth	20-22'
PCE	0.016
TCE	<0.0041
cis-1,2-DCE	2.88
trans-1,2-DCE	0.0148
VC	0.982

5/31/2007	MMW-P-10S
Depth	16-17'
PCE	0.0809
TCE	0.0108
cis-1,2-DCE	< 0.0052
trans-1,2-DCE	< 0.0052
VC	< 0.0052

3/8/2013	MMW-P-10D-A		
Depth	22-24'	32-34'	36-38'
PCE	<0.0033	<0.0048	<0.0045
TCE	<0.0033	<0.0048	<0.0045
cis-1,2-DCE	0.0041	<0.0048	<0.0045
trans-1,2-DCE	<0.0033	<0.0048	<0.0045
VC	0.0108	0.0311	<0.0045

2/3/2009	SB-1		
Depth	6-7'	11-12'	14-15'
PCE	0.01	<0.005	0.012
TCE	<0.005	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005	<0.005
VC	<0.002	<0.002	<0.002

8/18/2004	GP-04/MMW-P-04
Depth	16'
PCE	0.2
TCE	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

3/7/2013	MMW-P-04-A
Depth	16-18'
PCE	0.198
TCE	<0.0043
cis-1,2-DCE	<0.0043
trans-1,2-DCE	<0.0043
VC	<0.0043

2/3/2009	SB-2		
Depth	7-8'	11-12'	15-16'
PCE	<0.005	0.006	0.017
TCE	<0.005	<0.005	<0.005
cis-1,2-DCE	<0.005	<0.005	<0.005
trans-1,2-DCE	<0.005	<0.005	<0.005
VC	<0.002	<0.002	<0.002

LEGEND

- RCG Exceedance (Vadose Soil)
- Fence
- MMW-P-06 — MUNDELL Monitoring Well
- MW-160 — ENVIRON Monitoring Well/Soil Boring
- MW-WES-O1A/ SB-02 — U.S. EPA Monitoring Well/Soil Boring

N

Soil		Soil Direct (Exc)	Soil Direct (Com/Ind)	Soil Direct (Res)	Soil MTG
Tetrachloroethene	mg/kg	170	26	7.7	0.045
Trichloroethene	mg/kg	34	20	6.2	0.036
cis-1,2-Dichloroethene	mg/kg	2400	2000	220	0.41
trans-1,2-Dichloroethene	mg/kg	1200	690	210	0.59
Vinyl Chloride	mg/kg	660	17	0.84	0.014

0 200' 400'

SCALE IN FEET

Note: Smear zone soils typically range between 16-19 feet bgs across site (somewhat shallower adjacent to Little Eagle Creek). Soil results from samples collected below the smear zone (in the saturated soil zone) are highlighted in gray in sample depth header.

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REV.	DATE	DESCRIPTION	BY	APPR.

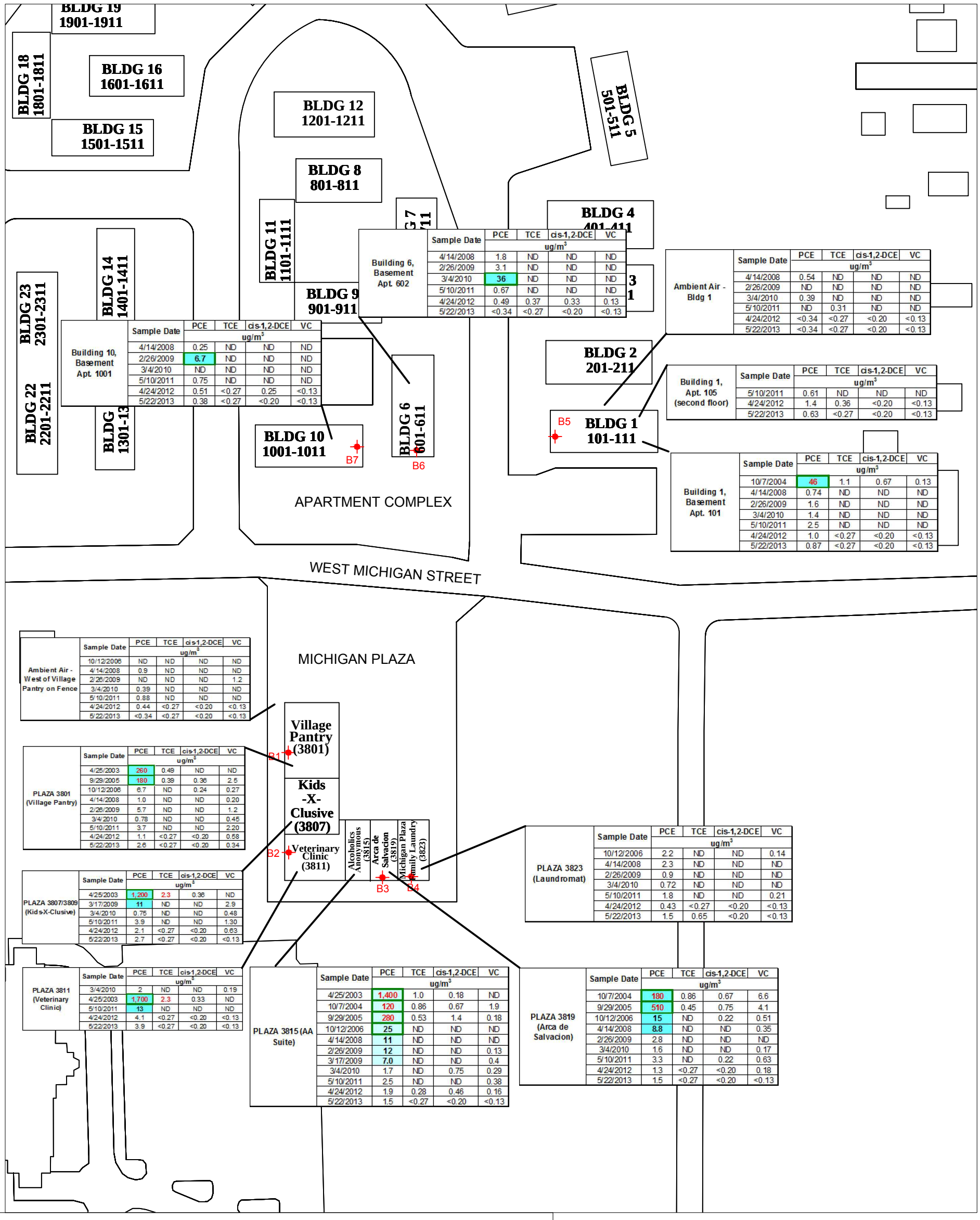
PROJECT NO.: M01046 FILE NO.:GW Quarterly.DWG
DRAWING: 1"=100' PLOT SIZE: ANSI D

DRAFTED BY: SVE DATE: 5/31/13
CHECKED BY: MTB DATE: 5/31/13
APPROVED BY: MEB DATE: 9/15/13

Historical Soil Analytical South of Michigan Street

Michigan Plaza
3801 - 3823 Michigan Street
Indianapolis, Indiana

FIGURE
20b



Building 6, Basement Apt. 602	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	4/14/2008	1.8	ND	ND	ND
	2/26/2009	3.1	ND	ND	ND
	3/4/2010	36	ND	ND	ND
	5/10/2011	0.67	ND	ND	ND
	4/24/2012	0.49	0.37	0.33	0.13
	5/22/2013	<0.34	<0.27	<0.20	<0.13

Ambient Air - Bldg 1	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	4/14/2008	0.54	ND	ND	ND
	2/26/2009	ND	ND	ND	ND
	3/4/2010	0.39	ND	ND	ND
	5/10/2011	ND	0.31	ND	ND
	4/24/2012	<0.34	<0.27	<0.20	<0.13
	5/22/2013	<0.34	<0.27	<0.20	<0.13

Building 10, Basement Apt. 1001	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	4/14/2008	0.25	ND	ND	ND
	2/26/2009	6.7	ND	ND	ND
	3/4/2010	ND	ND	ND	ND
	5/10/2011	0.75	ND	ND	ND
	4/24/2012	0.51	<0.27	0.25	<0.13
	5/22/2013	0.38	<0.27	<0.20	<0.13

Building 1, Apt. 105 (second floor)	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	5/10/2011	0.61	ND	ND	ND
	4/24/2012	1.4	0.36	<0.20	<0.13
	5/22/2013	0.63	<0.27	<0.20	<0.13

Building 1, Basement Apt. 101	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	10/7/2004	46	1.1	0.67	0.13
	4/14/2008	0.74	ND	ND	ND
	2/26/2009	1.6	ND	ND	ND
	3/4/2010	1.4	ND	ND	ND
	5/10/2011	2.5	ND	ND	ND
	4/24/2012	1.0	<0.27	<0.20	<0.13
	5/22/2013	0.87	<0.27	<0.20	<0.13

Ambient Air - West of Village Pantry on Fence	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	10/12/2006	ND	ND	ND	ND
	4/14/2008	0.9	ND	ND	ND
	2/26/2009	ND	ND	ND	1.2
	3/4/2010	0.39	ND	ND	ND
	5/10/2011	0.88	ND	ND	ND
	4/24/2012	0.44	<0.27	<0.20	<0.13
	5/22/2013	<0.34	<0.27	<0.20	<0.13

PLAZA 3801 (Village Pantry)	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	4/25/2003	260	0.49	ND	ND
	9/29/2005	180	0.39	0.36	2.5
	10/12/2006	6.7	ND	0.24	0.27
	4/14/2008	1.0	ND	ND	0.20
	2/26/2009	5.7	ND	ND	1.2
	3/4/2010	0.78	ND	ND	0.45
	5/10/2011	3.7	ND	ND	2.20
	4/24/2012	1.1	<0.27	<0.20	0.58
	5/22/2013	2.6	<0.27	<0.20	0.34

PLAZA 3807/3809 (Kids-X-Clusive)	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	4/25/2003	1,200	2.3	0.36	ND
	3/17/2009	11	ND	ND	2.9
	3/4/2010	0.75	ND	ND	0.48
	5/10/2011	3.9	ND	ND	1.30
	4/24/2012	2.1	<0.27	<0.20	0.63
	5/22/2013	2.7	<0.27	<0.20	<0.13

PLAZA 3823 (Laundromat)	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	10/12/2006	2.2	ND	ND	0.14
	4/14/2008	2.3	ND	ND	ND
	2/26/2009	0.9	ND	ND	ND
	3/4/2010	0.72	ND	ND	ND
	5/10/2011	1.8	ND	ND	0.21
	4/24/2012	0.43	<0.27	<0.20	<0.13
	5/22/2013	1.5	0.65	<0.20	<0.13

PLAZA 3811 (Veterinary Clinic)	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	3/4/2010	2	ND	ND	0.19
	4/25/2003	1,700	2.3	0.33	ND
	5/10/2011	13	ND	ND	ND
	4/24/2012	4.1	<0.27	<0.20	<0.13
	5/22/2013	3.9	<0.27	<0.20	<0.13

PLAZA 3815 (AA Suite)	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	4/25/2003	1,400	1.0	0.18	ND
	10/7/2004	120	0.86	0.67	1.9
	9/29/2005	280	0.53	1.4	0.18
	10/12/2006	25	ND	ND	ND
	4/14/2008	11	ND	ND	ND
	2/26/2009	12	ND	ND	0.13
	3/17/2009	7.0	ND	ND	0.4
	3/4/2010	1.7	ND	0.75	0.29
	5/10/2011	2.5	ND	ND	0.38
	4/24/2012	1.9	0.28	0.46	0.16
	5/22/2013	1.5	<0.27	<0.20	<0.13

PLAZA 3819 (Arca de Salvacion)	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	10/7/2004	180	0.86	0.67	6.6
	9/29/2005	510	0.45	0.75	4.1
	10/12/2006	15	ND	0.22	0.51
	4/14/2008	8.8	ND	ND	0.35
	2/26/2009	2.8	ND	ND	ND
	3/4/2010	1.6	ND	ND	0.17
	5/10/2011	3.3	ND	0.22	0.63
	4/24/2012	1.3	<0.27	<0.20	0.18
	5/22/2013	1.5	<0.27	<0.20	<0.13

LEGEND

B1 ✦ MItigation System Location

Indoor Air Regulatory Limits	Reference	PCE	TCE	cis-1,2-DCE	VC
		ug/m³			
	EPA 2002	81	2	35	28
	IDEM 2010 Commercial	6.8	7.9	51	8.9
	IDEM 2010 Residential	3.2	1.2	37	2.2
	IDEM 2012 RCG Commercial	21	9	-	28
	IDEM 2012 RCG Residential	4.1	2.1	-	1.6

N

SCALE 0 100 feet

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INDOOR AIR ANALYTICAL RESULTS

Michigan Plaza
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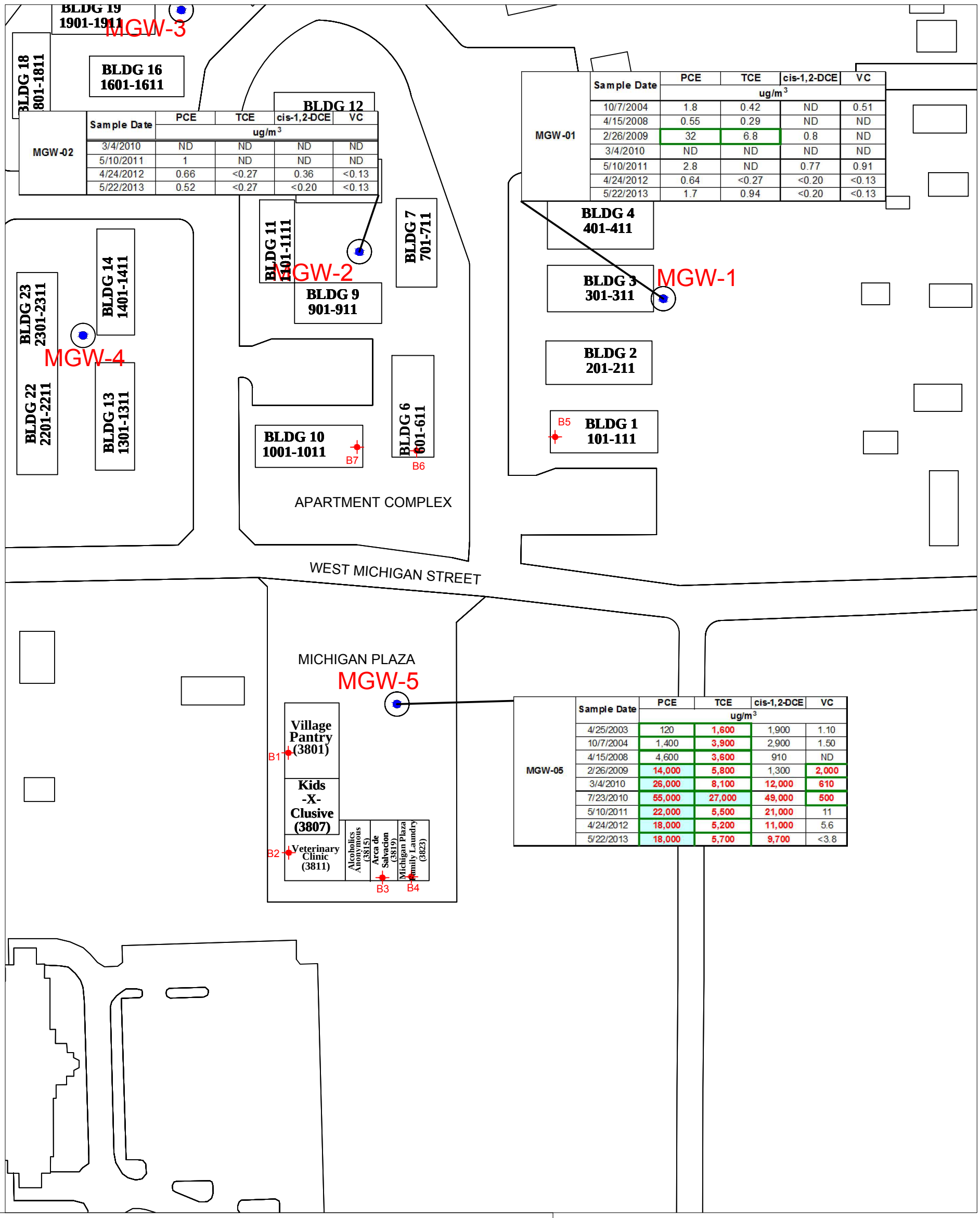
FIGURE 21



MGW-02	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m^3			
	3/4/2010	ND	ND	ND	ND
	5/10/2011	1	ND	ND	ND
	4/24/2012	0.66	<0.27	0.36	<0.13
	5/22/2013	0.52	<0.27	<0.20	<0.13

MGW-01	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m^3			
	10/7/2004	1.8	0.42	ND	0.51
	4/15/2008	0.55	0.29	ND	ND
	2/26/2009	32	6.8	0.8	ND
	3/4/2010	ND	ND	ND	ND
	5/10/2011	2.8	ND	0.77	0.91
	4/24/2012	0.64	<0.27	<0.20	<0.13
	5/22/2013	1.7	0.94	<0.20	<0.13

MGW-05	Sample Date	PCE	TCE	cis-1,2-DCE	VC
		ug/m^3			
	4/25/2003	120	1,600	1,900	1.10
	10/7/2004	1,400	3,900	2,900	1.50
	4/15/2008	4,600	3,600	910	ND
	2/26/2009	14,000	5,800	1,300	2,000
	3/4/2010	26,000	8,100	12,000	610
	7/23/2010	55,000	27,000	49,000	500
	5/10/2011	22,000	5,500	21,000	11
	4/24/2012	18,000	5,200	11,000	5.6
	5/22/2013	18,000	5,700	9,700	<3.8

LEGEND

MGW-1 MUNDELL Soil Gas Well

B1 System Location

Soil Gas Regulatory Limits	Reference	PCE	TCE	cis-1,2-DCE	VC
		ug/m^3			
	EPA 2002	8,100	220	3,500	280
	IDEM 2010 Commercial	5,100	20,000	-	15,000
	IDEM 2010 Residential	3,600	2,000	-	3,500
	IDEM 2012 RCG Commercial	21	8.8	-	28
	IDEM 2012 RCG Residential	4.1	2.1	-	1.6

N

SCALE 0 100 feet

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SOIL GAS ANALYTICAL RESULTS

Michigan Plaza
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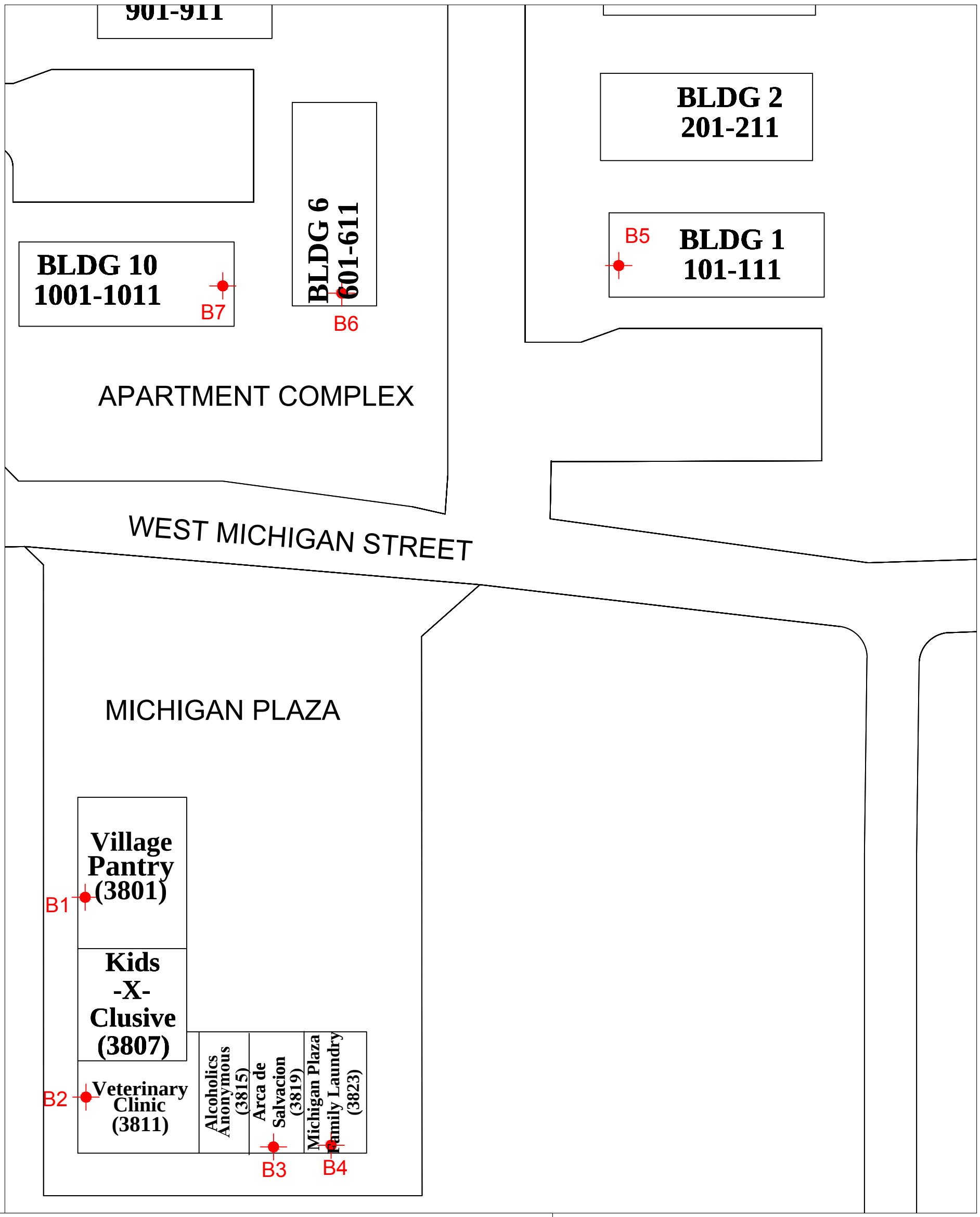
FIGURE 22



LEGEND

B1 Mitigation System Location

N

0 SCALE 50
feet

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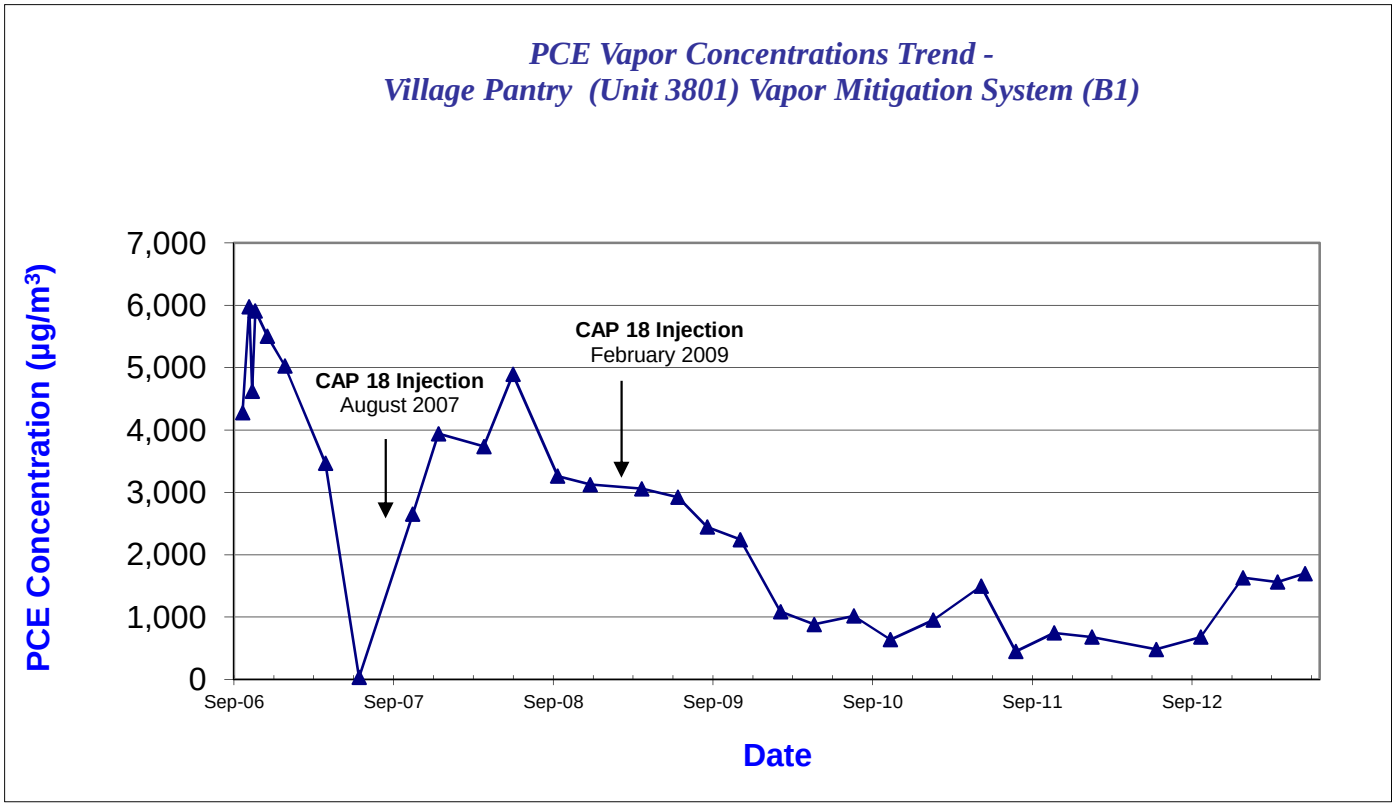
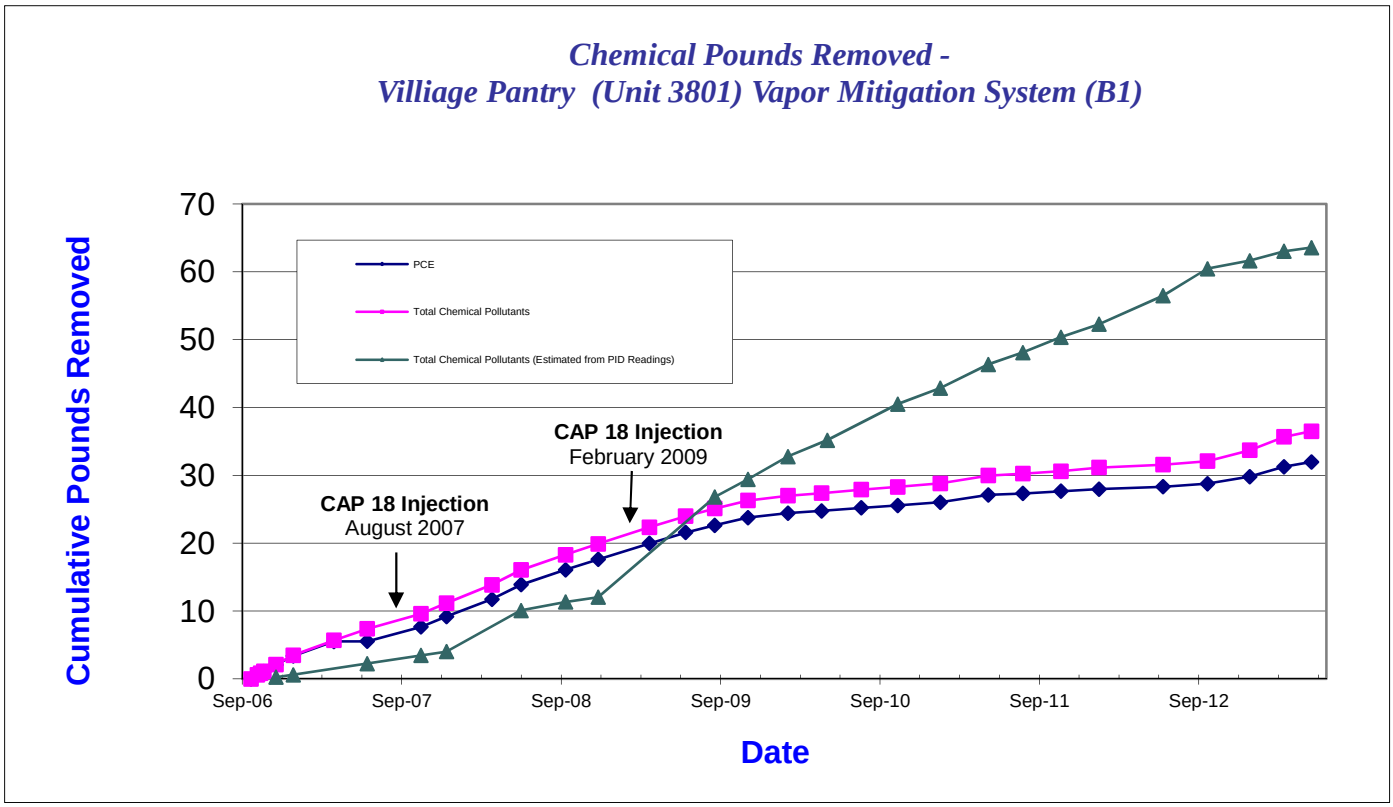
INDOOR AIR MITIGATION SYSTEM LOCATION MAP

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE
23





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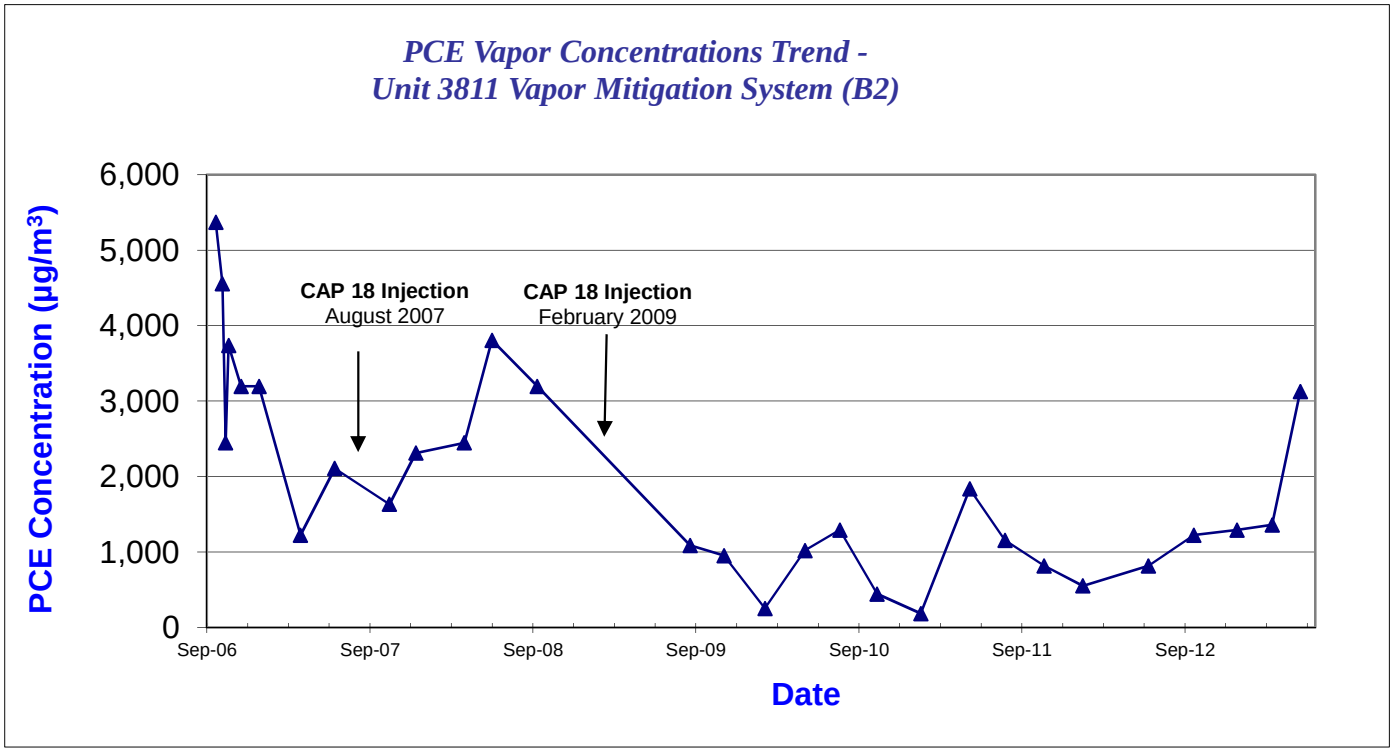
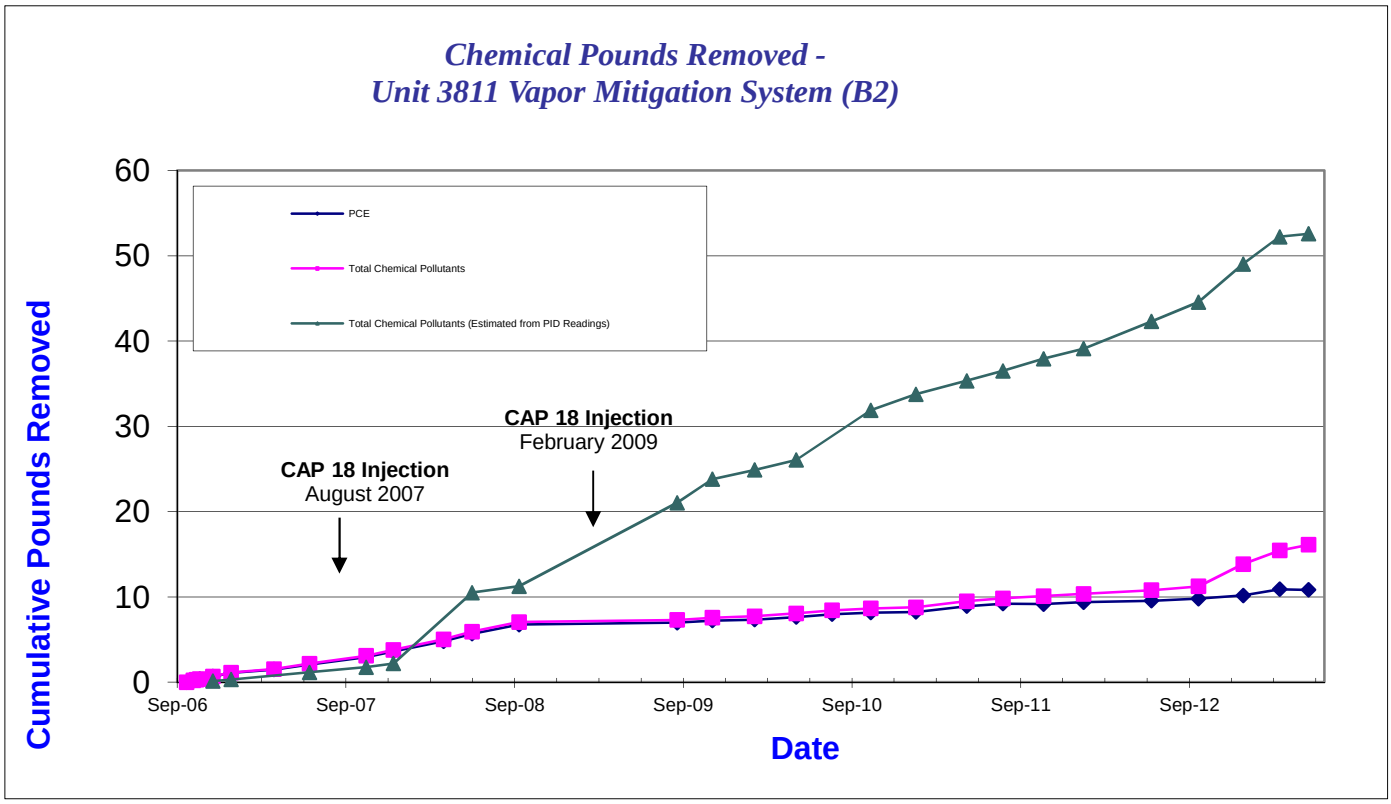
PCE Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-1 (Villiage Pantry - Unit 3801)
Second Quarter 2013
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, IN

