



**FARMERS  
BRANCH**

## Municipal Setting Designation Application Instructions

**Pre-Application Meeting:** While a pre-application meeting is not mandatory, it is strongly encouraged to discuss the specific details of the site. Please note: the City of Farmers Branch will not support a Municipal Settings Designation (MSD) application unless a Professional Geologist (P.G.) or Professional Engineer (P.E.) has certified that the groundwater plume is stable or decreasing, fully delineated, and the source has been removed. This statement should be supported with historical groundwater monitoring data showing the plume as stable or declining, and fully delineated.

Please contact Katy Evans at (972) 919-2537, [katy.evans@farmersbranchtx.gov](mailto:katy.evans@farmersbranchtx.gov) to schedule a pre- application meeting. Meetings will be held at 13000 William Dodson Parkway Farmers Branch, TX 75234.

**Application Form:** For the application to be complete please submit the following:

1. Two (2) hard copies of the application (the well logs are not necessary for the hard copies but should be included in the electronic copy). Please separate the application appendices with divider sheets that are tabbed.
2. An electronic portable digital file (pdf) of the application including all supporting material
3. An electronic Excel file with mailing addresses for water well owners and property owners. (Templates can be found on the Environmental Health website, [www.farmersbranchtx.gov](http://www.farmersbranchtx.gov))

Failure to use this application form may result in denial of the application.

Please note, the City requires the Professional Engineer (P.E.) or Professional Geologist (P.G.) who signed the application, or someone that is familiar with the application, and the applicant or their legal representative (attorney) to be present at the public hearing. Failure of the required parties to attend the public hearing will result in having to schedule a new hearing.

The application should be clear, complete, concise, correct, contain only relevant information and be organized to facilitate analysis. Supporting documentation should be submitted as a separate appendix to the application, as noted (Label "Appendix Z ") for each numbered item.

**Submittal:** Submit the application form and all supporting information, along with an application fee of \$2,000 (payable to City of Farmers Branch) to the address below. The applicant must also pay the cost of producing and mailing notices, (approximately \$6.50 per certified mail and \$1.50 per first-class mail), and any applicable venue costs (costs vary by location). Mailings are done through the U.S. Post Office's Click2Mail system. At the time of the mail outs, staff will require a credit card number to pay for processing and mailing the notices.

Katy Evans  
City of Farmers Branch  
13000 William Dodson Parkway  
Farmers Branch, Texas 75234



**PUBLIC WORKS DEPARTMENT**  
**ENVIRONMENTAL HEALTH DIVISION**

**Application for Approval of Municipal Setting Designation**

**APPLICANT INFORMATION**

Applicant's Name: CADG Mercer Crossing Holdings, LLC

Individual  Private Entity  Public Entity  Non-Profit Entity  Other \_\_\_\_\_

Address: 1800 Valley View Lane, Suite 350; Farmers Branch, TX 75234  
(Street) (City) (State) (Zip)

Phone No.: 214-287-9009 Fax No.: \_\_\_\_\_

Email: mike@mooreland.com

*Contact Information*

Name of Contact: Merhdad Moayed

Title: Manager

Address: 1800 Valley View Lane, Suite 350; Farmers Branch, TX 75234  
(Street) (City) (State) (Zip)

Phone No.: 214-287-9009 Fax No.: \_\_\_\_\_

Email: mike@mooreland.com

*Application Preparation*

Application Prepared by: Kevin W. Almaguer, P.G. #1858

Company: EnviroPhase, Inc. (Texas Geoscience Firm #50444)

Address: 2201 Main Street; Suite 1006 Dallas TX 75201  
(Street) (City) (State) (Zip)

Phone No.: 214-303-1099 Fax No.: 214-853-5799

Email: kevin@envirophase.com

**SITE INFORMATION**

Site DCAD No(s): 65092674510140100/65092674510140000/242317400F000000

Site Name: Former GNB-Exide Battery/Mercer Crossing

Site Size: 59.49 Acres

Site Address: 1880 Valley View Lane Farmers Branch TX 75234  
1800 Lakeway Parkway Farmers Branch TX 75234  
(Street) (City) (State) (Zip)

(List all owners – additional sheet is attached, if needed)

Owner: Edina Park Plaza Associates, LP

Owner Address: 1603 LBJ Freeway, Suite 800; Dallas TX 75234  
(Street) (City) (State) (Zip)

Name of Contact: Steven Shelley

Title: Vice President

Organization: ART Edina, Inc (General Partner)

Phone No.: 469-522-4419 Fax No.: 469-522-4340

Email: steven.shelley@pillarincome.com

Owner: Edina Park Plaza Associates Limited Partnership; ART GNB, Inc.

Owner Address: 1603 LBJ Freeway, Suite 800; Dallas TX 75234  
(Street) (City) (State) (Zip)

Name of Contact: Steven Shelley

Title: Vice President

Organization: ART GNB, Inc

Phone No.: 469-522-4419 Fax No.: 469-522-4340

Email: steven.shelley@pillarincome.com

Owner: CADG Mercer Crossing Holdings, LLC

Owner Address: 1800 Valley View Lane, Suite 350; Farmers Branch, TX 75234  
(Street) (City) (State) (Zip)

Name of Contact: Merhdad Moayedi

Title: Manager

Organization: CADG Mercer Crossing Holdings, LLC

Phone No.: 214-287-9009 Fax No.: \_\_\_\_\_

Email: mike@mooreland.com

Owner: \_\_\_\_\_

Owner Address: \_\_\_\_\_  
(Street) (City) (State) (Zip)

Name of Contact: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

Email: \_\_\_\_\_

Owner: \_\_\_\_\_

Owner Address: \_\_\_\_\_  
(Street) (City) (State) (Zip)

Name of Contact: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

Email: \_\_\_\_\_

Owner: \_\_\_\_\_

Owner Address: \_\_\_\_\_  
(Street) (City) (State) (Zip)

Name of Contact: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

Email: \_\_\_\_\_

Owner: \_\_\_\_\_

Owner Address: \_\_\_\_\_  
(Street) (City) (State) (Zip)

Name of Contact: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

Email: \_\_\_\_\_

ITEM	FB Use
<p><b>Executive Summary</b></p>	
<p>1. Provide a legal description of the boundaries of the designated property, including metes and bounds, and a copy of the deed for the property.</p> <p style="text-align: center;"><b><u>Label "Appendix A"</u></b></p>	
<p>2. A description of the current use and, to the extent known, the anticipated use(s) of the designated property and properties within 500 feet of the boundary of the designated property.</p> <p style="text-align: center;"><b><u>Label "Appendix B"</u></b></p>	
<p>3. A site map showing:</p> <ol style="list-style-type: none"> <li>a. The location of the designated property.</li> <li>b. The topography of the designated property as indicated on publicly available sources, which must note the watershed <u>including the nearest surface water body</u> and whether the designated property is located in a floodplain or floodway.</li> <li>c. The detected area of groundwater contamination.</li> <li>d. The location of all soil sampling locations and all groundwater monitoring wells.</li> <li>e. Groundwater gradients, to the extent known, and direction of groundwater flow.</li> <li>f. The ingestion protective concentration level exceedance zone for each contaminant of concern, to the extent known.</li> <li>g. Depth to groundwater for each affected zone.</li> </ol> <p style="text-align: center;"><b><u>Label "Appendix C"</u></b></p>	
<p>4. Provide for each contaminant of concern within the designated groundwater:</p> <ol style="list-style-type: none"> <li>a. A description of the ingestion protective concentration level exceedance zone and the non-ingestion protective concentration level exceedance zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface.</li> <li>b. The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.</li> <li>c. Its basic geochemical properties (e.g., whether the contaminant of concern migrates with groundwater, floats or is soluble in water).</li> </ol> <p style="text-align: center;"><b><u>Label "Appendix D"</u></b></p>	
<p>5. A table displaying the following information for each contaminant of concern on the site, to the extent known:</p> <ol style="list-style-type: none"> <li>a. The maximum concentration level for soil and groundwater, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/kg for soils and mg/L for groundwater.</li> <li>b. The critical protective concentration level without the municipal setting designation, highlighting any exceedances.</li> </ol> <p style="text-align: center;"><b><u>Label "Appendix E"</u></b></p>	

ITEM	FB Use Only
<p>6. If the plume extends beyond the property legal description provided in this application, list the owners of the additional property beneath which the plume(s) extend(s), and a summary of interactions with those property owners about the plume(s) and this MSD application.</p> <p style="text-align: center;"><b><u>Label "Appendix F"</u></b></p>	
<p>7. A statement as to whether the source of the plume has been removed, the plume of contamination is stable (i.e. no change) or contracting, and the plume is delineated, with supporting documentation. Please include historical sampling data.</p> <p style="text-align: center;"><b><u>Label "Appendix G"</u></b></p>	
<p>8. A statement as to whether contamination on and off the designated property <u>without</u> a Municipal Setting Designation will <u>exceed</u> a residential assessment level as defined in the Texas Risk Reduction Program or analogous residential level set by EPA, if known, and supporting documentation.</p> <p style="text-align: center;"><b><u>Label "Appendix H"</u></b></p>	
<p>9. A statement as to whether contamination on and off the designated property <u>with</u> a Municipal Setting Designation will <u>exceed</u> a residential assessment level as defined in the Texas Risk Reduction Program or analogous residential level set by EPA, if known, and supporting documentation.</p> <p style="text-align: center;"><b><u>Label "Appendix I"</u></b></p>	
<p>10. Identification of the points of origin of the contamination, to the extent known. Please list the Potentially Responsible Party (PRP), if unknown, state unknown. (<i>applications without the PRP listed will be deemed incomplete</i>)</p> <p style="text-align: center;"><b><u>Label "Appendix J"</u></b></p>	
<p>11. Environmental regulatory actions, litigation, and plume identification.</p> <ol style="list-style-type: none"> <li>a. A description of any environmental regulatory actions that have been taken within the past five years in connection with the designated property, to the extent known.</li> <li>b. A description of any litigation that has taken place within the past five years in connection with the designated property, to the extent known.</li> <li>c. A statement as to whether there are any other remediation activities by the applicant, or any other party or agency, which are not listed in the application.</li> <li>d. A statement as to which contamination plume and groundwater zone the applicant is including in the MSD.</li> </ol> <p style="text-align: center;"><b><u>Label "Appendix K"</u></b></p>	
<p>12. A listing of all existing state or EPA registrations, permits, and identification numbers that applies to the designated property.</p> <p style="text-align: center;"><b><u>Label "Appendix L"</u></b></p>	

ITEM	FB Use Only
<p>13. Provide evidence that the designated property is currently or has previously been under the oversight of the TCEQ or the United States Environmental Protection Agency, as required by the Texas Health &amp; Safety Code § 361.8065(c)(2)(A), and a description of the status of the designated property in the program (the program application number is sufficient evidence). Also, include the state or federal cleanup project manager's name.</p> <p style="text-align: center;"><b><u>Label "Appendix M"</u></b></p>	
<p>14. A summary of any environmental site assessment reports filed with TCEQ regarding any site investigations or response actions that are planned, ongoing or completed related to the designated property.</p> <p style="text-align: center;"><b><u>Label "Appendix N"</u></b></p>	
<p>15. A statement as to whether any public drinking water supply system exists that satisfies the requirements of Chapter 341 of the Texas Health and Safety Code and that supplies or is capable of supplying drinking water to the designated property and property within one-half mile of the designated property and the identity of each supply system.</p> <p style="text-align: center;"><b><u>Label "Appendix O"</u></b></p>	
<p>16. The name and address of each owner or operator of a water well registered or permitted by the state that is located within five miles of the boundary of the designated property, along with a map showing the location of each well and, to the extent known, a notation of whether each well is used for potable water. Well logs <u>must</u> be included in the electronic copy of the application, but should not be included in the hard copies. (An accompanying electronic excel file with mailing information should be included with your application.)</p> <p style="text-align: center;"><b><u>Label "Appendix P"</u></b></p>	
<p>17. The name and address of each retail public utility, as defined in section 13.002 of the Texas Water Code that owns or operates a groundwater supply well within five miles of the boundary of the designated property.</p> <p style="text-align: center;"><b><u>Label "Appendix Q"</u></b></p>	
<p>18. A listing of each municipality, other than the city of Farmers Branch, with a corporate limit within one-half mile of the boundary of the designated property.</p> <p style="text-align: center;"><b><u>Label "Appendix R"</u></b></p>	
<p>19. A listing of each municipality, other than the city of Farmers Branch, that owns or operates a groundwater supply well within five miles of the boundary of the designated property.</p> <p style="text-align: center;"><b><u>Label "Appendix S"</u></b></p>	
<p>20. A listing of owners of real property within 2,500 ft. of the boundary of the designated property as indicated by the most recent appraisal district records. Please Note: This requirement may include real property outside the City of Farmers Branch. Be sure to include <b>ALL</b> properties in the 2,500 ft. boundary. (An accompanying electronic excel file with mailing information should be included with your application.)</p> <p style="text-align: center;"><b><u>Label "Appendix T"</u></b></p>	

