CITY OF HOUSTON

PUBLIC WORKS AND ENGINEERING
PLANNING & DEVELOPMENT DIVISION

EXECUTIVE SUMMARY

Designated Property Location

The "Designated Property" for which this Municipal Setting Designation (MSD) Application has been developed is MSJ Holdings, LP which consists of a portion of the property located at 18310 Market Street in Channelview, Harris County, Texas (Designated Property). The Designated Property is located east of Market Street on a peninsula bordered by Market Street to the east and Interstate Highway 10 to the north.

The location of the Designated Property is shown on **Figure 1** in **Appendix B** and the layout of the Designated Property is shown on **Figure 4** in **Appendix B**. The Designated Property contains approximately 6.4067 acres and includes one parcel.

The Designated Property is a heavy industrial barge repair and cleaning complex. The Site consists of approximately seven buildings, four tank farms, and a water treatment facility which encompasses a majority of the Designated Property. The facility originated in 1957 and has operated at the Site to present. Previous to 1957, the Site was undeveloped and vacant.

Property Ownership
MSJ Holdings, LP
18310 Market Street
Channelview, Texas 77530

Property Operator
Southwest Shipyards, LP
18310 Market Street
Channelview, Texas 77530

Environmental Conditions

Groundwater impacts at the Designated Property are documented from groundwater data collected from 26 permanent monitoring wells spanning 17 years of semi-annual groundwater monitoring. In 1957 a surface impoundment was built to manage the facility's barge repair discharge that included grinding, welding, and blasting wastes, and the facility's barge cleaning materials, including the excess material from barges and wash solution, This impoundment contained waste until 1979when the impoundment contents were pumped out and the soils immediately adjacent to the sludge were removed and disposed of at an off-Site facility. The impoundment was capped with 2 feet of clay and sod until 1997 when the cap was replaced with concrete. The removal of the surface impoundment was certified by a Texas engineer and was recorded in the deed to the property. This was the accepted closure of a surface impoundment at the time. Consequently, subsurface investigations have been conducted that indicate the surface impoundment was the source of residual soil and groundwater

EXECUTIVE SUMMARY

impact at the Designated Property. The closed surface impoundment source chemicals of concern (COCs) are consistent with COCs identified at the Designated Property. Contamination in groundwater at the Designated Property exceeds the Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program (TRRP) Tier 1 residential assessment levels for COCs. COCs in bold have been identified at concentrations above the applicable commercial/industrial ingestion protective concentration level (PCL). The remaining COCs were identified above the detection limit, but at concentrations below the applicable ingestion PCL:

- **Benzene**
- **Benzidine**
- **Chloroform**
- **Toluene**
- **Ethylbenzene**
- **Perchloroethylene**
- **Trichloroethylene**
- **1,1-dichloroethylene**
- **1,2-dichloroethane**
- **Cis-1,2-dichloroethylene**
- **Trans-1,2-dichloroethylene**
- **Vinyl chloride**
- **Benzo[a]anthracene**
- **Benzo[a]pyrene**
- **Benzo[b]fluoranthene**
- **Benzo[k]fluoranthene**
- **Bis(2-ethylhexl)phthalate**
- **Dibenzofuran**
- **2,4-Dimethylphenol**
- **Indeno(1,2,3-c,d)pyrene**
- **4-methylphenol**
- **1,2-Dichloropropane**
- **Naphthalene**
- Xylene
- Chloroethane
- 1,1-Dichloroethane
- Methylene Chloride
- Acenaphthene
- Anthracene
- Benzo(g,h,i)perylene
- Chrysene
- Fluoranthene
- Fluorene
- 2-methylnapthalene
- 2-methylphenol
- Phenanthrene
- Pyrene
- Aniline
- Acetone
- Methyl Ethyl Ketone
- 4-Methyl-2-pentanone
- 1,1,1-Trichloroethane

Refer to **Tables 1 and 2** in **Appendix F** for specific values and assessment levels for soil and groundwater. Vinyl chloride exceeds the non-ingestion PCLs for groundwater, while 1,2-dichloroethane, tetrachloroethylene, trichloroethylene, benzidine, and naphthalene exceed the non-ingestion PCL in soil. Additional remediation is planned for these COCs after the MSD is approved.

CITY OF HOUSTON

PUBLIC WORKS AND ENGINEERING
PLANNING & DEVELOPMENT DIVISION

EXECUTIVE SUMMARY

Groundwater is first encountered beneath the Designated Property in the shallow water-bearing zone at depths of approximately 4 feet below ground surface (bgs). The groundwater flow direction at the Designated Property is consistently to the southeast.

There are currently 26 monitoring wells, three potable water wells, and three sumps at the Site. On the Designated Property portion of the Site, there are 21 monitoring wells and two sumps. No water wells used for potable purposes exist within the Designated Property of the Site. Four groundwater bearing units (GWBUs) have been identified at the Designated Property and have been delineated. GWBUs include the upper transmissive zone (UTZ), the lower transmissive zone (LTZ), the third transmissive zone (3TZ), and the Upper Chicot Aquifer (UC). COCs exist in the UTZ and LTZ. The 3TZ was assessed and provides vertical delineation for the COCs. The UC was assessed to provide further vertical delineation because there are three potable water supply wells at the Site screened in the UC.

The impacted groundwater at the Site has been fully delineated vertically and horizontally for the Designated Property through direct assessment of groundwater samples to the TRRP assessment levels. There is no off-Site migration of the impacted groundwater.

The Designated Property and the area within 0.5 mile is serviced or is capable of being serviced by the City of Houston or other municipal water supply. There are a number of Municipal water supply wells and residential supply wells within the 5-mile area reviewed.

There are 1,124 State-registered water wells located within approximately 5-miles of the Designated Property, owned by 804 different entities. There are 49 water wells located within the 0.5 mile water well search of the Designated Property.

There are no other jurisdictional boundaries within 0.5-mile of the Site other than the extraterritorial jurisdiction of the City of Houston. The only municipality that operates water wells within 5 miles of the Designated Property is the City of Baytown. There are a total of 70 reported Water Utility Database (WUD) drinking water wells operating within 5 miles of the Designated Property.

Regulatory Setting

Southwest Shipyards, LP has been in the corrective action (CA) program of the TCEQ (CA ID No. 31208) since August 1997, and is currently under an Agreed Order in connection with the CA program which is included in **Appendix M**.

Appendix B

MUNICIPAL SETTING DESIGNATION APPLICATION
18310 MARKET STREET
CHANNELVIEW, TEXAS

SITE MAPS

Eleven maps are attached in this section depicting relevant Designated Property information. The Designated Property is located along Market Street in Channelview, Texas, as presented on **Figure 1**. There are currently approximately seven buildings, four tank farms, and a water treatment facility that encompass a majority of the Site. **Figure 2** depicts the local topography around the Designated Property, which is generally level, sloping to the southeast towards the adjacent San Jacinto River. **Figure 3** is a Federal Emergency Management Agency (FEMA) flood map showing that the Designated Property is in Flood Zone AE, which implies, "an area subject to inundation by the 1% annual chance flood event as determined by detailed methods." **Figure 4** presents the Site layout, property boundaries, and the locations of all sampling locations on the Designated Property.

A total of 26 monitoring wells, three potable water wells, and three sumps exist at the Site. On the Designated Property portion of the Site, 21 monitoring wells and two sumps exist. No water wells used for potable purposes exist within the Designated Property of the Site. Four groundwater bearing units (GWBUs) have been identified at the Designated Property: the upper transmissive zone (UTZ), the lower transmissive zone (LTZ), the third transmissive zone (3TZ), and the Upper Chicot Aquifer (UC). Chemicals of Concern (COCs) exist in the UTZ and LTZ. The 3TZ was assessed and provides vertical delineation for the COCs. The UC was assessed to provide further vertical delineation because there are three potable water supply wells at the Site screened in the UC. The impacted groundwater at the Designated Property is fully delineated vertically and horizontally through direct assessment of groundwater samples. The groundwater gradient is measured during semi-annual groundwater sampling events to determine the groundwater elevations, gradient and approximate flow direction. The groundwater gradient and approximate flow directions have remained constant at the Site. Data for year 2009 in the UTZ and LTZ are presented on **Figures 5A-1 and 5A-2 (UTZ) and Figures 5B-1 and 5B-2 (LTZ)**. The groundwater gradient is predominantly to southeast and the impacted groundwater does not migrate off the Site.

The following COCs were identified in soil samples at concentration above the Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program (TRRP) Tier 1 protective concentration levels (PCLs) for soil (ingestion PCL): 1,2-dichloroethane (1,2-DCA), tetrachloroethylene (PCE), trichloroethylene (TCE), benzidine , and naphthalene. The zone of impacted soil above ingestion PCLs (also referred to as the PCL exceedance [PCLE] zone) for each COC is depicted on **Figure 6-1** for 1,2-DCA, **Figure 6-2** for PCE, **Figure 6-3** for TCE, **Figure 6-4** for benzidine, and **Figure 6-5** for naphthalene**.**

Appendix B

The COCs identified in groundwater at concentrations above the TCEQ TRRP Tier 1 PCLs for groundwater ingestion include: benzene, chloroform, PCE, TCE, 1,1-dichloroethyelene (1,1-DCE), 1,2-DCA, cis-1,2-dichloroethylene (Cis-1,2-DCE), trans-1,2- dichloroethylene (Trans-1,2-DCE), vinyl chloride (VC), ethylbenzene, toluene, benzo(a)pyrene (BAP), benzo(b)fluoranthene (BBF), benzo(k) fluoranthene (BKF), bis(2-ethylhexyl)phthalate (BEP), dibenzofuran (DBF), 2,4-dimethylpheno (2,4-D), indeno (1,2,3-c,d)pyrene (IP), 4-methylphenol, 1-2, dichloropropane (1,2-DCP) and naphthalene. The PCLE zone of impacted groundwater above ingestion PCLs is depicted on **Figure 7-1** for May 2007, **Figure 7-2** for May 2009, **Figure 7-3** for November 2009, and **Figure 7-4** for May 2010. Groundwater impact at the Designated Property is limited to the vicinity of monitoring wells MW-2, MW-11, MW-14, MW-17S, and RW-1 in the UTZ and DW-1, DW-3R, and MW-17D in the LTZ. The PCLE zone of total benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX) is depicted on **Figure 8-1** for May 2007, **Figure 8-2** for May 2009, **Figure 8-3** for November 2009, and **Figure 8-4** for May 2010. The PCLE zone of total polycyclic aromatic hydrocarbons (PAHs [BAA, BAP, BBF, BKF, DBF, IP, 4-methylphenol, and naphthalene]) is depicted on **Figure 9-1** for May 2007, **Figure 9-2** for May 2009, **Figure 9-3** for November 2009, and **Figure 9-4** for May 2010. The PCLE zone for total chlorinated volatile organics (CVOCs [PCE, TCE, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, and VC]) is depicted on **Figure 10-1** for May 2007, **Figure 10-2** for May 2009, **Figure 10-3** for November 2009, and **Figure 10-4** for May 2010. The PCLE zone that exceeds the PCL with an MSD is depicted for VC on **Figure 11-1** for May 2007, **Figure 11-2** for May 2009, **Figure 11-3** for November 2009, and **Figure 11-4** for May 2010.

Image from City of Houston GIMS
1" = 2084'

W&M ENVIRONMENTAL GROUP, INC.

Figure 1
Site Location
Southwest Shipyard
18310 Market Street
Channelview, Texas

09-07-10 MSD Application W&M Project No. 1050.002

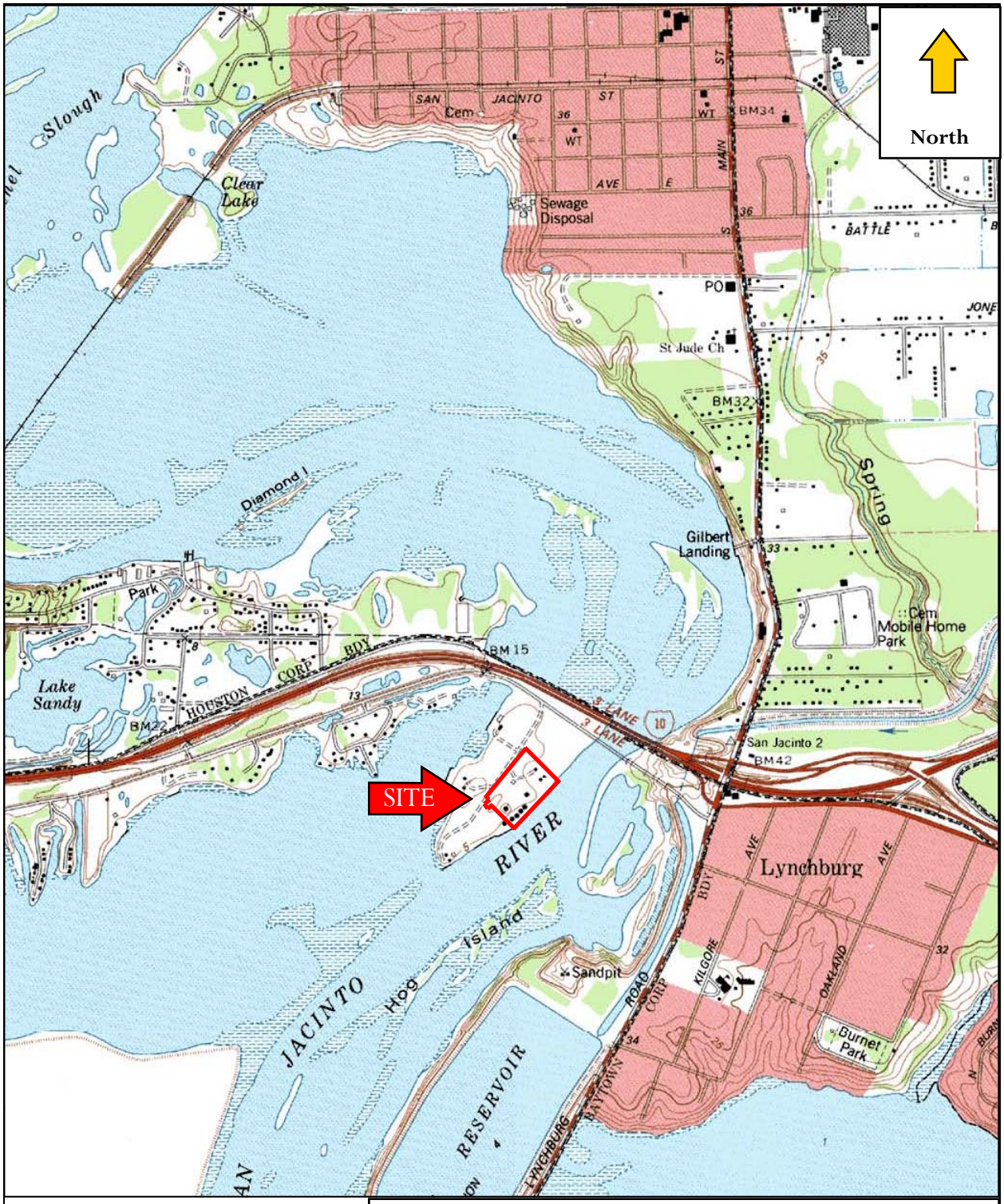
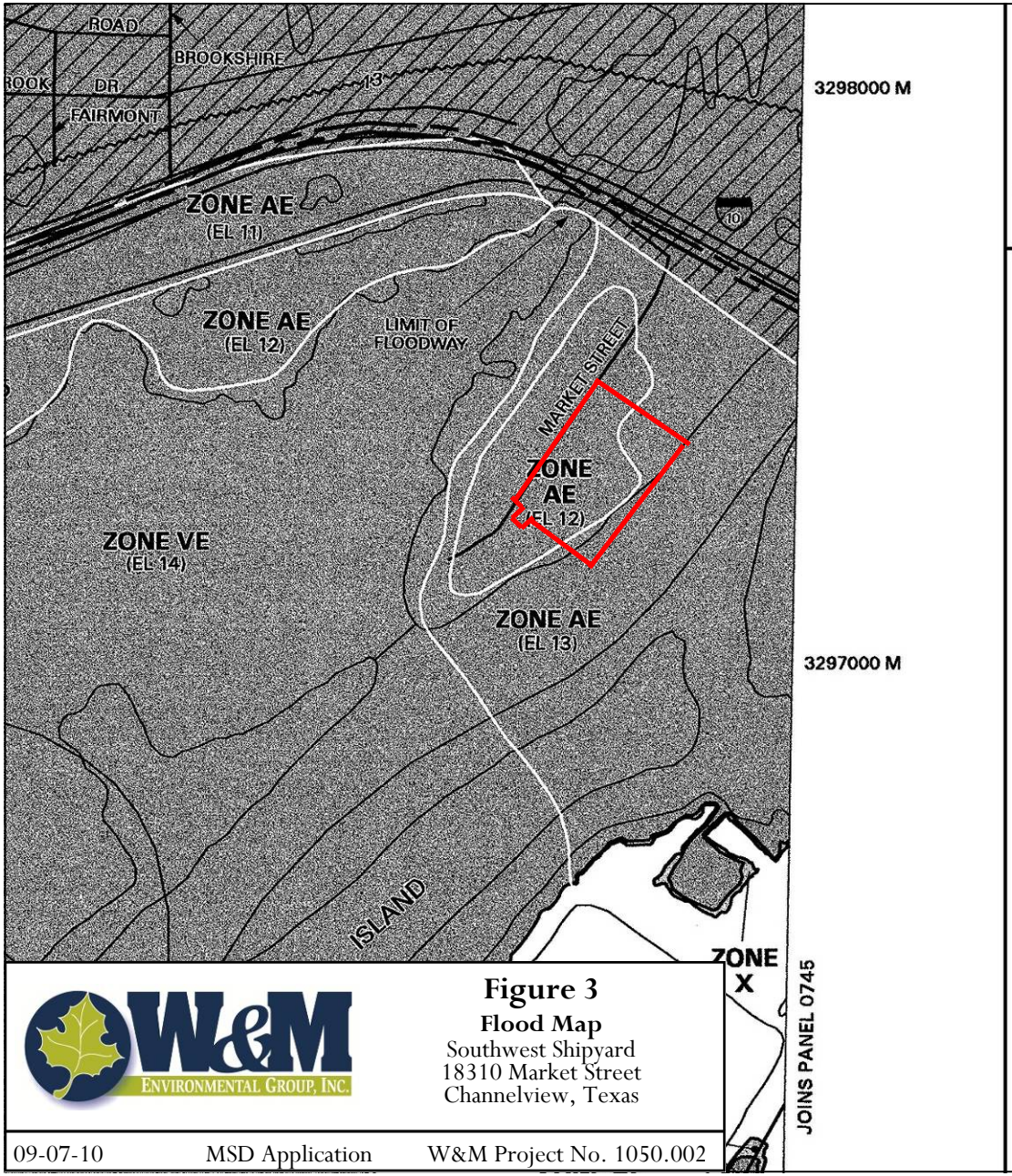


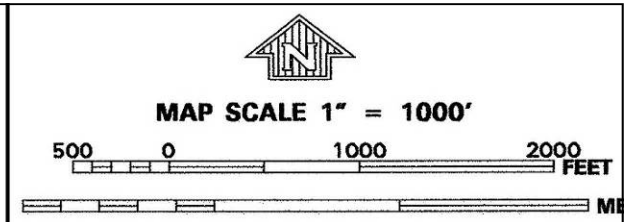
Image from City of Houston GIMS
1" = 2000'

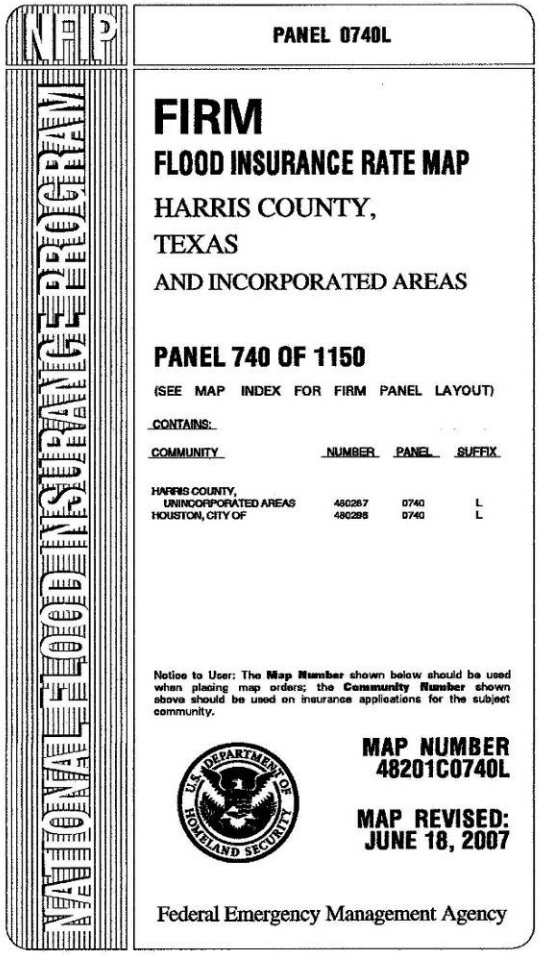
W&M ENVIRONMENTAL GROUP, INC.

Figure 2
Topographical Map
Southwest Shipyard
18310 Market Street
Channelview, Texas

09-07-10 MSD Application W&M Project No. 1050.002



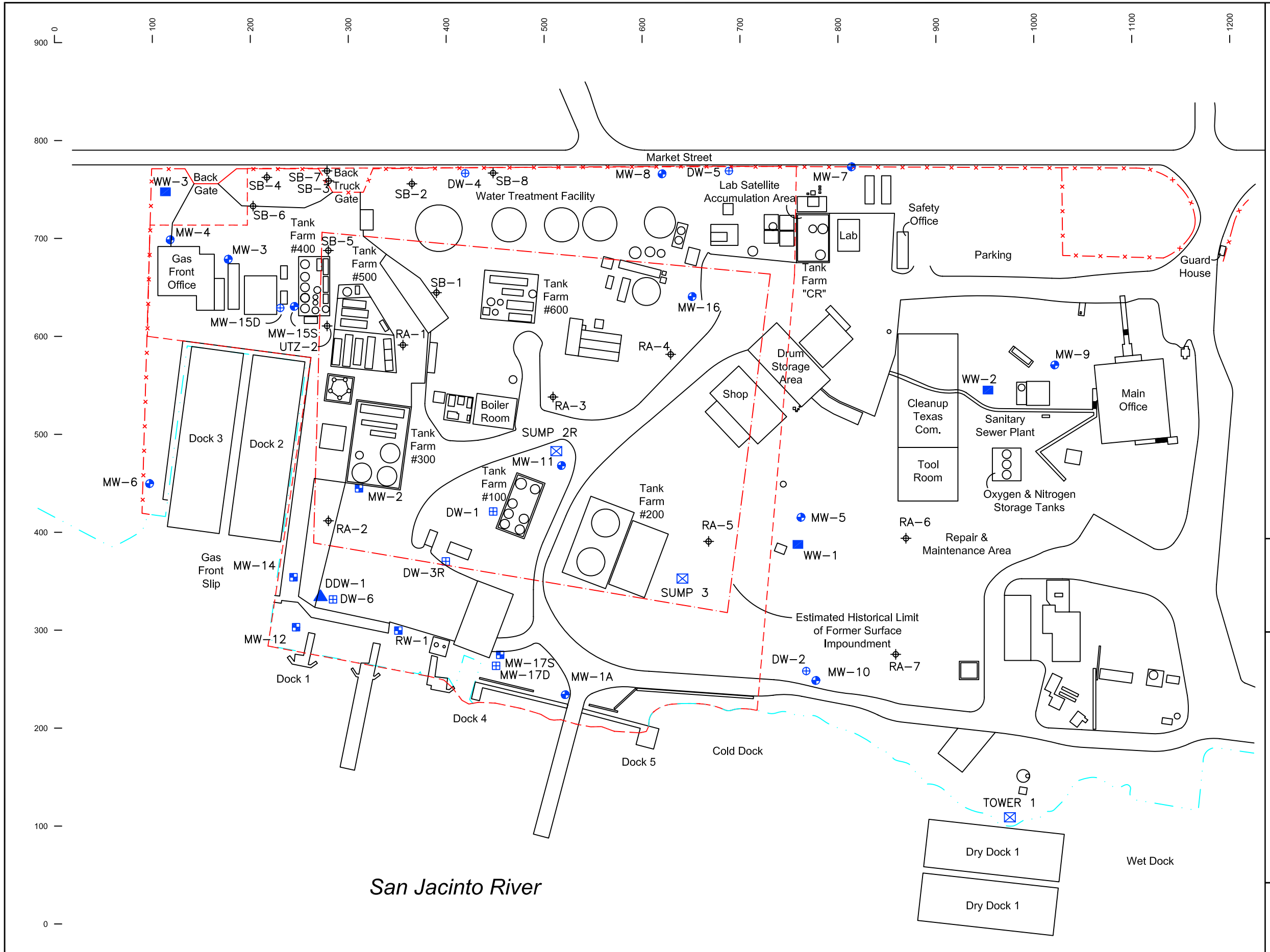




W&M ENVIRONMENTAL GROUP, INC.

Figure 3
Flood Map
Southwest Shipyard
18310 Market Street
Channelview, Texas

09-07-10 MSD Application W&M Project No. 1050.002



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

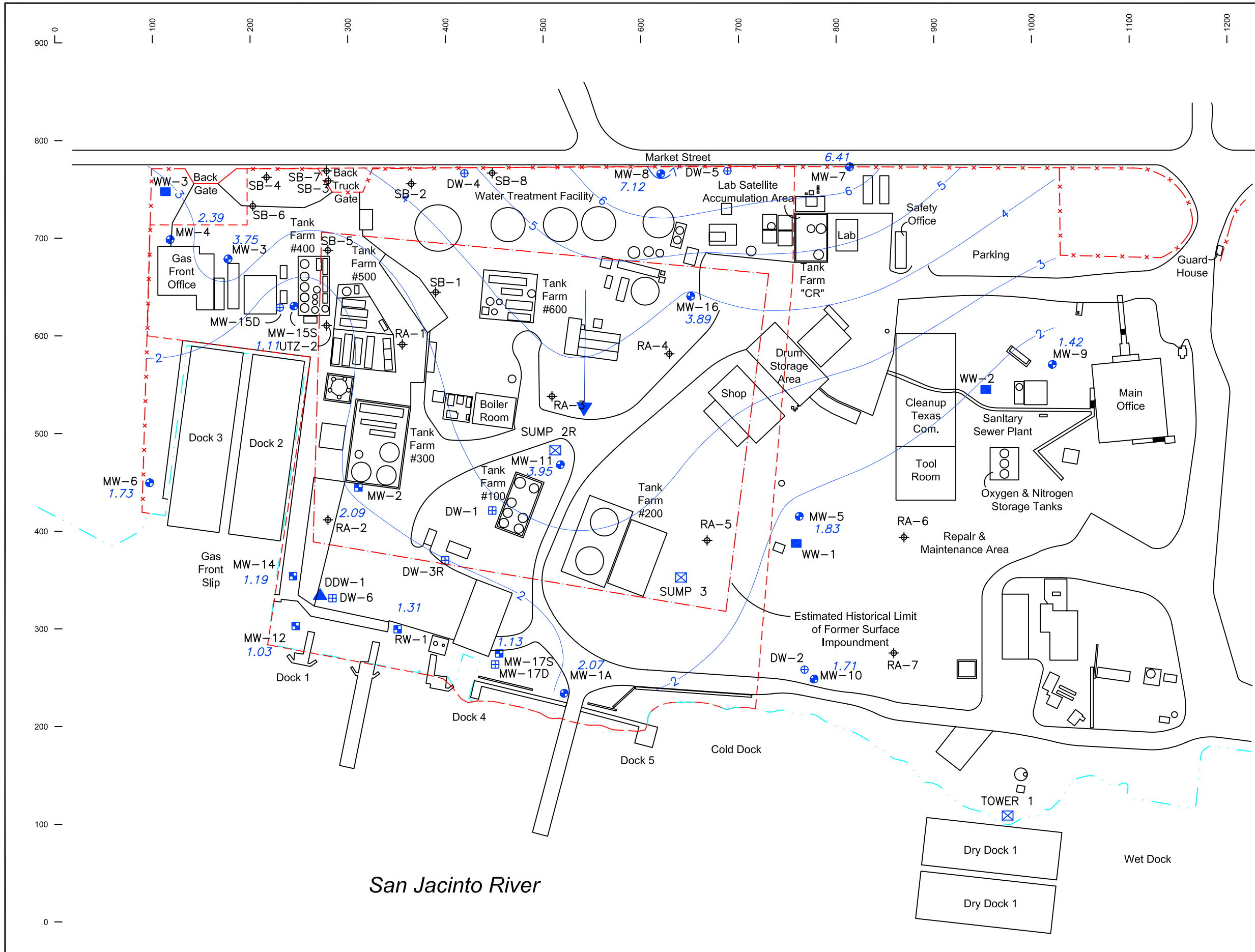
Figure 4
Site Layout
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-16-10	W&M Project No.: 1050.002.004	Check By: AA	Drawn: ACS	Revised: PTF



LEGEND

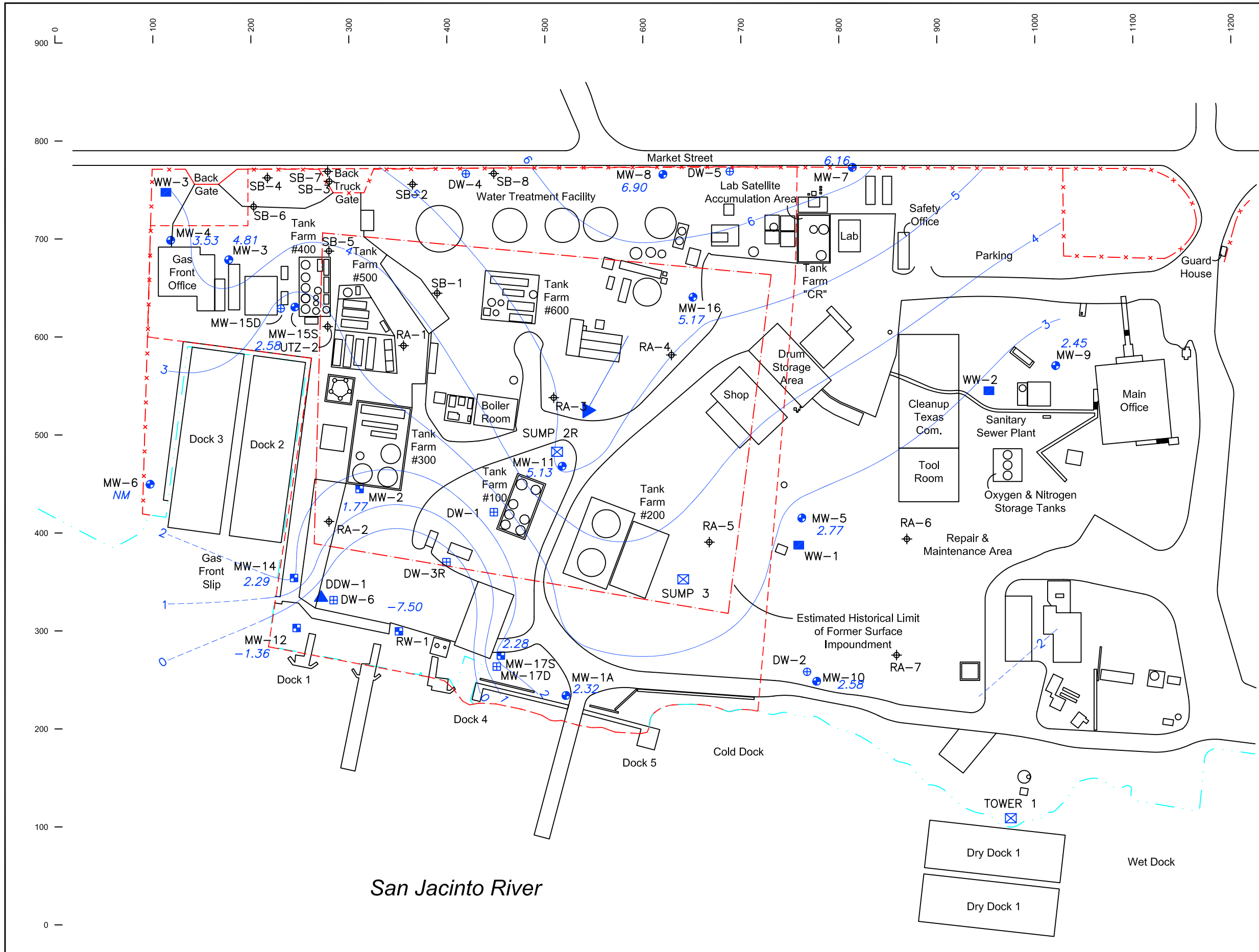
- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- *NM* Not Measured
- 5 Potentiometric Surface Contour Elevation Feet (ft.) mean sea level (MSL)
- *1.12* Static Water Level Measurement (ft. MSL)
- Inferred Groundwater Flow Direction

