

CITY OF HOUSTON



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

EXECUTIVE SUMMARY

The designated property is located at 1400 Fulton Street in Houston, Harris County, Texas. The property consists of approximately 36.9-acres of land that was the location of a rail yard and associated maintenance and servicing facilities from the late 1870s until 1999. The current property owners, CR V Hardy Yards, L.P. purchased the property in November 2005.

The property has been entered into the Voluntary Cleanup Program (VCP) administered by the Texas Commission on Environmental Quality (TCEQ). Two VCP facility identification numbers have been assigned to the property, VCP No. 857, which includes a 33.2 acre parcel that was the location of the rail yard facility, and VCP No 1553, which includes three adjacent parcels to the northeast totaling 3.7 acres. The totality of the property is covered by either a Conditional Certificate of Completion (applicable to VCP 857), or a Final Certificate of Completion (applicable to VCP 1553).

During various investigations conducted since 1998 on the designated property, a chlorinated solvent plume was discovered in the upper and secondary (lower) zones of the Groundwater Bearing Unit (GWBU) beneath the central portion of the designated property and also beneath off site property to the south and southwest. As evidenced by the TCEQ's decision to issue a Conditional Certificate of Completion for the property within VCP 857, both the upper and lower chlorinated solvent plumes are delineated and are stable to declining in concentration. A weathered diesel non-aqueous phase liquids (NAPL) plume was also discovered in the upper zone beneath the northeastern portion of the designated property. A NAPL recovery system was operated at the site from March 2003 to February 2006. During this time, approximately 78,000 gallons of diesel were reportedly recovered and treated. At the time of the system shutdown, NAPL recovery had fallen from a maximum of 370 gallons per day (gpd) to approximately 20 gpd. Dissolved concentrations around the NAPL plume are mostly non-detectable. Again, as evidenced by the TCEQ's decision to issue a Conditional Certificate of Completion for the property within VCP 857, the NAPL in the upper zone is delineated and stable and no NAPL has been discovered off site. Evidence of Monitored Natural Attenuation (MNA) processes that will degrade NAPL over time is present at the site.

The Beaumont Formation underlies the designated property and consists of alternating layers of silty clays and silty sands. The unit exposed at the ground surface is high plastic clay to silty clay followed by a sand unit which makes up the upper zone of the Upper GWBU. The upper zone is underlain by a clay unit followed by a second sand unit which makes up the lower zone. The lower zone is underlain by a clay unit which confines the entire Upper GWBU. The depth to the upper dissolved-phase chlorinated solvent plume and the NAPL at the site is approximately 30 feet below ground surface (bgs), and direct exposure is not a concern. The

groundwater gradient of both the upper and lower chlorinated solvent plumes beneath the property is generally toward the southwest. The groundwater gradient of the NAPL plume is generally to the north-northwest.

Fifteen contaminants of concern (COCs) in groundwater have been identified at levels exceeding potable water protective concentration levels: 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,2-dibromoethane, 1,2-dichloropropane, tetrachloroethene, trichloroethene, vinyl chloride, benzene, tert-butylbenzene, carbon tetrachloride, and methyl tert-butyl ether. ***By implementing an MSD, groundwater analytical results will not exceed the TRRP residential non-ingestion PCLs.*** Soil excavation activities to remediate impacted soil at the property were completed in 2006 and 2007, and additional soil excavation activities were undertaken in 2008 to remove certain areas of the property from the requirement to maintain building foundations as an engineering control. Based on the analytical results of soil confirmation samples collected during these activities and historical environmental investigations, no PCL exceedances remain in soils at the property with the possible exception of soils underlying two building slabs, which remain as engineering controls at the property. These building slabs are located in the central portion of the site, and serve as protective caps over the underlying soils.

There are 45 state-registered water wells located within one-half mile of the property. According to the well report, 28 of the wells are listed as de-watering wells, 5 are listed as unused, 5 are listed as plugged, 4 are listed as industrial, one is listed as a groundwater well, one as back-up to City water, and one as a public supply well. It should be noted that the well identified as back-up to City water and the public supply well appear to be the same well, which is owned by a business named Hydraulic Equipment Service Inc., which distributes and repairs hydraulic equipment. WESTON contacted this owner regarding these listed wells. According to Mr. Sonny Barko, President, Hydraulic Equipment obtains its drinking water from the City of Houston. The company has a well for the purpose of providing drinking water in the event of an emergency, such as during Hurricane Ike, when the City public supply might be affected. To meet the definition of a public supply well, the well would have to serve a minimum of 25 people for at least 60 days per year. Therefore, this well does not appear to meet the definition of a public supply well as it would rarely be used. Furthermore, the well is not listed on the TCEQ list of public water systems in Texas, which indicates Hydraulic Equipment is not permitted to have a public supply well or use it as such. Therefore, it is believed that the identification of this well as a public supply well is erroneous. Moreover, the Hydraulic Equipment well appears to be approximately 600-700 feet from the edge of the stable, and delineated plume, and screened at a depth much lower than the affected groundwater bearing zones at the property. Based on the locations and depths of the wells within one-half mile of the property, and the demonstrated limits and stability of the groundwater plume, it is very unlikely that the groundwater plume could affect any of the reported wells that are still in existence. Only one well is located in the vicinity of the affected groundwater (Well ID 65-14-711). However, this well is listed as unused. In addition, WESTON personnel conducted a field survey to confirm the presence of this well, and this well could not be located. Therefore, there is a potential that this well was plugged and abandoned after its use was discontinued. This well is present on property that is within VCP 857 although the applicant does not own this property.

There are no municipalities within a ½ mile radius of the property other than the City of Houston. Retail public utilities located within five miles of the site include the City of Houston, and the City of West University

A final Certificate of Completion was issued to VCP No. 1553 on May 21, 2007 for residential land use. On April 14, 2008, VCP No. 857 was issued a Conditional Certificate of Completion (CCOC). This CCOC certifies that the property is acceptable for residential land use with some restrictions. The CCOC restricts

exposure to soils underlying four building slabs on-site. This means that the slabs cannot be disturbed without TCEQ coordination. If removal of the slabs is desired as part of the redevelopment, TCEQ would need to be provided with a plan to either excavate the soil exceeding the residential clean up levels once the cover is removed, and/or replacing the slab with a similar cover. Because the building slabs act as physical controls to the underlying soils, annual visual inspections are required as long as they are left in place and/or replaced by other similar cover. With TCEQ concurrence, two of the four building foundations were removed and the soil under the removed slabs was excavated and disposed. The CCOC also restricts exposure to groundwater at the property. The CCOC prohibits the installation of groundwater wells and/or extraction and usage of the groundwater in any manner. Currently, groundwater monitoring is required to be completed and reports documenting the groundwater monitoring activities are to be submitted annually to the TCEQ.

Furthermore, the CCOC places restrictions over a 7.7052-acre parcel on the northern portion of the site where the diesel NAPL plume exits. If excavation was to intrude upon groundwater within this area, and if an enclosed structure was to be constructed on this area, the following are required:

- Structures should be designed to preclude explosive vapor intrusion (i.e., the structures must be designed to be intrinsically safe/well ventilated) or the site should be re-evaluated for potential explosive vapor intrusion prior to the enclosed structure development
- If development of an enclosed structure will intrude upon the groundwater in this area, the TCEQ must be notified at least 60 days in advance of construction and additional response actions may be required during or before development.

Appendix B

(TCEQ MSD Reference No. 1,2,& 4)

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 and whether the designated property is located in a floodplain or floodway, as those terms are defined in Chapter 19 of the Code.*
- 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 for each contaminant of concern, to the extent known.*

Attached Figures

Figure 1: Designated Property Location Map

Figure 2: Topography Map

Figure 3: Detected Groundwater Contamination

Figure 4: Monitoring Well Location Map

Figure 5-1: Potentiometric Surface Map - Upper Groundwater Zone

Figure 5-2: Potentiometric Surface Map - Lower Groundwater Zone

Figure 5-3: Potentiometric Surface Map – NAPL Plume

Figure 6-1: Soil PCLE Zone - Trichloroethene

Figure 6-2: Groundwater PCLE Zone – 1,1,1-Trichloroethane – Upper Groundwater Zone

Figure 6-3: Groundwater PCLE Zone – 1,1,2-Trichloroethane – Upper Groundwater Zone

Figure 6-4: Groundwater PCLE Zone – 1,1,2-Trichloroethane – Lower Groundwater Zone

Figure 6-5: Groundwater PCLE Zone – 1,1-Dichloroethene – Upper Groundwater Zone

Figure 6-6: Groundwater PCLE Zone – 1,1-Dichloroethene – Lower Groundwater Zone

Figure 6-7: Groundwater PCLE Zone – 1,2-Dichloroethane – Upper Groundwater Zone

Figure 6-8: Groundwater PCLE Zone – 1,2-Dichloroethane – Lower Groundwater Zone

Figure 6-9: Groundwater PCLE Zone – Cis-1,2-Dichloroethene – Upper Groundwater Zone

Figure 6-10: Groundwater PCLE Zone – Cis-1,2-Dichloroethene – Lower Groundwater Zone

Figure 6-11: Groundwater PCLE Zone – Trans-1,2-Dichloroethene – Upper Groundwater Zone

Figure 6-12: Groundwater PCLE Zone – Trans-1,2-Dichloroethene – Lower Groundwater Zone

Figure 6-13: Groundwater PCLE Zone – 1,2-Dibromoethane – Upper Groundwater Zone

Figure 6-14: Groundwater PCLE Zone – 1,2-Dibromoethane – Lower Groundwater Zone

Figure 6-15: Groundwater PCLE Zone – 1,2-Dichloropropane – Upper Groundwater Zone

Figure 6-16: Groundwater PCLE Zone – 1,2-Dichloropropane – Lower Groundwater Zone

Figure 6-17: Groundwater PCLE Zone – Benzene – Upper Groundwater Zone

Figure 6-18: Groundwater PCLE Zone – Tert-Butyl Benzene – Upper Groundwater Zone

Figure 6-19: Groundwater PCLE Zone – Tert-Butyl Benzene – Lower Groundwater Zone

Figure 6-20: Groundwater PCLE Zone – Carbon Tetrachloride – Lower Groundwater Zone

Figure 6-21: Groundwater PCLE Zone – Methyl Tert-Butyl Ether – Upper Groundwater Zone

Figure 6-22: Groundwater PCLE Zone – Methyl Tert-Butyl Ether – Lower Groundwater Zone

Figure 6-23: Groundwater PCLE Zone – Tetrachloroethene – Upper Groundwater Zone

- Figure 6-24: Groundwater PCLE Zone – Tetrachloroethene – Lower Groundwater Zone
- Figure 6-25: Groundwater PCLE Zone – Trichloroethene – Upper Groundwater Zone
- Figure 6-26: Groundwater PCLE Zone – Trichloroethene – Lower Groundwater Zone
- Figure 6-27: Groundwater PCLE Zone – Vinyl Chloride – Upper Groundwater Zone
- Figure 6-28: Groundwater PCLE Zone – Vinyl Chloride – Lower Groundwater Zone
- Figure 6-29: Diesel NAPL Plume – Upper Groundwater Zone



LEGEND

- MSD BOUNDARY
- PROPERTIES WITHIN 500FT

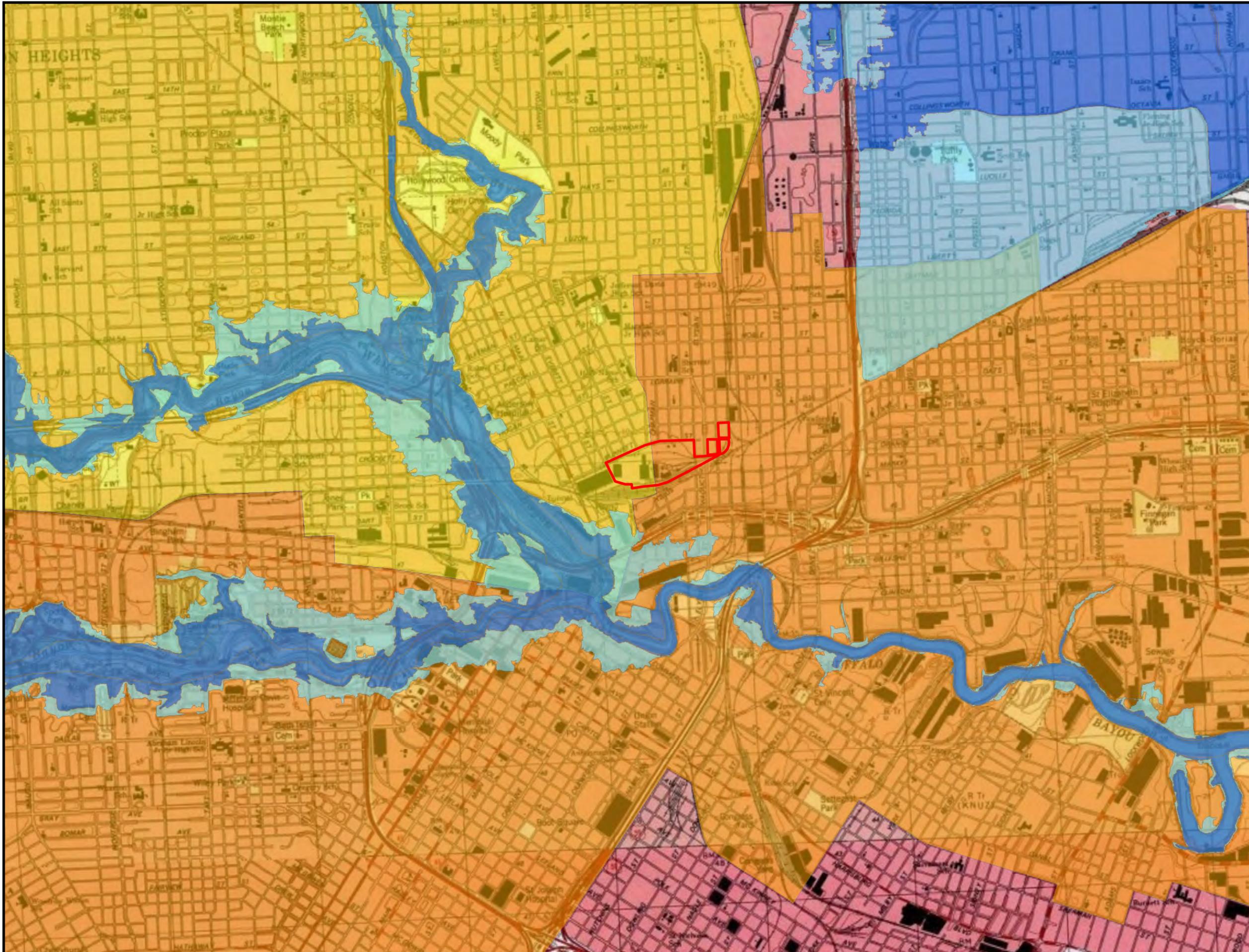


SOURCE: HARRIS COUNTY APPRAISAL DISTRICT (HCAD)



FIGURE 1
 DESIGNATED PROPERTY
 LOCATION MAP
 UPRR HARDY STREET RAIL YARD
 HOUSTON, HARRIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
APR. 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- MSD BOUNDARY
 - FLOOD PLAIN DATA**
 - 100 YEAR FLOOD PLAIN
 - 500 YEAR FLOOD PLAIN
 - WATERSHED**
 - BUFFALO BAYOU
 - WHITE OAK BAYOU

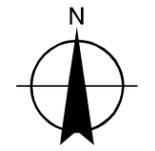
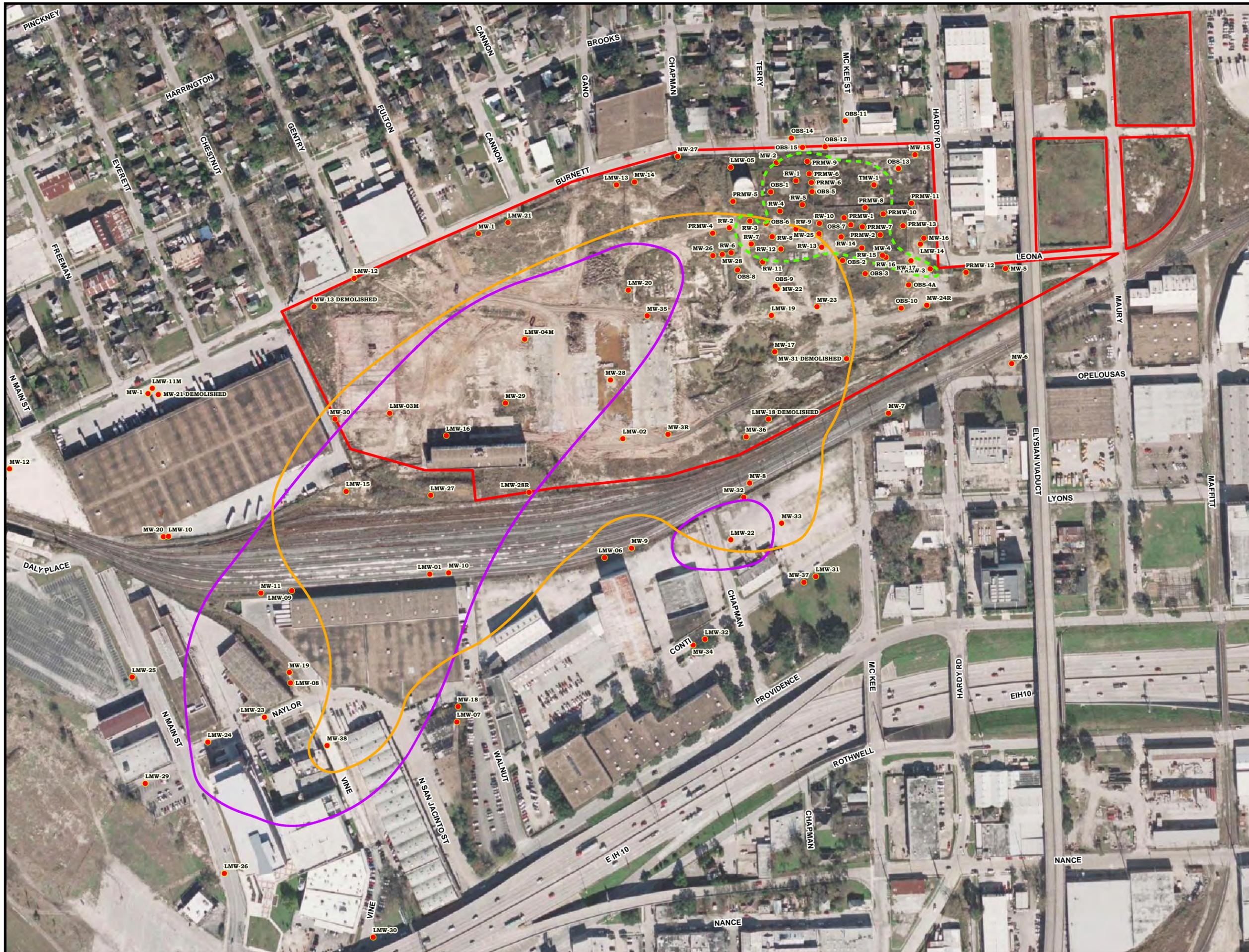
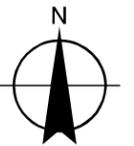