ITEM	FB Use Only
<p>21. Form U-2012-01 <b><u>signed and sealed</u></b> by a licensed professional engineer or licensed professional geoscientist authorized to practice in the State of Texas with expertise in environmental remediation.</p> <p>Signing and sealing Form U-2012-01 certifies:</p> <ol style="list-style-type: none"> <li>The contaminants of concern from sources on the designated property or migrating from or through the designated property more likely than not [do exceed] OR [do not exceed] a non-ingestion protective concentration level on property beyond the boundaries of the designated property. (select the appropriate statement)</li> <li>All requirements of the application have been met, including demonstration that the groundwater contamination plume has been fully delineated and is stable or contracting in size.</li> </ol> <p style="text-align: center;"><b><u>Label "Appendix U"</u></b></p>	
<p>22. If the licensed professional engineer or licensed professional geoscientist determines that contaminants of concern from sources on the designated property are migrating from or through the designated property more likely than not do exceed a non-ingestion protective concentration level on property beyond the boundary of the designated property, then the applicant must:</p> <ol style="list-style-type: none"> <li>Specify the name and address of the owner of each property.</li> <li>Send a copy of the application to the owner of the property with the notice of the public meeting.</li> <li>Provide documentation that the designated property has been included in a state or federal program that requires that the entire non-ingestion protective concentration level exceedance zone be addressed to the satisfaction of the agency administering the program, along with documentation of the estimated time period in which it is to be addressed. An example of such a program is the Texas Voluntary Cleanup Program (section 361.501 of the Texas Health and Safety Code, as may be amended from time to time).</li> <li>Provide documentation upon completion of the state or federal program showing that the non-ingestion protective concentration level exceedances have been addressed to the satisfaction of the agency administering the program.</li> </ol> <p style="text-align: center;"><b><u>Label "Appendix V"</u></b></p>	
<p>23. Form W-2012-01 <b><u>certified/signed</u></b> by the applicant and any authorized representatives of the applicant(s) listed in the application.</p> <p style="text-align: center;"><b><u>Label "Appendix W"</u></b></p>	
<p>24. Form X-2012-01 <b><u>signed</u></b> by the property owner or authorized agent (if an authorized agent, you must provide the legal authorization instrument).</p> <p style="text-align: center;"><b><u>Label "Appendix X"</u></b></p>	
<p>25. An electronic version containing the pdf file of the application, Excel spreadsheet of water well owners and property owners for mailing notices, and the pdf file of the well log report.</p> <p style="text-align: center;"><b><u>Label "Appendix Y"</u></b></p>	

**PUBLIC WORKS DEPARTMENT**  
ENVIRONMENTAL HEALTH DIVISION



**EXECUTIVE SUMMARY**

**FARMERS BRANCH MUNICIPAL SETTING DESIGNATION  
APPLICATION  
1880 VALLEY VIEW LANE  
FARMERS BRANCH, TEXAS**

**EXECUTIVE SUMMARY**

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**Location and Background**

The “Designated Property” for which this Municipal Setting Designation (“MSD”) Application has been completed is 59.49 and consists of three tracts of land located at 1880 Valley View Lane (West Tract), 1880 Valley View Lane (East Tract), and 1800 Lakeway Boulevard, Farmers Branch, Dallas County, Texas 75234. The Designated Property is located between Valley View Lane and Wittington Place and between Hutton Drive and Chartwell Crest. The Designated Property is currently undeveloped vacant land. The 1880 Valley View Lane (West Tract) is currently owned by Edina Park Plaza Associates, LP. The 1880 Valley View Lane – East Tract is currently owned by ART GNB, Inc. The 1800 Lakeway Boulevard tract is currently owned by CADG Mercer Crossing Holdings, LLC. CADG Mercer Crossing is a prospective purchaser and is the MSD Applicant.

Current adjacent properties are commercial interests consisting of office buildings and undeveloped property. Original use of the area began in the early 1940’s as gravel pits until at least 1979. Commercial developments in the area began between 1958 and 1968 with the site development first noted in 1968 aerial photographs.

The Table in Appendix B provides a summary of adjacent properties. The Designated Property and surrounding properties are zoned Planned Development. Anticipated future use of the Site is anticipated to be residential development.

The affected property (“Site”) is located within the MSD Designated Property at 1880 Valley View Lane (West Tract). The Site is approximately 34.00 acres and is currently undeveloped.

The Site was originally developed between 1958 and 1963 as a commercial building. The Site was used for the manufacturing and packaging of pickled food products from 1963 to 1971. The site was then used for the manufacture of lead automotive batteries from approximately 1971 until 2001. The property had been vacated by September 2002 with all Site structures demolished by 2010.

The location of the Designated Property is shown in **Figures A and B** contained in **Appendix C**, and the layout of the Designated Property is shown on **Figure C** contained in **Appendix C**.

**Property Ownership**

The Designated Property is owned by:

**1880 Valley View Lane (West Tract) – 34.00 Acres**

Edina Park Plaza Associates, LP

1603 LBJ Freeway

Suite 300

Dallas, Texas 75234-6057

**1880 Valley View Lane (East Tract) – 8.63 Acres**

ART GNB Inc

1603 LBJ Freeway

Suite 300

Dallas, Texas 75234-6057

**1800 Lakeway Boulevard (Block F) – 16.86 Acres**

CADG Mercer Crossing Holdings, LLC

1800 Valley View Lane

Suite 300

Farmers Branch, Texas 75234-8945

**Perspective Purchaser**

The Perspective Purchaser of the Designated Property and MSD Applicant is:

CADG Mercer Crossing

1800 Valley View Lane

Suite 300

Farmers Branch, Texas 75234-8945

**Environmental Conditions**

The only identified environmental conditions at the MSD Designated Property occur on the Site (1880 Valley View Lane – West Tract). The Site’s groundwater is impacted by the heavy metals arsenic and cadmium and the chlorinated solvent “vinyl chloride”. This groundwater impact at the Site exceeds TCEQ Texas Risk Reduction (“TRRP”) Tier 1 Residential Assessment Levels (RALs) for the chemicals of concern (“COCs”). Arsenic is currently the only COCs that exceed the groundwater ingestion PCL. Cadmium and vinyl chloride historically exceed the groundwater ingestion PCL but have not exceeded the groundwater ingestion PCL for past 3 quarterly sampling events. The chemicals cis-1,2-dichloroethene (cis-DCE), trans-1,2-dichloroethene (trans-DCE), and 1,2,3-trichlorobenzene and metals barium, chromium, mercury, and selenium were also detected in groundwater at concentrations below the groundwater PCL. Detections for the heavy metal “barium” appear to be consistent with natural background levels. No other contaminants were detected in the groundwater above the various method detection limits. The source of the release appears to be from activities associated with the manufacture of lead automotive batteries from approximately 1971 to 2001.

Arsenic, barium, cadmium, lead, and silver were detected in soils above the TRRP Tier 1 PCL for the soil to groundwater (<sup>GW</sup>Soil<sub>Ing</sub>) exposure pathway. Additional analysis for COC leachability from soils to groundwater via the synthetic precipitate leaching procedure (SPLP)

indicates that soils leachate for arsenic, barium, and lead also exceed ingestion PCLs. The SPLP results for cadmium and silver were below the PCL and groundwater concentrations were below the PCL thus cadmium and silver can be screened from Texas Risk Reduction Program (TRRP) applicability.

The following COC were identified above the TRRP Tier 1 assessment levels in the most recent groundwater sampling event:

- Arsenic

The following COCs were identified above the TRRP Tier 1 assessment levels during one individual historical groundwater sampling event:

- Cadmium
- Vinyl Chloride

Since the volatile compound vinyl chloride exceeded the groundwater PCL there is a potential for vapor intrusion into building structures. Soil-gas sampling indicated an exceedance of the EPA Vapor Intrusion Screening Levels (VISLs) although sample collection was difficult due to very tight clays that restricted air flow through soils. Due to the lack of building structures on the site and the very tight soils the vapor intrusion exposure pathway to indoor air has not been evaluated since the TCEQ has not promulgated vapor intrusion guidelines and the TCEQ does not accept results from soil-gas sampling for indoor air exposure confirmation. The Vapor Intrusion exposure pathway will be further evaluated if required by the TCEQ or if restrictions for vapor mitigation systems are stipulated in the Certificate of Completion (COC) issued by the TCEQ VCP.

Refer to **Tables E-1, E-2, E-3, E-4, E-5, E-6, E-7, E-8, E-9, E-10, and E-11** in **Appendix E** for soil and groundwater sampling data and assessment levels. No COCs exceed the non-ingestion protective concentration levels (PCLs) for groundwater. Arsenic, cadmium, and vinyl chloride are the only COCs that have exceeded the groundwater ingestion PCL.

The current configuration of the Designated Property, including adjacent public right-of-ways is depicted in **Figure A** contained in **Appendix C**. Area topography slopes gently to the southeast based upon local topographic maps (**Appendix C Figure B**). Soils beneath the Site consist of clayey, sandy, and gravelly soils typical of flood plain deposits to depths of 13 to 19.5 feet bgs followed by competent bedrock (shale) comprising the Eagle Ford Formation.

Groundwater development varied. Groundwater was encountered in some wells during drilling while in other wells groundwater was not encountered during drilling and did not develop in monitoring wells until days after well installation. Observations made during well development and low-flow purge/sample activities indicate that some well yields are indicative of a Class 2 Groundwater Resource (wells yields greater than 150 gallons per day) while some well yields are indicative of a Class 3 Groundwater Resource (wells yields less than 150 gallons per day). Based on well yields in some wells indicative of a Class 2 Groundwater Resource, the groundwater beneath the Site will be treated as a Class 1 Groundwater Resource (Class 2 defaults to Class 1 Groundwater). The water bearing zone (when obvious) was encountered within clay, silty clay, sandy clay, gravelly clay, clayey sand, sand, and gravelly sand units from

12 to 15 ft below ground surface (bgs). Competent bedrock was encountered at depths of 12 to 15 feet bgs during drilling. Soils encountered appear to be indicative of alluvium deposits associated with the Trinity River flood plain deposits. Alluvium deposits are approximately 13 to 19.5 feet thick. It is anticipated that the scouring action of the Trinity River incised through shale from the Eagle Ford Group leaving behind Alluvium deposits. The underlying Eagle Ford Group underlies Alluvium deposits and consists of shale, sandstone, and limestone and is estimated to be approximately 215 feet thick.

Groundwater flow was towards the southwest/west-southwest (refer to **Figures E-1, E-2, E-3, and E-4** contained in **Appendix E**). The principal aquifers in Dallas County are the Woodbine and Trinity Group aquifers. The Woodbine is present at an approximate depth of 215 feet bgs and consists of sandstone with some clay and shale. The Trinity Group Aquifer is present at an approximate depth of 1,030 feet and is comprised of the Paluxy and Twin Mountain Formations. The Paluxy is composed of sandstone, mudstone and limestone while the Twin Mountains is composed of claystone and sandstone. The Woodbine aquifer is separated from the surface formations by the massive, low permeability Eagle Ford Shale formation.

Based upon a review of registered water wells within five miles of the Designated Property, no sensitive groundwater receptors were identified in the Designated Property area. The water well survey did identify 3 water wells within a ½-mile radius of the Designated Property. The first well was listed as being located on the Designated Property but is suspected of having been plugged since the property is undeveloped and there are no visual indications of water wells. The second well is listed as plugged and abandoned and the third well was related to historical gravel pit operations that are now vacant undeveloped land with no visual signs of water wells. The Designated Property and surrounding area are serviced with municipal drinking water supplied by the City of Dallas.

### **Regulatory Setting**

Applicant submitted a Program Application to the Texas Commission on Environmental Quality (“TCEQ”) Voluntary Cleanup Program (“VCP”) for the property at 1880 Valley View Lane. The TCEQ responded to the VCP Application on September 7, 2016 by issuing VCP ID No. 2832 to the Site. The Applicant also submitted an Affected Property Assessment Report (APAR) to the VCP and intends to seek regulatory closure under the Texas Risk Reduction Program Remedy Standard B (30 Tex. Admin. Code § 350.34(2)). The MSD ordinance will supplement closure under the TCEQ VCP.

## **APPENDIX A**

### **LEGAL DESCRIPTION and DEED**

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The Designated Property consists of three properties bounded by Valley View Lane and Wittington Place to the north and south and by Chartwell Crest and Hutton Drive to the west and east. The Site is bounded on the southwest by undeveloped land and bounded by commercial buildings on the east, west, north, and southeast.

The total area of the Site affected by chemical impacts is 34.00 acres. The total area of the MSD Designated Property is 59.49 acres.

A copy of the professional survey with a legal description of the Designated Property and copies of the deed records are provided in this Appendix A of the Application as Tab 1 and Tab 2, respectively.

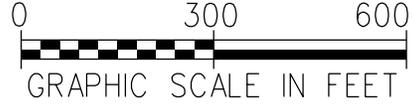
## APPENDIX A

### ADDITIONAL INFORMATION

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Tab

- 1 Professional Survey with Legal Description of Designated Property
- 2 Deed Record



"Integral parts of this document"  
 1. Description  
 2. Exhibit

C#	DELTA	RADIUS	LENGTH	CH BRNG	DIST
C1	07° 30' 06"	1763.60'	230.90'	N58° 52' 15"E	230.74'
C2	14° 32' 26"	1367.69'	347.09'	N68° 43' 04"E	346.16'
C3	05° 59' 37"	7257.62'	759.20'	N74° 08' 39"E	758.85'
C4	03° 35' 42"	6128.08'	384.50'	N68° 52' 24"E	384.44'
C5	07° 37' 45"	1500.00'	199.73'	S03° 53' 22"W	199.58'
C6	16° 33' 10"	1057.93'	305.68'	S90° 26' 13"W	304.62'
C7	34° 34' 27"	642.50'	387.71'	N41° 21' 23"W	381.85'

Basis of Bearing is the Texas  
 Coordinate System, North Central  
 Zone 4202, NAD 83

Point of Beginning

Lot 1, Block A  
 Mercer Crossing Addition I  
 Inst.\* 200318400061  
 C.R.D.C.T.

FRANCIS MILLER SURVEY  
 ABST. \*926

Edina Park Plaza Associates LP  
 Inst.\*20070299861  
 C.R.D.C.T.