Figure 5A-1
UTZ Potentiometric Surface Contour Map
05/04/09
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET
0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-29-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: ACS	Revised: PTF



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- *NM* Not Measured
- 5 Potentiometric Surface Contour Elevation Feet (ft.) mean sea level (MSL)
- *1.12* Static Water Level Measurement (ft. MSL)
- Inferred Groundwater Flow Direction

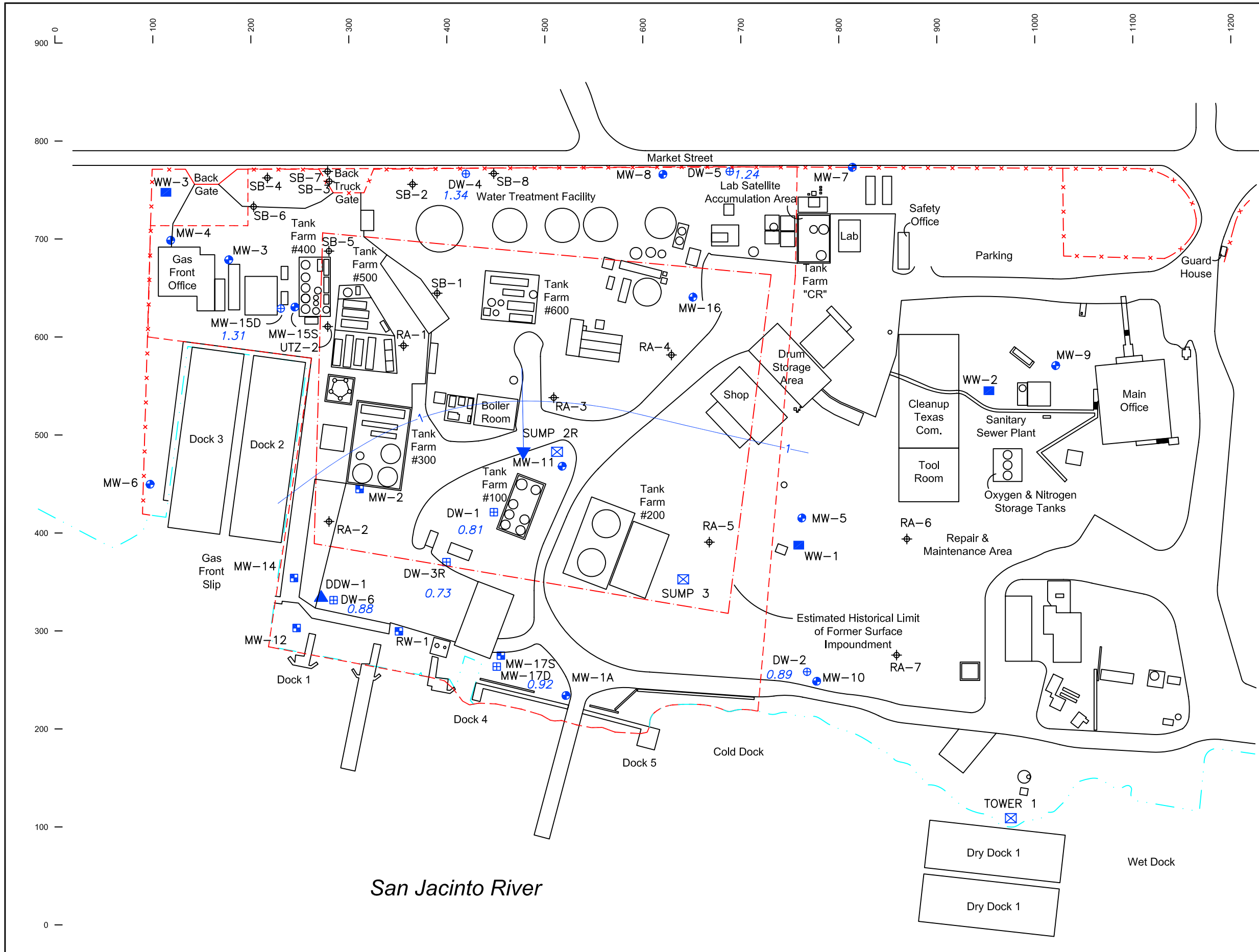
Figure 5A-2
UTZ Potentiometric Surface Contour Map
11/09/09
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-29-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: ACS	Revised: PTF



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- *NM* Not Measured
- 5 Potentiometric Surface Contour Elevation Feet (ft.) mean sea level (MSL)
- *1.12* Static Water Level Measurement (ft. MSL)
- Inferred Groundwater Flow Direction

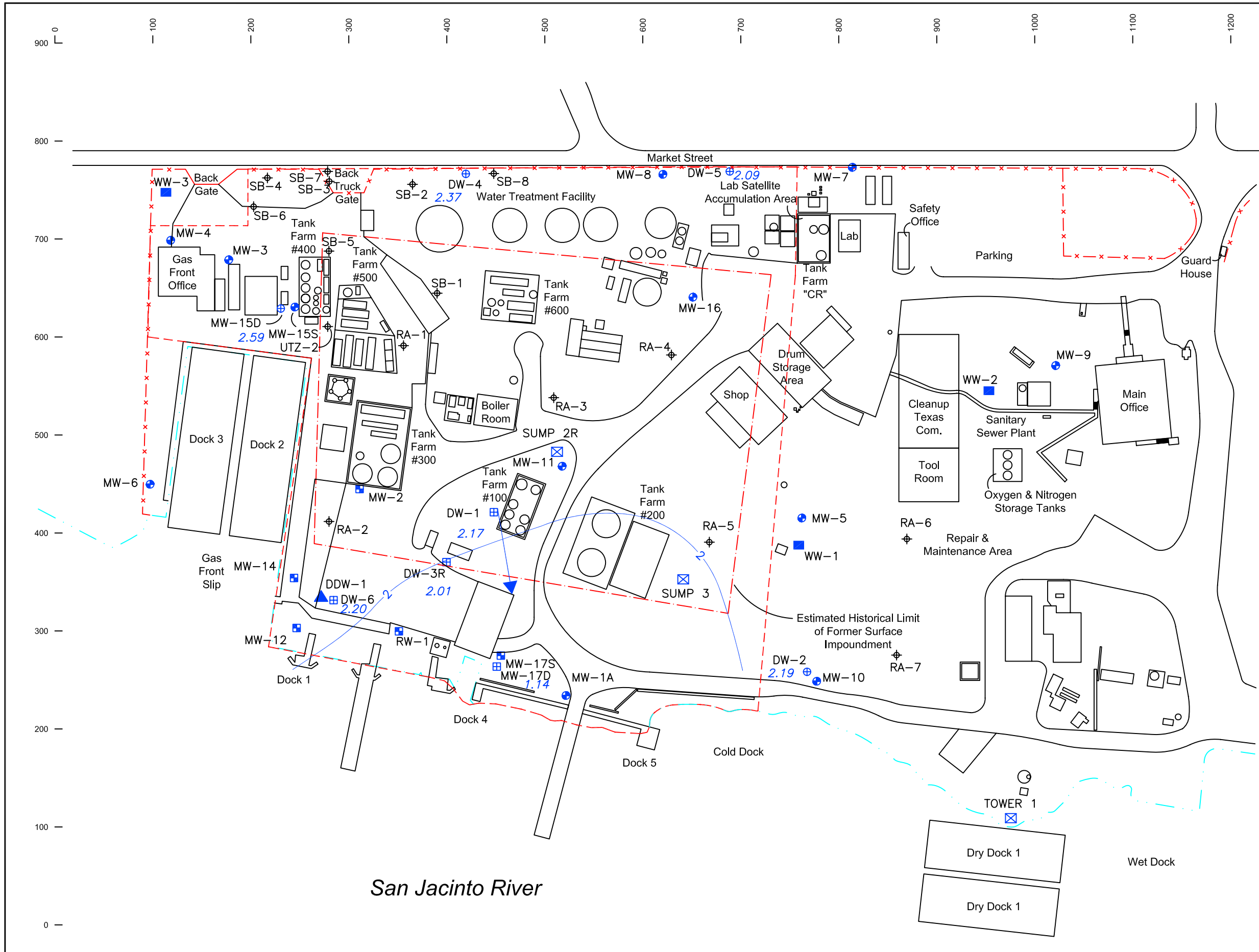
Figure 5B-1
LTZ Potentiometric Surface Contour Map
05/04/09
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-29-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: ACS	Revised: PTF



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- *NM* Not Measured
- 5 Potentiometric Surface Contour Elevation Feet (ft.) mean sea level (MSL)
- *1.12* Static Water Level Measurement (ft. MSL)
- Inferred Groundwater Flow Direction

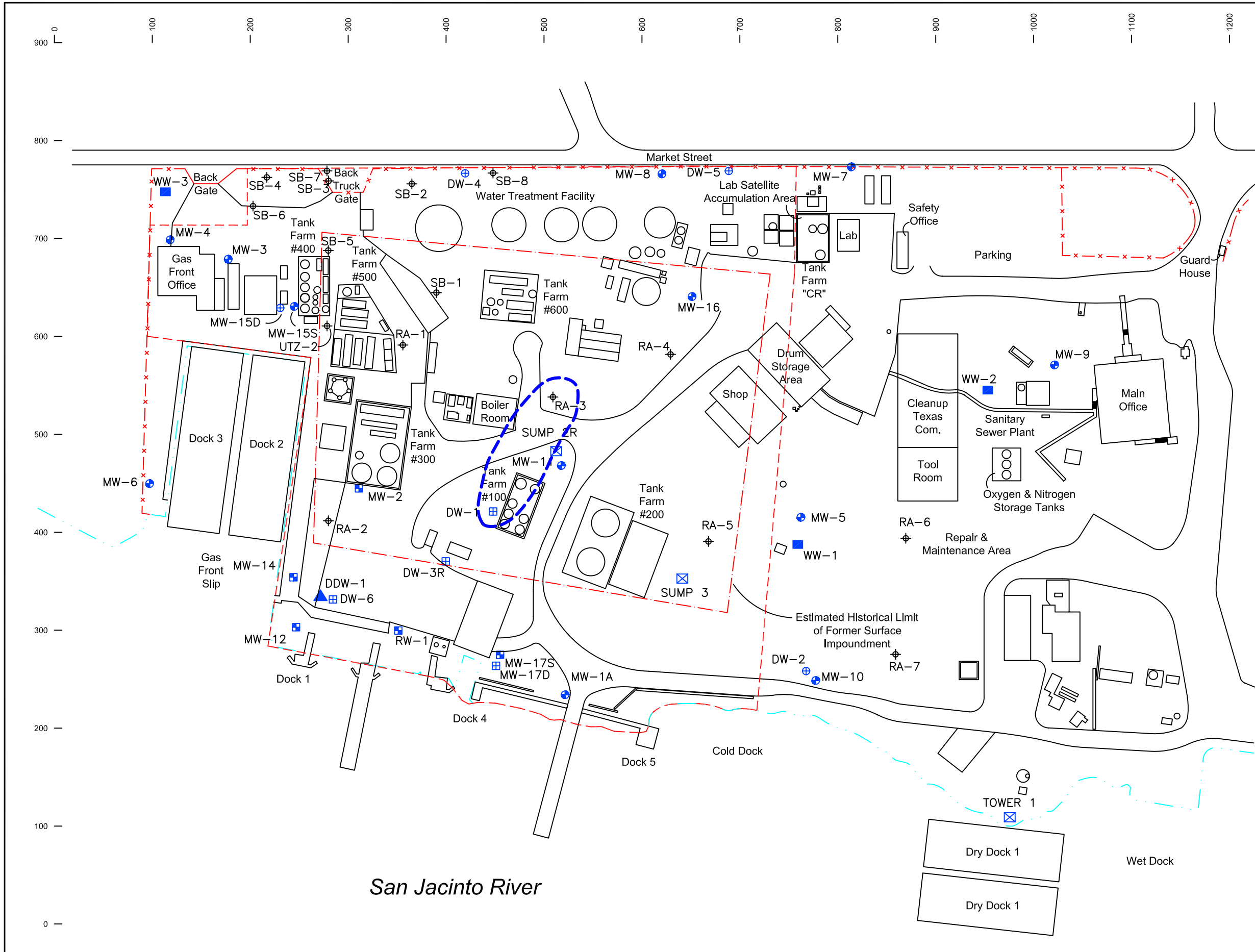
Figure 5B-2
LTZ Potentiometric Surface Contour Map
11/09/09
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-29-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: ACS	Revised: PTF



LEGEND

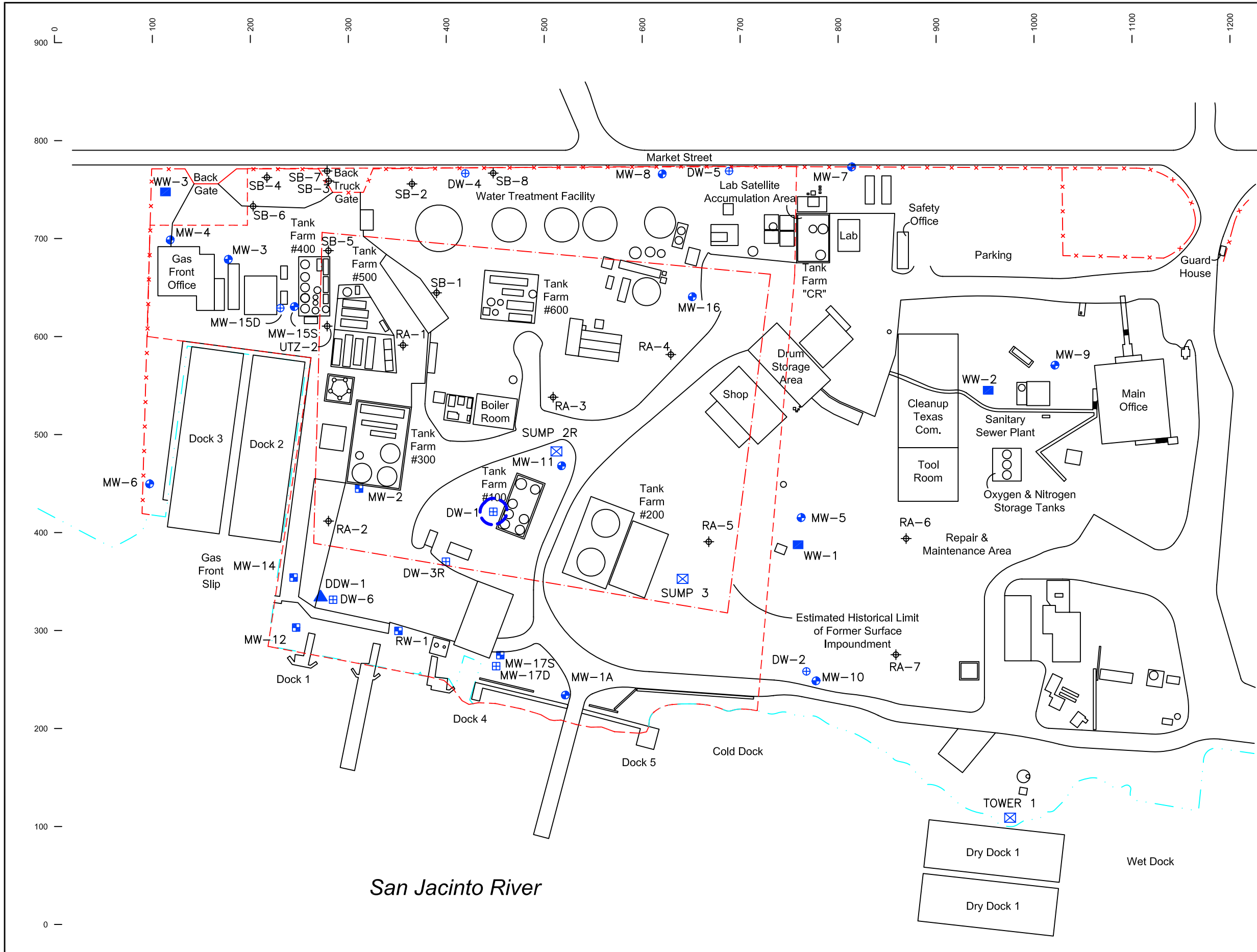
- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Approximate 1,2-DCE Non-Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

Figure 6-1
Soil Non-Ingestion PCLE Zone
1,2-DCE
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET
0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-16-10	W&M Project No.: 1050.001	Check By: AA	Drawn: ACS	Revised: PTF



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Approximate PCE Non-Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

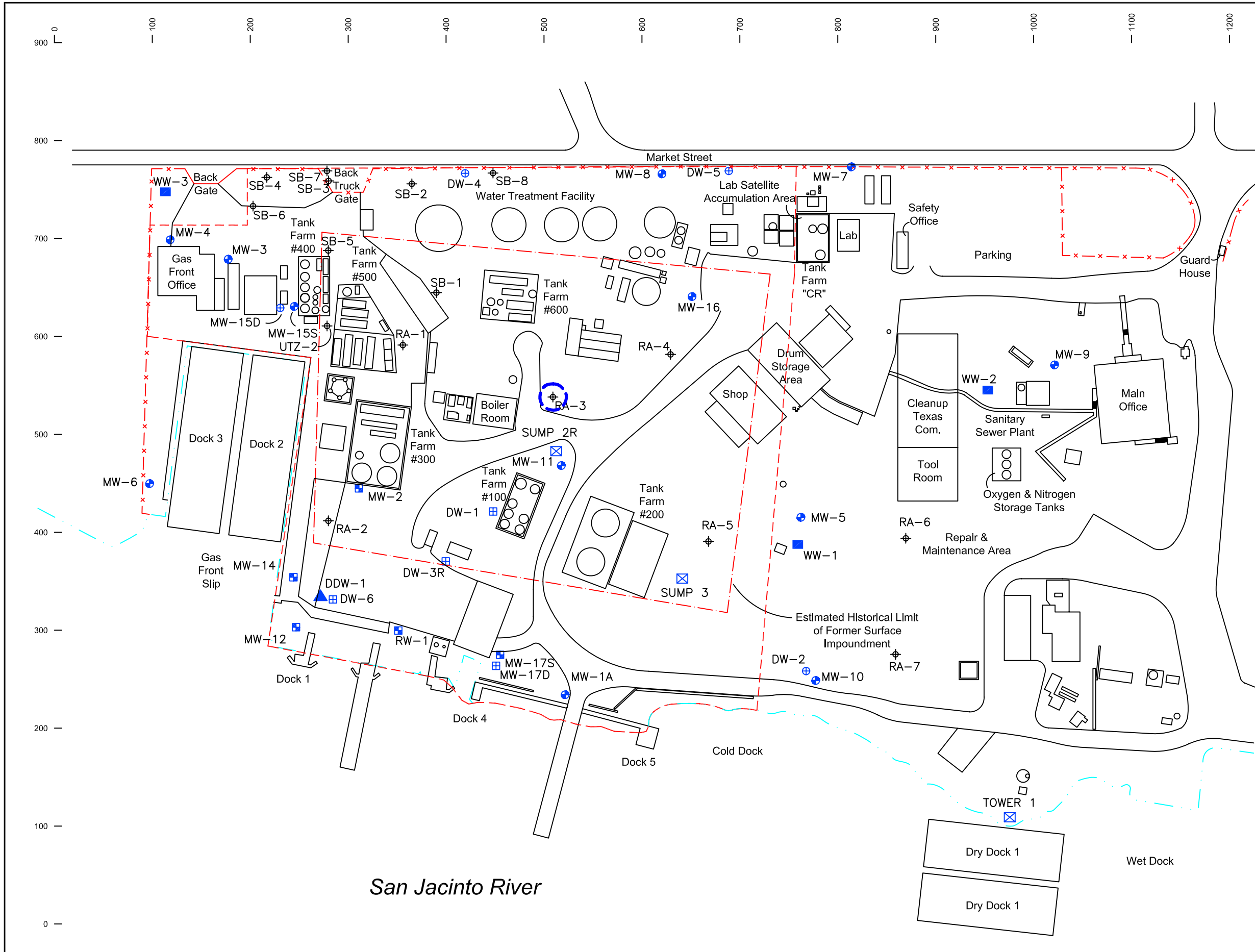
Figure 6-2
Soil Non-Ingestion PCLE Zone
PCE
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-16-10	W&M Project No.: 1050.001	Check By: AA	Drawn: ACS	Revised: PTF



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Approximate TCE Non-Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

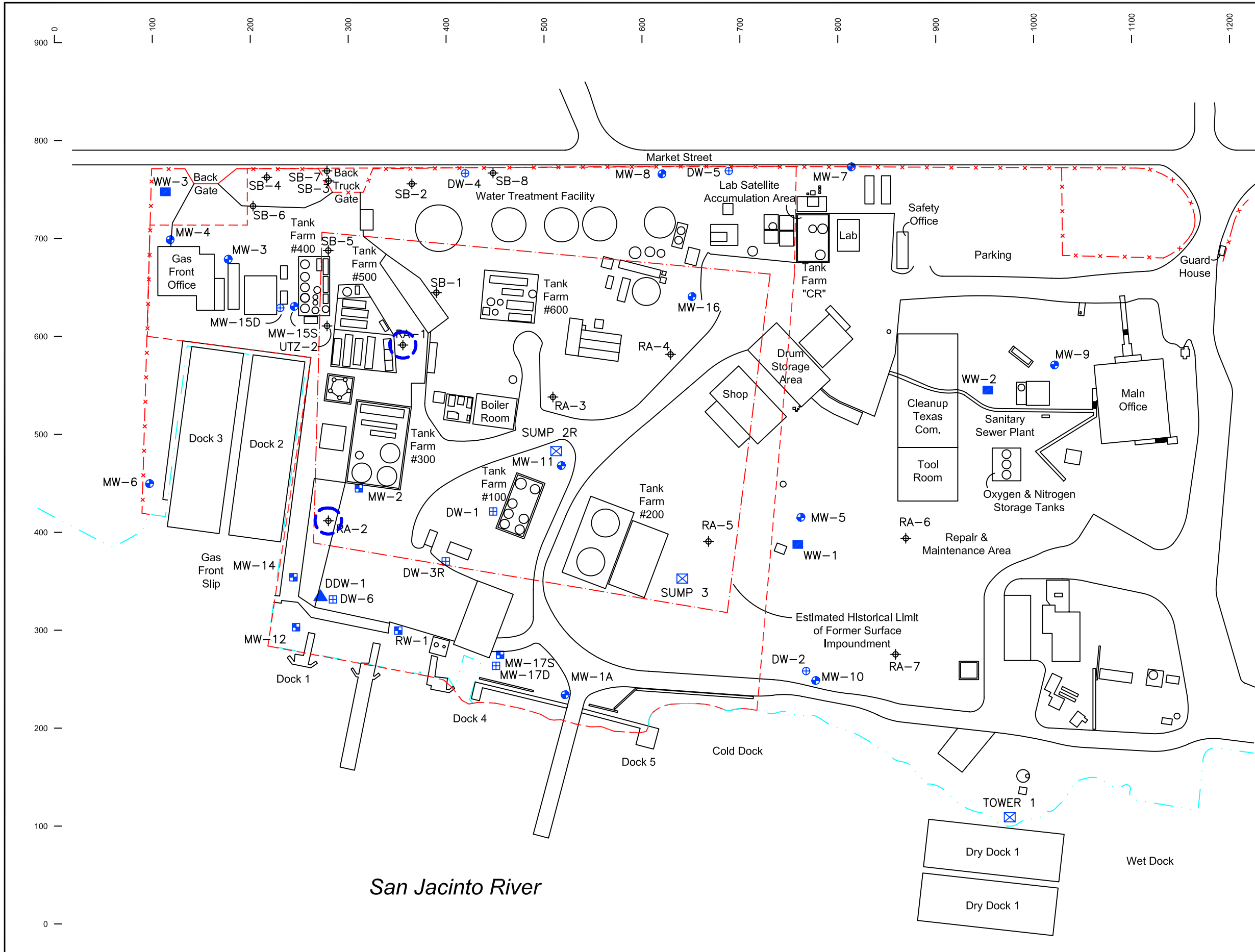
Figure 6-3
Soil Non-Ingestion PCLE Zone
TCE
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-16-10	W&M Project No.: 1050.001	Check By: AA	Drawn: ACS	Revised: PTF



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Approximate Benzidine Non-Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

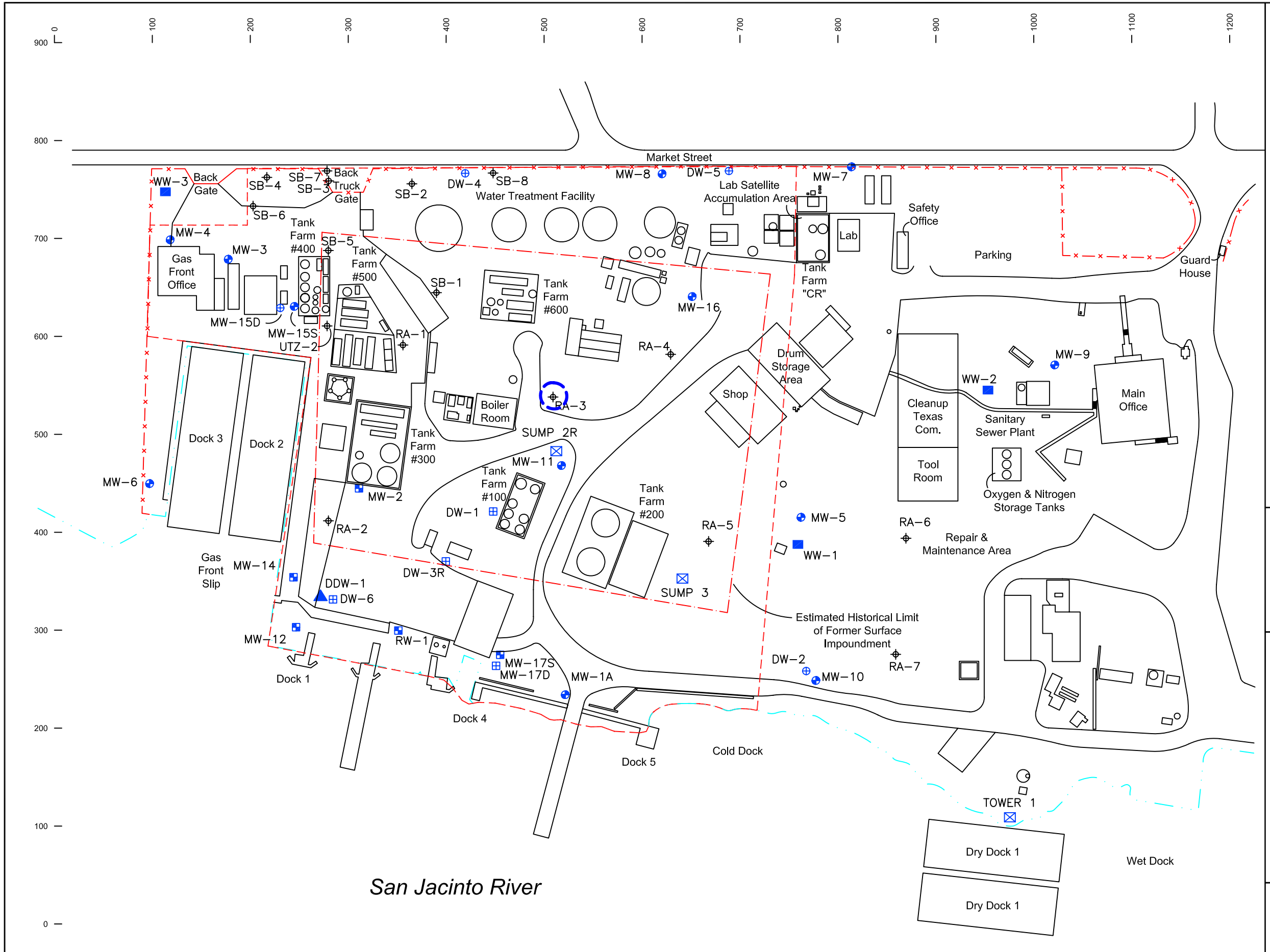
Figure 6-4
Soil Non-Ingestion PCLE Zone
Benzidine
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-16-10	W&M Project No.: 1050.001	Check By: AA	Drawn: ACS	Revised: PTF



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Approximate Naphthalene Non-Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

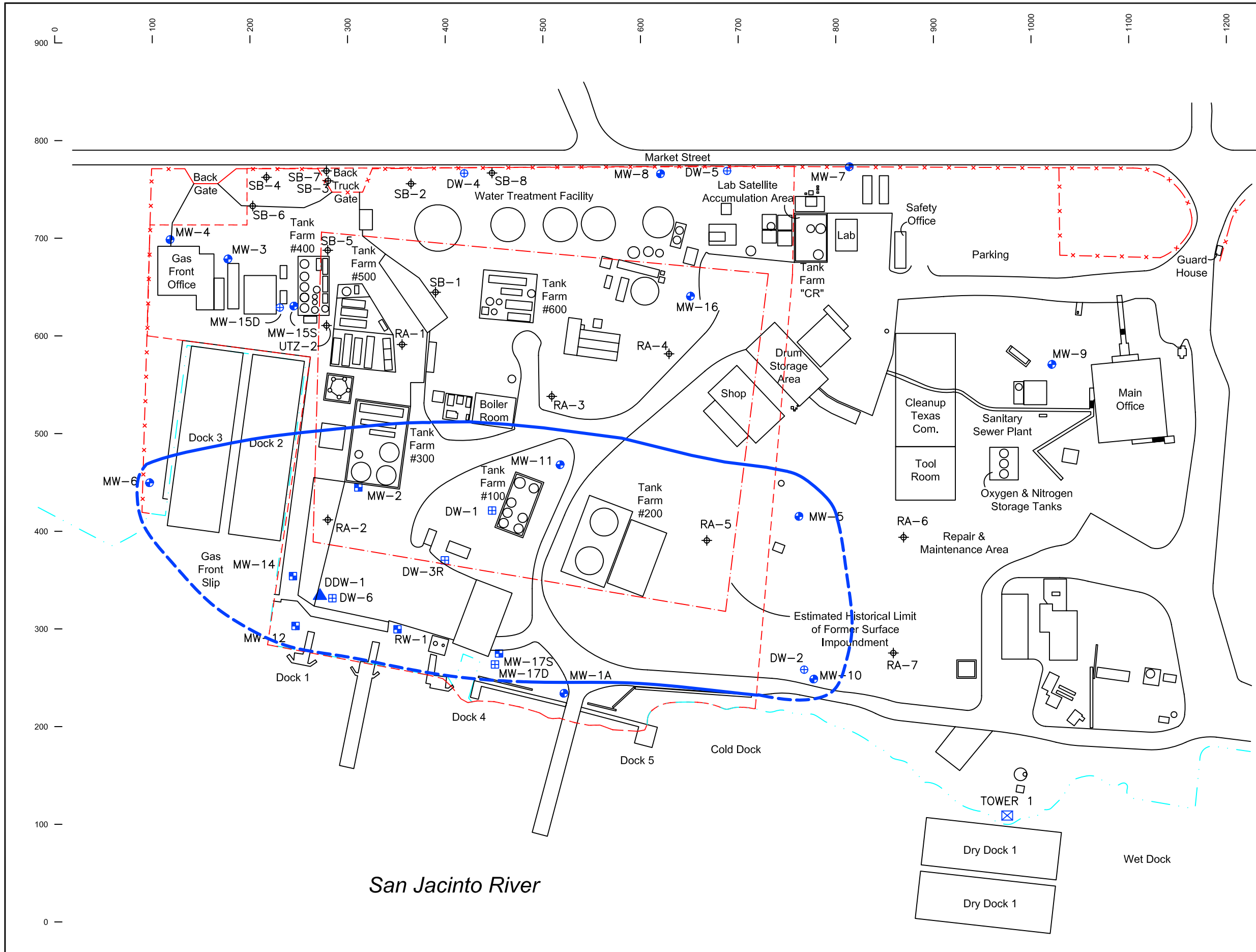
Figure 6-5
Soil Non-Ingestion PCLE Zone
Naphthalene
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-16-10	W&M Project No.: 1050.001	Check By: AA	Drawn: ACS	Revised: PTF



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Vinyl Chloride Ingestion PCLE Zone
- Inferred Vinyl Chloride Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