FIGURE

24A





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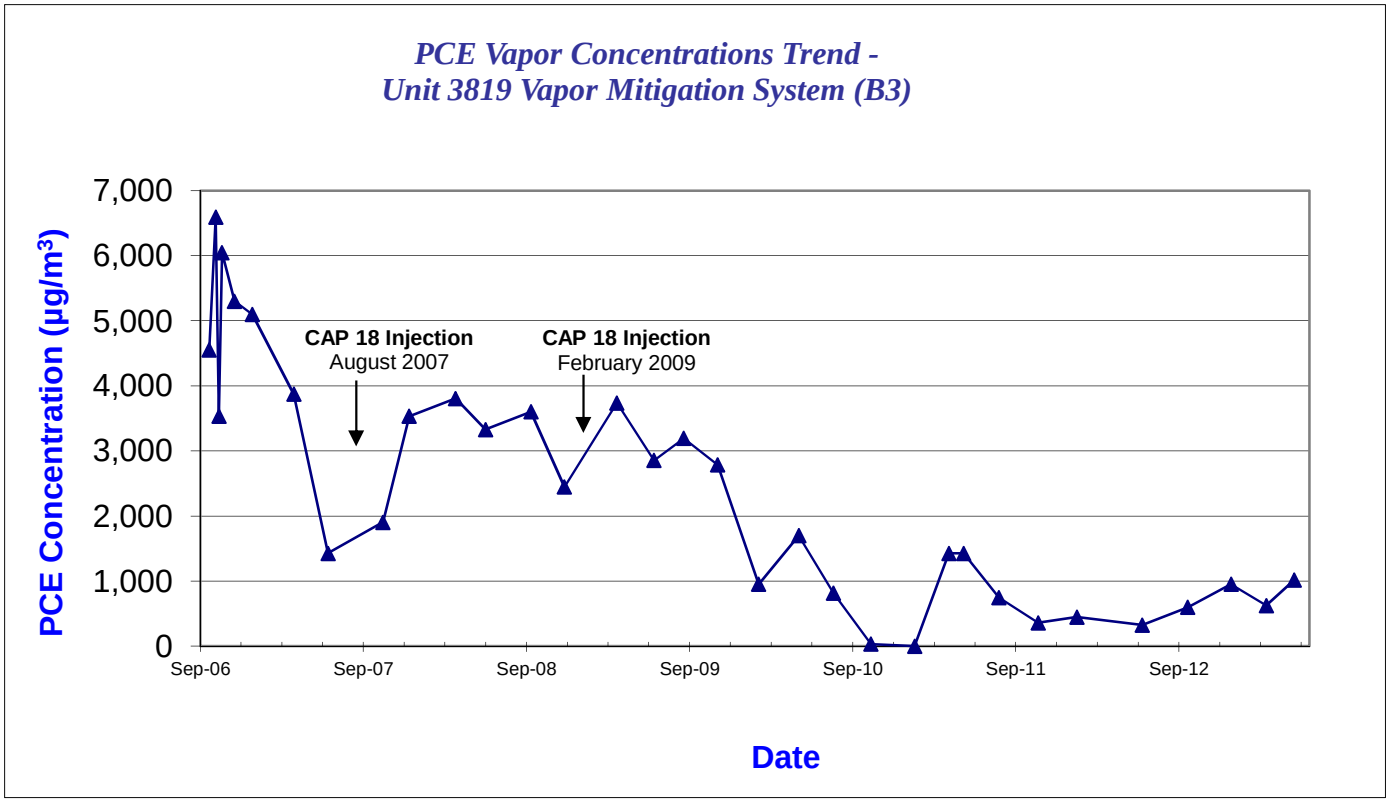
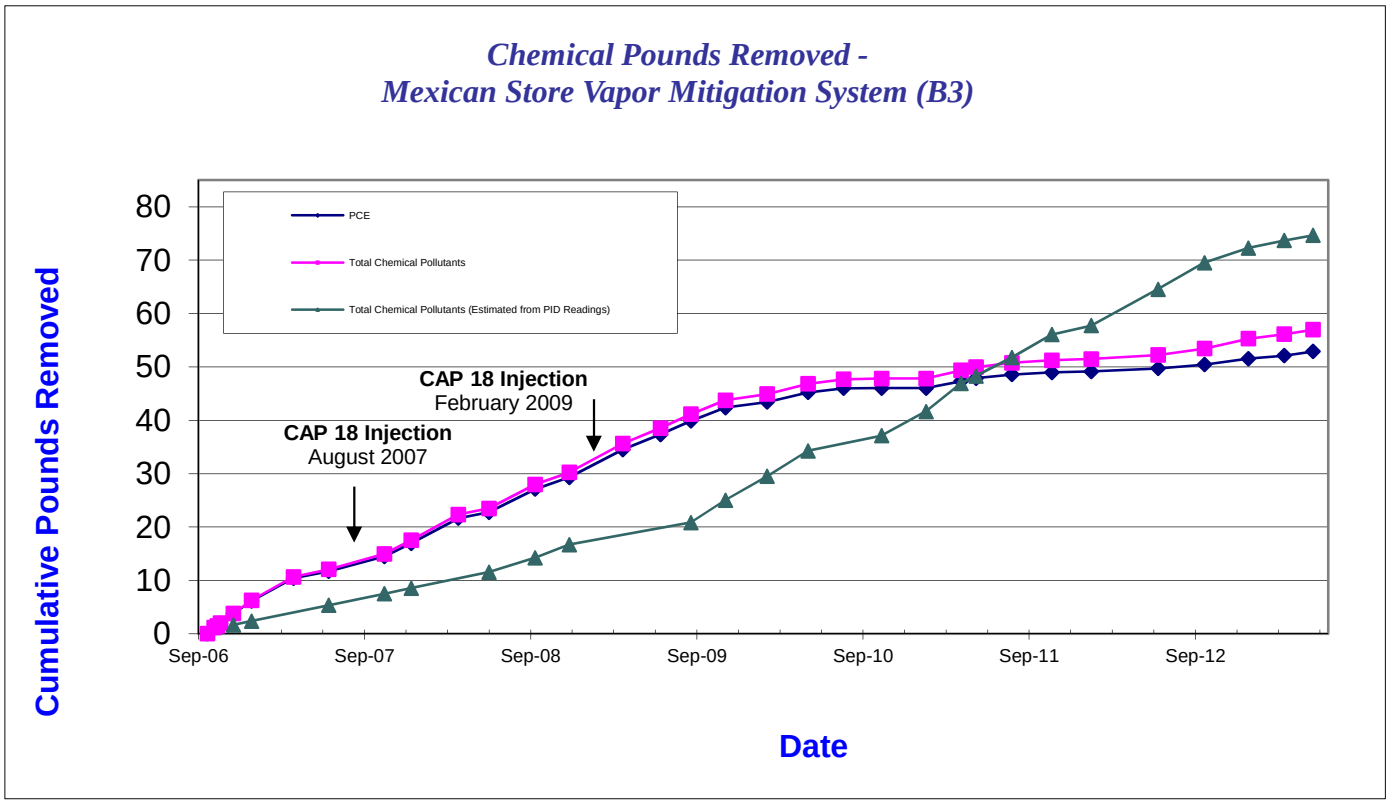
Scale:	no scale

PCE Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-2 (Unit 3811)
Second Quarter 2013
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, IN

FIGURE

24B





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PCE Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-3 (Unit 3819)
Second Quarter 2013
Michigan Plaza
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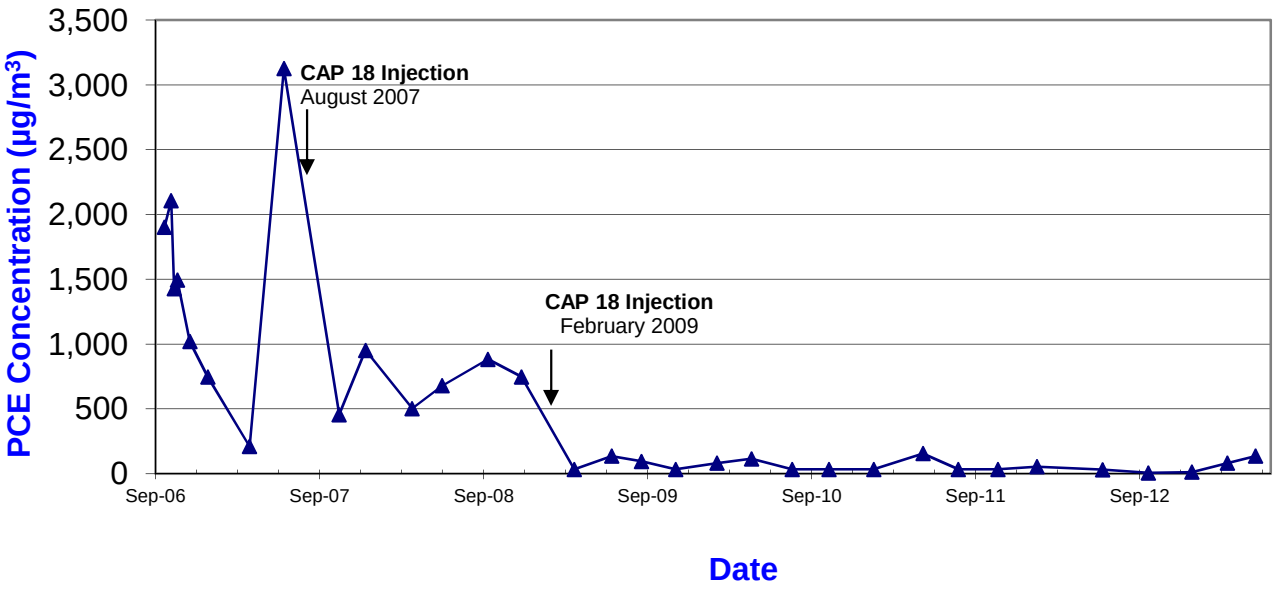
Indianapolis, IN

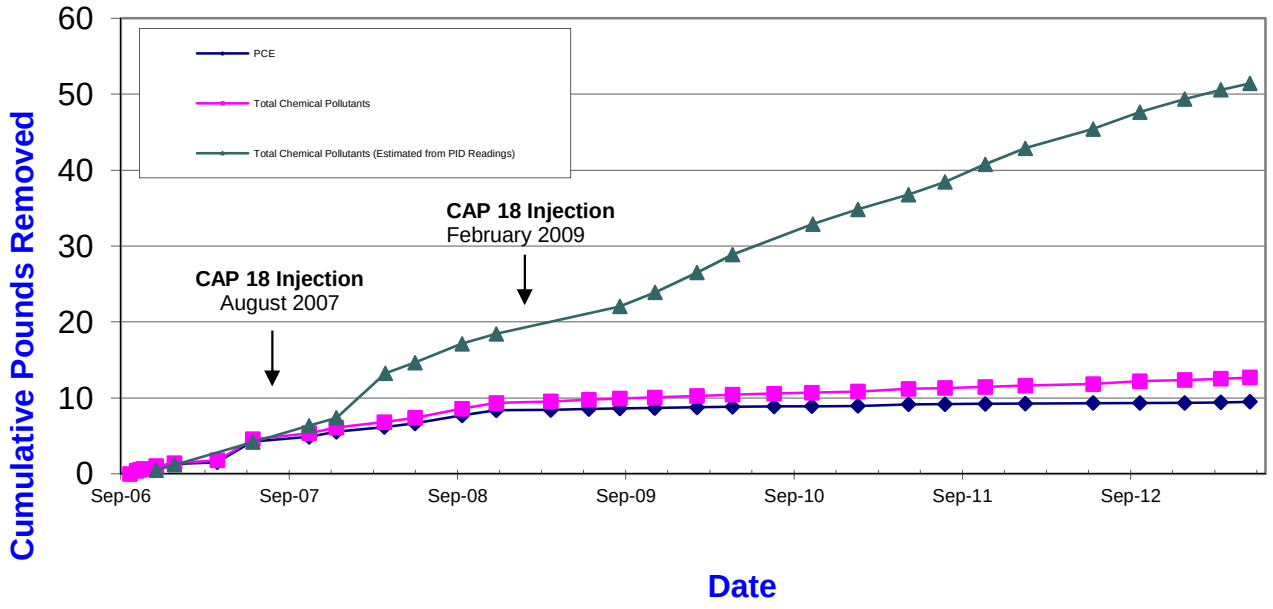
FIGURE

24C

PCE Vapor Concentrations Trend - Laundromat Vapor Mitigation System (B4)



Chemical Pounds Removed - Laundromat Vapor Mitigation System (B4)



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PCE Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-4 (Laundromat - Unit 3823)
Second Quarter 2013
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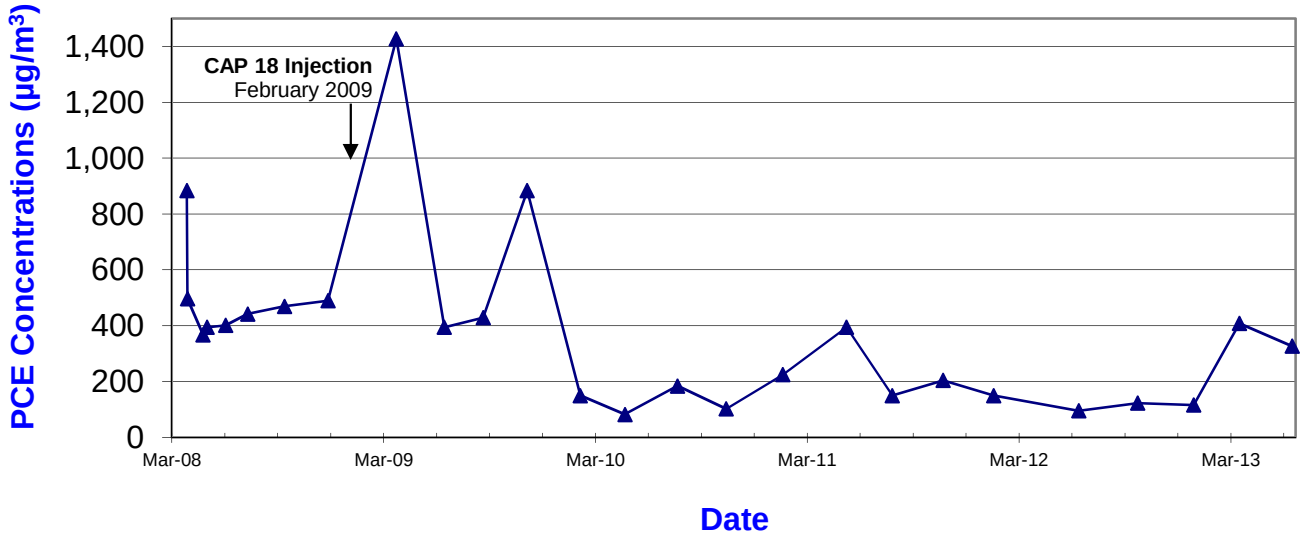
Indianapolis, IN

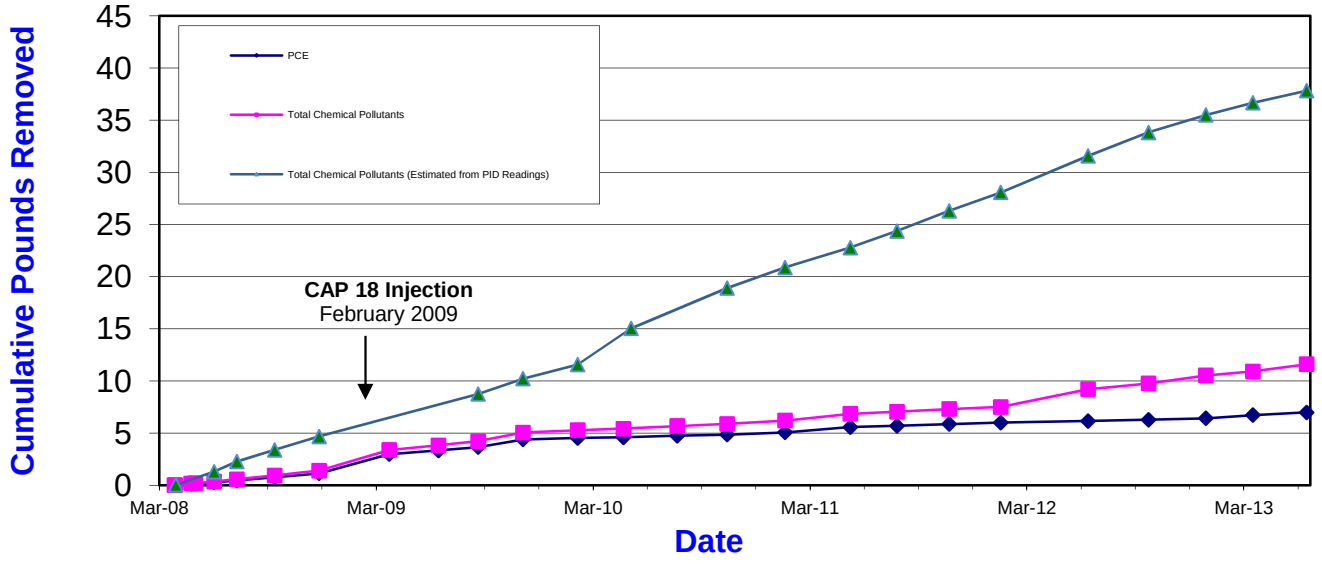
FIGURE

24D

PCE Vapor Concentrations Trend - Apartment Building 1 Vapor Mitigation System (B5)



Chemical Pounds Removed - Apartment Building 1 Vapor Mitigation System (B5)



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PCE Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-5 (Apartments, Bldg. 1)
Second Quarter 2013
Michigan Plaza
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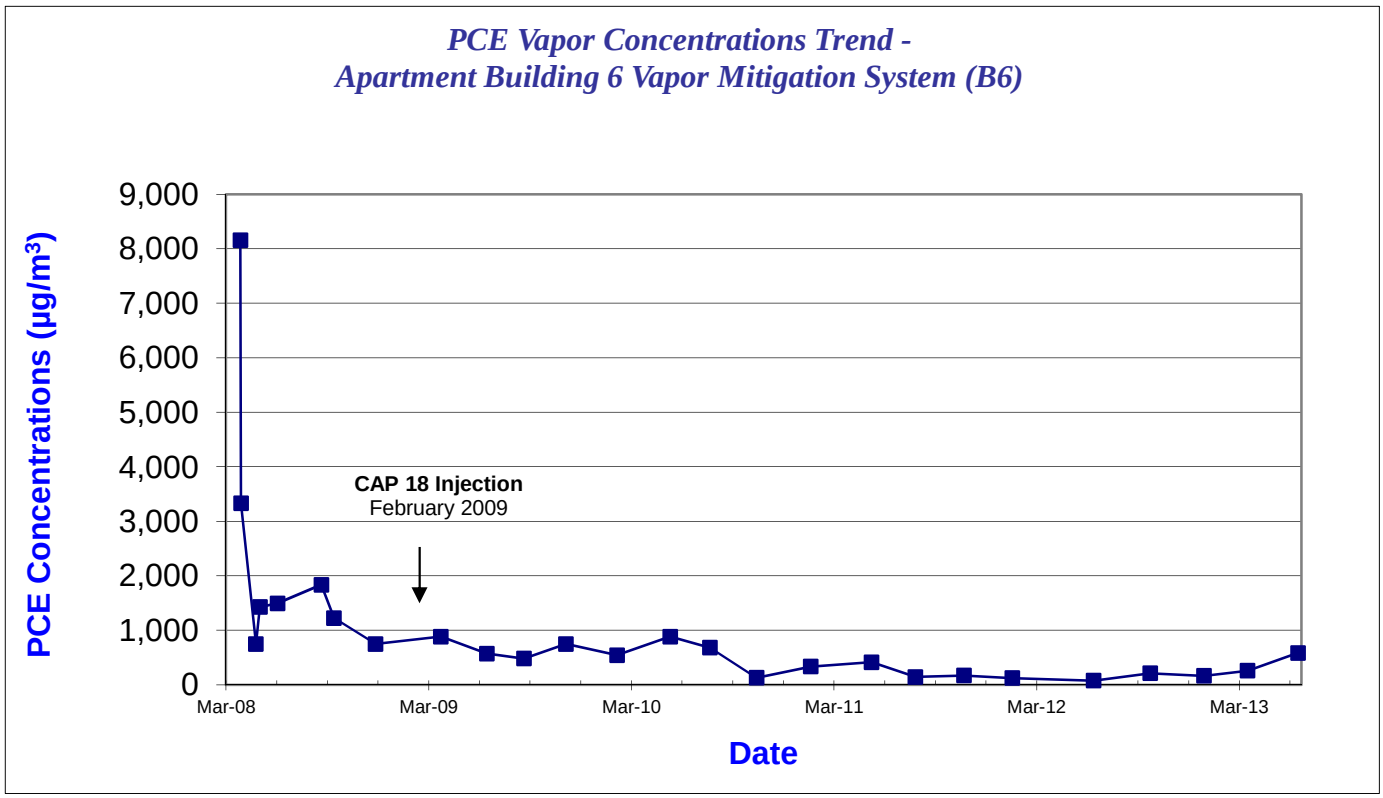
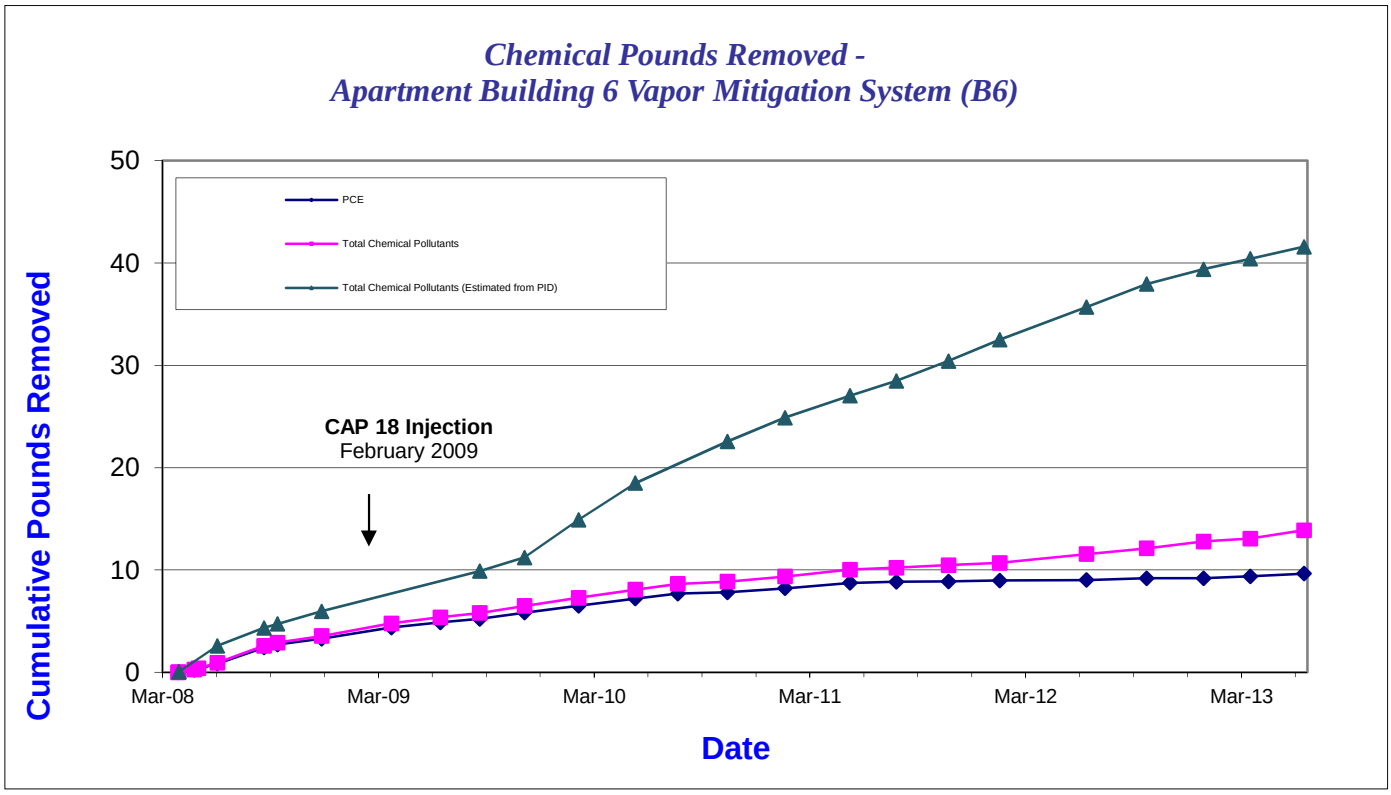
Indianapolis, IN

FIGURE

24E





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Scale:	no scale

PCE Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-6 (Apartments, Bldg. 6)
Second Quarter 2013
Michigan Plaza
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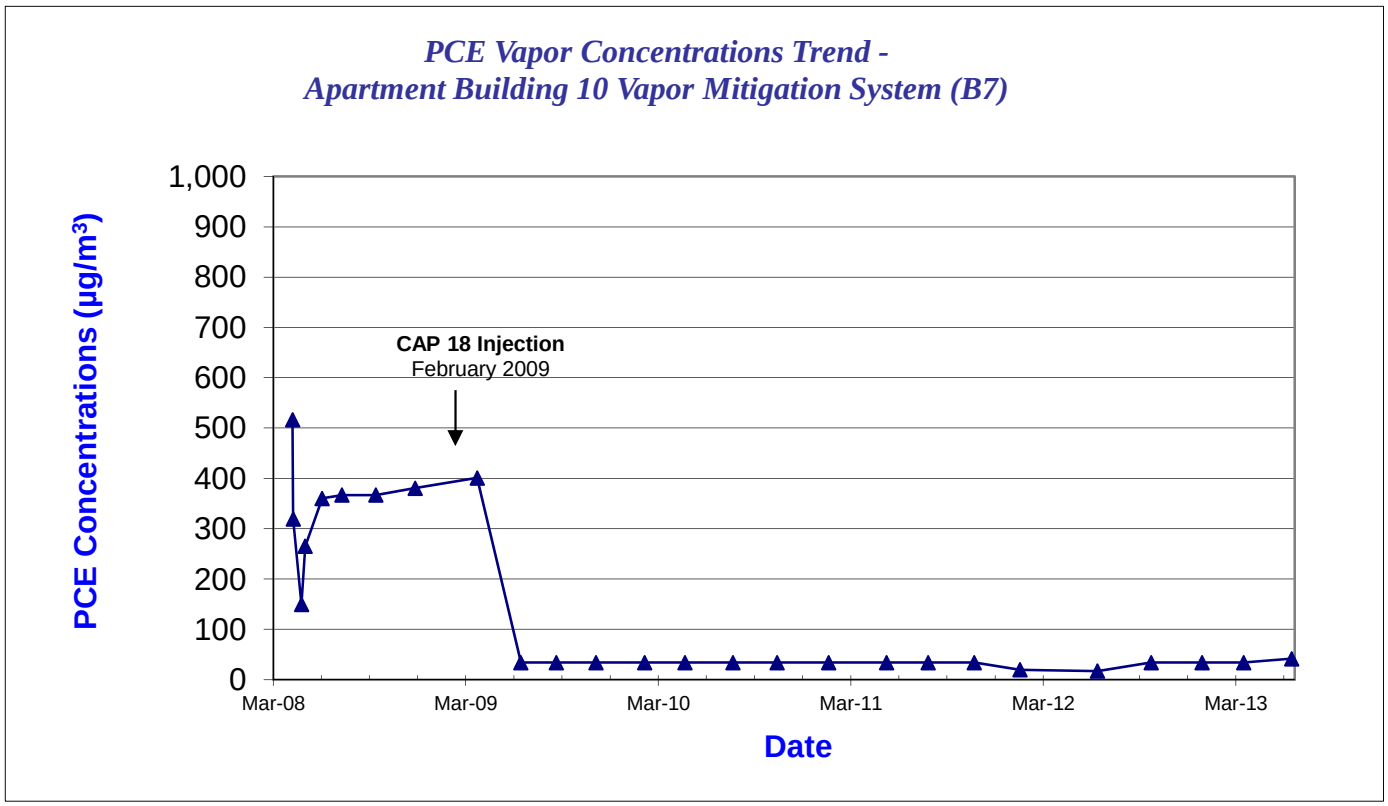
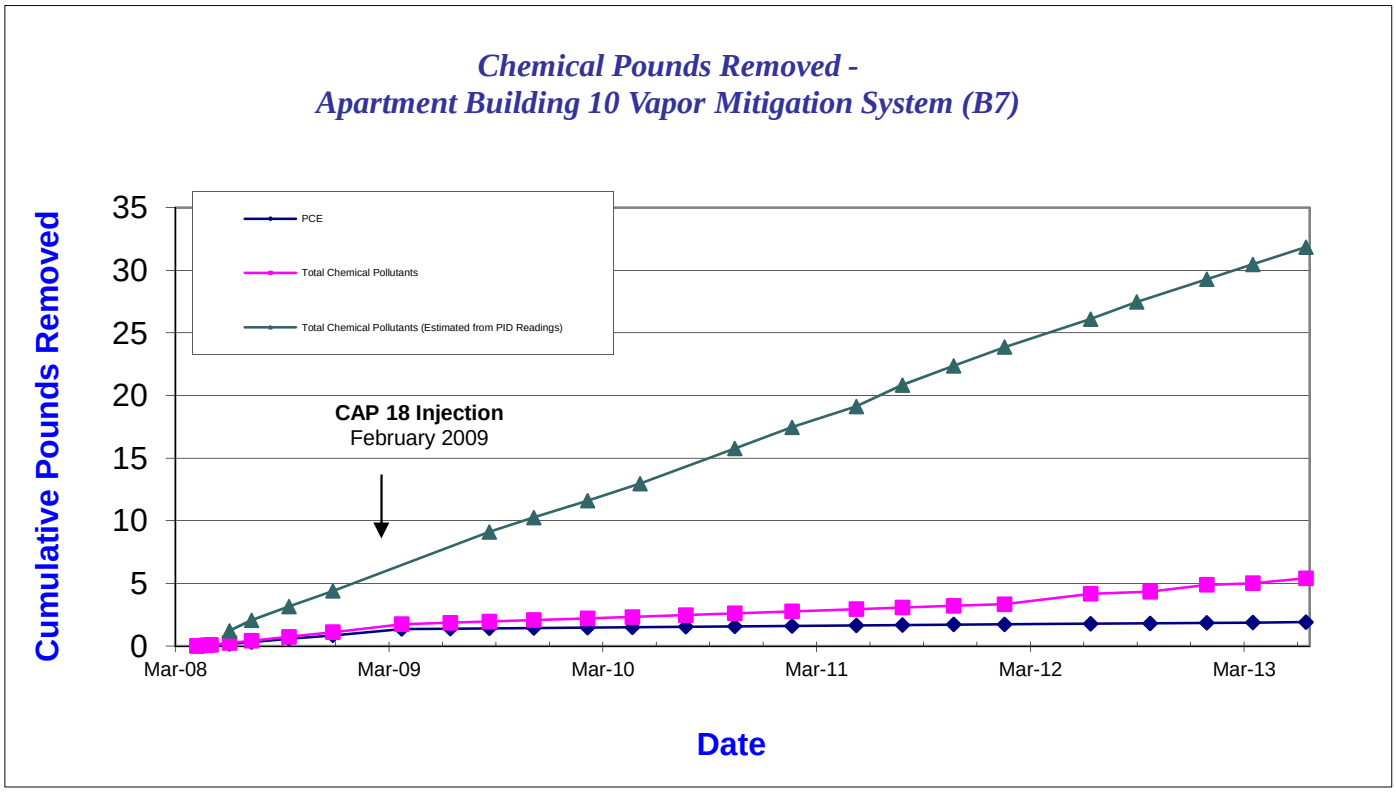
Indianapolis, IN

FIGURE

24F





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Project Number:	M01046
File:	MI Plaza charts
Date Prepared:	7/5/2013
Scale:	no scale