Edina Park 34.00 Ac.  
 Block F 16.86 Ac.  
 ART GNB 8.63 Ac.  
 Total 59.49 Ac.

Block F  
 Westside Addition, Sec. 1  
 Inst.\* 200600172708  
 C.R.D.C.T.

ART GNB Inc.  
 Inst.\*20070248392  
 C.R.D.C.T.

Lot 2, Block 4  
 Valley View Commerce  
 Park  
 Inst.\*198501077024  
 C.R.D.C.T.

North Dallas Bible Chapel, Inc.  
 Inst.\*201400039065  
 C.R.D.C.T.

Auto Classics Addition  
 Vol.78175, Pg.817  
 C.R.D.C.T.

L1	N89° 29' 14"E	196.38'
L2	S01° 10' 43"E	121.49'
L3	N88° 42' 52"E	3.98'
L4	S07° 42' 15"W	123.56'
L5	S48° 12' 33"W	38.02'
L6	N66° 09' 25"W	22.29'
L7	N24° 04' 09"W	38.83'

An Exhibit Showing  
**59.49 Acres**  
 Situated In The Francis Miller  
 Survey, Abstract Number 926, City Of  
 Farmers Branch, Dallas County, Texas



## **Description of 59.49 Acres**

**BEING** all or portions of those certain tracts of land situated in the Francis Miller Survey, Abstract Number 926, Dallas County, Texas and being all of that tract of land described by deed to Edina Park Plaza Associates Limited Partnership, recorded in Instrument Number 20070299861 of County records, Dallas County, Texas and being the remainder of that tract of land described by deed to ART GNB, Inc., recorded in Instrument Number 20070248392 of said County Records and being all of Block F, of Westside Addition, Section 1, an addition to the City of Farmers Branch recorded in Instrument Number 200600172708 said County Records and being more particularly described by metes and bounds as follows:

**BEGINNING** at the northwest corner of said Edina tract in the south right-of-way of Valley View Lane (a variable width right-of-way) and being the beginning of a non-tangent curve to the right;

**THENCE** with the south right-of-way of said Valley View Lane the following courses and distances;

with said non-tangent curve to the right, an arc distance of 230.90 feet, through a central angle of  $07^{\circ}30'06''$ , having a radius of 1763.60 feet, the long chord of which bears  $N 58^{\circ}52'15''E$ , 230.74 feet, to the beginning of a non-tangent curve to the right;

with said non-tangent curve to the right, an arc distance of 347.09 feet, through a central angle of  $14^{\circ}32'26''$ , having a radius of 1367.69 feet, the long chord of which bears  $N 68^{\circ}43'04''E$ , 346.16 feet, to the beginning of a non-tangent curve to the left;

with said non-tangent curve to the left, an arc distance of 759.20 feet, through a central angle of  $05^{\circ}59'37''$ , having a radius of 7257.62 feet, the long chord of which bears  $N 74^{\circ}08'39''E$ , 758.85 feet, to the beginning of a non-tangent curve to the left;

with said curve to the left, an arc distance of 384.50 feet, through a central angle of  $03^{\circ}35'42''$ , having a radius of 6128.08 feet, the long chord of which bears  $N 68^{\circ}52'24''E$ , 384.44 feet;

**THENCE**  $N 67^{\circ}04'16''E$ , 251.16 feet, continuing with said south right-of-way, to the northeast corner of said Edina tract;

**THENCE**  $S 01^{\circ}19'18''E$ , 308.82 feet, departing said south right-of-way, to the north line of aforesaid ART GNB tract remainder;

**THENCE**  $N 89^{\circ}36'19''E$ , 252.32 feet, with said north line, to the northeast corner of said ART GNB tract remainder;

**THENCE**  $S 01^{\circ}10'40''E$ , 835.58 feet to an ell corner in the east line of said ART GNB tract;

**THENCE** N 89°29'14"E, 196.38 feet, continuing with said east line, to the northwest corner of a Street Easement recorded in Instrument Number 200002802701 said County Records;

**THENCE** S 01°10'43"E, 121.49 feet, with the west line of said Street Easement, to the south line of said ART GNB remainder, and being in the north line of aforementioned Block F;

**THENCE** N 88°42'52"E, 3.98 feet, with said common line, to the west right-of-way of Hutton Road (a called 64 foot right-of-way) at the beginning of a non-tangent curve to the right;

**THENCE** with said non-tangent curve to the right, an arc distance of 199.73 feet, through a central angle of 07°37'45", having a radius of 1500.00 feet, the long chord of which bears S 03°53'22"W, 199.58 feet;

**THENCE** S 07°42'15"W, 123.56 feet, continuing with said west right-of-way;

**THENCE** S 48°12'33"W, 38.02 feet, to the north right-of-way line of Wittington Place (a called 110 foot right-of-way);

**THENCE** S 88°42'52"W, 1493.14 feet, with said north right-of-way, to the beginning of a curve to the left;

**THENCE** with said curve to the left, with said north right-of-way, an arc distance of 305.68 feet, through a central angle of 16°33'18", having a radius of 1057.93 feet, the long chord of which bears S 80°26'13"W, 304.62 feet;

**THENCE** N 66°09'25"W, 22.29 feet, to the easterly right-of-way of Chartwell Drive (an 85 foot right-of-way);

**THENCE** N 24°04'09"W, 38.83 feet, with said easterly right-of-way, to the beginning of a curve to the left;

**THENCE**, continuing with said easterly right-of-way, with said curve to the left, an arc distance of 387.71 feet, through a central angle of 34°34'27", having a radius of 642.50 feet, the long chord of which bears N 41°21'23"W, 381.85 feet;

**THENCE** N 44°06'55"E, 358.93 feet;

**THENCE** N 45°55'16"W, 597.40 feet to the **Point of Beginning** and containing 2,591,374 square feet or 59.49 acres of land more or less.

**SPECIAL WARRANTY DEED WITH VENDOR'S LIEN**

STATE OF TEXAS

§

KNOW ALL PERSONS BY THESE PRESENTS:

COUNTY OF DALLAS

§

§

THAT, HIGHLAND REALTY SERVICES, INC., a Georgia corporation ("Grantor"), for and in consideration of the sum of Ten and No/100 Dollars (\$10.00) and other valuable consideration paid to Grantor by Grantee herein named, the receipt and sufficiency of which consideration are hereby acknowledged, and the further consideration of the assumption by Grantee of certain indebtedness specified and described in an Assumption Agreement of even date between Grantor and Grantee the payment of which is secured by the Vendor's Lien herein retained, and is additionally secured by an assumption agreement of even date herewith has GRANTED, SOLD AND CONVEYED, and by these presents does GRANT, SELL AND CONVEY unto ART GNB, Inc., a Nevada corporation ("Grantee"), the following described property, to-wit:

that certain parcel of real property described on Exhibit "A" attached hereto and made a part hereof for all purposes, together with all of Grantor's right, title and interest in and to the easements, rights-of-way, privileges, liberties, hereditaments, strips and gores, streets, alleys, passages, ways, waters, water courses, rights and appurtenances thereto belonging or appertaining, and all of the estate, right, title, interest, claims or demands whatsoever of Grantor therein and the streets and ways adjacent thereto, either in law or in equity; subject, however, to those matters set forth on Exhibit "B" attached hereto and made a part hereof.

TO HAVE AND TO HOLD the above described premises, together with all and singular the rights and appurtenances thereto in anywise belonging unto Grantee, and Grantee's successors, heirs, legal representatives and assigns forever, and Grantor does hereby bind itself, its successors, heirs, legal representatives and assigns to WARRANT AND FOREVER DEFEND all and singular the said premises unto Grantee, and Grantee's successors, heirs, legal representatives and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof, by, through or under the Grantor, but not otherwise.

But it is expressly agreed that the Vendor's Lien, as well as the superior title in and to the above described premises, is retained against the above described property, premises and improvements thereon until the indebtedness subject to the Assumption Agreement described above has been fully paid according to the face, tenor, effect and reading thereof, when this Deed shall become absolute.

By its acceptance hereof, the Grantee hereby assumes and agrees to pay all ad valorem taxes assessed against the above-described property for 2006 and all subsequent years, and agrees to indemnify and hold Grantor harmless for all such taxes and assessments.

EXECUTED to be effective as of the 30<sup>th</sup> day of June, 2006.

**GRANTOR:**

HIGHLAND REALTY SERVICES, INC.,  
a Georgia corporation

By: *[Signature]*  
Name: RONALD F. AKIN  
Title: PRESIDENT

**GRANTEE'S MAILING ADDRESS:**

ART GNB, INC.  
1800 Valley View Lane, Suite 300  
Dallas, Texas 75234

STATE OF TEXAS           §  
  §  
COUNTY OF DALLAS       §

This instrument was acknowledged before me on the 19<sup>TH</sup> day of JUNE, 2006, by RONALD F. AKIN, the PRESIDENT of Highland Realty Services, Inc., a Georgia corporation, on behalf of said corporation.

*Lisa Mackintosh*  
Notary Public for the State of Texas

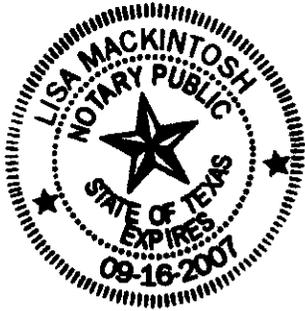


EXHIBIT "A"

Description of Real Property

Tract 1:

Description of a 45.0022 acre tract of land situated in the City of Farmers Branch and being out of the Francis Miller Survey, Abstract No. 926, Dallas County, Texas, said tract being comprised of those properties described as Tract I and Tract III, in deed from Gould, Inc., to GNB Batteries, Inc., recorded in Volume 83217, Page 3322, Deed Records of Dallas County, Texas, SAVE AND EXCEPT a certain 15 foot wide right of way dedication for Valley View Lane conveyed to the City of Farmers Branch, Texas, by Quit Claim Deed for GNB Batteries, Inc., dated March 13, 1984, the cumulative perimeter of the net remainder of said three tracts being more particularly described as follows:

Commencing, at a point on the South line of Valley View Lane (a variable width right of way) said point being a the Northeast corner of Lot 1, Block A, Mercer Crossing Addition, THENCE, South 445 degrees 57 minutes 43 seconds East a distance of 2.95 feet to an "+" cut set for corner in the South line of Valley View Lane as widened by said 15 foot wide conveyance, the PLACE OF BEGINNING, said point being in a curve to the right, the center of which bears South 34 degrees 54 minutes 24 seconds East, a distance of 1845.08 feet from said point;

THENCE with said widened South line of Valley View Lane and with said curve to the right, through a central angle of 06 degrees 54 minutes 21 seconds, an arc distance of 222.38 feet to 1/2 inch iron rod set at the end of said curve and the beginning of a compound curve to the right, the center of which compound curve bears South 28 degrees 00 minutes 00 seconds East, a distance of 1367.69 feet from said point;

THENCE continuing with said widened South line of Valley View Lane and with said curve to the right, through a central angle of 15 degrees 01 minutes 00 seconds, an arc distance of 358.46 feet to a 1/2 inch iron rod set at the end of said curve and the beginning of a reverse curve to the left, the center of which bears North 12 degrees 59 minutes 00 seconds West a distance of 7227.62 feet from said point;

THENCE continuing with said widened South line of Valley View Lane and with said curve to the left through a central angle of 06 degrees 02 minutes 02 seconds, an arc distance of 761.15 feet to 1/2 inch iron rod set for corner, said point being the northwest corner of Tract III, as modified by said 15 foot dedication, said point being in a curve to the left, the center of which bears North 19 degrees 25 minutes 00 seconds West, a distance of 6128.08 feet from said point;

THENCE in a northeasterly direction with said widened South line of Valley View Lane and with said curve to the left, through a central angle of 03 degrees 35 minutes 42 seconds, an arc distance of 364.50 feet to a 1/2 inch iron rod set at the end of said curve;

THENCE North 66 degrees 59 minutes 04 seconds East with said line of Valley View Lane, a distance of 251.01 feet to a 1/2 inch iron rod with cap set for corner, said point being in the west line of a 2.165 acre tract conveyed to J.A. Frazier, et al by deed recorded in Volume 389, Page 65, Deed Records, Dallas County, Texas;

THENCE South 01 degrees 24 minutes 51 seconds East with the west line of said Frazier Tract, a distance of 311.24 feet to a 1/2 inch iron rod with cap set for corner in an old fence line;

THENCE North 89 degrees 09 minutes 00 seconds East, generally following the line of an old fence, a distance of 251.02 feet to a 1/2 inch iron rod with cap found for corner;

THENCE South 01 degrees 15 minutes 24 seconds East, a distance of 835.26 feet to a 1/2 inch iron rod found for corner, said point being in the Southwest corner of Lot 2, Block 4, Valley View Commerce Park, an addition to the City of Farmers Branch recorded in Volume 84084, Page 235, Map Records, Dallas County, Texas;

THENCE North 89 degrees 26 minutes 00 seconds East, generally with the South line of Lot 1, Block 4, Lot 1, Block 2, Lot 3, Block 1 of said Valley View Commerce Park and Lot 1 A, Block B, of Nicholson Road Joint Venture, an addition to the City of Farmers Branch recorded in Volume 80231, Page 171, Map Records, Dallas County, Texas a distance of 1515.94 feet to a 1/2 inch iron rod set with cap for corner in the center line of Nicholson Road (a 64 foot right of way) said point being also in the East line of the Francis Miller Survey, Abstract No. 926 end on the West line of Thomas L. Chenowith Survey, Abstract No. 325;

THENCE South 00 degrees 26 minutes 00 seconds East along the West line of said Thomas L. Chenowith Survey, Abstract No. 325, a distance of 64.99 feet to a 1/2 inch iron rod set at the Southwest corner of Lot 3, Block A of Farmers Branch Industrial Park West;

THENCE South 89 degrees 26 minutes 00 seconds West with the North line of Centra Development Co. tract, a distance of 990.18 feet to a 1/2 inch iron rod found for corner;

THENCE South 71 degrees 58 minutes 51 seconds West continuing with the North line of said Centra Development Co. Tract, a distance of 182.54 feet to a 1/2 inch iron rod found at angle point;

THENCE South 88 degrees 37 minutes 00 seconds West, continuing with the North line of said Centra Development co. tract, a distance of 1839.23 feet to a 1/2 inch iron rod set for corner;

THENCE North 45 degrees 57 minutes 43 seconds West, with the northerly Line of said Centra Development Co. tract and with the northeasterly line of Lot 1, Block A, Mercer Crossing Addition, a distance of 884.84 feet to the PLACE OF BEGINNING and containing 1,960,296 square feet or 45.0022 acres of land, more or less.