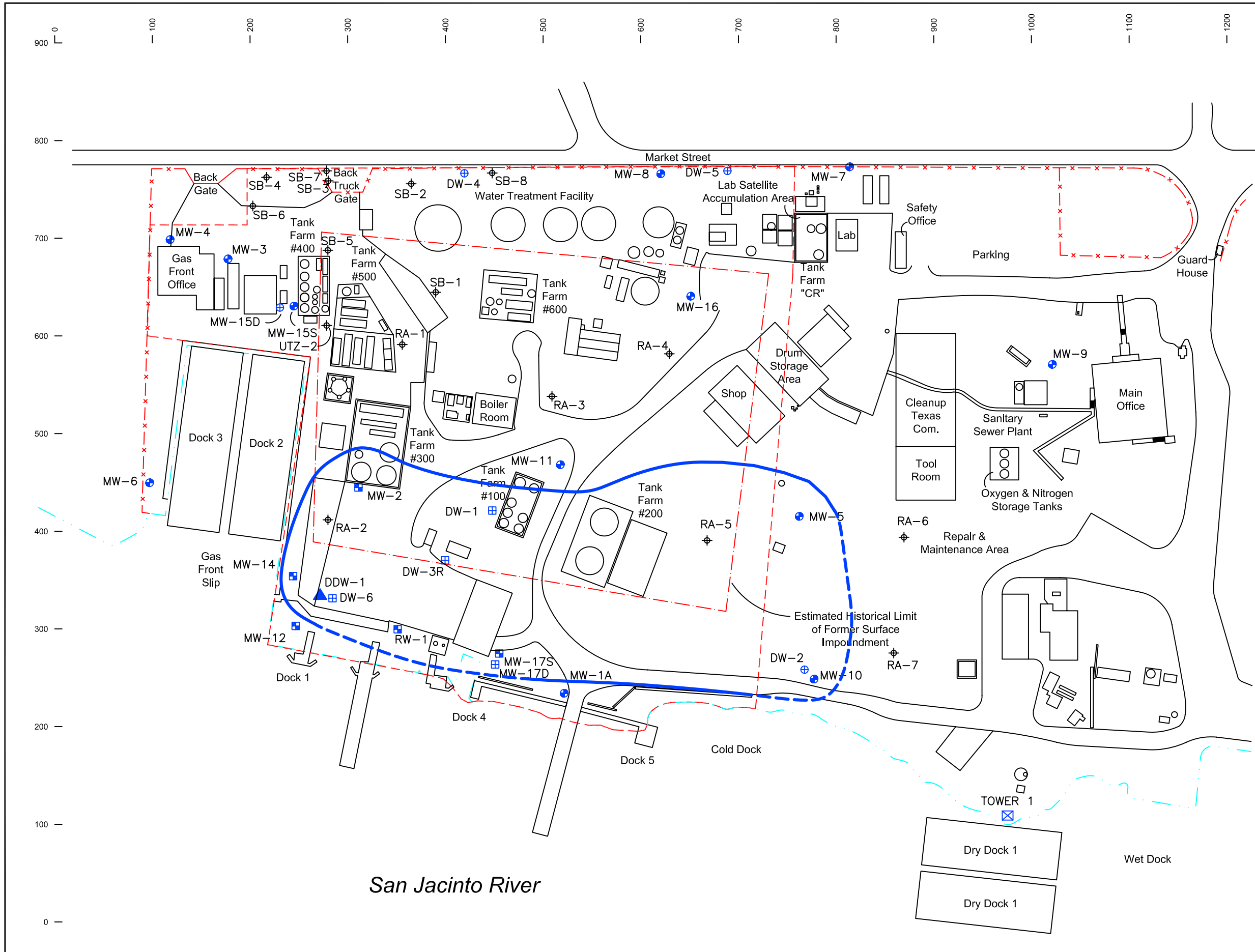
Figure 7-1
Overall Ingestion PCLE Zone Map
May 2007
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Vinyl Chloride Ingestion PCLE Zone
- Inferred Vinyl Chloride Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

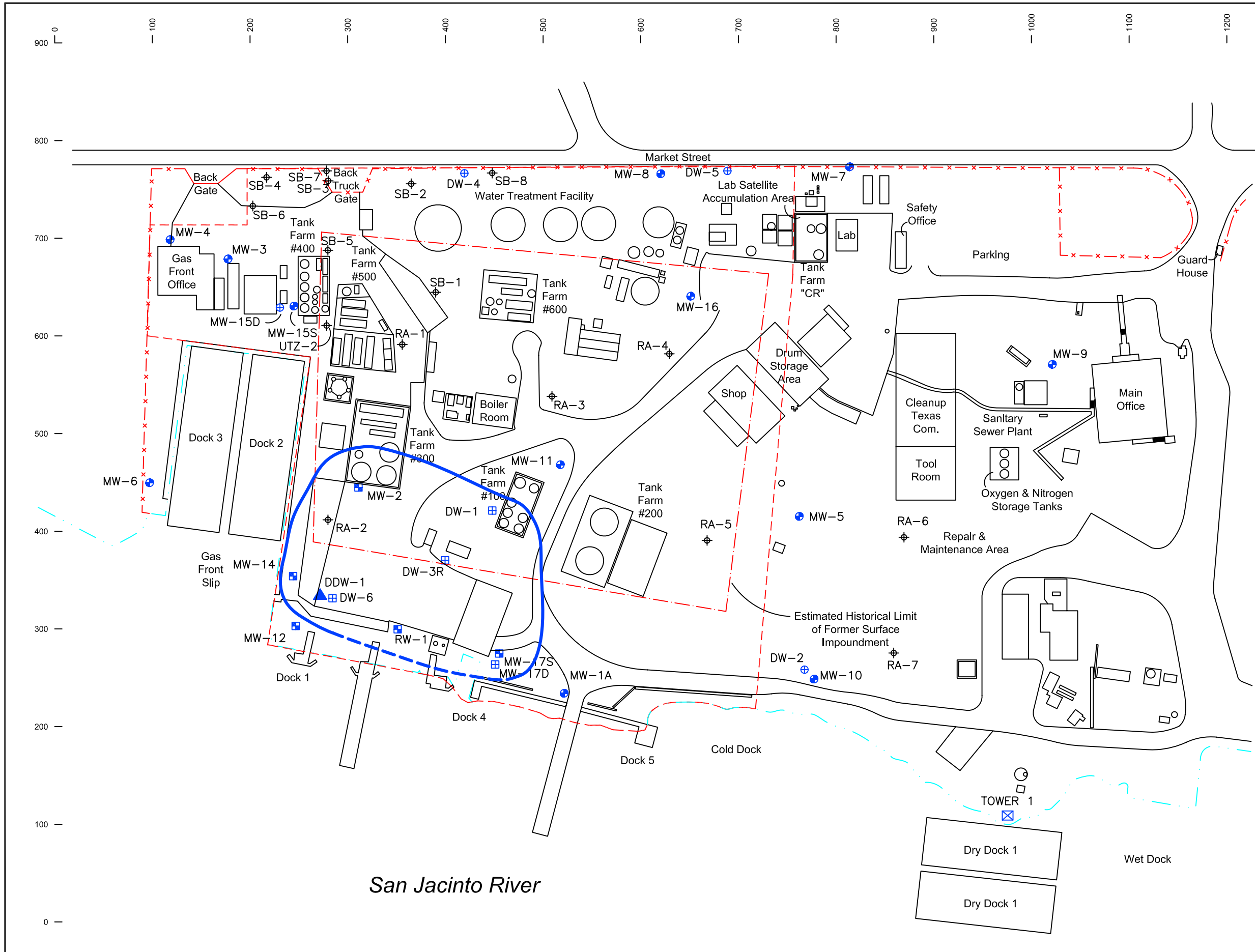
Figure 7-2
Overall Ingestion PCLE Zone Map
May 2009
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Vinyl Chloride Ingestion PCLE Zone
- Inferred Vinyl Chloride Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

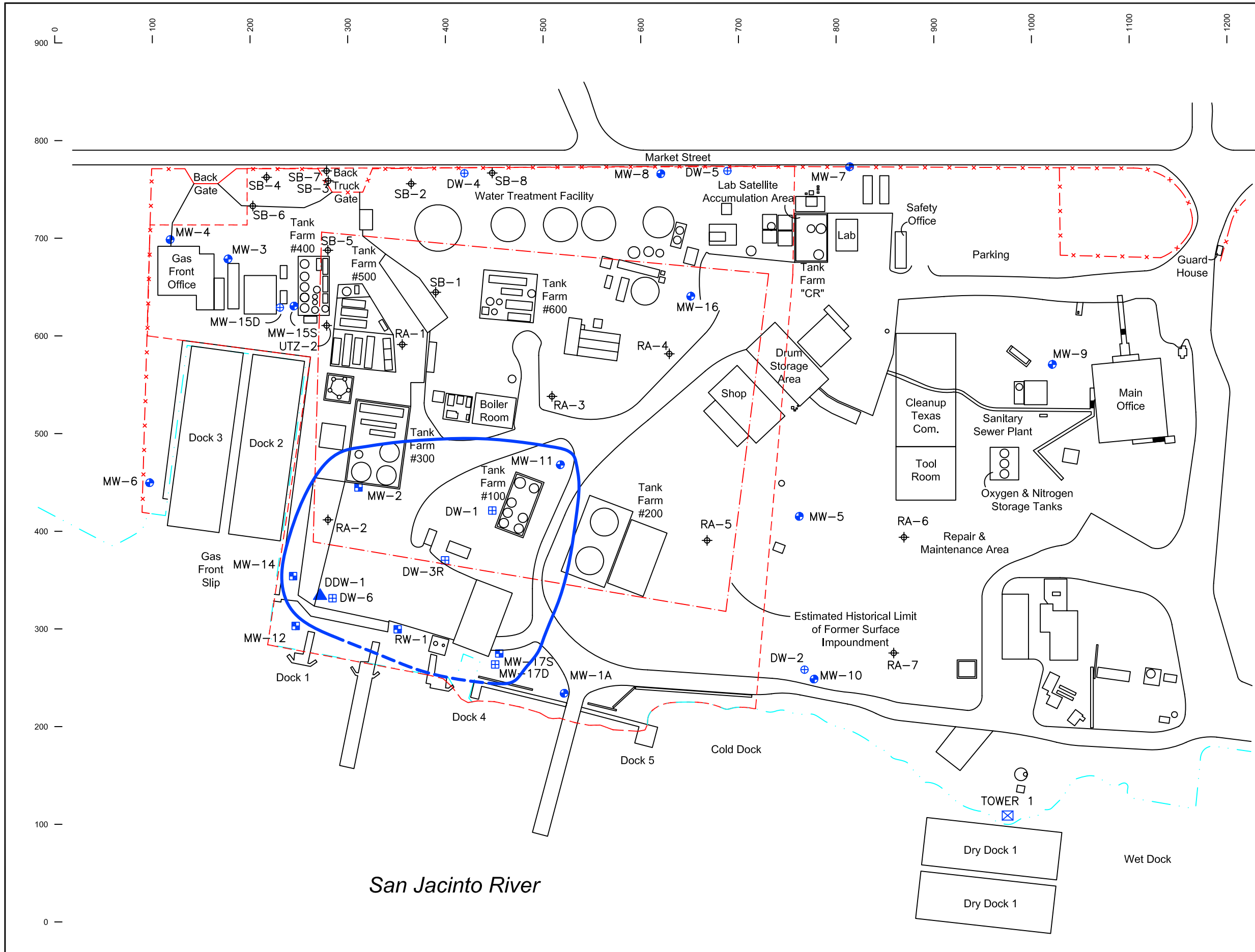
Figure 7-3
Overall Ingestion PCLE Zone Map
November 2009
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Vinyl Chloride Ingestion PCLE Zone
- Inferred Vinyl Chloride Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

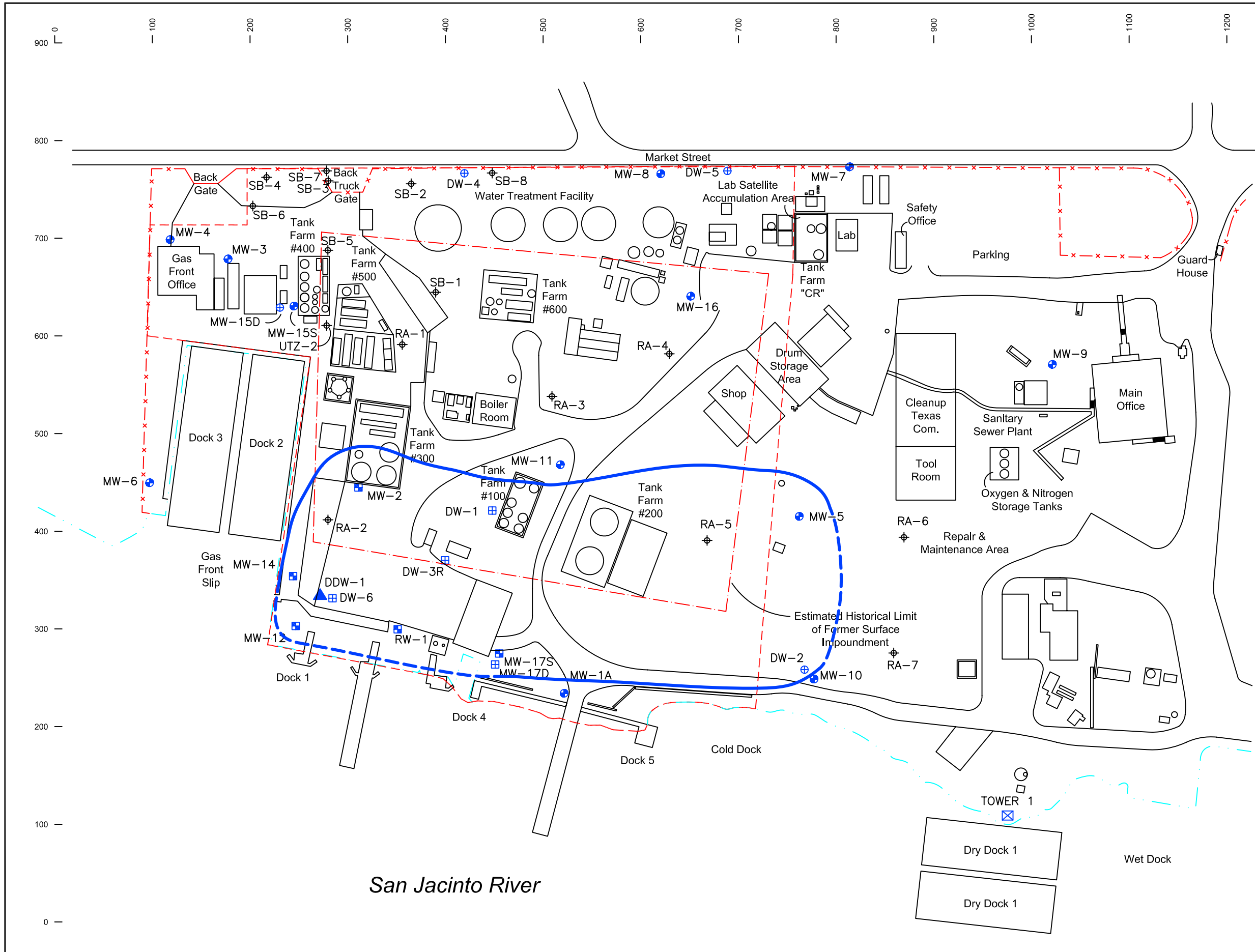
Figure 7-4
Overall Ingestion PCLE Zone Map
May 2010
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- BTEX PCLE Zone
- Inferred BTEX PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

NOTES:

1. PCLE zone includes any BTEX concentration that were detected above its respective PCL during this sampling event.

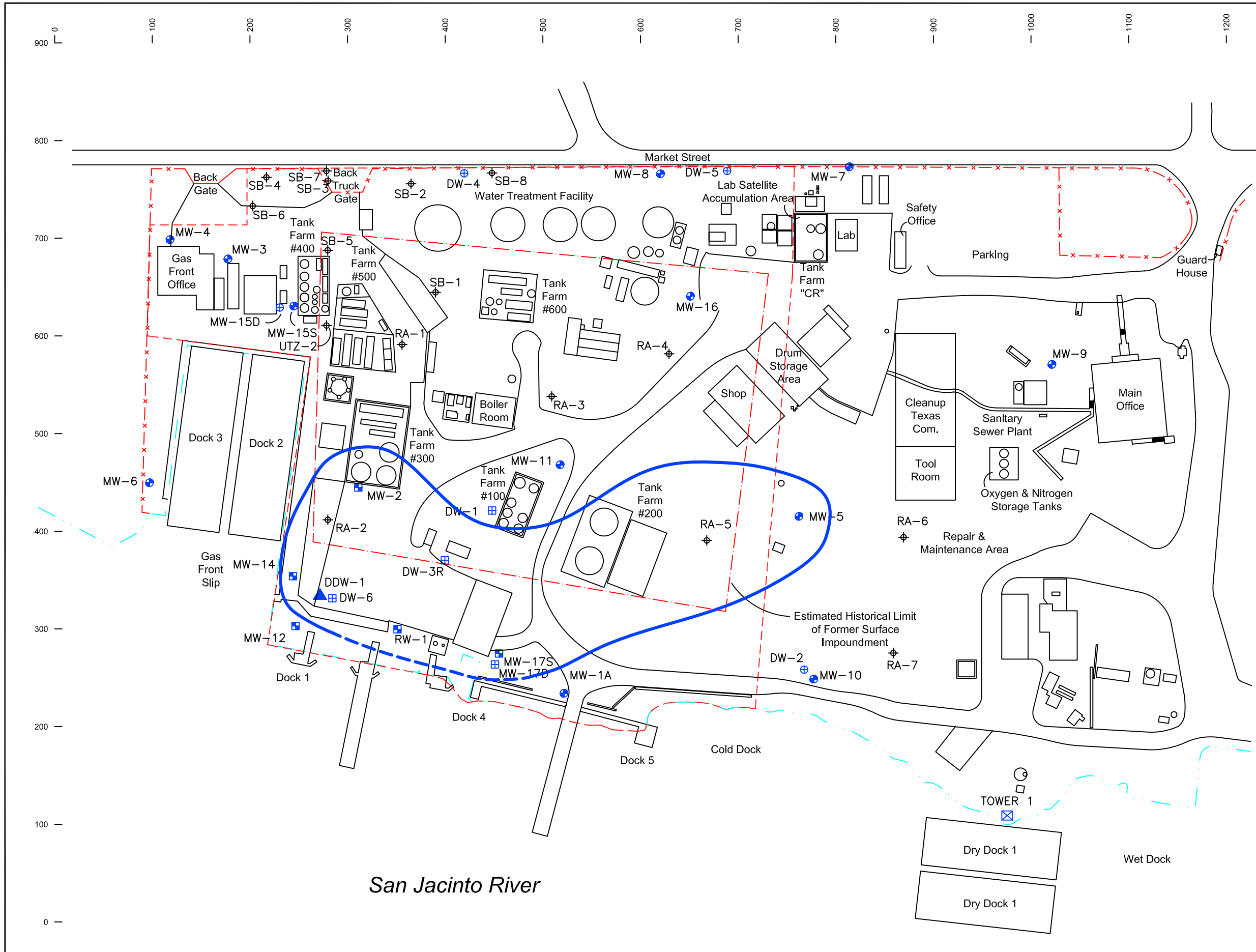
Figure 8-1
Overall BTEX PCLE Zone Map
May 2007
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- BTEX PCLE Zone
- Inferred BTEX PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

NOTES:

1. PCLE zone includes any BTEX concentration that were detected above its respective PCL during this sampling event.

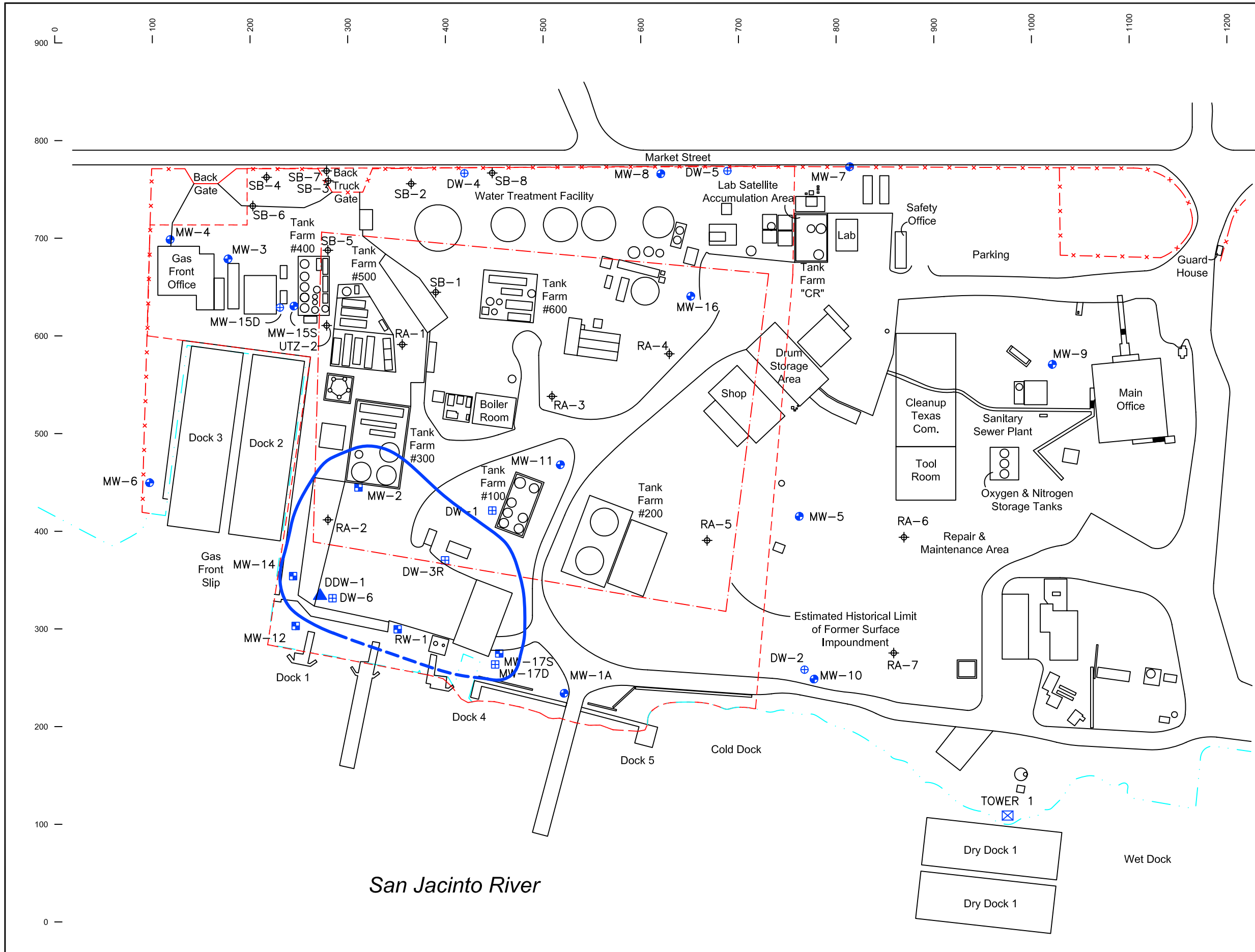
Figure 8-2
Overall BTEX PCLE Zone Map
May 2009
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- BTEX PCLE Zone
- Inferred BTEX PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

NOTES:

1. PCLE zone includes any BTEX concentration that were detected above its respective PCL during this sampling event.

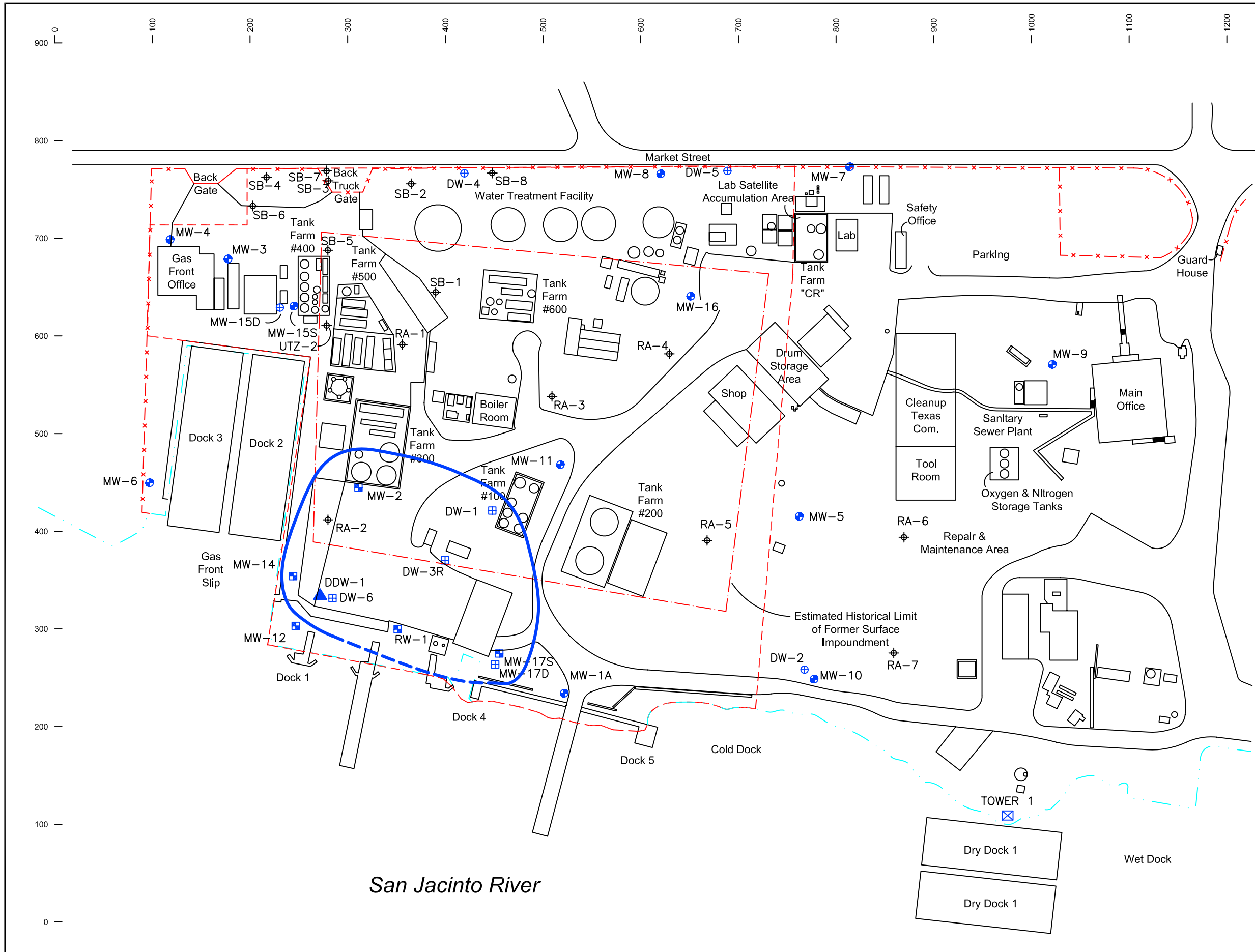
Figure 8-3
Overall BTEX PCLE Zone Map
November 2009
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- BTEX PCLE Zone
- Inferred BTEX PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

NOTES:

1. PCLE zone includes any BTEX concentration that were detected above its respective PCL during this sampling event.

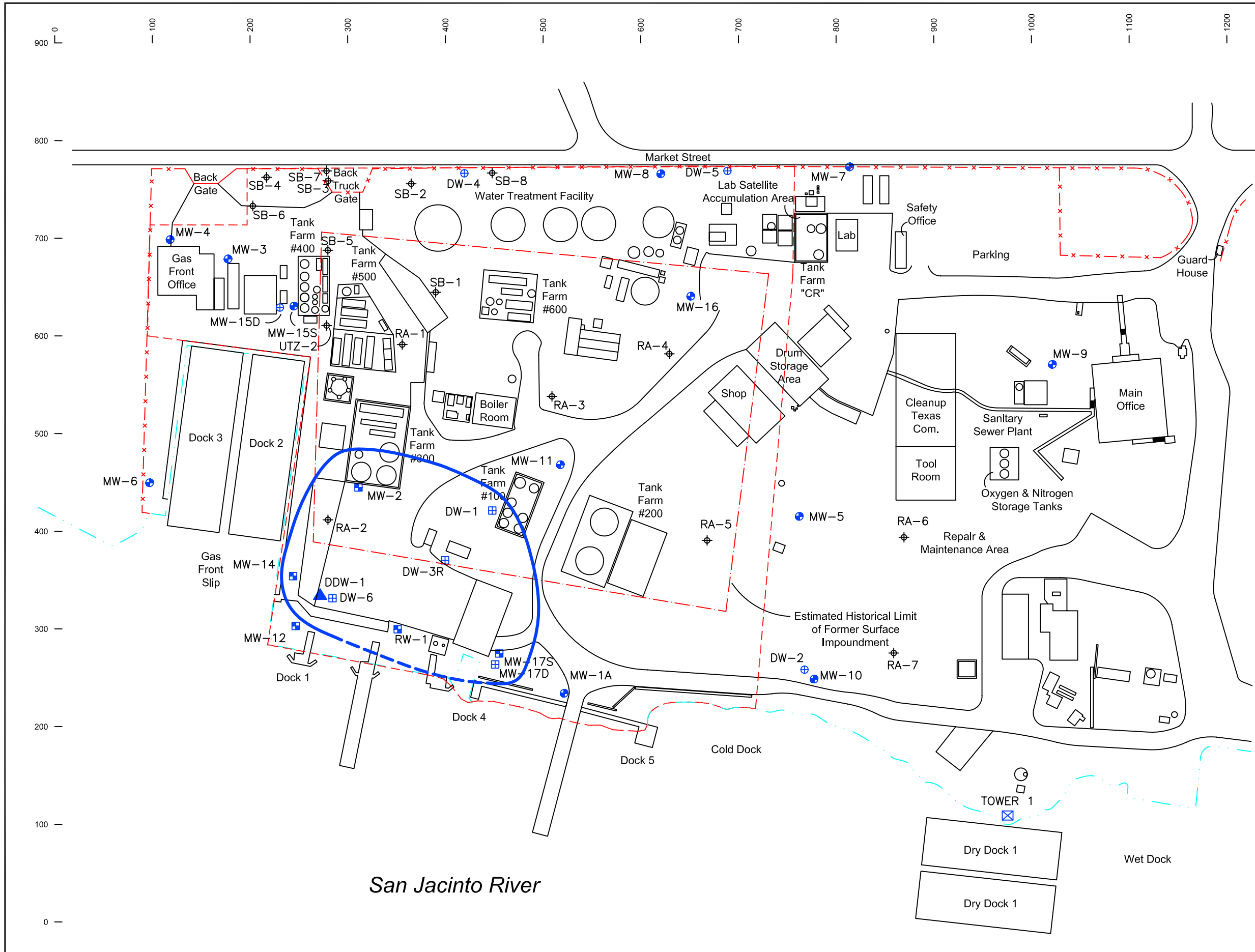
Figure 8-4
Overall BTEX PCLE Zone Map
May 2010
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- PAH PCLE Zone
- Inferred PAH PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

NOTES:

1. PCLE zone includes any PAH concentration that was detected above its respective PCL.

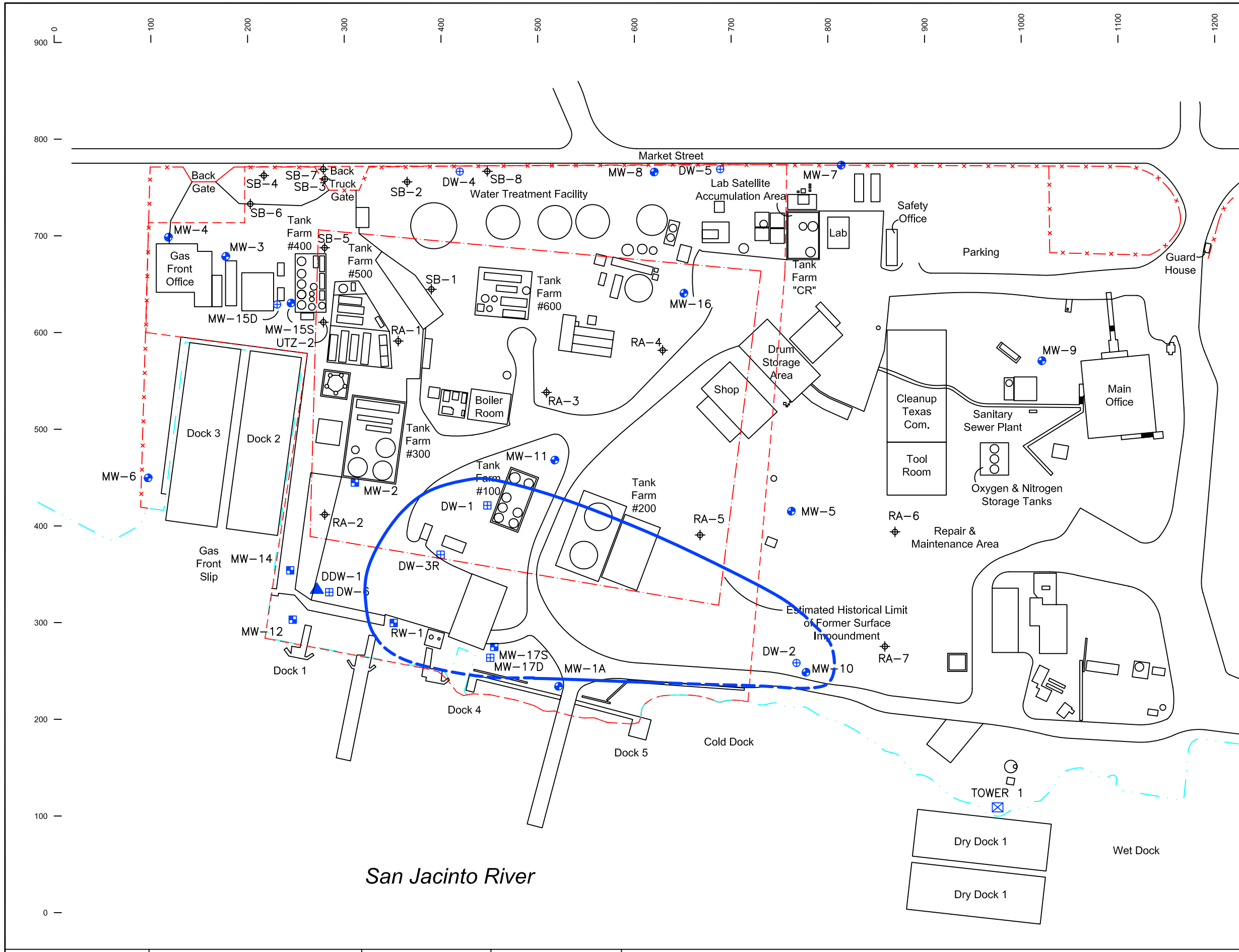
Figure 9-1
Overall PAHs PCLE Zone Map
May 2007
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- PAH PCLE Zone
- Inferred PAH PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

NOTES:

1. PCLE zone includes any PAH concentration that was detected above its respective PCL.

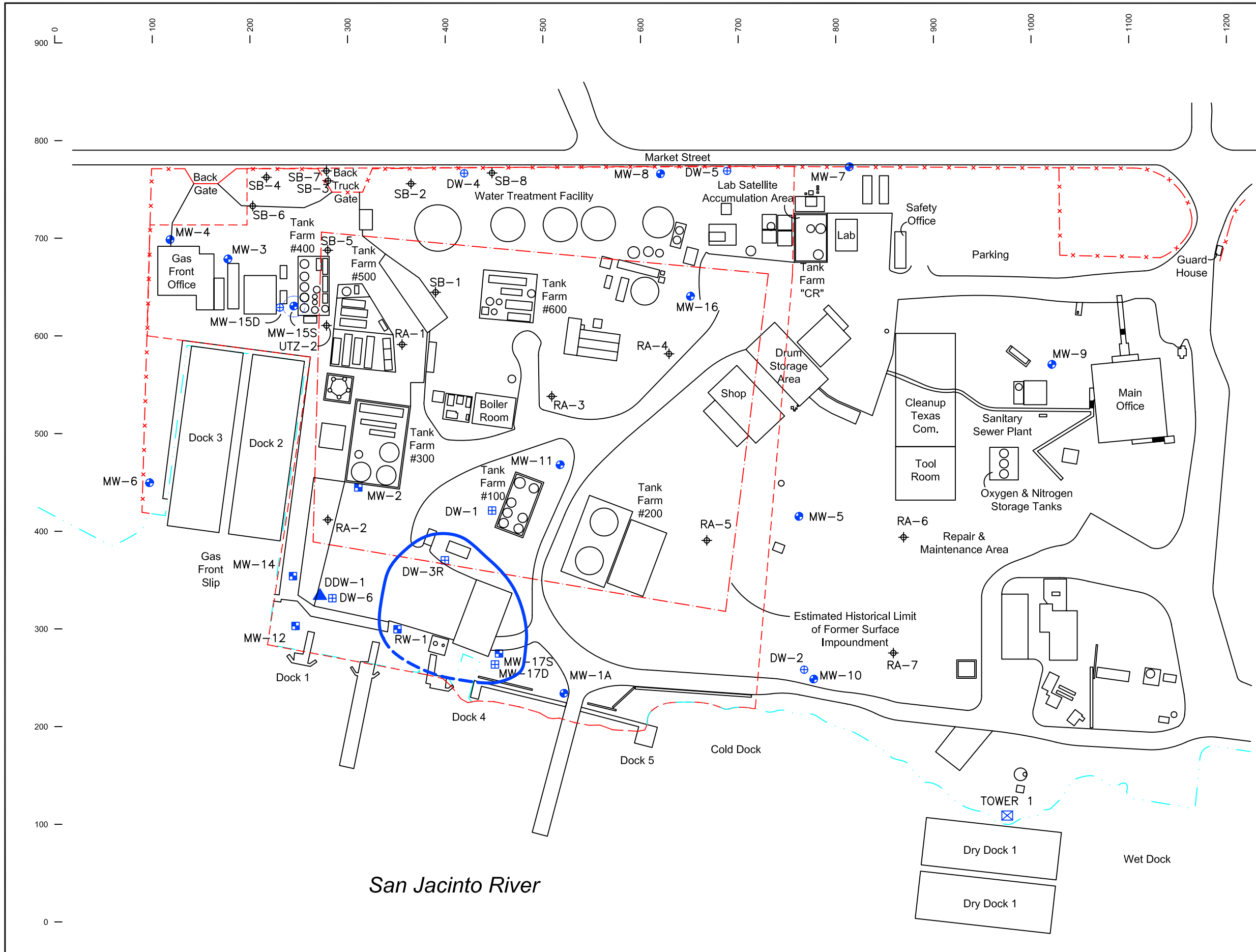
Figure 9-2
Overall PAHs PCLE Zone Map
May 2009
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- PAH PCLE Zone
- Inferred PAH PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

NOTES:

1. PCLE zone includes any PAH concentration that was detected above its respective PCL.

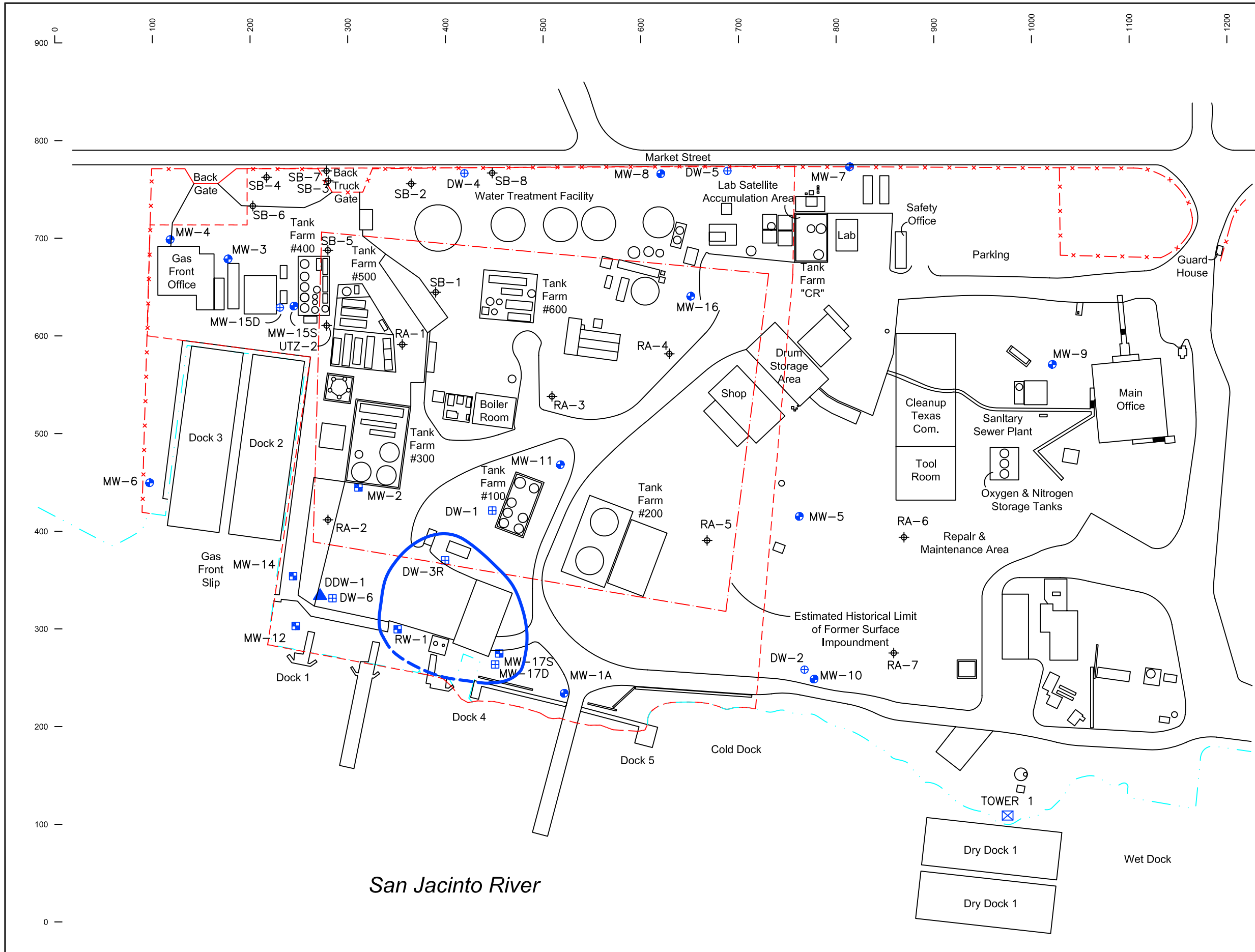
Figure 9-3
Overall PAHs PCLE Zone Map
November 2009
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- PAH PCLE Zone
- Inferred PAH PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

NOTES:

1. PCLE zone includes any PAH concentration that was detected above its respective PCL.

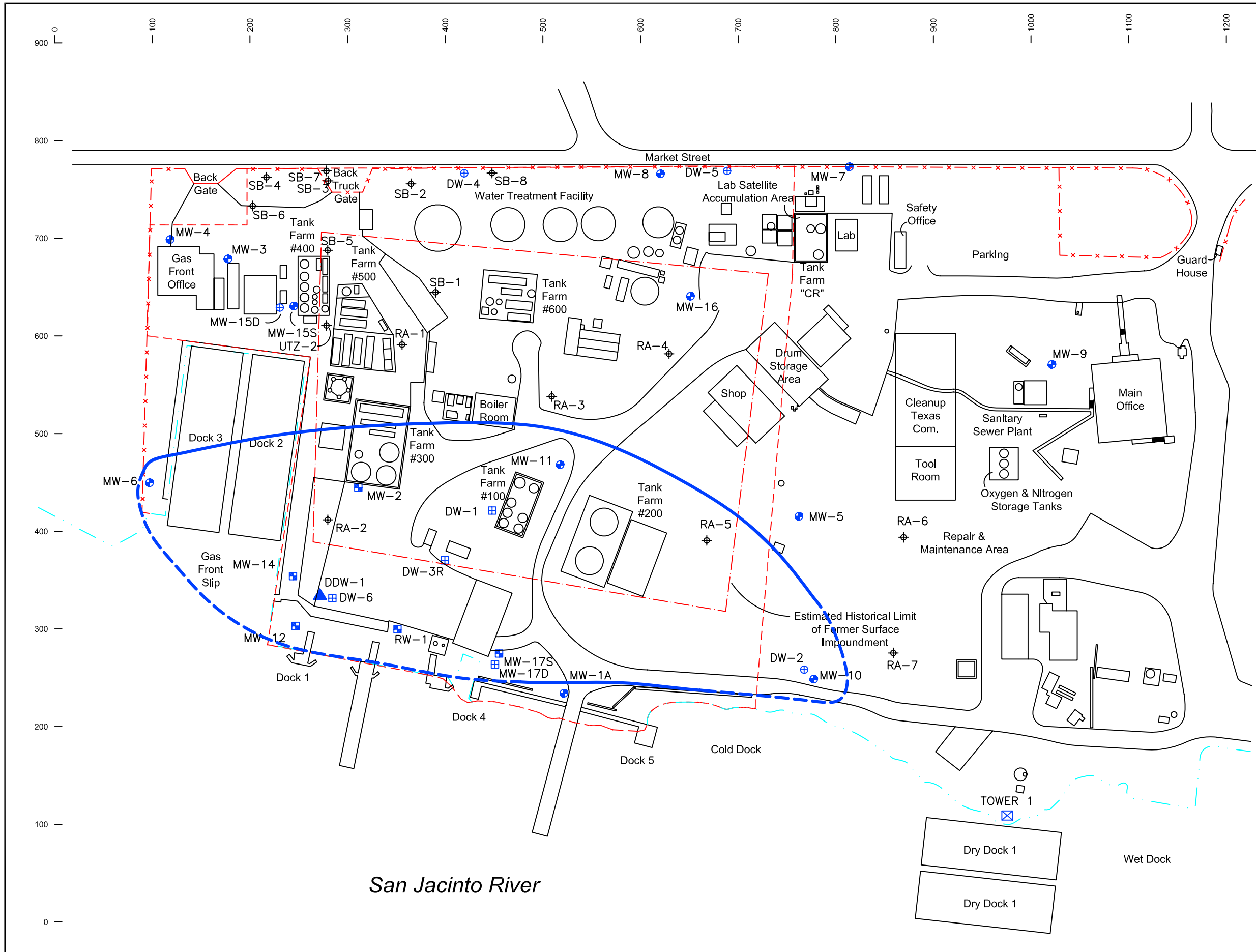
Figure 9-4
Overall PAHs PCLE Zone Map
May 2010
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- CVOCs PCLE Zone
- Inferred CVOCs PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

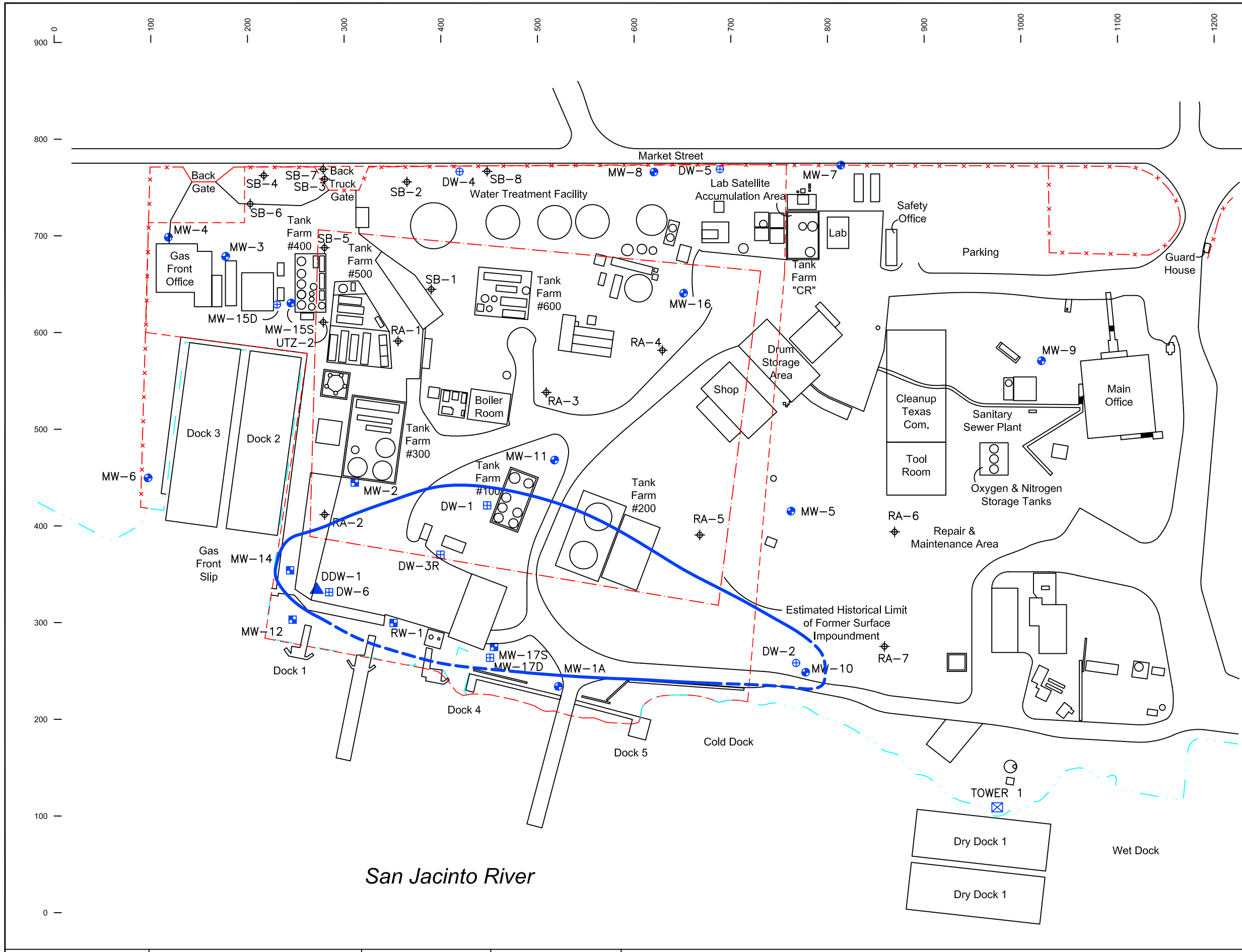
NOTES:
1. PCLE zone includes any CVOC concentration that was detected above its respective PCL.

Figure 10-1
Overall CVOCs PCLE Zone Map
May 2007
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET
0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- CVOCs PCLE Zone
- Inferred CVOCs PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

NOTES:

1. PCLE zone includes any CVOC concentration that was detected above its respective PCL.

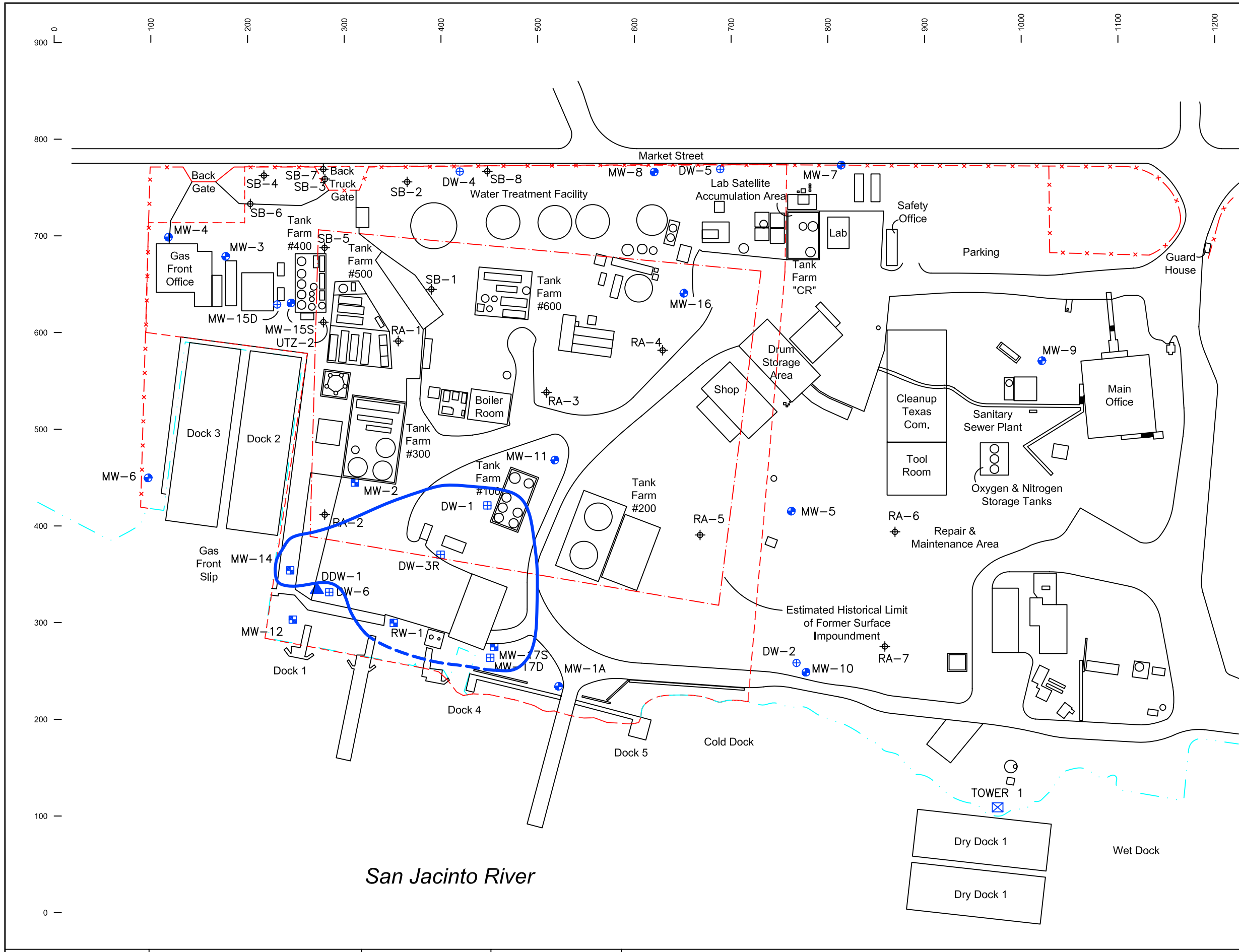
Figure 10-2
Overall CVOCs PCLE Zone Map
May 2009
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- CVOCs PCLE Zone
- Inferred CVOCs PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

NOTES:

1. PCLE zone includes any CVOC concentration that was detected above its respective PCL.

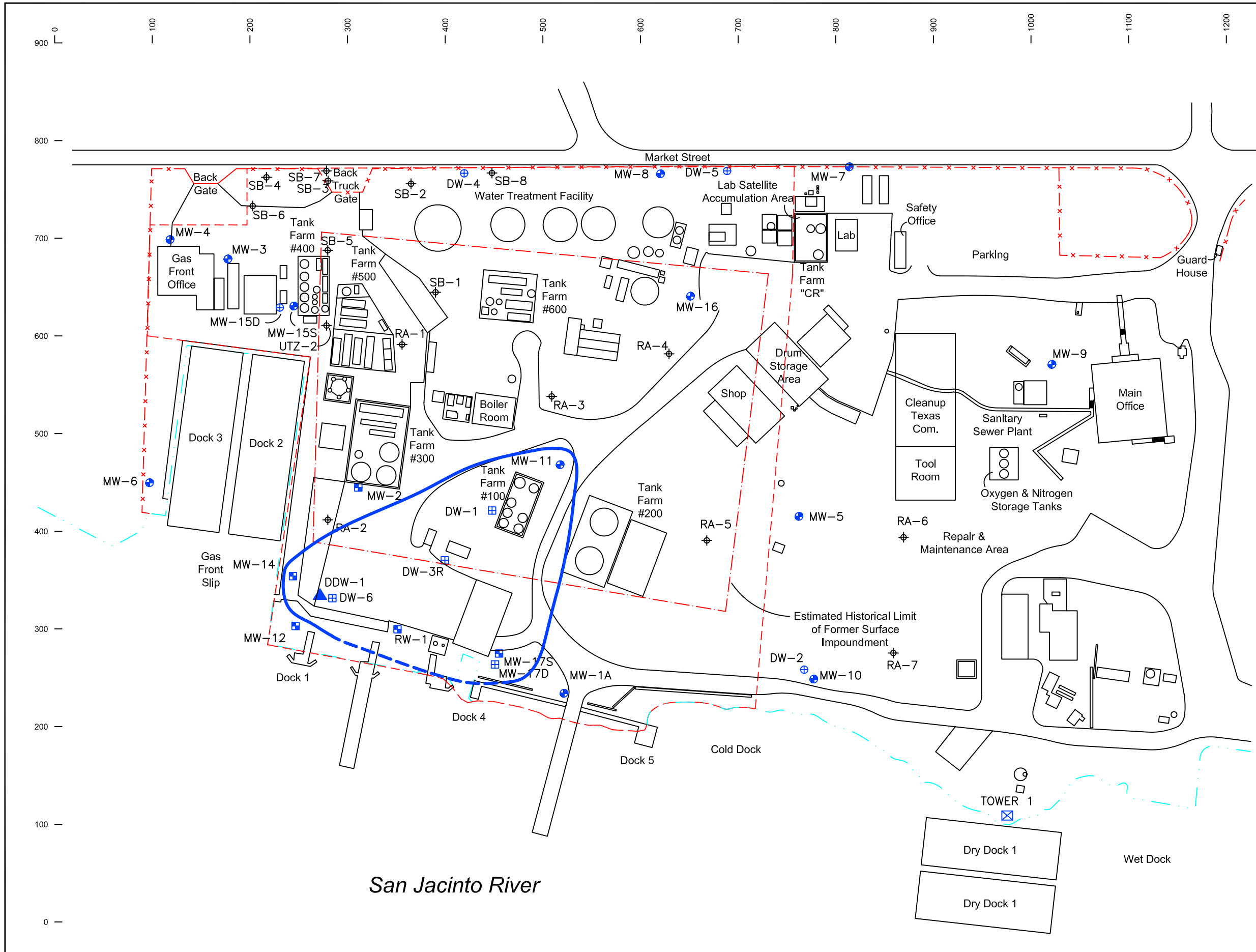
Figure 10-3
Overall CVOCs PCLE Zone Map
November 2009
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- CVOCs PCLE Zone
- Inferred CVOCs PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

NOTES:

1. PCLE zone includes any CVOC concentration that was detected above its respective PCL.

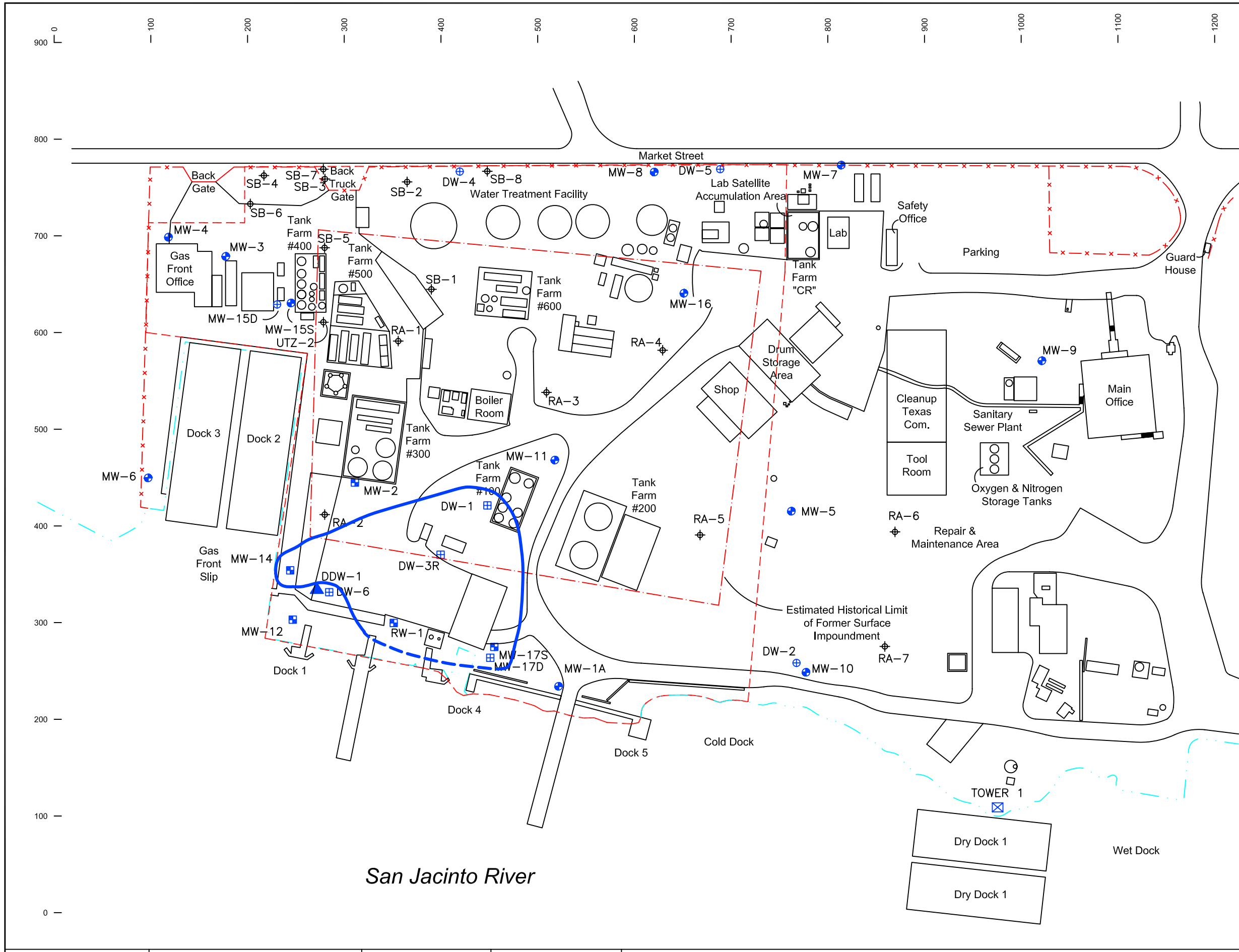
Figure 10-4
Overall CVOCs PCLE Zone Map
May 2010
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Vinyl Chloride Non-Ingestion PCLE Zone
- Inferred Vinyl Chloride Non-Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

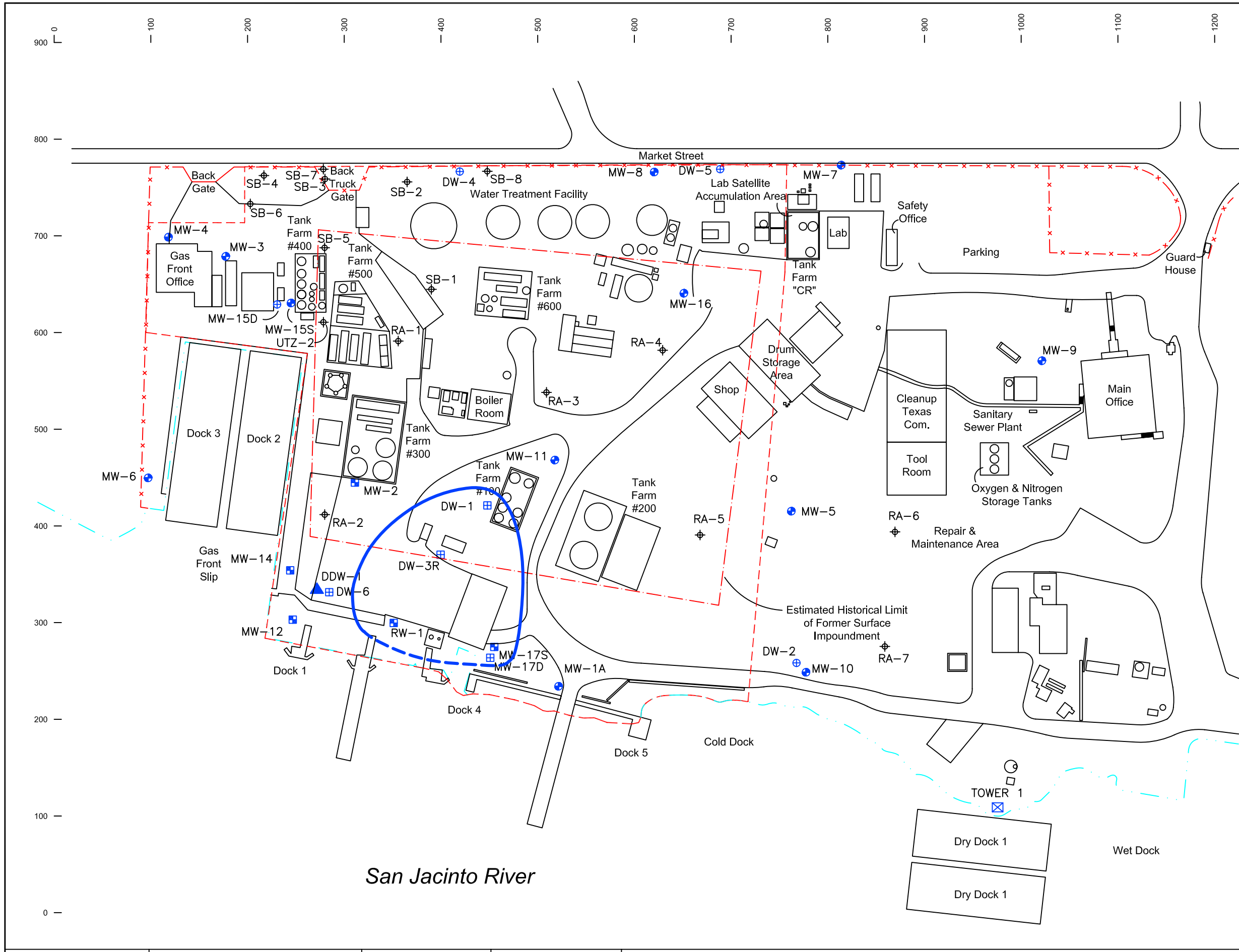
Figure 11-1
Vinyl Chloride Non-Ingestion PCLE Zone Map
May 2007
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