PCE Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-7 (Apartments, Bldg. 10)
Second Quarter 2013
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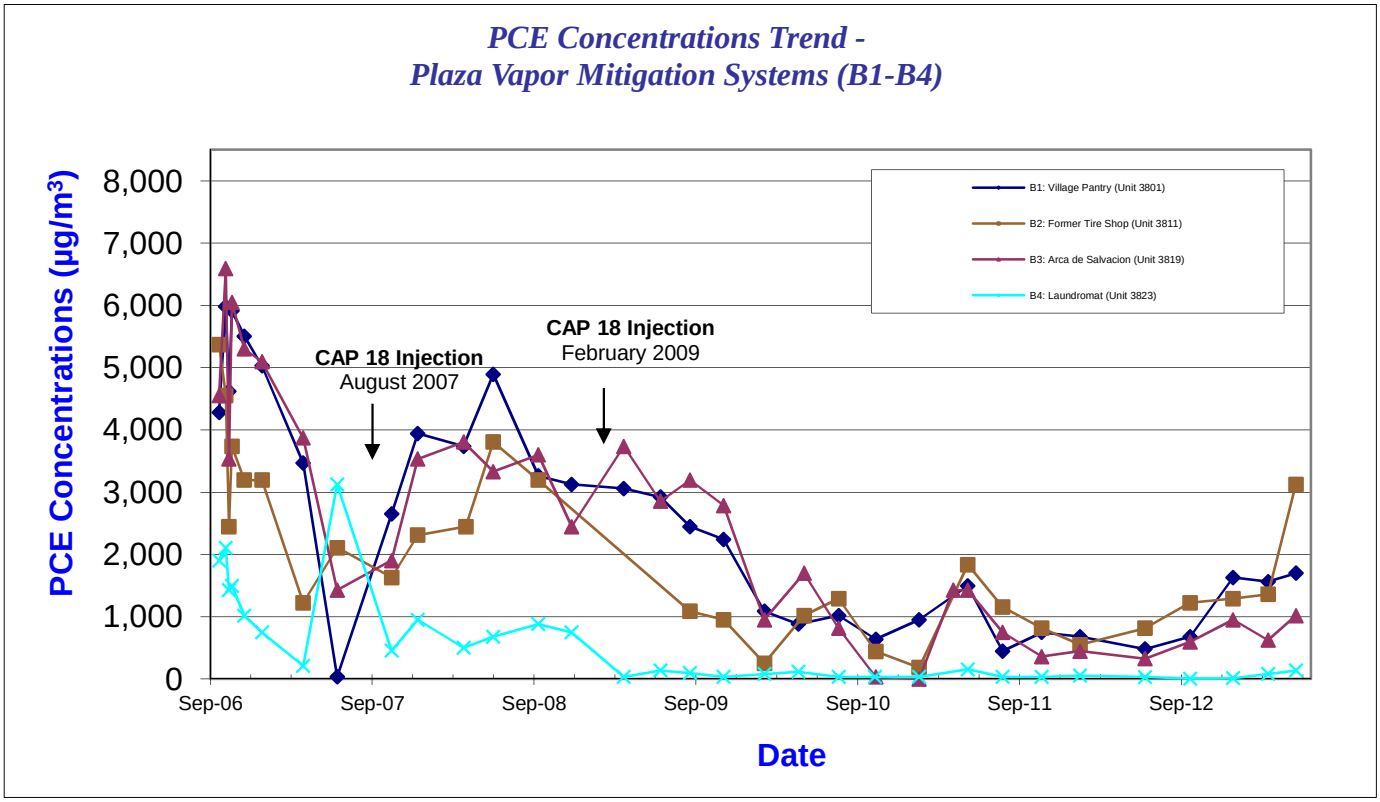
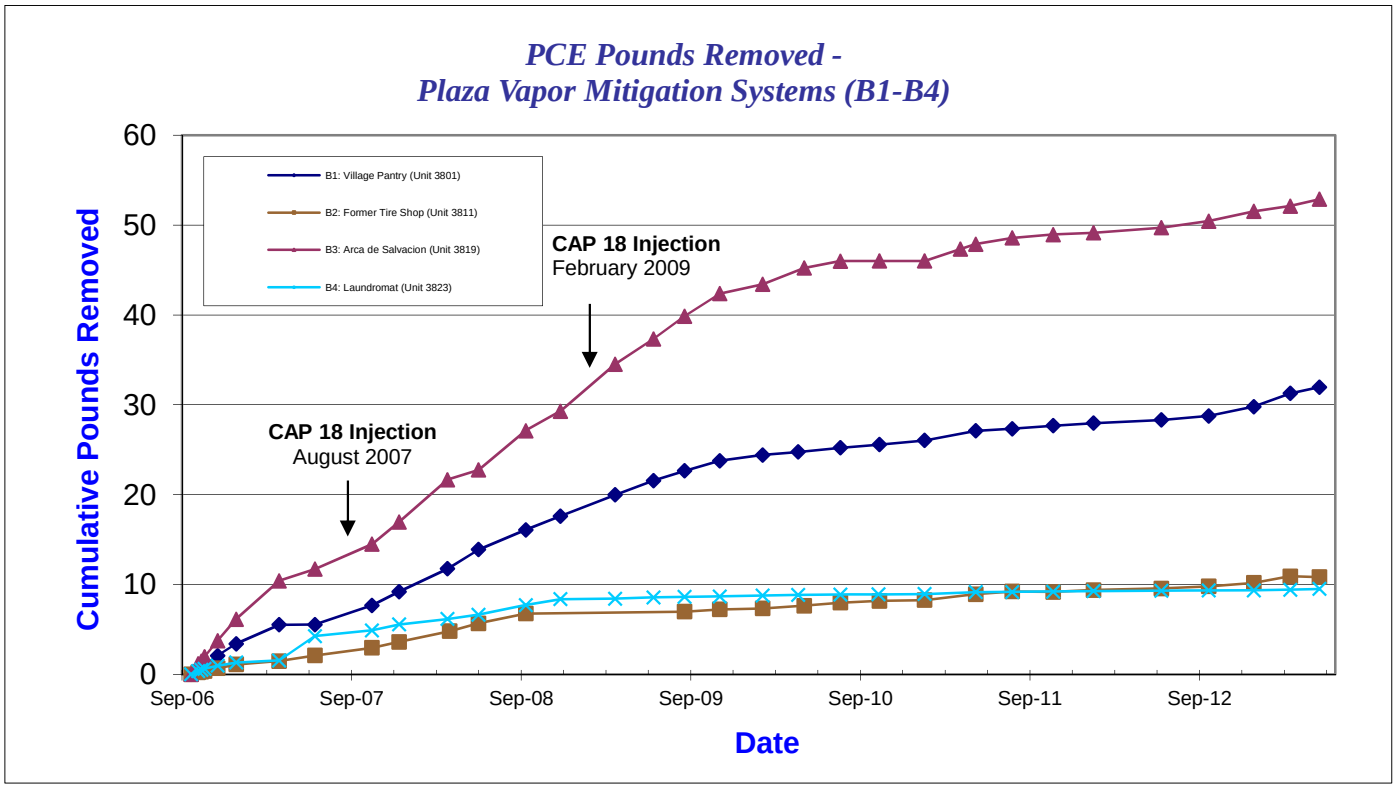
Indianapolis, IN

FIGURE

24G





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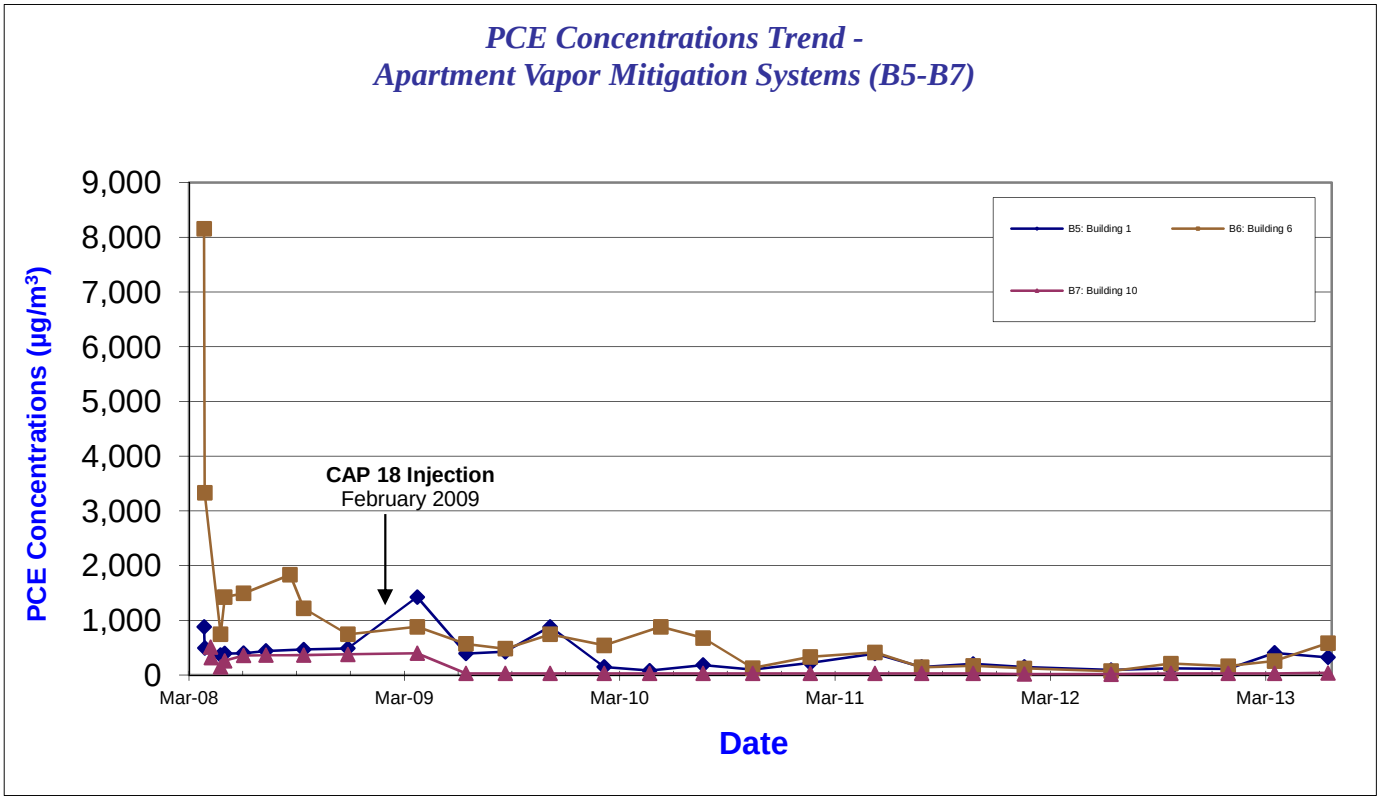
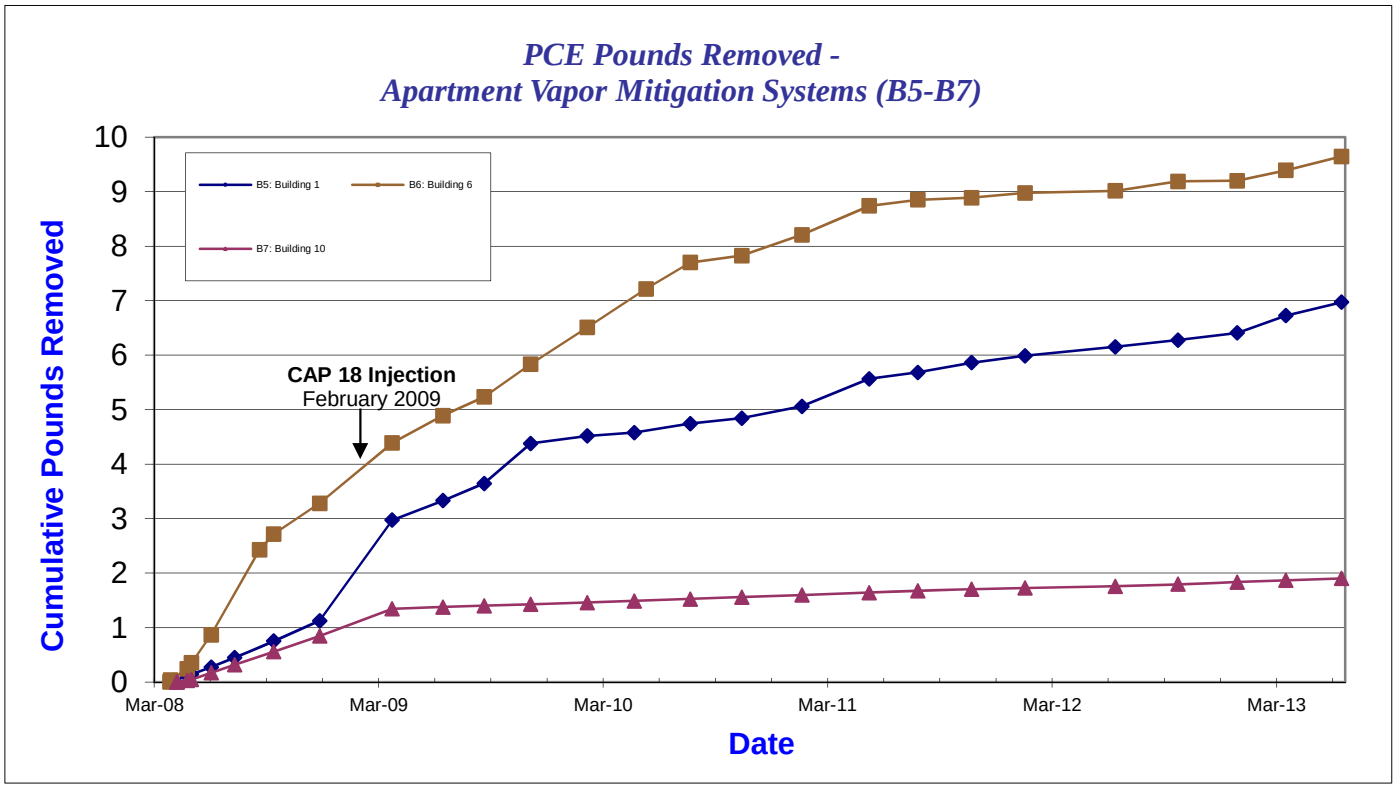
Project Number:	M01046
File:	MI Plaza charts
Date Prepared:	7/5/2013
Scale:	no scale

PCE Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation Systems B1-B4
Second Quarter 2013
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, IN

FIGURE

24H





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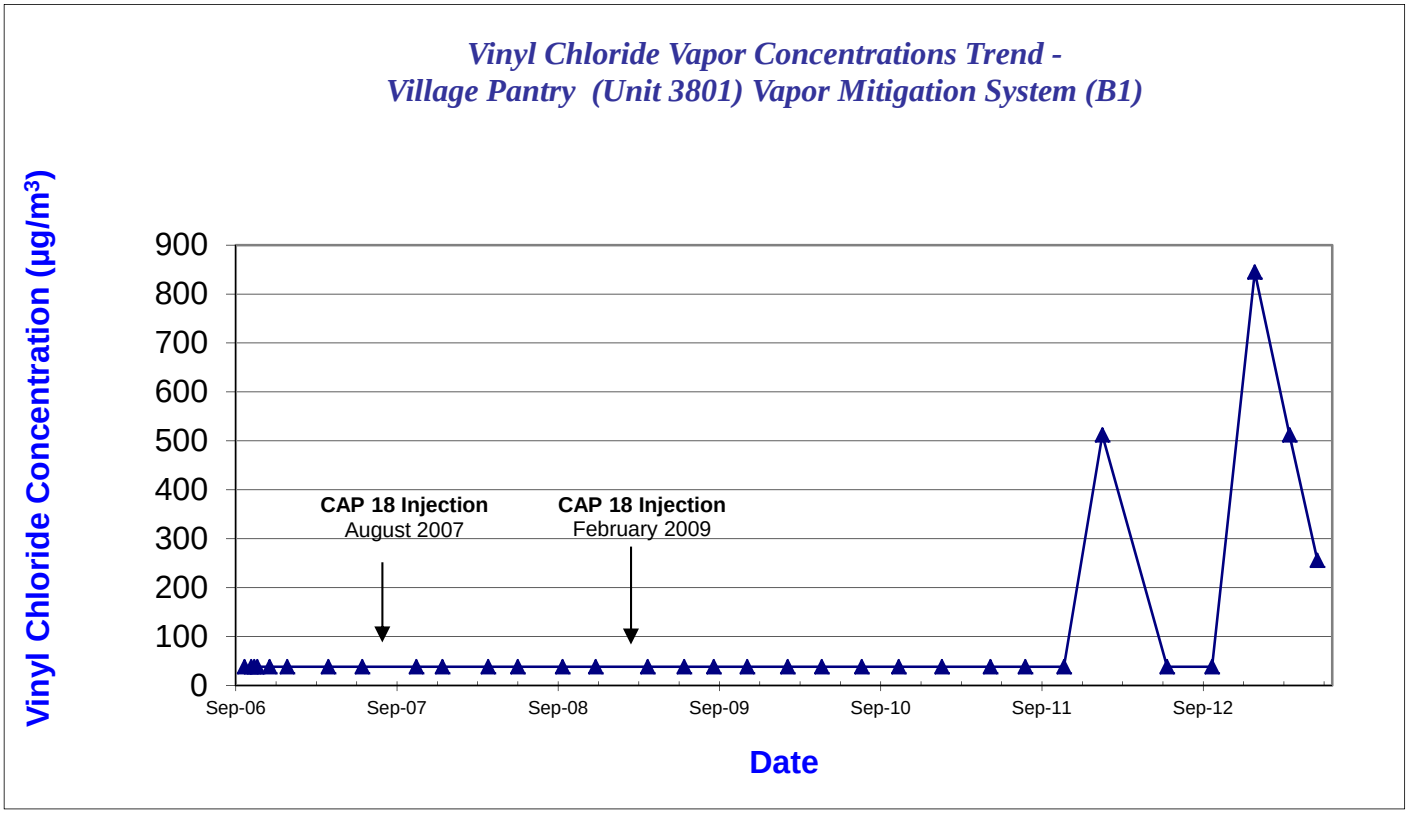
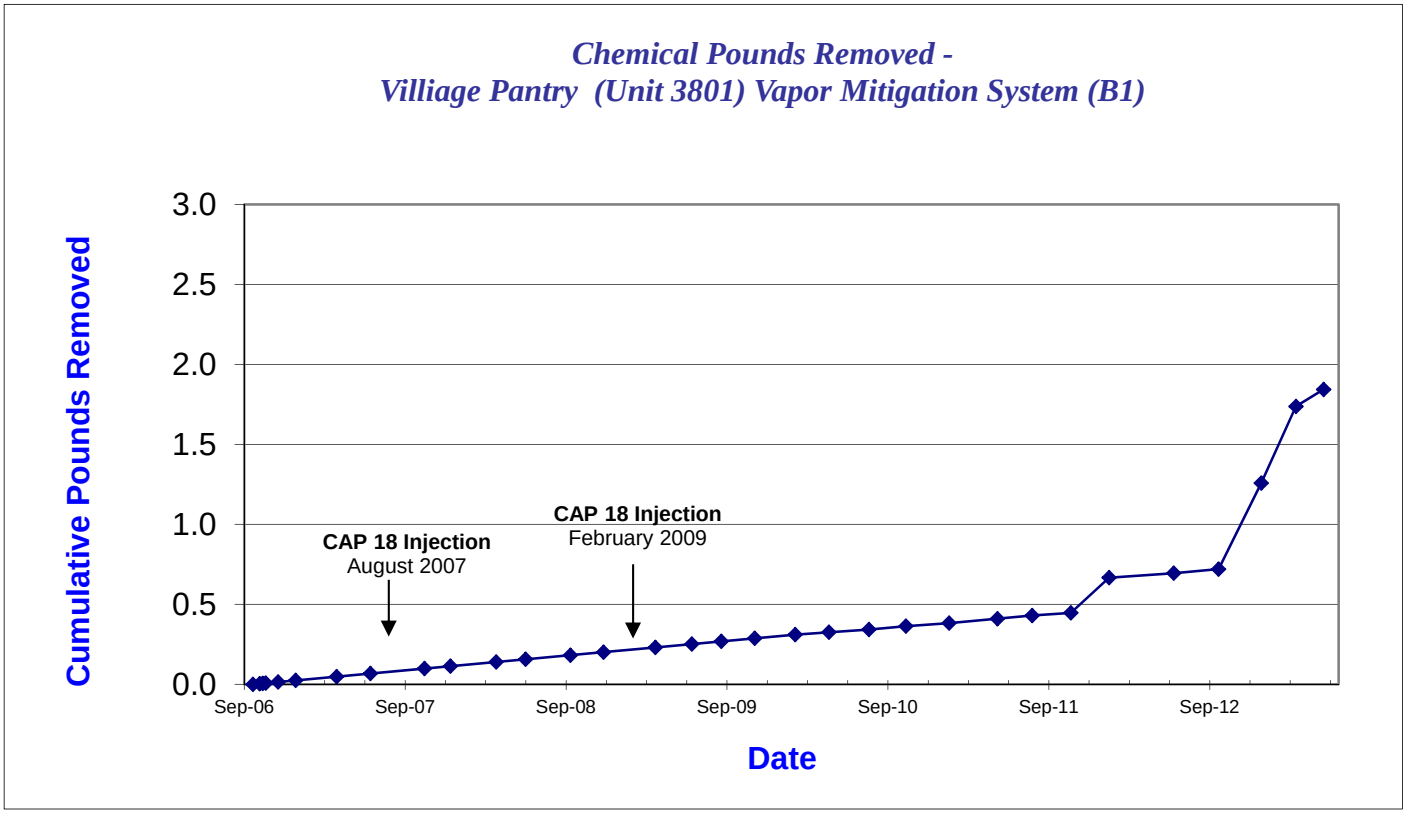
Project Number:	M01046
File:	MI Plaza charts
Date Prepared:	7/5/2013
Scale:	no scale

PCE Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation Systems B5-B7 (Apartments)
Second Quarter 2013
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, IN

FIGURE

24I





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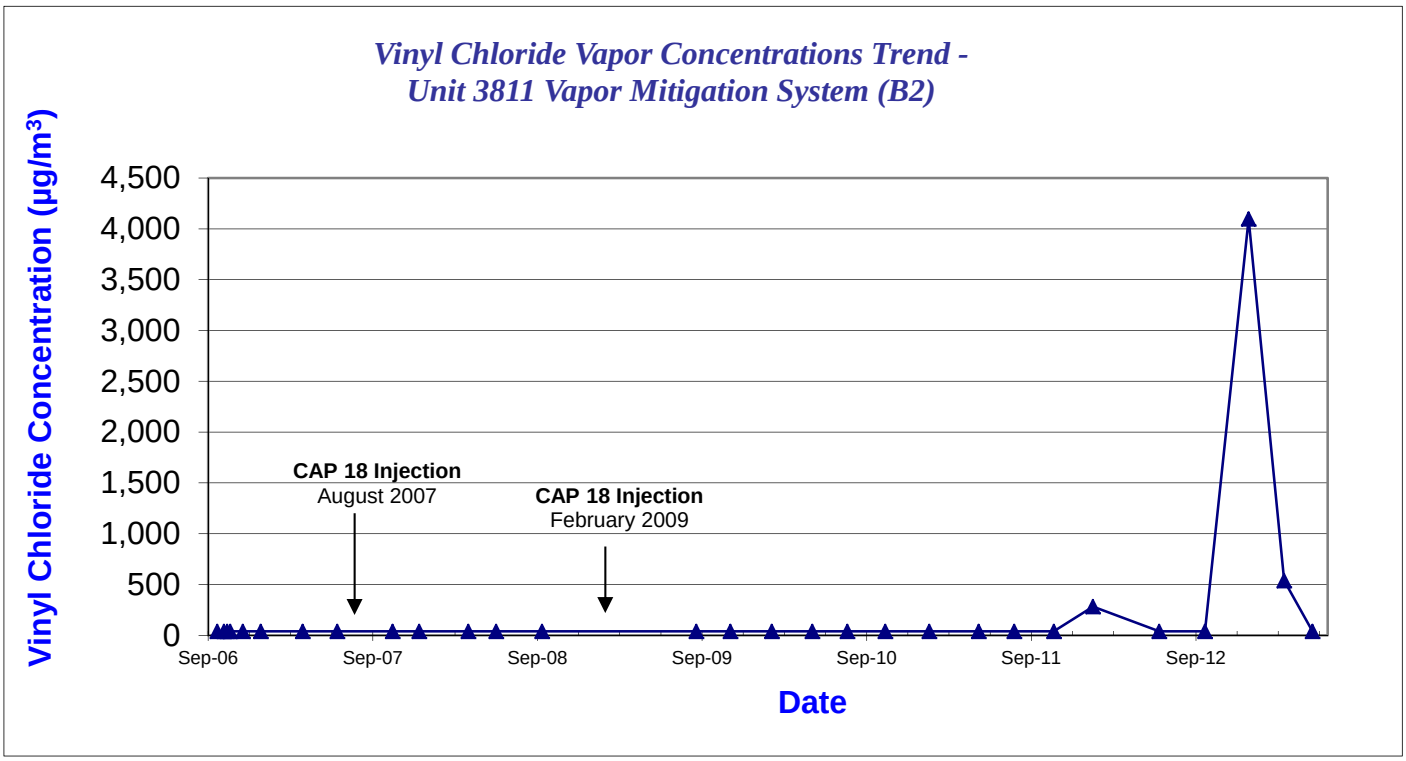
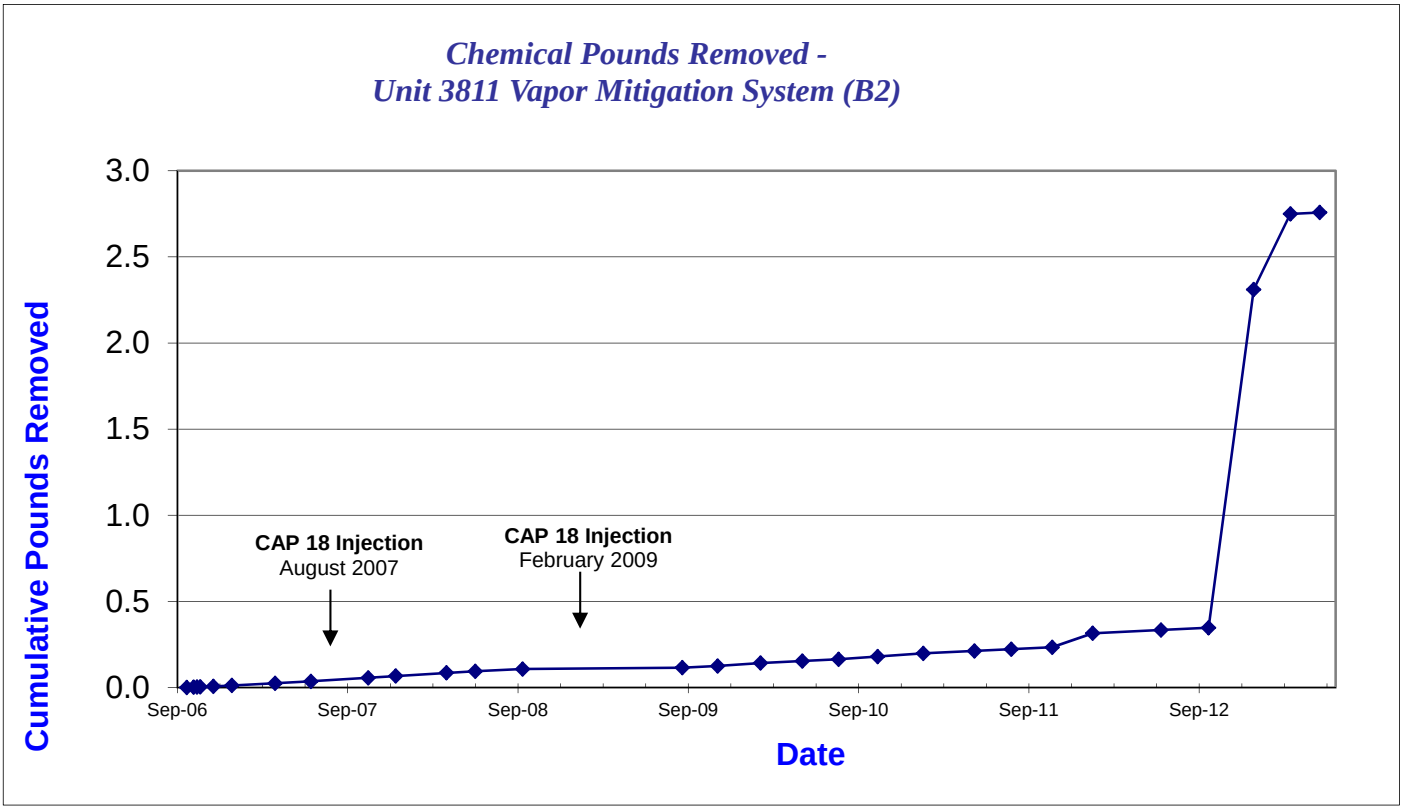
Project Number:	M01046
File:	MI Plaza charts
Date Prepared:	7/5/2013
Scale:	no scale

Vinyl Chloride Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-1 (Villiage Pantry - Unit 3801)
Second Quarter 2013
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, IN

FIGURE

25A





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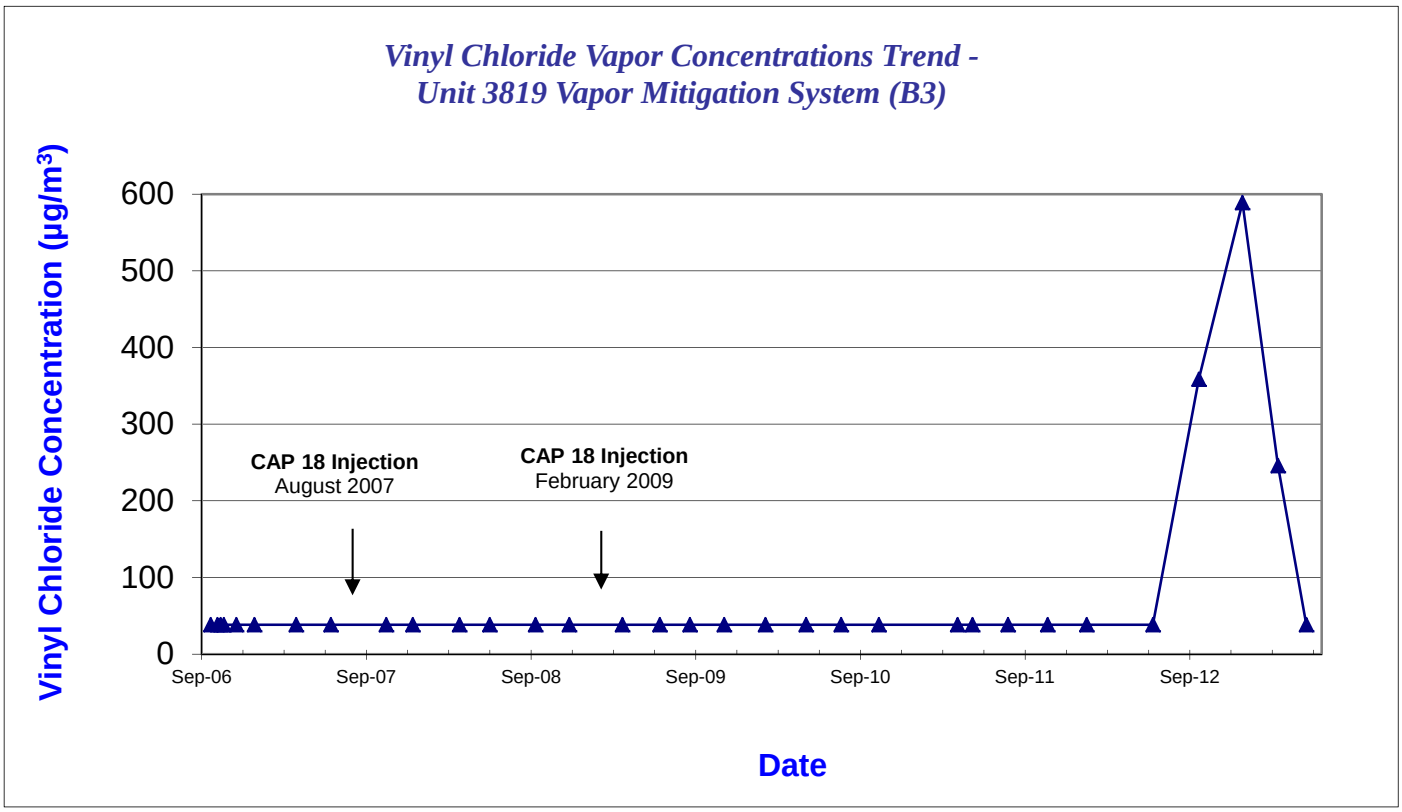
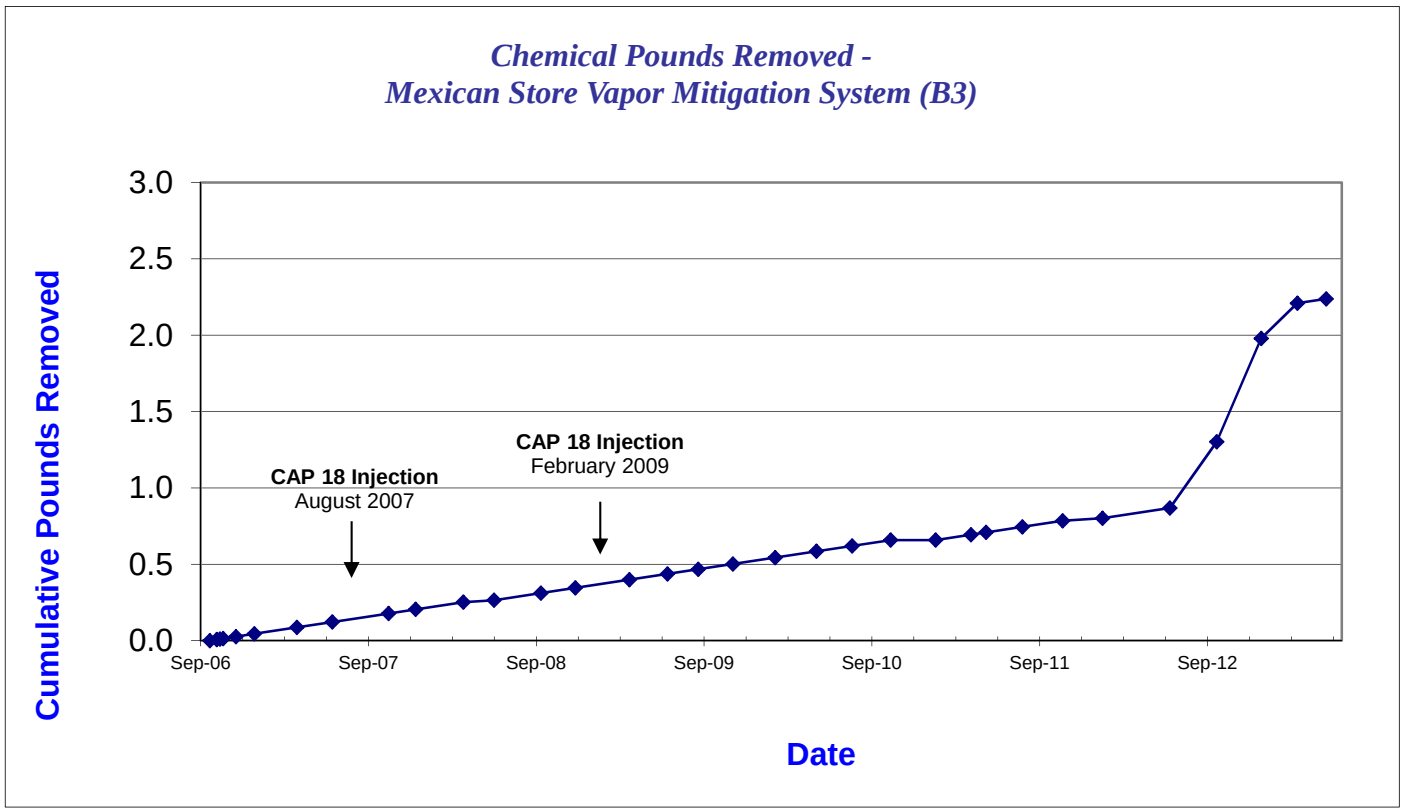
Project Number:	M01046
File:	MI Plaza charts
Date Prepared:	7/5/2013
Scale:	no scale

Vinyl Chloride Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-2 (Unit 3811)
Second Quarter 2013
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, IN