**EXHIBIT "B"**

**Permitted Exceptions  
GNB Building**

The real property is conveyed subject to all conditions, restrictions, easements, rights-of-way, encumbrances, and other matters of record.



**FILED AND RECORDED**

OFFICIAL PUBLIC RECORDS

A handwritten signature in black ink, appearing to read "J. F. Warren", is written over a rectangular area with a light gray, textured background.

John F. Warren, County Clerk

Dallas County TEXAS

July 10 2007 03:34 PM

FEE: \$ 32.00

**20070248392**



EXECUTED to be effective as of the 27<sup>th</sup> day of June, 2007.

**GRANTOR:**

ART GNB, INC.  
a Nevada corporation

By: *Steven A. Abney*  
Name: Steven A. Abney  
Title: Vice President and Treasurer

**GRANTEE'S MAILING ADDRESS:**

EDINA PARK PLAZA ASSOCIATES LIMITED PARTNERSHIP  
1800 Valley View Lane, Suite 300  
Dallas, Texas 75234

STATE OF TEXAS           §  
  §  
COUNTY OF DALLAS       §

This instrument was acknowledged before me on the 27<sup>th</sup> day of June, 2007, by Steven A. Abney, the V.P. and Treasurer of ART GNB, Inc., a Nevada corporation, on behalf of said corporation.



*Lisa Mackintosh*  
Notary Public for the State of Texas

**EXHIBIT "A"**

**Description of Real Property**

**METES AND BOUNDS DESCRIPTION**

**34.00 ACRES**

**IN THE FRANCIS MILLER SURVEY, A-926  
CITY OF FARMERS BRANCH, DALLAS COUNTY, TEXAS**

All that certain 34.00 acres of land, out of the 45.0022 acre tract described in the deed from Highland Realty Services, Inc. to Art GNB, Inc., recorded in Instrument Number 20070248392, in the Deed Records of Dallas County, Texas, in the Francis Miller Survey, A-926, City of Farmers Branch, Dallas County, Texas (all bearings shown hereon based on the Texas State Plane Coordinate System, North Central Zone):

BEGINNING at a 1/2" iron rod with a cap stamped "HALFF" found for the northwest corner of the herein described tract, common to the northeast corner of Lot 1, Block A, Mercer Crossing Addition 1, an addition to the City of Farmers Branch, recorded in Volume 2003184, Page 61, in the south right-of-way line of Valley View Lane (right-of-way varies), from which a 1/2" iron rod with a cap stamped "HALFF" found for the north corner of the southeast cutback line at the intersection of the south right-of-way line of said Valley View Lane and the east right-of-way line of Centerplace Drive (85' right-of-way) bears South 48° 53' 41" West - 434.00', and from which a 1/2" iron rod with a cap stamped "HALFF" found bears North 45° 54' 52" West - 15.29', said point of beginning being a point on a curve to the right, having a central angle of 07° 11' 11", a radius of 1,845.08', and a chord bearing and distance of North 58° 56' 39" East - 231.27';

THENCE along said curve to the right, in a northeasterly direction along the north line of the herein described tract, common to the south right-of-way line of said Valley View Lane, an arc distance of 231.42' (called 222.38') to a 5/8" iron rod with a cap stamped "PATE" set for a point on a curve to the right, having a central angle of 14° 32' 26", a radius of 1,367.69', and a chord bearing and distance of North 68° 42' 59" East - 346.16';

THENCE along said curve to the right, in a northeasterly direction continuing along the north line of the herein described tract, common to the south right-of-way line of said Valley View Lane an arc distance of 347.09' (called 358.46') to 5/8" iron rod with a cap stamped "PATE" set for a point on a curve to the left, having a central angle of 05° 59' 37", a radius of 7,257.62', and a chord bearing and distance of North 74° 08' 34" East - 758.85', and from which a 1/2" iron rod found bears North 13° 26' 06" West - 15.00';

THENCE along said curve to the left, in a northeasterly direction, continuing along said north line of the herein described tract, common to the south right-of-way line of said Valley View Lane an arc distance of 759.20' (called 761.15') to a 1/2" iron rod found for a point on a curve to the left, having a central angle of 03° 35' 42", a radius of 6,128.08', and a chord bearing and distance of North 68° 52' 19" East - 384.44';

THENCE along said curve to the left, in a northeasterly direction continuing along the north line of the herein described tract, common to the south right-of-way line of said Valley View Lane, an

arc distance of 384.50' to a 1/2" iron rod found for the end of curve;

THENCE North 67° 04' 11" East - 251.01' continuing along the north line of the herein described tract, common to the south right-of-way line of said Valley View Lane to an "X" in concrete set for the northeast corner of the herein described tract, in the west line of the tract of land described in the deed to V H Printing, L.P., recorded in Volume 2005159, Page 7153, in the Deed Records of Dallas County, Texas;

THENCE South 01° 19' 44" East - 308.86' along the east line of the herein described tract to a 5/8" iron rod with a cap stamped "PATE" set for an angle corner of the herein described tract;

THENCE South 89° 37' 11" West - 114.46' to a 5/8" iron rod with a cap stamped "PATE" set for an angle corner of the herein described tract;

THENCE South 01° 19' 44" East - 965.42' along the east line of the herein described tract to a 5/8" iron rod with a cap stamped "PATE" set for the southeast corner of the herein described tract, in the north line of Block F, Westside Addition Phase 1, recorded in Volume 20060017, Page 2708, in the Deed Records of Dallas County, Texas;

THENCE South 88° 42' 26" West - 1,123.96' along the south line of the herein described tract, common to the north line of said Block F, Westside Addition Phase 1, to a 1/2" iron rod found for the southwest corner of the herein described tract, common to an angle corner of said Block F;

THENCE North 45° 54' 52" West - 878.78' (called 884.84') along the west line of the herein described tract, common to an east line of said Block F and the east line of aforesaid Lot 1, Block A, Mercer Crossing Addition 1, to the POINT OF BEGINNING of the herein described tract and containing 34.00 acres of land.

**EXHIBIT "B"**

**Permitted Exceptions  
GNB Building**

The real property is conveyed subject to all conditions, restrictions, easements, rights-of-way, encumbrances, and other matters of record.



**FILED AND RECORDED**

OFFICIAL PUBLIC RECORDS

A handwritten signature in black ink, appearing to read "J. F. Warren", is written over a rectangular area with a fine dotted background.

John F. Warren, County Clerk

Dallas County TEXAS

August 20 2007 11:52 AM

FEE: \$ 32.00

**20070299861**

*Sendera Title G/F # 1503042-VCJA*

After recording return to:  
CADG Mercer Crossing Holdings, LLC  
Attn: Mehrdad Moayed  
1800 Valley View Ln., Suite 300  
Farmer's Branch, Texas 75234

**Notice of Confidentiality Rights: If you are a natural person, you may remove or strike any of the following information from this instrument before it is filed for record in the public records: Your social security number or your driver's license number.**

**Special Warranty Deed with Vendor's Lien**

**Date:** November 18, 2015

**Grantors:** Income Opportunity Realty Investors, Inc.  
TCI Mercer Crossing, Inc.  
TCI Meridian Acres, LLC  
Valwood Acres, LLC  
2M Holdings, LP

**Grantors' Mailing Address (except for 2M Holdings, LP)** 1603 LBJ Freeway, Suite 800  
Dallas, Texas 75234

**Grantor's Mailing Address for 2M Holdings, LP** 1800 Valley View Ln., Suite 300  
Farmer's Branch, Texas 75234

**Grantee:** CADG Mercer Crossing Holdings, LLC, a Texas limited liability company

**Grantee's Mailing Address** 1800 Valley View Ln., Suite 300  
Farmer's Branch, Texas 75234  
Attn: Mehrdad Moayed

**Consideration:** **Ten Dollars** (\$10) and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, and for the further consideration of the execution and delivery by Grantee to FIRST TEXAS HOMES, INC., a Texas corporation ("Lender") of that certain promissory note of even date herewith in the original principal amount of TWENTY SIX MILLION ONE HUNDRED THOUSAND AND NO/100 DOLLARS (\$26,000,000.00), payable as therein provided (the "Lender Note"), the payment of the Lender Note being secured by a Vendor's Lien (the "Lender's Vendor Lien) herein retained and being additional secured by a Deed of Trust, Security Agreement, Assignment of Leases, Assignment of Rents and Financing Statement, of even date therewith executed by Grantor to Charles S. Brown, Trustee

on behalf of and for the benefit of Lender and for the further consideration of the execution and delivery by Grantee to Transcontinental Realty Advisors, Inc., a Nevada corporation, of that certain promissory note of even date herewith in the original principal amount of FIFTY MILLION AND NO/100 DOLLARS (\$50,000,000.00), payable as therein provided (the "TRI Note"), the payment of the TRI Note being secured by a Vendor's Lien herein retained (the "TRI's Vendor Lien"), and being additionally secured by a Subordinate Deed of Trust, Assignment of Leases and Rents and Security Agreement of even date herewith to Jay A. LaJone, Trustee on behalf and for the benefit of TRI, reference to which is hereby made for all purposes

**Property (Including Improvements):**

All of the property described on the attached **Exhibit A**, which is in Dallas County, Texas. It includes, but is not limited to, (1) all benefits, privileges, tenements, hereditaments, rights and appurtenances thereon or pertaining to such real property, (2) all permits, approvals, licenses, water and sewer capacity commitments, reimbursement rights, and other rights and interests owned or held by Grantors, if any, in connection with such real property, and (3) all easements owned by Grantors, if any, which are used or needed in connection with the development of the Property.

**Reservations from and Exceptions to Conveyance and Warranty:**

All of those items described on the attached **Exhibit B** and any mineral interests in the Property, and any and all mineral interests owned by Grantors or entities related to Grantors will be reserved by Grantors or retained by its related entities. Grantors waive all rights to use the Property surface for the extraction or development of oil, gas, and other mineral interests from the Property and all operations associated therewith.

Grantors, for the Consideration and subject to the Reservations from and Exceptions to Conveyance and Warranty, GRANTS, SELLS and CONVEYS to Grantee the Property, together with all and singular the rights and appurtenances thereto in any wise belonging, to have and hold it to Grantee, Grantee's heirs, legal representatives, successors, or assigns forever. Grantors bind Grantors and Grantors' heirs, executors, administrators, and successors to warrant and forever defend all and singular the Property to Grantee and Grantee's heirs, legal representatives,

successors, and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, when such claim is by, through or under Grantors, but not otherwise, except as to the Reservations from and Exceptions to Conveyance and Warranty.

But it is expressly agreed and stipulated that: (a) the Lender's Vendor Lien and Superior Title are retained against the Property by TRI, its successors and assigns, until the Lender Note and all interest thereon are fully paid according to the face, tenor, effect and reading thereof, when this Deed shall become absolute as to the Lender's Vendor Lien and Superior Title so retained, the said Lender's Vendor Lien and Superior Title herein retained are hereby transferred, assigned, sold and conveyed to Lender, its successors and assigns, the payee named in the Lender Note, without recourse on or warranty by TRI; (b) the TRI's Vendor Lien and Superior Title are retained against the Property by TRI, its successors and assigns until the TRI Note and all interest thereon are fully paid according to the face, tenor, effect and reading thereof, when this Deed shall become absolute as to the TRI's Vendor Lien and Superior Title so retained; and (c) the TRI's Vendor Lien and Superior Title retained for the benefit of TRI pursuant to the provisions hereof have been subordinated to the Lender's Vendor Lien and Superior Title retained for the benefit of Lender pursuant to that certain Tri-Party Agreement of even date herewith between Lender, TRI and Grantee.

