

CITY OF HOUSTON



**PUBLIC WORKS AND
ENGINEERING
PLANNING & DEVELOPMENT
DIVISION**

Application for Approval of Municipal Setting Designation

APPLICANT INFORMATION

Applicant's Name: Davis Holdings, LP
 Individual Private Entity Public Entity Non-Profit Entity Other _____
Address: 1221 McKinney, Suite 3100 Houston Texas 77010
(Street) (City) (State) (Zip)
Phone No.: 713-659-3131 Fax No.: 713-654-0815
Email: lancedavis@davisholdingslp.com

Contact Information

Name of Contact: Lance Davis
Title: President
Address: 1221 McKinney, Suite 3100 Houston Texas 77010
(Street) (City) (State) (Zip)
Phone No.: 713-659-3131 Fax No.: 713-654-0815
Email: lancedavis@davisholdingslp.com

SITE INFORMATION

Site HCAD No(s): 1165710000009
Site Name: Town & Country Square LTD (Former FMC Property)
Site Size: 13.5 Acres
Site Address: 10516 Old Katy Road Houston Texas 77043
(Street) (City) (State) (Zip)
(List all owners – additional sheet is attached, if needed)
Owner: Davis Holdings, LP
Owner Address: 1221 McKinney, Suite 3100 Houston Texas 77010
(Street) (City) (State) (Zip)
Name of Contact: Lance Davis
Title: President
Organization: _____
Phone No.: 713-659-3131 Fax No.: 713-654-0815
Email: lancedavis@davisholdingslp.com

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EXECUTIVE SUMMARY

The former FMC property (referred to herein as the “designated property”) is located at 10516 Old Katy Road, Houston, Harris County, Texas 77043. The designated property covers approximately 13.5 acres and is located at the intersection of Old Katy Road and Lumpkin Road in West Houston. The designated property is developed for commercial use and is primarily covered by asphalt and concrete pavement. One building exists on the designated property and is used as a retail shopping center, currently known as Town & Country Square, LTD. The designated property is bordered to the east by a former PetSmart and The Great Indoors, to the north by Home Depot, to the west by Lumpkin Road and Houston Community College, and to the south by Old Katy Road.

Environmental site assessment (ESA) activities performed at the designated property have identified chemicals of concern (COC) in groundwater above the Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program (TRRP) residential protective concentration levels (PCL).

Information from historical Phase I ESAs indicates that the designated property was mainly undeveloped prior to 1956. From 1956 through 1983, FMC owned and operated a plant for the manufacture of fluid control devices for the oil and petroleum industries. The property was in full operation from the 1960s until December 1983 when production temporarily ceased. Limited production resumed in 1983 and continued until 1984, when the area was subsequently used for warehousing and shipping until March 1985. In 1985, the property was sold to a developer who converted the facility into a retail shopping center. The planned future use of this property is commercial/industrial.

Based on a review of environmental records, a drum storage area for paint spray sludge was present just north of the northwest corner of the building. Two 42-cubic yard trash compactors were located directly north and east of the main building. These trash compactors were reportedly used for general plant trash and metal scrap and shavings storage prior to off-site disposal. In addition, a 5,000-gallon underground steel holding tank was located just to the west of the drum storage area but was removed in 1985.

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EXECUTIVE SUMMARY (cont.)

No soil impacts have been identified on the designated property as a result of site investigations. Based on results from groundwater monitoring data collected between 1993 and 2012, two groundwater-bearing units (GWBU) have been impacted beneath the designated property. The first GWBU is impacted with benzene and two chlorinated volatile organic compounds (VOCs) including cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride. The plume of affected groundwater in the first GWBU is limited to a localized area in the northwestern portion of the designated property. The second GWBU is impacted with chlorinated VOCs including trichloroethene (TCE) and 1,1-dichloroethene (1,1-DCE). The groundwater COC plumes present in both GWBUs appear to be stable and/or decreasing. The first GWBU is discontinuous beneath the designated property, but exists between 17 to 20 feet (ft) below ground surface (bgs) where encountered. The second GWBU is continuous beneath the designated property and exists between 55 to 70 ft bgs. Groundwater flow in the first GWBU is toward the east-northeast, and groundwater flow in the second GWBU is toward the south-southwest.

There have been no COCs detected in the first GWBU above the TRRP non-ingestion PCLs. Based on the most recent groundwater monitoring results, the COCs benzene, TCE, cis-1,2-DCE, 1,1-DCE, and vinyl chloride have been reported in groundwater at concentrations greater than their respective TCEQ TRRP Tier 1 groundwater residential ingestion PCLs. Analytical results from groundwater monitoring have shown that the TRRP PCL exceedance (PCLE) zones are stable in size.

A receptor survey indicated that no hospitals, nursing homes, churches, schools, or recreational areas are present within 500 feet of the designated property; however, mixed commercial/residential developments are located adjacent to the site to the east and south. No ecological receptors exist within 500 feet of the designated property.

There are no municipalities located within a 0.5-mile radius of the designated property other than the City of Houston. In addition to the City of Houston, Bunker Hill Village, Hedwig Village, Hilshire Village, Hunter's Creek Village, Spring Valley, and Piney Point Village are located within a 5-mile radius of the designated property. Two registered water wells are located within 0.5-miles of the designated property. The wells range in depth from 610 ft bgs to 1,335 ft bgs. There are no private water wells located within 0.5-miles of the designated property.

Appendix B

A description of the current use, and, to the extent known, the anticipated use(s), of the designated property and properties within 500 feet of the boundary of the designated property.

The designated property consists of a multi-tenant retail shopping center. The properties that exist within 500 feet of the designated property are used for commercial/industrial purposes and are described below.

- Home Depot is located adjacent to the north.
- Old Katy Road is located adjacent to the south.
- A former PetSmart and The Great Indoors are two adjacent properties located to the east.
- Lumpkin Road and Houston Community College are adjacent to the west.

The future use of the designated property and the surrounding properties is expected to remain commercial/industrial.

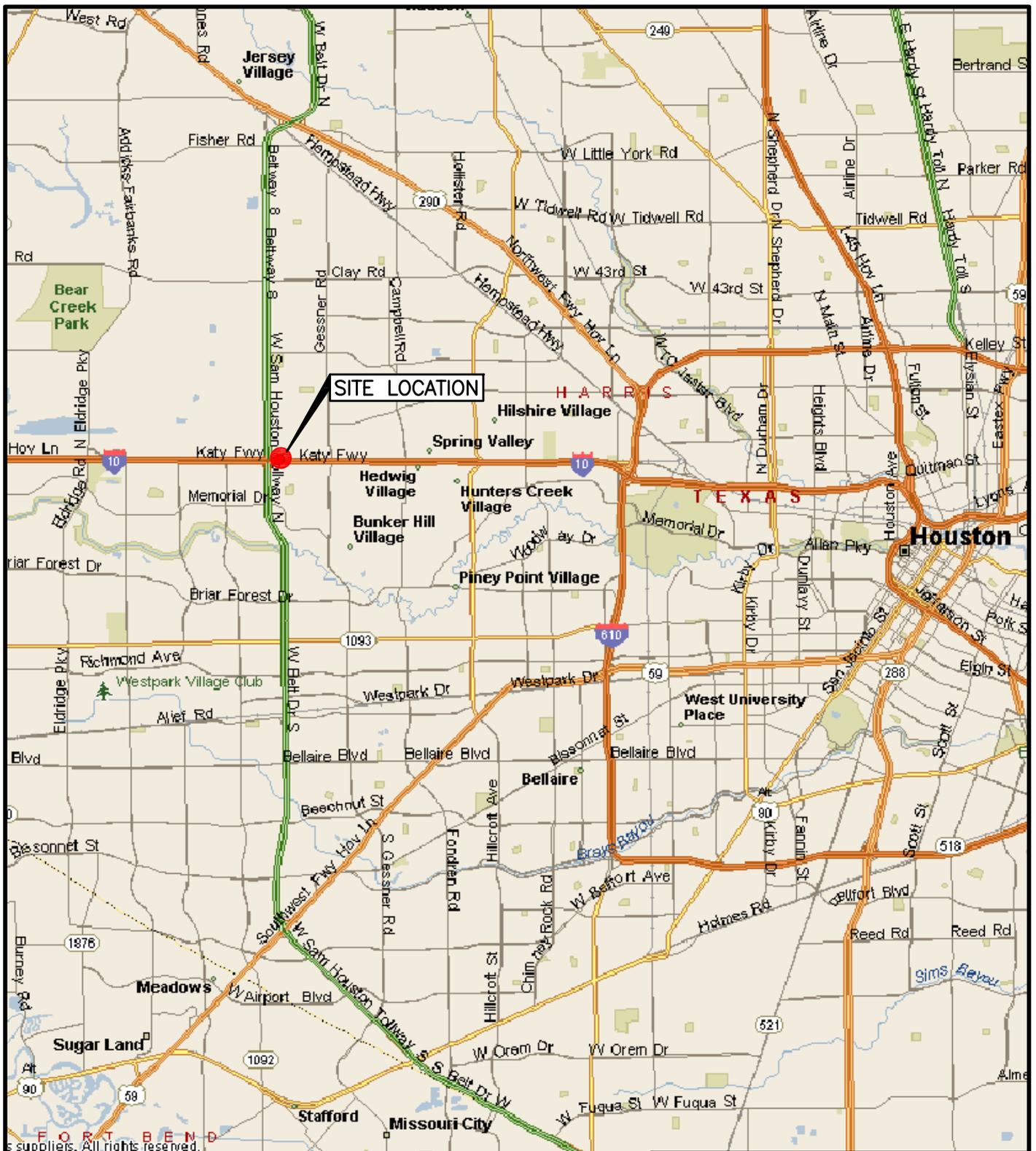
Appendix C

A site map showing:

- a. The location of the designated property.*
- b. The topography of the designated property as indicated on publicly available sources, which must note the watershed including the nearest surface water body and whether the designated property is located in a floodplain or floodway, as those terms are defined in Chapter 19 of the Code of Ordinances.*
- c. The detected area of groundwater contamination.*
- d. The location of all soil sampling locations and all groundwater monitoring wells.*
- e. Groundwater gradients, to the extent known, and direction of groundwater flow.*
- f. The ingestion protective concentration level exceedance zone (PCLE) for each contaminant of concern, to the extent known.*

Attached Figures

- Figure C-1: Site Location Map
Figure C-2: Topography and Watershed Map
Figure C-3: First Water-Bearing Zone – Benzene PCLE Map
Figure C-4: First Water-Bearing Zone – Cis-1,2-DCE PCLE Map
Figure C-5: First Water-Bearing Zone – Vinyl Chloride PCLE Map
Figure C-6: Second Water-Bearing Zone – TCE PCLE Map
Figure C-7: Second Water-Bearing Zone – 1,1-DCE PCLE Map
Figure C-8: First Water-Bearing Zone – Potentiometric Map, December 2009
Figure C-9: Second Water-Bearing Zone – Potentiometric Map, March 2010
Figure C-10: Historical Soil Investigation Sample Locations



**FIGURE C-1
SITE LOCATION MAP**

**FORMER FMC PROPERTY
10516 OLD KATY ROAD
HOUSTON, TEXAS**

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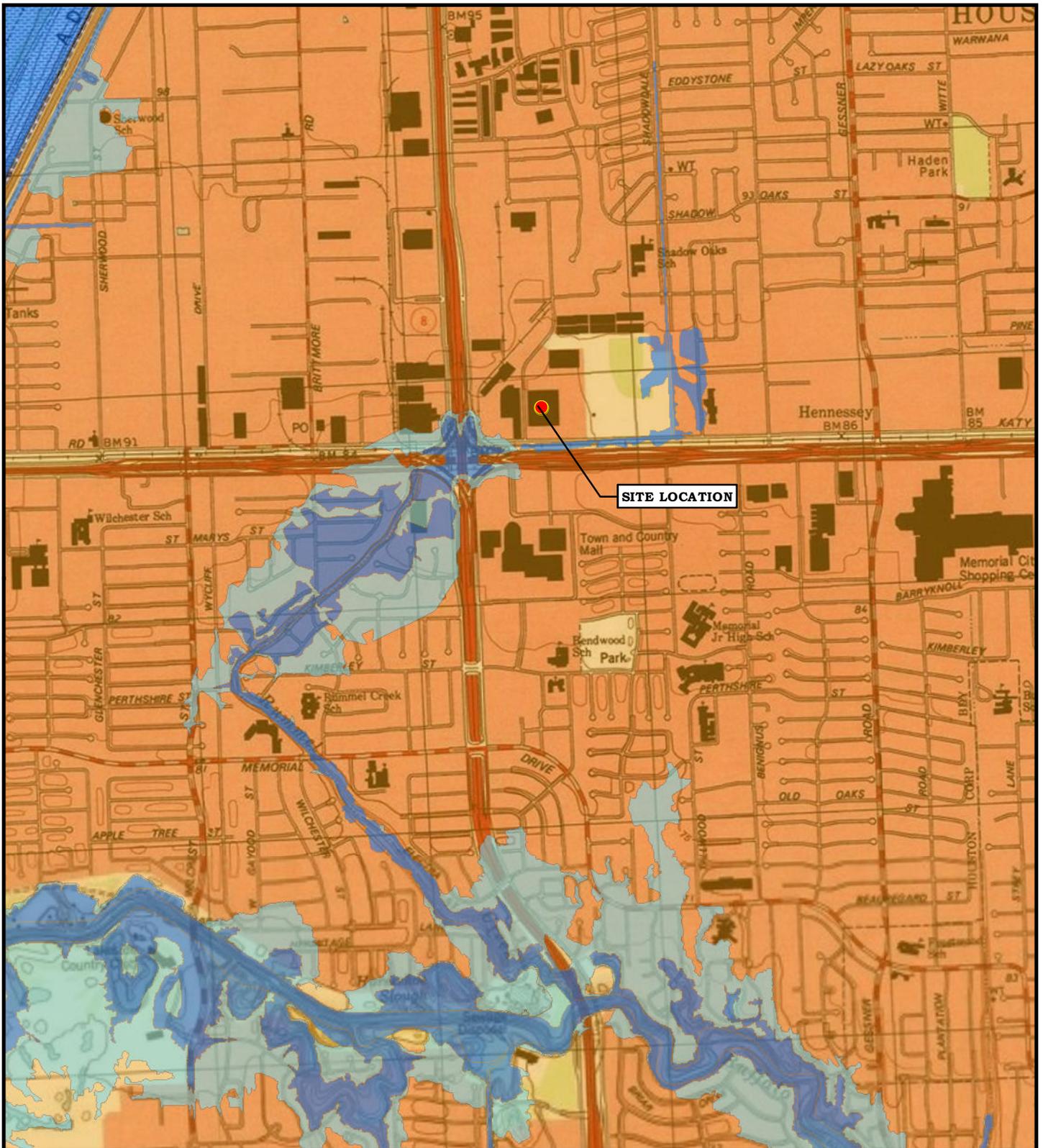


FIGURE C-2
TOPOGRAPHY AND WATERSHED MAP
FORMER FMC PROPERTY
10516 KATY FREEWAY
HOUSTON, HARRIS COUNTY, TEXAS

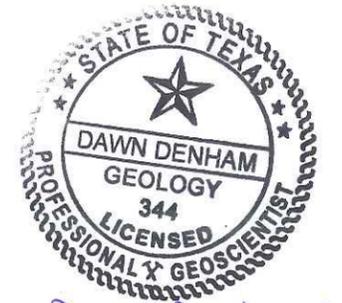
LEGEND

- SITE LOCATION
- WATERSHED
- BUFFALO BAYOU
- FLOOD PLAIN DATA
- 100 YEAR FLOOD PLAIN
- 500 YEAR FLOOD PLAIN



SOURCE: USGS, FEMA/TARP, HARRIS COUNTY ENGINEERING DIV.