FIGURE

25B





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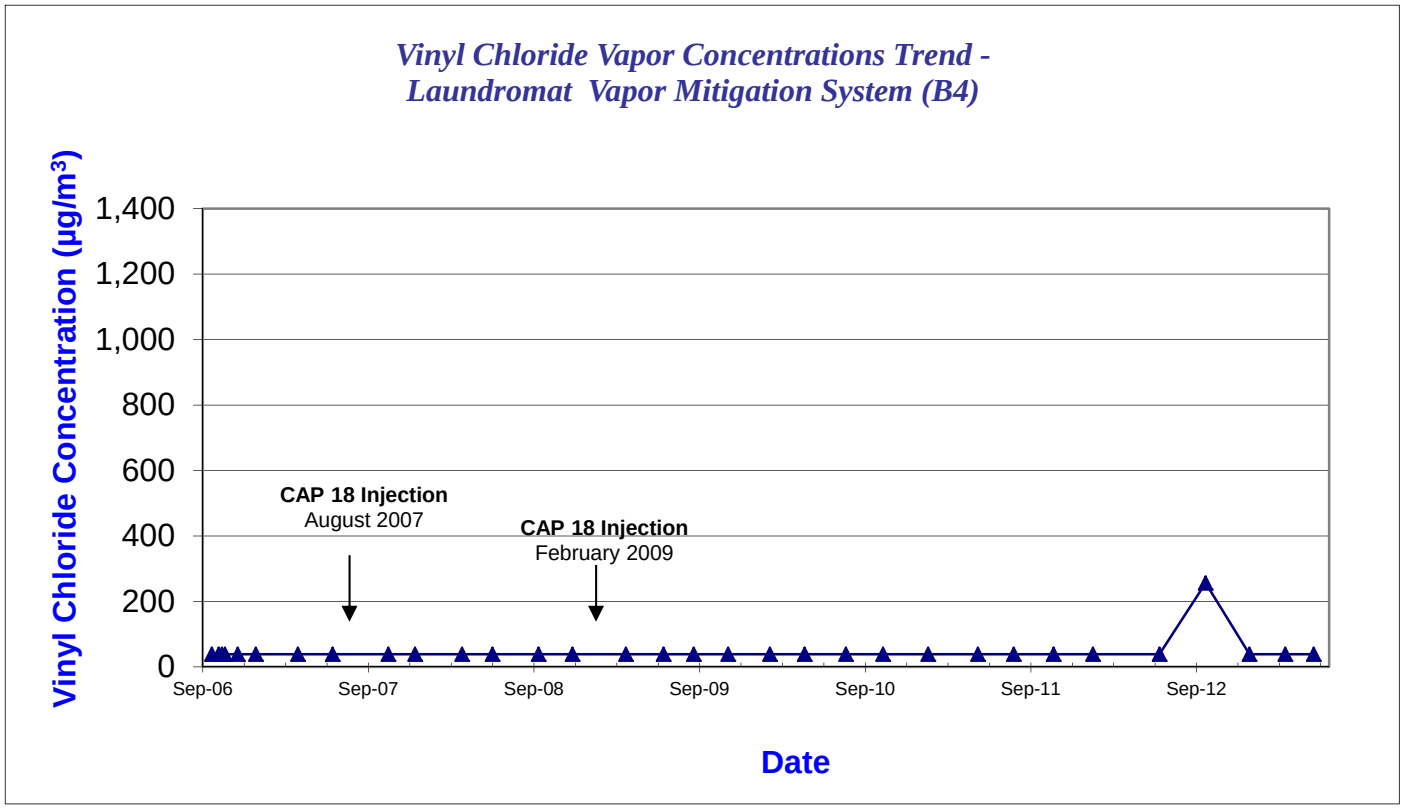
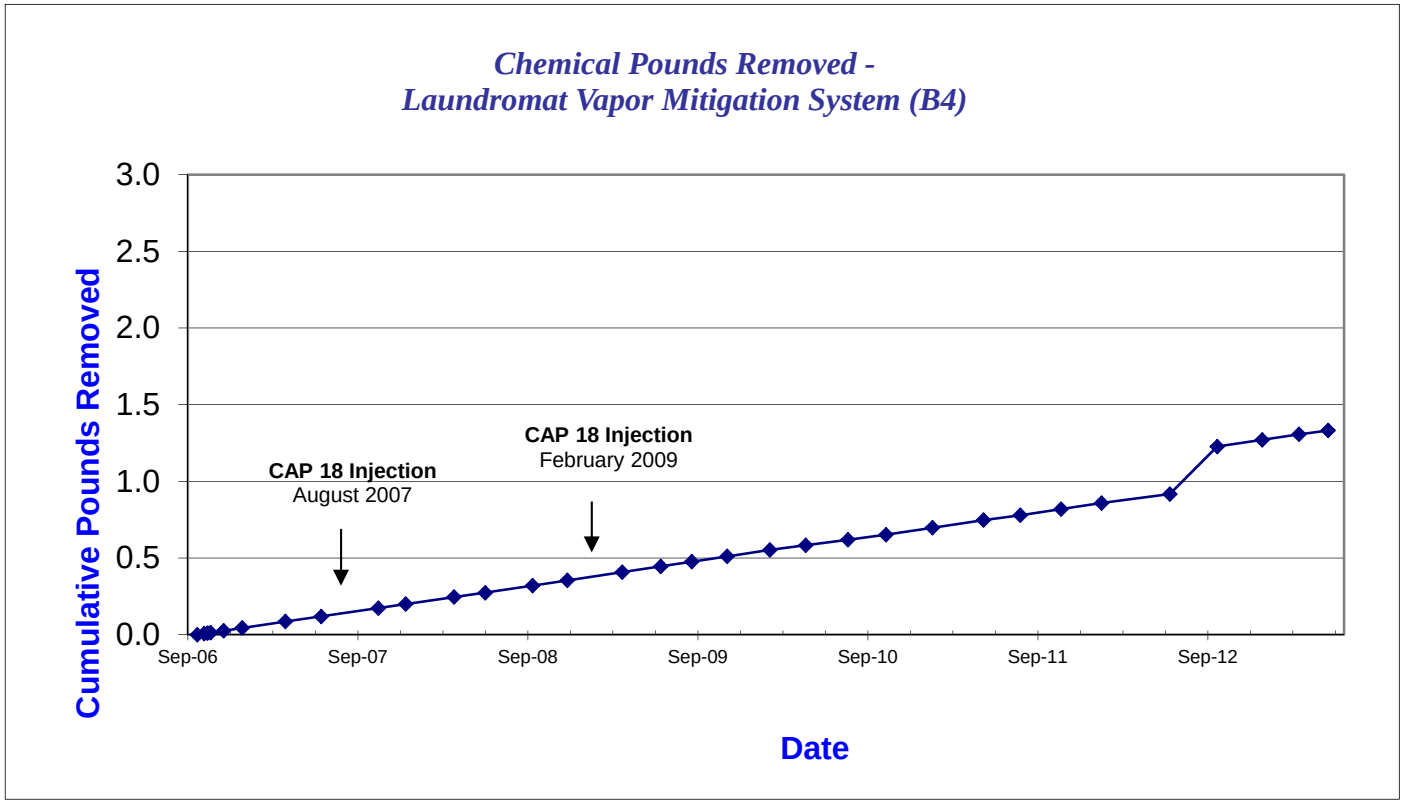
Project Number:	M01046
File:	MI Plaza charts
Date Prepared:	7/5/2013
Scale:	no scale

Vinyl Chloride Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-3 (Unit 3819)
Second Quarter 2013
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, IN

FIGURE

25C





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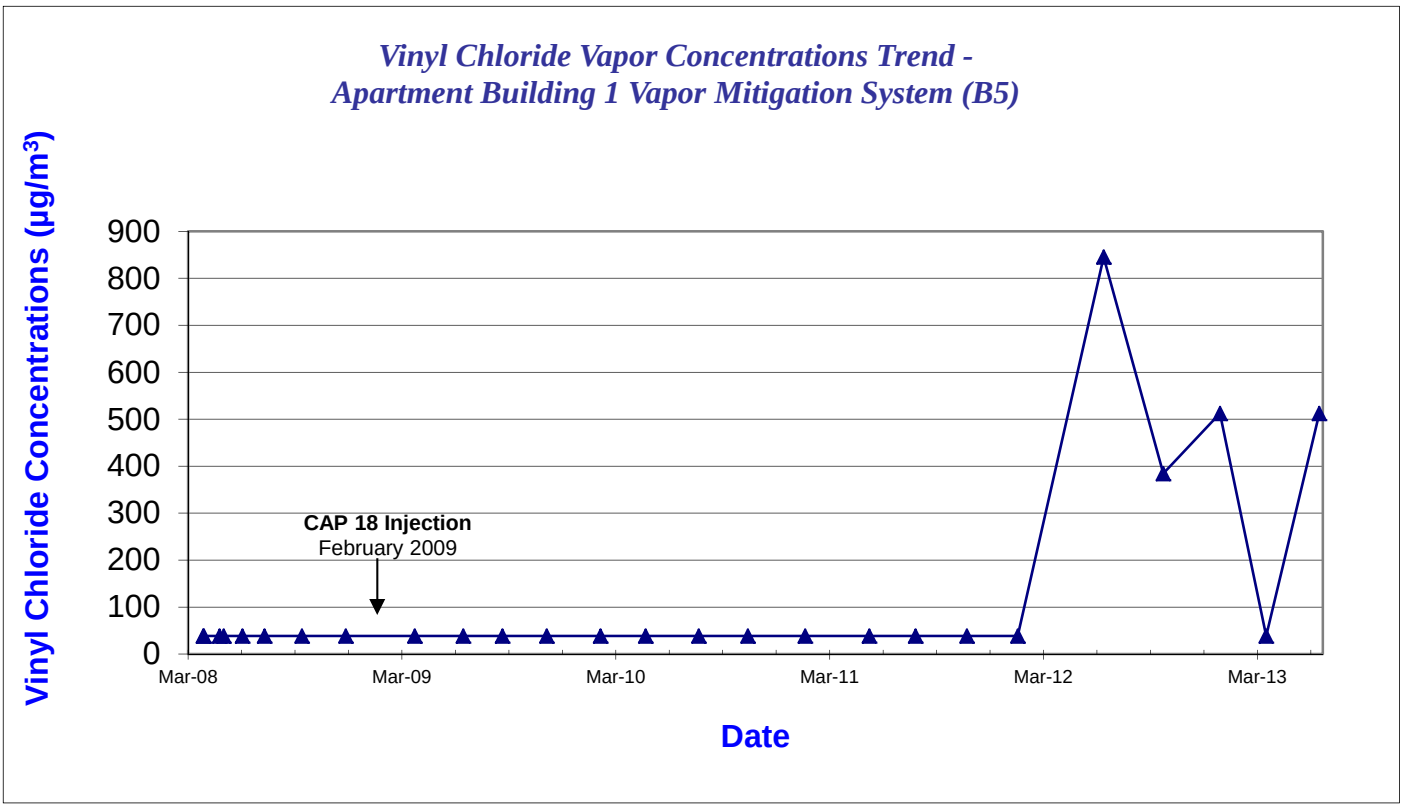
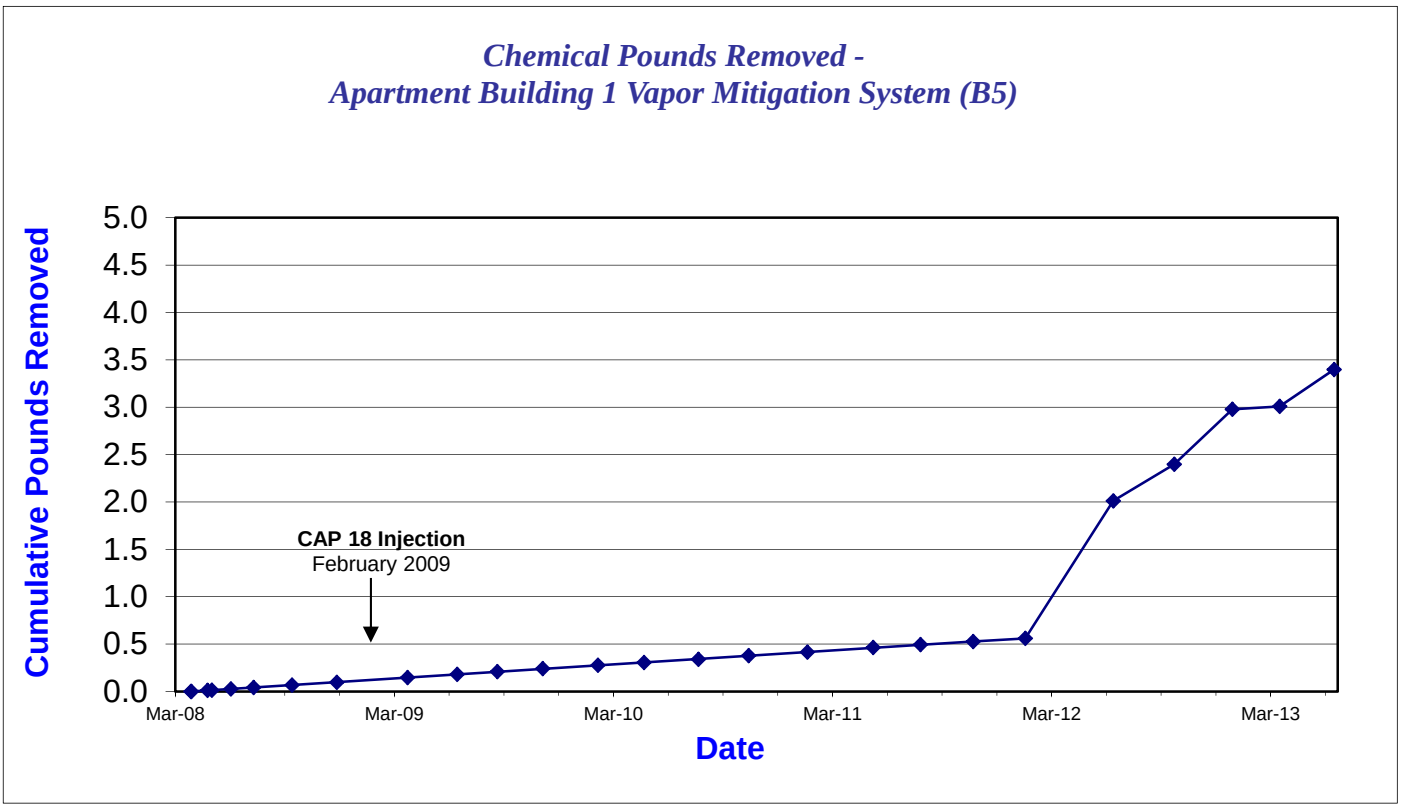
Project Number:	M01046
File:	MI Plaza charts
Date Prepared:	7/5/2013
Scale:	no scale

Vinyl Chloride Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-4 (Laundromat - Unit 3823)
Second Quarter 2013
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, IN

FIGURE

25D





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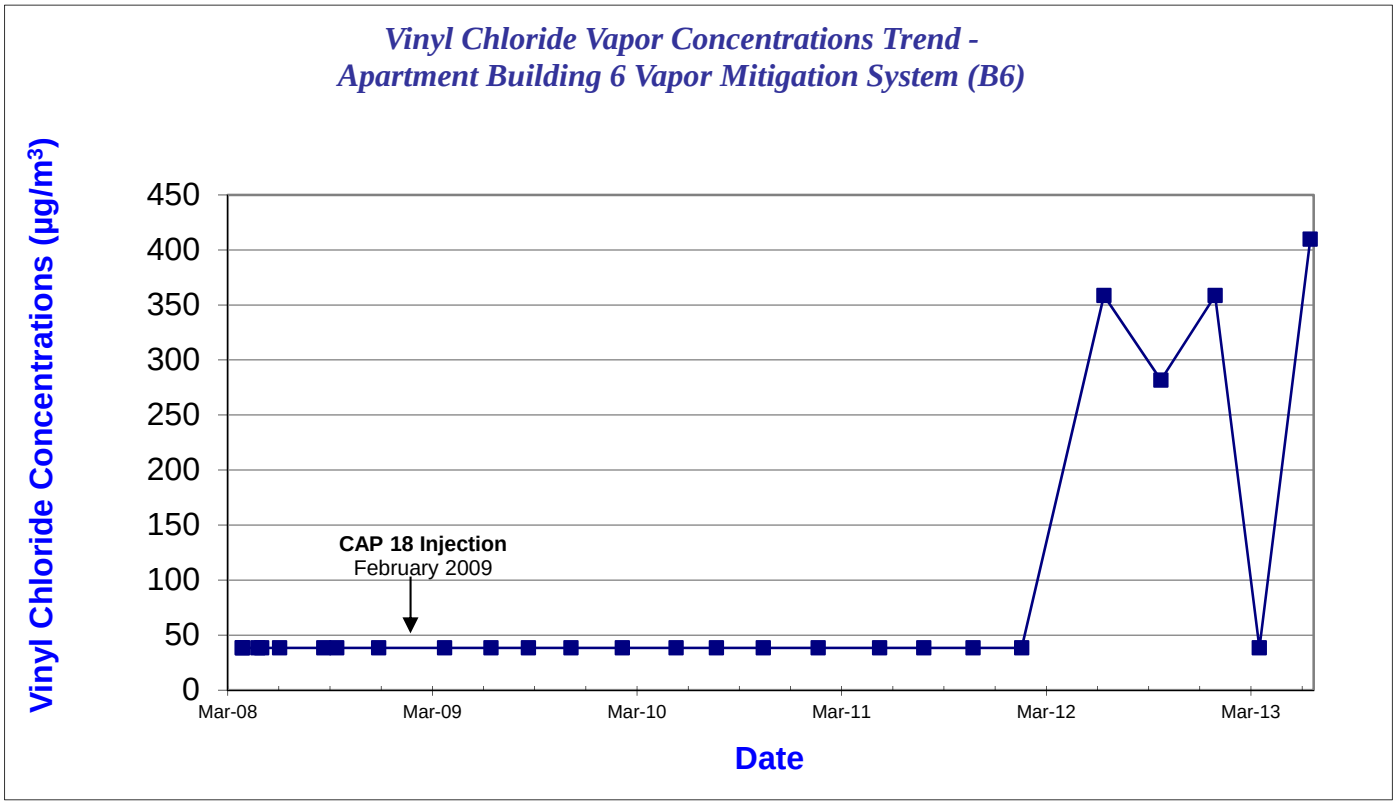
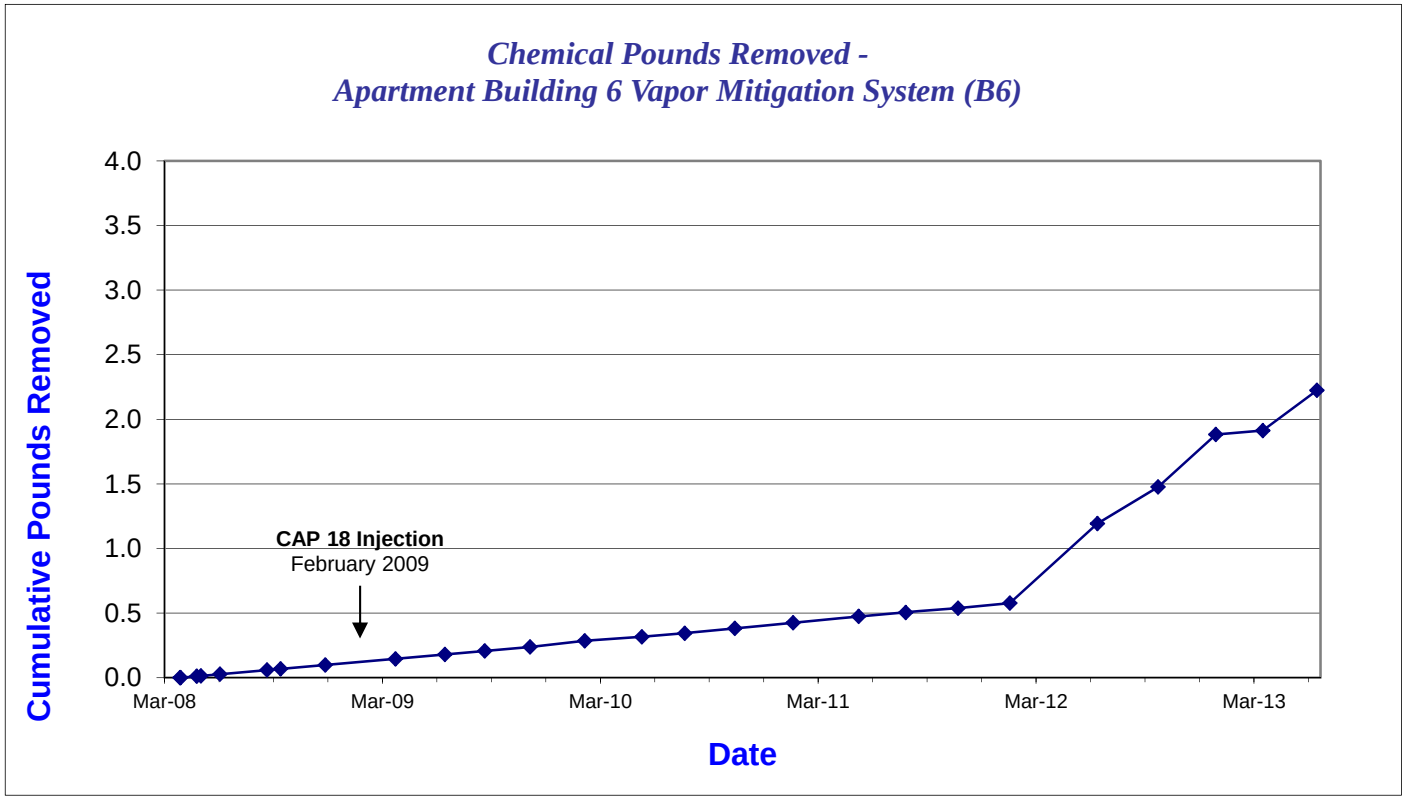
Project Number:	M01046
File:	MI Plaza charts
Date Prepared:	7/5/2013
Scale:	no scale

Vinyl Chloride Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-5 (Apartments, Bldg. 1)
Second Quarter 2013
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, IN

FIGURE

25E





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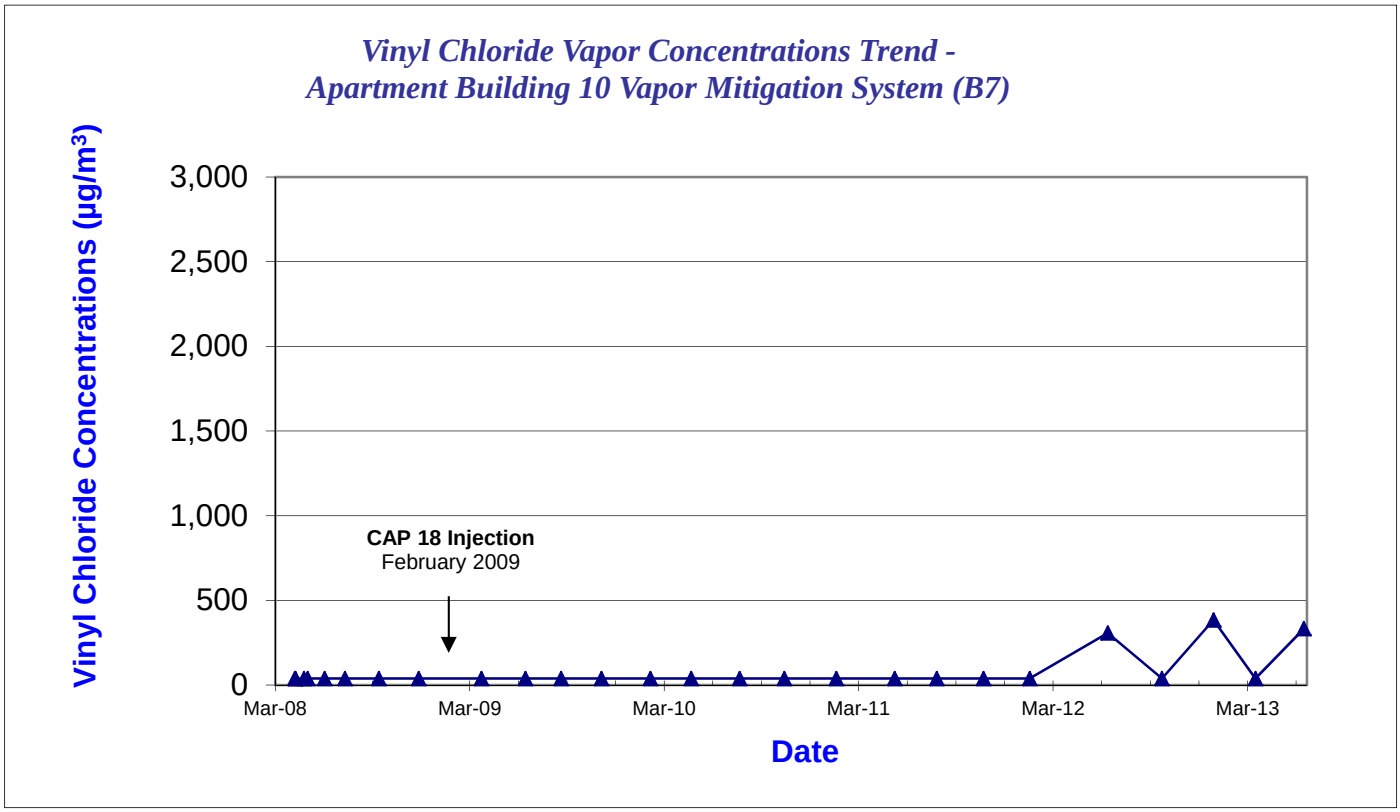
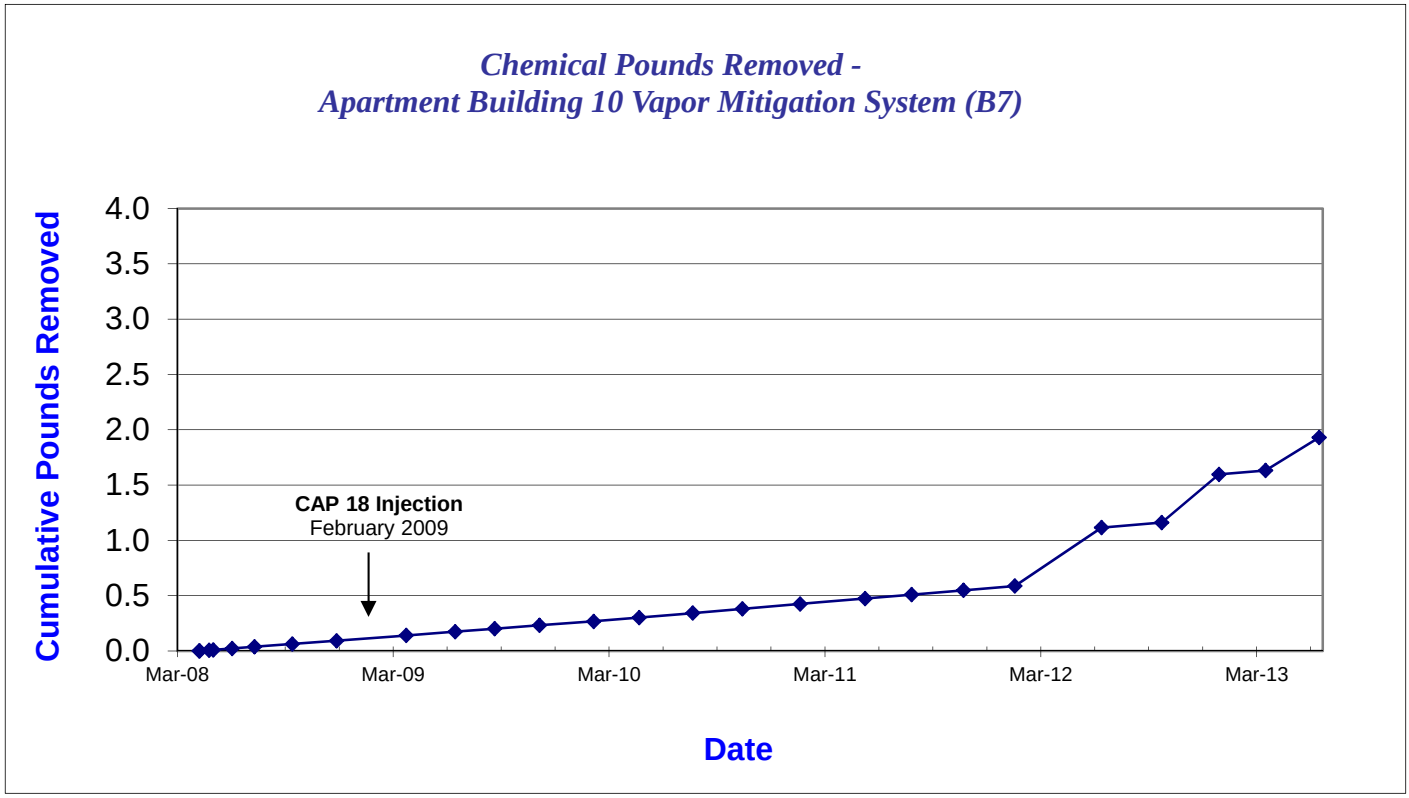
Project Number:	M01046
File:	MI Plaza charts
Date Prepared:	7/5/2013
Scale:	no scale

Vinyl Chloride Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-6 (Apartments, Bldg. 6)
Second Quarter 2013
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, IN

FIGURE

25F





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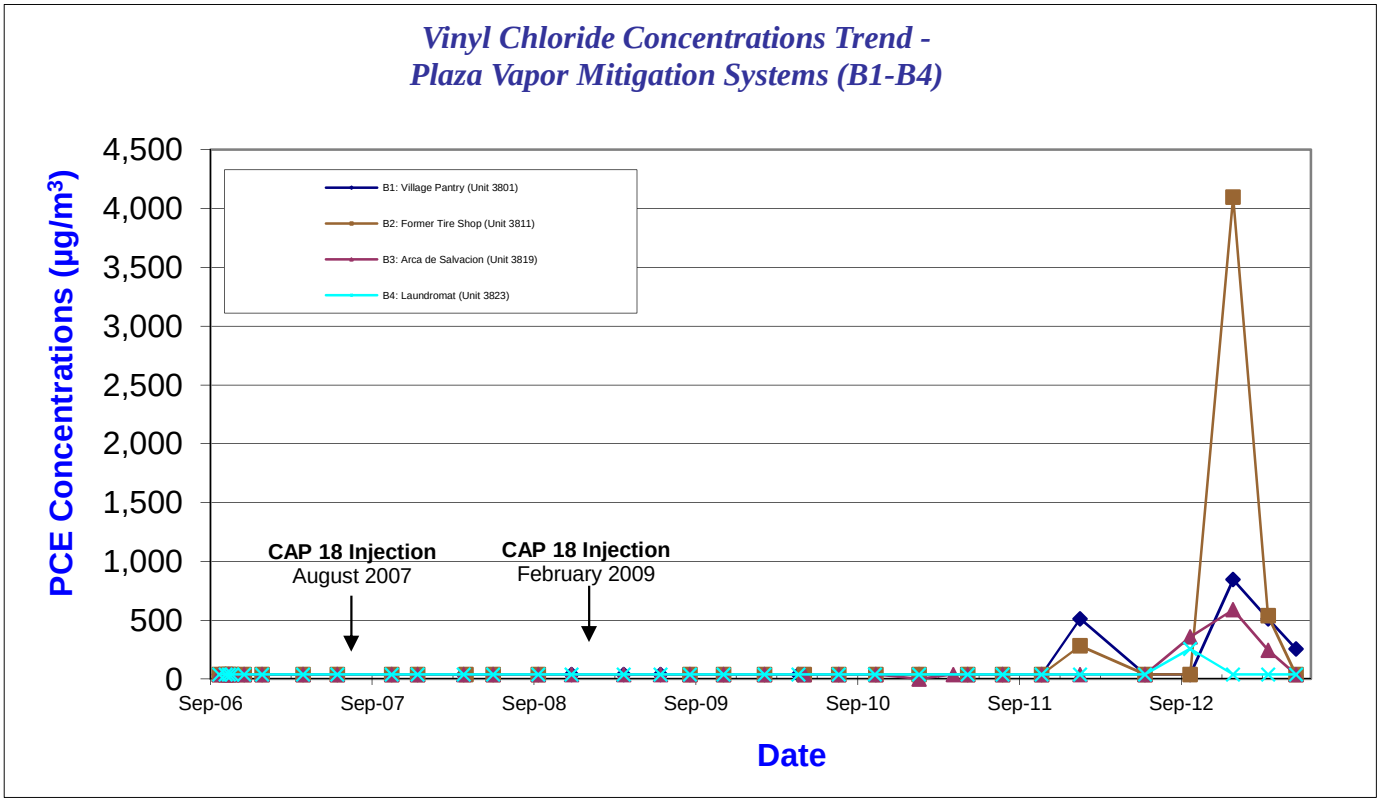
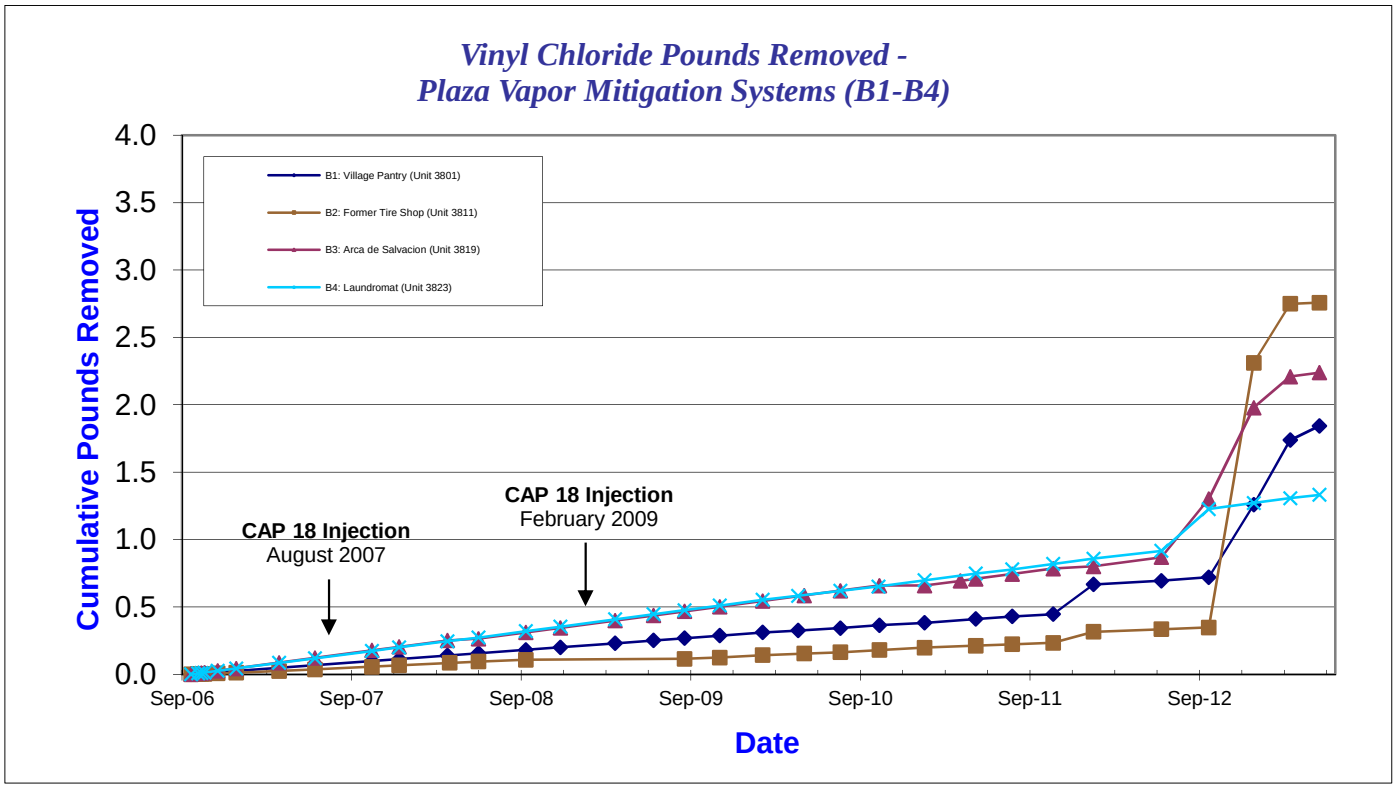
Project Number:	M01046
File:	MI Plaza charts
Date Prepared:	7/5/2013
Scale:	no scale