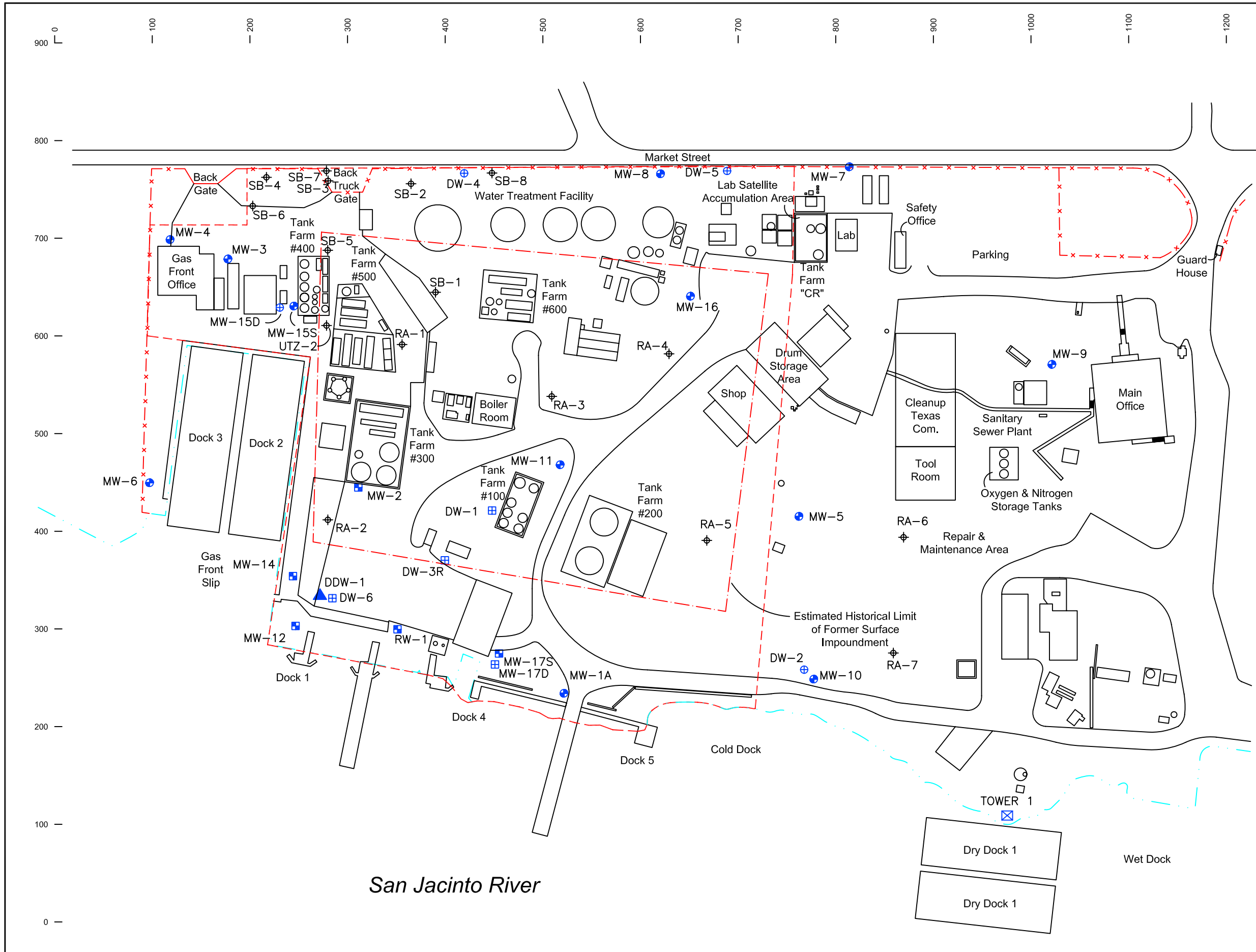
- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Vinyl Chloride Non-Ingestion PCLE Zone
- Inferred Vinyl Chloride Non-Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

Figure 11-2
Vinyl Chloride Non-Ingestion PCLE Zone Map
May 2009
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET
0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Vinyl Chloride Non-Ingestion PCLE Zone
- Inferred Vinyl Chloride Non-Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

NOTES:

1. VC was not identified above the non-ingestion PCL during this sampling event' therefore, no VC non-ingestion PCLE zone exists for this event.

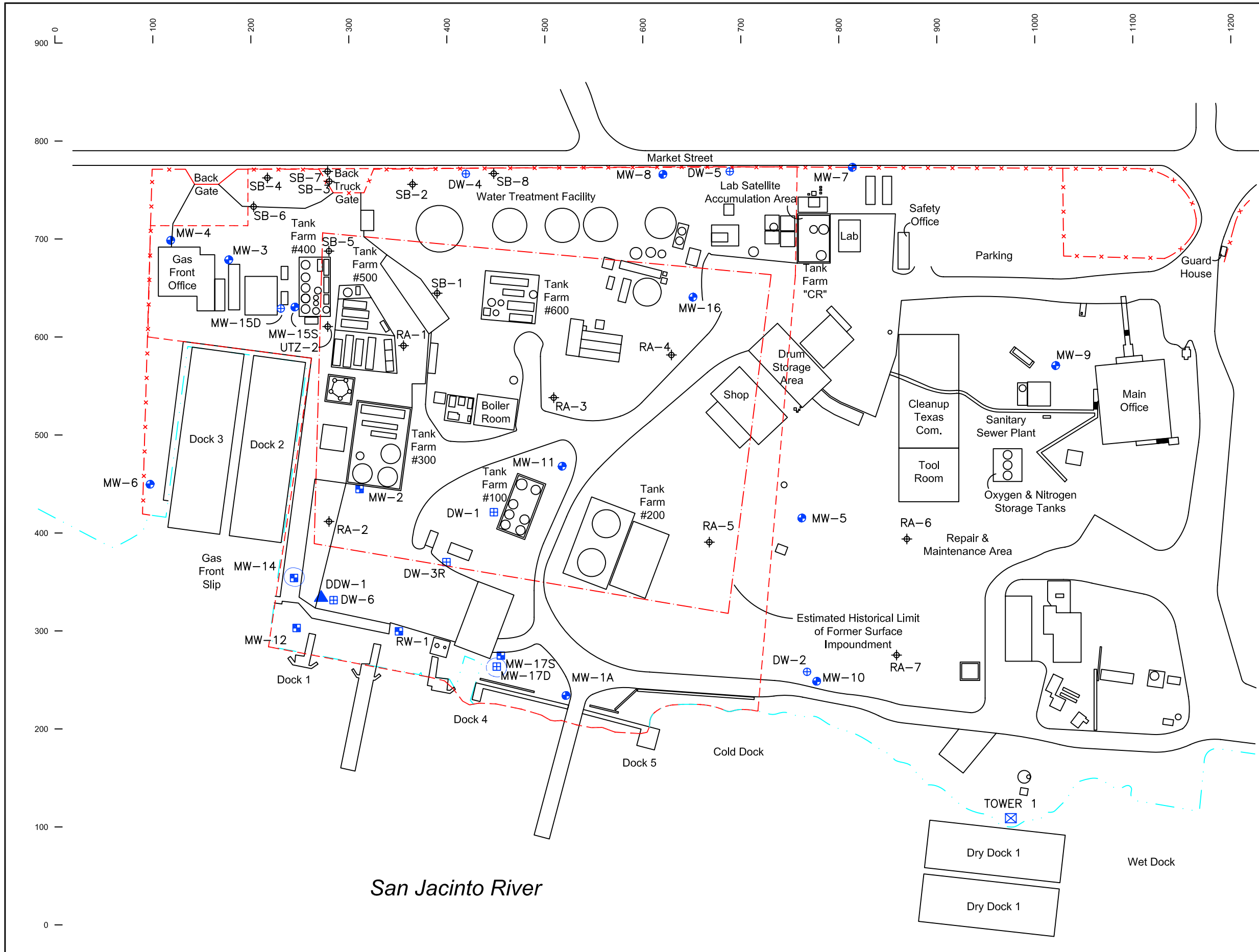
Figure 11-3
Vinyl Chloride Non-Ingestion PCLE Zone Map
November 2009
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:



LEGEND

- Shallow Fill Zone Recovery Sump Location
- UTZ Monitoring Well Location
- UTZ Recovery Well Location
- LTZ Monitoring Well Location
- LTZ Recovery Well Location
- 3TZ Monitoring Well Location
- Water Well Location
- Soil Boring Location
- Vinyl Chloride Non-Ingestion PCLE Zone
- Inferred Vinyl Chloride Non-Ingestion PCLE Zone
- MSD Survey Boundary
- Estimated Historical Limit of Former Surface Impoundment
- Fence
- Approximate San Jacinto River Boundary

Figure 11-4
Vinyl Chloride Non-Ingestion PCLE Zone Map
May 2010
Southwest Shipyard
18310 Market Street
Channelview, Texas

APPROXIMATE SCALE IN FEET

0 50 100 200

W&M ENVIRONMENTAL GROUP, INC.
www.wh-m.com

DATE: 09-19-10	W&M Project No.: 1050.002.004	Check By: GLM	Drawn: PTF	Revised:

Appendix C

MUNICIPAL SETTING DESIGNATION APPLICATION
18310 MARKET STREET
CHANNELVIEW, TEXAS

PROPERTY USE INFORMATION

The Designated Property consists of one property located at 18310 Market Street comprising approximately 6.4067 acres. The Designated Property currently houses the Southwest Shipyard L.P. (Southwest) facility which has operated at the Site since 1957. Southwest is a barge repair and cleaning company for a wide array of local, national, and international barge providers. Southwest plans to continue operations at the Site for the foreseeable future. The future use of the Designated Property is anticipated to remain heavy industrial.

Currently, the land surrounding the Designated Property is primarily used for heavy industrial activities. The 500-foot radius circle surrounding the Designated Property is bisected by the raised Interstate 10 Freeway. The Designated Property is located on the southern side of I-10 and to the east of Market Street. Other properties on the west and south end of Market Street are developed with heavy industrial facilities. Kirby Barge is to the south of the Designated Property, the San Jacinto River is to the east, I-10 and associated rights-of-way is to the north, and Glendale Boatworks is to the west of the Designated Property. The Applicant is not aware of future changes to the use of the surrounding properties that would include the use of the GWBUs.

Appendix D

MUNICIPAL SETTING DESIGNATION APPLICATION
18310 MARKET STREET
CHANNELVIEW, TEXAS

PROPERTIES OF CHEMICALS of CONCERN WITHIN INGESTION PCL EXCEEDANCE ZONE

There are non-ingestion PCLE zone at the Designated Property for VC.

Ingestion PCLE zones exist for the following COCs in soil or groundwater:

- Benzene
- Benzidine
- Chloroform
- Toluene
- Ethylbenzene
- PCE
- TCE
- 1,1-DCE
- 1,2-DCA
- Cis-1,2-DCE
- Trans-1,2-DCE
- VC
- BAP
- BBF
- BKF
- BEP
- DBF
- 2,4-D
- IP
- 4-methylphenol
- 1,2-DCP
- Naphthalene

Soil and groundwater analytical data tables are presented in **Table 1** and **Table 2, respectively** (presented in **Appendix F**). The analytical data tables present the concentrations of each COC in soil and groundwater in comparison to their respective ingestion and non-ingestion PCLs.

Figures 7, 8, 9, 10, and 11 (previously presented in **Appendix B**) depict the horizontal extent of the groundwater ingestion PCLE zones for : benzene, chloroform, PCE, TCE, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, VC, ethylbenzene, toluene, BAA, BAP, BBF, BKF, BEP, DBF, 2,4-D, IP, 4-methylphenol, and naphthalene by groups and as a total ingestion PCLE and non-ingestion PCLE. The ingestion PCLE zone is fully delineated and contained within the Designated Property. In April 1998, based upon actual samples collected from the immediately adjacent surface water and sediments, modeling calculations, and additional lines of evidence, the Texas Natural Resource Conservation Commission (TNRCC [predecessor of the TCEQ) approved the Baseline Risk Assessment (BLRA) for the Site. The BLRA found that with interim corrective actions there were no real or probable exposures on or off of the Site. No COCs sourced on the Site were identified above detection limits in the surface water or sediment

investigation performed on the adjacent San Jacinto River. The TNRCC and its successor agent consider this to be delineation of the groundwater plume.

The PCLE zone is located on the central-southeastern portion of the property and is limited to an area of groundwater impact approximately 4 feet below ground surface (bgs) to 80 feet bgs where an aquitard is encountered that reduces the potential for the migration of COCs. The area of impact is delineated on-Site and encompasses an area of approximately 1.2 acres. Impacted groundwater has been identified at monitoring wells MW-2, MW-11, MW-14, and MW-17S and recovery well RW-1 in the UTZ and monitoring wells DW-1, DW-3R, MW-17D in the LTZ. Delineation is provided by MW-10 and MW-5 to the northeast; MW-16 and DW-5, MW-8 to the northwest; DW-4 MW-15D, MW-15s, and MW-3 to the west and southwest; MW-6, MW-12, DDW-1, and D2-6 to the south; and MW-1A to the east. Additionally the San Jacinto River has been assessed for groundwater pathways PCLs, which are below the groundwater to surface water and groundwater to sediment PCLs.

The source area for the plume has been identified as a surface impoundment that handled the facilities barge repair discharge including grinding, welding, and blasting wastes and the facilities barge cleaning materials including the excess material from barges and wash solution. These wastes were contained in the surface impoundment from approximately 1957 when Southwest Shipyard opened until 1979 when the impoundment was pumped out and the soils immediately adjacent to the sludge were removed and disposed of at an off-Site facility. The impoundment was capped with 2 feet of clay and sod placed upon the clay. In 1997 the cap was replaced with concrete. The removal was certified by a Texas Professional Engineer and was recorded in the deed to the property. This was the accepted method of closure for a surface impoundment at the time. Since 1994, groundwater monitoring events have been conducted semi-annually to measure concentrations of COCs in monitoring wells and track groundwater elevations to determine groundwater flow (some delineation wells are only sampled once a year, source wells are sampled twice a year). The groundwater flow direction is consistently to the southeast.

Pump and treat remediation at the Site has been on-going since 1992 through sumps and recovery wells. From 1997 until 2008, 51,912,150 gallons of water have been treated through the on-Site waste water treatment plant as depicted in **Tables 3A and 3B**. Because of on-going treatment and natural attenuation of COCs for purposes of the maximum concentration, a span of years from 2007 until May 2010 was used to identify the maximum concentrations in each GWBU.

The table below reflects COCs identified at the Designated Property, the Tier 1, commercial/industrial ingestion PCL, the Tier 1 industrial non-ingestion PCL, and the maximum concentrations identified from 2007 until May 2010 in each GWBU. Detections are signified in **bold**, exceedances of the ingestion PCL are in yellow, and exceedances of the non-ingestion PCL are in red. All concentrations are in mg/L.

Appendix D

COC	$^{GW}GW_{Ing}$	$^{Air}GW_{Inh-V}$	Max UTZ Conc.	Max LTZ Conc.	Max 3TZ Conc.
Benzene	0.005	300	**11**	**14.6**	**0.0065**
Chloroform	0.73	33	**1.1**	**0.077**	<0.0002
1,2-Dichloroethane	0.005	55	**3**	**18.5**	<0.0003
1,1-Dichloroethene	0.007	2,300	**0.132**	**0.194 J**	<0.0003
Cis-1,2-Dichloroethene	0.07	23,000	**85.3**	**98.3**	**0.063**
Trans-1,2-Dichloroethene	0.1	1,100	**0.109**	**0.336**	<0.0004
Ethyl benzene	0.7	22,000	**1.65**	**2.23**	<0.0011
Tetrachloroethene	0.005	840	**2.6**	**24**	<0.0008
Toluene	1	89,000	**0.341**	**1.55**	<0.0002
Trichloroethene	0.005	170	**4.77**	**21**	<0.0003
Vinyl chloride	0.002	6.4	**147**	**41**	**0.105**
Benzo(a)anthracene	0.0013	3,400	**0.074**	**0.0603**	<0.0024
Benzo(a)pyrene	0.0002	650	**0.071**	**0.0275**	<0.0012
Benzo(b)fluoranthene	0.0013	2,700	**0.036**	**0.0485**	<0.0014
Benzo(k)fluoranthene	0.013	160,000	**0.031**	**0.0463**	<0.0033
Bis(2-ethylhexyl)phthalate	0.006	--	**0.0641**	**0.0111**	<0.0033
Dibenzofuran	0.098	--	**0.167**	**0.132**	<0.0015
2,4-Dimethylphenol	0.49	230,000	**1.62**	**0.02**	<0.0026
Indeno(1,2,3-c,d)pyrene	0.0013	16,000	**0.0857**	**0.0115**	<0.0015
4-Methylphenol	0.37	170,000	**1.22**	**0.0043 J**	<0.003
1,2-Dichloropropane	0.005	16	**0.009**	**0.132**	<0.0015
Naphthalene	0.49	440	**8.28**	**1.95**	**0.0096**

Benzene, chloroform, PCE, TCE, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, ethylbenzene, toluene, BAA, BAP, BBF, BKF, BEP, DBF, 2,4-D, IP, 4-methylphenol, 1,2-DCP, and naphthalene were identified in at least one GWBU at a concentration that exceeded the ingestion PCL for each respective COC. Only VC exceeded the non-ingestion PCL with a maximum concentration of 147 mg/L which exceeds the non-ingestion PCL of 6.4 mg/L in groundwater.

The total estimated surface area of the ingestion PCLE zone for benzene, chloroform, PCE, TCE, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, VC ethylbenzene, toluene, BAA, BAP, BBF, BKF, BEP, DBF, 2,4-D, IP, 4-methylphenol, and naphthalene is not expected to be more than a cumulative 1.76 acres on the Designated Property.

The total estimated surface area of the non-ingestion PCLE zone for VC is not expected to be more than 0.63 acre on the Designated Property.

The chemical properties of benzene, chloroform, PCE, TCE, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, VC, ethylbenzene, toluene, BAA, BAP, BBF, BKF, BEP, DBF, 2,4-D, IP, 4-methylphenol, and naphthalene are provided in the chemical abstract and fact sheet located in this section. In general, benzene, chloroform, PCE, TCE, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, VC, ethylbenzene, toluene, DBF, 2,4-D, and naphthalene are somewhat soluble

in water to many parts per million. Benzene, ehtylbenzene, toluene, naphthalene, and similar gasoline constituents, and non-gasoline constituent 2,4-D are less dense than water and will tend to float on top of groundwater if present above the solubility limit. PCE, TCE, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, chloroform, 1,2-dichloropropane and similar chlorinated VOCs are more dense than water and will tend to sink in groundwater if present above the solubility limit. VC and similar VOCs are totally miscible with groundwater and will not form non-aqueous phase liquid (NAPL). In general BAA, BAP, BBF, BKF, DBF, IP, and 4-methylphenol are not soluble in water, and are likely associated with particles in the groundwater. Light NAPL (LNAPL) was historically present at the Site; however, after product recovery for 18 years, the LNAPL is no longer identifiable. No dense NAPL has ever been identified. There are no other indications that a dense or light NAPL are present at the Designated Property; concentrations exhibited at the Designated Property are below those normally associated with NAPL.

Appendix E

MUNICIPAL SETTING DESIGNATION APPLICATION
18310 MARKET STREET
CHANNELVIEW, TEXAS

PROPERTIES OF CHEMICALS of CONCERN IN DESIGNATED GROUNDWATER

The following COCs have been detected in the Designated Groundwater at the Site. COCs in bold have been identified at concentrations above the applicable commercial/industrial ingestion PCL. The other COCs were identified at concentrations below the applicable ingestion PCL:

- **Benzene**
- **Benzidine**
- **Chloroform**
- **Toluene**
- **Ethylbenzene**
- **PCE**
- **TCE**
- **1,1-DCE**
- **1,2-DCA**
- **Cis-1,2-DCE**
- **Trans-1,2-DCE**
- **VC**
- **BAA**
- **BAP**
- **BBF**
- **BKF**
- **BEP**
- **DBF**
- **2,4-D**
- **IP**
- **4-methylphenol**
- **1,2-DCP**
- **Naphthalene**
- Xylene
- Chloroethane
- 1,1-Dichloroethane
- Methylene Chloride
- Acenaphthene
- Anthracene
- Benzo(g,h,i)perylene
- Chrysene
- Fluoranthene
- Fluorene
- 2-methylnapthalene
- 2-methylphenol
- Phenanthrene
- Pyrene
- Aniline
- Acetone
- Methyl Ethyl Ketone
- 4-Methyl-2-pentanone
- 1,1,1-Trichloroethane

Soil and groundwater analytical data tables are presented in **Table 1 and Table 2**, respectively (presented in **Appendix F**). The analytical data tables present the concentrations of COCs that are above the ingestion PCL or within an order or magnitude in comparison to their respective ingestion and non-ingestion PCLs.

Figure 7 (previously presented in **Appendix B**) depicts the horizontal extent of the groundwater ingestion PCLE zone for benzene, chloroform, PCE, TCE, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, VC, ethylbenzene, toluene, BAA, BAP, BBF, BKF, BEP, DBF, 2,4-D, IP, 4-methylphenol, 1,2-DCP and naphthalene. No other COCs were detected at concentrations above the Tier 1 commercial/industrial PCLs, but some additional COCs were identified in the groundwater below the Tier 1 commercial/industrial PCLs as indicted in the table below.

Appendix E

COC	$^{GW}GW_{Ing}$	$^{Air}GW_{Inh-V}$	Max UTZ Conc.	Max LTZ Conc.	Max 3TZ Conc.
Benzene	0.005	300	**11**	**14.6**	0.0065
Chloroform	0.73	33	**1.1**	**0.077**	<0.0002
1,2-Dichloroethane	0.005	55	**3**	**18.5**	<0.0003
1,1-Dichloroethene	0.007	2,300	**0.132**	**0.194 J**	<0.0003
cis-1,2-Dichloroethene	0.07	23,000	**85.3**	**98.3**	**0.063**
trans-1,2-Dichloroethene	0.1	1,100	**0.109**	**0.336**	<0.0004
Ethyl benzene	0.7	22,000	**1.65**	**2.23**	<0.0011
Tetrachloroethene	0.005	840	**2.6**	**24**	<0.0008
Toluene	1	89,000	**0.341**	**1.55**	<0.0002
Trichloroethene	0.005	170	**4.77**	**21**	<0.0003
Vinyl chloride	0.002	6.4	**147**	**41**	0.105
Benzo(a)anthracene	0.0013	3,400	**0.074**	**0.0603**	<0.0024
Benzo(a)pyrene	0.0002	650	**0.071**	**0.0275**	<0.0012
Benzo(b)fluoranthene	0.0013	2,700	**0.036**	**0.0485**	<0.0014
Benzo(k)fluoranthene	0.013	160,000	**0.031**	**0.0463**	<0.0033
Bis(2-ethylhexyl)phthalate	0.006	--	**0.0641**	**0.0111**	<0.0033
Dibenzofuran	0.098	--	**0.167**	**0.132**	<0.0015
2,4-Dimethylphenol	0.49	230,000	**1.62**	**0.02**	<0.0026
Indeno(1,2,3-c,d)pyrene	0.0013	16,000	**0.0857**	**0.0115**	<0.0015
4-Methylphenol	0.37	170,000	**1.22**	**0.0043 J**	<0.003
1,2-Dichloropropane	0.005	16	**0.009**	**0.132**	<0.0002
Naphthalene	1.5	440	**8.28**	**1.95**	**0.0096**
Xylene	10	14,000	**0.135**	**0.43**	<0.0012
Chloroethane	29	160,000	**0.22**	**0.0057**	<0.005
1,1-Dichloroethane	15	10,000	**0.356 J**	**0.314**	<0.002
Methylene Chloride	0.005	1,300	<0.0022	<0.0022	NA
Acenaphthene	1.5	--	**0.245**	**0.177**	<0.005
Anthracene	7.3	--	**0.184**	**0.1940**	<0.005
Benzo(g,h,i)perylene	0.73	--	**0.0020 J**	**0.0463**	<0.005
Chrysene	0.13	980,000	**0.07**	**0.022**	<0.002
Fluoranthene	0.98	--	**0.263**	**0.232**	<0.004
Fluorene	0.98	--	**0.168**	**0.124**	<0.006
2-Methylnapthalyene	0.29	--	**0.149**	**0.149**	<0.004
2-methylphenol	1.2	140,000	**0.239**	**0.0028 J**	<0.005
Phenanthrene	2.2	--	**0.456**	**0.374**	<0.003
Pyrene	2.2	--	**0.175**	**0.161**	<0.006
Aniline	0.36	11,000	**0.101**	**0.028**	NA
Acetone	66	250,000	**0.037**	**2.560**	NA
Methyl Ethyl Ketone	44	1,000,000	**0.028**	<0.0025	<0.0025
4-methyl-2-pentanone	5.8	670,000	**0.073**	**0.089**	NA
1,1,1-Trichloroethane	0.2	40,000	<0.0003	<0.0003	<0.0003

Appendix E

Benzene, chloroform, PCE, TCE, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, ethylbenzene, toluene, BAA, BAP, BBF, BKF, BEP, DBF, 2,4-D, IP, 4-methylphenol, 1,2-DCP, and naphthalene were identified in at least one GWBU at a concentration that exceeded the ingestion PCL for each respective COC as shaded in yellow. The groundwater bearing zone for which this MSD applies is limited to an area of groundwater impact approximately 4 feet bgs to approximately 80 feet bgs where an aquitard is encountered that significantly reduces the potential for the migration of COCs. COCs are contained on-Site and levels above the ingestion standard encompass an area of less than approximately 1.76 acres. Only VC exceeded the non-ingestion PCL as shaded in red. Its maximum concentration was 147 mg/L which exceeds the non-ingestion PCL of 6.4 mg/L in groundwater. VC that exceeds the non-ingestion standard encompasses an area of less than approximately 0.63 acre.

The chemical properties of benzene, chloroform, PCE, TCE, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, VC, ethylbenzene, toluene, BAA, BAP, BBF, BKF, BEP, DBF, 2,4-D, IP, 4-methylphenol, 1,2-DCP, naphthalene, xylene, chloroethane, 1,1-dichloroethane, methylene chloride, acenphthene, anthracene, beno(g,h,i)perylene, chrysene, fluoranthene, fluorene, 2-methylnapthalene, 2-methylphenol, phenathrene, pyrene, aniline, acetone, MEK, 4-methyl-2-pentanone, and 1,1,1-trichloroethane are provided in the chemical abstract and fact sheet located in **Appendix D**. In general, benzene, chloroform, PCE, TCE, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, VC, ethylbenzene, toluene, DBF, 2,4-D, 1,2-DCP, xylene, chloroethane, aniline, acetone, MEK, 4-methyl-2pentaone, 1,1,1-trichlorethane and naphthalene are somewhat soluble in water to many parts per million. Benzene, ehtylbenzene, toluene, xylene, naphthalene, and similar gasoline constituent, and non-gasoline constituent 2,4-D, MEK, aniline, 4-methyl-2-penatonone are less dense than water and will tend to float on top of groundwater if present above the solubility limit. PCE, TCE, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, chloroform, 1,2-DCP, 1,1-dichloroethane, and 1,1,1-trichloroethane and similar chlorinated VOCs are more dense than water and will tend to sink in groundwater if present above the solubility limit. VC, acetone, and methylene chloride and similar VOCs are totally miscible with groundwater and will not form NAPL. In general BAA, BAP, BBF, BKF, DBF, IP, and 4-methylphenol, acenaphthene, anthracene, benzo(g,h,i)perlene, chrysene, fluroanthene, fluroene, 2-methylnapthalene, 2-methylphenol, pehanthrene, and pyrene are not soluble in water, and are likely associated with particles in the groundwater. LNAPL was historically present at the Site; however, after product recovery for 18 years, the LNAPL is no longer identifiable. No dense NAPL has ever been identified. There are no other indications that a dense or light NAPL is present at the Designated Property; concentrations exhibited at the Designated Property are below those normally associated with NAPL.

Appendix F

MUNICIPAL SETTING DESIGNATION APPLICATION
18310 MARKET STREET
CHANNELVIEW, TEXAS

COC TABLES

The attached soil analytical data table, **Table 1**, contains the concentrations of each COC detected in soil and the respective critical PCLs both with and without an MSD. All VOCs, SVOCs, and specific metals covered in the agreed order for the Site were included in the laboratory analysis; however, only those COCs with detections above the laboratory sample quantitation limit (SQL) were listed.

Thirty soil borings were advanced across the Site with some being converted into monitoring wells; a total of 62 samples were analyzed from 1993 to 1995. Analytical results identified concentrations of total petroleum hydrocarbons (TPH), lead, benzene, 1,2-DCA, PCE, TCE, ethylbenzene, 4-methyl-2-pentanone, benzidine, and naphthalene above the soil ingestion PCLs (refer to yellow or red data in **Table 1** for incidents of exceedance). The PCLE zone for 1,2-DCA is illustrated on **Figure 6-1**, PCE is illustrated on **Figure 6-2**, TCE is illustrated on **Figure 6-3,** benzidine is illustrated on **Figure 6-4**, and naphthalene is illustrated on **Figure 6-5**. There are 19 other COCs listed in **Table 1** which were detected in soil borings at the Site; however, the concentrations of these COCs were below their respective ingestion commercial/industrial PCLs.

The attached groundwater analytical data table, **Table 2**, contains the concentrations of each COC in groundwater and their respective critical PCLs both with and without an MSD. All VOCs, SVOCs, and specific metals covered in the agreed order for the Site were included in the laboratory analysis; however, only those COCs with detections above the SQL were listed.

Groundwater collected in May 2010 from UTZ monitoring wells MW-02, MW-11 MW-14, MW-17S, and recovery well RW-01 identified concentrations of benzene, ethylbenzene, naphthalene, PCE, TCE, 1,2-DCA, Cis-1,2-DCE, Trans-1,2-DCE, VC, 1,2-dichloropropane, and BEP in some wells above the groundwater ingestion PCLs identified on **Figure 7-4**. VC in MW-14 is above the non-ingestion PCL identified on **Figure 11-4**. Groundwater collected in May 2010 from the LTZ monitoring wells DW-01, DW-3R, and MW-17D identified concentrations of benzene, ethylbenzene, naphthalene, PCE, TCE, 1,2-DCA, 1,1-DCE, Cis-1,2-DCE, and VC in some wells above the groundwater ingestion PCLs identified on **Figure 7-4**. VC in MW-17D is above the non-ingestion PCL on **Figure 11-4**. Groundwater collected in May 2010 from the 3TZ and UC identified no COCs that exceed the ingestion PCL. No dense NAPL has ever been identified and LNAPL no longer exists in any wells at the Site. Nineteen other COCs listed in **Table 2** were detected in groundwater collected at the Site from 2007 to present; however, the concentrations were below their respective ingestion residential PCLs in May 2010.

Concentrations of 1,2-DCA**,** PCE, TCE**,** benzidine**,** and naphthalene were detected in soil samples at levels above the non-ingestion PCLs.

Appendix F

Concentrations of VC were detected in groundwater samples at levels above the non-ingestion PCLs.