Except for the specific representations and warranties stated in that certain Contract of Sale, as amended, dated as of the Effective Date as defined in it, by and between the Grantors and Grantee, and the warranty of title expressly stated in this Deed, the Property is being sold and purchased and is being conveyed in an **"AS IS", "WHERE IS" and "WITH ALL FAULTS"** condition subject to any condition that may exist, and without the existence of and without reliance upon any representation, warranty, agreement, or statement by Grantors or anyone acting on behalf of Grantors including, without limitation, any broker, engineer, architect, attorney, surveyor, appraiser or environmental consultant (jointly or severally referred to as "Grantors' Representatives"). Grantee acknowledges and agrees that Grantors or Grantors' Representatives have not made, do not make, and specifically disclaim any representations, warranties, promises, covenants, agreements, or guarantees of any kind or character whatsoever, whether express or implied, oral or written, past, present or future, of, as to, concerning or with respect to: (a) the Property's nature, quality or condition, including, without limitation, the water, soil and geology and the condition or manner of construction of any improvements or the materials incorporated into any improvements, if any; (b) the Property's value; (c) the Property's characterization for ad valorem property taxes or its valuation or assessment for ad valorem property taxes; (d) the existence on the Property of any threatened or endangered species or their habitats as declared by the Texas Parks and Wildlife Department, the U.S. Fish and Wildlife Service or any other applicable governmental authority or body; (e) the existence on or the Property being part of any wetlands, as defined by federal or state law or regulation; (f) the income to be derived from the Property; (g) the Property's suitability for any and all activities and uses that Grantee may conduct on it, including but not limited to residence purposes; (h) the Property's, or its operation's, compliance with any laws, rules, ordinances, or regulations of any applicable governmental authority or body; (i) the Property's habitability, merchantability, or suitability or fitness for a particular purpose; (j) or any other matter with respect to the Property;

Further, and without in any way limiting any other provision of this Deed, Grantors make no representation or warranty with respect to the possible presence in, on, or beneath the

Property (or any parcel in proximity thereto) of hazardous substances or the existence of any environmental conditions on the Property and shall have no liability to Grantee therefor. As used in this Deed, (i) the term "hazardous substances" means any toxic or hazardous waste or substances which are now or subsequently defined, classified, or characterized as such under any applicable laws, regulation, statute, rule, ordinance, code, order or decree governing the handling, disposal, use, placement, removal, cleanup or disclosure of hazardous substances or regulating, relating to or imposing liability or standards of conduct concerning any hazardous substances, and (ii) the term "environmental condition" means any condition with respect to the Property which could or does result in any damage, loss, cost, expense or liability to or against the owner of the Property by any third party (including without limitation any governmental authority or body) including, without limitation, any condition resulting from operations conducted on the Property or on property adjacent to it.

Texas law governs this Deed. When the context requires, singular nouns and pronouns include the plural.

*[Grantors' signature and acknowledgment are on the following page.]*

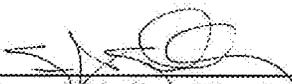
Executed as of the Date stated above.

**Grantors:**

**Income Opportunity Realty Investors, Inc.**

By:   
Steven Shelley, Vice-President

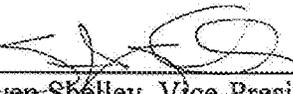
**TCI Mercer Crossing, Inc.**

By:   
Steven Shelley, Vice-President

**TCI Meridian Acres, LLC**

By:   
Steven Shelley, Vice-President

**Valwood Acres, LLC**

By:   
Steven Shelley, Vice-President

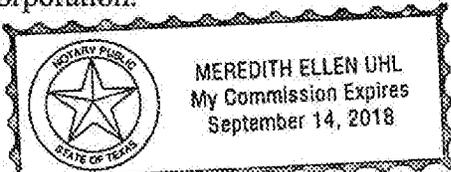
**2M Holdings, LP, a Delaware limited partnership**

By: 2M Ventures, LLC, a Delaware limited liability company, its general partner

By:   
Mehrdad Moayed, Manager

State of Texas  
County of Dallas

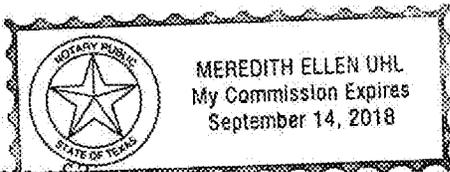
This instrument was acknowledged before me on November 17, 2015, by Steven Shelley, Vice-President of **Income Opportunity Realty Investors, Inc.**, a Nevada corporation.



Meredith Ellen Uhl  
Notary Public, State of Texas

State of Texas  
County of Dallas

This instrument was acknowledged before me on November 17, 2015, by Steven Shelley, Vice-President of **TCI Mercer Crossing, Inc.**, a Nevada corporation.



Meredith Ellen Uhl  
Notary Public, State of Texas

State of Texas  
County of Dallas

This instrument was acknowledged before me on November 17, 2015, by Steven Shelley, Vice-President of **TCI Meridian Acres, LLC**, a Nevada limited liability company.



Meredith Ellen Uhl  
Notary Public, State of Texas

State of Texas  
County of Dallas

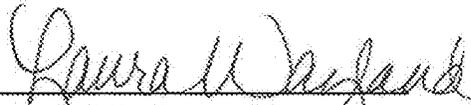
This instrument was acknowledged before me on November 17, 2015, by Steven Shelley, Vice-President of **Valwood Acres, LLC**, a Nevada limited liability company.

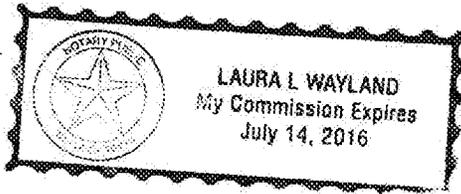


Meredith Ellen Uhl  
Notary Public, State of Texas

State of Texas  
County of Dallas

This instrument was acknowledged before me on November 18, 2015, by Mehrdad Moayedi, Manager of 2M Ventures, LLC, a Delaware limited liability company, General Partner of 2M Holdings, LP, a Delaware limited partnership

  
\_\_\_\_\_  
Notary Public, State of Texas



**Exhibit A**  
**Legal Description**

EXHIBIT A  
(Legal Description)  
Dallas County Property

**Tracts 1 and 2: Intentionally deleted.**

**Tract 3: Valwood Acres, LLC**

LEGAL DESCRIPTION TRACT 3: Being a tract of land out of the Francis Miller Survey, Abstract No. 926 and situated in the City of Farmers Branch, Dallas County, Texas, and surveyed by Miller Surveying, Inc. of Hurst, Texas in November 2015, said tract being Block F, Westside Addition Section 1, an addition to the City of Farmers Branch according to the plat recorded as Document No. 200600172708 and being a portion of the same tract of land described in the deed to Valwood Acres, LLC recorded as Document No. 201400076499 in the Official Public Records of Dallas County, Texas, and being more particularly described by metes and bounds as follows:

Beginning at 1/2 inch capped steel rod found for the most westerly corner of said Block F and said Valwood tract, said rod being in the easterly right-of-way line of Chartwell Drive;

Thence North 44 degrees 13 minutes 49 seconds East with the westerly boundary line of said Block F and said Valwood tract a distance of 359.21 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the most northerly corner of said Valwood tract;

Thence South 46 degrees 00 minutes 57 seconds East with the easterly boundary line of said Block F and said Valwood tract a distance of 280.97 feet to a 1/2 inch capped steel rod found for an inner corner thereof;

Thence North 88 degrees 36 minutes 21 seconds East with the northerly boundary line of said Block F and said Valwood tract a distance of 1687.62 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the northeast corner thereof, said rod being in the westerly right-of-way line of Hutton Drive and also being in a curve to the right with a radius of 1501.00 feet and whose chord bears South 03 degrees 39 minutes 03 seconds West at 205.99 feet;

Thence southerly with the easterly boundary line of said Block F and said Valwood tract and said westerly right-of-way line and with said curve along an arc length of 206.15 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the end of said curve;

Thence South 07 degrees 35 minutes 08 seconds West continuing with said easterly boundary line and said westerly right-of-way line a distance of 117.52 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the northeasterly end of a corner clip for said westerly right-of-way line and the northerly right-of-way line of Wittington Place;

Thence South 48 degrees 06 minutes 41 seconds West with said corner clip a distance of 38.03 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the southwesterly end thereof;

Thence South 88 degrees 37 minutes 00 seconds West with the northerly right-of-way line of Wittington Place a distance of 1493.19 feet to a 1/2 inch capped steel rod found for the beginning

of a curve to the left with a radius of 1057.93 feet and whose chord bears South 80 degrees 20 minutes 24 seconds West at 304.58 feet;

Thence westerly with said northerly right-of-way line and said curve along an arc length of 305.65 feet to a 1/2 inch capped steel rod found for the southeasterly end of a corner clip for said northerly right-of-way line and the easterly right-of-way line of Chartwell Drive;

Thence North 66 degrees 15 minutes 17 seconds West with said corner clip a distance of 23.02 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the northwesterly end of said corner clip;

Thence North 24 degrees 08 minutes 39 seconds West with said easterly right-of-way line a distance of 39.22 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the left with a radius of 642.50 feet and whose chord bears North 41 degrees 27 minutes 00 seconds West at 381.85 feet;

Thence northerly continuing with said easterly right-of-way line and with said curve along an arc length of 387.71 feet to the point of beginning and containing 16.878 acres of land, more or less.

#### **Tract 4: TCI Meridian Acres, LLC**

LEGAL DESCRIPTION TRACT 4: Being a tract of land out of the Francis Miller Survey, Abstract No. 926 and situated in the City of Farmers Branch, Dallas County, Texas, and surveyed by Miller Surveying, Inc. of Hurst, Texas in November 2015, said tract being a portion of Block C, Westside Addition Section 1, an addition to the City of Farmers Branch according to the plat recorded as Document No. 200600172708 and being the same tract of land described in the deed to TCI Meridian Acres, LLC recorded as Document No. 200900254500 in the Official Public Records of Dallas County, Texas, Texas and being more particularly described by metes and bounds as follows:

Beginning at 1/2 inch capped steel rod found for the most northerly corner of said TCI tract, said rod being in the southerly right-of-way line of Valley View Lane;

Thence South 59 degrees 31 minutes 05 seconds East with the easterly boundary line of said TCI tract a distance of 28.57 feet to a 1/2 inch "MILLER 5665" capped steel rod set in the westerly right-of-way line of Davenport Street;

Thence South 15 degrees 05 minutes 45 seconds East continuing with said easterly boundary line and said westerly right-of-way line a distance of 29.65 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the left with a radius of 480.00 feet and whose chord bears South 22 degrees 14 minutes 10 seconds East at 119.34 feet;

Thence southerly continuing with said easterly boundary line and said westerly right-of-way line and with said curve along an arc length of 119.65 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the end of said curve;

Thence South 29 degrees 22 minutes 37 seconds East continuing with said easterly boundary line and said westerly right-of-way line a distance of 528.36 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence North 60 degrees 37 minutes 23 seconds East a distance of 60.00 feet to a 1/2 inch "MILLER 5665" capped steel rod set in the easterly right-of-way line of said Davenport Street, said rod being in the westerly boundary line of Lot 1, Block A, Mercer School Addition, an addition to the City of Farmers Branch, Dallas County, Texas according to the plat recorded as Document No. 201400169982 in the Official Public Records of Dallas County, Texas;

Thence South 29 degrees 22 minutes 37 seconds East with the westerly boundary line of said Lot 1 a distance of 164.03 feet to a 1/2 inch "MILLER 5665" capped steel rod set for an angle point therein;

Thence South 02 degrees 16 minutes 50 seconds East continuing with said westerly boundary line a distance of 145.07 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the most southerly corner of said Lot 1, said rod being in the northerly right-of-way line of Wittington Place and also being in a curve to the right with a radius of 986.32 feet and whose chord bears South 77 degrees 22 minutes 18 seconds West at 351.07 feet;

Thence westerly with said northerly right-of-way line and with said curve along an arc length of 352.95 feet to a 1/2 capped inch steel rod found for the end of said curve;

Thence South 87 degrees 37 minutes 23 seconds West continuing with said northerly right-of-way line a distance of 400.40 feet to a 1/2 inch steel rod found capped steel rod found for the southerly end of a corner clip for said northerly right-of-way line and the easterly right-of-way line of Luna Road;

Thence North 47 degrees 32 minutes 42 seconds West with said corner clip a distance of 35.46 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the northerly corner thereof;

Thence North 02 degrees 42 minutes 47 seconds West with said westerly right-of-way line of Luna Road a distance of 864.86 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the southerly end of a corner clip for said easterly right-of-way line and said southerly right-of-way line of Valley View Lane;

Thence North 42 degrees 29 minutes 34 seconds East with said corner clip a distance of 38.72 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the northerly end thereof, said rod being in a curve to the left with a radius of 1975.08 feet and whose chord bears North 80 degrees 53 minutes 22 seconds East at 312.30 feet;

Thence easterly with the southerly right-of-way line of Valley View Lane and with said curve along an arc length of 312.63 feet to the point of beginning and containing 12.412 acres of land, more or less.

**Tract 5: TCI Meridian Acres, LLC**

Lot 1, Block A, Mercer School Addition, an addition to the City of Farmers Branch, Dallas County, Texas according to the plat recorded as Document No. 201400169982 in the Official Public Records of Dallas County, Texas.