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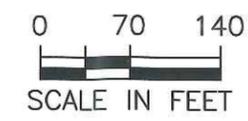
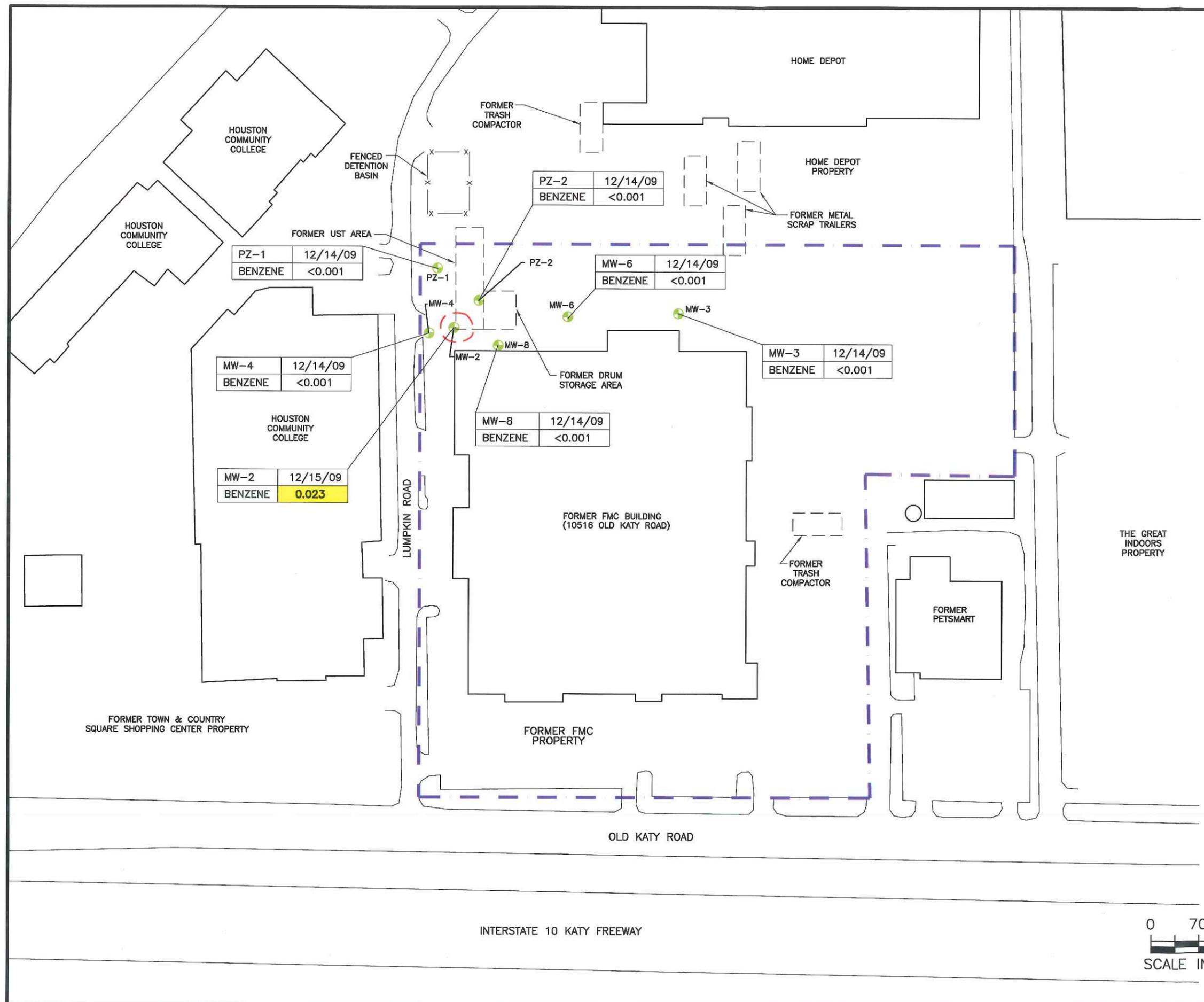
Dawn Denham

LEGEND:

- MW-3 FIRST WATER-BEARING ZONE MONITOR WELL
- NS NOT SAMPLED
- APPROXIMATE FORMER FMC SITE BOUNDARY
- CHAIN LINK FENCE
- ESTIMATED EXTENT OF PCLE ZONE

NOTES:

1. ALL CONCENTRATIONS IN mg/L.
2. BOLD VALUES INDICATE DETECTED CONCENTRATIONS.
3. HIGHLIGHTED VALUES EXCEED TIER 1 RESIDENTIAL PCL:
BENZENE = 0.005 mg/L
4. '<' INDICATES NON-DETECT VALUES.

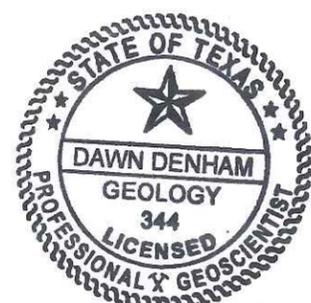
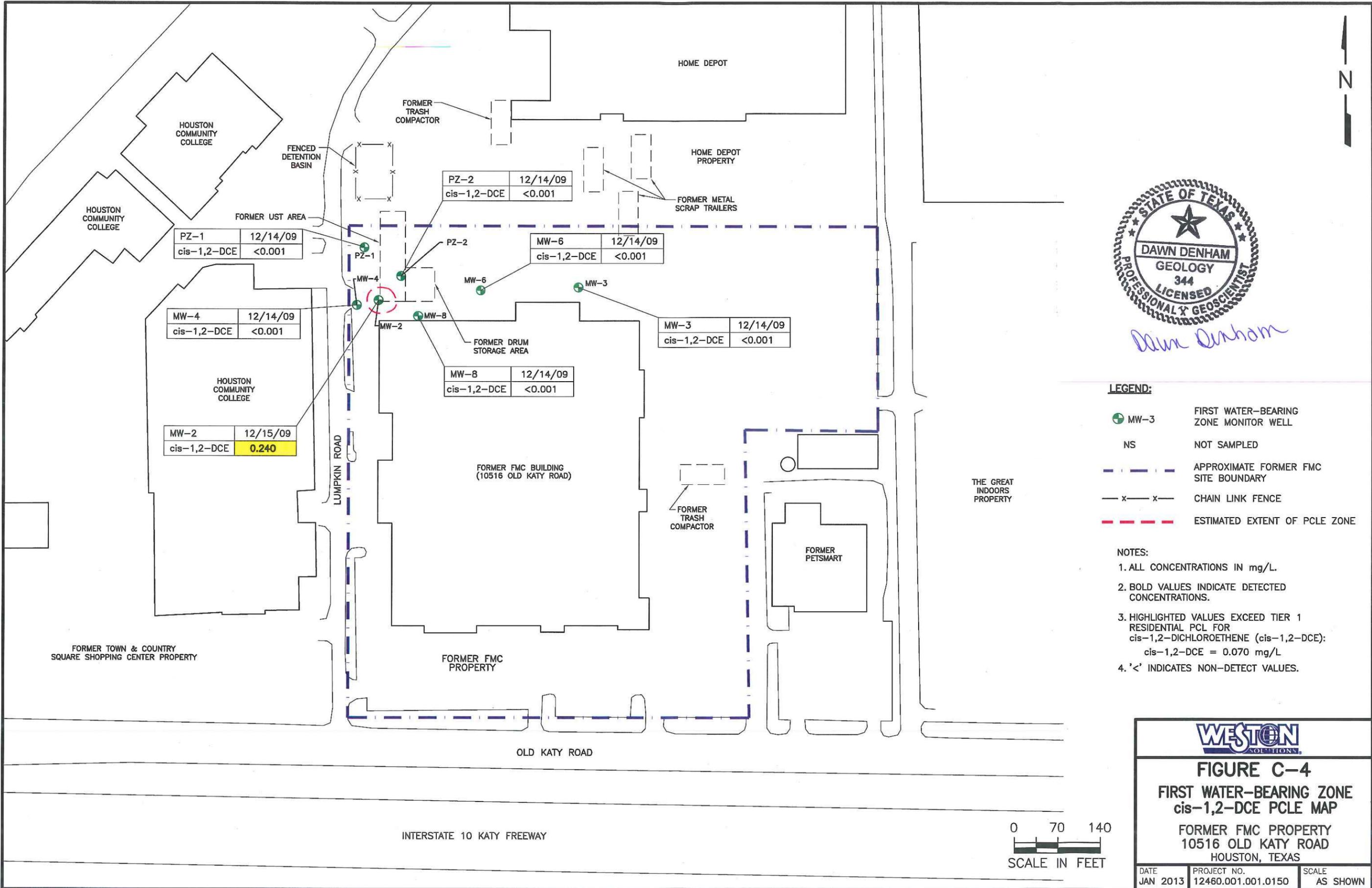


WESTON SOLUTIONS

FIGURE C-3
FIRST WATER-BEARING ZONE
BENZENE PCLE MAP

FORMER FMC PROPERTY
 10516 OLD KATY ROAD
 HOUSTON, TEXAS

DATE JAN 2013	PROJECT NO. 12460.001.001.0150	SCALE AS SHOWN
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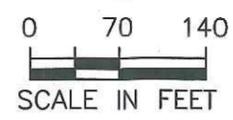