TABLE 1
SUMMARY OF SURFACE SOIL ANALYTICAL RESULTS

SAMPLE I.D.:	$^{GW}Soil_{Ing}$ [1]	$^{Tot}Soil_{Comb}$ [2]	RAL [3]	SB-5	RA-1	RA-2	RA-3	RA-4	RA-5	RA-6	RA-7
DATE SAMPLED:				02/22/93	01/01/95	01/01/95	01/01/95	01/01/95	01/01/95	01/01/95	01/01/95
Depth (ft bgs)				2-3	0-2	0-2	0-2	0-2	0-2	0-2	0-2
Total Petroleum Hydrocarbons	590 [4]	12000 [4]	65 [4]	**678.00**	NA	NA	NA	NA	NA	NA	NA
Chromium	2,400	120,000	2,400	**62.8**	**10.50**	**10.30**	**19.80**	**42.10**	**15.30**	**78.90**	**43.70**
Iron	-	-	-	**13200**	NA	NA	NA	NA	NA	NA	NA
Lead	15	1,600	500	**271.00**	<10	<10	**19.70**	**55.40**	**13.10**	**102.00**	**32.80**
Manganese	10,000	36,000	1,200	**208.00**	NA	NA	NA	NA	NA	NA	NA
Selenium	2.3	4,800	2.3	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	3	26	1	<0.625	<0.625	<0.625	<0.625	<0.625	**0.00536**	<0.625	<0.625
Trichloroethene	0.034	210	0.034	**0.00768**	**1.550**	<0.625	<0.625	**0.00675**	**0.014**	**0.00628**	**0.0132**
Xylenes	120	12,000	120	**0.0324**	**11.400**	**69.700**	**0.00747**	**0.00636**	<0.625	<0.625	<0.625
Carbon Disulfide	41	13,000	14	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Acetone	130	16,000	43	**0.300**	<0.625	**36.100**	**0.0492**	<0.625	**0.100**	<0.625	<0.625
Methyl ethyl Ketone	87	135,000	23	**0.0575**	<0.625	**36.100**	**0.0713**	<0.625	<0.625	<0.625	<0.625
Benzene	0.026	180	0.026	**0.0823**	<0.625	<0.625	**0.0221**	**0.0244**	**0.012**	<0.625	**0.024**
1,2-Dichloroethane	0.014	22	0.014	<0.625	**3.230**	<0.625	**0.0391**	**0.031**	**0.0223**	**0.00788**	**0.0792**
Tetrachloroethene	0.05	410	0.05	<0.625	**4.960**	<0.625	<0.625	<0.625	**0.0253**	**0.029**	**0.0299**
Toluene	8.2	42,000	8.2	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Ethyl benzene	7.6	18,000	7.6	**0.0107**	**5.270**	**78.700**	<0.625	<0.625	**0.0272**	**0.012**	<0.625
4-Methyl-2-Pentanone	15	41,000	1.9	<0.625	<0.625	**72.220**	<0.625	<0.625	<0.625	<0.625	<0.625
Methylene Chloride	0.013	960	0.013	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Phenanthrene	1,200	19,000	420	**4.310**	**5.880**	<0.660	<0.660	<0.660	**2.060**	<0.660	<0.660
Fluoranthene	5,700	25,000	1,900	**6.160**	**5.890**	<0.660	<0.660	**0.324**	**3.090**	<0.660	<0.660
Pyrene	3,300	19,000	1,100	**4.930**	**4.420**	<0.660	<0.660	<0.660	**2.310**	<0.660	<0.660
Benzidine	0.000024	0.047	0.000011	<0.660	**14.800**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Benz (a) Anthracene	40	24	18	<0.660	**1.630**	<0.660	<0.660	<0.660	**1.270**	<0.660	<0.660
Benzo (b) Fluoranthene	130	24	5.7	<0.660	**1.500**	<0.660	<0.660	<0.660	**1.620**	<0.660	<0.660
Benzo(k) Fluoranthene	1,400	240	57	**2.600**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Benzo (a) Pyrene	7.6	2.4	0.56	<0.660	**0.754**	<0.660	<0.660	<0.660	**1.050**	<0.660	<0.660
Chrysene	3,500	2,400	560	<0.660	**1.590**	<0.660	<0.660	<0.660	**1.370**	<0.660	<0.660
Naphthalene	93	360	31	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Acenaphthene	710	37,000	240	<0.660	**0.805**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
2-Methylnaphthalene	51	2,500	17	<0.660	**0.481**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Dibenzofuran	100	2,700	33	<0.660	**0.508**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Fluorene	890	25,000	300	<0.660	**1.150**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Anthracene	21,000	190,000	6,900	<0.660	**4.99**	<0.660	<0.660	<0.660	**0.480**	<0.660	<0.660
Phenol	57	4,600	19	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
2-Methylphenol	21	3,500	7.1	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
4-Methylphenol	1.9	1,800	0.63	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
2,4-Dimethylphenol	9.7	4,700	3.2	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Indeno(1,2,3-CD) Pyrene	390	24	5.7	<0.660	**0.485**	<0.660	<0.660	<0.660	**0.886**	<0.660	<0.660
Benzo (g,h,i) Perylene	140,000	19,000	1,800	<0.660	**0.590**	<0.660	<0.660	<0.660	**1.120**	<0.660	<0.660
Bis (2-ethylhexyl) Phthalate	160	560	160	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660

Notes:

[1]Texas Risk Reduction Program (TRRP) $^{GW}Soil_{Ing}$ for Commercial/Industrial, 0.5-acre source.

[2]TRRP $^{Tot}Soil_{Comb}$ for Industrial, 0.5 acre source.

[3]TRRP Residential Assessment Level (RAL) for Residential, Class 1 groundwater, 0.5 acre source.

[4]TPH was analyzed under the EPA 1661, there is no Protective Concentration Limit (PCL) for this method. The PCL for TRRP RAL TPH 1005 was used as a limit.

--- Not analyzed.

<0.002 = ND = Analyzed, but not detected at the quantitation limit shown.

NA - Not Available

Value Exceeds the Non-Ingestion PCL

Value Exceeds the Ingestion PCL

Value Exceeds the RAL without an MSD are denoted in bold box

Values in Bold were detected

TABLE 1
SUMMARY OF SUBSURFACE SOIL ANALYTICAL RESULTS

SAMPLE I.D.:	$^{Air}Soil_{Inh-V}$ [1]	**RAL** [1]	MW-7	MW-6	MW-6	MW-7	MW-8	MW-8	MW-9	MW-9	MW-9	MW-10	MW-10	MW-12	MW-12	MW-13	MW-13	MW-13
DATE SAMPLED:			02/01/93	02/01/93	02/01/93	02/01/93	02/01/93	02/01/93	02/10/93	02/01/93	02/01/93	02/01/93	02/01/93	05/09/95	05/09/95	05/12/95	05/12/95	05/12/95
Depth (ft bgs)			6.5-7.5	10-11	29-30	15-16	12-13	21-22	17-18	50-51	64-65	12-13	14.5-15.5	55-55.5	57-57.5	10-11	27-28	50.5-51.5
ANALYTE																		
Total Petroleum Hydrocarbons	21,000	1,600	NA	NA	**18.00**	NA	NA	NA	**14.20**	**6.3**	**6.3**	**915**	**14.80**	NA	NA	NA	NA	NA
Chromium	-	-	<5	<5	<5	**10.80**	**8.33**	**12.20**	**6.56**	<5	**10.90**	**20.10**	**6.37**	NA	NA	NA	NA	NA
Iron	-	-	**2860**	**3420**	**1360**	**10500**	**4330**	**9760**	**5970**	**558**	**16400**	**19500**	**4410**	NA	NA	NA	NA	NA
Lead	-	-	<10	<10	<10	**11.90**	<10	**11.10**	**39.2**	**11.50**	**19.1**	**35.2**	<10	NA	NA	NA	NA	NA
Manganese	-	-	**22.90**	**19.20**	**11.00**	**202.00**	**55.60**	**26.20**	**328.00**	**37.50**	**86.90**	**298.00**	**104.00**	NA	NA	NA	NA	NA
Selenium	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA	NA	NA	NA	NA
Chloroform	26	16	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Trichloroethene	210	150	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**0.0052**	<0.625	<0.625	<0.625	<0.625	0.0253	<0.625	<0.625	<0.625
Xylenes	13,000	13,000	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**0.0165**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Carbon Disulfide	15,000	11,000	<0.625	<0.625	<0.625	<0.625	**0.00923**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Acetone	16,000	11,000	<0.625	<0.625	<0.625	<0.625	<0.625	**0.134**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Methyl ethyl Ketone	160,000	110,000	<0.625	<0.625	<0.625	<0.625	<0.625	**0.0205**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Benzene	270	160	<0.625	<0.625	<0.625	<0.625	<0.625	**0.223**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**0.0278**	<0.625	<0.625	<0.625
1,2-Dichloroethane	23	14	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**0.00946**	<0.625	<0.625	<0.625	<0.625	<0.625	**0.117**	<0.625	<0.625	<0.625
Tetrachloroethene	1,600	940	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**80.900**	**0.055**	<0.625	<0.625	<0.625
Toluene	88,000	63,000	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Ethyl benzene	21,000	15,000	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
4-Methyl-2-Pentanone	81,000	58,000	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Methylene Chloride	1,300	760	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Phenanthrene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**10.400**	<0.660	NA	NA	<0.660	<0.660	<0.660
Fluoranthene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**20.100**	<0.660	NA	NA	<0.660	<0.660	<0.660
Pyrene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**15.800**	<0.660	NA	NA	<0.660	<0.660	<0.660
Benzidine	0.11	0.063	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Benz (a) Anthracene	6,300	3,700	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**9.230**	<0.660	NA	NA	<0.660	<0.660	<0.660
Benzo (b) Fluoranthene	10,000	6,100	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	NA	NA	<0.660	<0.660	<0.660
Benzo(k) Fluoranthene	260,000	150,000	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**11.900**	<0.660	NA	NA	<0.660	<0.660	<0.660
Benzo (a) Pyrene	1,400	850	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**6.150**	<0.660	NA	NA	<0.660	<0.660	<0.660
Chrysene	990,000	590,000	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**8.450**	<0.660	NA	NA	<0.660	<0.660	<0.660
Naphthalene	370	270	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	NA	NA	<0.660	<0.660	<0.660
Acenaphthene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	NA	NA	<0.660	<0.660	<0.660
2-Methylnaphthalene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	NA	NA	<0.660	<0.660	<0.660
Dibenzofuran	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	NA	NA	<0.660	<0.660	<0.660
Fluorene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	NA	NA	<0.660	<0.660	<0.660
Anthracene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	NA	NA	<0.660	<0.660	<0.660
Phenol	4,700	3,400	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	NA	NA	<0.660	<0.660	<0.660
2-Methylphenol	4,000	2,800	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	NA	NA	<0.660	<0.660	<0.660
4-Methylphenol	4,000	2,800	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	NA	NA	<0.660	<0.660	<0.660
2,4-Dimethylphenol	7,100	5,000	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	NA	NA	<0.660	<0.660	<0.660
Indeno(1,2,3-CD) Pyrene	42,000	25,000	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Benzo (g,h,i) Perylene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Bis (2-ethylhexyl) Phthalate	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	NA	NA	<0.660	<0.660	<0.660

Notes:

[1]TRRP $^{Air}Soil_{Inh-V}$ for Commercial/Industrial, 0.5-acre source.

[2]TRRP RAL, Class 1 groundwater, 0.5 acre source.

<0.002 = ND = Analyzed, not detected at the quantitation limit.

NA - Not Available

Value Exceeds the Non-Ingestion PCL

Value Exceeds the RAL without an MSD denoted in box

Values in Bold were detected

TABLE 1
SUMMARY OF SUBSURFACE SOIL ANALYTICAL RESULTS

SAMPLE I.D.:	$^{Air}Soil_{Inh-V}$ [1]	**RAL** [1]	RW-1	RW-1	UTZ-2	UTZ-2	UTZ-2	UTZ-3	UTZ-3	UTZ-3	LTZ-1	LTZ-1	LTZ-1	SB-5	SB-6	SB-7	SB-8	OMW-1
DATE SAMPLED:			02/22/93	02/22/93	02/16/93	02/16/93	02/16/93	02/19/93	02/19/93	02/19/93	01/01/93	01/01/93	01/01/93	02/22/93	02/22/93	02/22/93	02/22/93	02/24/93
Depth (ft bgs)			13-14	27-28	10-11	21-21	25-26	15-16	25-26	53-56	22-24	43-45	49-50	10-11	9-10	9-10	9-10	7-8
ANALYTE			mg/kg															
Total Petroleum Hydrocarbons	21,000	1,600	**110.0**	**171.0**	**73.70**	NA	NA	**548.00**	**6.30**	**6.20**	NA	NA	**6.00**	NA	**147.00**	NA	**145.00**	**299.00**
Chromium	-	-	**7.22**	<5	<5	<5	<5	**62.00**	<5	**17.10**	**5.83**	**16.60**	<5	NA	NA	**8.13**	**6.59**	**7.17**
Iron	-	-	**3090**	**1380**	**2670**	**9520**	**3540**	**22900**	**3740**	**15000**	**3040**	**12100**	**3540**	NA	NA	**8990**	**5030**	**4301**
Lead	-	-	<.10	<.10	<.10	<.10	<.10	**231**	<10	<10	**8.94**	**15.7**	**7.71**	NA	NA	<10	<10	<10
Manganese	-	-	**21.50**	**11.50**	**13.40**	**71.10**	**17.20**	**3580.00**	**53.40**	**150.00**	**17.00**	**493.00**	**35.10**	NA	NA	**381.00**	**101.00**	**20.80**
Selenium	-	-	<1	<1	<1	<1	**BDL**	<1	<1	<1	<1	<1	<1	NA	NA	<1	<1	**4.52**
Chloroform	26	16	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Trichloroethene	210	150	<0.625	<0.625	<0.625	<0.625	<0.625	**9.26**	**0.0106**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**0.00694**	<0.625	<0.625
Xylenes	13,000	13,000	**0.206**	**0.019**	<0.625	<0.625	<0.625	**6.630**	**0.0181**	<0.625	<0.625	<0.625	<0.625	**0.00776**	**0.443**	<0.625	**0.653**	<0.625
Carbon Disulfide	15,000	11,000	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Acetone	16,000	11,000	**0.389**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**0.148**	**0.166**	<0.625	**0.107**	<0.625
Methyl ethyl Ketone	160,000	110,000	**0.0789**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**0.0131**	**0.0305**	<0.625	**0.0159**	<0.625
Benzene	270	160	**0.132**	<0.625	<0.625	<0.625	<0.625	**8.270**	**0.0972**	<0.625	<0.625	<0.625	<0.625	**0.00966**	**0.0478**	<0.625	**0.0223**	<0.625
1,2-Dichloroethane	23	14	**0.147**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Tetrachloroethene	1,600	940	**0.030**	<0.625	<0.625	<0.625	<0.625	**35.800**	**0.00869**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Toluene	88,000	63,000	**0.265**	**0.0143**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Ethyl benzene	21,000	15,000	**1.460**	**0.119**	<0.625	<0.625	<0.625	<0.625	**0.020**	<0.625	<0.625	<0.625	<0.625	<0.625	**0.284**	<0.625	**0.285**	<0.625
4-Methyl-2-Pentanone	81,000	58,000	<0.625	**0.0387**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Methylene Chloride	1,300	760	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**0.00588**	<0.625
Phenanthrene	-	-	<0.660	<0.660	**0.223**	<0.660	<0.660	**204.000**	**0.431**	<0.660	<0.660	<0.660	<0.660	<0.660	**2.340**	<0.660	<0.660	<0.660
Fluoranthene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	**126.000**	**0.248**	<0.660	<0.660	<0.660	<0.660	<0.660	**6.480**	<0.660	<0.660	<0.660
Pyrene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	**79.100**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**6.310**	<0.660	<0.660	<0.660
Benzidine	0.11	0.063	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Benz (a) Anthracene	6,300	3,700	<0.660	<0.660	<0.660	<0.660	<0.660	**19.800**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**1.870**	<0.660	<0.660	<0.660
Benzo (b) Fluoranthene	10,000	6,100	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Benzo(k) Fluoranthene	260,000	150,000	<0.660	<0.660	<0.660	<0.660	<0.660	**10.900**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**2.060**	<0.660	<0.660	<0.660
Benzo (a) Pyrene	1,400	850	<0.660	<0.660	<0.660	<0.660	<0.660	**6.460**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Chrysene	990,000	590,000	<0.660	<0.660	<0.660	<0.660	<0.660	**22.500**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Naphthalene	370	270	**12.100**	**76.100**	<0.660	<0.660	<0.660	**168.000**	**0.568**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**2.190**	<0.660
Acenaphthene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	**103.000**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
2-Methylnaphthalene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	**29.200**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Dibenzofuran	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	**61.800**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Fluorene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	**79.600**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Anthracene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	**42.600**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Phenol	4,700	3,400	<0.660	<0.660	<0.660	<0.660	<0.660	**27.700**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
2-Methylphenol	4,000	2,800	<0.660	<0.660	<0.660	<0.660	<0.660	**63.900**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
4-Methylphenol	4,000	2,800	<0.660	<0.660	<0.660	<0.660	<0.660	**121.000**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
2,4-Dimethylphenol	7,100	5,000	<0.660	<0.660	<0.660	<0.660	<0.660	**102.000**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Indeno(1,2,3-CD) Pyrene	42,000	25,000	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Benzo (g,h,i) Perylene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Bis (2-ethylhexyl) Phthalate	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**2.820**	<0.660	**15.800**	<0.660

Notes:

[1]TRRP $^{Air}Soil_{Inh-V}$ for Commercial/Industrial, 0.5-acre source.

[2]TRRP RAL, Class 1 groundwater, 0.5 acre source.

<0.002 = ND = Analyzed, not detected at the quantitation limit.

NA - Not Available

Value Exceeds the Non-Ingestion PCL

Value Exceeds the RAL without an MSD denoted in box

Values in Bold were detected

TABLE 1
SUMMARY OF SUBSURFACE SOIL ANALYTICAL RESULTS

SAMPLE I.D.:	$^{Air}Soil_{Inh-V}$ [1]	RAL [1]	OMW-1	OMW-2	OMW-2	OMW-3	DW-1	DW-1	DW-1	DW-2	DW-3	DW-4	DW-5	DW-6	DDW-1	DDW-1	RA-1	RA-2
DATE SAMPLED:			02/24/93	02/24/93	02/24/93	06/09/93	02/15/93	02/15/93	02/15/93	06/07/93	06/09/93	06/04/93	06/03/93	01/01/95	05/31/95	05/31/95	01/01/95	01/01/95
Depth (ft bgs)			16-17	9-10	19-20	17-18	33-34	46-47	71-72	78-79	87.5-88.5	85-86	83-84	75-76	86-88	128-129	12-14	10-12
ANALYTE																		
Total Petroleum Hydrocarbons	21,000	1,600	**22.70**	**239.00**	**74.40**	NA	**848**	**8.70**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	-	-	**15.10**	**41.60**	**5.17**	<5	<5	**23.40**	<5	**13.4**	**35.50**	**8.91**	**23.80**	NA	NA	NA	**17.10**	<5
Iron	-	-	**21300**	**15500**	**2705**	**1300**	**1070**	**18100**	**4420**	**6240**	**21800**	**775**	**34000**	NA	NA	NA	NA	NA
Lead	-	-	<10	**176**	<10	**10.00**	<10	<10	<10	**10.7**	**12.40**	**10.1**	**19.9**	NA	NA	NA	**5.58**	<10
Manganese	-	-	**589.00**	**135.00**	**32.70**	**28.00**	**12.00**	**652.00**	**25.60**	**32.7**	**150.00**	**29.1**	**216.00**	NA	NA	NA	NA	NA
Selenium	-	-	<1	<1	<1	<1	<1	**2.42**	**1.72**	<1	<1	<1	<1	NA	NA	NA	<1	<1
Chloroform	26	16	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Trichloroethene	210	150	<0.625	<0.625	<0.625	<0.625	**186.00**	<0.625	**11.00**	<0.625	<0.625	<0.625	<0.625	**1.170**	<0.625	<0.625	<0.625	<0.625
Xylenes	13,000	13,000	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**0.00613**	<0.625	<0.625	<0.625	**0.0927**	**69.700**
Carbon Disulfide	15,000	11,000	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Acetone	16,000	11,000	**0.234**	**0.174**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**361.000**
Methyl ethyl Ketone	160,000	110,000	<0.625	**0.0517**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**361.000**
Benzene	270	160	<0.625	<0.625	<0.625	<0.625	**256.000**	<0.625	**4.230**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**0.449**	<0.625
1,2-Dichloroethane	23	14	<0.625	<0.625	<0.625	<0.625	181.000	**1.860**	**3.900**	<0.625	<0.625	<0.625	<0.625	**0.850**	<0.625	<0.625	<0.625	<0.625
Tetrachloroethene	1,600	940	<0.625	<0.625	<0.625	<0.625	5020.000	<0.625	<0.625	<0.625	**0.0228**	<0.625	<0.625	**2.300**	**0.0907**	<0.625	<0.625	<0.625
Toluene	88,000	63,000	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Ethyl benzene	21,000	15,000	**0.0139**	<0.625	<0.625	<0.625	**277.000**	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**0.0858**	**78.700**
4-Methyl-2-Pentanone	81,000	58,000	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	**72.220**
Methylene Chloride	1,300	760	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625	<0.625
Phenanthrene	-	-	<0.660	<0.660	<0.660	<0.660	**357.000**	**0.991**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**157.000**
Fluoranthene	-	-	<0.660	<0.660	<0.660	<0.660	**174.000**	**0.374**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**776.000**
Pyrene	-	-	<0.660	<0.660	<0.660	<0.660	**112.000**	**0.233**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**589.000**
Benzidine	0.11	0.063	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	381.000
Benz (a) Anthracene	6,300	3,700	<0.660	<0.660	<0.660	<0.660	**39.900**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**128.000**
Benzo (b) Fluoranthene	10,000	6,100	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**86.800**
Benzo(k) Fluoranthene	260,000	150,000	<0.660	<0.660	<0.660	<0.660	**26.600**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Benzo (a) Pyrene	1,400	850	<0.660	<0.660	<0.660	<0.660	**463.000**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Chrysene	990,000	590,000	<0.660	<0.660	<0.660	<0.660	**129.000**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**130.000**
Naphthalene	370	270	<0.660	<0.660	<0.660	<0.660	**121.000**	**2.110**	**0.225**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**116.000**
Acenaphthene	-	-	<0.660	<0.660	<0.660	<0.660	**91.800**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**616.000**
2-Methylnaphthalene	-	-	<0.660	<0.660	<0.660	<0.660	**129.000**	**0.240**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**397.000**
Dibenzofuran	-	-	<0.660	<0.660	<0.660	<0.660	**106.000**	**0.234**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**330.000**
Fluorene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	**0.416**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**409.000**
Anthracene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	**2.030**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	**157.000**
Phenol	4,700	3,400	<0.660	<0.660	<0.660	<0.660	<0.660	**0.243**	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
2-Methylphenol	4,000	2,800	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
4-Methylphenol	4,000	2,800	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
2,4-Dimethylphenol	7,100	5,000	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Indeno(1,2,3-CD) Pyrene	42,000	25,000	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Benzo (g,h,i) Perylene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660
Bis (2-ethylhexyl) Phthalate	-	-	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660

Notes:

[1]TRRP $^{Air}Soil_{Inh-V}$ for Commercial/Industrial, 0.5-acre source.

[2]TRRP RAL, Class 1 groundwater, 0.5 acre source.

<0.002 = ND = Analyzed, not detected at the quantitation limit.

NA - Not Available

Value Exceeds the Non-Ingestion PCL

Value Exceeds the RAL without an MSD denoted in box

Values in Bold were detected

TABLE 1
SUMMARY OF SUBSURFACE SOIL ANALYTICAL RESULTS

SAMPLE I.D.:	$^{Air}Soil_{Inh-V}$ [1]	**RAL** [1]	RA-3	RA-4	RA-5	RA-6	RA-7
DATE SAMPLED:			01/01/95	01/01/95	01/01/95	01/01/95	01/01/95
Depth (ft bgs)			10-12	11-13	13-15	11-13	10-12
ANALYTE							
Total Petroleum Hydrocarbons	21,000	1,600	NA	NA	NA	NA	NA
Chromium	-	-	<5	<5	**10.50**	<5	**6.52**
Iron	-	-	NA	NA	NA	NA	NA
Lead	-	-	<10	<10	<10	<10	<10
Manganese	-	-	NA	NA	NA	NA	NA
Selenium	-	-	<1	<1	<1	<1	<1
Chloroform	26	16	<0.625	<0.625	<0.625	<0.625	<0.625
Trichloroethene	210	150	359.000	**3.45**	<0.625	**0.0566**	**0.00834**
Xylenes	13,000	13,000	**125.000**	**6.810**	**1.570**	**0.010**	<0.625
Carbon Disulfide	15,000	11,000	<0.625	<0.625	<0.625	<0.625	<0.625
Acetone	16,000	11,000	**822.000**	**30.900**	<0.625	<0.625	<0.625
Methyl ethyl Ketone	160,000	110,000	**822.000**	**30.900**	<0.625	<0.625	<0.625
Benzene	270	160	**156.000**	**27.20**	**2.550**	**0.0722**	**0.0102**
1,2-Dichloroethane	23	14	819.000	<0.625	<0.625	**0.0103**	**0.021**
Tetrachloroethene	1,600	940	**103.000**	**10.600**	<0.625	**0.176**	**0.0263**
Toluene	88,000	63,000	94.900	**7.610**	<0.625	**0.00981**	<0.625
Ethyl benzene	21,000	15,000	**428.000**	**4.080**	**1.870**	**0.0377**	<0.625
4-Methyl-2-Pentanone	81,000	58,000	**164.000**	<0.625	<0.625	<0.625	<0.625
Methylene Chloride	1,300	760	<0.625	<0.625	<0.625	<0.625	<0.625
Phenanthrene	-	-	**463.000**	**2.990**	**220.000**	<0.660	<0.660
Fluoranthene	-	-	**205.000**	**1.270**	<0.660	<0.660	<0.660
Pyrene	-	-	**170.000**	**1.050**	**82.300**	<0.660	<0.660
Benzidine	0.11	0.063	<0.660	<0.660	<0.660	<0.660	<0.660
Benz (a) Anthracene	6,300	3,700	**47.300**	<0.660	**1.440**	<0.660	<0.660
Benzo (b) Fluoranthene	10,000	6,100	**44.800**	<0.660	**12.600**	<0.660	<0.660
Benzo(k) Fluoranthene	260,000	150,000	<0.660	<0.660	<0.660	<0.660	<0.660
Benzo (a) Pyrene	1,400	850	<0.660	<0.660	**5.650**	<0.660	<0.660
Chrysene	990,000	590,000	**51.600**	<0.660	**18.800**	<0.660	<0.660
Naphthalene	370	270	567.000	**3.050**	**117.000**	<0.660	<0.660
Acenaphthene	-	-	**152.000**	**0.970**	**87.100**	<0.660	<0.660
2-Methylnaphthalene	-	-	**96.500**	**1.720**	**37.800**	<0.660	<0.660
Dibenzofuran	-	-	**108.000**	**0.700**	**55.400**	<0.660	<0.660
Fluorene	-	-	**141.000**	**0.962**	**72.000**	<0.660	<0.660
Anthracene	-	-	**148.000**	**0.598**	**3.810**	<0.660	<0.660
Phenol	4,700	3,400	<0.660	<0.660	<0.660	<0.660	<0.660
2-Methylphenol	4,000	2,800	<0.660	**0.518**	<0.660	<0.660	<0.660
4-Methylphenol	4,000	2,800	<0.660	**0.878**	<0.660	<0.660	<0.660
2,4-Dimethylphenol	7,100	5,000	<0.660	<0.660	<0.660	<0.660	<0.660
Indeno(1,2,3-CD) Pyrene	42,000	25,000	<0.660	<0.660	<0.660	<0.660	<0.660
Benzo (g,h,i) Perylene	-	-	<0.660	<0.660	<0.660	<0.660	<0.660
Bis (2-ethylhexyl) Phthalate	-	-	<0.660	<0.660	<0.660	<0.660	**0.226**

Notes:
[1]TRRP $^{Air}Soil_{Inh-V}$ for Commercial/Industrial, 0.5-acre source.
[2]TRRP RAL, Class 1 groundwater, 0.5 acre source.
<0.002 = ND = Analyzed, not detected at the quantitation limit.
NA - Not Available
Value Exceeds the Non-Ingestion PCL
Value Exceeds the RAL without an MSD denoted in box
Values in Bold were detected