FIGURE 2
 TOPOGRAPHIC MAP WITH
 WATERSHED AND FLOODPLAIN DETAIL
 UPRR HARDY STREET RAIL YARD
 HOUSTON, HARRIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
APR. 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- MONITORING WELL LOCATION
 - - - PCLE ZONE
 - LOWER ZONE PCLE
 - UPPER ZONE PCLE
 - MSD BOUNDARY



0 270 540
SCALE IN FEET



FIGURE 3
DETECTED AREA OF GROUNDWATER
CONTAMINATION MAP
UPRR HARDY STREET RAIL YARD
HOUSTON, HARRIS COUNTY, TEXAS

DATE APR. 2009	PROJECT NO 13558.001.010.0001	SCALE AS SHOWN
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LEGEND

- MONITORING WELL LOCATION
- MSD BOUNDARY



FIGURE 4
MONITORING WELL
LOCATION MAP
UPRR HARDY STREET RAIL YARD
HOUSTON, HARRIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
APR. 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- MONITORING WELL LOCATION
 - GROUNDWATER ELEVATION
 - UPPER ZONE PCLE
 - FLOW DIRECTION
 - MSD BOUNDARY

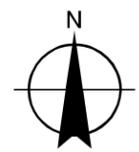


FIGURE 5-1
 UPPER ZONE GROUNDWATER
 GRADIENT MAP
 CONTAMINATION MAP
 UPRR HARDY STREET RAIL YARD
 HOUSTON, HARRIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
APR. 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- MONITORING WELL LOCATION
 - GROUNDWATER ELEVATION
 - LOWER ZONE PCLE
 - FLOW DIRECTION
 - MSD BOUNDARY

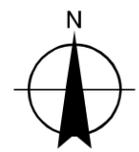


FIGURE 5-2
 LOWER ZONE GROUNDWATER
 GRADIENT MAP
 CONTAMINATION MAP
 UPRR HARDY STREET RAIL YARD
 HOUSTON, HARRIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
APR. 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- MONITORING WELL LOCATION
 - GROUNDWATER ELEVATION
 - - - - VCP857 BOUNDARY
 - MSD BOUNDARY

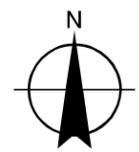
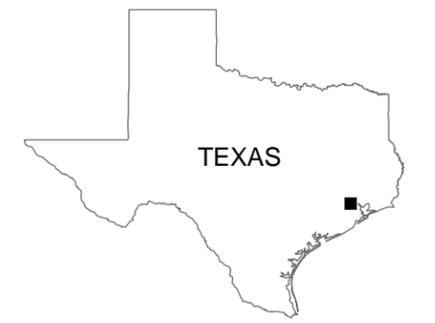


FIGURE 5-3
 NAPL GROUNDWATER
 GRADIENT MAP
 CONTAMINATION MAP
 UPRR HARDY STREET RAIL YARD
 HOUSTON, HARRIS COUNTY, TEXAS

DATE APR. 2009	PROJECT NO 13558.001.010.0001	SCALE AS SHOWN
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LEGEND

- Approximate Property Boundary
(property continues to east - not shown)
- PCLE Zone Boundaries

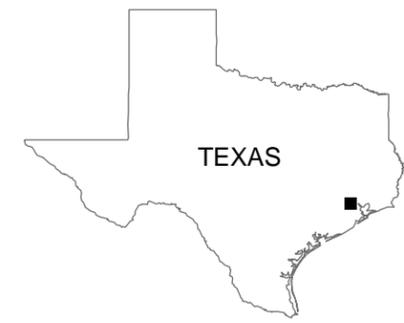


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**FIGURE 6-1
 SOIL PCLE ZONE
 TRICHLOROETHENE
 UPRR HARDY STREET RAIL YARD
 HOUSTON, TEXAS**

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- Approximate Property Boundary (property continues to east - not shown)
 - Upper Zone Monitoring Well
 - Lower Zone Monitoring Well
 - PCLE Zone Boundaries

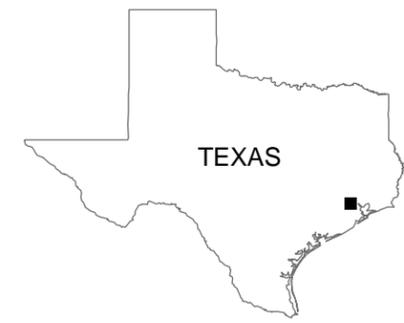


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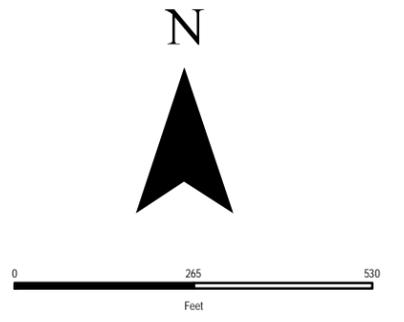


FIGURE 6-3
GROUNDWATER PCLE ZONE
1,1,2-TRICHLOROETHANE
PCLE ZONE
UPPER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
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- LEGEND**
- Approximate Property Boundary (property continues to east - not shown)
 - Upper Zone Monitoring Well
 - Lower Zone Monitoring Well
 - PCLE Zone Boundaries

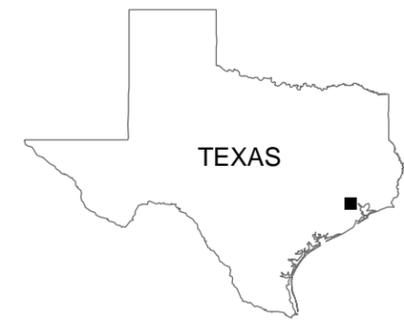
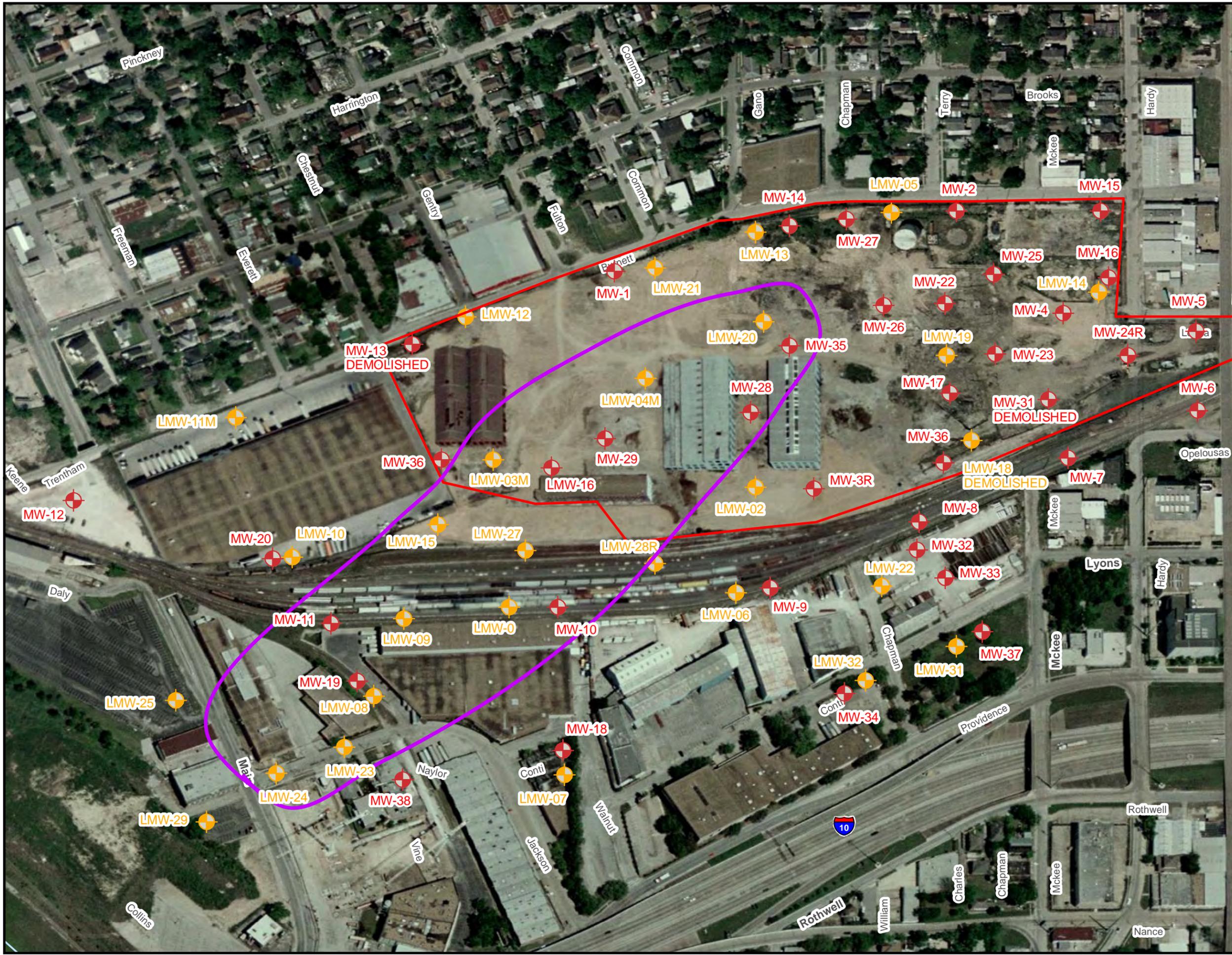


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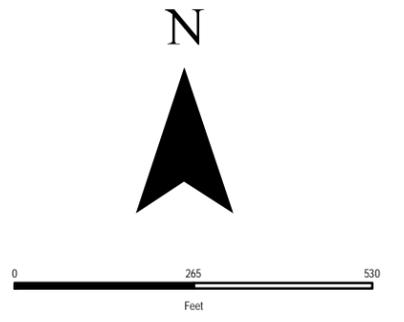


FIGURE 6-5
GROUNDWATER PCLE ZONE
1,1-DICHLOROETHENE
PCLE ZONE
UPPER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- Approximate Property Boundary (property continues to east - not shown)
 - ⊕ Upper Zone Monitoring Well
 - ⊕ Lower Zone Monitoring Well
 - PCLE Zone Boundaries

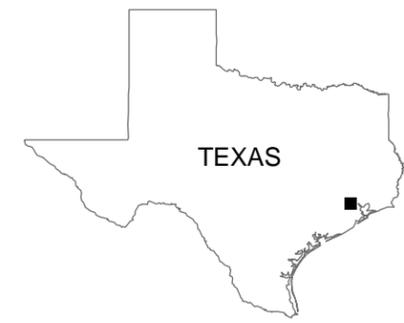
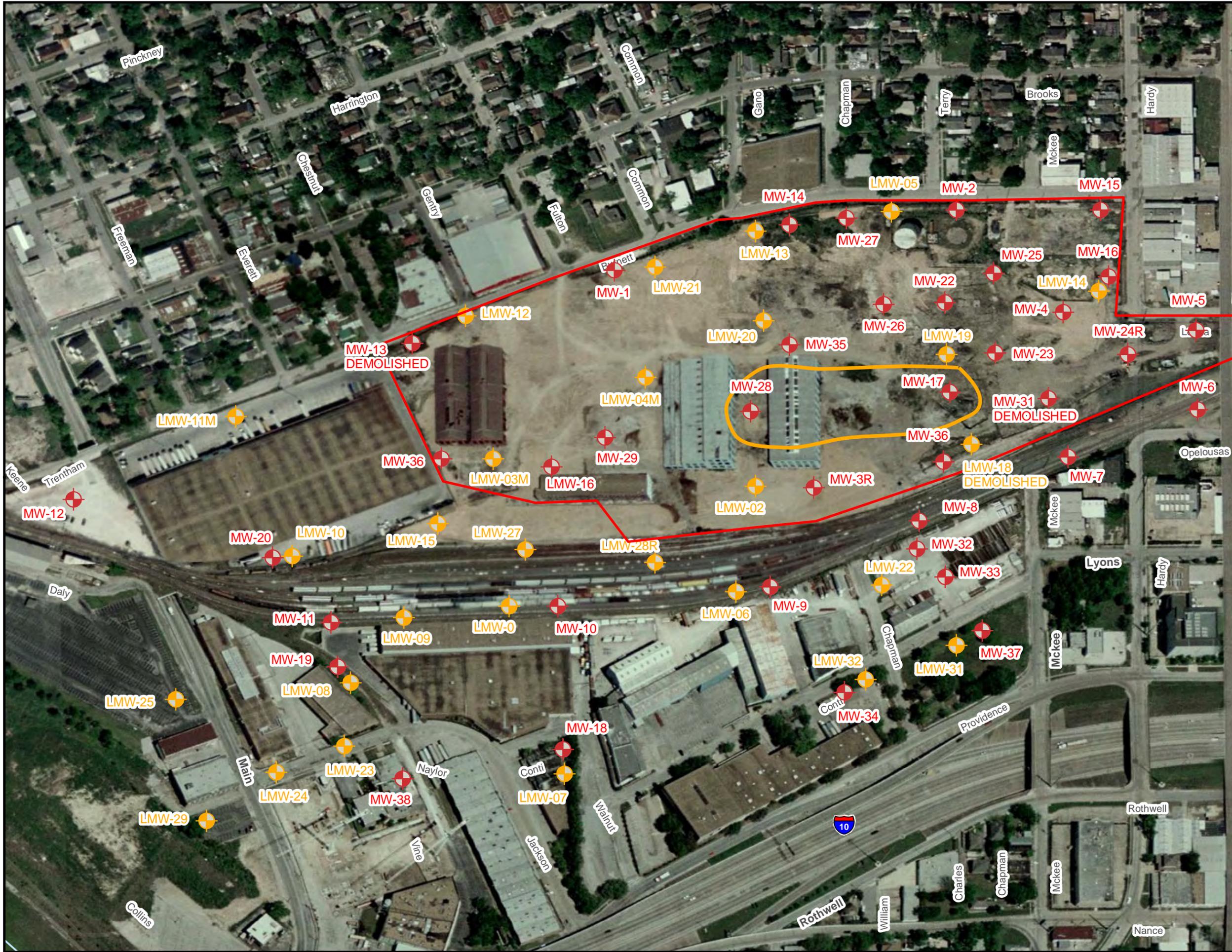


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FIGURE 6-6
GROUNDWATER PCLE ZONE
1,1-DICHLOROETHENE
PCLE ZONE
LOWER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN



LEGEND

- Approximate Property Boundary (property continues to east - not shown)
- Upper Zone Monitoring Well
- Lower Zone Monitoring Well
- PCLE Zone Boundaries

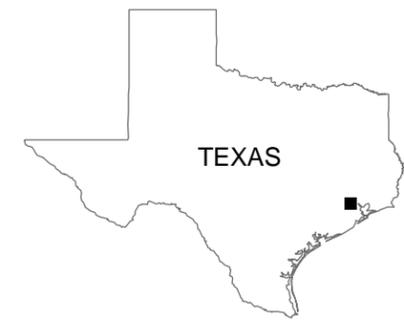


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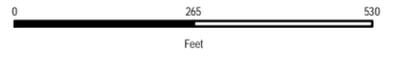


FIGURE 6-7
GROUNDWATER PCLE ZONE
1,2-DICHLOROETHANE
PCLE ZONE
UPPER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- Approximate Property Boundary (property continues to east - not shown)
 - Upper Zone Monitoring Well
 - Lower Zone Monitoring Well
 - PCLE Zone Boundaries