Vinyl Chloride Concentration Trends
and Cumulative Pounds Removed
Vapor Mitigation System B-7 (Apartments, Bldg. 10)
Second Quarter 2013
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, IN

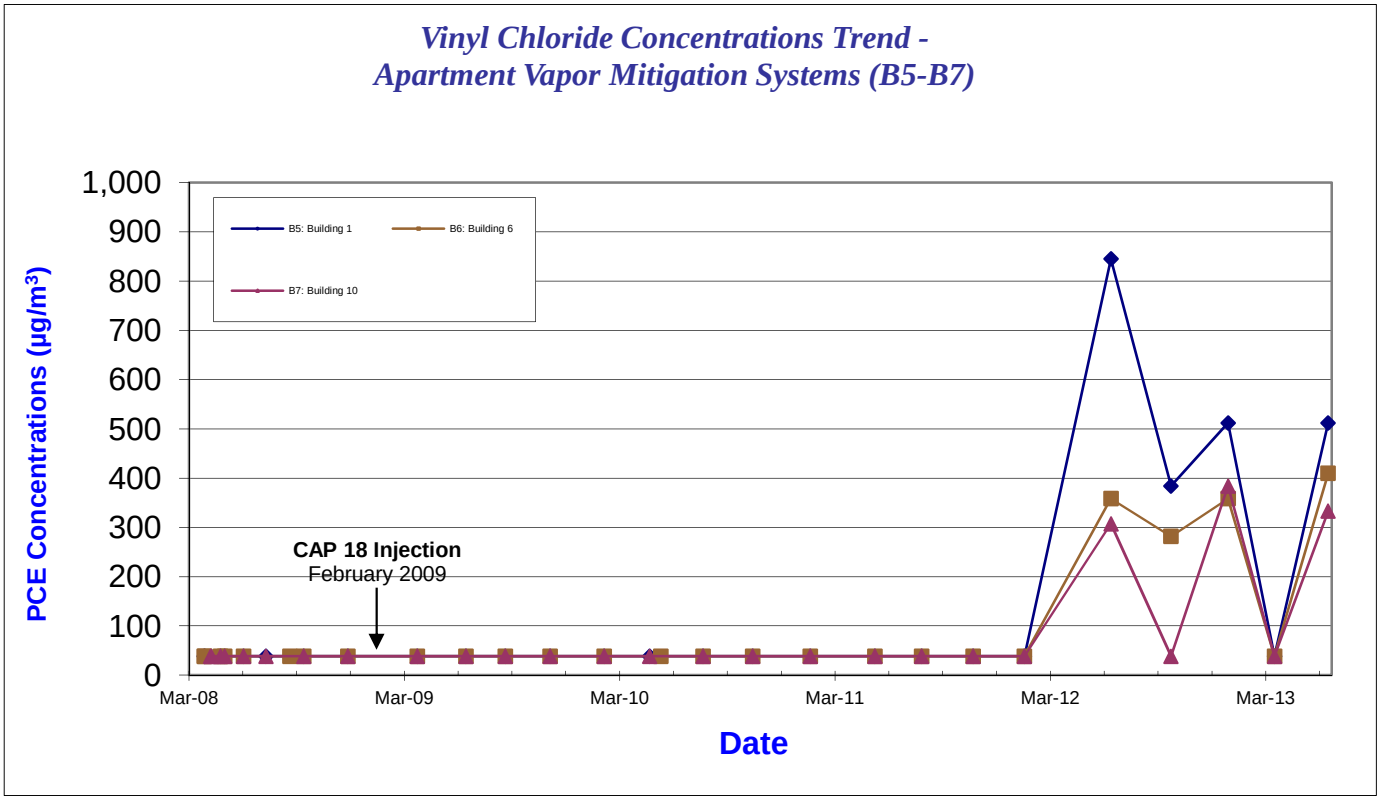
FIGURE

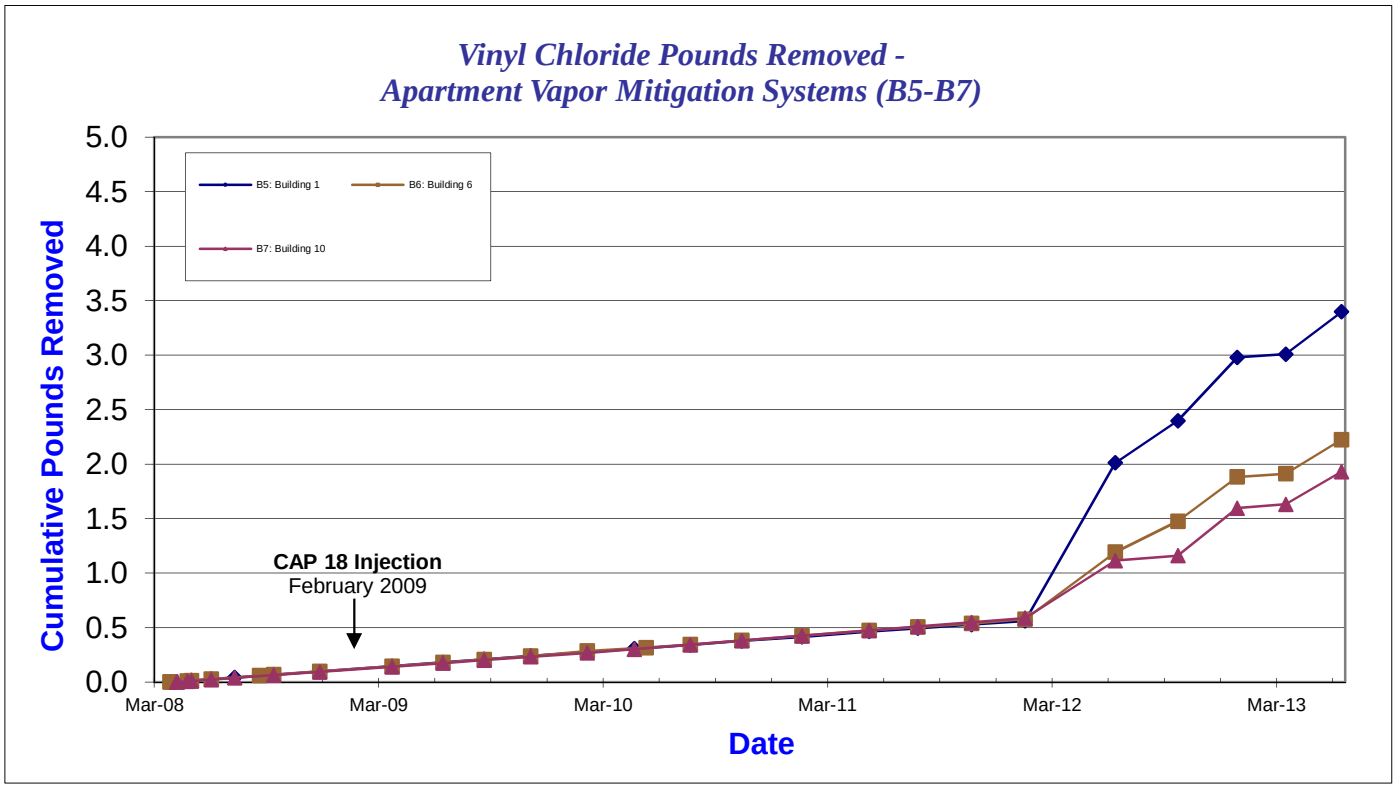
25G





Mundell Consulting Professionals for the Earth and the Environment	*Mundell & Associates, Inc.* *110 South Downey Avenue* *Indianapolis, Indiana 46219* *www.MundellAssociates.com*	**Project Number:** M01046 **File:** MI Plaza charts **Date Prepared:** 7/5/2013 **Scale:** no scale	Vinyl Chloride Concentration Trends and Cumulative Pounds Removed Vapor Mitigation Systems B1-B4 Second Quarter 2013 Michigan Plaza 3801-3823 West Michigan Street Indianapolis, IN	FIGURE 25H

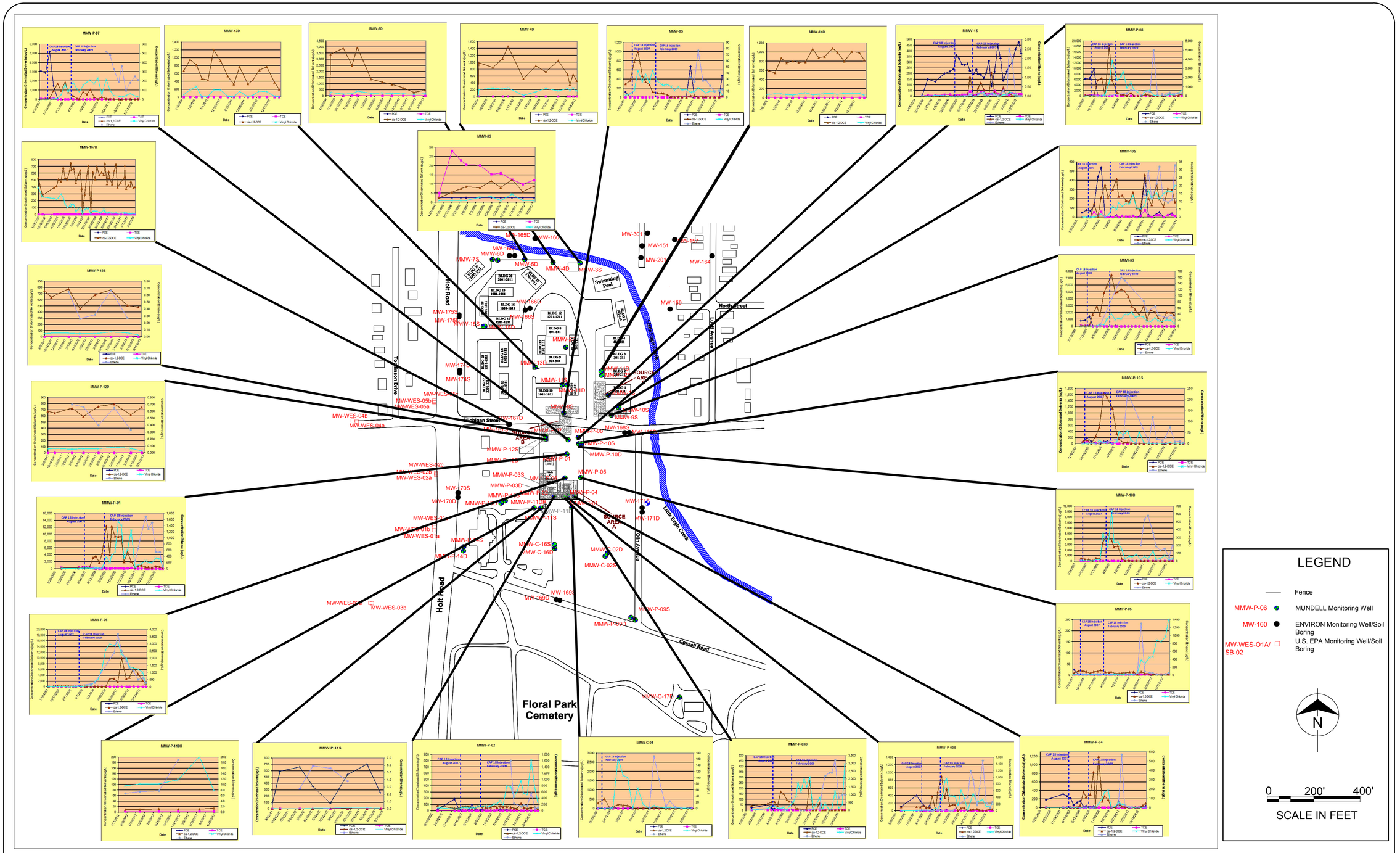




Mundell Consulting Professionals for the Earth and the Environment	*Mundell & Associates, Inc.* *110 South Downey Avenue* *Indianapolis, Indiana 46219* *www.MundellAssociates.com*	**Project Number:** M01046 **File:** MI Plaza charts **Date Prepared:** 7/5/2013 **Scale:** no scale	Vinyl Chloride Concentration Trends and Cumulative Pounds Removed Vapor Mitigation Systems B5-B7 (Apartments) Second Quarter 2013 Michigan Plaza 3801-3823 West Michigan Street Indianapolis, IN

FIGURE

25I



LEGEND

	Fence
MMW-P-06	MUNDELL Monitoring Well
MW-160	ENVIRON Monitoring Well/Soil Boring
MW-WES-O1A/ SB-02	U.S. EPA Monitoring Well/Soil Boring

N

0 200' 400'

SCALE IN FEET

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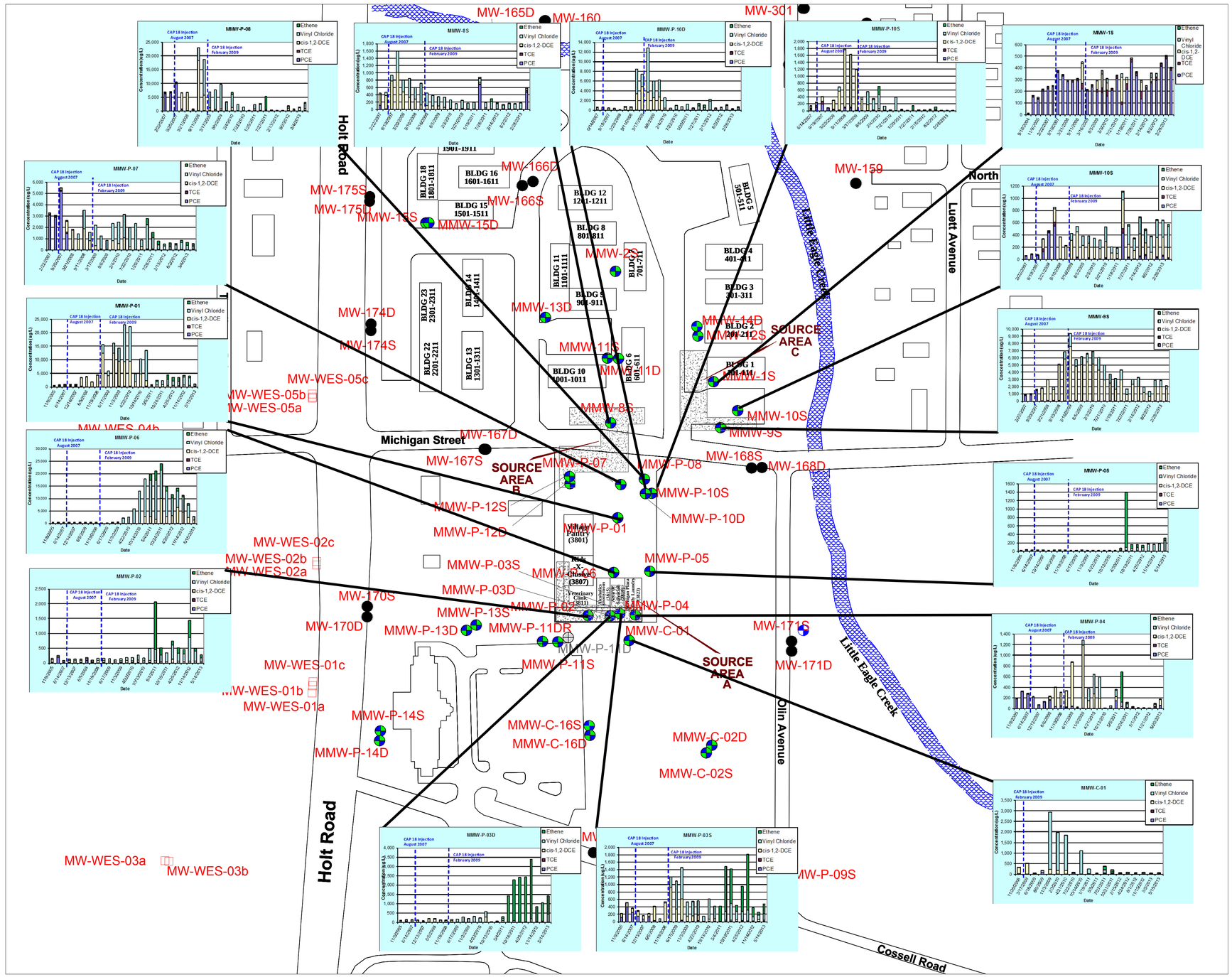
REV.	DATE	DESCRIPTION	BY	APPR.

PROJECT NO.:	M01046	FILE NO.:	GW Quarterly.DWG
DRAWING:	1"=200'	PLOT SIZE:	ANSI D
DRAFTED BY:	MTB	DATE:	6/7/13
CHECKED BY:	SVE	DATE:	6/7/13
APPROVED BY:	MEB	DATE:	9/15/13

Indicator Compound Trends in Groundwater

Michigan Plaza
3801 - 3823 Michigan Street
Indianapolis, Indiana

FIGURE
29



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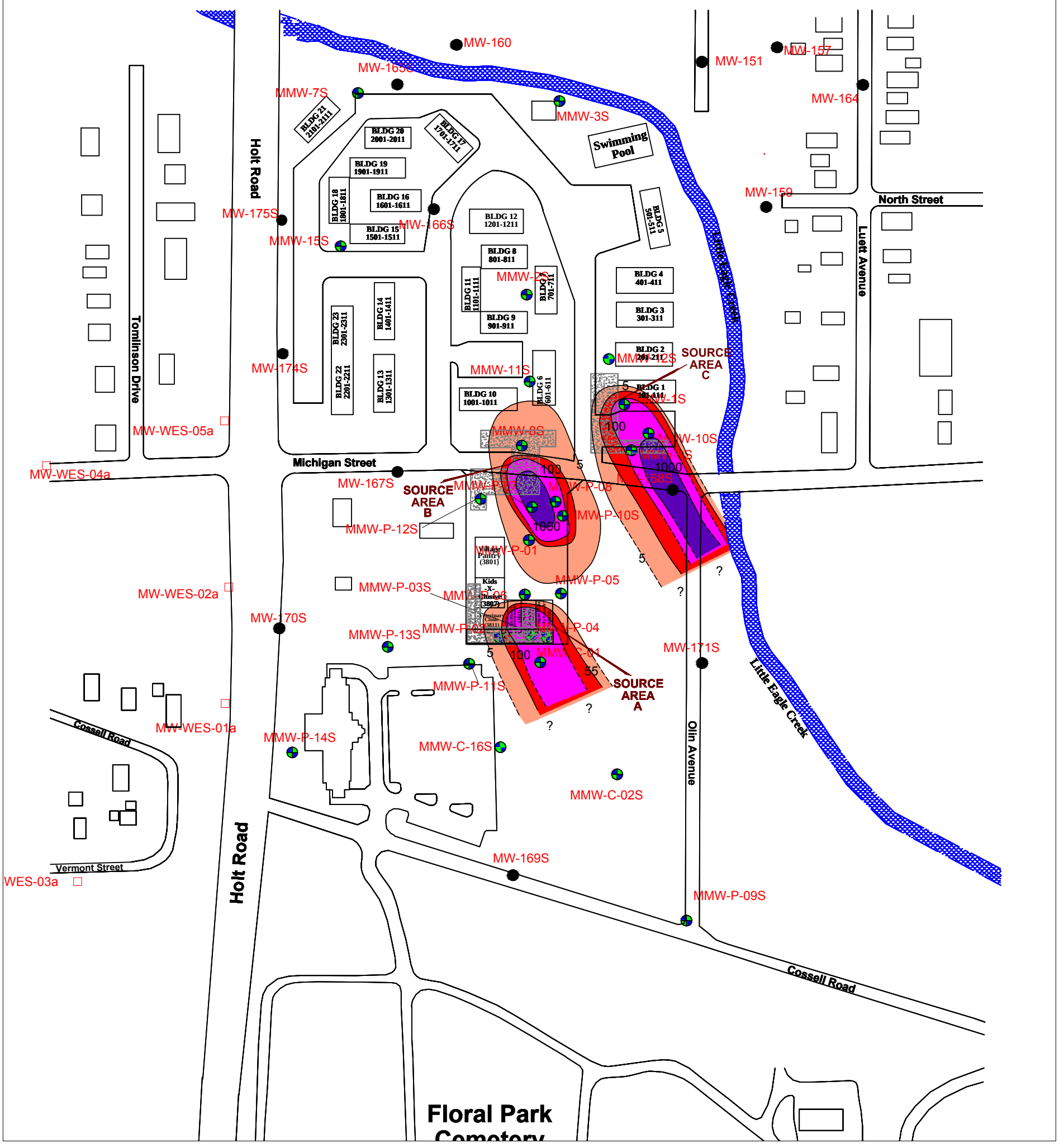
REV.	DATE	DESCRIPTION	BY	APPR.

PROJECT NO.:	M01046	FILE NO.:	GW Quarterly.DWG
DRAWING:	1"=100'	PLOT SIZE:	ANSI D
DRAFTED BY:	MTB	DATE:	6/7/13
CHECKED BY:	MEB	DATE:	6/7/13
APPROVED BY:	MEB	DATE:	9/15/13

Parent and Daughter Compound Trends in Groundwater

Michigan Plaza
3801 - 3823 Michigan Street
Indianapolis, Indiana

FIGURE
30



LEGEND

MMW-P-06	MUNDELL Monitoring Well
MW-160	ENVIRON Monitoring Well
MW-WES-01A	U.S. EPA Monitoring Well
>1000 ug/L	
>100 ug/L	
>55 ug/L	
>5 ug/L	

Note: Contours based on available groundwater data associated with 2005 FSI activities.

N

SCALE 0 200 feet

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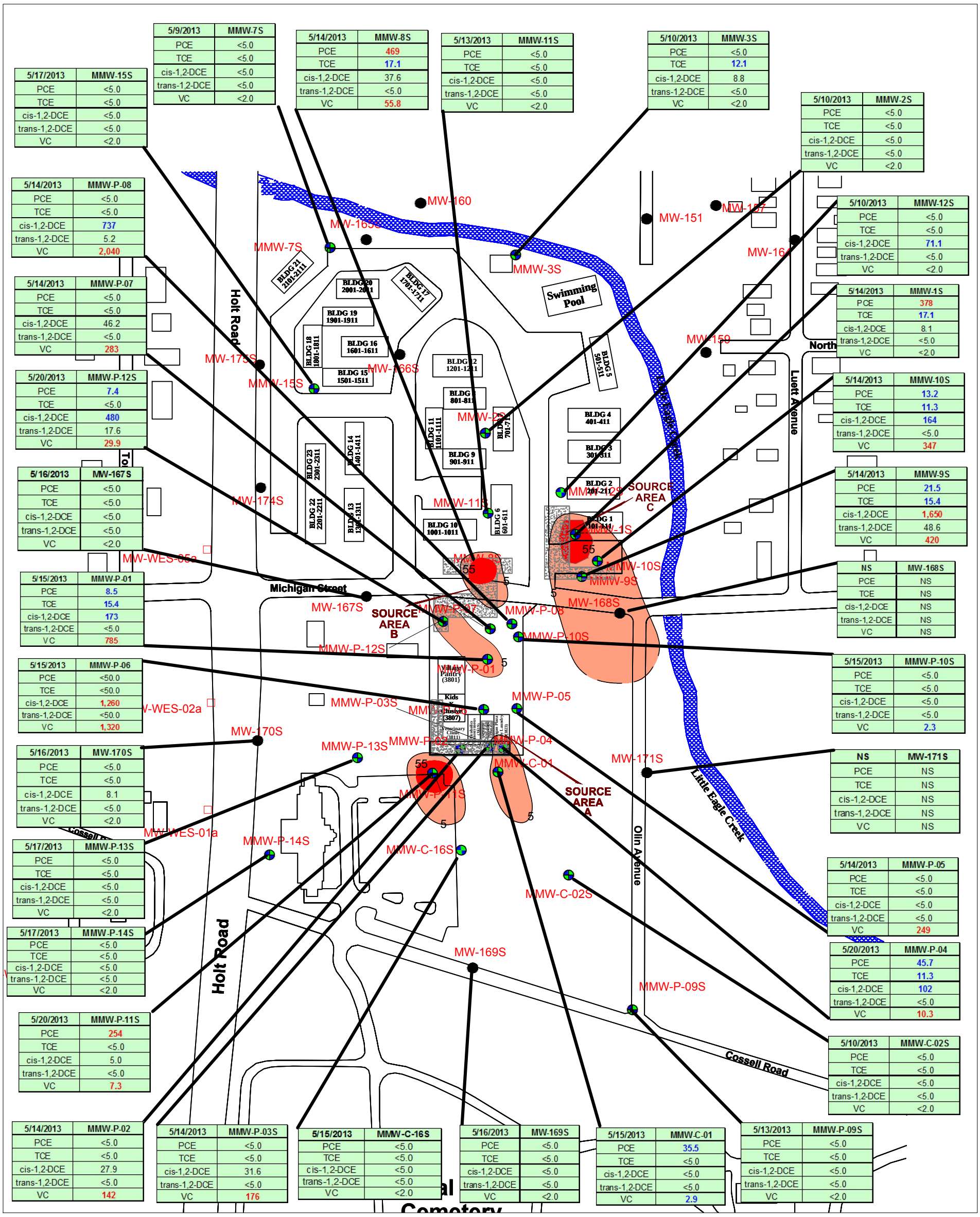
Project Number: M01046
Drawing File: 2Q13 QMR
Date Prepared: 6-7-13
Scale: 1"=200'

PCE IN GROUNDWATER ANALYTICAL MAP - SHALLOW- SEPT-NOV 2005 (PRE-INJECTION)

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE 31a



5/9/2013	MMW-7S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-8S
PCE	469
TCE	17.1
cis-1,2-DCE	37.6
trans-1,2-DCE	<5.0
VC	55.8

5/13/2013	MMW-11S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/10/2013	MMW-3S
PCE	<5.0
TCE	12.1
cis-1,2-DCE	8.8
trans-1,2-DCE	<5.0
VC	<2.0

5/17/2013	MMW-15S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/10/2013	MMW-2S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-08
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	737
trans-1,2-DCE	5.2
VC	2,040

5/10/2013	MMW-12S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	71.1
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-07
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	46.2
trans-1,2-DCE	<5.0
VC	283

5/14/2013	MMW-1S
PCE	378
TCE	17.1
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

5/20/2013	MMW-P-12S
PCE	7.4
TCE	<5.0
cis-1,2-DCE	480
trans-1,2-DCE	17.6
VC	29.9

5/14/2013	MMW-10S
PCE	13.2
TCE	11.3
cis-1,2-DCE	164
trans-1,2-DCE	<5.0
VC	347

5/16/2013	MW-167S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-9S
PCE	21.5
TCE	15.4
cis-1,2-DCE	1,650
trans-1,2-DCE	48.6
VC	420

5/15/2013	MMW-P-01
PCE	8.5
TCE	15.4
cis-1,2-DCE	173
trans-1,2-DCE	<5.0
VC	785

NS	MW-168S
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/15/2013	MMW-P-06
PCE	<50.0
TCE	<50.0
cis-1,2-DCE	1,260
trans-1,2-DCE	<50.0
VC	1,320

5/15/2013	MMW-P-10S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	2.3

5/16/2013	MW-170S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

NS	MW-171S
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/17/2013	MMW-P-13S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-05
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	249

5/17/2013	MMW-P-14S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/20/2013	MMW-P-04
PCE	45.7
TCE	11.3
cis-1,2-DCE	102
trans-1,2-DCE	<5.0
VC	10.3

5/20/2013	MMW-P-11S
PCE	254
TCE	<5.0
cis-1,2-DCE	5.0
trans-1,2-DCE	<5.0
VC	7.3

5/10/2013	MMW-C-02S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-02
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	27.9
trans-1,2-DCE	<5.0
VC	142

5/14/2013	MMW-P-03S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	31.6
trans-1,2-DCE	<5.0
VC	176

5/15/2013	MMW-C-16S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/16/2013	MW-169S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/15/2013	MMW-C-01
PCE	35.5
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	2.9

5/13/2013	MMW-P-09S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

LEGEND

MMW-P-06 — MUNDELL Monitoring Well

MW-160 — ENVIRON Monitoring Well

MW-WES-01A — U.S. EPA Monitoring Well

>55 ug/L

>5 ug/L

	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride
	ug/l				
IDEM RISC Default Industrial Cleanup Level	55	31	1,000	2,000	4
IDEM RISC Default Residential Cleanup Level; IDEM 2012 RCG Tap Residential	5	5	70	100	2

5/14/2013	MMW-1S
PCE	378
TCE	17.1
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

All Values Over IDEM RISC Industrial Default Cleanup Levels in Red
All Values Over IDEM RISC Residential Default Cleanup Levels/2012 RCG Tap - Residential Screening Level in Blue
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
ug/l = micrograms per liter
NS = Not Sampled
All analytical results presented in micrograms per liter (ug/l)

Note: Contour positions relative to MW-168S and MW-171S based on historic MUNDELL data.

N

SCALE 0 200 feet

NS = Not Sampled

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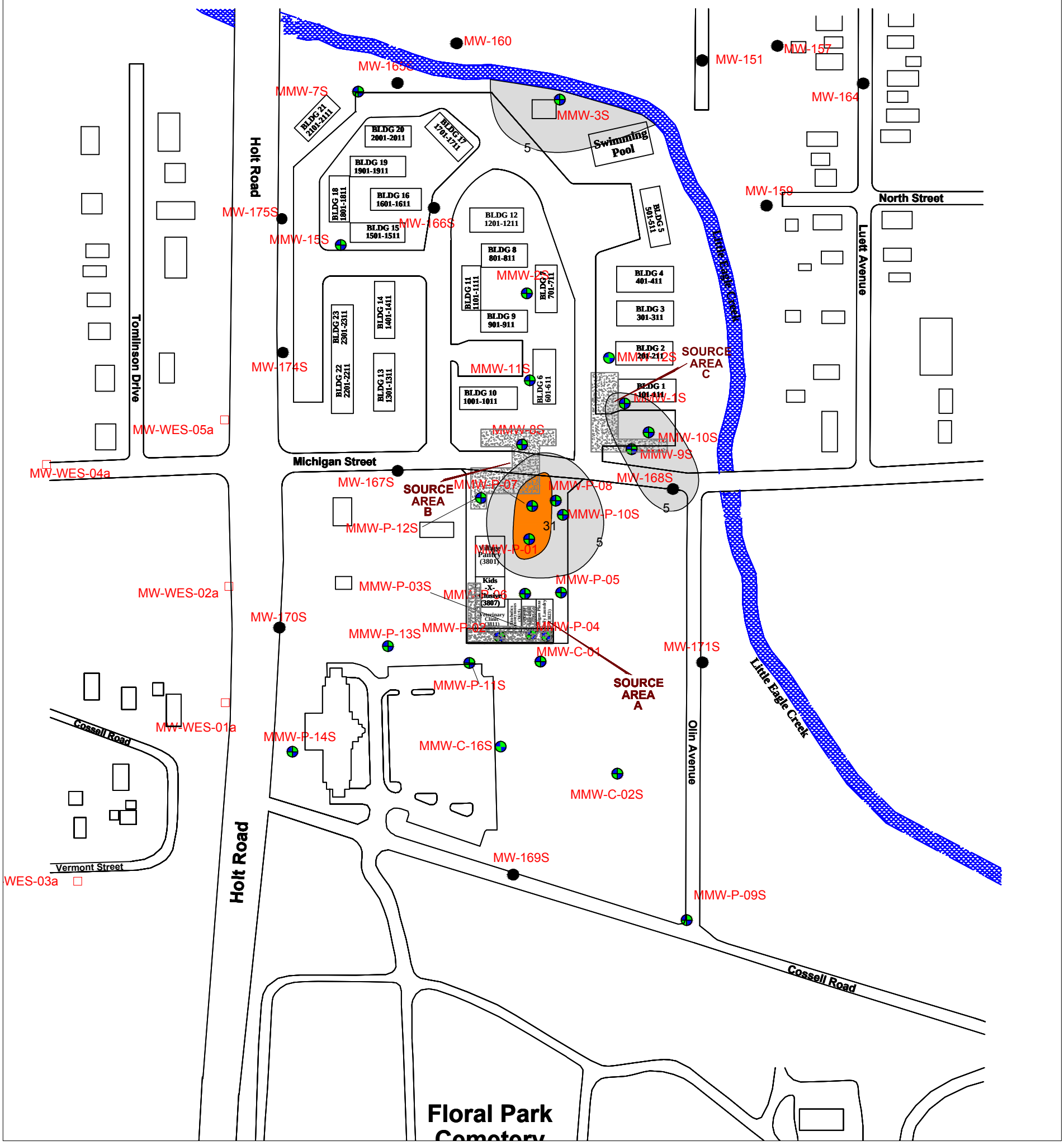
Project Number: M01046
Drawing File: 2Q13 QMR
Date Prepared: 6-7-13
Scale: 1"=200'

PCE IN GROUNDWATER ANALYTICAL MAP - SHALLOW - 2ND QUARTER 2013

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE 31b



LEGEND

MMW-P-06	●	MUNDELL Monitoring Well
MW-160	●	ENVIRON Monitoring Well
MW-WES-01A	□	U.S. EPA Monitoring Well

N

>31 ug/L

>5 ug/L

Note: Contours based on available groundwater data associated with 2005 FSI activities.