TABLE 2
SUMMARY OF ANALYTICAL RESULTS

UPPER TRANSMISSIVE ZONE

SAMPLE I.D.:	C/I	C/I	RAL [3]	MW-01A			MW-02				MW-03		MW-04		MW-05			
DATE SAMPLED:	$^{GW}GW_{Ing}$ [1]	$^{Air}GW_{Inh-V}$ [2]		05/07/09	11/10/09	05/12/10	05/24/07	05/06/09	11/11/09	05/13/10	05/05/09	05/11/10	05/05/09	05/11/10	05/23/07	11/28/07	05/05/09	05/11/10
SCREEN INTERVAL				15-25	15-25	15-25	12-27	12-27	12-27	12-27	14-29	14-29	14-29	14-29	18-28	18-28	18-28	18-28
ANALYTE				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	0.005	300	0.005	<0.0002	<0.0002	<0.002	**4.4**	**6.93**	**8.83**	**5.00**	<0.0002	<0.002	<0.0002	<0.002	**11**	**4.25 D**	**0.113**	<0.002
Chloroethane	29	160,000	9.8	<0.0003	<0.0003	<0.005	**0.15**	**0.092**	<0.0260	<0.008	<0.0003	<0.005	<0.0003	<0.005	**0.0276**	**0.0092**	**0.028**	<0.005
Chloroform	0.73	33	0.24	<0.0003	<0.0003	<0.002	<0.150	<0.0110	<0.022	<0.008	<0.0002	<0.002	<0.0002	<0.002	<0.0010	<0.00024	<0.0004	<0.002
1,1-Dichloroethane	15	10,000	1.1	<0.0003	<0.0003	<0.002	<0.150	<0.0130	<0.0260	<0.008	<0.0003	<0.002	<0.0003	<0.002	<0.0010	<0.00023	<0.0005	<0.002
1,2-Dichloroethane	0.005	55	0.005	<0.0003	<0.0003	<0.001	**0.3**	<0.0150	<0.0300	<0.005	<0.0003	<0.001	<0.0003	<0.001	**0.0014**	<0.00022	<0.0006	<0.001
1,1-Dichloroethene	0.007	2,300	0.007	<0.0003	<0.0003	<0.002	--	<0.0170	<0.0340	<0.008	<0.0003	<0.002	<0.0003	<0.002	--	--	<0.0007	<0.002
Cis-1,2-Dichloroethene	0.07	23,000	0.07	<0.0002	<0.0002	<0.001	<0.150	<0.0115	<0.0230	<0.005	<0.0002	<0.001	<0.0004	<0.001	<0.0010	<0.00028	<0.0005	<0.001
Trans-1,2-Dichloroethene	0.1	1,100	0.1	<0.0004	<0.0004	<0.002	--	<0.0180	<0.0360	<0.008	<0.0004	<0.002	<0.0002	<0.002	--	--	<0.0007	<0.002
1,2-Dichloropropane	0.005	16	0.005	<0.0002	<0.0002	<0.002	--	<0.0120	<0.0240	<0.008	<0.0002	<0.002	<0.0003	<0.002	--	--	<0.0005	<0.002
Ethyl benzene	0.7	22,000	0.7	<0.0003	<0.0003	<0.002	<0.150	**0.13**	**0.134**	<0.008	<0.0003	<0.002	<0.0003	<0.002	**0.0352**	**0.0123**	<0.0007	<0.002
Tetrachloroethene	0.005	840	0.005	<0.0008	<0.0008	<0.002	<0.150	<0.0375	<0.0750	<0.008	<0.0008	<0.002	<0.0008	<0.002	<0.0010	<0.00019	<0.0015	<0.002
Toluene	1	89,000	1	<0.0002	<0.0002	<0.002	<0.150	**0.085**	<0.0220	<0.008	<0.0002	<0.002	<0.0002	<0.002	**0.0074**	**0.0028**	<0.0004	<0.002
Trichloroethene	0.005	170	0.005	<0.0003	<0.0003	<0.002	<0.150	<0.0150	<0.0300	<0.008	<0.0003	<0.002	<0.0003	<0.002	<0.0010	<0.00017	<0.0006	<0.002
Vinyl chloride	0.002	6.4	0.002	<0.0003	<0.0003	<0.002	<0.150	<0.0145	<0.0290	<0.008	<0.0003	<0.002	<0.0003	<0.002	<0.0010	<0.00013	<0.0006	<0.002
m-&p-Xylene	10	14,000	10	<0.0008	<0.0008	<0.003	<0.300	<0.0740	<0.0750	<0.008	<0.0008	<0.003	<0.0008	<0.003	**0.0745**	**0.0196**	**0.0036 J**	<0.003
o-Xylene	10	14,000	10	<0.0004	<0.0004	<0.002	<0.150	<0.0180	<0.0360	<0.008	<0.0004	<0.002	<0.0004	<0.002	**0.0206**	**0.0058**	<0.0007	<0.002
Acenaphthene	1.5	--	1.5	<0.0019	<0.0019	<0.005	<0.010	**0.013**	**0.017**	<0.008	<0.0019	<0.005	<0.0019	<0.005	<0.010	<0.00185	<0.0019	<0.005
Anthracene	7.3	--	7.3	<0.0019	<0.0019	<0.005	<0.010	<0.0019	<0.0019	<0.008	<0.0019	<0.005	<0.0019	<0.005	<0.010	<0.0019	<0.0019	<0.005
Benzo(a)anthracene	0.0013	3,400	0.0013	<0.0024	<0.0024	<0.004	<0.010	<0.0024	<0.0024	<0.008	<0.0024	<0.004	<0.0024	<0.004	<0.010	<0.00242	<0.0024	<0.004
Benzo(a)pyrene	0.0002	650	0.0002	<0.0012	<0.0012	<0.004	<0.010	<0.0012	<0.0012	<0.008	<0.0012	<0.004	<0.0012	<0.004	<0.010	<0.0012	<0.0012	<0.004
Benzo(b)fluoranthene	0.0013	2,700	0.0013	<0.0014	<0.0014	<0.004	<0.010	<0.0014	<0.0014	<0.008	<0.0014	<0.004	<0.0014	<0.004	<0.010	<0.00135	<0.0014	<0.004
Benzo(g,h,i)perylene	0.73	--	0.73	<0.0020	<0.0020	<0.005	<0.010	<0.0020	<0.0020	<0.008	<0.0020	<0.005	<0.0020	<0.005	<0.010	<0.0020	<0.0020	<0.005
Benzo(k)fluoranthene	0.013	160,000	0.013	<0.0033	<0.0033	<0.003	<0.010	<0.0033	<0.0033	<0.008	<0.0033	<0.003	<0.0033	<0.003	<0.010	<0.00326	<0.0033	<0.003
Bis(2-ethylhexyl)phthalate	0.006	--	0.006	<0.0021	<0.0021	<0.008	**0.0102**	<0.0021	<0.0021	<0.008	**0.0035 J**	<0.008	**0.0028 J**	<0.008	<0.010	<0.00205	**0.0032 J**	<0.008
Chrysene	0.13	980,000	0.13	<0.0017	<0.0017	<0.002	<0.010	<0.0017	<0.0017	<0.008	<0.0017	<0.002	<0.0017	<0.002	<0.010	<0.00173	<0.0017	<0.002
Dibenzofuran	0.098	--	0.098	<0.0015	<0.0015	<0.003	<0.010	**0.0070**	**0.0083**	<0.008	<0.0015	<0.003	<0.0015	<0.003	<0.010	<0.00153	<0.0015	<0.003
2,4-Dimethylphenol	0.49	230,000	0.49	<0.0026	<0.0026	<0.006	**0.893**	**0.993**	**1.62**	<0.008	<0.0026	<0.006	<0.0026	<0.006	<0.010	<0.00255	<0.0026	<0.006
Fluoranthene	0.98	--	0.98	<0.0016	<0.0016	<0.004	<0.010	**0.0031 J**	**0.0025 J**	<0.004	<0.0016	<0.004	<0.0016	<0.004	<0.010	**0.00241**	<0.0016	<0.004
Fluorene	0.98	--	0.98	<0.0018	<0.0018	<0.006	<0.010	**0.0048 J**	**0.0064**	**0.014**	<0.0018	<0.006	<0.0018	<0.006	<0.010	<0.00177	<0.0018	<0.006
Indeno(1,2,3-c,d)pyrene	0.0013	16,000	0.0013	<0.0015	<0.0015	<0.005	<0.010	<0.0015	<0.0015	<0.005	<0.0015	<0.005	<0.0015	<0.005	<0.010	<0.00152	<0.0015	<0.005
2-Methylnaphthalene	0.29	--	0.098	<0.0023	<0.0023	<0.004	<0.010	**0.02**	**0.02**	**0.035**	<0.0023	<0.004	<0.0023	<0.004	<0.010	<0.00233	<0.0023	<0.004
2-Methylphenol	1.2	140,000	1.2	<0.0021	<0.0021	<0.005	**0.0741**	**0.00064 J**	**0.0064 J**	<0.005	<0.0021	<0.005	<0.0021	<0.005	<0.010	<0.0021	<0.0021	<0.005
4-Methylphenol	0.37	170,000	0.12	<0.0030	<0.0030	<0.005	**1.22**	**0.003**	<0.0030	<0.005	<0.0030	<0.005	<0.0030	<0.005	<0.003	<0.00302	<0.0030	<0.005
Naphthalene	1.5	440	0.49	<0.0018	<0.0018	<0.004	**0.022**	**0.204**	**0.204**	**0.419**	<0.0018	<0.004	<0.0018	<0.004	<0.010	<0.00184	<0.0018	<0.004
Phenanthrene	2.2	--	0.73	<0.0016	<0.0016	<0.003	<0.010	**0.0089**	**0.0089**	**0.025**	<0.0016	<0.003	<0.0016	<0.003	<0.010	<0.00159	<0.0016	<0.003
Phenol	22	390,000	7.3	<0.0020	<0.0020	<0.003	**0.057**	0.002	<0.0020	<0.003	<0.0020	<0.003	<0.0020	<0.003	**0.0235**	**0.00335 J**	<0.0020	<0.003
Pyrene	2.2	--	0.73	<0.0016	<0.0016	<0.006	<0.010	0.0016	<0.0016	<0.006	<0.0016	<0.006	<0.0016	<0.006	<0.010	**0.00198**	<0.0016	<0.006

Notes:

[1]Texas Risk Reduction Program (TRRP) $^{GW}GW_{Ing}$ for Commercial/Industrial, Class 1, Groundwater.

[2]TRRP $^{Air}GW_{Inh-V}$ for Commercial/Industrial, 0.5 acre source.

[3]TRRP $^{GW}GW_{Ing}$ for Residential, Class 1 groundwater, 0.5 acre source (RAL).

--- Not analyzed.

<0.002 = ND = Analyzed, but not detected at the quantitation limit shown.

NA - Not Available

Value Exceeds the Non-Ingestion MSC

Value Exceeds the Ingestion MSC

Values that are Bold Boxed exceed the Residential Assessment Level

Values in Bold were detected

TABLE 2
SUMMARY OF ANALYTICAL RESULTS

UPPER TRANSMISSIVE ZONE

SAMPLE I.D.:	C/I	C/I	RAL [3]	MW-06			MW-07			MW-08		MW-09		MW-10				
DATE SAMPLED:	$^{GW}GW_{Ing}$ [1]	$^{Air}GW_{Inh-V}$ [2]		05/23/07	05/05/09	05/11/10	05/23/07	05/07/09	05/11/10	05/07/09	05/11/10	05/07/09	05/11/10	05/23/07	05/07/09	11/11/09	05/12/10	05/24/07
SCREEN INTERVAL				8-23	8-23	8-23	5-20	5-20	5-20	5-20	5-20	13-28	13-28	10-25	10-25	10-25	10-25	37.5-47.5
ANALYTE				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	0.005	300	0.005	<0.001	<0.0002	<0.002	<0.001	<0.0002	<0.002	<0.0002	<0.002	<0.0002	<0.002	**0.00276**	<0.0002	<0.0002	<0.002	<0.001
Chloroethane	29	160,000	9.8	<0.001	<0.0003	<0.005	<0.001	<0.0003	<0.005	<0.0003	<0.005	<0.0003	<0.005	<0.001	<0.0003	<0.0003	<0.005	<0.001
Chloroform	0.73	33	0.24	<0.001	<0.0002	<0.002	<0.001	<0.0002	<0.002	<0.0002	<0.002	<0.0002	<0.002	<0.001	<0.0002	<0.0002	<0.002	<0.001
1,1-Dichloroethane	15	10,000	1.1	<0.001	<0.0003	<0.002	<0.001	<0.0003	<0.002	<0.0003	<0.002	<0.0003	<0.002	<0.001	<0.0003	<0.0003	<0.002	<0.001
1,2-Dichloroethane	0.005	55	0.005	**0.00632**	<0.0003	<0.001	<0.001	<0.0003	<0.001	<0.0003	<0.001	<0.0003	<0.001	**0.00186**	<0.0003	<0.0003	<0.001	**0.00235**
1,1-Dichloroethene	0.007	2,300	0.007	--	<0.0003	<0.002	--	<0.0003	<0.002	<0.0003	<0.002	<0.0003	<0.002	--	<0.0003	<0.0003	<0.002	--
Cis-1,2-Dichloroethene	0.07	23,000	0.07	**0.00544**	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.0002	<0.001	<0.0002	<0.001	**0.00649**	<0.0002	<0.0002	<0.001	**0.00722**
Trans-1,2-Dichloroethene	0.1	1,100	0.1	--	<0.0004	<0.002	--	<0.0004	<0.002	<0.0004	<0.002	<0.0004	<0.002	--	<0.0004	<0.0004	<0.002	--
1,2-Dichloropropane	0.005	16	0.005	--	<0.0002	<0.002	--	<0.0002	<0.002	<0.0002	<0.002	<0.0002	<0.002	--	<0.0002	<0.0002	<0.002	--
Ethyl benzene	0.7	22,000	0.7	<0.001	<0.0003	<0.002	<0.001	<0.0003	<0.002	<0.0003	<0.002	<0.0003	<0.002	<0.001	<0.0003	<0.0003	<0.002	<0.001
Tetrachloroethene	0.005	840	0.005	<0.001	<0.0008	<0.002	<0.001	<0.0008	<0.002	<0.0008	<0.002	<0.0008	<0.002	<0.001	**0.021**	<0.0008	<0.002	**0.0588**
Toluene	1	89,000	1	<0.001	<0.0002	<0.002	<0.001	<0.0002	<0.002	<0.0002	<0.002	<0.0002	<0.002	<0.001	<0.0002	<0.0002	<0.002	<0.001
Trichloroethene	0.005	170	0.005	**0.0156**	<0.0003	<0.002	<0.001	<0.0003	<0.002	<0.0003	<0.002	<0.0003	<0.002	<0.001	<0.0003	<0.0003	<0.002	**0.00201**
Vinyl chloride	0.002	6.4	0.002	<0.001	<0.0003	<0.002	<0.001	<0.0003	<0.002	<0.0003	<0.002	<0.0003	<0.002	**0.0146**	<0.0003	<0.0003	<0.002	<0.001
m-&p-Xylene	10	14,000	10	<0.002	<0.0008	<0.003	<0.002	<0.0008	<0.003	<0.0008	<0.003	<0.0008	<0.003	<0.002	<0.0008	<0.0008	<0.003	<0.002
o-Xylene	10	14,000	10	<0.001	<0.0004	<0.002	<0.001	<0.0004	<0.002	<0.0004	<0.002	<0.0004	<0.002	<0.001	<0.0004	<0.0004	<0.002	<0.001
Acenaphthene	1.5	--	1.5	<0.010	<0.0019	<0.005	**0.00356 J**	**0.006**	<0.005	<0.0019	<0.005	<0.0019	<0.005	<0.010	**0.017**	<0.0019	<0.005	<0.010
Anthracene	7.3	--	7.3	<0.010	<0.0019	<0.005	<0.0019	<0.0019	<0.005	<0.0019	<0.005	<0.0019	<0.005	<0.010	**0.0096**	<0.0019	<0.005	<0.010
Benzo(a)anthracene	0.0013	3,400	0.0013	<0.010	<0.0024	<0.004	<0.00242	<0.0024	<0.004	<0.0024	<0.004	<0.0024	<0.004	<0.010	**0.0038 J**	<0.0024	<0.004	<0.010
Benzo(a)pyrene	0.0002	650	0.0002	<0.010	<0.0012	<0.004	<0.0012	<0.0012	<0.004	<0.0012	<0.004	<0.0012	<0.004	<0.010	<0.0012	<0.0012	<0.004	<0.010
Benzo(b)fluoranthene	0.0013	2,700	0.0013	<0.010	<0.0014	<0.004	<0.00135	<0.0014	<0.004	<0.0014	<0.004	<0.0014	<0.004	<0.010	**0.0026 J**	<0.0014	<0.004	<0.010
Benzo(g,h,i)perylene	0.73	--	0.73	<0.010	<0.0020	<0.005	<0.010	<0.0020	<0.005	<0.0020	<0.005	<0.0020	<0.005	<0.010	<0.0020	<0.0020	**<0.005**	<0.010
Benzo(k)fluoranthene	0.013	160,000	0.013	<0.010	<0.0033	<0.003	<0.00326	<0.0033	<0.003	<0.0033	<0.003	<0.0033	<0.003	<0.010	<0.0033	<0.0033	<0.003	<0.010
Bis(2-ethylhexyl)phthalate	0.006	--	0.006	<0.010	**0.0031 J**	<0.008	<0.00205	<0.0021	<0.008	<0.0021	<0.008	<0.0021	<0.008	<0.010	**0.019**	<0.0021	<0.008	<0.010
Chrysene	0.13	980,000	0.13	<0.010	<0.0017	<0.002	<0.00173	<0.0017	<0.002	<0.0017	<0.002	<0.0017	<0.002	<0.010	**0.0048 J**	<0.0017	<0.002	<0.010
Dibenzofuran	0.098	--	0.098	<0.010	<0.0015	<0.003	<0.00153	<0.0015	<0.003	<0.0015	<0.003	<0.0015	<0.003	<0.010	**0.0089**	<0.0015	<0.003	<0.010
2,4-Dimethylphenol	0.49	230,000	0.49	<0.010	<0.0026	<0.006	<0.00255	<0.0026	<0.006	<0.0026	<0.006	<0.0026	<0.006	<0.010	<0.0026	<0.0026	<0.006	<0.010
Fluoranthene	0.98	--	0.98	<0.010	<0.0016	<0.004	<0.0016	<0.0016	<0.004	<0.0016	<0.004	<0.0016	<0.004	<0.010	**0.0190**	<0.0016	<0.004	<0.010
Fluorene	0.98	--	0.98	<0.010	<0.0018	<0.006	<0.00177	<0.0018	<0.006	<0.0018	<0.006	<0.0018	<0.006	<0.010	**0.0120**	<0.0018	<0.006	<0.010
Indeno(1,2,3-c,d)pyrene	0.0013	16,000	0.0013	<0.010	<0.0015	<0.005	<0.00152	<0.0015	<0.005	<0.0015	<0.005	<0.0015	<0.005	<0.010	<0.0015	<0.0015	<0.005	<0.010
2-Methylnaphthalene	0.29	--	0.098	<0.010	<0.0023	<0.004	<0.00233	<0.0023	<0.004	<0.0023	<0.004	<0.0023	<0.004	<0.010	**0.011**	<0.0023	<0.004	<0.010
2-Methylphenol	1.2	140,000	1.2	<0.010	<0.0021	<0.005	<0.0021	<0.0021	<0.005	<0.0021	<0.005	<0.0021	<0.005	<0.010	<0.0021	<0.0021	<0.005	<0.010
4-Methylphenol	0.37	170,000	0.12	<0.025	<0.0030	<0.005	<0.00302	<0.0030	<0.005	<0.0030	<0.005	<0.0030	<0.005	<0.025	<0.003	<0.0030	<0.005	<0.025
Naphthalene	1.5	440	0.49	<0.010	<0.0018	<0.004	<0.00184	<0.0018	<0.004	<0.0018	<0.004	<0.0018	<0.004	<0.010	**0.091**	<0.0018	<0.004	<0.010
Phenanthrene	2.2	--	0.73	<0.010	<0.0016	<0.003	<0.00159	<0.0016	<0.003	<0.0016	<0.003	<0.0016	<0.003	<0.010	**0.039**	<0.0016	<0.003	<0.010
Phenol	22	390,000	7.3	<0.010	<0.0020	<0.003	<0.00201	<0.0020	<0.003	<0.0020	<0.003	<0.0020	<0.003	<0.010	<0.002	<0.0020	<0.003	<0.010
Pyrene	2.2	--	0.73	<0.010	<0.0016	<0.006	<0.00161	<0.0016	<0.006	<0.0016	<0.006	<0.0016	<0.006	<0.010	**0.013**	<0.0016	<0.006	<0.010

Notes:

[1]Texas Risk Reduction Program (TRRP) $^{GW}GW_{Ing}$ for Commercial/Industrial,

[2]TRRP $^{Air}GW_{Inh-V}$ for Commercial/Industrial, 0.5 acre source.

[3]TRRP $^{GW}GW_{Ing}$ for Residential, Class 1 groundwater, 0.5 acre source (RAL

--- Not analyzed.

<0.002 = ND = Analyzed, but not detected at the quantitation limit shown.

NA - Not Available

Value Exceeds the Non-Ingestion MSC

Value Exceeds the Ingestion MSC

Values that are Bold Boxed exceed the Residential Assessment Level

Values in Bold were detected

TABLE 2
SUMMARY OF ANALYTICAL RESULTS

UPPER TRANSMISSIVE ZONE

SAMPLE I.D.:	C/I	C/I	RAL [3]	MW-11		MW-12				MW-14				MW-15S				
DATE SAMPLED:	$^{GW}GW_{Ing}$ [1]	$^{Air}GW_{Inh-V}$ [2]		05/07/09	05/13/10	05/23/07	05/06/09	11/11/09	05/13/10	05/23/07	05/06/09	11/11/09	05/13/10	05/24/07	05/07/09	11/10/09	05/11/10	05/06/09
SCREEN INTERVAL				37.5-47.5	37.5-47.5	47-57	47-57	47-57	47-57	NA	NA	NA	NA	25-45	25-45	25-45	25-45	36-46
ANALYTE				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	0.005	300	0.005	<0.0002	<0.002	**0.015**	<0.0002	<0.0002	<0.002	**4.5**	**0.0087**	**1.81**	**2.72**	<0.001	<0.0002	<0.0002	<0.002	<0.0002
Chloroethane	29	160,000	9.8	**0.0028**	<0.005	<0.001	<0.0003	<0.0003	<0.005	<0.400	**0.1090**	<0.0130	<0.050	<0.001	<0.0003	<0.0003	<0.005	<0.0003
Chloroform	0.73	33	0.24	<0.0002	<0.002	<0.001	<0.0002	<0.0002	<0.002	**1.1**	<0.0002	**0.6260**	**0.273**	<0.001	<0.0002	<0.0002	<0.002	<0.0002
1,1-Dichloroethane	15	10,000	1.1	<0.0003	**0.014**	**0.00548**	<0.0003	<0.0003	<0.002	**0.356 J**	**0.0014**	<0.0130	**0.297**	<0.001	<0.0003	<0.0003	<0.002	<0.0003
1,2-Dichloroethane	0.005	55	0.005	<0.0003	**0.015**	**0.00143**	<0.0003	<0.0003	<0.001	**3**	<0.0003	**1**	**0.250**	**0.00129**	<0.0003	<0.0003	<0.001	<0.0003
1,1-Dichloroethene	0.007	2,300	0.007	<0.0003	<0.002	--	<0.0003	<0.0003	<0.002	--	<0.0003	**0.132**	<0.015	--	<0.0003	<0.0003	<0.002	<0.0003
Cis-1,2-Dichloroethene	0.07	23,000	0.07	<0.0002	**0.005**	**0.0146**	<0.0002	**0.004**	<0.001	**11.1**	**0.0019**	**0.416**	**3.23**	<0.001	<0.0002	<0.0002	<0.001	<0.0002
Trans-1,2-Dichloroethene	0.1	1,100	0.1	<0.0004	<0.002	--	<0.0004	<0.0004	<0.002	--	<0.0004	<0.0180	**0.109**	--	<0.0004	<0.0004	<0.002	<0.0004
1,2-Dichloropropane	0.005	16	0.005	<0.0002	<0.002	--	<0.0002	<0.0002	<0.002	--	<0.0002	<0.0120	<0.015	--	<0.0002	<0.0002	<0.002	<0.0002
Ethyl benzene	0.7	22,000	0.7	<0.0003	<0.002	<0.001	<0.0003	<0.0003	<0.002	<0.400	**0.0011**	**0.062**	**0.110**	<0.001	<0.0003	<0.0003	<0.002	<0.0003
Tetrachloroethene	0.005	840	0.005	<0.0008	<0.002	<0.001	<0.0008	<0.0008	<0.002	**0.48**	<0.0008	<0.0380	**0.065**	<0.001	<0.0008	<0.0008	<0.002	<0.0008
Toluene	1	89,000	1	<0.0002	<0.002	<0.001	<0.0002	<0.0002	<0.002	**0.204 J**	<0.0002	**0.068**	**0.114**	<0.001	<0.0002	<0.0002	<0.002	<0.0002
Trichloroethene	0.005	170	0.005	<0.0003	<0.002	<0.001	<0.0003	<0.0003	<0.002	**0.360 J**	<0.0003	**0.145**	**0.484**	<0.001	<0.0003	<0.0003	<0.002	<0.0003
Vinyl chloride	0.002	6.4	0.002	<0.0003	<0.002	**0.146**	<0.0003	<0.0003	<0.002	**29**	**0.028**	<0.0150	**12.9**	<0.001	<0.0003	<0.0003	<0.002	<0.0003
m-&p-Xylene	10	14,000	10	<0.0008	<0.003	<0.002	<0.0008	<0.0008	<0.003	<0.800	<0.0008	<0.0380	<0.025	<0.002	<0.0008	<0.0008	<0.003	<0.0008
o-Xylene	10	14,000	10	<0.0004	<0.002	<0.004	<0.0004	<0.0004	<0.002	<0.400	<0.0004	<0.0180	<0.015	<0.001	<0.0004	<0.0004	<0.002	<0.0004
Acenaphthene	1.5	--	1.5	<0.0019	<0.005	<0.010	<0.0019	<0.0019	<0.005	**0.015**	<0.0019	**0.0057**	<0.005	<0.001	<0.0019	**0.048**	<0.005	<0.0019
Anthracene	7.3	--	7.3	<0.0019	<0.005	<0.010	<0.0019	<0.0019	<0.005	<0.010	<0.0019	<0.0019	<0.005	<0.010	<0.0019	**0.006**	<0.005	<0.0019
Benzo(a)anthracene	0.0013	3,400	0.0013	<0.0024	<0.004	<0.010	<0.0024	<0.0024	<0.004	<0.010	<0.0024	<0.0024	<0.004	<0.010	<0.0024	<0.0024	<0.004	<0.0024
Benzo(a)pyrene	0.0002	650	0.0002	<0.0012	<0.004	<0.010	<0.0012	<0.0012	<0.004	<0.010	<0.0012	<0.0012	<0.004	<0.010	<0.0012	<0.0012	<0.004	<0.0012
Benzo(b)fluoranthene	0.0013	2,700	0.0013	<0.0014	<0.004	<0.010	<0.0014	<0.0014	<0.004	<0.010	<0.0014	<0.0014	<0.004	<0.010	<0.0014	<0.0014	<0.004	<0.0014
Benzo(g,h,i)perylene	0.73	--	0.73	<0.0020	<0.005	<0.010	<0.0020	<0.0020	<0.005	<0.10	<0.0020	<0.0020	<0.005	<0.010	<0.0020	<0.0020	<0.005	<0.010
Benzo(k)fluoranthene	0.013	160,000	0.013	<0.0033	<0.003	<0.010	<0.0033	<0.0033	<0.003	<0.010	<0.0033	<0.0033	<0.003	<0.010	<0.0033	<0.0033	<0.003	<0.0033
Bis(2-ethylhexyl)phthalate	0.006	--	0.006	<0.0021	<0.008	<0.010	**0.0039 J**	<0.0021	<0.008	<0.010	<0.0021	<0.0021	<0.008	<0.010	<0.0021	**0.004 J**	<0.008	<0.0021
Chrysene	0.13	980,000	0.13	<0.0017	<0.002	<0.010	<0.0017	<0.0017	<0.002	<0.010	<0.0017	<0.0017	<0.002	<0.010	<0.0017	<0.0017	<0.002	<0.0017
Dibenzofuran	0.098	--	0.098	<0.0015	<0.003	<0.010	<0.0015	<0.0015	<0.003	<0.010	<0.0015	<0.0015	<0.003	<0.010	<0.0015	**0.025**	<0.003	<0.0015
2,4-Dimethylphenol	0.49	230,000	0.49	<0.0026	<0.006	<0.010	<0.0026	<0.0026	<0.006	<0.010	<0.0026	**0.0063**	**0.025**	<0.010	<0.0026	**0.013**	<0.006	<0.0026
Fluoranthene	0.98	--	0.98	<0.0016	<0.004	<0.010	<0.0016	<0.0016	<0.004	<0.010	<0.0016	<0.0016	<0.004	<0.010	<0.0016	**0.008**	<0.004	<0.0016
Fluorene	0.98	--	0.98	<0.0018	<0.006	<0.010	<0.0018	<0.0018	<0.006	<0.010	<0.0018	<0.0018	<0.006	<0.010	<0.0018	**0.028**	<0.006	<0.0018
Indeno(1,2,3-c,d)pyrene	0.0013	16,000	0.0013	<0.0015	<0.005	<0.010	<0.0015	<0.0015	<0.005	**0.0857**	<0.0015	<0.0015	<0.005	<0.010	<0.0015	<0.0015	<0.005	<0.0015
2-Methylnaphthalene	0.29	--	0.098	<0.0023	<0.004	<0.010	<0.0023	<0.0023	<0.002	<0.010	<0.0023	<0.0023	<0.004	<0.010	<0.0023	**0.034**	<0.004	<0.0023
2-Methylphenol	1.2	140,000	1.2	<0.0021	<0.005	<0.010	<0.0021	<0.0021	<0.005	<0.010	<0.0021	<0.0021	**0.014**	<0.010	<0.0021	<0.0021	<0.005	<0.0021
4-Methylphenol	0.37	170,000	0.12	<0.0030	<0.005	<0.025	<0.0030	<0.0030	<0.005	<0.025	<0.0030	<0.0030	<0.005	<0.025	<0.0030	<0.0030	<0.005	<0.0030
Naphthalene	1.5	440	0.49	<0.0018	<0.004	<0.010	<0.0018	**0.0071**	<0.004	<0.010	<0.0018	**0.053**	**0.064**	<0.010	<0.0018	**1.83**	<0.004	<0.0018
Phenanthrene	2.2	--	0.73	<0.0016	<0.003	<0.010	<0.0016	<0.0016	<0.003	<0.010	<0.0016	<0.0016	<0.003	<0.010	<0.0016	**0.047**	<0.003	<0.0016
Phenol	22	390,000	7.3	<0.0020	<0.003	<0.010	<0.0020	<0.0020	<0.003	<0.010	<0.0020	<0.0020	<0.003	<0.010	<0.0020	<0.0020	<0.003	<0.0020
Pyrene	2.2	--	0.73	<0.0016	<0.006	<0.010	<0.0016	<0.0016	<0.006	<0.010	<0.0016	<0.0016	<0.006	<0.010	<0.0016	**0.0046 J**	<0.006	<0.0016

Notes:

[1]Texas Risk Reduction Program (TRRP) $^{GW}GW_{Ing}$ for Commercial/Industrial,

[2]TRRP $^{Air}GW_{Inh-V}$ for Commercial/Industrial, 0.5 acre source.

[3]TRRP $^{GW}GW_{Ing}$ for Residential, Class 1 groundwater, 0.5 acre source (RAL

--- Not analyzed.

<0.002 = ND = Analyzed, but not detected at the quantitation limit shown.

NA - Not Available

Value Exceeds the Non-Ingestion MSC

Value Exceeds the Ingestion MSC

Values that are Bold Boxed exceed the Residential Assessment Level

Values in Bold were detected

TABLE 2
SUMMARY OF ANALYTICAL RESULTS

UPPER TRANSMISSIVE ZONE

SAMPLE I.D.:	C/I $^{GW}GW_{Ing}$ [1]	C/I $^{Air}GW_{Inh-V}$ [2]	RAL [3]	MW-16		MW-17S				RW-01		
DATE SAMPLED:				11/10/09	05/11/10	05/24/07	05/06/09	11/10/09	05/12/10	05/24/07	05/06/09	11/11/09
SCREEN INTERVAL				36-46	36-46	29-49	29-49	29/49	29/49	8-23	8-23	8-23
ANALYTE				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	0.005	300	0.005	<0.0002	<0.002	<0.100	**4.36**	**4.24**	**3.18**	**4.3**	**8.75**	**2.84**
Chloroethane	29	160,000	9.8	<0.0003	<0.005	**0.22**	<0.1300	<0.0260	<0.005	<1.000	<0.0260	<0.0003
Chloroform	0.73	33	0.24	<0.0002	<0.002	<0.100	<0.11	<0.022	<0.002	<1.000	<0.22	<0.0002
1,1-Dichloroethane	15	10,000	1.1	<0.0003	<0.002	**0.15**	<0.1300	**0.1210**	**0.06**	<1.000	<0.2600	<0.0003
1,2-Dichloroethane	0.005	55	0.005	<0.0003	<0.001	<0.100	**0.515**	**0.722**	**0.035**	**1**	<0.3000	**0.871**
1,1-Dichloroethene	0.007	2,300	0.007	<0.0003	<0.002	--	<0.1700	<0.0340	<0.002	--	<0.3400	<0.0003
Cis-1,2-Dichloroethene	0.07	23,000	0.07	<0.0002	<0.001	**0.54**	**0.294**	**9.56**	**1.02**	**76**	**85.3**	**34.5**
Trans-1,2-Dichloroethene	0.1	1,100	0.1	<0.0004	<0.002	--	<0.1800	<0.0360	**0.028**	--	<0.3600	**0.105**
1,2-Dichloropropane	0.005	16	0.005	<0.0002	<0.002	--	<0.1200	<0.0240	**0.009**	--	<0.2400	<0.0002
Ethyl benzene	0.7	22,000	0.7	<0.0003	<0.002	<0.100	<0.1700	**0.034 J**	**0.382**	<1.000	**1.6500**	**0.726**
Tetrachloroethene	0.005	840	0.005	<0.0008	<0.002	<0.100	**1.88**	**1.31**	**2.60**	<1.000	<0.7500	<0.0008
Toluene	1	89,000	1	<0.0002	<0.002	<0.100	<0.1100	**0.3410**	**0.269**	<1.000	<0.2200	**0.2700**
Trichloroethene	0.005	170	0.005	<0.0003	<0.002	<0.100	**4.77**	<0.5640	**0.450**	**1.2**	<0.3000	**0.764**
Vinyl chloride	0.002	6.4	0.002	<0.0003	<0.002	**7.1**	**9.22**	<0.0290	**3.32**	**98**	**147**	<0.0003
m-&p-Xylene	10	14,000	10	<0.0008	<0.003	<0.500	<0.3800	**0.104 J**	**0.086**	<5.000	<0.7500	<0.0008
o-Xylene	10	14,000	10	<0.0004	<0.002	<0.100	<0.1800	<0.0360	**0.049**	<1.000	<0.3600	<0.0004
Acenaphthene	1.5	--	1.5	<0.0019	<0.005	**0.0303**	**0.245**	**0.067**	**0.047**	**0.116**	**0.099**	**0.0048 J**
Anthracene	7.3	--	7.3	<0.0019	<0.005	**0.0204**	**0.184**	**0.029**	**0.031**	**0.0324**	**0.014**	**0.0063**
Benzo(a)anthracene	0.0013	3,400	0.0013	<0.0024	<0.004	**0.0139**	**0.074**	**0.0092**	<0.008	<0.010	**0.0049 J**	<0.0024
Benzo(a)pyrene	0.0002	650	0.0002	<0.0012	<0.004	**0.01**	**0.071**	**0.005**	<0.008	**0.0123**	**0.0031 J**	<0.0012
Benzo(b)fluoranthene	0.0013	2,700	0.0013	<0.0014	<0.004	**0.0156**	**0.0360**	**0.0036 J**	<0.008	**0.0232**	**0.0035 J**	<0.0014
Benzo(g,h,i)perylene	0.73	--	0.73	<0.0020	<0.005	<0.010	<0.0020	**0.0020 J**	<0.01	<0.010	<0.0020	<0.0020
Benzo(k)fluoranthene	0.013	160,000	0.013	<0.0033	<0.003	**0.0148**	**0.031**	**0.005**	<0.006	**0.0221**	<0.0033	<0.0033
Bis(2-ethylhexyl)phthalate	0.006	--	0.006	<0.0021	<0.008	**0.0462**	**0.023**	**0.014**	**0.032**	**0.0641**	**0.0530**	**0.0043 J**
Chrysene	0.13	980,000	0.13	<0.0017	<0.002	**0.0141**	**0.07**	<0.0017	<0.004	**0.0191**	**0.0053**	<0.0017
Dibenzofuran	0.098	--	0.098	<0.0015	<0.003	**0.0133**	**0.1670**	**0.0400**	**0.026**	**0.0679**	**0.059**	**0.025**
2,4-Dimethylphenol	0.49	230,000	0.49	<0.0026	<0.006	<0.010	<0.0026	<0.0026	<0.012	**0.0718**	**0.409**	**0.013**
Fluoranthene	0.98	--	0.98	<0.0016	<0.004	**0.0468**	**0.2630**	**0.0400**	**0.048**	**0.0888**	**0.029**	**0.0083**
Fluorene	0.98	--	0.98	<0.0018	<0.006	**0.0178**	**0.168**	**0.019**	**0.025**	**0.079**	**0.048**	**0.028**
Indeno(1,2,3-c,d)pyrene	0.0013	16,000	0.0013	<0.0015	<0.005	<0.010	<0.0015	<0.0015	<0.01	<0.010	<0.0015	<0.0015
2-Methylnaphthalene	0.29	--	0.098	<0.0023	<0.004	<0.010	**0.149**	**0.149**	**0.031**	**0.0798**	**0.12**	**0.034**
2-Methylphenol	1.2	140,000	1.2	<0.0021	<0.005	<0.010	<0.0021	**0.018**	<0.01	**0.173**	**0.239**	<0.0021
4-Methylphenol	0.37	170,000	0.12	<0.0030	<0.005	<0.025	<0.0030	**0.019**	<0.01	**0.14**	**0.173**	<0.0030
Naphthalene	1.5	440	0.49	<0.0018	<0.004	**0.0236**	**0.329**	**0.566**	**0.271**	**8.28**	**5.27**	**1.83**
Phenanthrene	2.2	--	0.73	<0.0016	<0.003	**0.0202**	**0.456**	**0.092**	**0.089**	**0.187**	**0.101**	**0.047**
Phenol	22	390,000	7.3	<0.0020	<0.003	<0.010	<0.0020	<0.0020	<0.006	**0.12**	**0.08**	<0.0020
Pyrene	2.2	--	0.73	<0.0016	<0.006	**0.0392**	**0.175**	**0.027**	**0.043**	**0.0577**	**0.018**	**0.0046 J**

Notes:

[1]Texas Risk Reduction Program (TRRP) $^{GW}GW_{Ing}$ for Commercial/Industrial,

[2]TRRP $^{Air}GW_{Inh-V}$ for Commercial/Industrial, 0.5 acre source.