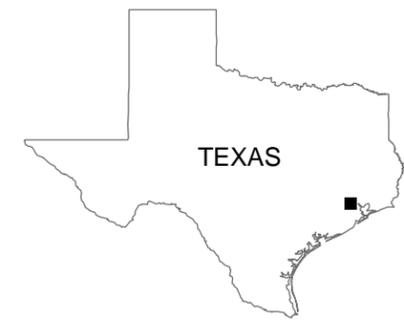
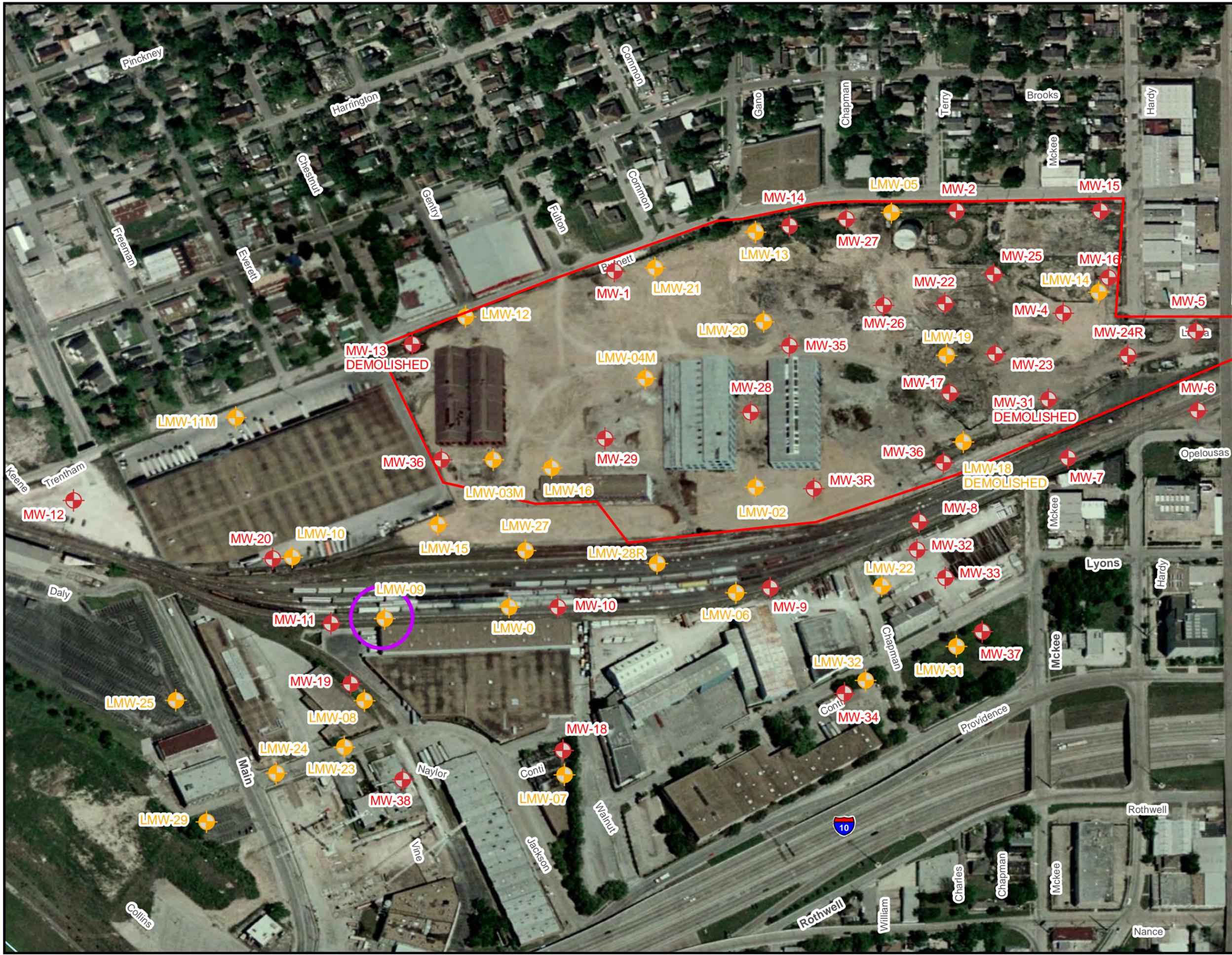


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FIGURE 6-15
GROUNDWATER PCLE ZONE
1,2-DICHLOROPROPANE
FORMER PCLE ZONE
UPPER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- Approximate Property Boundary (property continues to east - not shown)
 - ⊕ Upper Zone Monitoring Well
 - ⊕ Lower Zone Monitoring Well
 - PCLE Zone Boundaries

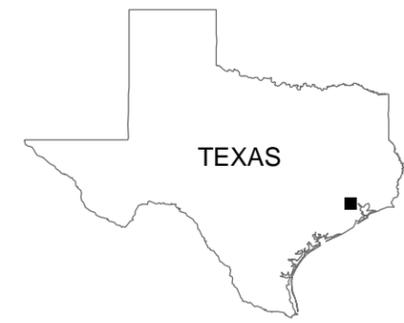
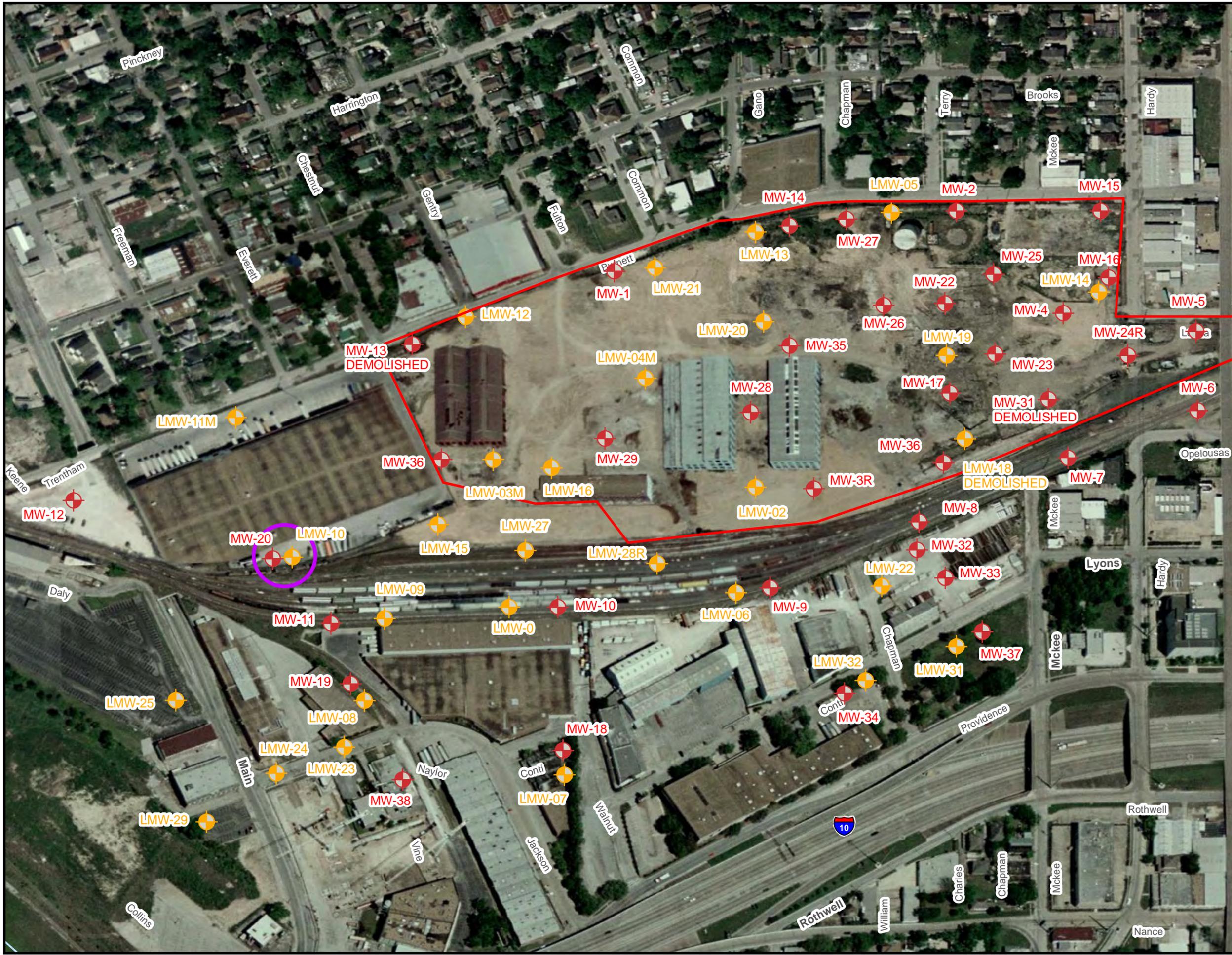


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FIGURE 6-19
GROUNDWATER PCLE ZONE
TERT-BUTYLBENZENE
FORMER PCLE ZONE
LOWER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
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- LEGEND**
- Approximate Property Boundary (property continues to east - not shown)
 - ⊕ Upper Zone Monitoring Well
 - ⊕ Lower Zone Monitoring Well
 - PCLE Zone Boundaries

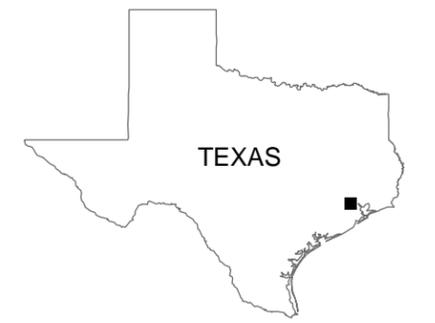
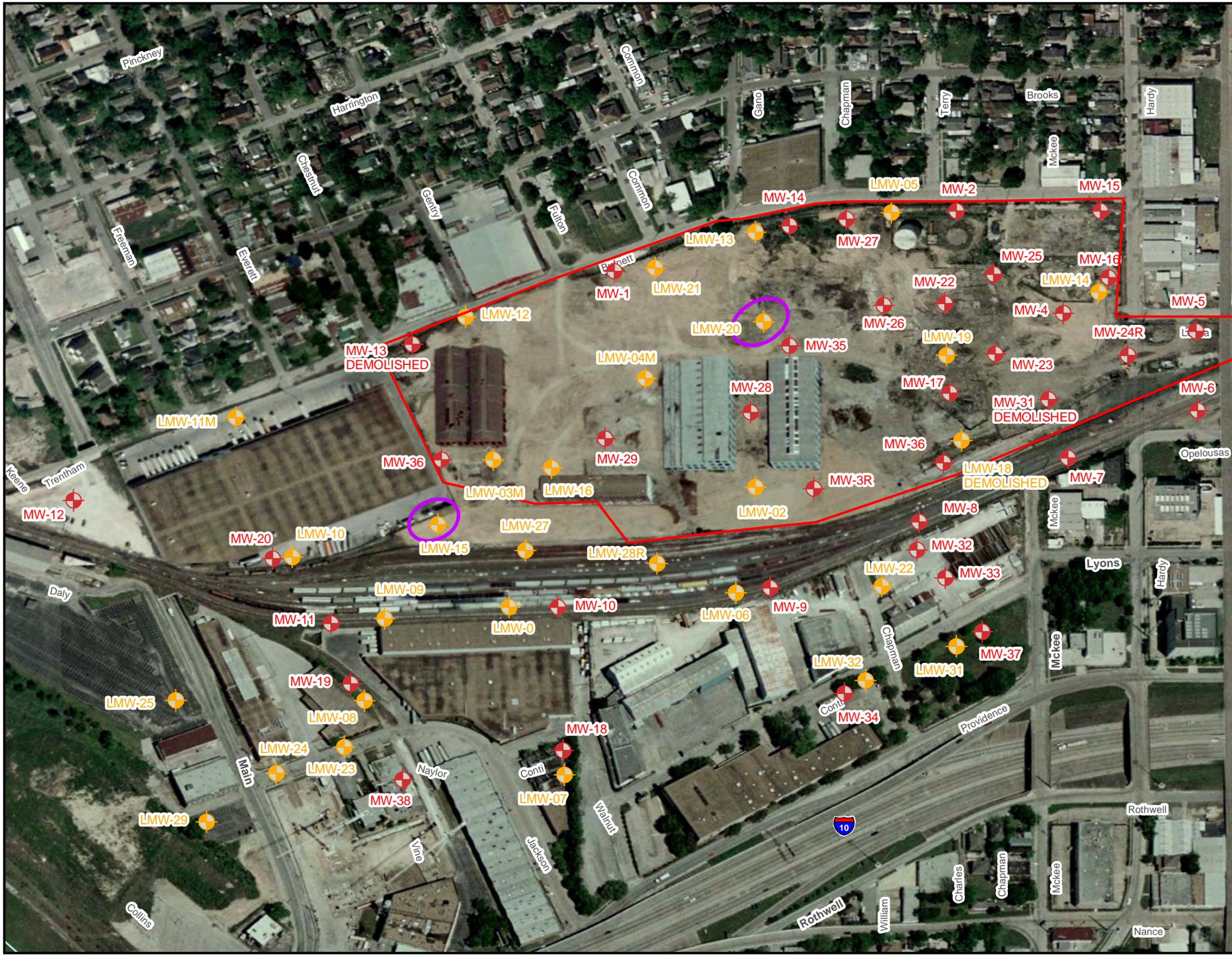


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FIGURE 6-20
GROUNDWATER PCLE ZONE
CARBON TETRACHLORIDE
FORMER PCLE ZONE
LOWER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN



LEGEND

- Approximate Property Boundary (property continues to east - not shown)
- Upper Zone Monitoring Well
- Lower Zone Monitoring Well
- PCLE Zone Boundaries

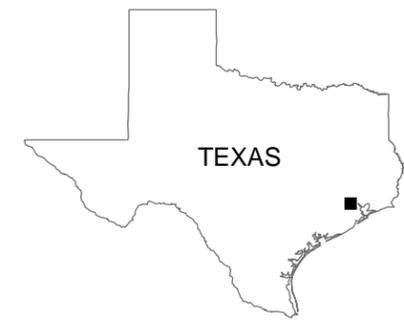


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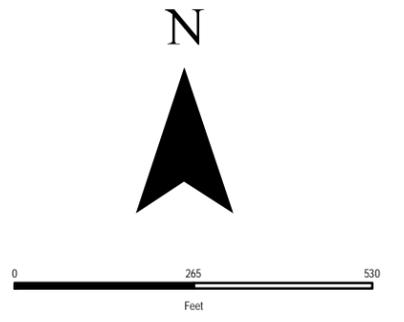


FIGURE 6-22
GROUNDWATER PCLE ZONE
METHYL TERT-BUTYL ETHER
FORMER PCLE ZONE
LOWER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- Approximate Property Boundary (property continues to east - not shown)
 - Upper Zone Monitoring Well
 - Lower Zone Monitoring Well
 - PCLE Zone Boundaries

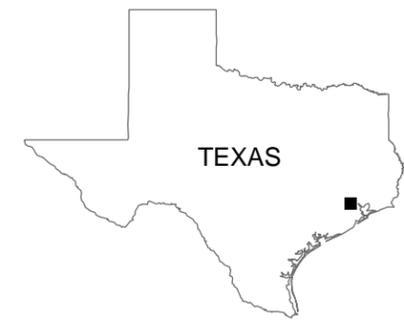
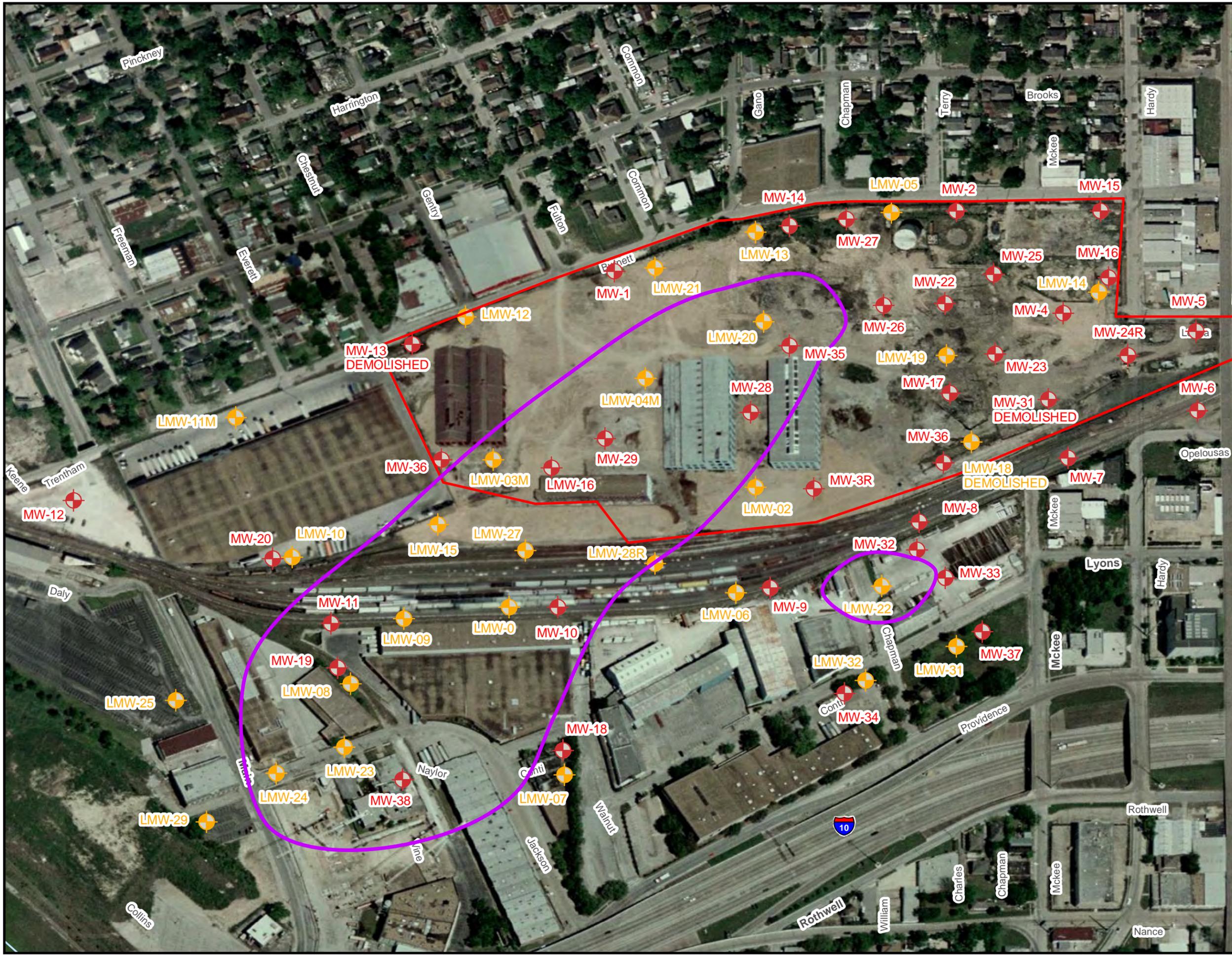