SCALE 0 200 feet

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Project Number: M01046
Drawing File: 2Q13 QMR
Date Prepared: 6-7-13
Scale: 1"=200'

TCE IN GROUNDWATER ANALYTICAL MAP - SHALLOW - SEPT-NOV 2005 (PRE INJECTION)

Michigan Plaza
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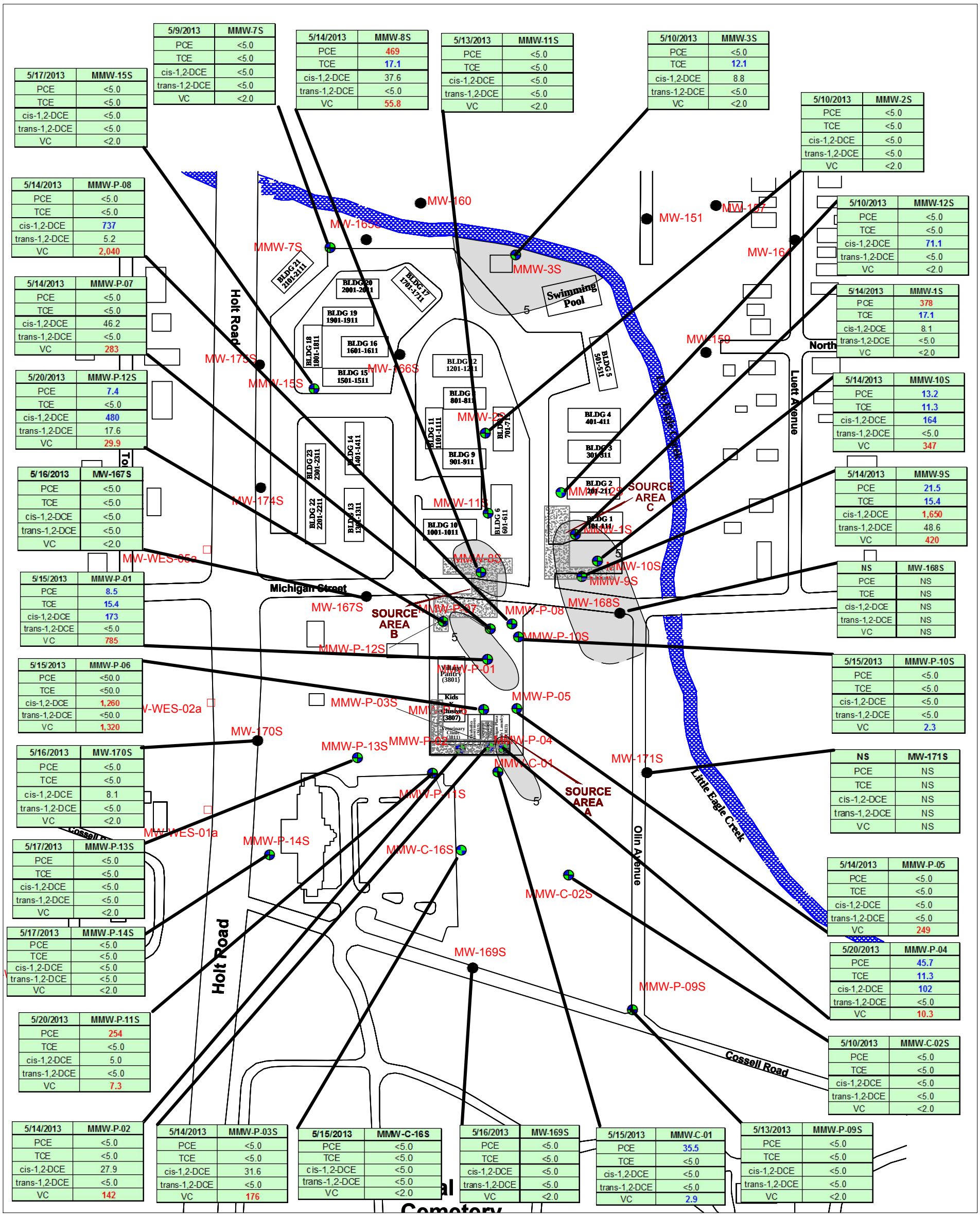
Indianapolis, INDIANA

FIGURE 31c



5/9/2013	MMW-7S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-8S
PCE	469
TCE	17.1
cis-1,2-DCE	37.6
trans-1,2-DCE	<5.0
VC	55.8

5/13/2013	MMW-11S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/10/2013	MMW-3S
PCE	<5.0
TCE	12.1
cis-1,2-DCE	8.8
trans-1,2-DCE	<5.0
VC	<2.0

5/17/2013	MMW-15S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/10/2013	MMW-2S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-08
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	737
trans-1,2-DCE	5.2
VC	2,040

5/10/2013	MMW-12S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	71.1
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-07
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	46.2
trans-1,2-DCE	<5.0
VC	283

5/14/2013	MMW-1S
PCE	378
TCE	17.1
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

5/20/2013	MMW-P-12S
PCE	7.4
TCE	<5.0
cis-1,2-DCE	480
trans-1,2-DCE	17.6
VC	29.9

5/14/2013	MMW-10S
PCE	13.2
TCE	11.3
cis-1,2-DCE	164
trans-1,2-DCE	<5.0
VC	347

5/16/2013	MW-167S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-9S
PCE	21.5
TCE	15.4
cis-1,2-DCE	1,650
trans-1,2-DCE	48.6
VC	420

5/15/2013	MMW-P-01
PCE	8.5
TCE	15.4
cis-1,2-DCE	173
trans-1,2-DCE	<5.0
VC	785

NS	MW-168S
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/15/2013	MMW-P-06
PCE	<50.0
TCE	<50.0
cis-1,2-DCE	1,260
trans-1,2-DCE	<50.0
VC	1,320

5/15/2013	MMW-P-10S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	2.3

5/16/2013	MW-170S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

NS	MW-171S
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/17/2013	MMW-P-13S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-05
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	249

5/17/2013	MMW-P-14S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/20/2013	MMW-P-04
PCE	45.7
TCE	11.3
cis-1,2-DCE	102
trans-1,2-DCE	<5.0
VC	10.3

5/20/2013	MMW-P-11S
PCE	254
TCE	<5.0
cis-1,2-DCE	5.0
trans-1,2-DCE	<5.0
VC	7.3

5/10/2013	MMW-C-02S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-02
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	27.9
trans-1,2-DCE	<5.0
VC	142

5/14/2013	MMW-P-03S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	31.6
trans-1,2-DCE	<5.0
VC	176

5/15/2013	MMW-C-16S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/16/2013	MW-169S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/15/2013	MMW-C-01
PCE	35.5
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	2.9

5/13/2013	MMW-P-09S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

LEGEND

MMW-P-06 — MUNDELL Monitoring Well

MW-160 — ENVIRON Monitoring Well

MW-WES-01A — U.S. EPA Monitoring Well

>31 ug/L

>5 ug/L

NS = Not Sampled

	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride
	ug/l				
IDEM RISC Default Industrial Cleanup Level	55	31	1,000	2,000	4
IDEM RISC Default Residential Cleanup Level; IDEM 2012 RCG Tap Residential	5	5	70	100	2

5/14/2013	MMW-1S
PCE	378
TCE	17.1
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

All Values Over IDEM RISC Industrial Default Cleanup Levels in Red
All Values Over IDEM RISC Residential Default Cleanup Levels/2012 RCG Tap - Residential Screening Level in Blue
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
ug/l = micrograms per liter
NS = Not Sampled
All analytical results presented in micrograms per liter (ug/l)

N

SCALE 0 200 feet

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Scale: 1"=200'

TCE IN GROUNDWATER ANALYTICAL MAP - SHALLOW - 2ND QUARTER 2013

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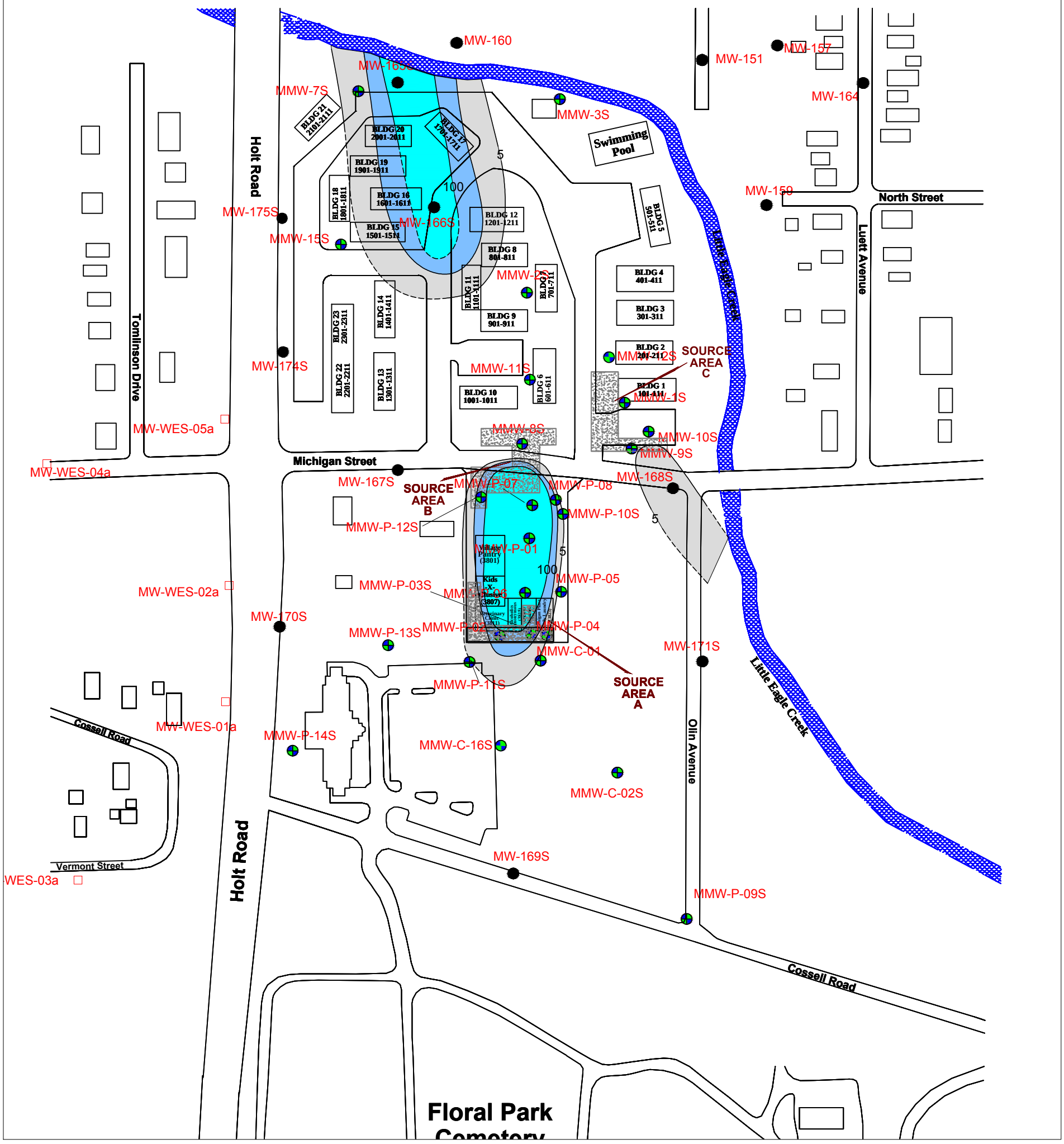
Indianapolis, INDIANA

FIGURE 31d



LEGEND

MMW-P-06	MUNDELL Monitoring Well
MW-160	ENVIRON Monitoring Well
MW-WES-01A	U.S. EPA Monitoring Well

- >1000 ug/L
- >100 ug/L
- >70 ug/L
- >5 ug/L

Note: Contours based on available groundwater data associated with 2005 FSI activities.

N

SCALE 0 200 feet

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Project Number:	M01046
Drawing File:	2Q13 QMR
Date Prepared:	6-7-13
Scale:	1"=200'

CIS 1,2-DCE IN GROUNDWATER ANALYTICAL MAP - SHALLOW - SEPT-NOV 2005 (PRE INJECTION)

Michigan Plaza
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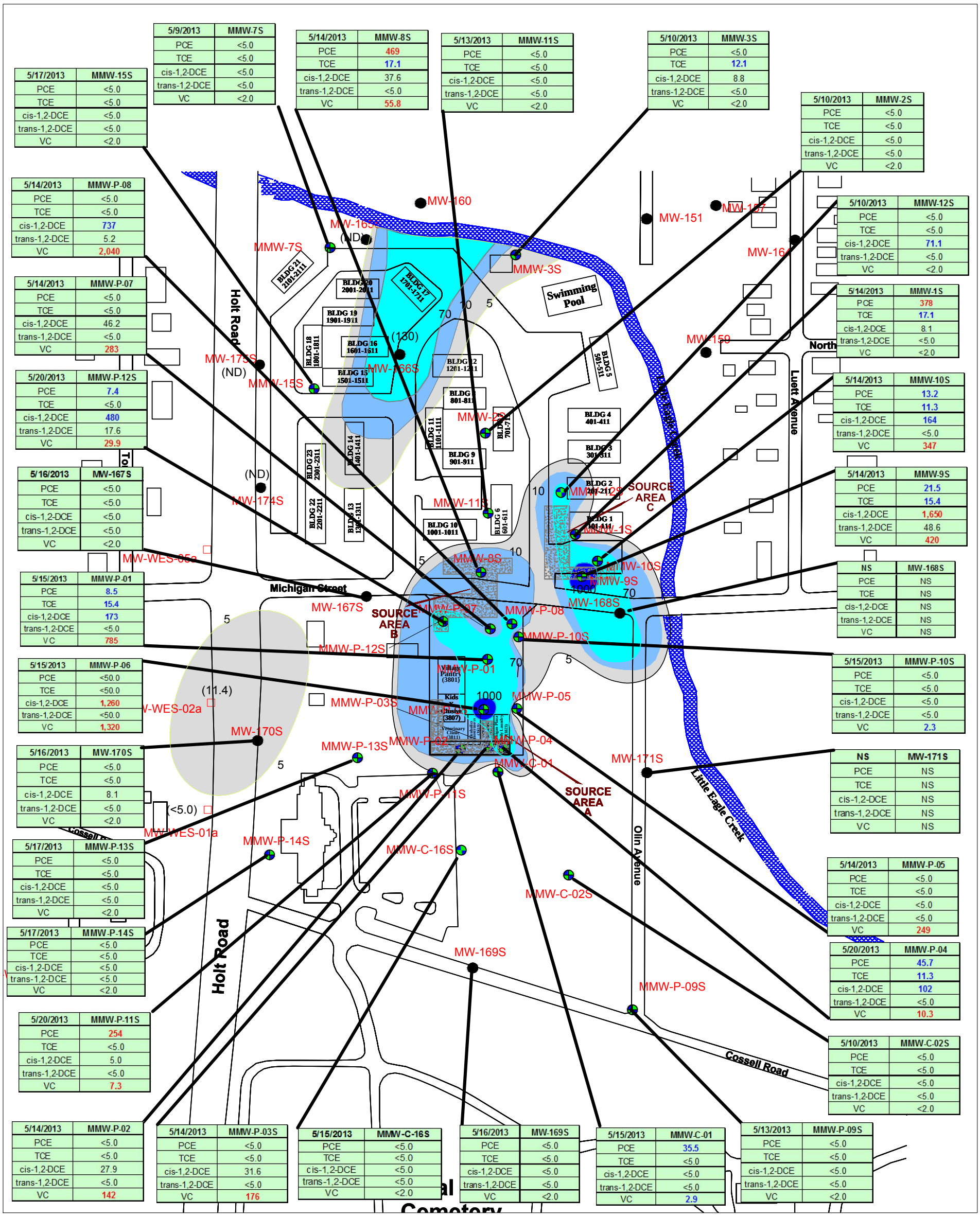
Indianapolis, INDIANA

FIGURE 31e



5/9/2013	MMW-7S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-8S
PCE	469
TCE	17.1
cis-1,2-DCE	37.6
trans-1,2-DCE	<5.0
VC	55.8

5/13/2013	MMW-11S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/10/2013	MMW-3S
PCE	<5.0
TCE	12.1
cis-1,2-DCE	8.8
trans-1,2-DCE	<5.0
VC	<2.0

5/17/2013	MMW-15S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/10/2013	MMW-2S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-08
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	737
trans-1,2-DCE	5.2
VC	2,040

5/10/2013	MMW-12S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	71.1
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-07
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	46.2
trans-1,2-DCE	<5.0
VC	283

5/14/2013	MMW-1S
PCE	378
TCE	17.1
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

5/20/2013	MMW-P-12S
PCE	7.4
TCE	<5.0
cis-1,2-DCE	480
trans-1,2-DCE	17.6
VC	29.9

5/14/2013	MMW-10S
PCE	13.2
TCE	11.3
cis-1,2-DCE	164
trans-1,2-DCE	<5.0
VC	347

5/16/2013	MW-167S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-9S
PCE	21.5
TCE	15.4
cis-1,2-DCE	1,650
trans-1,2-DCE	48.6
VC	420

5/15/2013	MMW-P-01
PCE	8.5
TCE	15.4
cis-1,2-DCE	173
trans-1,2-DCE	<5.0
VC	785

NS	MW-168S
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/15/2013	MMW-P-06
PCE	<50.0
TCE	<50.0
cis-1,2-DCE	1,260
trans-1,2-DCE	<50.0
VC	1,320

5/15/2013	MMW-P-10S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	2.3

5/16/2013	MW-170S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

NS	MW-171S
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/17/2013	MMW-P-13S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-05
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	249

5/17/2013	MMW-P-14S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/20/2013	MMW-P-04
PCE	45.7
TCE	11.3
cis-1,2-DCE	102
trans-1,2-DCE	<5.0
VC	10.3

5/20/2013	MMW-P-11S
PCE	254
TCE	<5.0
cis-1,2-DCE	5.0
trans-1,2-DCE	<5.0
VC	7.3

5/10/2013	MMW-C-02S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-02
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	27.9
trans-1,2-DCE	<5.0
VC	142

5/14/2013	MMW-P-03S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	31.6
trans-1,2-DCE	<5.0
VC	176

5/15/2013	MMW-C-16S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/16/2013	MW-169S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/15/2013	MMW-C-01
PCE	35.5
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	2.9

5/13/2013	MMW-P-09S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

LEGEND

MMW-P-06 — MUNDELL Monitoring Well

MW-160 — ENVIRON Monitoring Well

MW-WES-01A — U.S. EPA Monitoring Well

>1000 ug/L

>100 ug/L

>70 ug/L

>5 ug/L

NS = Not Sampled

	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride
	ug/l				
IDEM RISC Default Industrial Cleanup Level	55	31	1,000	2,000	4
IDEM RISC Default Residential Cleanup Level; IDEM 2012 RCG Tap Residential	5	5	70	100	2

5/14/2013	MMW-1S
PCE	378
TCE	17.1
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

All Values Over IDEM RISC Industrial Default Cleanup Levels in Red

All Values Over IDEM RISC Residential Default Cleanup Levels/2012 RCG Tap - Residential Screening Level in Blue

PCE = Tetrachloroethene

TCE = Trichloroethene

cis-1,2-DCE = cis-1,2-Dichloroethene

trans-1,2-DCE = trans-1,2-Dichloroethene

ug/l = micrograms per liter

NS = Not Sampled

All analytical results presented in micrograms per liter (ug/l)

Note: Data for MW-165S and MW-166S based on ENVIRON Oct 2012 sample data, and MW-174S and MW-175S based on ENVIRON Sept 2011 sample data (ENVIRON January 2013 Remedial Progress Report).

Data for EPA wells based on Dec 2011 sample data summarized in Weston 2013 Technical Memorandum.

N

SCALE 0 200 feet

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Project Number: M01046

Drawing File: 2Q13 QMR

Date Prepared: 6-7-13

Scale: 1"=200'

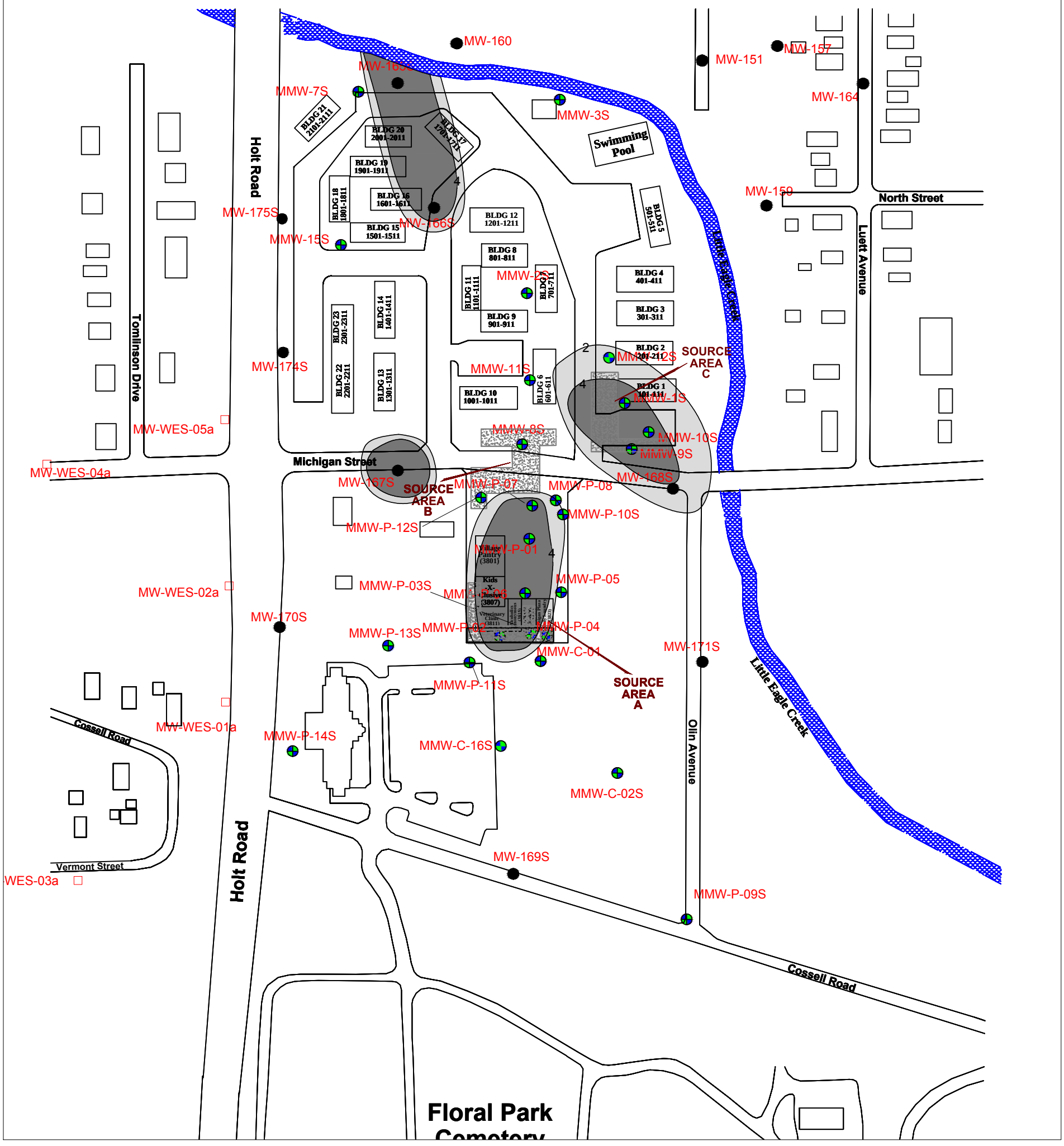
CIS 1,2-DCE IN GROUNDWATER ANALYTICAL MAP SHALLOW - 2ND QUARTER 2013

Michigan Plaza

3801 - 3823 West Michigan Street

Indianapolis, INDIANA

FIGURE 31f



LEGEND

MMW-P-06	●	MUNDELL Monitoring Well
MW-160	●	ENVIRON Monitoring Well
MW-WES-01A	□	U.S. EPA Monitoring Well

- >400 ug/L
- >100 ug/L
- >4 ug/L
- >2 ug/L

Note: Contours based on available groundwater data associated with 2005 FSI activities.

N

SCALE 0 200 feet

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Indianapolis, Indiana 46219
317-630-9060, fax 317-630-9065
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Project Number: M01046
Drawing File: 2Q13 QMR
Date Prepared: 6-7-13
Scale: 1"=200'

VC IN GROUNDWATER ANALYTICAL MAP - SHALLOW - SEPT-NOV 2005 (PRE INJECTION)

Michigan Plaza
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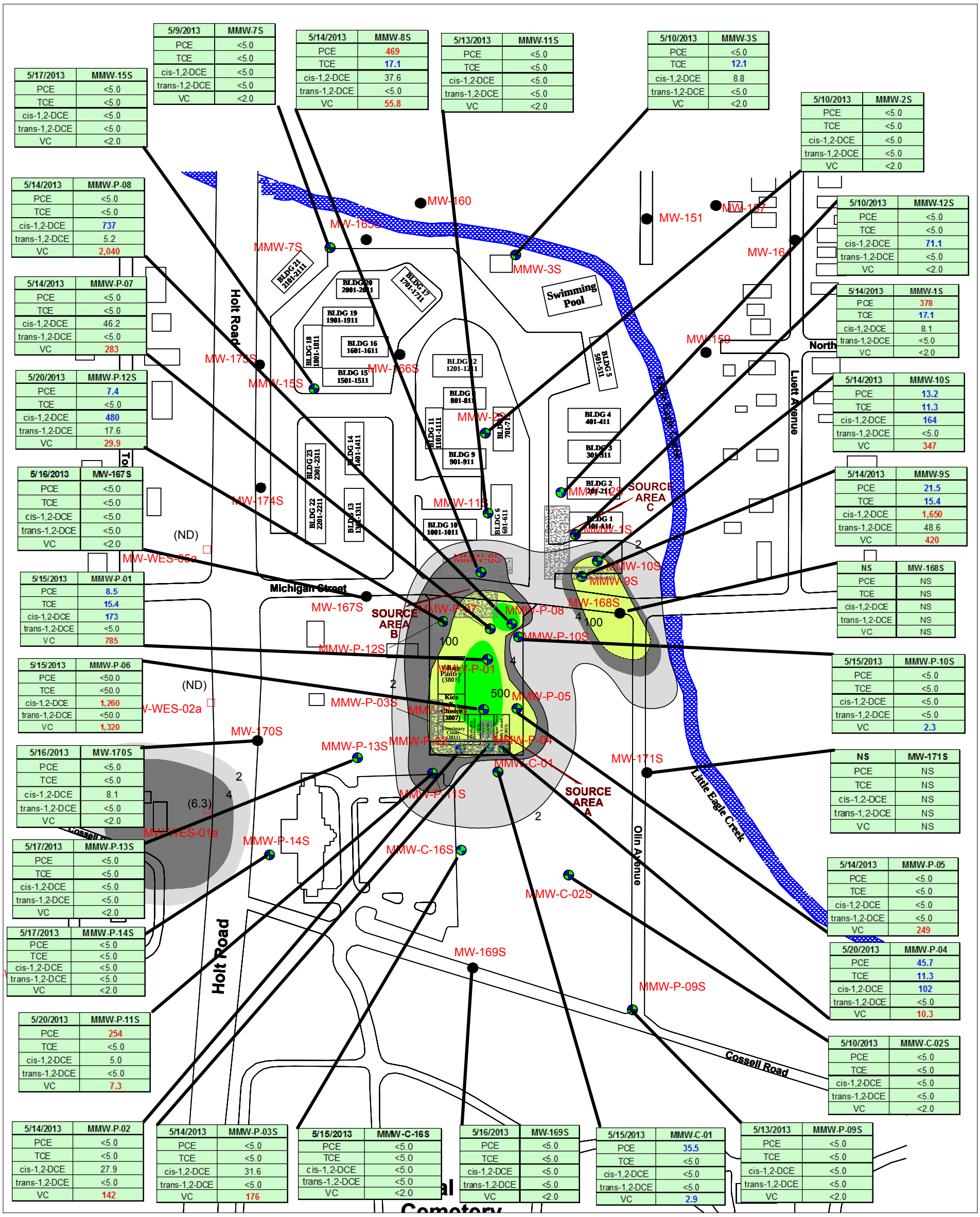
Indianapolis, INDIANA

FIGURE 31g



5/9/2013	MMW-7S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-8S
PCE	469
TCE	17.1
cis-1,2-DCE	37.6
trans-1,2-DCE	<5.0
VC	55.8

5/13/2013	MMW-11S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/10/2013	MMW-3S
PCE	<5.0
TCE	12.1
cis-1,2-DCE	8.8
trans-1,2-DCE	<5.0
VC	<2.0

5/17/2013	MMW-15S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/10/2013	MMW-2S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-08
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	737
trans-1,2-DCE	5.2
VC	2,040

5/10/2013	MMW-12S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	71.1
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-07
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	46.2
trans-1,2-DCE	<5.0
VC	283

5/14/2013	MMW-1S
PCE	378
TCE	17.1
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

5/20/2013	MMW-P-12S
PCE	7.4
TCE	<5.0
cis-1,2-DCE	480
trans-1,2-DCE	17.6
VC	29.9

5/14/2013	MMW-10S
PCE	13.2
TCE	11.3
cis-1,2-DCE	164
trans-1,2-DCE	<5.0
VC	347

5/16/2013	MW-167S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-9S
PCE	21.5
TCE	15.4
cis-1,2-DCE	1,650
trans-1,2-DCE	48.6
VC	420

5/15/2013	MMW-P-01
PCE	8.5
TCE	15.4
cis-1,2-DCE	173
trans-1,2-DCE	<5.0
VC	785

NS	MW-168S
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/15/2013	MMW-P-06
PCE	<50.0
TCE	<50.0
cis-1,2-DCE	1,260
trans-1,2-DCE	<50.0
VC	1,320

5/15/2013	MMW-P-10S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	2.3

5/16/2013	MW-170S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

NS	MW-171S
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/17/2013	MMW-P-13S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-05
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	249

5/17/2013	MMW-P-14S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/20/2013	MMW-P-04
PCE	45.7
TCE	11.3
cis-1,2-DCE	102
trans-1,2-DCE	<5.0
VC	10.3

5/20/2013	MMW-P-11S
PCE	254
TCE	<5.0
cis-1,2-DCE	5.0
trans-1,2-DCE	<5.0
VC	7.3

5/10/2013	MMW-C-02S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/14/2013	MMW-P-02
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	27.9
trans-1,2-DCE	<5.0
VC	142

5/14/2013	MMW-P-03S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	31.6
trans-1,2-DCE	<5.0
VC	176

5/15/2013	MMW-C-16S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/16/2013	MW-169S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

5/15/2013	MMW-C-01
PCE	35.5
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	2.9

5/13/2013	MMW-P-09S
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

LEGEND

MMW-P-06 — MUNDELL Monitoring Well

MW-160 — ENVIRON Monitoring Well

MW-WES-01A — U.S. EPA Monitoring Well

>400 ug/L

>100 ug/L

>4 ug/L

>2 ug/L

NS = Not Sampled

	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride
	ug/l				
IDEM RISC Default Industrial Cleanup Level	55	31	1,000	2,000	4
IDEM RISC Default Residential Cleanup Level; IDEM 2012 RCG Tap Residential	5	5	70	100	2

5/14/2013	MMW-1S
PCE	378
TCE	17.1
cis-1,2-DCE	8.1
trans-1,2-DCE	<5.0
VC	<2.0

Note: VC data included in ( ):
EPA Dec 2011 data included in Weston 2013 Technical Memorandum.

All Values Over IDEM RISC Industrial Default Cleanup Levels in Red
All Values Over IDEM RISC Residential Default Cleanup Levels/2012 RCG Tap - Residential Screening Level in Blue
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
ug/l = micrograms per liter
NS = Not Sampled
All analytical results presented in micrograms per liter (ug/l)

N

0 SCALE 200 feet

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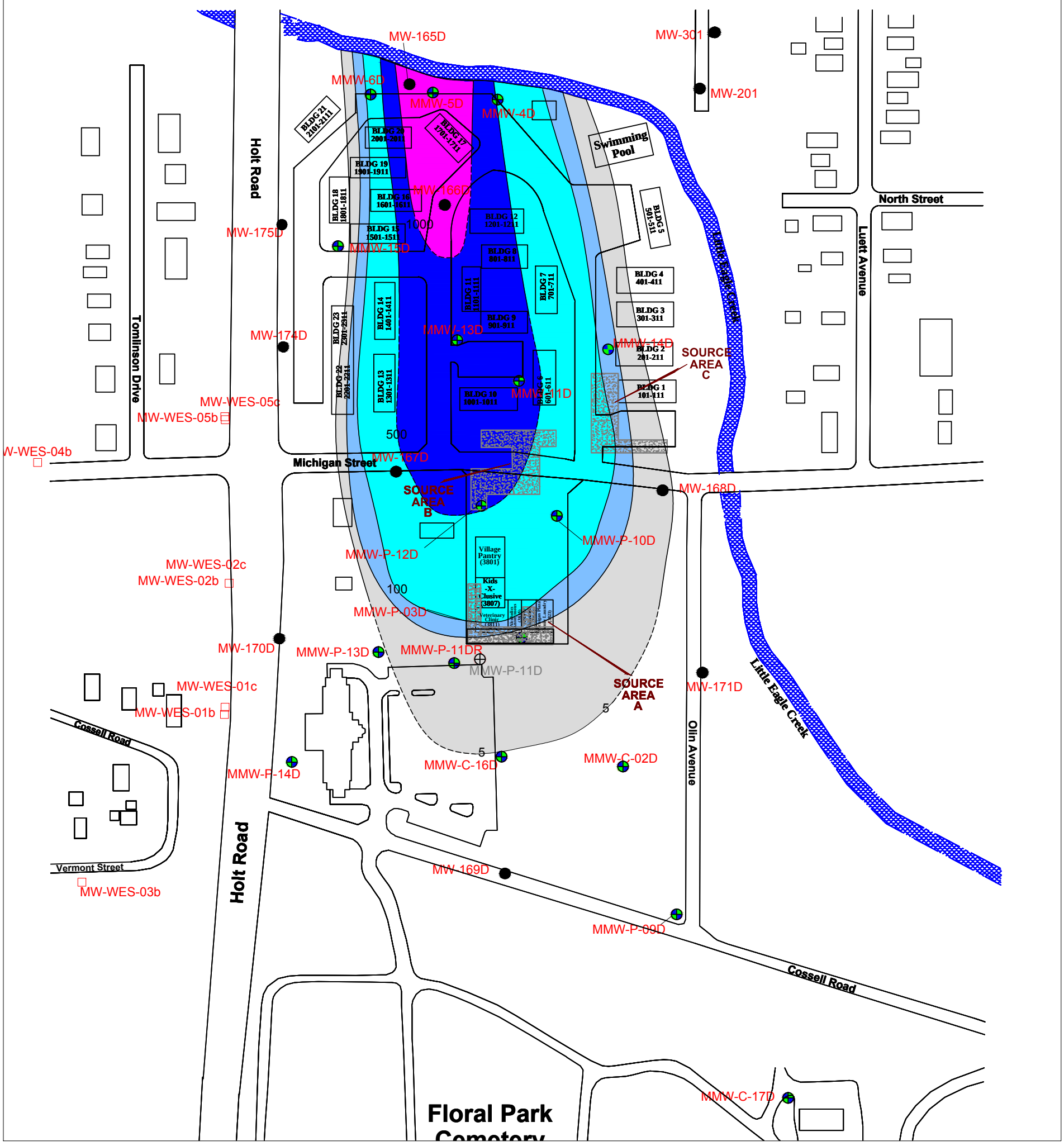
Drawing File: 2Q13 QMR
Date Prepared: 6-7-13
Scale: 1"=200'

VC IN GROUNDWATER ANALYTICAL MAP - SHALLOW - 2ND QUARTER 2013

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE 31h



LEGEND

MMW-P-09D	MUNDELL Monitoring Well
MW-169D	ENVIRON Monitoring Well
MW-WES-05C	U.S. EPA Monitoring Well

- >1000 ug/L
- >500 ug/L
- >100 ug/L
- >70 ug/L
- >5 ug/L

Note: Contours based on available groundwater data associated with 2005 FSI activities.