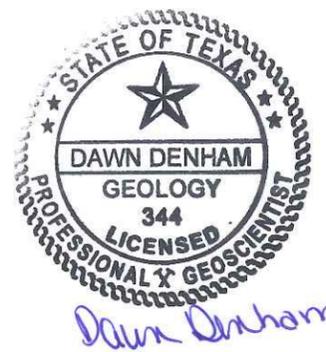
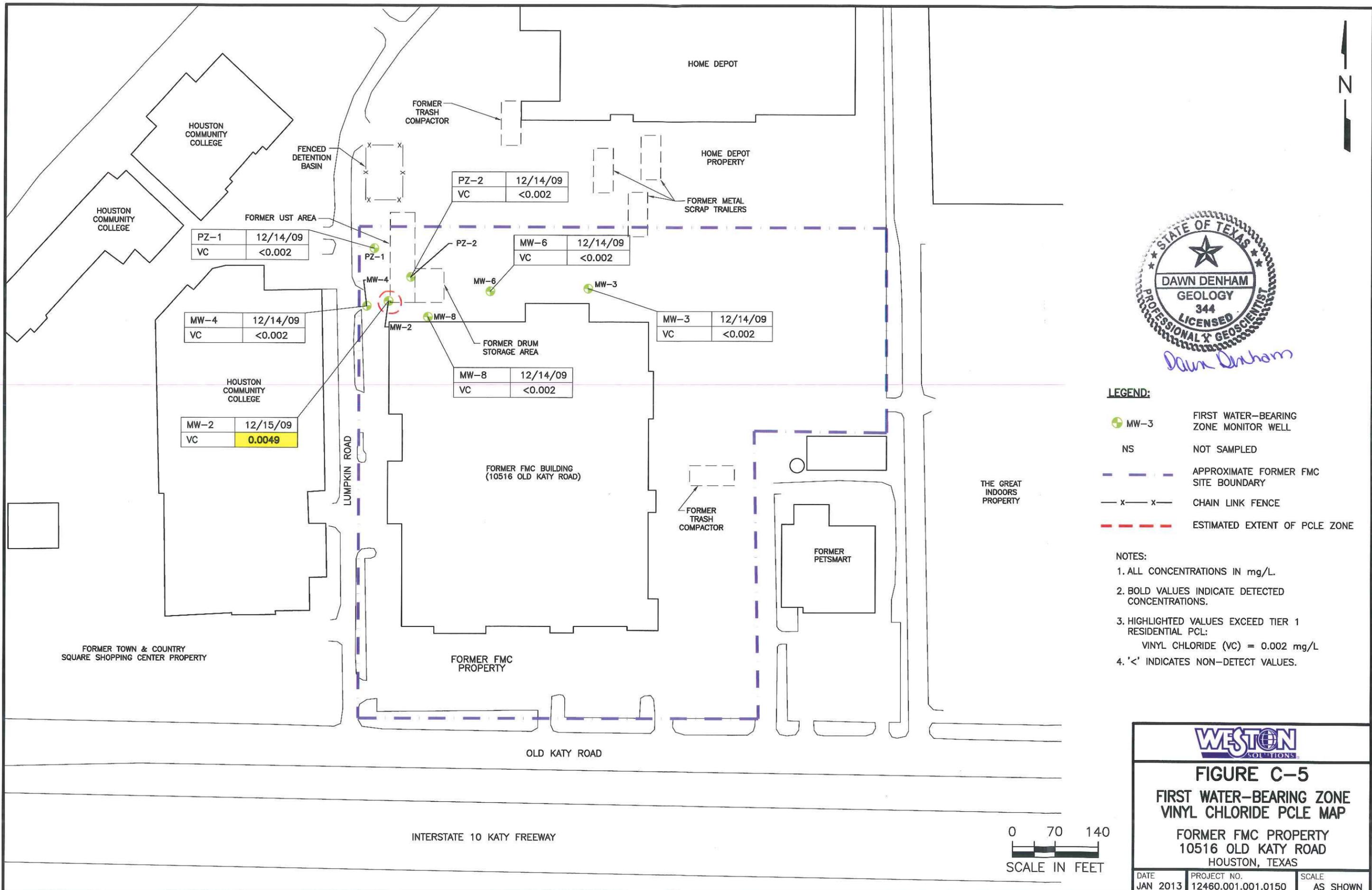
Dawn Denham

WESTON SOLUTIONS

FIGURE C-4
FIRST WATER-BEARING ZONE
cis-1,2-DCE PCLE MAP
 FORMER FMC PROPERTY
 10516 OLD KATY ROAD
 HOUSTON, TEXAS

DATE	PROJECT NO.	SCALE
JAN 2013	12460.001.001.0150	AS SHOWN



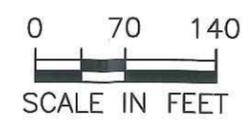


- LEGEND:**
- MW-3 FIRST WATER-BEARING ZONE MONITOR WELL
 - NS NOT SAMPLED
 - - - - - APPROXIMATE FORMER FMC SITE BOUNDARY
 - x - x - CHAIN LINK FENCE
 - - - - - ESTIMATED EXTENT OF PCLE ZONE

- NOTES:**
1. ALL CONCENTRATIONS IN mg/L.
 2. BOLD VALUES INDICATE DETECTED CONCENTRATIONS.
 3. HIGHLIGHTED VALUES EXCEED TIER 1 RESIDENTIAL PCL:
VINYL CHLORIDE (VC) = 0.002 mg/L
 4. '<' INDICATES NON-DETECT VALUES.

FIGURE C-5
FIRST WATER-BEARING ZONE
VINYL CHLORIDE PCLE MAP
 FORMER FMC PROPERTY
 10516 OLD KATY ROAD
 HOUSTON, TEXAS

DATE	PROJECT NO.	SCALE
JAN 2013	12460.001.001.0150	AS SHOWN



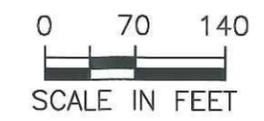
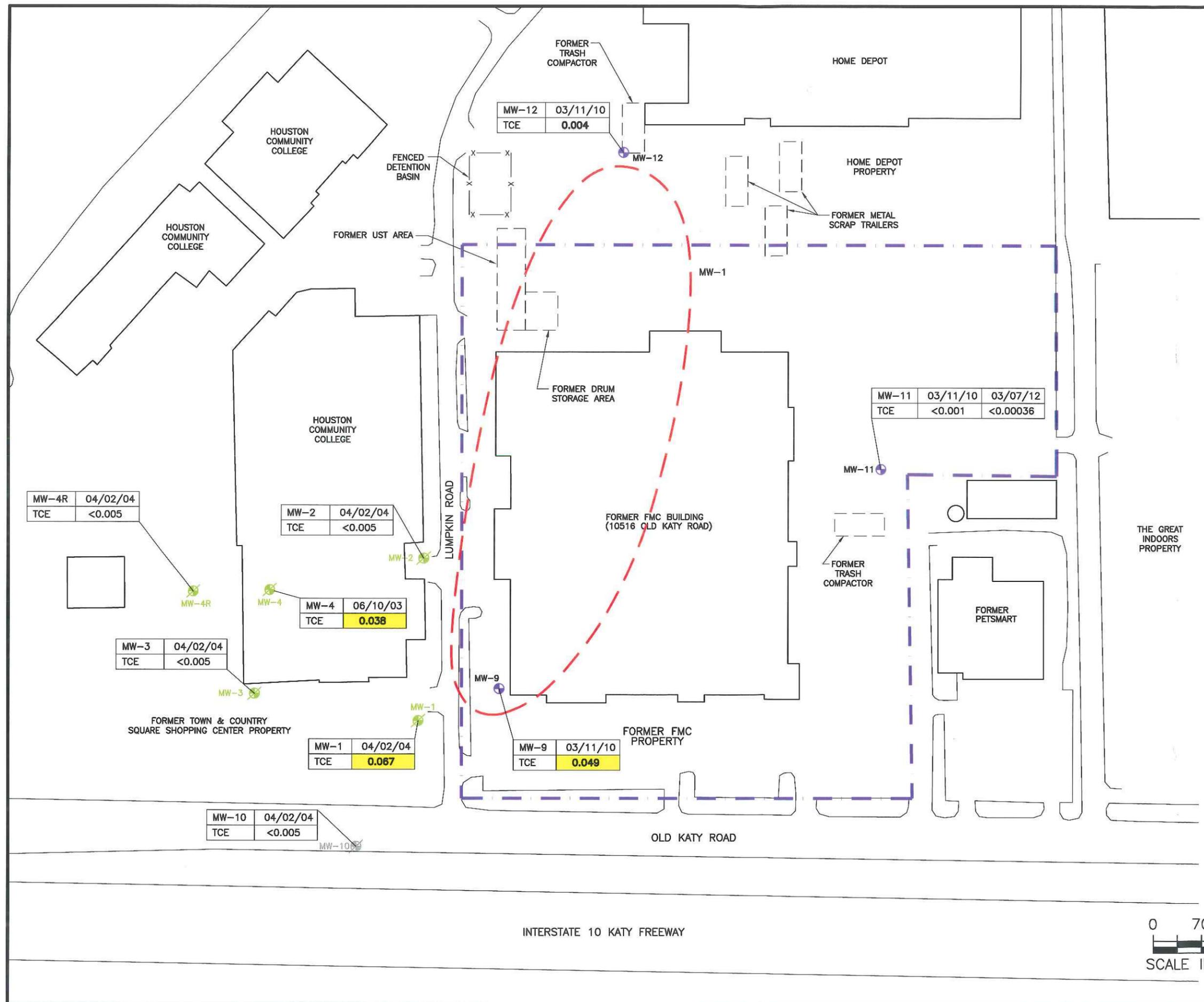


LEGEND:

- MW-11 SECOND WATER-BEARING ZONE MONITOR WELL
- MW-1 ABANDONED TOWN & COUNTRY SQUARE SHOPPING CENTER MONITOR WELL
- MW-10 ABANDONED FORMER FMC MONITOR WELL
- APPROXIMATE FORMER FMC SITE BOUNDARY
- CHAIN LINK FENCE
- ESTIMATED EXTENT OF PCLE ZONE

NOTES:

1. ALL CONCENTRATIONS IN mg/L.
2. BOLD VALUES INDICATE DETECTED CONCENTRATIONS.
3. HIGHLIGHTED VALUES EXCEED TIER 1 RESIDENTIAL PCL FOR TRICHLOROETHENE (TCE):
TCE = 0.005 mg/L
4. '<' INDICATES NON-DETECT VALUES.