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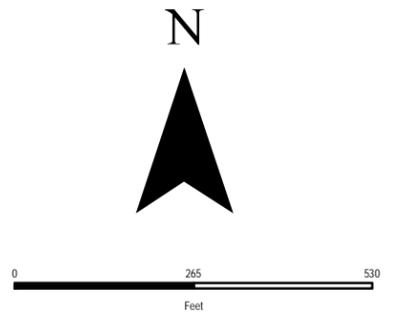


FIGURE 6-23
GROUNDWATER PCLE ZONE
TETRACHLOROETHENE
PCLE ZONE
UPPER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- Approximate Property Boundary (property continues to east - not shown)
 - ⊕ Upper Zone Monitoring Well
 - ⊕ Lower Zone Monitoring Well
 - PCLE Zone Boundaries

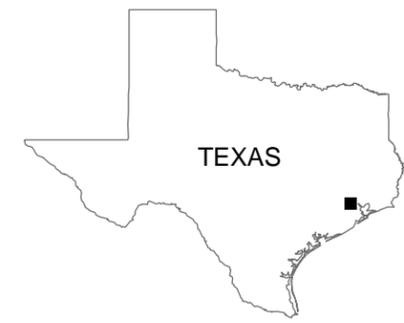
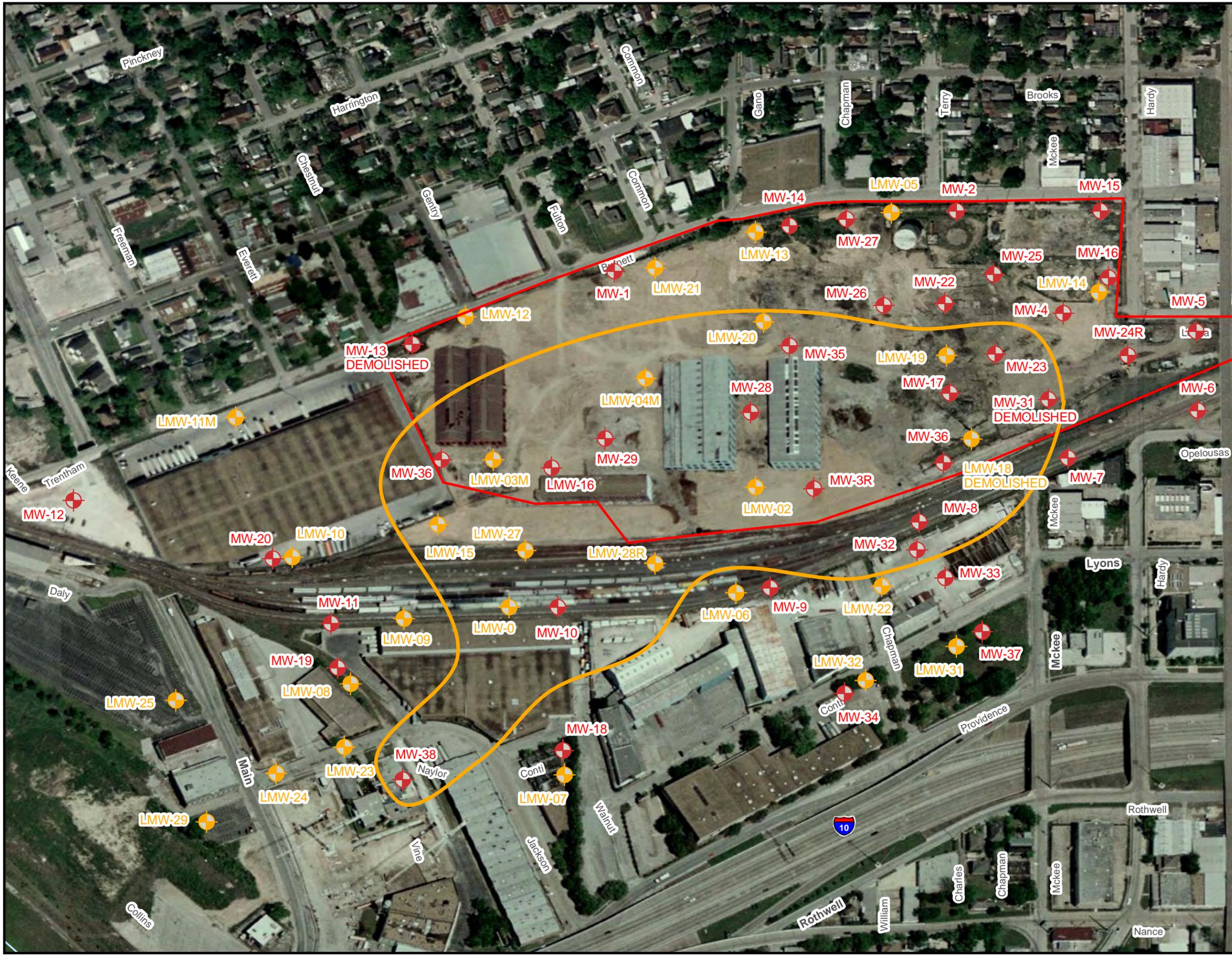


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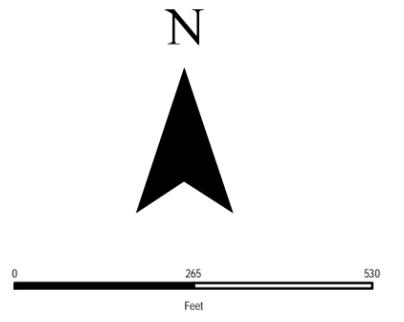


FIGURE 6-24
GROUNDWATER PCLE ZONE
TETRACHLOROETHENE
PCLE ZONE
LOWER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- Approximate Property Boundary (property continues to east - not shown)
 - Upper Zone Monitoring Well
 - Lower Zone Monitoring Well
 - PCLE Zone Boundaries

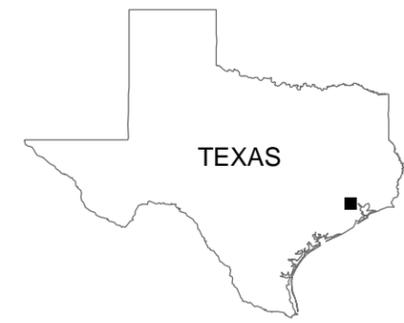


Source: ArcGIS Map Service, USA Prime Imagery, April 2007
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FIGURE 6-25
GROUNDWATER PCLE ZONE
TRICHLOROETHENE
PCLE ZONE
UPPER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- Approximate Property Boundary (property continues to east - not shown)
 - Upper Zone Monitoring Well
 - Lower Zone Monitoring Well
 - PCLE Zone Boundaries

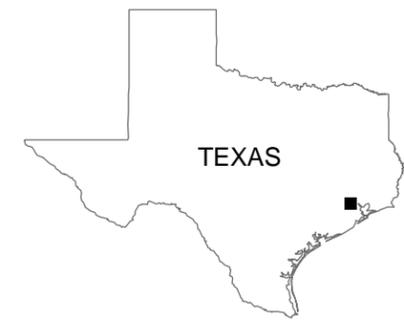
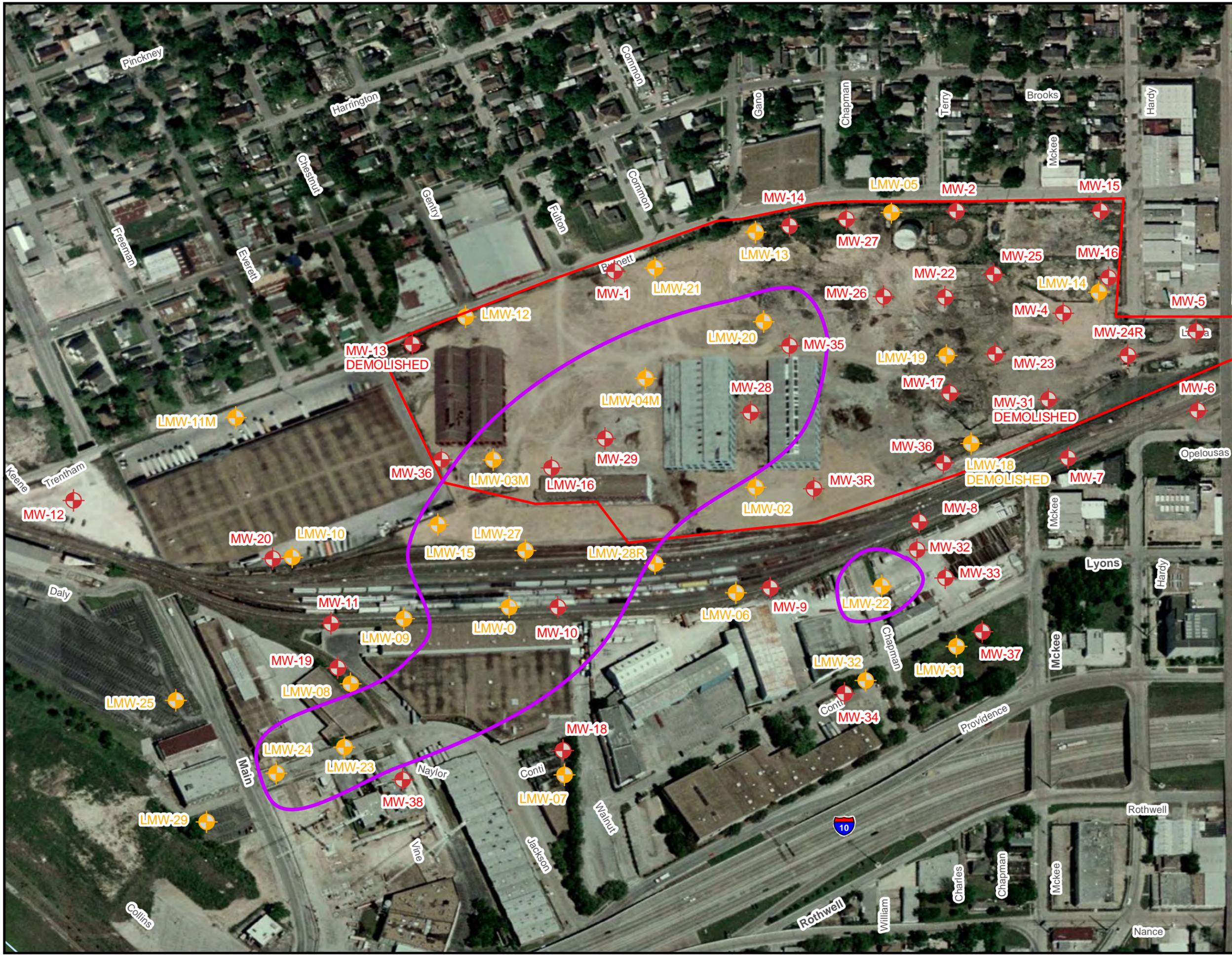


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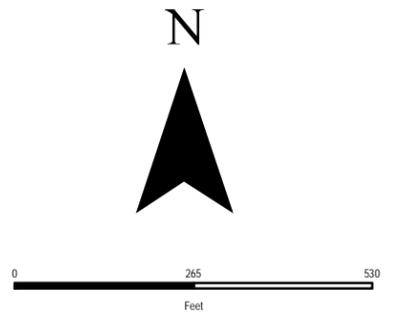


FIGURE 6-27
GROUNDWATER PCLE ZONE
VINYL CHLORIDE
PCLE ZONE
UPPER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN



- LEGEND**
- Approximate Property Boundary (property continues to east - not shown)
 - ⊕ Upper Zone Monitoring Well
 - ⊕ Lower Zone Monitoring Well
 - PCLE Zone Boundaries

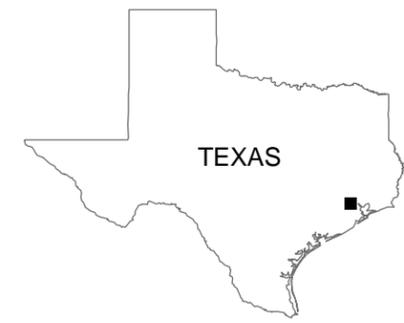


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FIGURE 6-28
GROUNDWATER PCLE ZONE
VINYL CHLORIDE
PCLE ZONE
LOWER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN



LEGEND

- Approximate Property Boundary
- PCLE Zone Boundaries
- ⊕ Upper Monitoring Well Location
- 2" Observation Well
- 2" Recovery Well
- 4" Recovery Well
- ⊕ 4" Monitoring Well
- ⊕ Well to be added to NAPL recovery system
- ⊕ Monitoring Well



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FIGURE 6-29
DIESEL NAPL ZONE
UPPER GROUNDWATER ZONE
UPRR HARDY STREET RAIL YARD
HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
APRIL 2009	13558.001.010.0001	AS SHOWN

Appendix C

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

A map depicting the designated property and surrounding properties is presented in Appendix B, Figure 1 (Site Plan Map). The designated property is currently vacant and is not in use. Two building slabs are located in the central portion of the site. These building slabs serve as engineered protective caps to potentially contaminated soil underlying the slabs. There are no other structures currently located on the property. Future plans for the designated property include redevelopment as mixed residential, office, and retail use. The properties bordering the designated property are commercial/industrial. A residential area lies north of the site, beyond the commercial/industrial properties along Burnett Street. The future use of the surrounding properties will most likely remain commercial/industrial and residential. Properties within 500 feet of the boundary of the designated property are listed in Table 1 attached to this section. The current use of the properties is based on information obtained from the Harris County Appraisal District (HCAD).

Table 1
Properties Within 500 Feet of the Designated Property
Hardy Street Raillyard
1400 Fulton Street
Houston, Texas

MAP ID	ADDRESS	OWNER NAME	CURRENT USE
1	1204 BROOKS ST	TODDY PRODUCTS INC	Commercial
2	1611 COMMON ST	SANCHEZ FERNANDO & BEATRIZ	Residential - improved
3	1206 BROOKS ST	TODDY PRODUCTS INC	Commercial
4	1202 BROOKS ST	TODDY PRODUCTS INC	Commercial
5	1116 BROOKS ST	MBI INC	Residential - improved
6	1511 COMMON ST	CHAVEZ SANCHEZ Y	Residential - improved
7	1522 FULTON ST	CITY OF HOUSTON	Day Care Center
8	1516 FULTON ST	CITY OF HOUSTON	Vacant Exempt Land
9	1608 FULTON ST	VALLEE STANY C & LYDA E	Residential - improved
10	1111 BROOKS ST	CARDENAS MARGARITA R	Residential - improved
11	1608 COMMON ST	LOZANO ELIVIRA M	Residential - improved
12	1206 BROOKS ST	TODDY PRODUCTS INC	Warehouse
13	1206 BROOKS ST	TODDY PRODUCTS INC	Commercial
14	1519 FULTON ST	W W N CORPORATION	Warehouse
15	1506 FULTON ST	1510 GENTRY PROPERTIES LC	Commercial - vacant
16	1103 BROOKS ST	RODRIGUEZ GUADALUPE R	Residential - improved
17	1125 BROOKS ST	LE TAMMY TAM	Commercial
18	1514 FULTON ST	CITY OF HOUSTON	Commercial - vacant
19	1115 BROOKS ST	HERNANDEZ VICENTE A	Residential - improved
20	1205 BURNETT ST	TODDY PRODUCTS INC	Commercial
21	1519 FULTON ST	1510 GENTRY PROPERTIES L C	Commercial - vacant
22	1522 FULTON ST	CITY OF HOUSTON	Vacant Exempt Land
23	1206 BROOKS ST	TODDY PRODUCTS INC	Retail
24	1519 FULTON ST	1510 GENTRY PROPERTIES L C	Commercial - vacant
25	1502 FULTON ST	1510 GENTRY PROPERTIES L C	Commercial - vacant
26	1107 BROOKS ST	RAMOS MARIANA C	Residential - improved
27	1123 BROOKS ST	CANAMAR J G ESTATE	Residential - improved
28	1307 BROOKS ST	GARCIA ELIAS	Residential - improved
29	1313 BROOKS ST	LOREDO E L	Residential - improved
30	1509 MCKEE ST	HERRERA INC	Residential - improved
31	1505 TERRY ST	VASQUEZ GUADOLPE & MARIA	Residential - improved
32	1511 TERRY ST	CURRENT OWNER	Residential - improved
33	1301 BROOKS ST	HERNANDEZ PAUL & ELISA	Retail
34	1605 TERRY ST	GOMEZ MARIA G	Residential - improved
35	1520 MCKEE ST	QUIROGA TIMOTEO R	Residential - improved
36	0 TERRY ST	PERALES RUDOLPH D	Residential - vacant
37	1607 CHAPMAN ST	MEDINA MERCEDES	Residential - improved
38	1514 TERRY ST	RODRIGUEZ RENE & ESTELLA	Residential - improved
39	1409 BROOKS ST	ODAT MAHD O	Residential - improved
40	1612 BROOKS ST	JESTER FULTON LTD	Residential - vacant
41	1511 HARDY ST	SANCHEZ FERNANDO & BEATRICE	Residential - improved
42	1517 TERRY ST	BRADFORD RALPH TRUST	Residential - improved
43	1516 CHAPMAN ST	GALDAMEZ ADONAY & NELLY	Residential - improved
44	1409 ELYSIAN ST	LIPSCOMB WILLIAM C	Commercial - vacant
45	0 HARDY ST	LIPSCOMB WILLIAM C	Warehouse
46	1606 CHAPMAN ST	MENDIOLA JOVITA	Residential - improved
47	1602 CHAPMAN ST	OLVERA AIDEE	Residential - improved
48	1515 TERRY ST	GODINA OSCAR	Residential - improved
49	1518 CHAPMAN ST	LOPEZ ARNOLD	Residential - improved
50	1611 CHAPMAN ST	LOPEZ-PONCE IRMA	Residential - improved
51	1608 GANO ST	IBARRA MARY H	Residential - improved
52	1701 BURNETT ST	LIPSCOMB WILLIAM C	Warehouse
53	0 LEONA	LIPSCOMB WILLIAM C	Commercial - vacant
54	1710 BURNETT ST	LIPSCOMB WILLIAM C	Parking
55	0 BURNETT ST	CITY OF HOUSTON	Vacant Exempt Land
56	1507 MCKEE ST	GARCIA CAYETANO C & MARIA	Residential - improved
57	1519 MCKEE ST	LOPEZ SONYA LOURICE	Residential - improved
58	1502 BROOKS ST	ARMENDARIZ RAMONA	Residential - improved
59	1518 TERRY ST	RODRIGUEZ CARMEN P	Residential - improved