N

SCALE 0 200 feet

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Drawing File: 2Q13 QMR
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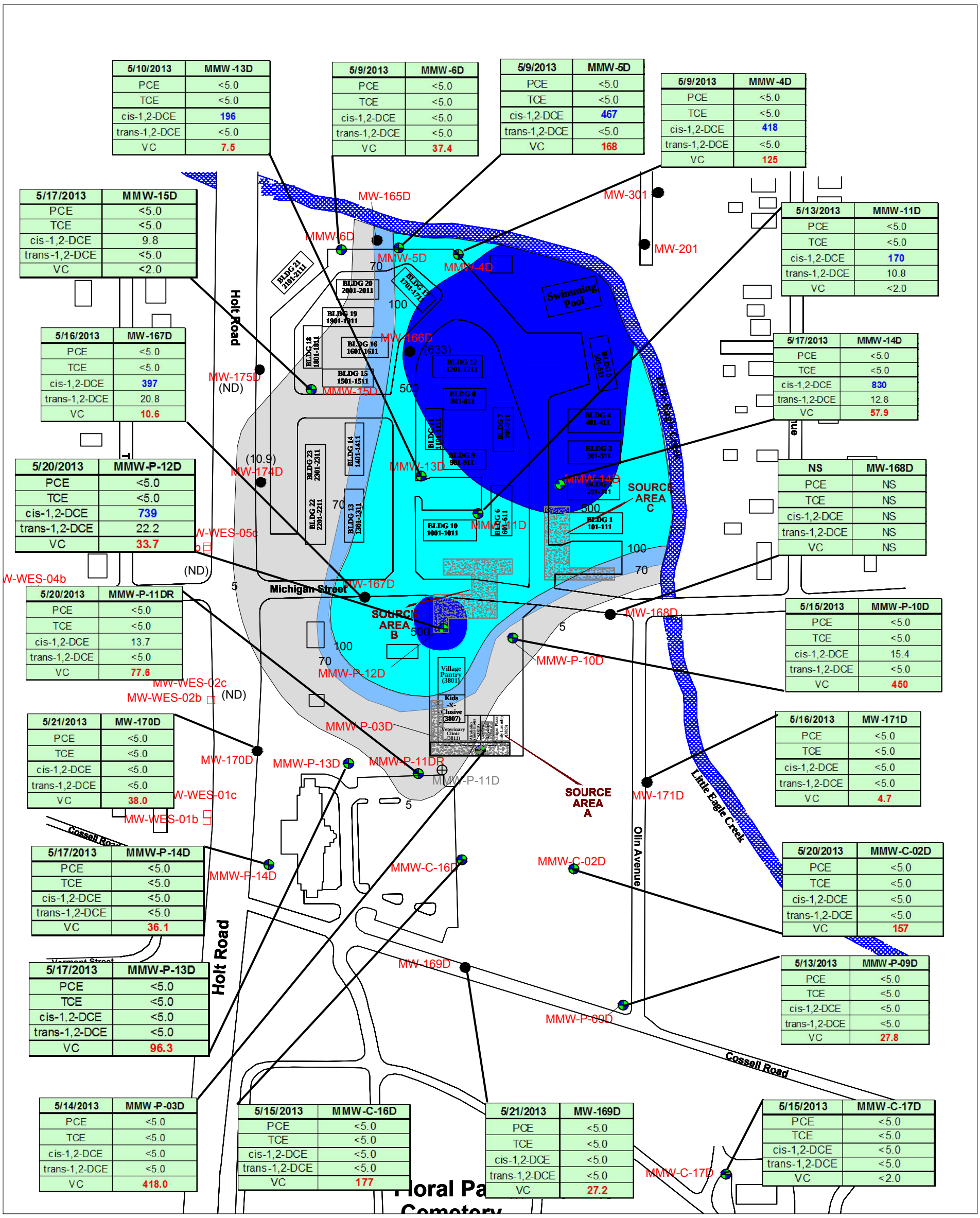
Scale: 1"=200'

CIS 1,2-DCE IN GROUNDWATER ANALYTICAL MAP DEEP - SEPT-NOV 2005 (PRE-INJECTION)

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE 31i



5/10/2013	MMW-13D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	196
trans-1,2-DCE	<5.0
VC	7.5

5/9/2013	MMW-6D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	37.4

5/9/2013	MMW-5D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	467
trans-1,2-DCE	<5.0
VC	168

5/9/2013	MMW-4D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	418
trans-1,2-DCE	<5.0
VC	125

5/17/2013	MMW-15D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	9.8
trans-1,2-DCE	<5.0
VC	<2.0

5/13/2013	MMW-11D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	170
trans-1,2-DCE	10.8
VC	<2.0

5/16/2013	MW-167D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	397
trans-1,2-DCE	20.8
VC	10.6

5/17/2013	MMW-14D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	830
trans-1,2-DCE	12.8
VC	57.9

5/20/2013	MMW-P-12D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	739
trans-1,2-DCE	22.2
VC	33.7

NS	MW-168D
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/20/2013	MMW-P-11DR
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	13.7
trans-1,2-DCE	<5.0
VC	77.6

5/15/2013	MMW-P-10D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	15.4
trans-1,2-DCE	<5.0
VC	450

5/21/2013	MW-170D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	38.0

5/16/2013	MW-171D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	4.7

5/17/2013	MMW-P-14D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	36.1

5/20/2013	MMW-C-02D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	157

5/17/2013	MMW-P-13D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	96.3

5/13/2013	MMW-P-09D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	27.8

5/14/2013	MMW-P-03D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	418.0

5/15/2013	MMW-C-16D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	177

5/21/2013	MW-169D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	27.2

5/15/2013	MMW-C-17D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

LEGEND

MMW-P-09D — MUNDELL Monitoring Well

MW-169D — ENVIRON Monitoring Well

MW-WES-05C — U.S. EPA Monitoring Well

>500 ug/L

>100 ug/L

>70 ug/L

>5 ug/L

NS = Not Sampled

	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride
	ug/l				
IDEM RISC Default Industrial Cleanup Level	55	31	1,000	2,000	4
IDEM RISC Default Residential Cleanup Level; IDEM 2012 RCG Tap Residential	5	5	70	100	2

4/25/2012	MMW-1S
PCE	270
TCE	11.2
cis-1,2-DCE	34.2
trans-1,2-DCE	<5.0
VC	39

All Values Over IDEM RISC Industrial Default Cleanup Levels in Red
All Values Over IDEM RISC Residential Default Cleanup Levels/2012 RCG Tap - Residential Screening Level in Blue
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
ug/l = micrograms per liter
NS = Not Sampled
All analytical results presented in micrograms per liter (ug/l)

Note: Data for MW-166D from Oct 2012 sample summarized in ENVIRON 2013 report.
Data for MW-174D, MW-175D and EPA wells referenced to Dec 2011 samples summarized in Weston 2013 report.

N

SCALE 0 200 feet

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Scale: 1"=200'

CIS 1,2-DCE IN GROUNDWATER ANALYTICAL MAP DEEP - 2ND QUARTER 2013

Michigan Plaza
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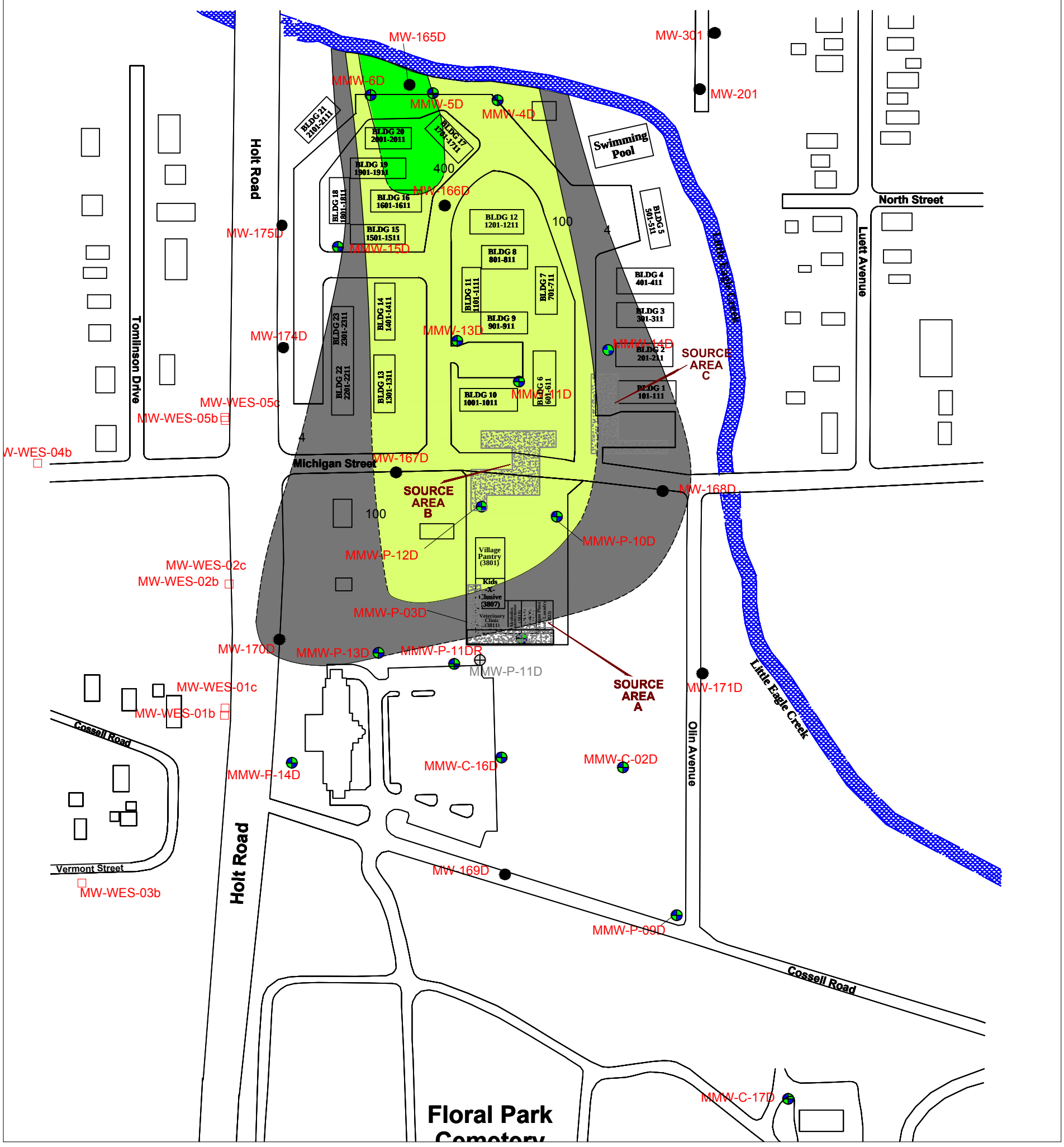
Indianapolis, INDIANA

FIGURE 31j



LEGEND

MMW-P-09D	MUNDELL Monitoring Well
MW-169D	ENVIRON Monitoring Well
MW-WES-05C	U.S. EPA Monitoring Well

- >400 ug/L
- >100 ug/L
- >4 ug/L
- >2 ug/L

Note: Contours based on available groundwater data associated with 2005 FSI activities.

N

SCALE 0 200 feet

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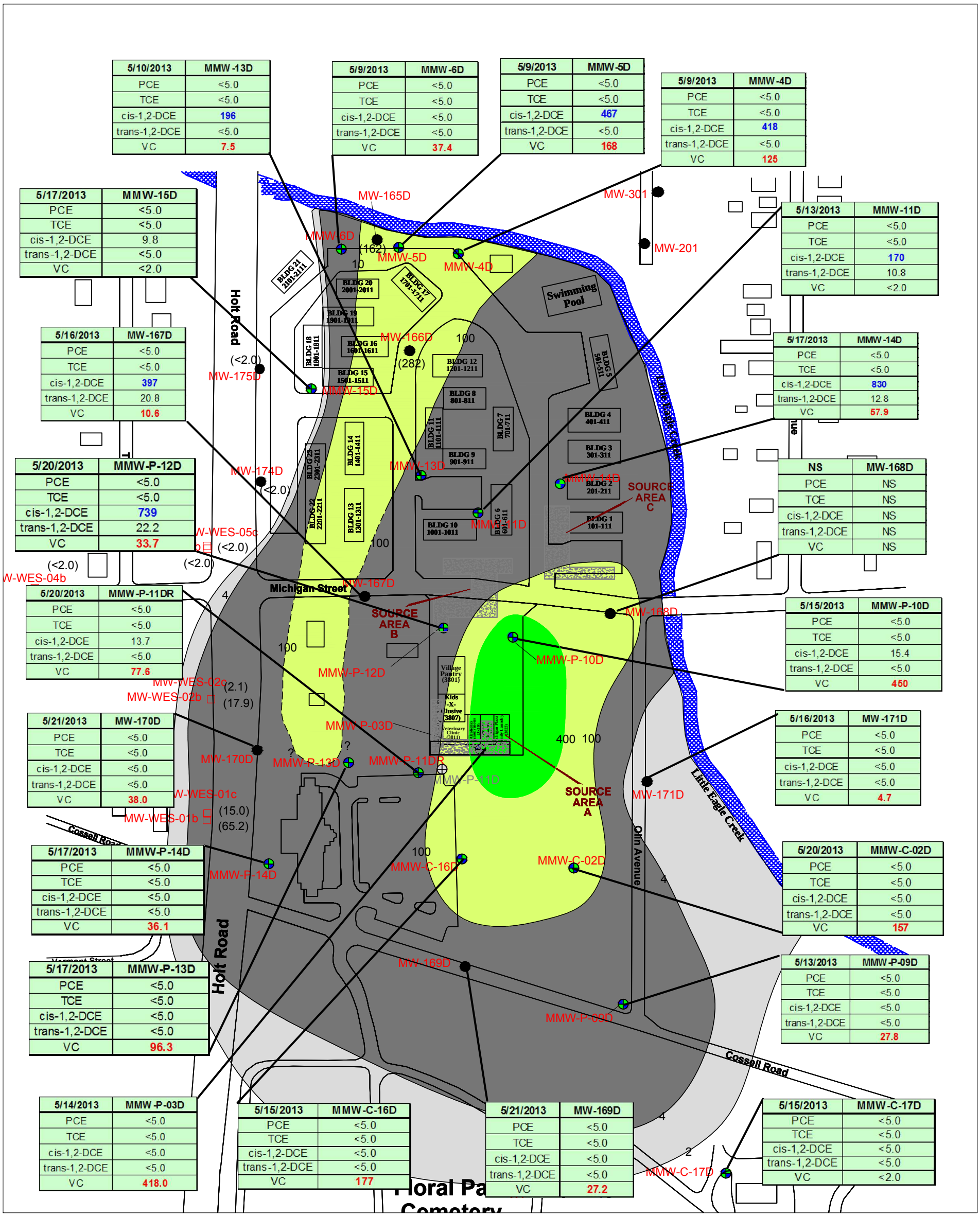
Date Prepared:	6-7-13
Scale:	1"=200'

VC IN GROUNDWATER ANALYTICAL MAP - DEEP - SEPT-NOV 2005 (PRE-INJECTION)

Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE 31k



5/10/2013	MMW-13D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	196
trans-1,2-DCE	<5.0
VC	7.5

5/9/2013	MMW-6D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	37.4

5/9/2013	MMW-5D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	467
trans-1,2-DCE	<5.0
VC	168

5/9/2013	MMW-4D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	418
trans-1,2-DCE	<5.0
VC	125

5/17/2013	MMW-15D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	9.8
trans-1,2-DCE	<5.0
VC	<2.0

5/13/2013	MMW-11D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	170
trans-1,2-DCE	10.8
VC	<2.0

5/16/2013	MW-167D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	397
trans-1,2-DCE	20.8
VC	10.6

5/17/2013	MMW-14D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	830
trans-1,2-DCE	12.8
VC	57.9

5/20/2013	MMW-P-12D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	739
trans-1,2-DCE	22.2
VC	33.7

NS	MW-168D
PCE	NS
TCE	NS
cis-1,2-DCE	NS
trans-1,2-DCE	NS
VC	NS

5/20/2013	MMW-P-11DR
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	13.7
trans-1,2-DCE	<5.0
VC	77.6

5/15/2013	MMW-P-10D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	15.4
trans-1,2-DCE	<5.0
VC	450

5/21/2013	MW-170D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	38.0

5/16/2013	MW-171D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	4.7

5/17/2013	MMW-P-14D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	36.1

5/20/2013	MMW-C-02D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	157

5/17/2013	MMW-P-13D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	96.3

5/13/2013	MMW-P-09D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	27.8

5/14/2013	MMW-P-03D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	418.0

5/15/2013	MMW-C-16D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	177

5/21/2013	MW-169D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	27.2

5/15/2013	MMW-C-17D
PCE	<5.0
TCE	<5.0
cis-1,2-DCE	<5.0
trans-1,2-DCE	<5.0
VC	<2.0

LEGEND

MMW-P-09D — MUNDELL Monitoring Well

MW-169D — ENVIRON Monitoring Well

MW-WES-05C — U.S. EPA Monitoring Well

>400 ug/L

>100 ug/L

>4 ug/L

>2 ug/L

NS = Not Sampled

	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride
	ug/l				
IDEM RISC Default Industrial Cleanup Level	55	31	1,000	2,000	4
IDEM RISC Default Residential Cleanup Level; IDEM 2012 RCG Tap Residential	5	5	70	100	2

4/25/2012	MMW-1S
PCE	270
TCE	11.2
cis-1,2-DCE	34.2
trans-1,2-DCE	<5.0
VC	39

Note: VC data included in ( ):
1) ENVIRON Sept 2011 data (MW-174D and 175D), included in Jan 2013 Remedial Progress Report.
2) ENVIRON Oct 2012 data (MW-165D and 166D) included in Jan 2013 Remedial Progress Report.
3) EPA Dec 2011 data included in Weston 2013 Technical Memorandum.

All Values Over IDEM RISC Industrial Default Cleanup Levels in Red
All Values Over IDEM RISC Residential Default Cleanup Levels/2012 RCG Tap - Residential Screening Level in Blue
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
ug/l = micrograms per liter
NS = Not Sampled
All analytical results presented in micrograms per liter (ug/l)

N

SCALE 0 200 feet

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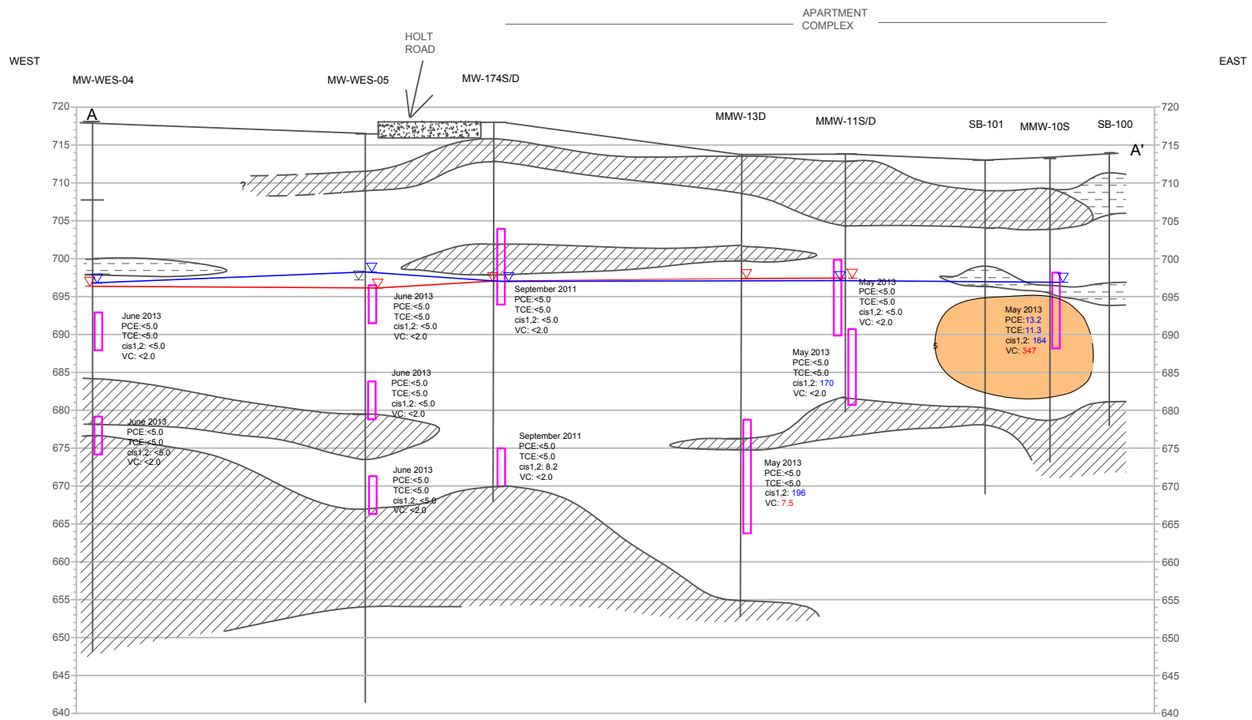
Date Prepared: 6-7-13
Scale: 1"=200'

VC IN GROUNDWATER ANALYTICAL MAP - DEEP - 2ND QUARTER 2013

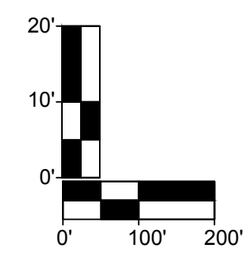
Michigan Plaza
3801 - 3823 West Michigan Street
Indianapolis, INDIANA

FIGURE 31l



LEGEND

- Sand
- Clay
- Silt
- Shale (Bedrock)
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (intermediate EPA well if present)
- Static Water Level 11/12/2012 (Deep)
- >55 ug/L
- >5 ug/L



Vertical Exaggeration = 10X

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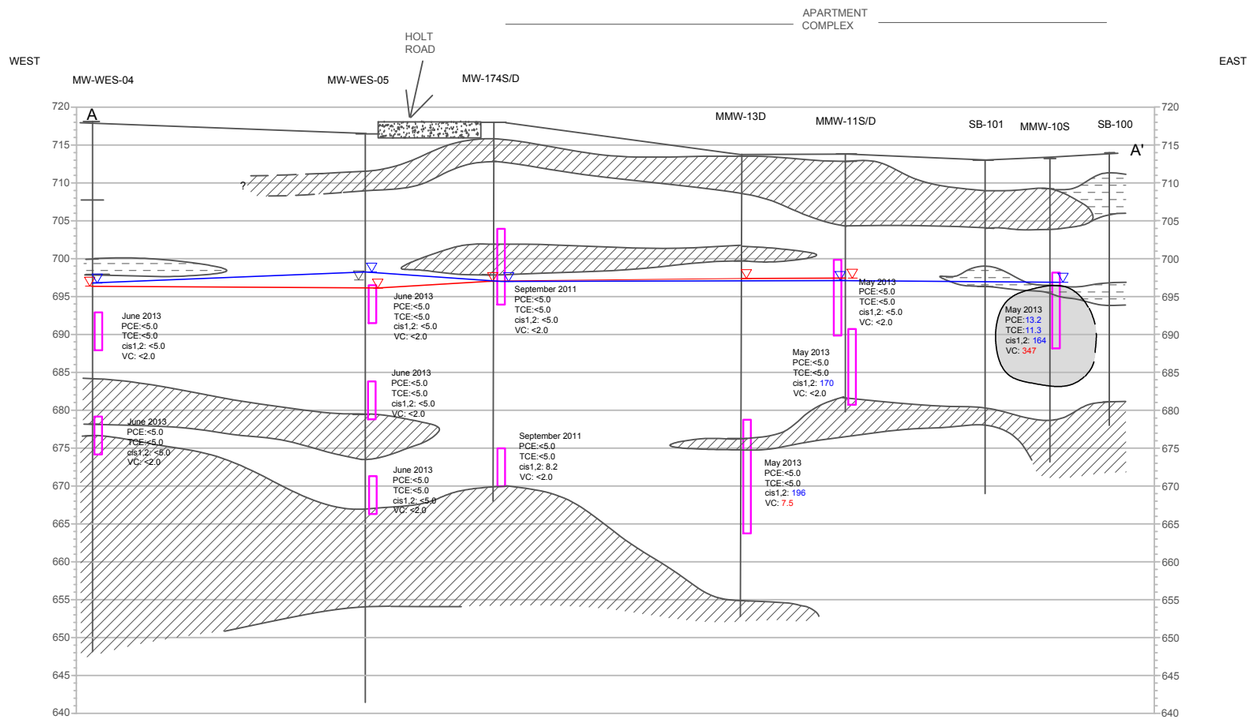
REV.	DATE	DESCRIPTION	BY	APPR

PROJECT NO.: M01046		FILE NO.: Cross-Sections.dwg	
DRAWING:		PLOT SIZE: 11"X17"	
DRAFTED BY:	MB	DATE:	09/11/2013
CHECKED BY:	MB	DATE:	09/11/2013
APPROVED BY:	JAM	DATE:	09/11/2013

GEOLOGIC CROSS-SECTION A - A' - PCE IN GROUNDWATER

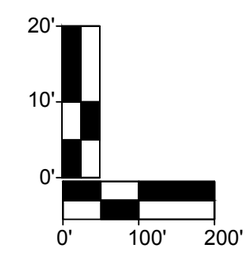
MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE
31m



LEGEND

- Sand
- Clay
- Silt
- Shale (Bedrock)
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (intermediate EPA well if present)
- Static Water Level 11/12/2012 (Deep)
- >5 ug/L



Vertical Exaggeration = 10X

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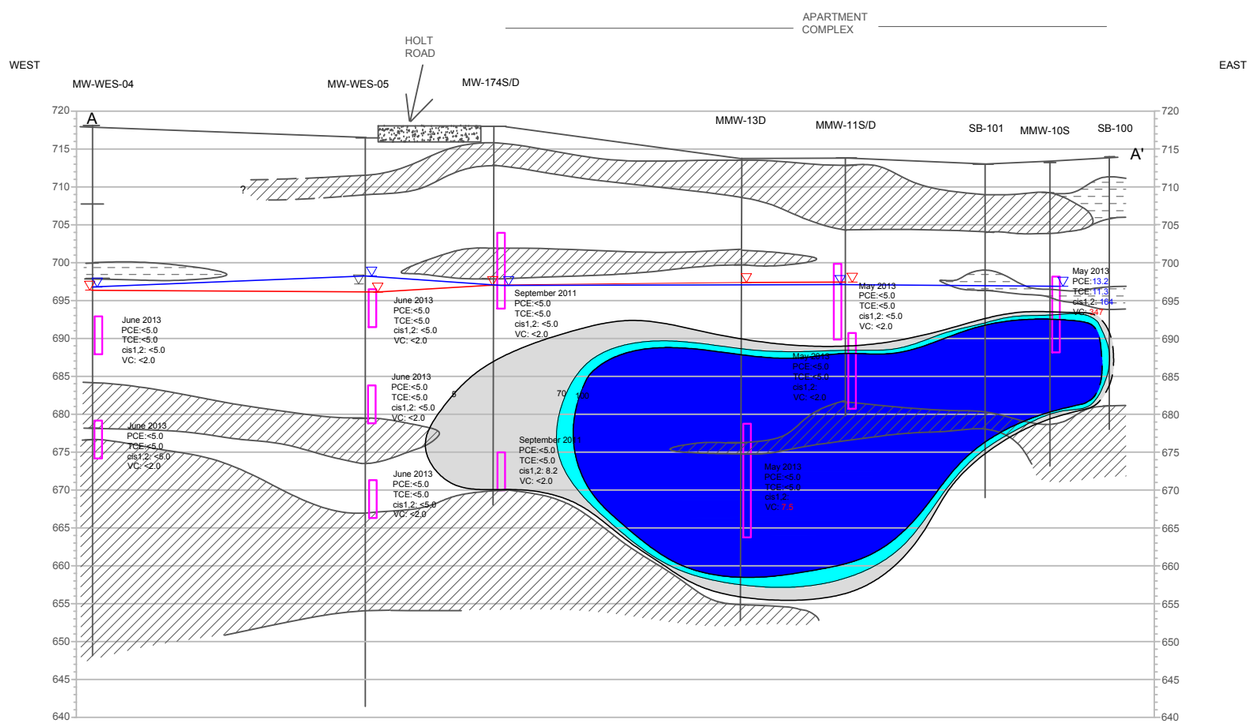
REV.	DATE	DESCRIPTION	BY	APPR

PROJECT NO.: M01046		FILE NO.: Cross-Sections.dwg	
DRAWING:		PLOT SIZE:	11"X17"
DRAFTED BY:	MB	DATE:	09/11/2013
CHECKED BY:	MB	DATE:	09/11/2013
APPROVED BY:	JAM	DATE:	09/11/2013

GEOLOGIC CROSS-SECTION A - A' - TCE IN GROUNDWATER

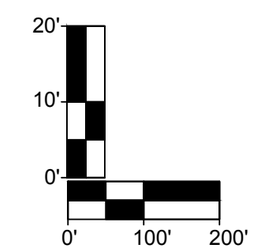
MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE
31n



LEGEND

- Sand
- Clay
- Silt
- Shale (Bedrock)
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (intermediate EPA well if present)
- Static Water Level 11/12/2012 (Deep)
- >1000 ug/L
- >100 ug/L
- >70 ug/L
- >5 ug/L



Vertical Exaggeration = 10X

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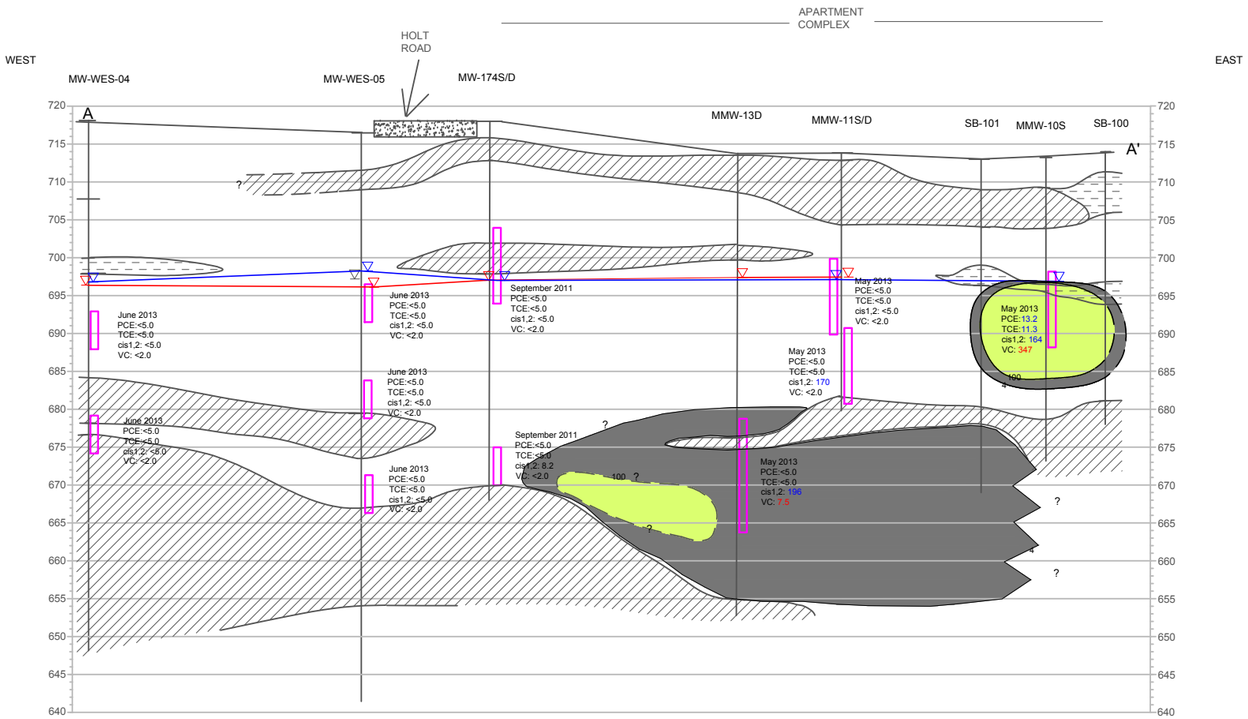
REV.	DATE	DESCRIPTION	BY	APPR

PROJECT NO.:	M01046	FILE NO.:	Cross-Sections.dwg
DRAWING:		PLOT SIZE:	11"X17"
DRAFTED BY:	MB	DATE:	09/11/2013
CHECKED BY:	MB	DATE:	09/11/2013
APPROVED BY:	JAM	DATE:	09/11/2013

GEOLOGIC CROSS-SECTION A - A' - CIS 1,2-DCE IN GROUNDWATER

MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE
31o



LEGEND

Sand

Clay

Silt

Shale (Bedrock)

Monitoring Well Screen Interval

Static Water Level 11/12/2012 (Shallow)

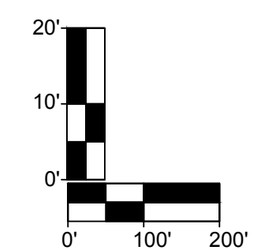
Static Water Level 11/12/2012 (intermediate EPA well if present)

Static Water Level 11/12/2012 (Deep)