[3]TRRP $^{GW}GW_{Ing}$ for Residential, Class 1 groundwater, 0.5 acre source (RAL

--- Not analyzed.

<0.002 = ND = Analyzed, but not detected at the quantitation limit shown.

NA - Not Available

Value Exceeds the Non-Ingestion MSC

Value Exceeds the Ingestion MSC

Values that are Bold Boxed exceed the Residential Assessment Level

Values in Bold were detected

TABLE 2
SUMMARY OF ANALYTICAL RESULTS

LOWER TRANSMISSIVE ZONE

SAMPLE I.D.:	C/I $^{GW}GW_{Ing}$ [1]	C/I $^{Air}GW_{Inh-V}$ [2]	RAL [3]	DW-01				DW-02				DW-3R				DW-04		DW-05		DW-06				MW-15D	
DATE SAMPLED:				05/24/07	11/28/07	05/06/09	05/13/10	05/23/07	05/07/09	11/11/09	05/12/10	05/24/07	11/28/07	05/06/09	05/13/10	05/07/09	05/11/10	05/07/09	05/11/10	05/23/07	05/06/09	11/11/09	05/13/10	05/07/09	11/10/09
SCREEN INTERVAL				65-75	65-75	65-75	65-75	52-62	52-62	52-62	52-62	65-85	65-85	65-85	65-85	70-85	70-85	62-77	62-77	69-79	69-79	69-79	69-79	64-84	64-84
ANALYTE				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	0.005	300	0.005	**1.450**	**1.420**	<0.12	**0.195**	**0.0102**	<0.0002	<0.0002	<0.002	**2.5**	**6.87**	**0.688**	**1.34**	<0.0002	<0.002	<0.0002	<0.002	<0.001	**0.272**	**0.0002 J**	<0.002	<0.0002	<0.0002
Chloroethane	29	160,000	9.8	<0.400	<0.038	<0.13	<0.005	<0.001	<0.0003	<0.0003	<0.005	<0.400	<0.076	**0.0057**	<0.050	<0.0003	<0.005	<0.0003	<0.005	**0.00296**	<0.0052	<0.0003	<0.005	<0.0003	<0.0003
Chloroform	0.73	33	0.24	<0.400	<0.400	<0.13	<0.002	**0.00335**	<0.0002	<0.0002	<0.002	<0.400	<0.096	<0.0002	<0.015	<0.0002	<0.002	<0.0002	<0.002	<0.001	<0.0002	<0.0002	<0.002	<0.0001	<0.0002
1,1-Dichloroethane	15	10,000	1.1	<0.400	<0.046	<0.13	**0.012**	**0.0230**	**0.011**	**0.017**	<0.002	<0.400	<0.092	<0.0003	<0.015	<0.0003	<0.002	<0.0003	<0.002	**0.00469**	<0.0052	<0.0003	<0.002	<0.0003	<0.0003
1,2-Dichloroethane	0.005	55	0.005	<0.400	<0.044	<0.15	<0.001	**0.00992**	**0.0012**	<0.0003	<0.001	<0.400	**3.16**	<0.0003	<0.01	<0.0003	<0.001	<0.0003	<0.001	**0.00458**	<0.0060	<0.0003	<0.001	<0.0003	<0.0003
1,1-Dichloroethene	0.007	2,300	0.007	--	--	<0.17	<0.002	--	<0.0003	<0.0003	<0.002	--	--	<0.034	<0.015	<0.0003	<0.002	<0.0003	<0.002	--	<0.0068	<0.0003	<0.002	<0.0003	<0.0003
Cis-1,2-Dichloroethene	0.07	23,000	0.07	**2.9**	**4.28**	**6.54**	**0.046**	**0.0291**	<0.0002	<0.0002	<0.001	**6.6**	**36.7**	**10.7**	**0.620**	<0.0002	<0.001	<0.0002	<0.001	**0.00772**	**0.478**	**0.001**	<0.001	<0.0002	<0.0002
Trans-1,2-Dichloroethene	0.1	1,100	0.1	--	--	<0.18	<0.002	--	<0.0004	<0.0004	<0.002	--	--	**0.084**	<0.015	<0.0004	<0.002	<0.0004	<0.002	--	<0.0072	<0.0004	<0.002	<0.0004	<0.0004
1,2-Dichloropropane	0.005	16	0.005	<0.400	<0.044	<0.12	<0.002	<0.001	<0.0002	<0.0002	<0.002	<0.400	<0.088	**0.0046**	<0.015	<0.0002	<0.002	<0.0002	<0.002	**0.00126**	<0.0048	<0.0002	<0.002	<0.0002	<0.0002
Ethyl benzene	0.7	22,000	0.7	<0.400	**0.584**	**0.565**	**0.136**	<0.001	<0.0003	<0.0003	<0.002	**0.62**	**1.18**	**1.02**	**2.23**	<0.0003	<0.002	<0.0003	<0.002	<0.001	<0.0068	<0.0003	<0.002	<0.0003	<0.0003
Tetrachloroethene	0.005	840	0.005	<0.400	<0.038	<0.38	<0.002	0.00121	<0.0008	<0.0008	<0.002	**2.1**	**5.82**	**0.0035**	**10.6**	<0.0008	<0.002	<0.0008	<0.002	**0.00168**	**0.044**	<0.0008	<0.002	<0.0008	<0.0008
Toluene	1	89,000	1	<0.400	<0.028	<0.11	**0.007**	<0.001	<0.0002	<0.0002	<0.002	**0.430**	**0.756**	**0.254**	**0.565**	<0.0002	<0.002	<0.0002	<0.002	<0.001	**0.023**	<0.0002	<0.002	<0.0002	<0.0002
Trichloroethene	0.005	170	0.005	<0.400	<0.034	<0.15	<0.002	0.00153	<0.0003	<0.0003	<0.002	**2.6**	**19.6**	**0.0047**	**4.72**	<0.0003	<0.002	<0.0003	<0.002	**0.0014**	<0.0060	<0.0003	<0.002	<0.0003	<0.0003
Vinyl chloride	0.002	6.4	0.002	**17**	**12.7**	**7.33**	**0.525**	0.04150	<0.0003	<0.0003	<0.002	**13**	**8.7**	**9.39**	**4.85**	<0.0003	<0.002	<0.0003	<0.002	**0.0169**	**0.858**	<0.0003	<0.002	<0.0003	<0.0003
m-&p-Xylene	10	14,000	10	--	--	<0.38	<0.003	--	<0.0008	<0.0008	<0.003	--	--	**0.128**	**0.28**	<0.0008	<0.003	<0.0008	<0.003	--	<0.0150	<0.0008	<0.003	<0.0008	<0.0008
o-Xylene	10	14,000	10	--	--	<0.18	**0.017**	--	<0.0004	<0.0004	<0.002	--	--	**0.12**	**0.15**	<0.0004	<0.002	<0.0004	<0.002	--	<0.0072	<0.0004	<0.002	<0.0004	<0.0004
Acenaphthene	1.5	--	1.5	**0.1380**	**0.0386**	**0.088**	**0.062**	<0.010	<0.0019	<0.0019	<0.005	**0.0460**	**0.0578**	**0.088**	**0.111**	<0.0019	<0.005	<0.0019	<0.005	<0.010	<0.0019	<0.0019	<0.005	<0.0019	<0.0019
Anthracene	7.3	--	7.3	**0.1940**	**0.0113**	**0.059**	**0.022**	<0.010	<0.0019	<0.0019	<0.005	<0.010	**0.0294**	**0.02**	**0.028**	<0.0019	<0.005	<0.0019	<0.005	<0.010	<0.0019	<0.0019	<0.005	<0.0019	<0.0019
Benzo(a)anthracene	0.0013	3,400	0.0013	**0.0603**	<0.00242	**0.022**	<0.004	<0.010	<0.0024	<0.0024	<0.004	<0.010	**0.01500**	<0.0024	<0.004	<0.0024	<0.004	<0.0024	<0.004	<0.010	<0.0024	<0.0024	<0.004	<0.0024	<0.0024
Benzo(a)pyrene	0.0002	650	0.0002	**0.0275**	<0.00120	<0.0012	<0.004	<0.010	<0.0012	<0.0012	<0.004	<0.010	**0.00665**	<0.0012	<0.004	<0.0012	<0.004	<0.0012	<0.004	<0.010	<0.0012	<0.0012	<0.004	<0.0012	<0.0012
Benzo(b)fluoranthene	0.0013	2,700	0.0013	**0.0485**	<0.00135	**0.01**	<0.004	<0.010	<0.0014	<0.0014	<0.004	<0.010	**0.00658**	<0.0014	<0.004	<0.0014	<0.004	<0.0014	<0.004	<0.010	<0.0014	<0.0014	<0.004	<0.0014	<0.0014
Benzo(g,h,i)perylene	0.73	--	0.73	0.0463	<0.00195	<0.0020	<0.005	<0.010	<0.0020	<0.0020	<0.005	<0.010	0.00284	<0.0020	<0.005	<0.0020	<0.005	<0.0020	<0.005	<0.010	<0.0020	<0.0020	<0.005	<0.0020	<0.0020
Benzo(k)fluoranthene	0.013	160,000	0.013	**0.0463**	<0.00326	0.009	<0.003	<0.010	<0.0033	<0.0033	<0.003	<0.010	0.00542	<0.0033	<0.003	<0.0033	<0.003	<0.0033	<0.003	<0.010	<0.0033	<0.0033	<0.003	<0.0033	<0.0033
Bis(2-ethylhexyl)phthalate	0.006	--	0.006	**0.0111**	**0.0064**	**0.0065**	<0.008	<0.010	<0.0021	<0.0021	<0.008	<0.010	<0.00205	<0.0021	<0.008	<0.0021	<0.008	<0.0021	<0.008	<0.010	<0.0021	<0.0021	<0.008	<0.0021	<0.0021
Chrysene	0.13	980,000	0.13	0.0603	<0.00173	**0.022**	<0.002	<0.010	<0.0017	<0.0017	<0.002	<0.010	**0.0131**	<0.0017	<0.002	<0.0017	<0.002	<0.0017	<0.002	<0.010	<0.0017	<0.0017	<0.002	<0.0017	<0.0017
Dibenzofuran	0.098	--	0.098	**0.1320**	**0.02720**	**0.07**	**0.042**	<0.010	<0.0015	<0.0015	<0.003	**0.0282**	**0.0173**	**0.071**	**0.065**	<0.0015	<0.003	<0.0015	<0.003	<0.010	<0.0015	<0.0015	<0.003	<0.0015	<0.0015
2,4-Dimethylphenol	0.49	230,000	0.49	--	--	<0.0026	<0.006	--	<0.0026	<0.0026	<0.006	--	--	<0.0026	<0.006	<0.0026	<0.006	<0.0026	<0.006	--	<0.0026	<0.0026	**0.014**	<0.0026	<0.0026
Fluoranthene	0.98	--	0.98	**0.232**	**0.01**	**0.074**	**0.02**	<0.010	<0.0016	<0.0016	<0.004	**0.0176**	**0.0578**	**0.014**	**0.028**	<0.0016	<0.004	<0.0016	<0.004	<0.010	<0.0016	<0.0016	<0.004	<0.0016	<0.0016
Fluorene	0.98	--	0.98	**0.0231**	**0.0154**	**0.023**	<0.006	<0.010	<0.0018	<0.0018	<0.006	**0.0166**	**0.0307**	**0.049**	**0.042**	<0.0018	<0.006	<0.0018	<0.006	<0.010	<0.0018	<0.0018	<0.006	<0.0018	<0.0018
Indeno(1,2,3-c,d)pyrene	0.0013	16,000	0.0013	**0.0115**	<0.002	<0.0015	<0.005	<0.010	<0.0015	<0.0015	<0.005	<0.010	**0.00266 J**	<0.0015	<0.005	<0.0015	<0.005	<0.0015	<0.005	<0.010	<0.0015	<0.0015	<0.005	<0.0015	<0.0015
2-Methylnaphthalene	0.29	--	0.098	**0.0173**	**0.01750**	<0.0023	**0.033**	<0.010	<0.0023	<0.0023	<0.004	**0.0283**	**0.0188**	0.066	**0.061**	<0.0023	<0.004	<0.0023	<0.004	<0.010	<0.0023	<0.0023	<0.004	<0.0023	<0.0023
2-Methylphenol	1.2	140,000	1.2	--	--	<0.0021	<0.005	--	<0.0021	<0.0021	<0.005	--	--	<0.0021	<0.005	<0.0021	<0.005	<0.0021	<0.005	--	<0.0021	<0.0021	<0.005	<0.0021	<0.0021
4-Methylphenol	0.37	170,000	0.12	--	--	<0.0030	<0.005	--	<0.0030	<0.0030	<0.005	--	--	<0.0030	<0.005	<0.0030	<0.005	<0.0030	<0.005	--	<0.0030	<0.0030	<0.005	<0.0030	<0.0030
Naphthalene	1.5	440	0.49	**0.413**	**0.198**	**0.01**	<0.004	<0.010	<0.0018	<0.0018	<0.004	0.598	**0.151 D**	0.894	0.779	<0.0018	<0.004	<0.0018	<0.004	<0.010	<0.0018	**0.0093**	<0.004	<0.0018	<0.0018
Phenanthrene	2.2	--	0.73	**0.374**	**0.03620**	**0.128**	**0.013**	<0.010	<0.0016	<0.0016	<0.003	**0.0242**	**0.0586**	**0.076**	**0.120**	<0.0016	<0.003	<0.0016	<0.003	<0.010	<0.0016	<0.0016	<0.003	<0.0016	<0.0016
Phenol	22	390,000	7.3	--	--	<0.0020	<0.003	--	<0.0020	<0.0020	<0.003	--	--	<0.0020	<0.003	<0.0020	<0.003	<0.0020	<0.003	--	<0.0020	<0.0020	<0.003	<0.0020	<0.0020
Pyrene	2.2	--	0.73	**0.161**	**0.00641**	**0.054**	**0.017**	<0.010	<0.0016	<0.0016	<0.006	**0.021**	**0.0422**	**0.0087**	**0.023**	<0.0016	<0.006	<0.0016	<0.006	<0.010	<0.0016	<0.0016	<0.006	<0.0016	<0.0016

Notes:

[1]Texas Risk Reduction Program (TRRP) $^{GW}GW_{Ing}$ for Commercial/Industrial, Class 1, Groundwater.

[2]TRRP $^{Air}GW_{Inh-V}$ for Commercial/Industrial, 0.5 acre source.

[3]TRRP $^{GW}GW_{Ing}$ for Residential, Class 1 groundwater, 0.5 acre source (RAL).

--- Not analyzed.

<0.002 = ND = Analyzed, but not detected at the quantitation limit shown.

NA - Not Available

Value Exceeds the Non-Ingestion MSC

Value Exceeds the Ingestion MSC

Values that are Bold Boxed exceed the Residential Assessment Leve

Values in Bold were detected

TABLE 2
SUMMARY OF ANALYTICAL RESULTS

LOWER TRANSMISSIVE ZONE

SAMPLE I.D.:	**C/I** $^{GW}GW_{Ing}$ [1]	**C/I** $^{Air}GW_{Inh-V}$ [2]	**RAL** [3]		MW-17D			
DATE SAMPLED:				05/11/10	05/24/07	05/06/09	11/10/09	05/12/10
SCREEN INTERVAL				64-84	65-85	65-85	65-85	65-85
ANALYTE				mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	0.005	300	0.005	<0.002	**14.6**	**14.5**	**7.76**	**8.26**
Chloroethane	29	160,000	9.8	<0.005	<1.000	<0.26	<0.1300	<0.005
Chloroform	0.73	33	0.24	<0.002	<1.000	<0.26	<0.13	**0.077**
1,1-Dichloroethane	15	10,000	1.1	<0.002	<1.000	<0.26	<0.1300	**0.314**
1,2-Dichloroethane	0.005	55	0.005	<0.001	**18.5**	**1.56**	**3.38**	**0.785**
1,1-Dichloroethene	0.007	2,300	0.007	<0.002	--	<0.34	<0.1700	**0.194 J**
Cis-1,2-Dichloroethene	0.07	23,000	0.07	<0.001	**59**	**98.30**	**39.7**	**47.5**
Trans-1,2-Dichloroethene	0.1	1,100	0.1	<0.002	--	<0.36	<0.1800	**0.336**
1,2-Dichloropropane	0.005	16	0.005	<0.002	<1.000	<0.24	<0.1200	**0.132**
Ethyl benzene	0.7	22,000	0.7	<0.002	**1.1**	**2.04**	**0.915**	**1.41**
Tetrachloroethene	0.005	840	0.005	<0.002	**24**	**5.81**	**2.86**	**3.18**
Toluene	1	89,000	1	<0.002	**1.5**	**1.55**	**0.88**	**0.968**
Trichloroethene	0.005	170	0.005	<0.002	**21**	**15.5**	**6.17**	**4.50**
Vinyl chloride	0.002	6.4	0.002	<0.002	**41**	**33.1**	<0.1450	**32.9**
m-&p-Xylene	10	14,000	10	<0.003	--	<0.75	<0.3750	**0.270**
o-Xylene	10	14,000	10	<0.002	--	<0.36	<0.1800	**0.141**
Acenaphthene	1.5	--	1.5	<0.005	**0.177**	<0.0019	**0.122**	**0.097**
Anthracene	7.3	--	7.3	<0.005	<0.010	**0.018**	**0.021**	**0.019**
Benzo(a)anthracene	0.0013	3,400	0.0013	<0.004	<0.010	<0.0024	<0.0024	<0.004
Benzo(a)pyrene	0.0002	650	0.0002	<0.004	<0.010	<0.0012	<0.0012	<0.004
Benzo(b)fluoranthene	0.0013	2,700	0.0013	<0.004	<0.010	<0.0014	<0.0014	<0.004
Benzo(g,h,i)perylene	0.73	--	0.73	<0.005	<0.010	<0.0020	<0.0020	<0.005
Benzo(k)fluoranthene	0.013	160,000	0.013	<0.003	<0.010	<0.0033	<0.0033	<0.003
Bis(2-ethylhexyl)phthalate	0.006	--	0.006	<0.008	<0.010	<0.0021	**0.004 J**	<0.008
Chrysene	0.13	980,000	0.13	<0.002	<0.010	<0.0017	<0.0017	<0.002
Dibenzofuran	0.098	--	0.098	<0.003	**0.112**	**0.0700**	**0.0733**	**0.055**
2,4-Dimethylphenol	0.49	230,000	0.49	<0.006	--	<0.0026	**0.02**	**0.016**
Fluoranthene	0.98	--	0.98	<0.004	**0.0176**	**0.0093**	**0.0112**	**0.011**
Fluorene	0.98	--	0.98	<0.006	**0.124**	**0.057**	**0.0772**	**0.058**
Indeno(1,2,3-c,d)pyrene	0.0013	16,000	0.0013	<0.005	<0.010	<0.0015	<0.0015	<0.005
2-Methylnaphthalene	0.29	--	0.098	<0.004	**0.149**	**0.09**	**0.096**	**0.059**
2-Methylphenol	1.2	140,000	1.2	<0.005	--	<0.0021	**0.0028 J**	<0.005
4-Methylphenol	0.37	170,000	0.12	<0.005	--	<0.0030	**0.0043 J**	<0.005
Naphthalene	1.5	440	0.49	<0.004	**1.95**	0.903	0.7	0.96
Phenanthrene	2.2	--	0.73	<0.003	**0.136**	**0.071**	**0.094**	**0.081**
Phenol	22	390,000	7.3	<0.003	--	<0.0020	<0.0020	<0.003
Pyrene	2.2	--	0.73	<0.006	**0.0103**	**0.0055**	**0.0066**	<0.006

Notes:

[1]Texas Risk Reduction Program (TRRP) $^{GW}GW_{Ing}$ for Commercial/Industr

[2]TRRP $^{Air}GW_{Inh-V}$ for Commercial/Industrial, 0.5 acre source.

[3]TRRP $^{GW}GW_{Ing}$ for Residential, Class 1 groundwater, 0.5 acre source (F

--- Not analyzed.

<0.002 = ND = Analyzed, but not detected at the quantitation limit showr

NA - Not Available

Value Exceeds the Non-Ingestion MSC

Value Exceeds the Ingestion MSC

Values that are Bold Boxed exceed the Residential Assessment Lev

Values in Bold were detected

Table 2
SUMMARY OF ANALYTICAL RESULTS

3rd Transmissive Zone (3TZ) and Upper Chicot Sand (UC)

SAMPLE I.D.:	C/I $^{GW}GW_{Ing}$ [1]	C/I $^{Air}GW_{Inh-V}$ [2]	RAL [3]	DDW-01 (3TZ)			WW-01 (UC)			WW-02 (UC)			WW-03 (UC)	
DATE SAMPLED:				05/06/09	11/11/09	05/13/10	05/07/09	11/10/09	05/12/10	05/07/09	11/10/09	05/12/10	05/05/09	05/11/10
SCREENED INTERVAL				119-129	119-129	119-129	300-320	300-320	300-320	300-320	300-320	300-320	257-277	257-277
ANALYTE				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	0.005	300	0.005	**0.0065**	<0.0002	<0.002	<0.0002	<0.0002	<0.002	<0.0002	<0.0002	<0.002	<0.0002	<0.002
Chloroethane	29	160,000	9.8	<0.0003	<0.0003	<0.005	<0.0003	<0.0003	<0.005	<0.0003	<0.0003	<0.005	<0.0003	<0.005
Chloroform	0.73	33	0.24	<0.0002	<0.0002	<0.002	<0.0002	<0.0002	<0.002	<0.0002	<0.0002	<0.002	<0.0002	<0.002
1,1-Dichloroethane	15	10,000	1.1	<0.0003	<0.0003	<0.002	<0.0003	<0.0003	<0.002	<0.0003	<0.0003	<0.002	<0.0003	<0.002
1,2-Dichloroethane	0.005	55	0.005	<0.0003	<0.0003	<0.001	<0.0003	<0.0003	<0.001	<0.0003	<0.0003	<0.001	<0.0003	<0.001
1,1-Dichloroethene	0.007	2,300	0.007	<0.0003	<0.0003	<0.002	<0.0003	<0.0003	<0.002	<0.0003	<0.0003	<0.002	<0.0003	<0.002
Cis-1,2-Dichloroethene	0.07	23,000	0.07	**0.063**	**0.0011**	<0.001	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.001	<0.0002	<0.001
Trans-1,2-Dichloroethene	0.1	1,100	0.1	<0.0004	<0.0004	<0.002	<0.0004	<0.0004	<0.002	<0.0004	<0.0004	<0.002	<0.0004	<0.002
1,2-Dichloropropane	0.005	16	0.005	<0.0002	<0.0002	<0.002	<0.0002	<0.0002	<0.002	<0.0002	<0.0002	<0.002	<0.0002	<0.002
Ethyl benzene	0.7	22,000	0.7	**0.0011**	<0.0003	<0.002	<0.0003	<0.0003	<0.002	<0.0003	<0.0003	<0.002	<0.0003	<0.002
Tetrachloroethene	0.005	840	0.005	<0.0008	<0.0008	<0.002	<0.0008	<0.0008	<0.002	<0.0008	<0.0008	<0.002	<0.0008	<0.002
Toluene	1	89,000	1	<0.0002	<0.0002	<0.002	<0.0002	<0.0002	<0.002	<0.0002	<0.0002	<0.002	<0.0002	<0.002
Trichloroethene	0.005	170	0.005	<0.0003	<0.0003	<0.002	<0.0003	<0.0003	<0.002	<0.0003	<0.0003	<0.002	<0.0003	<0.002
Vinyl chloride	0.002	6.4	0.002	**0.105**	<0.0003	<0.002	<0.0003	<0.0003	<0.002	<0.0003	<0.0003	<0.002	<0.0003	<0.002
m-&p-Xylene	10	14,000	10	<0.0008	<0.0008	<0.003	<0.0008	<0.0008	<0.003	<0.0008	<0.0008	<0.003	<0.0008	<0.003
o-Xylene	10	14,000	10	<0.0004	<0.0004	<0.002	<0.0004	<0.0004	<0.002	<0.0004	<0.0004	<0.002	<0.0004	<0.002
Acenaphthene	1.5	--	1.5	<0.0019	<0.0019	<0.005	<0.0019	<0.0019	<0.005	<0.0019	<0.0019	<0.005	<0.0019	<0.005
Anthracene	7.3	--	7.3	<0.0019	<0.0019	<0.005	<0.0019	<0.0019	<0.005	<0.0019	<0.0019	<0.005	<0.0019	<0.005
Benzo(a)anthracene	0.0013	3,400	0.0013	<0.0024	<0.0024	<0.004	<0.0024	<0.0024	<0.004	<0.0024	<0.0024	<0.004	<0.0024	<0.004
Benzo(a)pyrene	0.0002	650	0.0002	<0.0012	<0.0012	<0.004	<0.0012	<0.0012	<0.004	<0.0012	<0.0012	<0.004	<0.0012	<0.004
Benzo(b)fluoranthene	0.0013	2,700	0.0013	<0.0014	<0.0014	<0.004	<0.0014	<0.0014	<0.004	<0.0014	<0.0014	<0.004	<0.0014	<0.004
Benzo(g,h,i)perylene	0.73	--	0.73	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.005	<0.0002	<0.005
Benzo(k)fluoranthene	0.013	160,000	0.013	<0.0033	<0.0033	<0.003	<0.0033	<0.0033	<0.003	<0.0033	<0.0033	<0.003	<0.0033	<0.003
Bis(2-ethylhexyl)phthalate	0.006	--	0.006	<0.0021	<0.0021	<0.008	<0.0021	<0.0021	<0.008	<0.0021	<0.0021	<0.008	**0.0035 J**	<0.008
Chrysene	0.13	980,000	0.13	<0.0017	<0.0017	<0.002	<0.0017	<0.0017	<0.002	<0.0017	<0.0017	<0.002	<0.0017	<0.002
Dibenzofuran	0.098	--	0.098	<0.0015	<0.0015	<0.003	<0.0015	<0.0015	<0.003	<0.0015	<0.0015	<0.003	<0.0015	<0.003
2,4-Dimethylphenol	0.49	230,000	0.49	<0.0026	<0.0026	<0.006	<0.0026	<0.0026	<0.006	<0.0026	<0.0026	<0.006	<0.0026	<0.006
Fluoranthene	0.98	--	0.98	<0.0016	<0.0016	<0.004	<0.0016	<0.0016	<0.004	<0.0016	<0.0016	<0.004	<0.0016	<0.004
Fluorene	0.98	--	0.98	<0.0018	<0.0018	<0.006	<0.0018	<0.0018	<0.006	<0.0018	<0.0018	<0.006	<0.0018	<0.006
Indeno(1,2,3-c,d)pyrene	0.0013	16,000	0.0013	<0.0015	<0.0015	<0.005	<0.0015	<0.0015	<0.005	<0.0015	<0.0015	<0.005	<0.0015	<0.005
2-Methylnaphthalene	0.29	--	0.098	<0.0023	<0.0023	<0.004	<0.0023	<0.0023	<0.004	<0.0023	<0.0023	<0.004	<0.0023	<0.004
2-Methylphenol	1.2	140,000	1.2	<0.0021	<0.0021	<0.005	<0.0021	<0.0021	<0.005	<0.0021	<0.0021	<0.005	<0.0021	<0.005
4-Methylphenol	0.37	170,000	0.12	<0.0030	<0.0030	<0.005	<0.0030	<0.0030	<0.005	<0.0030	<0.0030	<0.005	<0.0030	<0.005
Naphthalene	1.5	440	0.49	<0.0018	**0.0096**	<0.004	<0.0018	<0.0018	<0.004	<0.0018	<0.0018	<0.004	<0.0018	<0.004
Phenanthrene	2.2	--	0.73	<0.0016	<0.0016	<0.003	<0.0016	<0.0016	<0.003	<0.0016	<0.0016	<0.003	<0.0016	<0.003
Phenol	22	390,000	7.3	<0.0020	<0.0020	<0.003	<0.0020	<0.0020	<0.003	<0.0020	<0.0020	<0.003	<0.0020	<0.003
Pyrene	2.2	--	0.73	<0.0016	<0.0016	<0.006	<0.0016	<0.0016	<0.006	<0.0016	<0.0016	<0.006	<0.0016	<0.006

Notes:

[1]Texas Risk Reduction Program (TRRP) $^{GW}GW_{Ing}$ for Commercial/Industrial, Class 1, Groundwater.

[2]TRRP $^{Air}GW_{Inh-V}$ for Commercial/Industrial, 0.5 acre source.

[3]TRRP $^{GW}GW_{Ing}$ for Residential, Class 1 groundwater, 0.5 acre source (RAL).

--- Not analyzed.

<0.002 = ND = Analyzed, but not detected at the quantitation limit shown.

NA - Not Available

Value Exceeds the Commercial/Industrial Non-Ingestion PCL

Value Exceeds the Commercial/Industrial Ingestion PCL

Values that are Bold Boxed exceed the Residential Assessment Level

Values in Bold were detected

Appendix G

MUNICIPAL SETTING DESIGNATION APPLICATION
18310 MARKET STREET
CHANNELVIEW, TEXAS

STATEMENT REGARDING PLUME STABILITY

Based upon the assessments and investigations completed to date, more than 17 years of groundwater monitoring data, and the age of the source, the contaminant plume is stable. This statement is based upon the fact that the source, a surface impoundment, was pumped out in 1979 and the soils immediately adjacent to the sludge were removed and disposed of at an off-Site facility. The age of the plume, source remediation, the source mass, natural attenuation, and pump and treat remediation all limit the migration of the contaminant plume which is confirmed through more than 17 years of groundwater monitoring. Since the source of impact is 30 years old, natural degradation is well underway and will continue to mitigate the impact. With the age, source removal, active remediation, and natural attenuation has exceeded expansion and the plume is shrinking. The surface water impoundment was closed in accordance with commonly applied remediation techniques at the time.

Groundwater sampling data indicate that the contaminant plume is centered on the central-southeast- portion of the Designated Property. The contaminant plume is fully delineated and contained on the Designated Property. Vertical contaminant migration is limited due to the geologic stratification which is verified by the 3TZ and UC wells not exhibiting COCs above the ingestion PCL. Many clay layers are encountered in the geologic profile of the UTZ, the LTZ, and the 3TZ, which help mitigate groundwater migration to the UC which contains usable groundwater units. The sand units that are encountered up to the UC are small lens units at the Designated Property underlain by a series of clay aquitards.

Concentrations of the specified COCs have not exceeded their respective TRRP Tier 1 commercial/industrial Assessment Level <u>with an MSD</u> in any of the monitoring wells with the exception of VC in monitoring wells MW-14 and MW-17D in the May 2010 groundwater monitoring event at the Designated Property. VC concentrations exceed TRRP Tier 1 commercial/industrial Assessment Levels <u>with an MSD.</u> Further remediation of the VC is planned after the MSD is approved.