Table 1
Properties Within 500 Feet of the Designated Property
Hardy Street Raillyard
1400 Fulton Street
Houston, Texas

MAP ID	ADDRESS	OWNER NAME	CURRENT USE
60	1608 CHAPMAN ST	NANYES YOLANDA TORRES	Residential - improved
61	1519 HARDY ST	SANCHEZ MANUEL OTERO	Commercial
62	1503 MAURY ST	LIPSCOMB WILLIAM C	Commercial - vacant
63	0 BROOKS ST	CENTERPOINT ENERGY ENTEX	Gas Company, Pumping
64	1503 TERRY ST	MONTES RICARDO &	Residential - improved
65	1516 CHAPMAN ST	GALDAMEZ ADONAY & NELLY	Residential - vacant
66	1706 HARRINGTON ST	CASTILLO ARCADIO	Residential - vacant
67	1510 MCKEE ST	VILLARREAL SANTIAGO & MARIA D	Residential - improved
68	1508 MCKEE ST	GUARINO GERARD MIKE	Residential - multifamily
69	1608 TERRY ST	SCHMID RAYMOND D	Residential - improved
70	0 TERRY ST	CARRIZALES MANUEL	Residential - vacant
72	1611 HARDY ST	KEY WEST INTEREST LLC	Auto Service Garage
73	1615 ELYSIAN ST	FLORES CARL G & ANN MARIE	Residential - improved
74	0 ELYSIAN ST	LIPSCOMB WILLIAM C	Parking
75	1515 HARDY ST	VALDEZ NORA	Residential - improved
76	1608 BROOKS ST	GUTIERREZ ROSEMARY 3	Residential - improved
77	0 MAURY ST	CASKEY JOHN W III	Residential - vacant
78	1619 ELYSIAN ST	CASTILLO ARCADIO & MARIA	Residential - improved
79	1607 MCKEE ST	TREVINO YSIDORA F	Residential - improved
80	1614 HARDY ST	CUTBERTO RECIO T	Residential - improved
81	1607 ELYSIAN ST	CHEVALIER WILLIE E	Residential - improved
82	1515 GENTRY ST	MORENO FRANCISCO	Residential - improved
83	1605 CHESTNUT ST	ORTIZ OSIEL & ALEJANDRA	Residential - improved
84	1605 GENTRY ST	AP PARTNERS CORP	Residential - vacant
85	1206 BROOKS ST	TODDY PRODUCTS INC	Commercial
86	1518 GANO ST	FEDERAL NATIONAL MORTGAGE ASSN	Residential - improved
87	1603 HARDY ST	TRAPOLINA F	Residential - vacant
88	1512 HARDY ST	ANGELITA C GONZALES LIVING	Residential - improved
89	1613 ELYSIAN ST	ANGUIANO AMALIA	Residential - improved
90	1609 ELYSIAN ST	MARGARITO GONZALES	Residential - improved
91	1610 MCKEE ST	MENDOZA VILIA	Residential - improved
92	1601 BROOKS ST	BANUELOS JORGE J & ROSE	Residential - multifamily
93	1807 BURNETT ST	LIPSCOMB WILLIAM C	Parking
94	1604 HARDY ST	AQUIRRE SALVADOR S	Residential - improved
95	1602 HARDY ST	LIPSCOMB WILLIAM C	Commercial - vacant
96	1515 CHESTNUT ST	CORTINA RAMON+VICTORIA	Residential - improved
97	1519 FULTON ST	1510 GENTRY PROPERTIES L C	Commercial - vacant
98	1519 FULTON ST	1510 GENTRY PROPERTIES L C	Commercial - vacant
99	1609 CHESTNUT ST	LUNA JUAN	Residential - improved
100	1606 EVERETT ST	REYES FERNANDO	Residential - improved
101	1513 GENTRY ST	JIMENEZ MARIA	Residential - improved
102	803 BROOKS ST	CONTRERAS CONSUELO T	Residential - improved
103	1505 GANO ST	SIMPSON O S JR	Commercial
104	1515 GANO ST	ZANY JUNE	Residential - improved
105	1513 GANO ST	TODDY PRODUCTS INC	Residential - vacant
106	1517 CHAPMAN ST	CONTRERAS ROY D	Residential - improved
107	1207 BROOKS ST	LOPEZ ADALDERTO S	Residential - improved
108	1509 EVERETT ST	GARCIA JOE	Residential - vacant
109	1517 GENTRY ST	BANUELOS JORGE J	Residential - multifamily
110	805 BROOKS ST	AGUIRRE MARY M	Residential - improved
111	809 BROOKS ST	AVELLANEDA MARCELINO	Residential - improved
112	1519 CHAPMAN ST	RIOS MARY & VALENTIEN	Residential - improved
113	1603 GANO ST	CANTU JOSE C	Residential - multifamily
114	1607 EVERETT ST	MENDEZ MIREYA	Residential - vacant
115	1601 EVERETT ST	MENDEZ CARLOS	Warehouse
116	1609 GENTRY ST	MONTELONGO LORENZO	Residential - improved
117	1003 BROOKS ST	HAFB LLC	Residential - improved
118	1504 CHAPMAN ST	RODRIGUEZ DAVID M	Warehouse
119	907 BROOKS ST	GARCIA RAY S	Residential - improved

Table 1
Properties Within 500 Feet of the Designated Property
Hardy Street Raillyard
1400 Fulton Street
Houston, Texas

MAP ID	ADDRESS	OWNER NAME	CURRENT USE
120	1606 GENTRY ST	ESTRADA FRANCISCA	Residential - improved
121	1513 GANO ST	TODDY PRODUCTS INC	Residential - improved
122	901 BROOKS ST	SAENZ MARGARITA	Residential - vacant
123	1610 GENTRY ST	RODRIGUEZ FRANCES	Residential - improved
124	1607 FULTON ST	FULLERTON ERIK K	Residential - improved
125	0 BURNETT ST	TODDY PRODUCTS INC	Residential - vacant
126	1512 GANO ST	HBS WAREHOUSES ASS	Warehouse
127	1516 GANO ST	GARZA RUBELIO	Residential - improved
128	1205 BROOKS ST	LOZANO ELVIR M	Bar/lounge
129	1510 CHAPMAN ST	RODRIGUEZ DAVID M	Residential - vacant
130	1512 TERRY ST	MENDOZA CRESCENCIA	Residential - improved
131	1517 MCKEE ST	JAIN MANISH	Residential - vacant
132	1516 TERRY ST	ANDRADE REBECCA	Residential - improved
133	0 BROOKS ST	A T & S F RAILROAD CO RR	Railroad - vacant land
134	1604 BROOKS ST	CRUZ EMELIA ESTATE OF	Residential - improved
135	1513 HARDY ST	VILLARREAL SANTIAGO & MARIA	Residential - improved
136	1611 MCKEE ST	SANDOVAL JOSE & MANGDALENA	Residential - improved
137	1609 MCKEE ST	SANDOVAL M & MAGDANA	Residential - improved
138	0 BROOKS ST	POOL ROBERT GEORGE	Residential - vacant
139	1614 HARDY	RECIO CUTBERTO T & ISELA	Residential - vacant
140	1610 HARDY ST	PASQUEL CRISTINA	Residential - vacant
141	1602 FREEMAN ST	MENDEZ MIREYA	Warehouse
142	1610 CHESTNUT ST	SAENZ HECTOR	Residential - improved
143	913 BROOKS ST	CARPIO EMILIO AMBRIZ	Residential - improved
144	1603 FULTON ST	PYKA RYAN	Residential - improved
145	1015 BROOKS ST	RODRIGUEZ ARTURO & LUCILA	Residential - improved
147	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad right-of-way
148	1514 EVERETT ST	MARTINEZ RALPH	Residential - improved
149	1507 CHESTNUT ST	ROSS JOHN EDWARD	Residential - vacant
150	0 CHESTNUT ST	CMC ENTERPRISE INC	Commercial - vacant
151	1505 GENTRY ST	HBS WAREHOUSE ASSOCIATES	Warehouse
152	1302 MAURY ST	KURKEL MANUFACTURING INC	Industrial - improvements
153	1302 MAURY ST	KURKEL MANUFACTURING INC	Industrial - land
154	1505 CHESTNUT ST	RODRIGUEZ VALERIO	Residential - improved
155	0 R R PROPERTY	CR V HARDY YARDS LP	Commercial - vacant
156	1600 N MAIN ST	1600 MAIN PARTNERS L P	Commercial - vacant
157	1517 EVERETT ST	RODRIGUEZ LUCIANO	Residential - improved
158	1514 EVERETT ST	CERVANTES RENE	Warehouse
159	1513 EVERETT ST	BANDA JUAN J & SOCORRO A	Residential - improved
160	421 N MAIN ST	BOARD OF REGENTS UNIVERSITY	Warehouse
161	0 N MAIN	BOARD OF REGENTS	College or University
162	0 DALY ST	BOARD OF REGENTS UNIVERSITY	Industrial - vacant land
163	1518 FREEMAN ST	COX JULIA K	Residential - improved
164	1511 EVERETT ST	OBREGON RUBEN	Residential - improved
165	1504 FREEMAN ST	FREEMAN BURNETT LLC	Residential - improved
166	0 HARDY	SOUTHWESTERN BELL	Commercial - vacant
167	0 HARDY ST	TV HOUSTON MSO LP	Commercial - vacant
168	616 BROOKS ST	DUARTE R M	Residential - improved
169	1504 N MAIN ST	BARRERA LUCIA R	Residential - improved
170	1516 FREEMAN ST	REYES AMALIA	Residential - improved
171	1501 EVERETT ST	JUAREZ RICARDO R	Residential - vacant
172	1503 CHESTNUT ST	SMITH DAVID	Retail
173	1215 HARDY ST	POLLYPIG BY KNAPP INC	Warehouse
174	0 HARDY	SOUTHWESTERN BELL	Commercial - vacant
175	1143 MAURY ST	CR V HARDY YARDS LP	Residential - vacant
176	1511 FREEMAN ST	GARCIA RAMON	Residential - improved
177	0 DALY ST	LEGAL DEPARTMET UNIVER-	College or University
178	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad right-of-way
179	0 KEENE	CITY OF HOUSTON	Commercial - vacant

Table 1
Properties Within 500 Feet of the Designated Property
Hardy Street Raillyard
1400 Fulton Street
Houston, Texas

MAP ID	ADDRESS	OWNER NAME	CURRENT USE
180	0 HARDY	KNAPPPOLLY PIG INC	Vacant Exempt Land
181	1603 LYONS AVE	POLLYPIG BY KNAPP INC	Commercial
182	0 ELYSIAN	WORLDCOM NETWORK SERVICES	Vacant Land
183	1219 ELYSIAN ST	ARREDONDO OCTAVIO L	Residential - vacant
184	1216 MAURY ST	KURKEL MFG	Industrial - manufacturing
185	609 BURNETT ST	VASQUEZ BERNALDINA M	Residential - improved
186	0 DALY ST	BOARD OF REGENTS	College or University
187	1512 EVERETT ST	CANO MARIA LUISA	Residential - improved
188	1206 MCKEE ST	POLLYPIG BY KNAPP INC	Warehouse
189	1155 MAURY ST	CR V HARDY YARDS LP	Residential - vacant
190	1701 LYONS AVE	WORLDCOM NETWORK SERVICES	Telephone equipment
191	0 LYONS AVE	WORLDCOM NETWORK SERVICES	Vacant Land
192	1409 CONTI ST	GULF STATES INVESTMENT CO	Warehouse
193	0 DALY PL	CITY OF HOUSTON	Vacant Exempt Land
194	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad right-of-way
195	407 N MAIN ST	JACOB'S FAN MFG CO INC	Warehouse
196	325 N MAIN ST	UNIVERSITY OF HOUSTON	Residential - vacant
197	1505 FREEMAN ST	BRYANT EDGAR A & MARY V	Residential - vacant
198	607 BURNETT ST	BLALOCK HARRY B	Residential - improved
199	417 N MAIN ST	JACOBS FAN MFG CO INC	Commercial - vacant
200	612 BROOKS ST	AZIOS A D	Commercial - vacant
201	611 BURNETT ST	VASQUEZ ANTONIO M	Residential - vacant
202	1524 FREEMAN ST	ONTIVEROS RAMON	Warehouse
203	0 HARDY ST	WORLDCOM NETWORK SERVICES	Vacant Land
204	1900 LYONS AVE	CITY OF HOUSTON	Vacant Exempt Land
205	1314 SEMMES ST	DEHOYOS RENE	Commercial
206	427 N MAIN ST	UNIVERSITY OF HOUSTON	College or University
207	0 N MAIN	BOARD OF REGENTS UNIVERSITY OF HOUSTON	College or University
208	1509 FREEMAN ST	GARCIA RAMON V	Residential - improved
209	1507 FREEMAN ST	BERNAL ANITA M	Residential - improved
210	1509 EVERETT ST	LIEBER ALESSI ALEX	Residential - improved
211	1506 FREEMAN ST	A E F INC	Residential - improved
212	1143 MAURY ST	HAWES JULIAN ESTATE	Residential - vacant
213	1507 KEENE	CITY OF HOUSTON	Commercial - vacant
214	1200 CHAPMAN ST	WILSON INDUSTRIES INC	Commercial - vacant
215	0 N MAIN ST	SOUTHERN PACIFIC RR CO RR	Railroad right-of-way
216	1510 FREEMAN ST	FARINA SABRINA A	Residential - improved
217	1507 EVERETT ST	TAMAYO ANDREW III	Residential - improved
218	1206 CHAPMAN ST	WILSON INDUSTRIES LP	Warehouse
219	1151 MAURY ST	PUSTKA DAVID W	Residential - vacant
220	0 DALY PL	SOUTHERN PACIFIC RR CO RR	Railroad, Vacant Land
221	1406 CONTI ST	LOPEZ JOSEPHINE	Residential - improved
222	0 DALY PL	DUNNAM THOMAS JR	Warehouse
223	0 DALY PL	SOUTHERN PACIFIC RR CO RR	Railroad, Vacant Land
224	16 DALY PL	BOARD OF REGENTS	College or University
225	1209 HARDY ST	POLLYPIG BY KNAPP INC	Office
226	0 LYONS	POLLYPIG BY KNAPP INC	Commercial - vacant
227	1209 HARDY ST	POLLYPIG BY KNAPP INC	Commercial - vacant
228	1217 ELYSIAN ST	ARREDONDO O L	Residential - vacant
229	1216 MAURY ST	KURKEL MFG	Vacant Industrial Land
230	0 N MAIN ST	BOARD OF REGENTS OF THE	College or University
231	1302 MAURY ST	UNION PACIFIC RAILROAD CO	Commercial - vacant
232	1507 KEENE	GATTIS ELVIS	Commercial - vacant
233	2001 OPELOUSAS ST	KURTZ KENNETH E II	Industrial - manufacturing
234	0 R R PROPERTY	UMION PACIFIC RAILROAD CO	Railroad, Vacant Land
235	0 LEONA ST	KURKEL MANUFACTURING INC	Commercial - vacant
236	1124 HARDY ST	LEVEL 3 COMMUNICATIONS	Telephone Equipment
237	1125 EAST FWY	HBS WAREHOUSES TEXAS INC	Warehouse
238	2001 LYONS AVE	ARNOLD DAVID W	Warehouse

Table 1
Properties Within 500 Feet of the Designated Property
Hardy Street Raillyard
1400 Fulton Street
Houston, Texas