>400 ug/L

>100 ug/L

>4 ug/L



Vertical Exaggeration = 10X

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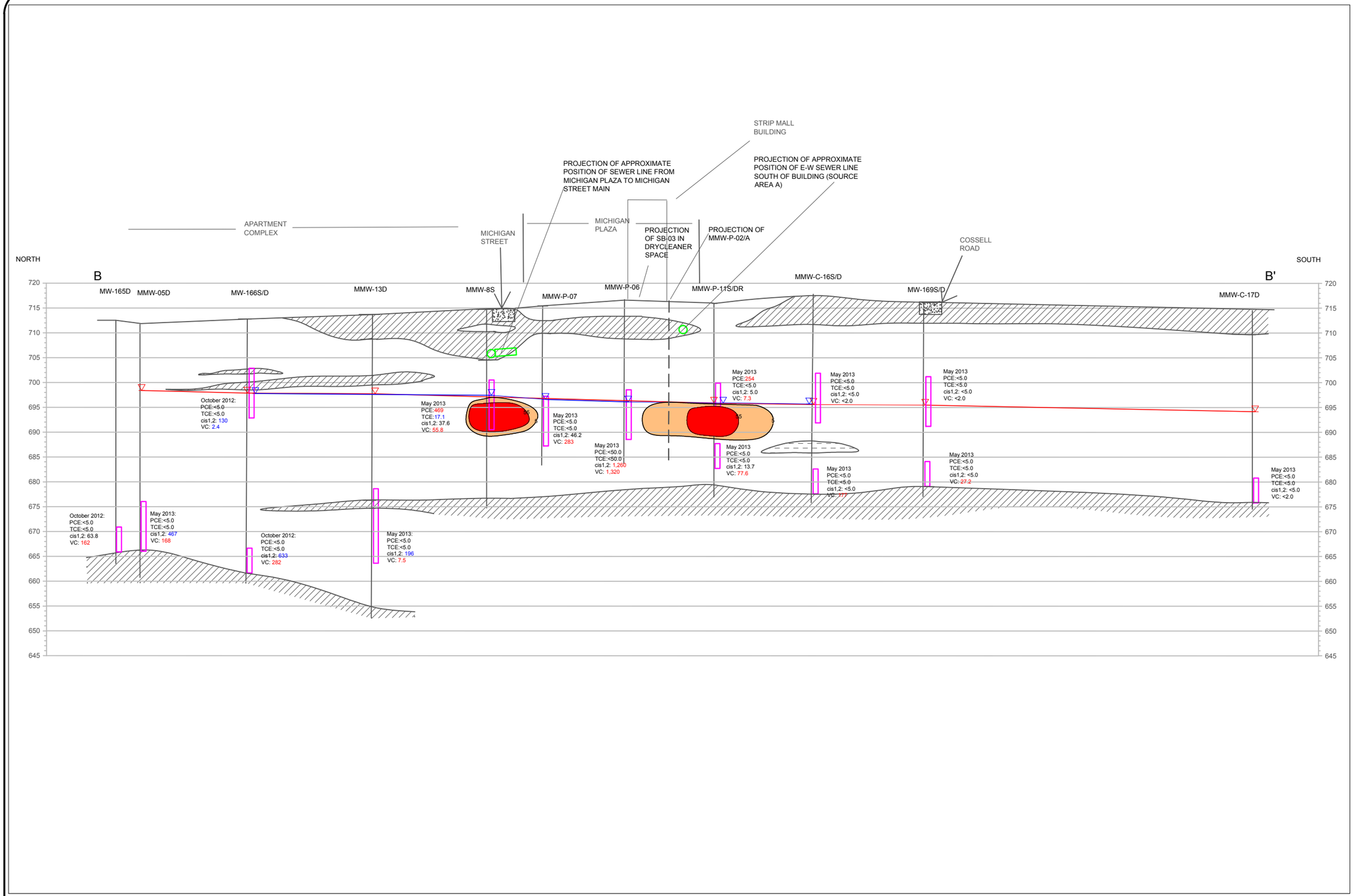
GEOLOGIC CROSS-SECTION A - A' - VC IN GROUNDWATER

MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

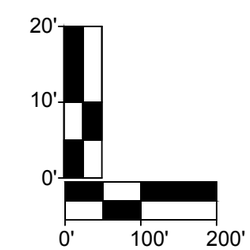
FIGURE

31p



LEGEND

- Sand
- Clay
- Silt
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (Deep)
- >55 ug/L
- >5 ug/L



Vertical Exaggeration = 10X

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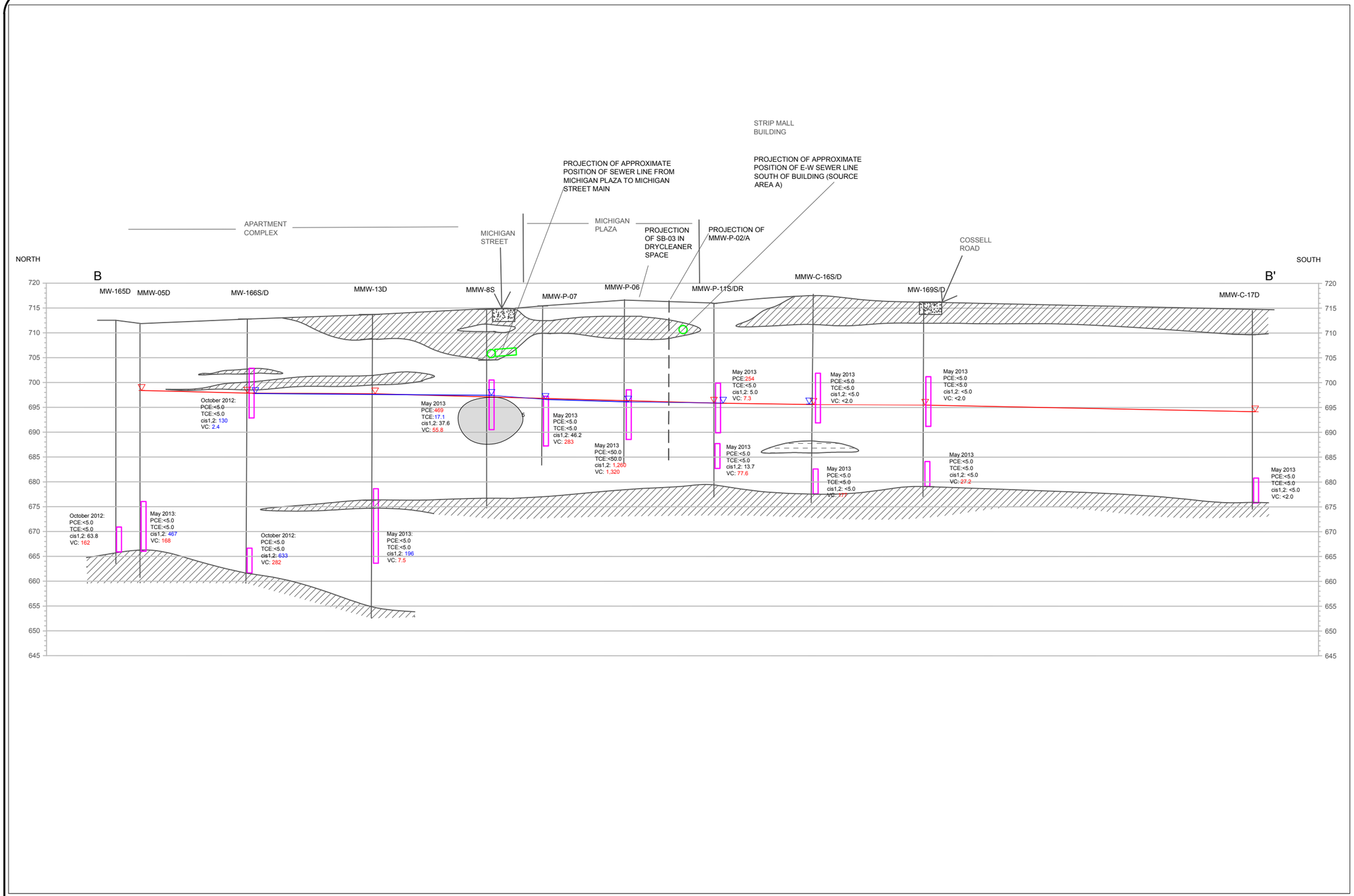
GEOLOGIC CROSS-SECTION B - B' - PCE IN GROUNDWATER

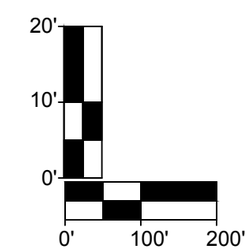
MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE
31q



LEGEND

- Sand
- Clay
- Silt
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (Deep)
- >5 ug/L



Vertical Exaggeration = 10X

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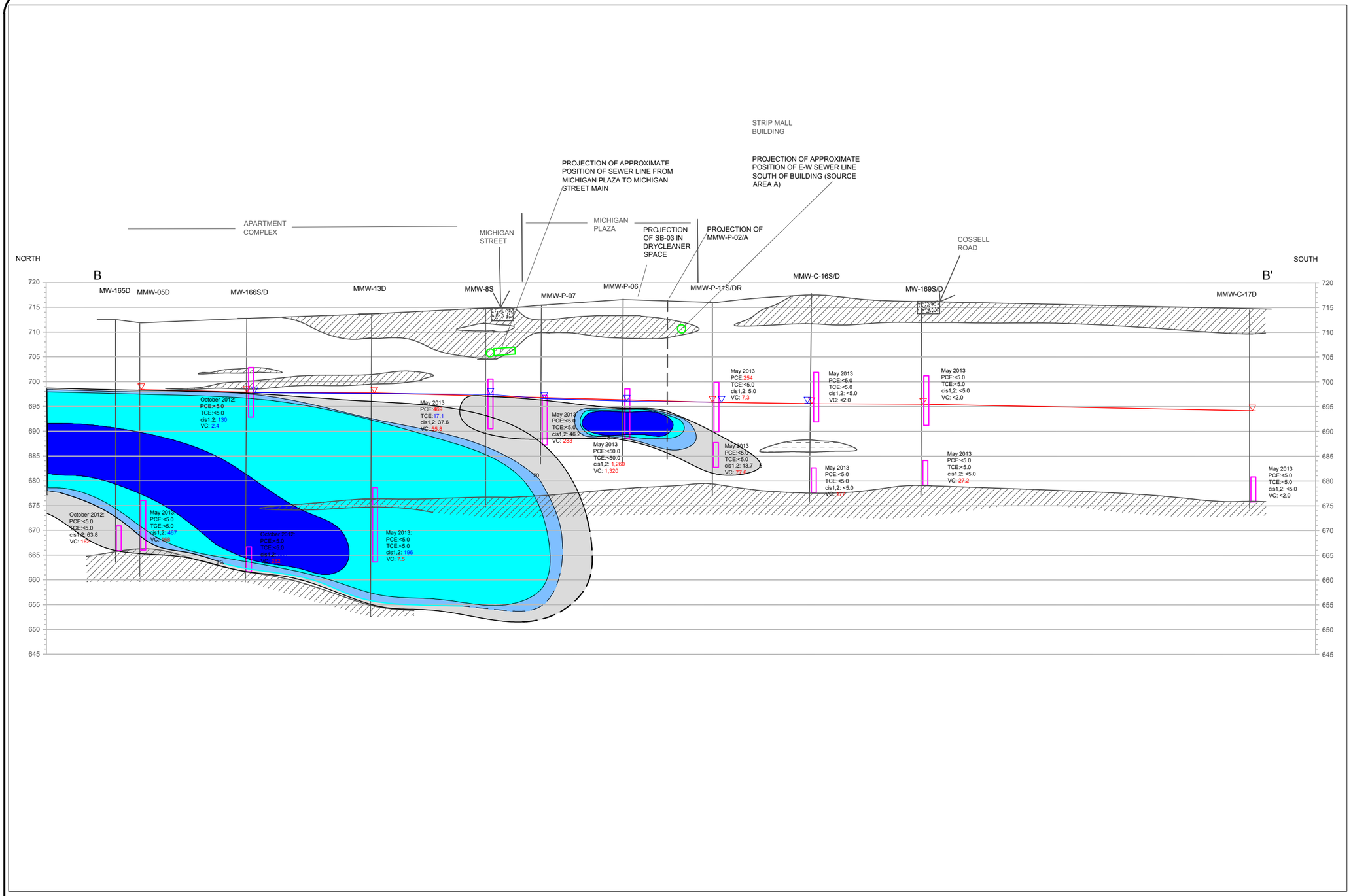
GEOLOGIC CROSS-SECTION B - B' - TCE IN GROUNDWATER

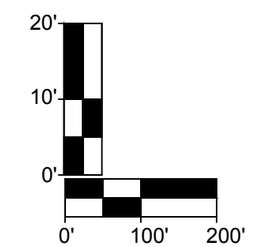
MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE
31r



LEGEND

- Sand
- Clay
- Silt
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (Deep)
- >1000 ug/L
- >100 ug/L
- >70 ug/L
- >5 ug/L



Vertical Exaggeration = 10X

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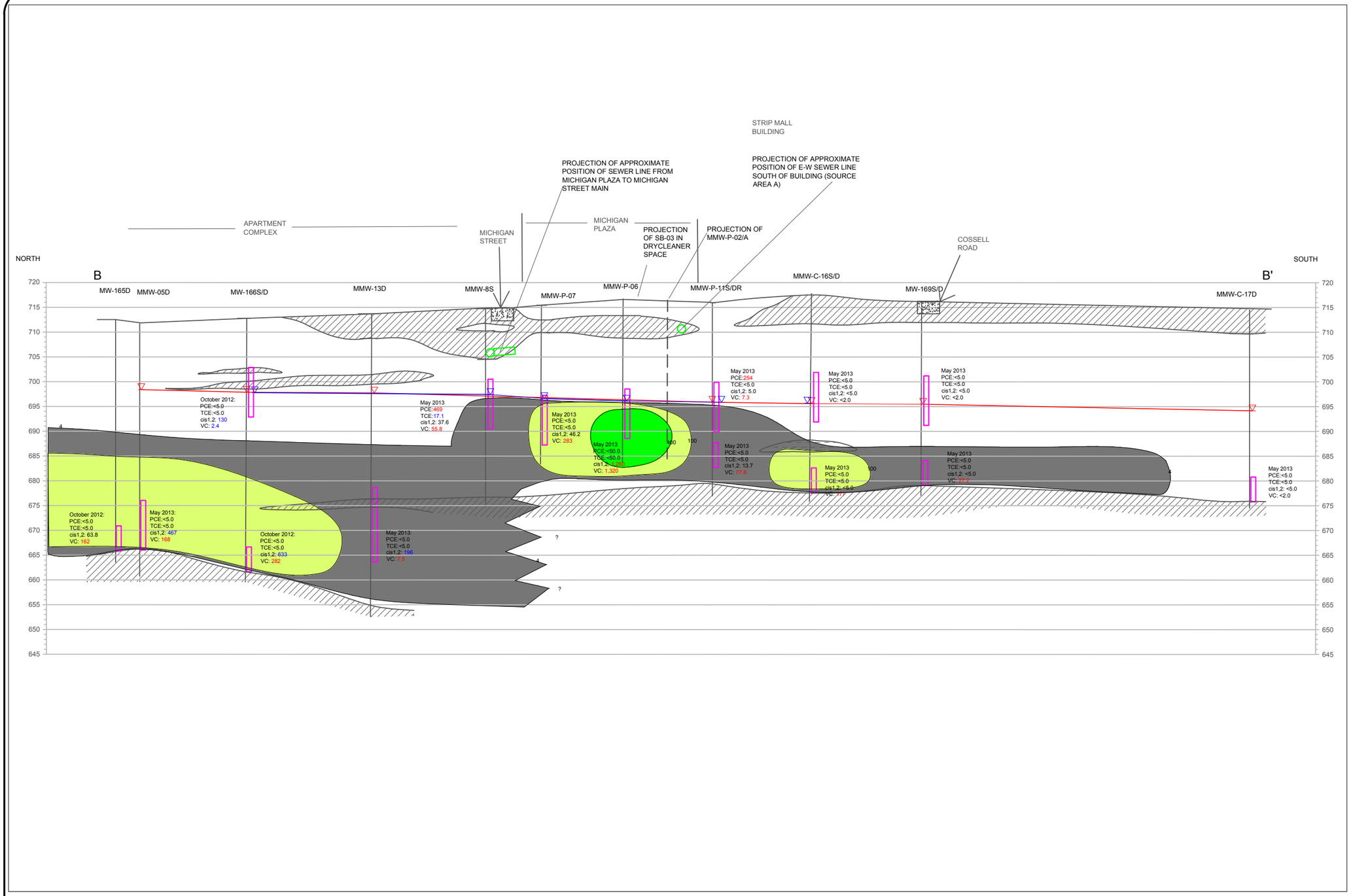
GEOLOGIC CROSS-SECTION B - B' - CIS 1,2-DCE IN GROUNDWATER

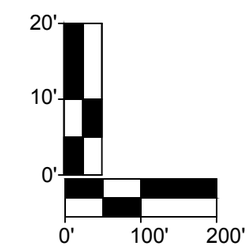
MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE
31s



LEGEND

- Sand
- Clay
- Silt
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (Deep)
- >400 ug/L
- >100 ug/L
- >4 ug/L



Vertical Exaggeration = 10X

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GEOLOGIC CROSS-SECTION B - B' - VC IN GROUNDWATER

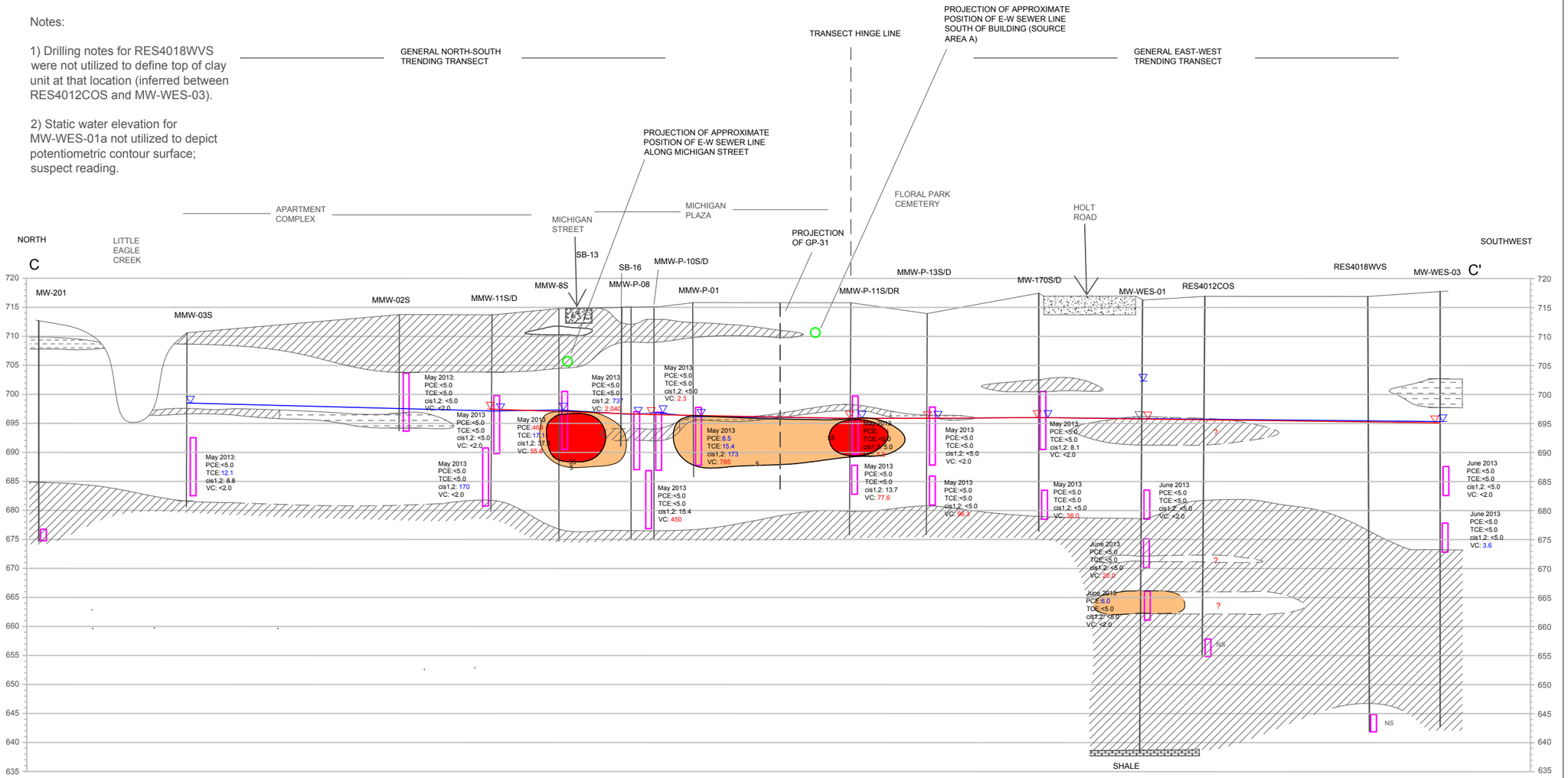
MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE
31t

Notes:

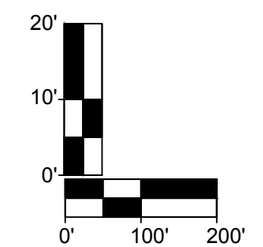
1) Drilling notes for RES4018WVS were not utilized to define top of clay unit at that location (inferred between RES4012COS and MW-WES-03).

2) Static water elevation for MW-WES-01a not utilized to depict potentiometric contour surface; suspect reading.



LEGEND

- Sand
- Clay
- Silt
- Shale (Bedrock)
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (intermediate EPA well if present)
- Static Water Level 11/12/2012 (Deep)
- >55 ug/L
- >5 ug/L



Vertical Exaggeration = 10X

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GEOLOGIC CROSS-SECTION C - C' - PCE IN GROUNDWATER

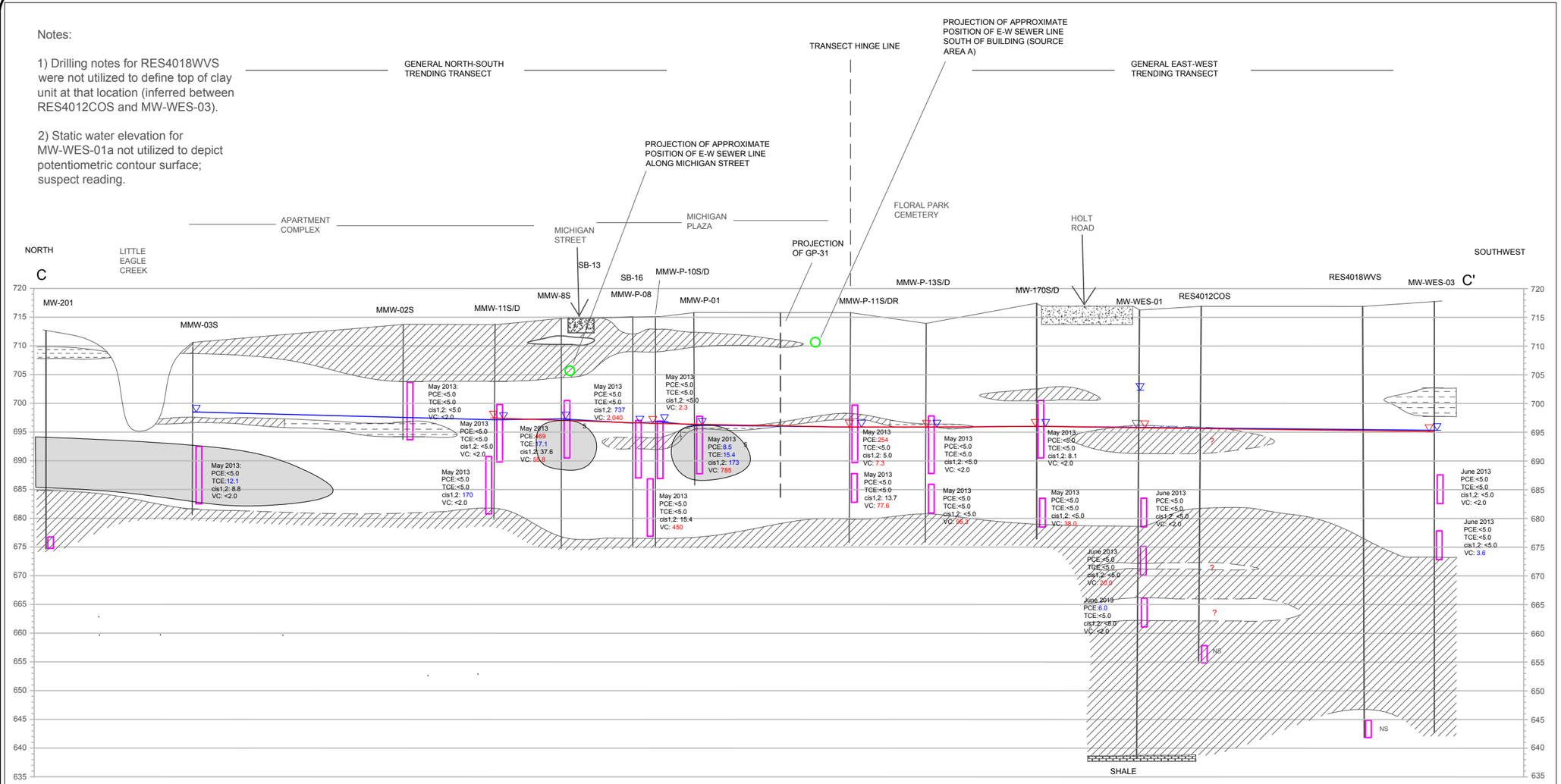
MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE
31u

Notes:

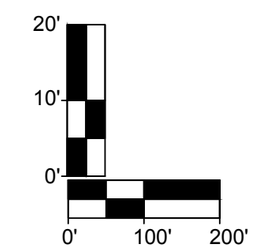
1) Drilling notes for RES4018WVS were not utilized to define top of clay unit at that location (inferred between RES4012COS and MW-WES-03).

2) Static water elevation for MW-WES-01a not utilized to depict potentiometric contour surface; suspect reading.



LEGEND

- Sand
- Clay
- Silt
- Shale (Bedrock)
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (intermediate EPA well if present)
- Static Water Level 11/12/2012 (Deep)
- >5 ug/L



Vertical Exaggeration = 10X

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GEOLOGIC CROSS-SECTION C - C' - TCE IN GROUNDWATER

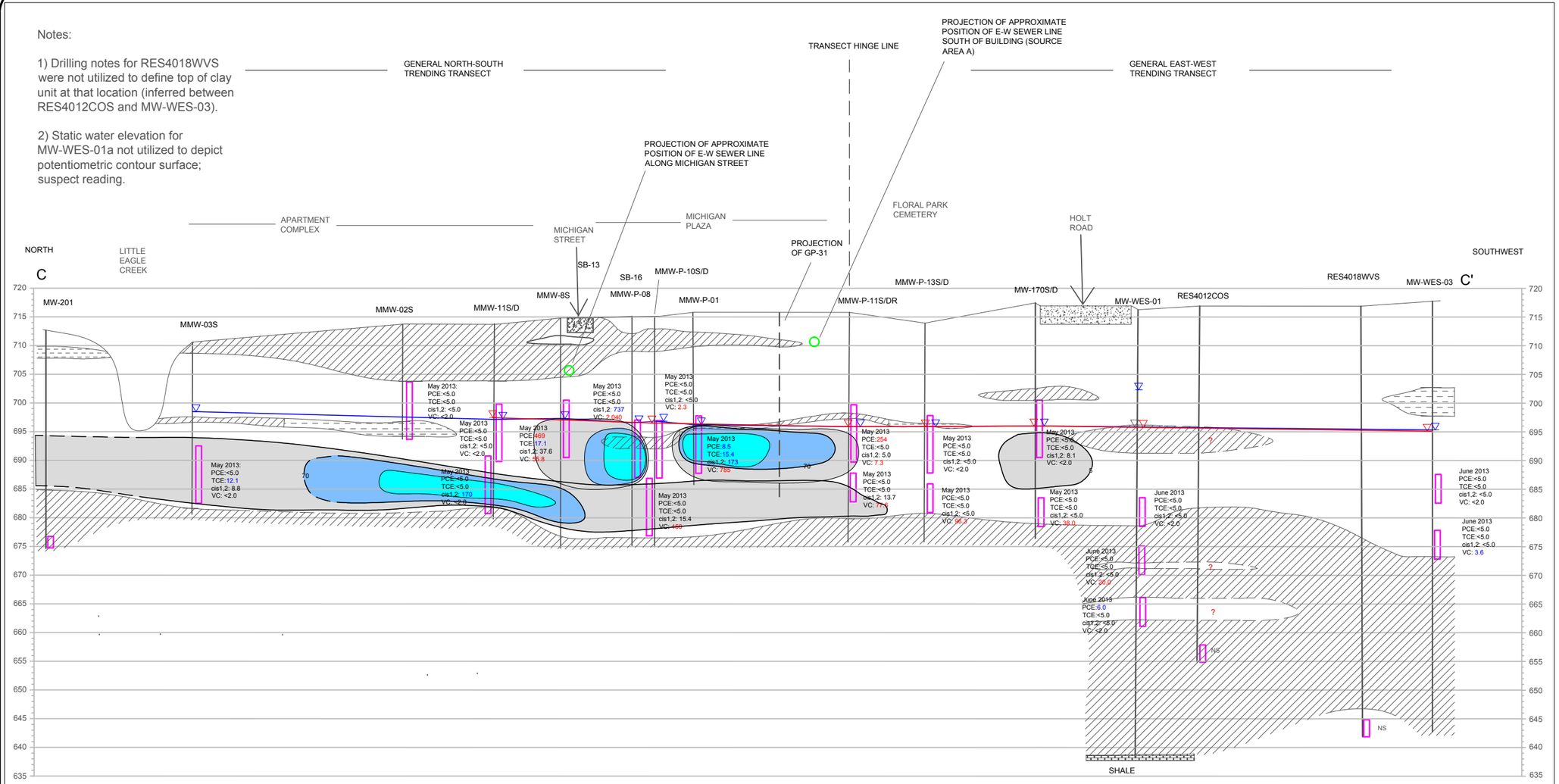
MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE
31v

Notes:

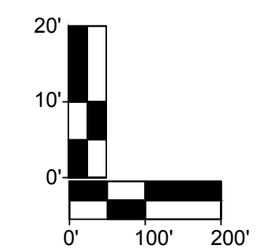
1) Drilling notes for RES4018WVS were not utilized to define top of clay unit at that location (inferred between RES4012COS and MW-WES-03).

2) Static water elevation for MW-WES-01a not utilized to depict potentiometric contour surface; suspect reading.



LEGEND

- Sand
- Clay
- Silt
- Shale (Bedrock)
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (intermediate EPA well if present)
- Static Water Level 11/12/2012 (Deep)
- >1000 ug/L
- >100 ug/L
- >70 ug/L
- >5 ug/L



Vertical Exaggeration = 10X

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GEOLOGIC CROSS-SECTION C - C' - CIS 1,2-DCE IN GROUNDWATER

MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

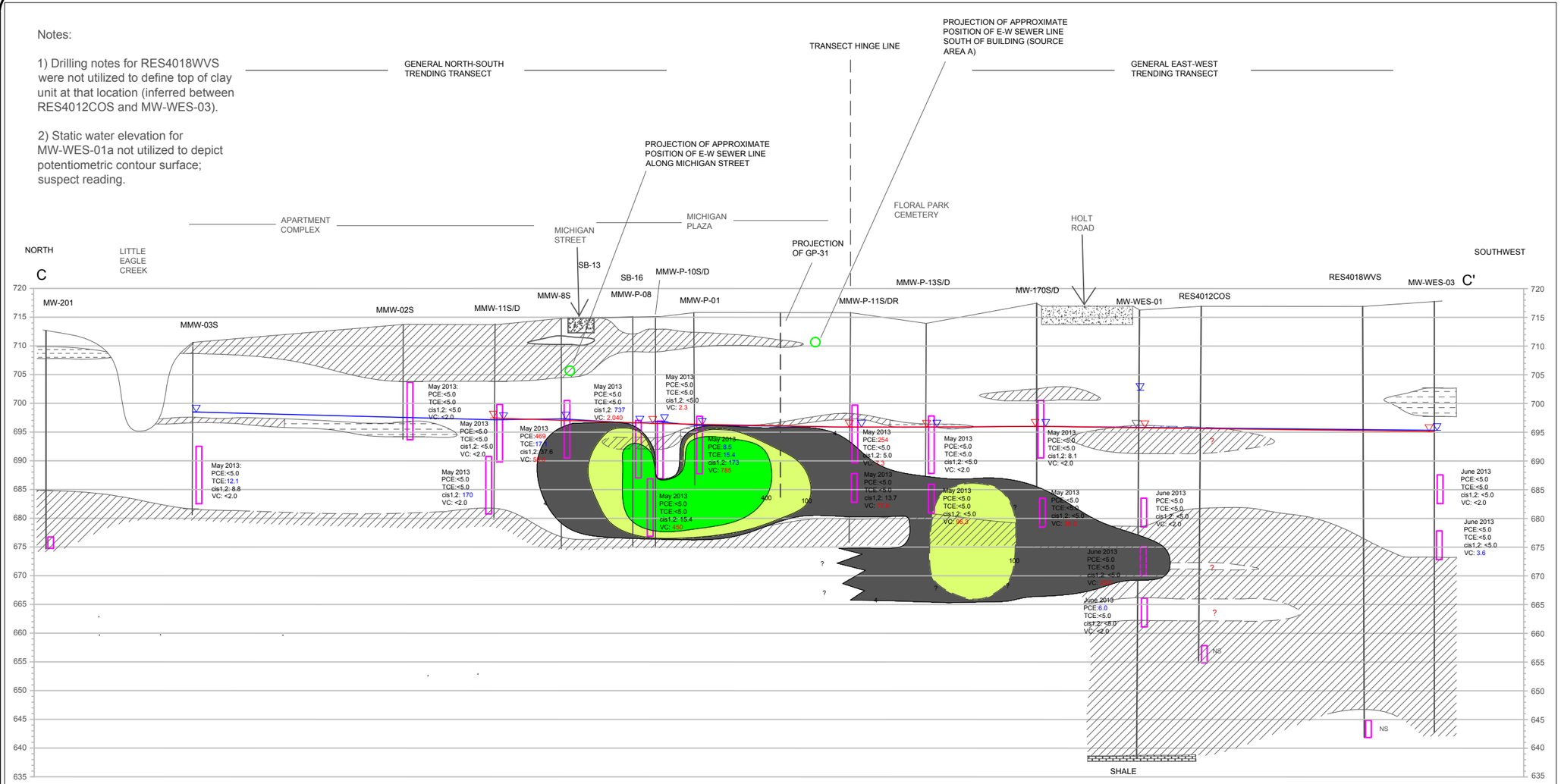
FIGURE

31w

Notes:

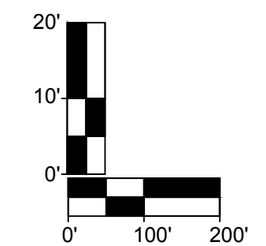
1) Drilling notes for RES4018WVS were not utilized to define top of clay unit at that location (inferred between RES4012COS and MW-WES-03).

2) Static water elevation for MW-WES-01a not utilized to depict potentiometric contour surface; suspect reading.



LEGEND

- Sand
- Clay
- Silt
- Shale (Bedrock)
- Monitoring Well Screen Interval
- Static Water Level 11/12/2012 (Shallow)
- Static Water Level 11/12/2012 (intermediate EPA well if present)
- Static Water Level 11/12/2012 (Deep)
- >400 ug/L
- >100 ug/L
- >4 ug/L



Vertical Exaggeration = 10X

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GEOLOGIC CROSS-SECTION C - C' - VC IN GROUNDWATER

MICHIGAN PLAZA
3801 - 3823 MICHIGAN STREET
INDIANAPOLIS, INDIANA

FIGURE

31x