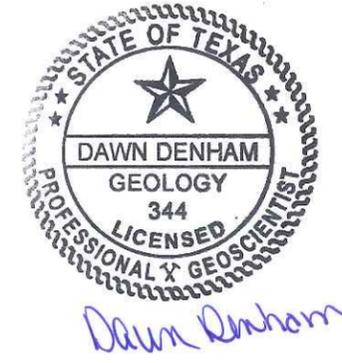
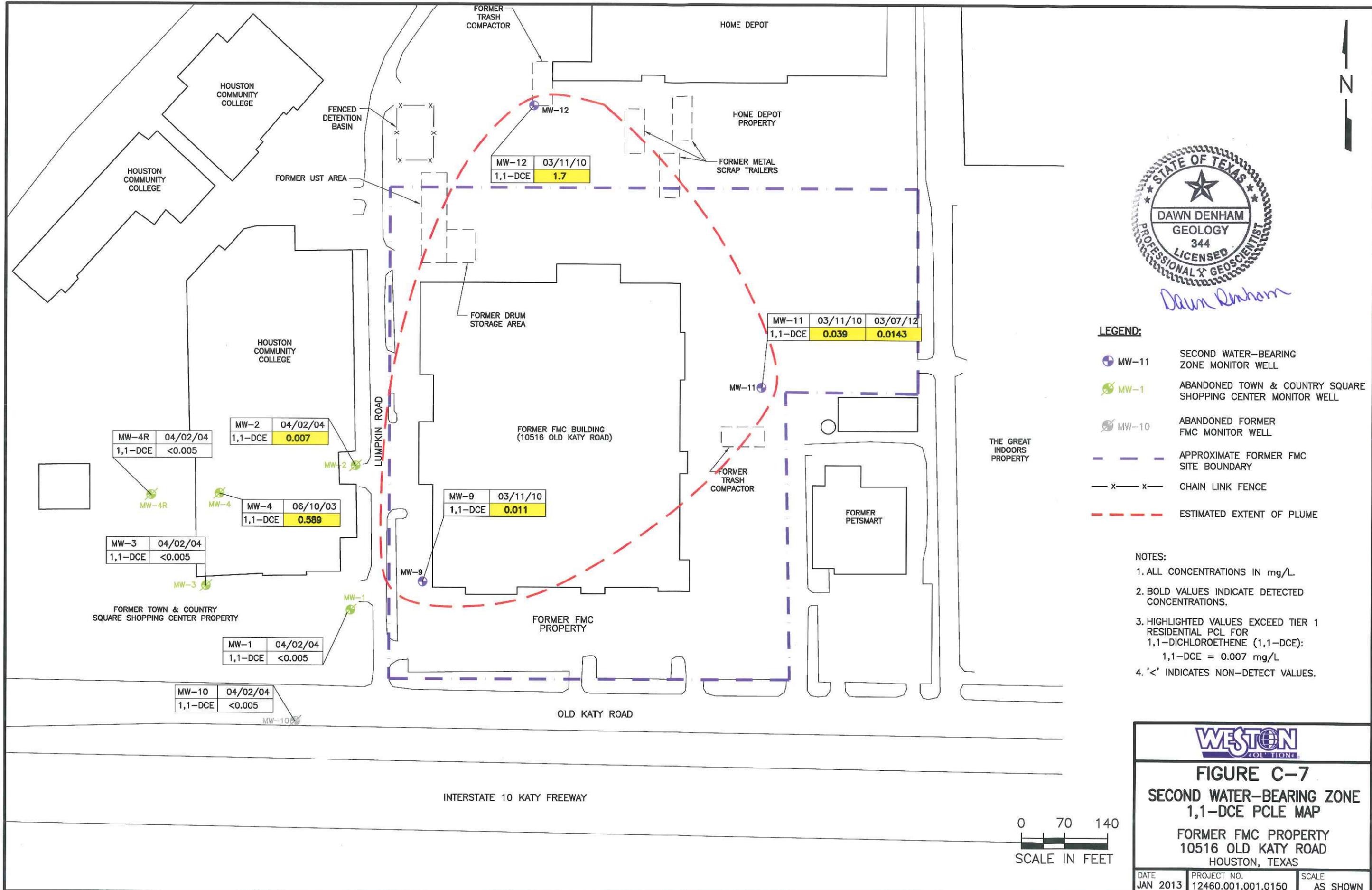


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FIGURE C-6
SECOND WATER-BEARING ZONE
TCE PCLE MAP

FORMER FMC PROPERTY
10516 OLD KATY ROAD
HOUSTON, TEXAS

DATE JAN 2013	PROJECT NO. 12460.001.001.0150	SCALE AS SHOWN
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- LEGEND:**
- ⊕ MW-11 SECOND WATER-BEARING ZONE MONITOR WELL
 - ⊗ MW-1 ABANDONED TOWN & COUNTRY SQUARE SHOPPING CENTER MONITOR WELL
 - ⊗ MW-10 ABANDONED FORMER FMC MONITOR WELL
 - APPROXIMATE FORMER FMC SITE BOUNDARY
 - x-x- CHAIN LINK FENCE
 - ESTIMATED EXTENT OF PLUME

- NOTES:**
1. ALL CONCENTRATIONS IN mg/L.
 2. BOLD VALUES INDICATE DETECTED CONCENTRATIONS.
 3. HIGHLIGHTED VALUES EXCEED TIER 1 RESIDENTIAL PCL FOR 1,1-DICHLOROETHENE (1,1-DCE):
1,1-DCE = 0.007 mg/L
 4. '<' INDICATES NON-DETECT VALUES.



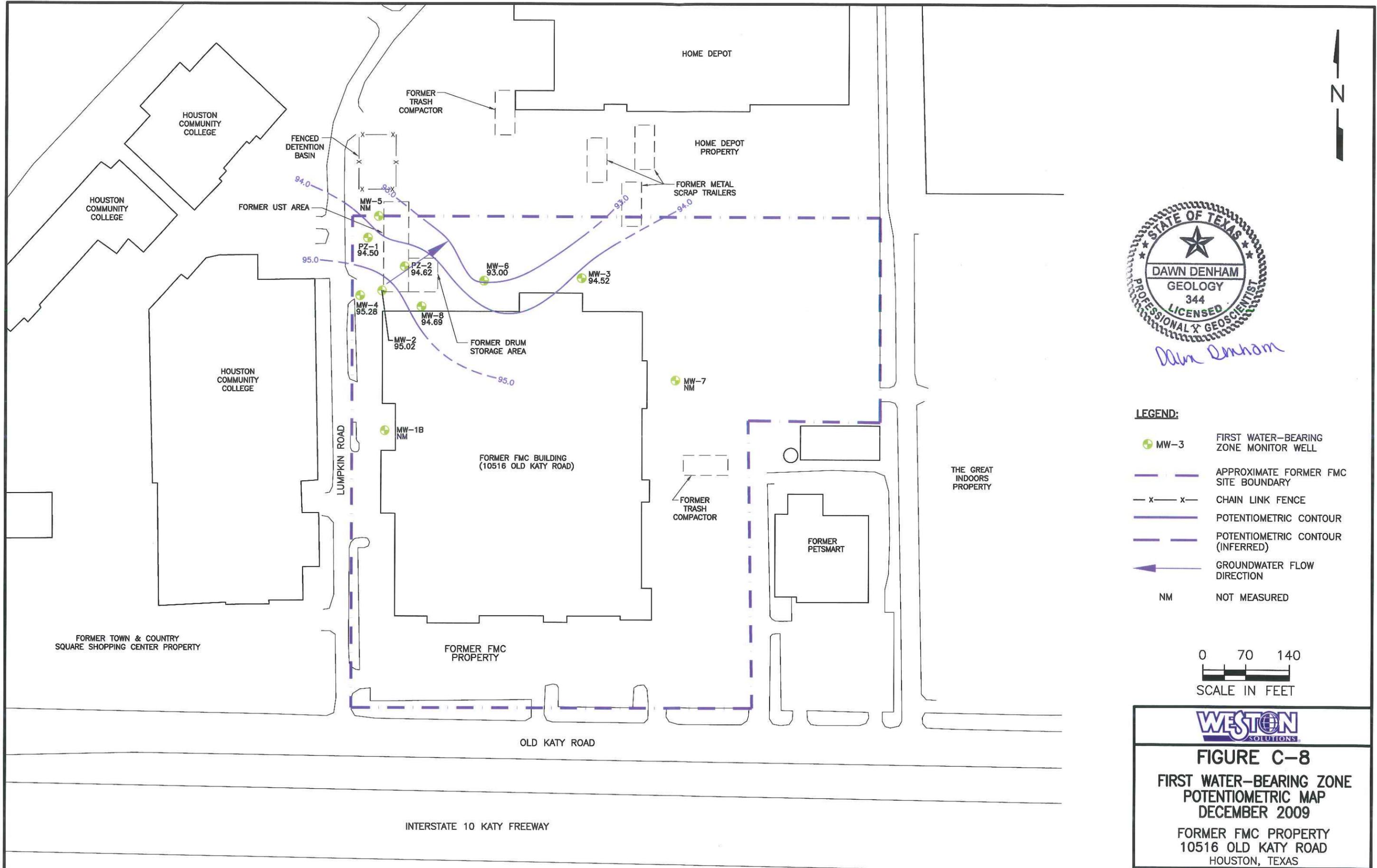
WESTON SOLUTIONS

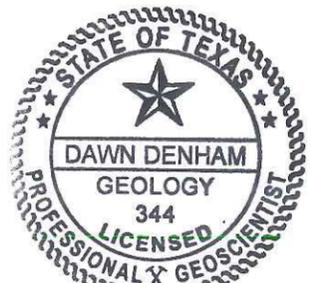
FIGURE C-7

**SECOND WATER-BEARING ZONE
1,1-DCE PCLE MAP**

**FORMER FMC PROPERTY
10516 OLD KATY ROAD
HOUSTON, TEXAS**

DATE JAN 2013	PROJECT NO. 12460.001.001.0150	SCALE AS SHOWN
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 Dawn Denham