MAP ID	ADDRESS	OWNER NAME	CURRENT USE
239	0 N MAIN ST	PRODUCTIVE PROFESSIONALS	Residential - vacant
240	1516 N MAIN ST	METROPOLITAN TRANSIT AUTHORITY	Residential - improved
241	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad, Vacant Land
242	2019 BROOKS ST	KURKEL MANUFACTURING INC	Parking
243	0 MCKEE ST	SOUTHERN PACIFIC RR CO RR	Railroad, Vacant Land
245	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad, Vacant Land
246	0 HARDY	TV HOUSTON MSO LP	Commercial - vacant
247	1512 N MAIN ST	METRO TRANSIT AUTHORITY	Residential - improved
248	0 BURNETT ST	METRO TRANSIT AUTHORITY	Commercial - vacant
253	1701 PROVIDENCE ST	WORLDCOM NETWORK	Telephone Equipment
254	2000 BROOKS ST	KURKEL MANUFACTURING INC	Commercial - vacant
255	800 BURNETT ST	METRO TRANSIT AUTHORITY	Commercial - vacant
258	0 BURNETT ST	METRO TRANSIT AUTHORITY	Commercial - vacant
263	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad, Vacant Land
265	1605 PROVIDENCE ST	US SPRINT	Telephone Equipment
266	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad right-of-way
270	0 STREETS	CR V HARDY YARDS LP	Commercial - vacant
271	0 N MAIN ST	PRODUCTIVE PROFESSIONALS	Residential - vacant
272	1133 PROVIDENCE ST	PROVIDENCE WAREHOUSE	Commercial - improvements
273	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad right-of-way
280	800 BURNETT ST	METRO TRANSIT AUTHORITY	Commercial - improvements
281	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad, Vacant Land
282	1528 N MAIN ST	GAD NANDAN	Residential - improved
283	0 N MAIN ST	PRODUCTIVE PROFESSIONALS	Residential - vacant
284	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad, Vacant Land
285	0 BROOKS ST	UNION PACIFIC RAILROAD CO	Railroad, Vacant Land
290	1619 MAURY ST	SAMSON DEV CO	Residential - vacant
291	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad right-of-way
292	1612 ELYSIAN ST	MORALES DOMINGO G	Residential - improved
293	1610 ELYSIAN ST	MORALES DOMINGO G & JULIA	Residential - vacant
294	0 HARRINGTON ST	SAMSON DEV CO	Vacant Industrial Land
295	1617 MAURY ST	SAMSON DEV CO	Commercial - vacant
296	1614 ELYSIAN ST	HERNANDEZ GUADALUPE	Residential - improved
297	1804 HARRINGTON ST	JACKSON KPARTEH	Residential - improved
298	1608 ELYSIAN ST	DURAN RIGOBERTO	Residential - improved
299	1606 MAURY ST	SAMSON DEV CO	Warehouse
300	1620 MAURY ST	SAMSON DEV CO	Warehouse
301	1720 MAURY ST	BERRIDGE MANUFACTURING CO	Warehouse
302	0 R R PROPERTY	A T & S F RAILROAD CO RR	Railroad right-of-way
303	0 BURNETT ST	UNION PACIFIC RAILROAD CO	Commercial - vacant
304	2108 MILLS ST	A T & S F RAILROAD CO UT	Commercial - vacant
305	1613 MAURY ST	SAMSON DEVELOPMENT CO	Residential - vacant
306	1611 MAURY ST	SAMSON DEVELOPMENT CO	Residential - vacant
307	1702 ELYSIAN ST	RAMIREZ PHILLIP J	Residential - improved
308	0 HARRINGTON ST	A T & S F RAILROAD CO UT	Commercial - vacant
309	1817 HARRINGTON ST	GARZA THEODORE	Auto Service Garage
310	2019 BROOKS ST	KURTZ II K E	Industrial - manufacturing
311	2019 BROOKS ST	KURTZ K E	Industrial - rubber
312	2019 BROOKS ST	KURTZ II K E	Industrial - manufacturing
313	1614 ELYSIAN	LOPEZ ELIGIA N	Residential - vacant
314	1615 MAURY ST	SAMSON DEVELOPMENT CO	Residential - vacant
315	0 R R PROPERTY	A T & S F RAILROAD CO RR	Railroad right-of-way
317	1502 MCKEE ST	LIPSCOMB WILLIAM C	Warehouse
318	1502 MCKEE ST	LIPSCOMB WILLIAM C	Commercial - vacant
320	1509 MAURY ST	TYLER COIN MACHINE REPAIR	Commercial
321	0 DALY ST	UNIVERSITY OF HOUSTON	College or University
322	1201 NAYLOR ST	READER REALTY CO	Warehouse
323	1101 NAYLOR ST	METRO TRANSIT AUTHORITY	Office - Warehouse
324	0 N MAIN ST	PROVIDENCE WHSE PTNR L P	Railroad, Vacant Land

Table 1
Properties Within 500 Feet of the Designated Property
Hardy Street Railyard
1400 Fulton Street
Houston, Texas

MAP ID	ADDRESS	OWNER NAME	CURRENT USE
325	1115 NAYLOR ST	METRO TRANSIT AUTHORITY	Warehouse
326	0 LYONS AVE	ST ARNOLD BREWING CO	Vacant Exempt Land
327	0 SEMMES ST	PETERSON LONNY R & DONNY L	Vacant Industrial Land
328	2102 BROOKS ST	HARRIS COUNTY ROW DEPT	Warehouse
329	2102 BROOKS ST	KURKEL MANUFACTURING INC	Vacant Industrial Land
330	0 JENSEN DR	UNION PACIFIC RAILROAD CO	Commercial - vacant
331	0 LYONS AVE	PETERSON LONNY R & DONNY	Vacant Industrial Land
332	2102 BROOKS ST	KURKEL MANUFACTURING INC	Commercial - vacant
333	0 SEMMES ST	PETERSON LONNY R & DONNY L	Vacant Industrial Land
334	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad, Vacant Land
335	0 LEONA ST	DEHOYOS RENE	Commercial - vacant
336	0 LYONS AVE	PETERSON LONNY R & DONNY	Vacant Industrial Land
337	0 SEMMES ST	PETERSON LONNY R & DONNY L	Vacant Industrial Land
338	1506 EVERETT ST	MORALES ALEJANDRO R	Residential - improved
339	1504 EVERETT ST	MORALES GUADALUPE M	Residential - improved
340	0 BROOKS ST	CURRENT OWNER	Warehouse
341	1812 BROOKS ST	CASKEY JOHN W III	Commercial
342	0 SHEA ST	BOARD REGENTS UNIV HOUSTON	
343	0 N MAIN	BOARD OF REGENTS OF	Commercial - vacant
344	1116 NAYLOR ST	METRO TRANSIT AUTHORITY	Warehouse
345	0 MAIN	BOARD OF REGENTS OF THE	College or University
346	310 N MAIN ST	THE BOARD OF REGENTS	Vacant Exempt Land
347	0 VINE	MURRAY LEE ROY III	Commercial - vacant
348	1113 VINE ST	MURRAY LEE R III	Office - Warehouse
349	320 N MAIN ST	THE BOARD OF REGENTS OF	Parking
350	316 N MAIN ST	THE BOARD OF REGENTS OF	Warehouse
351	316 N MAIN ST	BOARD OF REGENTS OF	Vacant Industrial Land
352	320 N MAIN ST	THE BOARD OF REGENTS OF	Commercial - vacant
353	0 N MAIN	THE BOARD OF REGENTS OF	Commercial - vacant
354	0 WHITE OAK	THE BOARD OF REGENTS OF SYSTEM	College or University
355	315 N MAIN ST	WELLINGTON FISHER LTD	Commercial - vacant
356	0 WHITE OAK	MISSOURI PACIFIC RR CO	Railroad, Vacant Land
357	315 N MAIN ST	PALADIO DEVELOPMENT LTD	Commercial - improvements
358	322 N MAIN ST	BOARD OF REGENTS OF THE	Miscellaneous Government
359	1120 NAYLOR ST	HVIZOOS FRANK P	Warehouse
360	0 WHITE OAK	MISSOURI PACIFIC RR CO	Railroad right-of-way
361	1609 TERRY ST	ESPINOSA REFUGIO S	Residential - improved
362	1300 CONTI ST	WILSON INDUSTRIES INC	Commercial - vacant
363	1417 CONTI ST	WILSON INDUSTRIES INC	Warehouse
364	1114 CHAPMAN ST	WMT REALTY TRUST LTD	Residential - vacant
365	0 PROVIDENCE	WMT REALTY TRUST LTD	Commercial - vacant
366	1114 CHAPMAN ST	GARCIA ANITA M	Residential - improved
367	0 PROVIDENCE	CONSOLI ANNA MAE	Commercial - vacant
368	800 BURNETT ST	METRO TRANSIT AUTHORITY	Commercial - improvements
369	800 BURNETT ST	METRO TRANSIT AUTHORITY	Commercial - vacant
370	0 BROOK ST	HARRIS COUNTY HOSP DIST	Vacant Exempt Land
371	1600 KEENE ST	HOLUBEC FRANK G	Warehouse
372	1615 N MAIN ST	HARRIS COUNTY HOSP DIST	Vacant Exempt Land
373	1532 N MAIN ST	SZESCILA JOHN R	Residential - improved
374	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad right-of-way
375	1501 COMMON ST	POWELL RONALD D JR	Residential - improved
376	1515 N MAIN ST	1515 MAIN STREET PARTNERS LP	Commercial - vacant
377	0 KEENE ST	504 BROOKS PARTNERS, LP	Vacant Industrial Land
378	1500 KEENE ST	504 BROOKS PARTNERS LP	Commercial
379	1515 N MAIN ST	1515 MAIN STREET PARTNERS LP	Commercial - vacant
380	1515 N MAIN ST	1515 MAIN STREET PARTNERS LP	Used Car Lot
381	0 KEENE ST	504 BROOKS PARTNERS LP	Commercial - vacant
382	504 BROOKS ST	504 BROOKS PARTNERS LP	Residential - vacant
383	502 BROOKS ST	504 BROOKS PARTNERS LP	Used Car Lot

Table 1
Properties Within 500 Feet of the Designated Property
Hardy Street Railyard
1400 Fulton Street
Houston, Texas

MAP ID	ADDRESS	OWNER NAME	CURRENT USE
384	0 LEONA ST	DEHOYOS RENE	Commercial - vacant
385	3500 HIGH ST	WILSON INDUSTRIES INC	Vacant Industrial Land
386	0 NAYLOR	KAPLAN RICHARD M TR FOR	Parking
387	1302 CONTI ST	WILSON INDUSTRIES INC	Warehouse
388	800 WALNUT ST	WILSON INDUSTRIES INC	Parking
389	1301 CONTI ST	WILSON SUPPLY CO	Office - Warehouse
390	1201 NAYLOR ST	KAPLAN RICHARD M TR FOR	Warehouse
391	1213 MAURY ST	MAURY LYONS LTD	Warehouse
392	401 HARRINGTON ST	MCCLENDON SYDNEY S III	Warehouse
393	0 MYRTLE ST	TUFFLI COMPANY INC	Commercial - vacant
394	0 R R PROPERTY	SOUTHERN PACIFIC RR CO RR	Railroad right-of-way
395	400 HARRINGTON ST	GATTIS ANNIE JOYCE	Commercial - vacant
396	1615 KEENE ST	GATTIS ANNIE JOYCE	Warehouse
397	1710 BURNETT ST	LIPSCOMB WILLIAM C	Warehouse
398	1707 MAURY ST	BERRIDGE MANUFACTURING CO	Warehouse
399	1118 ELYSIAN ST	STEWART W S & EARLINE	Warehouse

Appendix D

(TCEQ MSD Reference No. 5)

For each contaminant of concern within the ingestion protective concentration level exceedance zone, to the extent known, provide the following:

- 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).

Soil

A final Certificate of Completion was issued to VCP No. 1553 on May 21, 2007 for residential land use. Soil excavation activities to remediate impacted soil at the property were completed in 2006 and 2007, and additional soil excavation activities were undertaken in 2008 to remove certain areas of the property from the requirement to maintain building foundations as an engineering control. Based on the analytical results of soil confirmation samples collected during these activities and historical environmental investigations, no PCL exceedances remain in soils at the property with the possible exception of soils underlying two building slabs, which remain as engineering controls at the property. These building slabs are located in the central portion of the site, and serve as protective caps over the underlying soils. A Conditional Certificate of Completion was issued to VCP No. 857 on April 14, 2008. Currently applicable conditions of this certificate include annual inspections of the two remaining building slabs. One COC, trichloroethene, has been identified in the soil beneath one of the building slabs at a concentration above the ingestion PCL. ***No non-ingestion PCL exceedances have been identified in the soil remaining at the property.***

A description of the soil ingestion PCLE zone, vertical and horizontal extent and geochemical properties is provided below for each chemical of concern.

Trichloroethene

- (a) A trichloroethene concentration above the PCL for soil to protect groundwater (^{GW}Soil_{Ing} PCL) was reported in one soil sample (S-5) beneath a building slab left in place at the property. A Conditional Certificate of Completion (CCOC) has been issued for this area of the property. The CCOC restricts exposure to soils underlying the remaining building slabs on-site. This means that the slabs cannot be disturbed without TCEQ coordination. If removal of the slabs is desired as part of the redevelopment, TCEQ would need to be provided with a plan to either excavate the soil exceeding the residential clean up levels once the cover is removed, and/or replacing the slab with a similar cover. The horizontal extent of the trichloroethene soil PCLE

zone was estimated based on the available data to be approximately 17,500 ft². The vertical extent of the soil PCLE zone is estimated to range from approximately 5 feet bgs to approximately 20 feet bgs. The non-ingestion PCL for trichloroethene in soil is based on inhalation of volatiles from subsurface soil. There are no noningestion soil PCLE zones present at the designated property.

- (b) The ^{GW}Soil_{Ing} PCL for trichloroethene is 0.017 mg/kg. The maximum reported trichloroethene concentration remaining in soil is 0.023 mg/kg in sample S-5 collected at a depth of 15 feet below ground surface (bgs). The noningestion PCL for trichloroethene in soil is 51 mg/kg. None of the reported concentrations of trichloroethene in soil remaining at the site exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of trichloroethene is presented below.

COC: TRICHLOROETHENE	
Greatest observed concentration:	0.023 mg/L
Ingestion-based PCL:	Residential ^{GW} Soil _{Ing} (0.017 mg/L)
Ingestion-based PCLE Zone:	Approximately 17,500 ft ² Approximate Depth: 5 to 20 feet bgs
Non-Ingestion based PCL:	Residential ^{Air} GW-Soil _{Inh-v} , 30 acre source area (51 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	131.4
Density/Specific Gravity:	1.46 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

Groundwater

Based on historical environmental investigations at the designated property, 15 COCs have been identified in the groundwater above the ingestion PCL. A weathered diesel NAPL plume is also present in the upper zone beneath the northeastern portion of the designated property. The affected uppermost groundwater-bearing unit at the site consists of two zones which are comprised of sand, are divided by a clay unit and confined by a lower clay unit within the Beaumont Formation.

No non-ingestion PCL exceedances have been identified in the groundwater.

A description of each groundwater COC, the ingestion PCL exceedence zone, vertical and horizontal extent and geochemical properties is provided below.

1,1,1-Trichloroethane

- (a) 1,1,1-Trichloroethane concentrations were reported above the ingestion PCL in one PCLE zone within the upper groundwater zone in samples collected from monitoring wells MW-17 and MW-28. 1,1,1-Trichloroethane has not been reported above the ingestion PCL since January 2002. The former horizontal extent of the 1,1,1-trichloroethane ingestion PCLE zone on the designated property was estimated based on the available data to be approximately 120,000 ft². The former vertical extent of 1,1,1-trichloroethane appears to range from approximately 25 feet bgs to approximately 40 feet bgs. The non-ingestion PCL for 1,1,1-trichloroethane in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.
- (b) The ingestion PCL for 1,1,1-trichloroethane is 0.2 mg/L. The maximum concentration of 1,1,1-trichloroethane was reported at 0.53 mg/L in a groundwater sample collected from MW-17 in January 2002. The noningestion PCL for 1,1,1-trichloroethane in groundwater is 5,100 mg/L. None of the reported concentrations of 1,1,1-trichloroethane in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of 1,1,1-trichloroethane is presented below.

COC: 1,1,1-TRICHLOROETHANE	
Greatest observed concentration:	0.53 mg/L
Ingestion-based PCL:	Residential GW _{Ing} (0.2 mg/L)
Ingestion-based PCLE Zone:	None, based on most recent data
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-v} , 30 acre source area (5,100 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	133.4
Density/Specific Gravity:	1.34 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

1,1,2-Trichloroethane

- (a) 1,1,2-Trichloroethane concentrations were reported above the ingestion PCL in both the upper and lower groundwater zones. 1,1,2-Trichloroethane exceedances in the upper zone were reported in groundwater samples collected from monitoring wells MW-17 and MW-28. The horizontal extent of the 1,1,2-trichloroethane upper ingestion PCLE zone was estimated based on the available data to be approximately 120,000 ft². The

vertical extent of the upper 1,1,2-trichloroethane PCLE zone appears to range from approximately 25 feet bgs to approximately 40 feet bgs. 1,1,2-Trichloroethane exceedances in the lower zone were reported in groundwater samples collected from LMW-01, LMW-04M, LMW-16, LMW-20, LMW-23, LMW-24 and LMW-27. The horizontal extent of the 1,1,2-trichloroethane lower ingestion PCLE zone was estimated based on the available data to be approximately 1,200,000 ft². The vertical extent of the lower 1,1,2-trichloroethane PCLE zone appears to range from approximately 60 feet bgs to approximately 70 feet bgs at the designated property. The non-ingestion PCL for 1,1,2-trichloroethane in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.

- (b) The ingestion PCL for 1,1,2-trichloroethane is 0.005 mg/L. The maximum concentration of 1,1,2-trichloroethane in the upper zone was reported at 0.0196 in a groundwater sample collected from MW-28 in June 2003. The maximum concentration of 1,1,2-trichloroethane in the lower zone was reported at LMW-01 at 0.010 mg/L in a groundwater sample collected from LMW-01 in December 2002. The noningestion PCL for 1,1,2-trichloroethane in groundwater is 10 mg/L. None of the reported concentrations of 1,1,2-trichloroethane in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of 1,1,2-trichloroethane is presented below.

COC: 1,1,2-TRICHLOROETHANE	
Greatest observed concentration:	0.0196 mg/L
Ingestion-based PCL:	Residential GW _{Ing} (0.005 mg/L)
Ingestion-based PCLE Zone:	Upper Zone: Approximately 120,000 ft ² Approximate Depth: 25 to 40 feet bgs Lower Zone: Approximately 1,200,000 ft ² Approximate Depth: 60 to 70 feet bgs
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-v} , 30 acre source area (10 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	133.42
Density/Specific Gravity:	1.44 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

1,1-Dichloroethene

- (a) 1,1-Dichloroethene concentrations were reported above the ingestion PCL in both the upper and lower groundwater zones. 1,1-Dichloroethene exceedances in the upper zone were reported in groundwater samples collected from monitoring wells MW-03R, MW-8, MW-17, MW-23, MW-28, MW-29, MW-30, MW-32, MW-33, and MW-36. The

horizontal extent of the 1,1-dichloroethene upper ingestion PCLE zone was estimated based on the available data to be approximately 1,500,000 ft². The vertical extent of the upper 1,1-dichloroethene PCLE zone appears to range from approximately 25 feet bgs to approximately 40 feet bgs. 1,1-Dichloroethene exceedances in the lower zone were reported in groundwater samples collected from LMW-01, LMW-03M, LMW-04M, LMW-08, LMW-09, LMW-15, LMW-16, LMW-20, LMW-23, LMW-24, and LMW-27. The horizontal extent of the 1,1-dichloroethene lower ingestion PCLE zone was estimated based on the available data to be approximately 1,200,000 ft². The vertical extent of the lower 1,1-dichloroethene PCLE zone appears to range from approximately 60 feet bgs to approximately 70 feet bgs at the designated property. The non-ingestion PCL for 1,1-dichloroethene in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.