**Tract No. 6A: Income Opportunity Realty Investors, Inc.**

Being a tract of land out of the Francis Miller Survey, Abstract No. 926 and situated in the City of Farmers Branch, Dallas County, Texas, and surveyed by Miller Surveying, Inc. of Hurst, Texas in November 2015, said tract being a portion of Block D, Westside Addition Section 1, an addition to the City of Farmers Branch according to the plat recorded as Document No. 200600172708 and being a portion of the same tract of land described in the deed to Income Opportunity Realty Investors, Inc. recorded in Volume 2000249, Page 5755 in the Deed Records of Dallas County, Texas, Texas and being more particularly described by metes and bounds as follows:

Beginning at a 1/2 inch "MILLER 5665" capped steel rod for the most westerly northwest corner of said Block D, said rod being the southeasterly end of a corner clip for the easterly right-of-way line of Luna Road and the southerly right-of-way line of Wittington Place;

Thence North 42 degrees 27 minutes 18 seconds East with said corner clip a distance of 35.25 feet to a 1/2 inch capped steel rod found for the northeasterly corner thereof;

Thence North 87 degrees 37 minutes 23 seconds East with the northerly boundary line of said Block D and with said southerly right-of-way line a distance of 399.76 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the left with a radius of 1096.32 feet and whose chord bears North 74 degrees 07 minutes 23 seconds East at 511.86 feet;

Thence easterly continuing with said northerly boundary line and said southerly right-of-way line and with said curve along an arc length of 516.63 feet to a 1/2 inch capped steel rod found for the end of said curve;

Thence North 60 degrees 37 minutes 23 seconds East continuing with said northerly boundary line and said southerly right-of-way line a distance of 1087.43 feet to a 1/2 inch capped steel rod found for the beginning of a curve to the right with a radius of 947.93 feet and whose chord bears North 74 degrees 37 minutes 12 seconds East at 458.55 feet;

Thence easterly continuing with said northerly boundary line and said southerly right-of-way line and with said curve along an arc length of 463.14 feet to a 1/2 inch capped steel rod found for the end of said curve;

Thence North 88 degrees 37 minutes 00 seconds East continuing with said northerly boundary line and said southerly right-of-way line a distance of 541.53 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the most northerly northeast corner of said Income tract;

Thence southerly with the easterly boundary line of said Income tract the following calls:

South 01 degrees 11 minutes 26 seconds East a distance of 821.54 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

South 89 degrees 59 minutes 19 seconds East a distance of 102.00 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

North 44 degrees 59 minutes 12 seconds East a distance of 94.75 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

North 89 degrees 51 minutes 39 seconds East a distance of 50.15 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

South 44 degrees 36 minutes 21 seconds East a distance of 80.35 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

North 89 degrees 51 minutes 39 seconds East a distance of 248.22 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

South 01 degrees 23 minutes 22 seconds East a distance of 248.13 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the left with a radius of 3808.96 feet and whose chord bears South 05 degrees 01 minutes 43 seconds East at 483.53 feet;

Southerly with said curve along an arc length of 483.86 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the left with a radius of 1289.35 feet and whose chord bears South 13 degrees 12 minutes 33 seconds East at 204.18 feet;

Southerly with said curve along an arc length of 204.39 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the end of said curve;

South 15 degrees 33 minutes 53 seconds East a distance of 103.07 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

South 13 degrees 46 minutes 03 seconds East a distance of 56.22 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

South 14 degrees 36 minutes 41 seconds East a distance of 29.70 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

South 59 degrees 18 minutes 52 seconds East a distance of 20.93 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

South 15 degrees 31 minutes 49 seconds East a distance of 48.61 feet to a 1/2 inch "MILLER 5665" capped steel rod set in the northerly right-of-way line of Mercer Parkway, said rod being

the beginning of a curve to the right with a radius of 850.00 feet and whose chord bears South 77 degrees 33 minutes 15 seconds West at 161.45 feet;

Thence westerly with said northerly right-of-way line and with said curve along an arc length of 161.69 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the end of said curve;

Thence South 83 degrees 00 minutes 14 seconds West continuing with said northerly right-of-way line a distance of 207.40 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the right with a radius of 1950.00 feet and whose chord bears North 81 degrees 24 minutes 37 seconds West at 1047.85 feet;

Thence westerly with said northerly right-of-way line and with said curve along an arc length of 1060.88 feet to a 1/2 inch capped steel rod found for the end of said curve;

Thence North 65 degrees 49 minutes 29 seconds West continuing with said northerly right-of-way line a distance of 816.85 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the left with a radius of 1450.00 feet and whose chord bears North 85 degrees 09 minutes 32 seconds West at 960.12 feet;

Thence westerly with said northerly right-of-way line and with said curve along an arc length of 978.59 feet to a 1/2 inch capped steel rod found for the end of said curve;

Thence South 75 degrees 30 minutes 25 seconds West continuing with said northerly right-of-way line a distance of 92.74 feet to a 1/2 inch capped steel rod found;

Thence North 14 degrees 29 minutes 35 seconds West continuing with said northerly right-of-way line a distance of 16.50 feet to a 1/2 inch capped steel rod found;

Thence South 75 degrees 30 minutes 25 seconds West continuing with said northerly right-of-way line a distance of 223.49 feet to a 1/2 inch capped steel rod found;

Thence South 84 degrees 00 minutes 42 seconds West continuing with said northerly right-of-way line a distance of 16.63 feet to a 1/2 inch capped steel rod found for the southerly end of a corner clip for said northerly right-of-way line and the easterly right-of-way line of Luna Road;

Thence North 59 degrees 44 minutes 56 seconds West with said corner clip a distance of 72.43 feet to a 1/2 inch capped steel rod found for the northerly end thereof;

Thence North 28 degrees 19 minutes 37 seconds West with said easterly right-of-way line a distance of 17.61 feet to a 1/2 inch capped steel rod found for the beginning of a curve to the right with a radius of 1460.00 feet and whose chord bears North 08 degrees 42 minutes 32 seconds West at 310.09 feet;

Thence northerly with said easterly right-of-way line and with said curve along an arc length of 310.68 feet to a 1/2 inch capped steel rod found for the end of said curve;

Thence North 02 degrees 42 minutes 47 seconds West continuing with said easterly right-of-way line a distance of 323.61 feet to the point of beginning and containing 99.097 acres of land, more or less.

**Tract No. 6B: Income Opportunity Realty Investors, Inc.**

Being a tract of land out of the Francis Miller Survey, Abstract No. 926 and the H. C. Marsh Survey, Abstract No. 916 and situated in the City of Farmers Branch, Dallas County, Texas, and surveyed by Miller Surveying, Inc. of Hurst, Texas in November 2015, said tract being a portion of Block E, Westside Addition Section 1, an addition to the City of Farmers Branch according to the plat recorded as Document No. 200600172708 and being a portion of the same tract of land described in the deed to Income Opportunity Realty Investors, Inc. recorded in Volume 2000249, Page 5755 in the Deed Records of Dallas County, Texas, Texas and being more particularly described by metes and bounds as follows:

Beginning at a 1/2 inch "MILLER 5665" capped steel rod for the southwest corner of said Block E, said rod being in the easterly right-of-way line of Luna Road;

Thence North 32 degrees 27 minutes 13 seconds West with the westerly boundary line of said Block E and with said easterly right-of-way line a distance of 842.56 feet to a 1/2 inch capped steel rod found for the beginning of a curve to the right with a radius of radius of 1460.00 feet and whose chord bears North 31 degrees 23 minutes 58 seconds West at 53.72 feet;

Thence northerly continuing with said westerly boundary line and said easterly right-of-way line and with said curve along an arc length of 53.73 feet to a 1/2 inch capped steel rod found for the end of said curve;

Thence North 22 degrees 45 minutes 01 seconds West continuing with said westerly boundary line and said easterly right-of-way line a distance of 156.87 feet;

Thence North 26 degrees 29 minutes 49 seconds East continuing with said westerly boundary line and said easterly right-of-way line a distance of 46.81 feet;

Thence North 62 degrees 21 minutes 54 seconds East continuing with said westerly boundary line and said easterly right-of-way line a distance of 22.82 feet to a 1/2 inch steel rod found capped steel rod found in the southerly right-of-way line of Mercer Parkway;

Thence North 75 degrees 30 minutes 25 seconds East with said southerly right-of-way line a distance of 209.71 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence North 14 degrees 29 minutes 35 seconds West continuing with said southerly right-of-way line a distance of 5.50 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence North 75 degrees 30 minutes 25 seconds East continuing with said southerly right-of-way line a distance of 92.74 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning

of a curve to the right with a radius of radius of 1350.00 feet and whose chord bears South 85 degrees 09 minutes 32 seconds East at 893.91 feet;

Thence easterly continuing with said southerly right-of-way line and with said curve along an arc length of 911.10 feet to a 1/2 inch capped steel rod found for the end of said curve;

Thence South 65 degrees 49 minutes 29 seconds East continuing with said southerly right-of-way line a distance of 816.85 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the left with a radius of radius of 2050.00 feet and whose chord bears South 81 degrees 24 minutes 37 seconds East at 1101.59 feet;

Thence easterly continuing with said southerly right-of-way line and with said curve along an arc length of 1115.29 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the end of said curve;

Thence North 83 degrees 00 minutes 14 seconds East continuing with said southerly right-of-way line a distance of 207.40 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the left with a radius of radius of 950.00 feet and whose chord bears North 77 degrees 47 minutes 51 seconds East at 172.41 feet;

Thence easterly continuing with said southerly right-of-way line and with said curve along an arc length of 450.66 feet to a 1/2 inch "MILLER 5665" capped steel rod set in the easterly boundary line of said Income tract;

Thence South 15 degrees 27 minutes 04 seconds East with said easterly boundary line a distance of 161.89 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence South 00 degrees 25 minutes 15 seconds East continuing with said easterly boundary line a distance of 489.62 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence South 45 degrees 51 minutes 03 seconds West continuing with said easterly boundary line a distance of 271.62 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence South 38 degrees 35 minutes 25 seconds West continuing with said easterly boundary line a distance of 107.79 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the most southerly southeast corner of said Income tract, said rod being in the northerly right-of-way line of LBJ Freeway;

Thence South 88 degrees 15 minutes 56 seconds West with the southerly boundary line of said Income tract and with said northerly right-of-way line a distance of 83.04 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence South 81 degrees 14 minutes 51 seconds West continuing with said southerly boundary and said northerly right-of-way line a distance of 302.03 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence South 87 degrees 58 minutes 25 seconds West continuing with said southerly boundary and said northerly right-of-way line a distance of 353.54 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence North 00 degrees 32 minutes 43 seconds West continuing with said southerly boundary line a distance of 489.86 feet to a 1/2 inch capped steel rod found;

Thence South 89 degrees 04 minutes 07 seconds West continuing with said southerly boundary line a distance of 1936.66 feet to the point of beginning and containing 62.291 acres of land, more or less.

**Tract 7: TCI Mercer Crossing, Inc.**

Being a tract of land out of the J. F. Chenoeth Survey, Abstract No. 267 and situated in the City of Farmers Branch, Dallas County, Texas, and surveyed by Miller Surveying, Inc. of Hurst, Texas in November 2015, said tract being a portion of Block B, Westside Addition Section 1, an addition to the City of Farmers Branch according to the plat recorded as Document No. 200600172708 and being the same tract of land described as "Tract 1" in the deed to TCI Mercer Crossing, Inc. recorded as Document No. 200600375806 in the Official Public Records of Dallas County, Texas, Texas and being more particularly described by metes and bounds as follows:

Beginning at a 1/2 inch "MILLER 5665" capped steel rod set for the most westerly northwest corner of said Tract 1, said rod being the southerly end of a corner clip for the easterly right-of-way line of Mercer Parkway and the southerly right-of-way line of Valley View Lane;

Thence North 20 degrees 49 minutes 17 seconds East with said corner clip a distance of 35.40 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the northerly end thereof;

Thence North 65 degrees 44 minutes 36 seconds East with the northerly boundary line of said Tract 1 and with said southerly right-of-way line a distance of 82.55 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the right with a radius of 1572.28 feet and whose chord bears North 85 degrees 39 minutes 03 seconds East at 344.68 feet;

Thence easterly continuing with said northerly boundary line and said southerly right-of-way line and with said curve along an arc length of 345.37 feet to a 1/2 inch capped steel rod found for the end of said curve;

Thence South 88 degrees 36 minutes 12 seconds East continuing with said northerly boundary line and said southerly right-of-way line a distance of 1128.68 feet to a 1/2 inch capped steel rod found for the most northerly northeast corner of said Tract 1;

Thence South 01 degrees 49 minutes 17 seconds the easterly boundary line of said Tract 1 a distance of 524.72 feet to a 1/2 inch capped steel rod found for an inner corner thereof;

Thence North 88 degrees 50 minutes 25 seconds East a distance of 330.13 feet to a 1/2 inch capped steel rod found for the most easterly northeast corner of said Tract 1, said rod being in the westerly right-of-way line of Luna Road;

Thence South 02 degrees 42 minutes 47 seconds East with the easterly boundary line of said Tract 1 and with said westerly right-of-way line a distance of 866.27 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the left with a radius of 1590.00 feet and whose chord bears South 09 degrees 30 minutes 34 seconds East at 376.34 feet;

Thence southerly continuing with said easterly boundary line and said westerly right-of-way line and with said curve along an arc length of 377.23 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the northerly end of a corner clip for said westerly right-of-way line and the northerly right-of-way line of Mercer Parkway;

Thence South 28 degrees 45 minutes 05 seconds West with said corner clip a distance of 57.29 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the southerly end thereof;

Thence South 75 degrees 30 minutes 25 seconds West with the southerly boundary line of said Tract 1 and with said northerly right-of-way line a distance of 56.98 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the right with a radius of 964.50 feet and whose chord bears South 81 degrees 07 minutes 27 seconds West at 188.82 feet;

Thence westerly continuing with said southerly boundary line and said northerly right-of-way line and with said curve along an arc length of 189.12 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the end of said curve;

Thence South 03 degrees 15 minutes 31 seconds East continuing with said southerly boundary line and said northerly right-of-way line a distance of 5.50 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the right with a radius of 970.00 feet and whose chord bears North 64 degrees 21 minutes 16 seconds West at 937.69 feet;

Thence northwesterly continuing with said southerly boundary line and said northerly right-of-way line and with said curve along an arc length of 968.67 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the end of said curve;

Thence North 35 degrees 27 minutes 02 seconds West with the westerly boundary line of said Tract 1 and the easterly right-of-way line of Mercer Parkway a distance of 1240.84 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the right with a radius of 970.00 feet and whose chord bears North 29 degrees 46 minutes 32 seconds West at 191.84 feet;

Thence northerly continuing with said westerly boundary line and said easterly right-of-way line and with said curve along an arc length of 192.15 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the right with a radius of 2009.50 feet and whose chord bears North 24 degrees 30 minutes 52 seconds West at 30.10 feet;

Thence northerly continuing with said westerly boundary line and said easterly right-of-way line and with said curve along an arc length of 30.10 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the right with a radius of 390.50 feet and whose chord bears North 19 degrees 58 minutes 47 seconds West at 67.58 feet;

Thence northerly continuing with said westerly boundary line and said easterly right-of-way line and with said curve along an arc length of 67.66 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the left with a radius of 209.50 feet and whose chord bears North 18 degrees 38 minutes 38 seconds West at 26.49 feet;

Thence northerly continuing with said westerly boundary line and said easterly right-of-way line and with said curve along an arc length of 26.51 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the end of said curve;

Thence North 24 degrees 06 minutes 01 seconds West continuing with said westerly boundary line and said easterly right-of-way line a distance of 7.03 feet to the point of beginning and containing 54.952 acres of land, more or less.