- LEGEND:**
-  MW-3 FIRST WATER-BEARING ZONE MONITOR WELL
 -  APPROXIMATE FORMER FMC SITE BOUNDARY
 -  CHAIN LINK FENCE
 -  POTENTIOMETRIC CONTOUR
 -  POTENTIOMETRIC CONTOUR (INFERRED)
 -  GROUNDWATER FLOW DIRECTION
 - NM NOT MEASURED

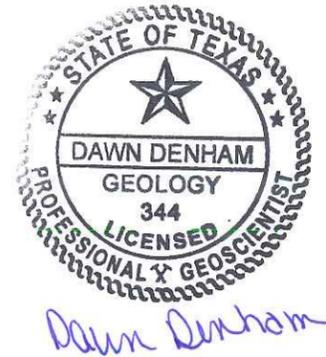
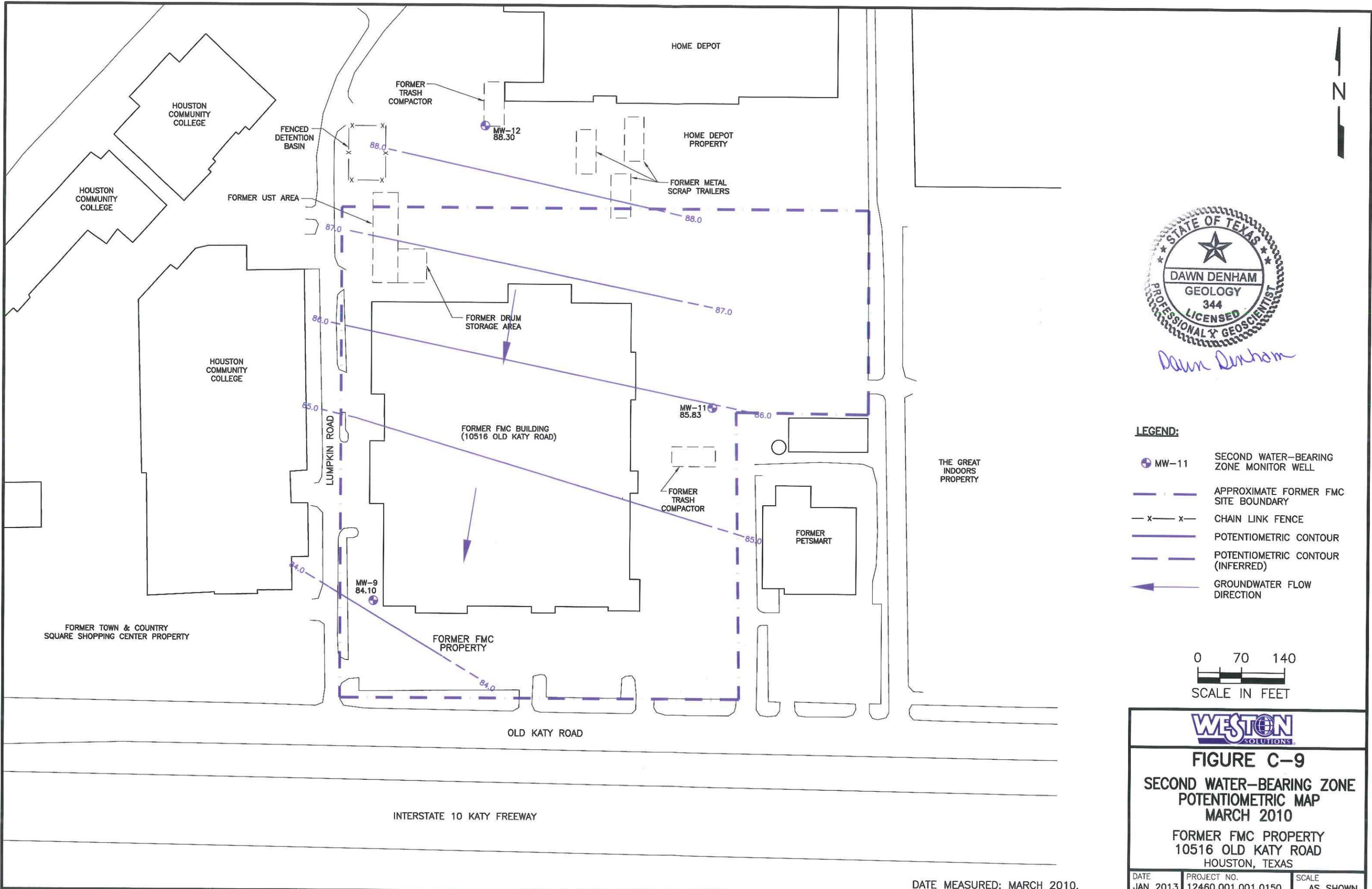
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FIGURE C-8
FIRST WATER-BEARING ZONE
POTENTIOMETRIC MAP
DECEMBER 2009
FORMER FMC PROPERTY
10516 OLD KATY ROAD
HOUSTON, TEXAS

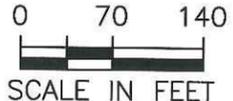
DATE MEASURED: 14 DECEMBER 2009.

DATE JAN 2013	PROJECT NO. 12460.001.001.0150	SCALE AS SHOWN
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LEGEND:

-  MW-11 SECOND WATER-BEARING ZONE MONITOR WELL
-  APPROXIMATE FORMER FMC SITE BOUNDARY
-  CHAIN LINK FENCE
-  POTENTIOMETRIC CONTOUR
-  POTENTIOMETRIC CONTOUR (INFERRED)
-  GROUNDWATER FLOW DIRECTION



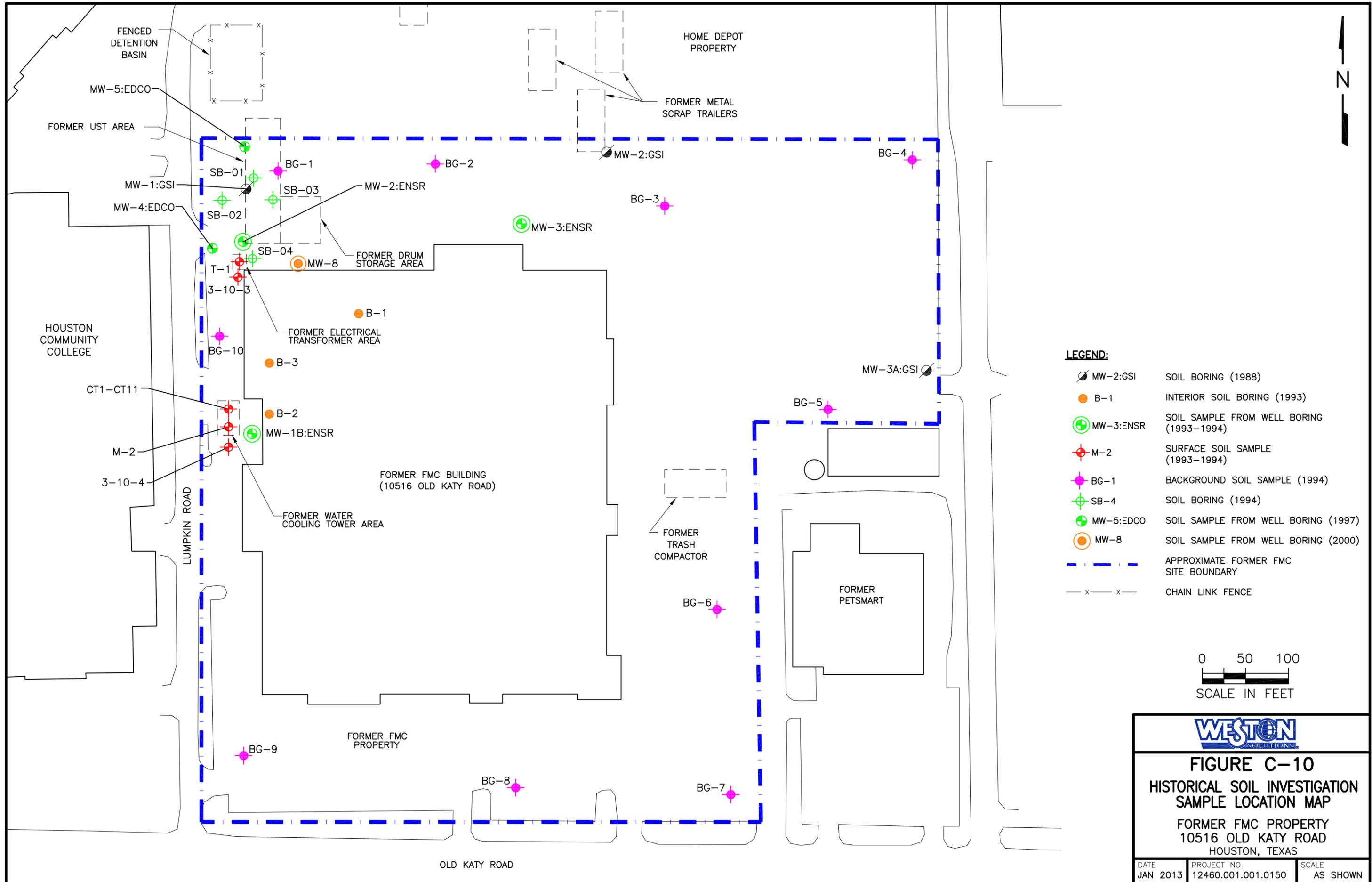
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FIGURE C-9
SECOND WATER-BEARING ZONE
POTENTIOMETRIC MAP
MARCH 2010