- (b) The ingestion PCL for 1,1-dichloroethene is 0.007 mg/L. The maximum concentration of 1,1-dichloroethene in the upper zone was reported at 3.31 mg/L in a groundwater sample collected from MW-28 in June 2005. The maximum concentration of 1,1-dichloroethene in the lower zone was reported at 4.06 mg/L in a groundwater sample collected from LMW-03M in April 1999. The noningestion PCL for 1,1-dichloroethene in groundwater is 220 mg/L. None of the reported concentrations of 1,1-dichloroethene in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of 1,1,-dichloroethene is presented below.

COC: 1,1-DICHLOROETHENE	
Greatest observed concentration:	4.06 mg/L
Ingestion-based PCL:	Residential GW _{Ing} (0.007 mg/L)
Ingestion-based PCLE Zone:	Upper Zone: Approximately 1,500,000 ft ² Approximate Depth: 25 to 40 feet bgs Lower Zone: Approximately 1,200,000 ft ² Approximate Depth: 60 to 70 feet bgs
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-v} , 30 acre source area (220 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	96.94
Density/Specific Gravity:	1.21 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

1,2-Dichloroethane

- (a) 1,2-Dichloroethane concentrations were reported above the ingestion PCL in both the upper and lower groundwater zones. 1,2-Dichloroethane exceedances in the upper zone were reported in groundwater samples collected from monitoring wells MW-17 and

MW-28. The horizontal extent of the 1,2-dichloroethane upper ingestion PCLE zone was estimated based on the available data to be approximately 120,000 ft². The vertical extent of the upper 1,2-dichloroethane PCLE zone appears to range from approximately 25 feet bgs to approximately 40 feet bgs. 1,2-Dichloroethane exceedances in the lower zone were reported in groundwater samples collected from LMW-01, LMW-03M, LMW-16, LMW-20, LMW-23, LMW-24 and LMW-27. The horizontal extent of the 1,2-dichloroethane lower ingestion PCLE zone was estimated based on the available data to be approximately 1,200,000 ft². The vertical extent of the lower 1,2-dichloroethane PCLE zone appears to range from approximately 60 feet bgs to approximately 70 feet bgs at the designated property. The non-ingestion PCL for 1,2-dichloroethane in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.

- (b) The ingestion PCL for 1,2-dichloroethane is 0.005 mg/L. The maximum concentration of 1,2-dichloroethane in the upper zone was reported at 0.0224 mg/L in a groundwater sample collected from MW-28 in June 2005. The maximum concentration of 1,2-dichloroethane in the lower zone was reported at 0.014 mg/L in a groundwater sample collected from LMW-16 in December 2002. The noningestion PCL for 1,2-dichloroethane in groundwater is 4.3 mg/L. None of the reported concentrations of 1,2-dichloroethane in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of 1,2-dichloroethane is presented below.

COC: 1,2-DICHLOROETHANE	
Greatest observed concentration:	0.0224 mg/L
Ingestion-based PCL:	Residential GW _{Ing} (0.005 mg/L)
Ingestion-based PCLE Zone:	Upper Zone: Approximately 120,000 ft ² Approximate Depth: 25 to 40 feet bgs Lower Zone: Approximately 1,200,000 ft ² Approximate Depth: 60 to 70 feet bgs
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-v} , 30 acre source area (4.3 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	98.96
Density/Specific Gravity:	1.23 @ 20 deg C
Solubility in Water:	Partially soluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

cis-1,2-Dichloroethene

- (a) Cis-1,2-dichloroethene concentrations were reported above the ingestion PCL in both the upper and lower groundwater zones. Cis-1,2-dichloroethene exceedances in the upper zone were reported in groundwater samples collected from monitoring wells MW-03R,

MW-10, MW-17, MW-23, MW-28, MW-29, and MW-35. The horizontal extent of the cis-1,2-dichloroethene upper ingestion PCLE zone was estimated based on the available data to be approximately 700,000 ft². The vertical extent of the upper cis-1,2-dichloroethene PCLE zone appears to range from approximately 25 feet bgs to approximately 40 feet bgs. Cis-1,2-dichloroethene exceedances in the lower zone were reported in groundwater samples collected from LMW-01, LMW-03M, LMW-04M, LMW-08, LMW-15, LMW-16, LMW-20, LMW-23, LMW-24, and LMW-27. The horizontal extent of the cis-1,2-dichloroethene lower ingestion PCLE zone was estimated based on the available data to be approximately 1,200,000 ft². The vertical extent of the lower cis-1,2-dichloroethene PCLE zone appears to range from approximately 60 feet bgs to approximately 70 feet bgs at the designated property. The non-ingestion PCL for cis-1,2-dichloroethene in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.

- (b) The ingestion PCL for cis-1,2-dichloroethene is 0.07 mg/L. The maximum concentration of cis-1,2-dichloroethene in the upper zone was reported at 13.0 mg/L in a groundwater sample collected from MW-17 in January 2002. The maximum concentration of cis-1,2-dichloroethene in the lower zone was reported at 3.32 mg/L in a groundwater sample collected from LMW-01 in June 2005. The noningestion PCL for cis-1,2-dichloroethene in groundwater is 2,100 mg/L. None of the reported concentrations of cis-1,2-dichloroethene in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of cis-1,2-dichloroethene is presented below.

COC: CIS-1,2-DICHLOROETHENE	
Greatest observed concentration:	13 mg/L
Ingestion-based PCL:	Residential GW _{Ing} (0.07 mg/L)
Ingestion-based PCLE Zone:	Upper Zone: Approximately 700,000 ft ² Approximate Depth: 25 to 40 feet bgs Lower Zone: Approximately 1,200,000 ft ² Approximate Depth: 60 to 70 feet bgs
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-V} , 30 acre source area (2,100 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	96.94
Density/Specific Gravity:	1.28 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

trans-1,2-Dichloroethene

- (b) Trans-1,2-dichloroethene concentrations were reported above the ingestion PCL in both the upper and lower groundwater zones. Trans-1,2-dichloroethene exceedances in the upper zone were reported in groundwater samples collected from monitoring wells MW-17, MW-28, and MW-35. The horizontal extent of the trans-1,2-dichloroethene upper ingestion PCLE zone was estimated based on the available data to be approximately 165,000 ft². The vertical extent of the upper trans-1,2-dichloroethene PCLE zone appears to range from approximately 25 feet bgs to approximately 40 feet bgs. Trans-1,2-dichloroethene exceedances in the lower zone were reported in groundwater samples collected from LMW-01, LMW-04M, and LMW-16. The horizontal extent of the trans-1,2-dichloroethene lower ingestion PCLE zone was estimated based on the available data to be approximately 240,000 ft². The vertical extent of the lower trans-1,2-dichloroethene PCLE zone appears to range from approximately 60 feet bgs to approximately 70 feet bgs at the designated property. The non-ingestion PCL for trans-1,2-dichloroethene in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.
- (b) The ingestion PCL for trans-1,2-dichloroethene is 0.010 mg/L. The maximum concentration of trans-1,2-dichloroethene in the upper zone was reported at 0.811 mg/L in a groundwater sample collected from MW-28 in June 2005. The maximum concentration of trans-1,2-dichloroethene in the lower zone was reported at 0.519 mg/L in a groundwater sample collected from LMW-16 in June 2005. The noningestion PCL for trans-1,2-dichloroethene in groundwater is 99 mg/L. None of the reported concentrations of trans-1,2-dichloroethene in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of trans-1,2-dichloroethene is presented below.

COC: TRANS-1,2-DICHLOROETHENE	
Greatest observed concentration:	0.811 mg/L
Ingestion-based PCL:	Residential GW _{Ing} (0.010 mg/L)
Ingestion-based PCLE Zone:	Upper Zone: Approximately 165,000 ft ² Approximate Depth: 25 to 40 feet bgs Lower Zone: Approximately 240,000 ft ² Approximate Depth: 60 to 70 feet bgs
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-v} , 30 acre source area (99 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	96.95
Density/Specific Gravity:	1.26 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

1,2-Dibromoethane

- (c) 1,2-Dibromoethane concentrations were reported above the ingestion PCL in both the upper and lower groundwater zones. In the upper zone, 1,2-dibromoethane exceeded the ingestion PCL in one monitoring well (MW-12) during one sampling event in December 2001. In the lower zone, 1,2-dibromoethane exceeded the ingestion PCL in one monitoring well (LMW-03M) during one sampling event in December 2002. 1,2-Dibromoethane has not been detected in any monitoring wells since February 2002. The former horizontal extent of the 1,2-dibromoethane upper ingestion PCLE zone was estimated based on the available data to be approximately 10,000 ft². The former vertical extent of the upper 1,2-dibromoethane PCLE zone appears to range from approximately 25 feet bgs to approximately 40 feet bgs. The former horizontal extent of the 1,2-dibromoethane lower ingestion PCLE zone was estimated based on the available data to be approximately 10,000 ft². The former vertical extent of the lower 1,2-dibromoethane PCLE zone appears to range from approximately 60 feet bgs to approximately 70 feet bgs at the designated property. The non-ingestion PCL for 1,2-dibromoethane in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.
- (b) The ingestion PCL for 1,2-dibromoethane is 0.00005 mg/L. The maximum concentration of 1,2-dibromoethane in the upper zone was reported at 0.0012 mg/L in a groundwater sample collected from MW-12 in December 2001. The maximum concentration of 1,2-dibromoethane in the lower zone was reported at 0.019 mg/L in a groundwater sample collected from LMW-03M in February 2002. The noningestion PCL for 1,2-dibromoethane in groundwater is 0.72 mg/L. None of the reported concentrations of 1,2-dibromoethane in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of 1,2-dibromoethane is presented below.

COC: 1,2-DIBROMOETHANE	
Greatest observed concentration:	0.019 mg/L
Ingestion-based PCL:	Residential GW _{Ing} (0.00005 mg/L)
Ingestion-based PCLE Zone:	None, based on most recent data
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-V} , 30 acre source area (0.72 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	187.86
Density/Specific Gravity:	2.172 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

1,2-Dichloropropane

- (d) 1,2-Dichloropropane concentrations were reported above the ingestion PCL in both the upper and lower groundwater zones. In the upper zone, 1,2-dichloropropane exceeded the ingestion PCL in one monitoring well (MW-4) during one sampling event in February 1999. In the lower zone, 1,2-dichloropropane exceeded the ingestion PCL in one monitoring well (LMW-04M) during one sampling event in December 2003. 1,2-Dichloropropane has not been detected in any monitoring wells since December 2003. The former horizontal extent of the 1,2-dichloropropane upper ingestion PCLE zone was estimated based on the available data to be approximately 10,000 ft². The former vertical extent of the upper 1,2-dichloropropane PCLE zone appears to range from approximately 25 feet bgs to approximately 40 feet bgs. The former horizontal extent of the 1,2-dichloropropane lower ingestion PCLE zone was estimated based on the available data to be approximately 10,000 ft². The former vertical extent of the lower 1,2-dichloropropane PCLE zone appears to range from approximately 60 feet bgs to approximately 70 feet bgs at the designated property. The non-ingestion PCL for 1,2-dichloropropane in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.
- (b) The ingestion PCL for 1,2-dichloropropane is 0.005 mg/L. The maximum concentration of 1,2-dichloropropane in the upper zone was reported at 86.3 mg/L in a groundwater sample collected from MW-4 in February 1999; however, this well was subsequently found to contain PSH; therefore the elevated concentration of 1,2-dichloropropane is believed to be an indication of the presence of PSH, and not dissolved concentrations at this location. The maximum concentration of 1,2-dichloropropane in the lower zone was reported at 0.622 mg/L in a groundwater sample collected from LMW-04M in December 2003. The noningestion PCL for 1,2-dichloropropane in groundwater is 15 mg/L. With the exception of one sample collected from MW-4 in February 1999, no reported concentrations of 1,2-dichloropropane in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of 1,2-dichloropropane is presented below.

COC: 1,2-DICHLOROPROPANE	
Greatest observed concentration:	86.3 mg/L (Note: this concentration is believed to be a result of PSH in the well, and not an indication of dissolved concentrations. No 1,2-dichloropropane have been reported at the site above the ingestion PCL since December 2003.)
Ingestion-based PCL:	Residential GW _{Ing} (0.005 mg/L)
Ingestion-based PCLE Zone:	None, based on most recent data
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-V} , 30 acre source area (15 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	112.99
Density/Specific Gravity:	1.16 @ 20 deg C

Solubility in Water:	Partially soluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

Benzene

- (b) A concentration of benzene was reported above the ingestion PCL in one PCLE zone within the upper groundwater zone in a sample collected from monitoring well MW-4 in February 1999. The former horizontal extent of the benzene ingestion PCLE zone on the designated property was estimated based on the available data to be approximately 10,000 ft². The former vertical extent of benzene appears to range from approximately 25 feet bgs to approximately 40 feet bgs. The non-ingestion PCL for benzene in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.
- (b) The ingestion PCL for benzene is 0.005 mg/L. The maximum concentration of benzene was reported at 0.290 mg/L in a groundwater sample collected from MW-4 in February 1999. The noningestion PCL for benzene in groundwater is 23 mg/L. None of the reported concentrations of benzene in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of benzene is presented below.

COC: BENZENE	
Greatest observed concentration:	0.290 mg/L
Ingestion-based PCL:	Residential GW _{Ing} (0.005 mg/L)
Ingestion-based PCLE Zone:	None, based on most recent data
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-v} , 30 acre source area (23 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	78.11
Density/Specific Gravity:	0.88 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

Tert-butylbenzene

- (e) Tert-butylbenzene concentrations were reported above the ingestion PCL in both the upper and lower groundwater zones. Tert-butylbenzene exceedances in the upper zone were reported in groundwater samples collected from monitoring wells MW-7, MW-

11, MW-12, MW-15, and MW-19. Tert-butylbenzene has not been reported above the ingestion PCL since December 2003. The former horizontal extent of Tert-butylbenzene in the upper ingestion PCLE zone appeared at five sporadic locations across the site. The combined extent is estimated to have been approximately 75,000 ft². The former vertical extent of the upper tert-butylbenzene PCLE zone appears to range from approximately 25 feet bgs to approximately 40 feet bgs. One tert-butylbenzene exceedance in the lower zone was reported in a groundwater sample collected from LMW-09. The former horizontal extent of the tert-butylbenzene lower ingestion PCLE zone was estimated based on the available data to be approximately 15,000 ft². The former vertical extent of the lower tert-butylbenzene PCLE zone appears to range from approximately 60 feet bgs to approximately 70 feet bgs at the designated property. The non-ingestion PCL for tert-butylbenzene in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.

- (b) The ingestion PCL for tert-butylbenzene is 0.98 mg/L. The maximum concentration of tert-butylbenzene in the upper zone was reported at 8.2 mg/L in a groundwater sample collected from MW-7 in December 2003. The maximum concentration of tert-butylbenzene in the lower zone was reported at 1.19 mg/L in a groundwater sample collected from LMW-9 in December 2003. The noningestion PCL for tert-butylbenzene in groundwater is 320 mg/L. None of the reported concentrations of tert-butylbenzene in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of tert-butylbenzene is presented below.

COC: TERT-BUTYLBENZENE	
Greatest observed concentration:	8.2 mg/L
Ingestion-based PCL:	Residential GW _{Ing} (0.98 mg/L)
Ingestion-based PCLE Zone:	None, based on most recent data
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-v} , 30 acre source area (320 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	134.22
Density/Specific Gravity:	0.87 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

Carbon Tetrachloride

- a) A concentration of carbon tetrachloride was reported above the ingestion PCL in one PCLE zone within the lower groundwater zone in a sample collected from monitoring well LMW-10 in January 2007. Carbon tetrachloride was not reported above the ingestion PCL in September 2008. The former horizontal extent of the carbon tetrachloride ingestion PCLE

zone on the designated property was estimated based on the available data to be approximately 10,000 ft². The former vertical extent of carbon tetrachloride appears to range from approximately 60 feet bgs to approximately 70 feet bgs. The non-ingestion PCL for carbon tetrachloride in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.

- b) The ingestion PCL for carbon tetrachloride is 0.005 mg/L. The maximum concentration of carbon tetrachloride was reported at 0.0077 mg/L in a groundwater sample collected from LMW-10 in January 2007. The noningestion PCL for carbon tetrachloride in groundwater is 1.0 mg/L. None of the reported concentrations of carbon tetrachloride in groundwater exceed the noningestion PCL.
- c) A chemical fact sheet providing geochemical properties of carbon tetrachloride is presented below.

COC: CARBON TETRACHLORIDE	
Greatest observed concentration:	0.0077 mg/L
Ingestion-based PCL:	Residential GW _{Ing} (0.005 mg/L)
Ingestion-based PCLE Zone:	None, based on most recent data
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-V} , 30 acre source area (1.0 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	153.82
Density/Specific Gravity:	1.59 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

Methyl tert-butyl ether (MTBE)

- (b) MTBE concentrations were reported above the ingestion PCL in both the upper and lower groundwater zones. MTBE exceedances in the upper zone were reported in groundwater samples collected from monitoring wells MW-14, MW-20, and MW-24R. Based on the most recent data, no exceedances of MTBE are present in the upper zone. The former horizontal extent of MTBE in the upper ingestion PCLE zone appeared at three sporadic locations across the site. The combined extent is estimated to have been approximately 45,000 ft². The former vertical extent of the upper MTBE PCLE zone appears to range from approximately 25 feet bgs to approximately 40 feet bgs. MTBE exceedances in the lower zone were reported in groundwater samples collected from LMW-15 and LMW-20. The horizontal extent of the MTBE lower ingestion PCLE zone was estimated based on the available data to be approximately 30,000 ft². The vertical extent of the lower MTBE PCLE zone appears to range from approximately 60 feet bgs to approximately 70 feet bgs at the designated property. The non-ingestion PCL for

MTBE in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.