**Tract No. 8: TCI Mercer Crossing, Inc.**

Being a tract of land out of the J. F. Chenoeth Survey, Abstract No. 267 and the Francis Miller Survey, Abstract No. 926 and situated in the City of Farmers Branch, Dallas County, Texas, and surveyed by Miller Surveying, Inc. of Hurst, Texas in November 2015, said tract being a portion of Block B, Westside Addition Section 1, an addition to the City of Farmers Branch according to the plat recorded as Document No. 200600172708 in the Official Public Records of Dallas County, Texas and being the same tract of land described as "Tract 2" in the deed to TCI Mercer Crossing, Inc. recorded as Document No. 200600375806, and including Lot 1, Block A, Trinity West Addition, an addition to the City of Farmers Branch according to the plat recorded as Document No. 200600172708 of said records and being more particularly described by metes and bounds as follows:

Beginning at a 1/2 inch "MILLER 5665" capped steel rod set for the most westerly corner of said Block A and said Tract 2, said rod being in the southerly right-of-way line of Valley View Lane;

Thence North 46 degrees 37 minutes 54 seconds East with the northerly boundary line of said Tract 2 and with said southerly right-of-way line a distance of 445.85 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence North 65 degrees 44 minutes 36 seconds East continuing with said northerly boundary line and said southerly right-of-way line a distance of 40.18 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the westerly end of a corner clip for said southerly right-of-way line and the westerly right-of-way line of Mercer Parkway;

Thence South 73 degrees 56 minutes 31 seconds East with said corner clip a distance of 38.13 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the easterly end thereof;

Thence South 33 degrees 37 minutes 38 seconds East with the easterly boundary line of said Tract 2 and with said westerly right-of-way line a distance of 25.64 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence South 22 degrees 14 minutes 47 seconds East continuing with said easterly boundary line and said westerly right-of-way line a distance of 110.34 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence South 28 degrees 36 minutes 38 seconds East continuing with said easterly boundary line and said westerly right-of-way line a distance of 120.01 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the left with a radius of 1070.00 and whose chord bears South 30 degrees 43 minutes 42 seconds East at 176.18 feet;

Thence southerly continuing with said easterly boundary line and said westerly right-of-way line and with said curve along an arc length of 176.38 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the end of said curve;

Thence South 35 degrees 27 minutes 02 seconds East continuing with said easterly boundary line and said westerly right-of-way line a distance of 1000.84 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

Thence South 53 degrees 46 minutes 30 seconds West continuing with said westerly right-of-way line a distance of 14.50 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the most northerly corner of said Lot 1;

Thence South 35 degrees 27 minutes 02 seconds East with the easterly boundary line of said Lot 1 and with said westerly right-of-way line a distance of 239.80 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the beginning of a curve to the left with a radius of 1084.50 and whose chord bears South 40 degrees 18 minutes 31 seconds East at 183.68 feet;

Thence southerly continuing with said easterly boundary line and said westerly right-of-way line and with said curve along an arc length of 183.90 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the most easterly corner of said Lot 1;

Thence North 53 degrees 46 minutes 30 seconds East continuing with said westerly right-of-way line a distance of 14.68 feet to a 1/2 inch "MILLER 5665" capped steel rod set in the northerly boundary line of said Tract 2, said rod being the beginning of a curve to the left with a radius of 1070.00 feet and whose chord bears South 69 degrees 16 minutes 25 seconds East at 869.90 feet;

Thence easterly with said northerly boundary line and the southerly right-of-way line of Mercer Parkway and with said curve along an arc length of 895.84 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the end of said curve;

Thence South 03 degrees 15 minutes 31 seconds East continuing with said northerly boundary line and said southerly right-of-way line a distance of 16.50 feet to a 1/2 inch "MILLER 5665" capped

steel rod set for the beginning of a curve to the left with a radius of 1086.50 feet and whose chord bears North 81 degrees 07 minutes 27 seconds East at 212.70 feet;

Thence easterly continuing with said northerly boundary line and said southerly right-of-way line and with said curve along an arc length of 231.04 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the end of said curve;

Thence North 75 degrees 30 minutes 25 seconds East continuing with said northerly boundary line and said southerly right-of-way line a distance of 55.41 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the northerly end of a corner clip for said southerly right-of-way line and the westerly right-of-way line of Luna Road;

Thence South 65 degrees 06 minutes 53 seconds East with said corner clip a distance of 80.59 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the southerly end thereof;

Thence South 25 degrees 41 minutes 42 seconds East with the easterly boundary line of said Tract 2 and with said westerly right-of-way line a distance of 88.88 feet to a 1/2 inch "MILLER 5665" capped steel rod set for the most easterly corner of said Tract 2;

Thence South 60 degrees 51 minutes 06 seconds West with the easterly boundary line of said Tract 2 a distance of 224.75 feet to a 1/2 inch capped steel rod found for an inner corner therein;

Thence South 14 degrees 15 minutes 54 seconds East continuing with said easterly boundary line a distance of 288.06 feet to a nail found for the southeast corner of said Tract 2;

Thence South 89 degrees 43 minutes 14 seconds West with the southerly boundary line of said Tract 2 a distance of 1224.36 feet to a 1/2 inch capped steel rod found for the southwest corner thereof;

Thence North 01 degrees 08 minutes 40 seconds East with the westerly boundary line of said Tract 2 a distance of 22.65 feet to a 1/2 inch capped steel rod found for the beginning of a curve to the left with a radius of 654.67 feet and whose chord bears North 17 degrees 15 minutes 53 seconds West at 426.05 feet;

Thence northerly continuing with said westerly boundary line and with said curve along an arc length of 433.95 feet to a 1/2 inch capped steel rod found for the end of said curve;

Thence North 36 degrees 12 minutes 51 seconds West continuing with said westerly boundary line a distance of 1952.80 feet to the point of beginning and containing 35.864 acres of land, more or less.

**Tract No. 9: 2M HOLDINGS, LP, a Delaware limited partnership**

DESCRIPTION, of a 19.51 acre (849,858 square foot) tract of land situated in the Harrison C. Marsh Survey, Abstract No. 916 Dallas County, Texas; said tract being part of that certain tract of

land described in Substitute Trustee's Deed to 2M HOLDINGS, LP recorded in Instrument No. 201100225464 of the Official Public Records of Dallas County, Texas; said 19.51 acre tract being more particularly described as follows:

BEGINNING, at a 1/2-inch iron rod with "PACHECO KOCH" cap set for corner; said point being the northeast corner of said 2M HOLDINGS tract and the northwest corner of that certain tract of land described in Special Warranty Deed to the City of Dallas recorded in Volume 86057, Page 342 of the Real Property Records of Dallas County, Texas and in the south right-of-way line of Interstate Highway 635 (a variable width right-of-way, L.B.J. Freeway)

THENCE, South 08 degrees, 45 minutes, 30 seconds West, along the east line of said 2M HOLDINGS tract and the west line of the City of Dallas tract, a distance of 163.72 feet to a point for corner;

THENCE, departing the said west line of the 2M HOLDINGS tract and the said west line of the City of Dallas tract and into and across said 2M HOLDINGS tract the following eighteen (18) calls:

North 81 degrees, 14 minutes, 30 seconds West, a distance of 23.44 feet to a "+" cut set in the top of a stone wall;

South 43 degrees, 29 minutes, 01 seconds West, a distance of 28.27 feet to a "+" cut set in the top of a stone wall;

South 57 degrees, 38 minutes, 23 seconds West, a distance of 335.55 feet to a "+" cut set in the top of a stone wall;

South 60 degrees, 04 minutes, 06 seconds West, a distance of 53.53 feet to a "+" cut set in the top of a stone wall;

South 44 degrees, 14 minutes, 00 seconds West, a distance of 28.07 feet to a "+" cut set in the top of a stone wall;

South 40 degrees, 15 minutes, 16 seconds West, a distance of 188.06 feet to a "+" cut set in the top of a stone wall;

South 60 degrees, 26 minutes, 19 seconds West, a distance of 112.39 feet to a "+" cut set in the top of a stone wall;

South 81 degrees, 38 minutes, 57 seconds West, a distance of 165.26 feet to a "+" cut set in the top of a stone wall;

North 86 degrees, 13 minutes, 12 seconds West, a distance of 19.11 feet to a "+" cut set in the top of a stone wall;

North 83 degrees, 43 minutes, 35 seconds West, a distance of 98.71 feet to a "+" cut set in the top of a stone wall;

North 76 degrees, 23 minutes, 06 seconds West, a distance of 31.33 feet to a "+" cut set in the top of a stone wall;

North 60 degrees, 36 minutes, 22 seconds West, a distance of 124.96 feet to a "+" cut set in the top of a stone wall;

North 51 degrees, 15 minutes, 49 seconds West, a distance of 30.47 feet to a "+" cut set in the top of a stone wall;

North 39 degrees, 48 minutes, 35 seconds West, a distance of 180.19 feet to a "+" cut set in the top of a stone wall;

North 64 degrees, 05 minutes, 37 seconds West, a distance of 29.68 feet to a "+" cut set in the top of a stone wall;

South 87 degrees, 35 minutes, 52 seconds West, a distance of 520.81 feet to a "+" cut set in the top of a stone wall;

North 84 degrees, 36 minutes, 27 seconds West, a distance of 200.96 feet to a point a "+" cut set in the top of a stone wall;

North 82 degrees, 19 minutes, 01 seconds West, a distance of 138.67 feet to a 1/2-inch iron rod with "PACHECO KOCH" cap set for corner in a west line of said 2M HOLDINGS; said point also being the northeast corner of that certain tract of land described in General Warranty Deed to Continental Common, INC. recorded in Instrument No. 201000322105 of said Official Public Records and the southeast corner of that certain tract of land described in Trustee's Deed to Graham Mortgage Corporation recorded in Instrument No. 201100087228 of said Official Public Records;

THENCE, North 00 degrees, 26 minutes, 21 seconds West, along the said west line of the 2M HOLDINGS tract and the east line of the said Graham Mortgage tract, a distance of 315.07 feet to a 1/2-inch iron rod with "PACHECO KOCH" cap set for corner in the said south line of Interstate Highway 635; said point being the northwest corner of the said 2M HOLDINGS tract and the northeast corner of the Graham Mortgage tract;

THENCE, along the north line of the said 2M HOLDINGS tract and the said south line of Interstate Highway 635 the following four (4) calls:

North 89 degrees, 51 minutes, 36 seconds East, a distance of 515.53 feet to a 1/2-inch iron rod with "PACHECO KOCH" cap set for corner;

North 85 degrees, 31 minutes, 00 seconds East, a distance of 357.12 feet to a 1/2-inch iron rod with "PACHECO KOCH" cap set for corner;

North 88 degrees, 07 minutes, 02 seconds East, a distance of 707.23 feet to a 1/2-inch iron rod with "PACHECO KOCH" cap set for corner;

South 89 degrees, 18 minutes, 13 seconds East, a distance of 503.97 feet to the POINT OF BEGINNING;

CONTAINING, 849,858 square feet or 19.510 acres of land, more or less.

**Exhibit B**

**Reservations from and Exceptions to Conveyance and Warranty**

**EXHIBIT B**  
**(Permitted Exceptions)**  
**Dallas County Property**

1. Restrictive Covenants recorded in Volume 2004130, Page 6080, Deed Records, Dallas County, Texas, and Instrument No. 201400153867, Official Public Records of Dallas County, Texas. (Tract 3)
2. Restrictive Covenants recorded in Volume 2004130, Page 6080, Deed Records, Dallas County, Texas, and Instrument No. 201400235456, Official Public Records of Dallas County, Texas. (Tract 4)
3. Restrictive Covenants recorded in Volume 2004130, Page 6080, Deed Records, Dallas County, Texas, and Instrument No. 201400153868, Official Public Records of Dallas County, Texas. (Tracts 4 and 5)
4. Restrictive Covenants recorded in Volume 2004130, Page 6080, Deed Records, Dallas County, Texas, and Instrument No. 201400153870, and 201400235455, Official Public Records of Dallas County, Texas. (Tract 6)
5. Restrictive Covenants recorded in Volume 2004130, Page 6080, Deed Records, Dallas County, Texas, and Instrument No. 201400153869, Official Public Records of Dallas County, Texas. (Tracts 7 and 8)
6. Restrictive Covenants recorded in Volume 80027, Page 5, Real Property Records, Dallas County, Texas. (Tract 9)
7. The right of Valwood Improvement Authority to levy taxes and issue bonds.

**Tract 3:**

8. Developer's Contract dated May 14, 1987, executed by and between The City of Farmers Branch, Dallas County, Texas, and CDI No. 3, a Texas general partnership, recorded in Volume 87094, Page 945, Official Public records of Dallas County, Texas, and as affected by Partial Release of Covenants, recorded in Volume 96010, Page 2807, Official Public records of Dallas County, Texas.
9. Easement dated May 7, 1991, executed by NCNB Texas National Bank to County of Dallas, recorded in Volume 91112, Page 4575, Official Public records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
10. Developer's Contract dated November 20, 1995, executed by and between The City of Farmers Branch, Dallas County, Texas, and City Pointe Northwest Joint Venture, a Texas

joint venture, recorded in Volume 96010, Page 2852, Official Public Records of Dallas County, Texas.