FORMER FMC PROPERTY
 10516 OLD KATY ROAD
 HOUSTON, TEXAS

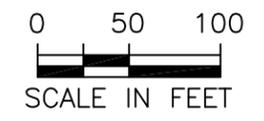
DATE MEASURED: MARCH 2010.

DATE JAN 2013	PROJECT NO. 12460.001.001.0150	SCALE AS SHOWN
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LEGEND:

	MW-2:GSI	SOIL BORING (1988)
	B-1	INTERIOR SOIL BORING (1993)
	MW-3:ENSR	SOIL SAMPLE FROM WELL BORING (1993-1994)
	M-2	SURFACE SOIL SAMPLE (1993-1994)
	BG-1	BACKGROUND SOIL SAMPLE (1994)
	SB-4	SOIL BORING (1994)
	MW-5:EDCO	SOIL SAMPLE FROM WELL BORING (1997)
	MW-8	SOIL SAMPLE FROM WELL BORING (2000)
		APPROXIMATE FORMER FMC SITE BOUNDARY
		CHAIN LINK FENCE



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FIGURE C-10
HISTORICAL SOIL INVESTIGATION
SAMPLE LOCATION MAP
 FORMER FMC PROPERTY
 10516 OLD KATY ROAD
 HOUSTON, TEXAS

DATE JAN 2013	PROJECT NO. 12460.001.001.0150	SCALE AS SHOWN
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Appendix D

For each contaminate of concern within the ingestion protective concentration level exceedance zone provide the following:

- A description of the ingestion protective concentration level exceedance zone and the non-ingestion protective concentration level exceedance zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface.
- The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.
- Its basic geochemical properties (e.g., whether the contaminant of concern migrates with groundwater, floats or is soluble in water).

Based on ESAs completed at the designated property, five COCs have been identified in groundwater above residential and commercial/industrial ingestion PCLs. The PCLE zones for each of the five COCs are shown in Figures C-3 through C-7 of Appendix C. There are no non-ingestion PCLE zones.

A description of each COC, the maximum concentration detected during the most recent environmental investigation, the ingestion and non-ingestion PCLE zones, and geochemical properties are provided below for the five COCs in groundwater.

FIRST GWBU	
COC: Benzene	
Maximum Concentration in most recent analytical data	0.023 mg/L
Ingestion-Based PCL (Residential ^{GW} GW _{Ing})	0.005 mg/L
Ingestion-Based PCLE Zone: (Approximate)	1,810 ft ²
Non-Ingestion - Based PCL (^{Air} GW _{Inh.v})	180 mg/L
Non-Ingestion - Based PCLE Zone	None
Geochemical/Physical Properties	
Molecular Weight	78.11
Specific Gravity	0.87
Solubility in Water	Low solubility
Groundwater Migration	variable
COC: Cis-1,2-DCE	
Maximum Concentration in most recent analytical data	0.240 mg/L
Ingestion-Based PCL (Residential ^{GW} GW _{Ing})	0.07 mg/L
Ingestion-Based PCLE Zone: (Approximate)	1,810 ft ²
Non-Ingestion - Based PCL (^{Air} GW _{Inh.v})	1200 mg/L
Non-Ingestion - Based PCLE Zone	None
Geochemical/Physical Properties	
Molecular Weight	99.0
Specific Gravity	1.24
Solubility in Water	Moderate solubility (0.9%)
Groundwater Migration	variable

COC: Vinyl Chloride	
Maximum Concentration in most recent analytical data	0.0049 mg/L
Ingestion-Based PCL (Residential ^{GW} GW _{Ing})	0.002 mg/L
Ingestion-Based PCLE Zone: (Approximate)	1,810 ft ²
Non-Ingestion - Based PCL (^{Air} GW _{Inh.v})	3.8 mg/L
Non-Ingestion - Based PCLE Zone	None
Geochemical/Physical Properties	
Molecular Weight	62.489
Specific Gravity	0.91
Solubility in Water	Slightly soluble in water
Groundwater Migration	variable
SECOND GWBU	
COC: Trichloroethene	
Maximum Concentration in most recent analytical data.	0.049 mg/L
Ingestion-Based PCL (Residential ^{GW} GW _{Ing})	0.005 mg/L
Ingestion-Based PCLE Zone: (Approximate)	3.7 acres
Non-Ingestion - Based PCL (^{Air} GW _{Inh.v})	24 mg/L
Non-Ingestion - Based PCLE Zone	None
Geochemical/Physical Properties	
Molecular Weight	131.4
Density/Specific Gravity	1.46
Solubility in Water	Moderate solubility (0.1%)
Groundwater Migration	variable
COC: 1,1-Dichloroethene	
Maximum Concentration in most recent analytical data.	0.0143 mg/L
Ingestion-Based PCL (Residential ^{GW} GW _{Ing})	0.007 mg/L
Ingestion-Based PCLE Zone: (Approximate)	7.7 acres
Non-Ingestion - Based PCL (^{Air} GW _{Inh.v})	1700 mg/L
Non-Ingestion - Based PCLE Zone	None
Geochemical/Physical Properties	
Molecular Weight	96.9
Density/Specific Gravity	1.21
Solubility in Water	Low solubility (0.04%)
Groundwater Migration	variable

Appendix E

5. Provide for each contaminant of concern with the designated groundwater:

- a. *A description of the ingestion protective concentration level exceedance zone and the non-ingestion protective concentration level exceedance zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface.*
- b. *The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.*
- c. *Its basic geochemical properties (e.g., whether the contaminant of concern migrates with groundwater, floats or is soluble in water).*

A description of each COC within the designated groundwater and corresponding basic geochemical properties are presented in Appendix D. A tabular listing of cumulative groundwater analytical results highlighting exceedances of PCLs is attached as Tables G-1 and G-2 in Appendix G.

Appendix F

A table displaying the following information for each contaminant of concern, to the extent known:

- a. The maximum concentration level for soil and groundwater, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.*
- b. The critical protective concentration level without the municipal setting designation, highlighting any exceedances.*

Attached Tables

Table F-1 – Summary of Maximum Groundwater Concentrations

Table F-2 – Summary of Maximum Soil Concentrations

Based on the most recent groundwater investigation results (December 2009 and March 2012), benzene, TCE, cis-1,2-DCE, 1,1-DCE, and vinyl chloride have been reported in groundwater at concentrations greater than their respective TRRP Tier 1 residential groundwater ingestion PCLs. Based on the residential PCL exceedances, the only on-site human receptors that could potentially be at risk from the groundwater pathway would be those who participate in groundwater sampling activities. Exposure to off-site human or ecological receptors is not anticipated since the first and second GWBUs are not a usable water supply source. Table F-1 presents the maximum concentration of each COC reported in the groundwater at the designated property.

Numerous environmental site investigations were performed on the designated property beginning in 1988. As part of those site investigations, surface and subsurface soil sampling was performed at various locations across the designated property in 1988, 1991, 1993, 1994, and 1997 to identify potential soil impacts from historical operations. The focus of these site investigations included a former underground storage tank area, a former drum storage area, a former water cooling tower area, a former electrical transformer area, sumps and pits beneath machinery inside of the building, three metal scrap trailers, and two trash compactors. Based on the results of these investigation activities, no significant concentrations of the five groundwater COCs were identified in surface or subsurface soil on the designated property. It should be noted that demolition, construction, and disposal activities were conducted at the designated property in 1995. Table F-2 presents the maximum concentrations of each constituent reported in soil at the designated property, where the soil results were compared to the Texas Risk Reduction Rules, Risk Reduction Standard Number 2 for soil inhalation/ingestion and groundwater protection values for non-residential use.