- (b) The ingestion PCL for MTBE is 0.24 mg/L. The maximum concentration of MTBE in the upper zone was reported at an estimated concentration of 0.015 mg/L in a groundwater sample collected from MW-20 in January 2007. The maximum concentration of MTBE in the lower zone was reported at 0.61 mg/L in a groundwater sample collected from LMW-15 in December 2006. The noningestion PCL for MTBE in groundwater is 520 mg/L. None of the reported concentrations of MTBE in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of MTBE is presented below.

COC: METHYL TERT-BUTYL ETHER	
Greatest observed concentration:	0.61 mg/L
Ingestion-based PCL:	Residential GW _{Ing} (0.24 mg/L)
Ingestion-based PCLE Zone:	Upper Zone: None, based on most recent data Lower Zone: Approximately 30,000 ft ² Approximate Depth: 60 to 70 feet bgs
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-v} , 30 acre source area (520 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	88.15
Density/Specific Gravity:	0.74@ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

Tetrachloroethene

- (a) Tetrachloroethene concentrations were reported above the ingestion PCL in both the upper and lower groundwater zones. Tetrachloroethene exceedances in the upper zone were reported in groundwater samples collected from monitoring wells MW-03R, MW-8, MW-10, MW-17, MW-23, MW-28, MW-29, MW-30, MW-32, MW-35, and MW-36. The horizontal extent of the tetrachloroethene upper ingestion PCLE zone was estimated based on the available data to be approximately 1,200,000 ft². The vertical extent of the upper tetrachloroethene PCLE zone appears to range from approximately 25 feet bgs to approximately 40 feet bgs. Tetrachloroethene exceedances in the lower zone were reported in groundwater samples collected from LMW-01, LMW-03M, LMW-04M, LMW-08, LMW-09, LMW-15, LMW-16, LMW-20, LMW-22, LMW-23, LMW-24, and LMW-27. The horizontal extent of the tetrachloroethene lower ingestion PCLE zone was estimated based on the available data to be approximately 1,200,000 ft². The vertical extent of the lower tetrachloroethene PCLE zone appears to range from approximately 60 feet bgs to approximately 70 feet bgs at the designated property.

The non-ingestion PCL for tetrachloroethene in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.

- (b) The ingestion PCL for tetrachloroethene is 0.005 mg/L. The maximum concentration of tetrachloroethene in the upper zone was reported at 4.09 mg/L in a groundwater sample collected from MW-17 in September 2000. The maximum concentration of tetrachloroethene in the lower zone was reported at 2.01 mg/L in a groundwater sample collected from LMW-03M in June 2004. The noningestion PCL for tetrachloroethene in groundwater is 64 mg/L. None of the reported concentrations of tetrachloroethene in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of tetrachloroethene is presented below.

COC: TETRACHLOROETHENE	
Greatest observed concentration:	4.09 mg/L
Ingestion-based PCL:	Residential GW_{Ing} (0.005 mg/L)
Ingestion-based PCLE Zone:	Upper Zone: Approximately 1,200,000 ft ² Approximate Depth: 25 to 40 feet bgs Lower Zone: Approximately 1,200,000 ft ² Approximate Depth: 60 to 70 feet bgs
Non-Ingestion based PCL:	Residential $^{Air}GW_{Inh-v}$, 30 acre source area (64 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	165.83
Density/Specific Gravity:	1.62 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

Trichloroethene

- (f) Trichloroethene concentrations were reported above the ingestion PCL in both the upper and lower groundwater zones. Trichloroethene exceedances in the upper zone were reported in groundwater samples collected from monitoring wells MW-03R, MW-8, MW-10, MW-17, MW-23, MW-28, MW-29, MW-30, MW-32, MW-35, and MW-38. The horizontal extent of the trichloroethene upper ingestion PCLE zone was estimated based on the available data to be approximately 1,200,000 ft². The vertical extent of the upper trichloroethene PCLE zone appears to range from approximately 25 feet bgs to approximately 40 feet bgs. Trichloroethene exceedances in the lower zone were reported in groundwater samples collected from LMW-01, LMW-03M, LMW-04M, LMW-08, LMW-09, LMW-15, LMW-16, LMW-20, LMW-22, LMW_23, LMW-24 and LMW-27. The horizontal extent of the trichloroethene lower ingestion PCLE zone was estimated based on the available data to be approximately 1,200,000

ft². The vertical extent of the lower trichloroethene PCLE zone appears to range from approximately 60 feet bgs to approximately 70 feet bgs at the designated property. The non-ingestion PCL for trichloroethene in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.

- (b) The ingestion PCL for trichloroethene is 0.005 mg/L. The maximum concentration of trichloroethene in the upper zone was reported at 4.81 mg/L in a groundwater sample collected from MW-28 in December 2003. The maximum concentration of trichloroethene in the lower zone was reported at 2.76 mg/L in a groundwater sample collected from LMW-04M in December 2004. The noningestion PCL for trichloroethene in groundwater is 15 mg/L. None of the reported concentrations of trichloroethene in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of trichloroethene is presented below.

COC: TRICHLOROETHENE	
Greatest observed concentration:	4.81 mg/L
Ingestion-based PCL:	Residential GW _{Ing} (0.005 mg/L)
Ingestion-based PCLE Zone:	Upper Zone: Approximately 1,200,000 ft ² Approximate Depth: 25 to 40 feet bgs Lower Zone: Approximately 1,200,000 ft ² Approximate Depth: 60 to 70 feet bgs
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-v} , 30 acre source area (15 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	131.4
Density/Specific Gravity:	1.46 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

Vinyl Chloride

- (a) Vinyl chloride concentrations were reported above the ingestion PCL in both the upper and lower groundwater zones. Vinyl chloride exceedances in the upper zone were reported in groundwater samples collected from monitoring wells MW-03R, MW-10, MW-17, MW-23, MW-28, MW-29, MW-30, and MW-35. The horizontal extent of the vinyl chloride upper ingestion PCLE zone was estimated based on the available data to be approximately 1,120,000 ft². The vertical extent of the upper vinyl chloride PCLE zone appears to range from approximately 25 feet bgs to approximately 40 feet bgs. Vinyl chloride exceedances in the lower zone were reported in groundwater samples collected from LMW-01, LMW-03M, LMW-04M, LMW-08, LMW-15, LMW-16, LMW-20, LMW-22, LMW-23, LMW-24 and LMW-27. The horizontal extent of the vinyl chloride

lower ingestion PCLE zone was estimated based on the available data to be approximately 1,200,000 ft². The vertical extent of the lower vinyl chloride PCLE zone appears to range from approximately 60 feet bgs to approximately 70 feet bgs at the designated property. The non-ingestion PCL for vinyl chloride in groundwater is based on inhalation. There are no noningestion PCLE zones present at the designated property.

- (b) The ingestion PCL for vinyl chloride is 0.002 mg/L. The maximum concentration of vinyl chloride in the upper zone was reported at 2.1 mg/L in a groundwater sample collected from MW-28 in December 2002. However, based on the most recent data, the maximum concentration of vinyl chloride in the upper zone was reported at 0.24 mg/L in a sample collected from MW-17 in September 2008. The maximum concentration of vinyl chloride in the lower zone was reported at 0.2 mg/L in a groundwater sample collected from LMW-04M in June 2005. The noningestion PCL for vinyl chloride in groundwater is 0.49 mg/L. None of the current reported concentrations of vinyl chloride in groundwater exceed the noningestion PCL.
- (c) A chemical fact sheet providing geochemical properties of vinyl chloride is presented below.

COC: VINYL CHLORIDE	
Greatest observed concentration:	2.1 mg/L (Note: Based on the most recent data, the maximum concentration of vinyl chloride in the upper zone was reported at 0.24 mg/L.)
Ingestion-based PCL:	Residential GW _{Ing} (0.002 mg/L)
Ingestion-based PCLE Zone:	Upper Zone: Approximately 1,120,000 ft ² Approximate Depth: 25 to 40 feet bgs Lower Zone: Approximately 1,200,000 ft ² Approximate Depth: 60 to 70 feet bgs
Non-Ingestion based PCL:	Residential ^{Air} GW _{Inh-v} , 30 acre source area (0.49 mg/L)
Non-Ingestion based PCL Zone:	None
SELECTED GEOCHEMICAL/PHYSICAL PROPERTIES	
Molecular Weight:	62.5
Density/Specific Gravity:	0.91 @ 20 deg C
Solubility in Water:	Insoluble in water
Groundwater Migration:	Very limited under typical subsurface conditions. The soluble fraction in groundwater will migrate with groundwater flow.
Source: National Library of Medicine-Hazardous Substances Data Base	

Diesel NAPL Plume

- (a) The diesel NAPL plume is present in the upper groundwater zone in the northern portion of the sites. Diesel NAPL has been detected in 27 monitoring wells, observation wells, and recovery wells installed for the purposes of monitoring the NAPL plume. The locations of these wells are shown on Figure 6-29. The horizontal extent of the diesel NAPL plume was estimated based on the available data to be approximately 100,000 ft².

The vertical extent of the diesel NAPL plume appears to range from approximately 25 feet bgs to approximately 30 feet bgs.

- (b) There are no PCLs established for diesel. However, select monitoring wells within the area of the diesel NAPL plume have been monitored for the presence of dissolved concentrations of polyaromatic hydrocarbons (PAHs). Based on the monitoring data, no PAHs have been detected at concentrations that exceed the ingestion or non-ingestion PCLs.

Appendix E

(TCEQ MSD Reference No. 5)

For each contaminant of concern within the designated groundwater, to the extent known:

- a. A description of the ingestion protective concentration level exceedence zone and the non-ingestion protective concentration level exceedence 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 in the groundwater defined by a PCLE zone at the designated site, along with its basic geochemical properties is presented in Appendix D. A tabular listing of the maximum concentration for each groundwater COC is provided in Appendix F.

Appendix F

(TCEQ MSD Reference No. 5)

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

- d. 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.*
- e. The critical protective concentration level without the municipal setting designation, highlighting any exceedences.*

A final Certificate of Completion was issued to VCP No. 1553 on May 21, 2007 for residential land use. Soil excavation activities to remediate impacted soil at the property were completed in 2006 and 2007, and additional soil excavation activities were undertaken in 2008 to remove certain areas of the property from the requirement to maintain building foundations as an engineering control. Based on the analytical results of soil confirmation samples collected during these activities and historical environmental investigations, no PCL exceedances remain in soils at the property with the possible exception of soils underlying two building slabs, which remain as engineering controls at the property. These building slabs are located in the central portion of the site, and serve as protective caps over the underlying soils. A Conditional Certificate of Completion was issued to VCP No. 857 on April 14, 2008. Currently applicable conditions of this certificate include annual inspections of the two remaining building slabs. One COC, trichloroethene, has been identified in the soil beneath one of the building slabs at a concentration above the ingestion PCL. ***No non-ingestion PCL exceedances have been identified in the soil remaining at the property.***

Table 2 presents the maximum concentration and PCLs of trichloroethene in soil remaining at the designated property.

It is proposed that this MSD will be used to gain closure for the groundwater at the designated property, thus eliminating the groundwater ingestion pathway. Table 3 presents the maximum concentration and PCLs of each COC in the groundwater at the designated property.

Table 2
Maximum Concentration Levels
Remaining Soil
Hardy Street Railyard
1400 Fulton Street
Houston Texas

COC	Critical PCL without MSD		Critical PCL with MSD (Residential)		Maximum Concentration		
	^{GW} Soil _{mg} mg/kg	PCL exceeded? (Y/N)	^{Air} GW-Soil _{inh-v} mg/kg	PCL exceeded? (Y/N)	Sample ID	Sample Date	Concentration mg/L
Upper Groundwater Zone							
Trichloroethene	0.017	Y	51	N	S-5	6/20/2001	0.023

Table 3
Maximum Concentration Levels
Groundwater
Hardy Street Railyard
1400 Fulton Street
Houston Texas

COCs	Critical PCL without MSD		Critical PCL with MSD (Residential)		Maximum Concentration		
	^{GW} GW _{ing} mg/L	PCL exceeded? (Y/N)	^{Air} GW _{inh-v} mg/L	PCL exceeded? (Y/N)	Sample ID	Sample Date	Concentration mg/L
Upper Groundwater Zone							
1,1,1-Trichloroethane	0.2	Y	5,100	N	MW-17	1/30/2002	0.53
1,1,2-Trichloroethane	0.005	Y	10	N	MW-28	6/20/2003	0.0196
1,1-Dichloroethene	0.007	Y	220	N	MW-28	6/20/2005	3.31
1,2-Dichloroethane	0.005	Y	4.3	N	MW-28	6/20/2005	0.0224
1,2-Dibromoethane	0.00005	Y	0.72	N	MW-12	12/26/2001	0.0012
1,2-Dichloropropane	0.005	Y	15	Y	MW-4	2/15/1999	86.3 (see Note 1)
Benzene	0.005	Y	23	N	MW-4	2/15/1999	0.29
cis-1,2-Dichloroethene	0.07	Y	2,100	N	MW-17	1/30/2002	13.0
Methyl tert-butly ether	0.24	N	520	N	MW-20	1/30/2007	0.0151
Tetrachloroethene	0.005	Y	64	N	MW-17	9/13/2000	4.09
Tert-butyl benzene	0.98	Y	320	N	MW-7	12/11/2003	8.2
trans-1,2-Dichloroethene	0.1	Y	99	N	MW-28	6/20/2005	0.811
Trichloroethene	0.005	Y	15	N	MW-28	12/12/2003	4.81
Vinyl Chloride	0.002	Y	0.49	Y	MW-28	12/18/2002	2.1 (see Note 2)
Lower Groundwater Zone							
1,1,2-Trichloroethane	0.005	Y	10	N	LMW-01	12/17/2002	0.1
1,1-Dichloroethene	0.007	Y	220	N	LMW-03M	4/9/1999	4.06
1,2-Dichloroethane	0.005	Y	4.3	N	LMW-16	12/17/2002	0.014
1,2-Dibromoethane	0.00005	Y	0.72	N	LMW-03M	2/4/2002	0.019
1,2-Dichloropropane	0.005	Y	15	N	LMW-04M	12/15/2003	0.622
Carbon Tetrachloride	0.005	N	1	N	LMW-10	1/3/2007	0.0077
cis-1,2-Dichloroethene	0.07	Y	2,100	N	LMW-01	6/28/2005	3.32
Methyl tert-butyl ether	0.24	Y	520	N	LMW-15	12/18/2006	0.61
Tetrachloroethene	0.005	Y	64	N	LMW-03M	6/28/2004	2.01
Tert-butyl benzene	0.98	Y	320	N	LMW-09	12/12/2003	1.19
trans-1,2-Dichloroethene	0.1	Y	99	N	LMW-16	6/21/2005	0.519
Trichloroethene	0.005	Y	15	N	LMW-04M	12/14/2004	2.76
Vinyl Chloride	0.002	Y	0.49	N	LMW-04M	6/20/2005	0.2

Notes:

1. This concentration is believed to be a result of PSH in the well, and not an indication of dissolved concentrations. No 1,2-dichloropropane concentrations have been reported at the site above the ingestion PCL since December 2003.
2. Based on the most recent data, the maximum concentration of vinyl chloride in the upper zone was reported at 0.24 mg/L, which is below the ingestion PCL.

Appendix G

A statement as to whether the plume of contamination is stable, expanding, or contracting, with the basis for that statement. If this information is not known, a statement of why the information is not known should be attached.

Soil COCs

A final Certificate of Completion was issued to VCP No. 1553 on May 21, 2007 for residential land use. Soil excavation activities to remediate impacted soil at the property were completed in 2006 and 2007, and additional soil excavation activities were undertaken in 2008 to remove certain areas of the property from the requirement to maintain building foundations as an engineering control. Based on the analytical results of soil confirmation samples collected during these activities and historical environmental investigations, no PCL exceedances remain in soils at the property with the possible exception of soils underlying two building slabs, which remain as engineering controls at the property. These building slabs are located in the central portion of the site, and serve as protective caps over the underlying soils. A Conditional Certificate of Completion was issued to VCP No. 857 on April 14, 2008. Currently applicable conditions of this certificate include annual inspections of the two remaining building slabs. One COC, trichloroethene, has been identified in the soil beneath one of the building slabs at a concentration above the ingestion PCL. However, given its presence under the building foundation, the area of soil impact is stable.

Groundwater COCs

Based on historical groundwater monitoring at the site, and as evidenced by the TCEQ's decision to issue a Conditional Certificate of Completion for the site, all COCs are stable or contracting. Groundwater monitoring of the upper and lower chlorinated solvent plumes has been ongoing since 1999. The analytical results obtained as part of the upper and lower chlorinated solvent plume monitoring program indicate to the TCEQ's satisfaction that the upper and lower chlorinated solvent plumes are stable. A NAPL recovery system was operated at the site from March 2003 to February 2006. During this time, approximately 78,000 gallons of diesel were reportedly recovered and treated. At the time of the system shutdown, NAPL recovery had fallen from a maximum of 370 gallons per day (gpd) to approximately 20 gpd. Groundwater monitoring and gauging of the diesel NAPL plume has been ongoing since the recovery system was shut down. The gauging measurements and analytical results obtained as part of the diesel NAPL plume monitoring program indicate to the TCEQ's satisfaction that the extent of the diesel NAPL plume has not expanded. Furthermore, potential on-site sources are no longer present, and soil excavation and disposal was completed in November 2006. Therefore, no continued on-site sources of groundwater contamination remain on-site.