Appendix F
Table F-1
Summary of Maximum Groundwater Concentrations
Former FMC Property
Houston, Texas

Chemical of Concern	CAS Number	^{GW} GW_{Ing} (w/o MSD) (mg/L)	^{Air} GW_{Inh-v} (w/ MSD) (mg/L)	Maximum Concentration (mg/L)	Well ID	Date	Most Recent Concentration (mg/L)	Date
Benzene	71-43-2	0.005	180	0.034	MW-2	7/1/2000	0.023	12/15/2009
Trichloroethene	79-01-6	0.005	24	0.053	MW-9	12/15/2009	0.049	3/11/2010
Cis-1,2-Dichloroethene	156-59-2	0.07	1200	0.68	MW-2	3/1/2000	0.24	12/15/2009
1,1-Dichloroethene	75-35-4	0.007	1700	0.044	MW-11	6/20/2003	0.0143	3/7/2012
Vinyl Chloride	75-01-4	0.002	3.8	0.007	MW-2	7/1/2006	0.0049	12/15/2009

Exceeds TRRP Residential Tier 1 PCL

Appendix F
Table F-2
Summary of Maximum Soil Concentrations
Former FMC Property
Houston, Texas

Constituent	RRS #2 SAI* (mg/kg)	RRS #2 GWP** (mg/kg)	Maximum Soil Concentration (mg/kg)	Soil Boring or Sample ID	Depth (ft)	Date	Area Description
Metals							
Arsenic	3.27	5	71	M-2	below slab	7/14/1993	Former Water Cooling Tower
Barium	13700	200	747	M-2	below slab	7/14/1993	Former Water Cooling Tower
Cadmium	1020	0.5	5	M-2	below slab	7/14/1993	Former Water Cooling Tower
Chromium	5110	10	349	M-2	below slab	7/14/1993	Former Water Cooling Tower
Lead	1000	1.5	328	M-2	below slab	7/14/1993	Former Water Cooling Tower
Mercury	613	0.2	0.58	CT-2	0 - 8	10/27/1994	Former Water Cooling Tower
Selenium	1020	5	1.03	CT-1	1 - 1.5	10/27/1994	Former Water Cooling Tower
Silver	1020	51	2	CT-8	1 - 1.5	10/27/1994	Former Water Cooling Tower
PCBs	25	0.05	0.22	T-1	0.25	7/16/1993	Former Electrical Transformer
TPH	-	-	783	MW-2:ENSR	composite	7/14/1993	Former UST
Semivolatiles (Detected)							
Napthalene	7720	409	0.8	SB-04	composite	3/10/1994	Former UST
Volatiles (Detected)							
Ethylbenzene	17000	70	4	3-10-3	0 - 2	3/10/1994	Former Electrical Transformer
Toluene	3630	10	2.18	MW-2:ENSR	composite	7/14/1993	Former UST
Xylenes	5800	1000	3.5	MW-2:ENSR	composite	7/14/1993	Former UST
1,2-Dichlorethane	0.505	0.5	0.012	MW-5:EDCO	16	1/22/1997	Former UST

Notes:

* RRS #2 SAI = Results were compared to Texas Risk Reduction Rules, Risk Reduction Standard #2 for Soil Inhalation/Ingestion.

** RRS #2 GWP= Results were compared Texas Risk Reduction Rules, Risk Reduction Standard #2 for Groundwater Protection.

Appendix G

*A statement as to whether the plume of contamination is stable (i.e. no change), or contracting, and delineated, **with the basis for that statement.** Please include historical sampling data.*

Attached Tables

Table G-1 - Summary of Groundwater Analytical Results for First Water-Bearing Zone

Table G-2 – Summary of Groundwater Analytical Results for Second Water-Bearing Zone

First GWBU

Based on periodic groundwater monitoring performed from 1993 through 2009, the plume of affected groundwater in the first GWBU has been delineated and is limited to a localized area in the northwest portion of the designated property. The plume has remained stable in size, and no plume movement has been observed during the course of groundwater monitoring.

Second GWBU

The plume of affected groundwater in the second GWBU has been delineated. Monitor well MW-11 appears to represent the eastern edge of the plume since it has historically had concentrations of 1,1-DCE reported either below or just above the Tier 1 PCL. Monitor well MW-10 was previously installed off-site in the downgradient direction within the Texas Department of Transportation (TxDOT) right-of-way, and historical results from well MW-10 indicated that groundwater was not impacted in that area. However, this well was plugged and abandoned in 2004 at the request of TxDOT to facilitate expansion of Interstate 10. An upgradient source of COCs may exist beneath the adjacent property to the north (Home Depot); however, the former underground storage tank (UST)/former drum storage area on the designated property was likely a contributing source of COCs to the affected second GWBU. The plume may extend off-site to the west beneath Lumpkin Road and a portion of the adjacent former Town & Country (T&C) Square Shopping Center property; however, historical data indicates that the former T&C Square Shopping Center property also had a source of similar COCs (chlorinated VOCs). Based on available information, it is possible that multiple sources may have resulted in a commingled plume in the second GWBU beneath portions of all three properties; however, this is inconclusive. The plume of affected groundwater in the second GWBU beneath the designated property has remained stable in size based on periodic monitoring conducted from 2003 through 2012.

APPENDIX G
TABLE G-1
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FOR FIRST WATER-BEARING ZONE
FORMER FMC PROPERTY
HOUSTON, TEXAS

Well ID & Date Sampled	Analytical Parameter									
	TPH (mg/L)	Benzene (0.005)*	Toluene (1.0)*	Ethylbenzene (0.07)*	Volatile Organics (mg/L)			Vinyl Chloride (0.002)*	Cis-1,2-DCE (0.070)*	Trans-1,2-DCE (0.1)*
					Xylenes (10)*	TCE (0.005)*				
PZ-1										
March 1994	NS	<0.005	<0.005	<0.005	<0.005	<0.005	NS	NS	NS	NS
October 1996	NS	<0.005	<0.005	<0.005	<0.005	<0.005	NS	NS	NS	NS
December 2009	NS	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
PZ-2										
March 1994	NS	<0.005	<0.005	<0.005	<0.005	<0.005	NS	NS	NS	NS
October 1996	NS	<0.005	<0.005	<0.005	<0.005	<0.005	NS	NS	NS	NS
July 2000	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
December 2009	NS	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
MW-1B										
July 1993	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
March 1994	<0.5	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
MW-2										
July 1993	2.0	0.021	0.066	0.013	0.028	0.026	NS	NS	1.2	
March 1994	NS	0.028	0.016	<0.010	<0.010	<0.010	NS	0.300	<0.010	<0.010
March 1995	NS	0.017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005
September 1995	NS	0.022	<0.005	<0.005	<0.005	0.053	<0.005	<0.005	<0.005	0.008
March 1996	NS	0.024	<0.005	<0.005	0.009	<0.005	0.006	<0.005	<0.005	0.008
October 1996	NS	0.020	0.022	<0.005	0.042	<0.005	0.006	0.430	0.005	0.005
March 1997	NS	0.022	<0.005	<0.005	<0.010	<0.005	<0.010	0.510	0.009	0.009
June 1999	<0.5	0.024	<0.005	<0.005	<0.005	<0.005	<0.010	0.610	0.007	0.007
March 2000	NS	0.029	<0.005	0.006	0.009	<0.005	<0.010	0.680	0.014	0.014
July 2000	NS	0.034	0.015	0.011	0.016	<0.005	<0.010	0.540	0.010	0.010
July 2006	NS	0.029	<0.005	<0.005	0.005	<0.005	0.007	0.330	0.006	0.006
December 2009	NS	0.023	<0.001	0.0018	<0.001	<0.001	0.0049	0.240	0.0046	0.0046
MW-3										
March 1993	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	NS	NS	<0.005	<0.005
July 1993	NS	<0.010	<0.010	<0.010	<0.010	<0.010	NS	<0.010	<0.010	<0.010
June 1999	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
December 2009	NS	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
MW-4										
March 1997	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
June 1999	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
March 2000	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
July 2000	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
December 2009	NS	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
MW-5										
March 1997	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
MW-6										
June 1999	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
March 2000	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
December 2009	NS	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
MW-7										
June 1999	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
March 2000	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
MW-8										
March 2000	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
July 2000	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005
December 2009	NS	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001

Notes:

* = Values based on TCEQ TRRP Industrial Groundwater Standards, March 2006.

Bold values indicate COCs reported above laboratory detection limits.

Yellow highlighted values exceed the TCEQ Industrial Groundwater Standards.

NS = Not Sampled

< = less than