11. Amendment No. 1 & Restatement of Developer's Contract dated March 17, 1997, executed by and between City of Farmers Branch and American Realty Trust, recorded in Volume 98039, Page 4744, Official Public Records of Dallas County, Texas.
12. Easement dated November 3, 1997, executed by American Realty Trust to City of Farmers Branch, Dallas County, Texas, recorded in Volume 99199, Page 4026, Official Public Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
13. Ordinance No. 2551, dated July 10, 2000, executed by the City of Farmers Branch, recorded in Volume 2004007, Page 2795, Official Public Records of Dallas County, Texas, and as noted on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
14. Easements as set out on plat recorded in Instrument No. 200600172708, Map/Plat Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
15. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument dated January 31, 2006, filed March 28, 2006, under Instrument No. 200600112157, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars.
16. Landscape Maintenance Agreement dated October 16, 2006, executed by and between American Realty Trust, Inc., Art One Hickory Corporation, Art Palm limited partnership, Art Two Hickory Corporation, Art Walker Cummings, Inc., Downtown Development, Inc., Art Gnb, Inc., Income Opportunity Realty Investors, Inc., and Transcontinental Realty Investors, Inc. and The City of Farmers Branch, Texas, recorded in Instrument No. 200600450012, Official Public Records of Dallas County, Texas.
17. Memorandum of Surface Use Agreement executed by and between Trinity East Energy, LLC, TCI 600 Las Colinas, Inc., Art Palm, LLC, American Realty Trust, Inc., Art Walker Cummings, Inc., Art Four Hickory Corporation, Art Two Hickory Corporation, Art One Hickory Corporation, TCI Texas Properties, LLC, TCI Mercer Crossing, Inc., TCI Texas Plaza Land, LLC, IORI Valley View, Inc., Transcontinental Brewery, Inc., Transcontinental Treehouse Corporation, Income Opportunity Realty Investors, Inc. Transcontinental Realty Investors, Inc., TCI Countryside, Inc., TCI 109 Beltline, Inc., TCI Park West I, Inc. and TCI Park West II, Inc., dated August 10, 2007, filed October 15, 2007, recorded in Instrument No. 20070369500, and correction recorded December 15, 2008 under Instrument No. 20080388255 of the Official Public Records of Dallas County, Texas, as Affected by Amendment recorded November 11, 2008 under Instrument No. 20080360996 and Amendment recorded December 15, 2008 under Instrument No. 20080388256 of the Official Public Records of Dallas County, Texas, and as affected by

Partial Release of Surface Use Agreement, and Grant of Limited Surface Rights, dated August 13, 2015, filed August 17, 2015, under Instrument No. 201500218982, Official Public Records of Dallas County, Texas.

18. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, dated August 27, 2007, by and between Art Lake Chateau, Inc., as Lessor, and Trinity East Energy, LLC., as Lessee, recorded on September 25, 2008 under Instrument No. 20080310211, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars.
19. Unrecorded lease by and between Armed Forces Bank, N.A., as Landlord and Grassland Mowing & Commercial Farming, as Tenant, dated as of February 12, 2012.

**Tract 4:**

20. Easement as set out on plat recorded in Instrument No. 200600172708, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
21. Developer's Contract dated May 14, 1987, executed by and between The City of Farmers Branch, Dallas County, Texas, and CDI No. 3, a Texas general partnership, recorded in Volume 87094, Page 945, Official Public Records of Dallas County, Texas, and as affected by Partial Release of Covenants, recorded in Volume 96010, Page 2807, Official Public Records of Dallas County, Texas, as affected by the Memorandum of Assignment of Development Agreements recorded December 14, 2001, in Volume 2001243, Page 6248, Official Public Records of Dallas County, Texas, and by Memorandum of Assignment of Development Agreements recorded September 7, 2005, in Volume 2005175, Page 2788, Official Public Records of Dallas County, Texas.
22. Ordinance No. 2551, dated July 10, 2000, executed by the City of Farmers Branch, recorded in Volume 2004007, Page 2795, Official Public Records of Dallas County, Texas, and as noted on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
23. Ordinance No. 2450, dated December 21, 1998, executed by the City of Farmers Branch, recorded in Volume 2000142, Page 1660, Official Public Records of Dallas County, Texas, and as affected by Ordinance No. 2551, recorded in Volume 2000142, Page 1677, Official Public Records of Dallas County, Texas, and as noted on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
24. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument dated July 19, 2006, under Instrument No. 200600299826, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars. As affected by Waiver of Surface Rights recorded May 2, 2008, in Instrument No. 20080146912, Official Public Records of Dallas County, Texas.

25. Easement dated September 9, 1982, executed by Centre Development Co., Inc., Trustee to Southwestern Bell Telephone Company, recorded in Volume 82183, Page 1488, Deed Records of Dallas County, Texas, and as shown on plat recorded in Instrument No. 200600172708, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
26. Easement dated September 28, 2006, executed by Income Opportunity Realty Investors, Inc. to the City of Farmers Branch, recorded in Instrument No. 200600450009, Official Public Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
27. Landscape Maintenance Agreement dated October 16, 2006, executed by and between American Realty Trust, Inc., Art One Hickory Corporation, Art Palm limited partnership, Art Two Hickory Corporation, Art Walker Cummings, Inc., Downtown Development, Inc., Art Gnb, Inc., Income Opportunity Realty Investors, Inc., and Transcontinental Realty Investors, Inc. and The City of Farmers Branch, Texas, recorded in Instrument No. 200600450012, Official Public Records of Dallas County, Texas.
28. Developer's Contract dated April 15, 2008, executed among the City of Farmers Branch, Texas, Art Palm limited partnership, Income Opportunity Realty Investor's, Inc., recorded in Instrument No. 20080134021, Official Public Records of Dallas County, Texas.
29. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument dated January 31, 2006, filed March 28, 2006, under Instrument No. 200600112157, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars.
30. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, dated September 24, 2008, by and between IORI Minerals, Inc., as Lessor, and Trinity East Energy, LLC, as Lessee, recorded on September 25, 2008 under Instrument No. 20080310209, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars. As affected by Correction and Second Amendment of Oil, Gas and Mineral Lease, recorded December 10, 2008, executed by Trinity East Energy, LLC and IORI Minerals, Inc., recorded in Instrument No. 20080385893, Official Public Records of Dallas County, Texas.
31. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, dated September 24, 2008, by and between Art Lake Chateau, Inc., as Lessor, and Trinity East Energy, LLC, as Lessee, recorded on September 28, 2008 under Instrument No. 20080310211, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars. As affected by Correction and Second Amendment of Oil, Gas and Mineral Lease, recorded December 10, 2008, executed by Trinity East Energy, LLC and Art Lake Chateau, Inc., recorded in Instrument No. 20080385894, Official Public Records of Dallas County, Texas.

32. Memorandum of Surface Use Agreement executed by and between Trinity East Energy, LLC, TCI 600 Las Colinas, Inc., Art Palm, LLC, American Realty Trust, Inc., Art Walker Cummings, Inc., Art Four Hickory Corporation, Art Two Hickory Corporation, Art One Hickory Corporation, TCI Texas Properties, LLC, TCI Mercer Crossing, Inc., TCI Texas Plaza Land, LLC, IORI Valley View, Inc., Transcontinental Brewery, Inc., Transcontinental Treehouse Corporation, Income Opportunity Realty Investors, Inc. Transcontinental Realty Investors, Inc., TCI Countryside, Inc., TCI 109 Beltline, Inc., TCI Park West I, Inc. and TCI Park West II, Inc., dated August 10, 2007, filed October 15, 2007, recorded in Instrument No. 20070369500, and correction recorded December 15, 2008 under Instrument No. 20080388255 of the Official Public Records of Dallas County, Texas, as Affected by Amendment recorded November 11, 2008 under Instrument No. 20080360996 and Amendment recorded December 15, 2008 under Instrument No. 20080388256 of the Official Public Records of Dallas County, Texas, and as affected by Partial Release of Surface Use Agreement, and Grant of Limited Surface Rights, dated August 13, 2015, filed August 17, 2015, under Instrument No. 201500218982, Official Public Records of Dallas County, Texas.

**Tract 5:**

33. Easement as set out on plat recorded in Instrument No. 200600172708, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
34. Easement as set out on plat recorded in Instrument No. 201400169982, Map Records of Dallas County, Texas.
35. Developer's Contract dated May 14, 1987, executed by and between The City of Farmers Branch, Dallas County, Texas, and CDI No. 3, a Texas general partnership, recorded in Volume 87094, Page 945, Official Public Records of Dallas County, Texas, and as affected by Partial Release of Covenants, recorded in Volume 96010, Page 2807, Official Public Records of Dallas County, Texas, as affected by the Memorandum of Assignment of Development Agreements recorded December 14, 2001, in Volume 2001243, Page 6248, Official Public Records of Dallas County, Texas, and by Memorandum of Assignment of Development Agreements recorded September 7, 2005, in Volume 2005175, Page 2788, Official Public Records of Dallas County, Texas.
36. Ordinance No. 2551, dated July 10, 2000, executed by the City of Farmers Branch, recorded in Volume 2004007, Page 2795, Official Public Records of Dallas County, Texas, and as noted on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
37. Ordinance No. 2450, dated December 21, 1998, executed by the City of Farmers Branch, recorded in Volume 2000142, Page 1660, Official Public Records of Dallas County, Texas, and as affected by Ordinance No. 2551, recorded in Volume 2000142, Page 1677, Official Public Records of Dallas County, Texas, and as noted on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.

38. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument dated July 19, 2006, under Instrument No. 200600299826, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars. As affected by Waiver of Surface Rights recorded May 2, 2008, in Instrument No. 20080146912, Official Public Records of Dallas County, Texas.
39. Landscape Maintenance Agreement dated October 16, 2006, executed by and between American Realty Trust, Inc., Art One Hickory Corporation, Art Palm limited partnership, Art Two Hickory Corporation, Art Walker Cummings, Inc., Downtown Development, Inc., Art Gnb, Inc., Income Opportunity Realty Investors, Inc., and Transcontinental Realty Investors, Inc. and The City of Farmers Branch, Texas, recorded in Instrument No. 200600450012, Official Public Records of Dallas County, Texas.
40. Easement dated August 26, 1969, executed by General Mills, Inc., to The Trinity River Authority of Texas, recorded in Volume 69179, Page 2443, Deed Records of Dallas County, Texas, and as shown on plat recorded in Instrument No. 200600172708, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
41. Developer's Contract dated April 15, 2008, executed among the City of Farmers Branch, Texas, Art Palm limited partnership, Income Opportunity Realty Investor's, Inc., recorded in Instrument No. 20080134021, Official Public Records of Dallas County, Texas, and as noted on survey dated July 31, 2009, prepared by Andrew J. Shafer, RPLS, No. 5017.
42. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument dated January 31, 2006, filed March 28, 2006, under Instrument No. 200600112157, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars, and as noted on survey dated July 31, 2009, prepared by Andrew J. Shafer, RPLS, No. 5017.
43. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, dated September 24, 2008, by and between IORI Minerals, Inc., as Lessor, and Trinity East Energy, LLC, as Lessee, recorded on September 25, 2008 under Instrument No. 20080310209, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars. As affected by Correction and Second Amendment of Oil, Gas and Mineral Lease, recorded December 10, 2008, executed by Trinity East Energy, LLC and IORI Minerals, Inc., recorded in Instrument No. 20080385893, Official Public Records of Dallas County, Texas, and as noted on survey dated July 31, 2009, prepared by Andrew J. Shafer, RPLS, No. 5017.
44. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, dated September 24, 2008, by and between Art Lake Chateau, Inc., as Lessor, and Trinity East Energy, LLC, as Lessee, recorded on September 28, 2008 under Instrument No.

20080310211, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars. As affected by Correction and Second Amendment of Oil, Gas and Mineral Lease, recorded December 10, 2008, executed by Trinity East Energy, LLC and Art Lake Chateau, Inc., recorded in Instrument No. 20080385894, Official Public Records of Dallas County, Texas, and as noted on survey dated July 31, 2009, prepared by Andrew J. Shafer, RPLS, No. 5017.

45. Memorandum of Surface Use Agreement executed by and between Trinity East Energy, LLC, TCI 600 Las Colinas, Inc., Art Palm, LLC, American Realty Trust, Inc., Art Walker Cummings, Inc., Art Four Hickory Corporation, Art Two Hickory Corporation, Art One Hickory Corporation, TCI Texas Properties, LLC, TCI Mercer Crossing, Inc., TCI Texas Plaza Land, LLC, IORI Valley View, Inc., Transcontinental Brewery, Inc., Transcontinental Treehouse Corporation, Income Opportunity Realty Investors, Inc. Transcontinental Realty Investors, Inc., TCI Countryside, Inc., TCI 109 Beltline, Inc., TCI Park West I, Inc. and TCI Park West II, Inc., dated August 10, 2007, filed October 15, 2007, recorded in Instrument No. 20070369500, and correction recorded December 15, 2008 under Instrument No. 20080388255 of the Official Public Records of Dallas County, Texas, as Affected by Amendment recorded November 11, 2008 under Instrument No. 20080360996 and Amendment recorded December 15, 2008 under Instrument No. 20080388256 of the Official Public Records of Dallas County, Texas, and as affected by Partial Release of Surface Use Agreement, and Grant of Limited Surface Rights, dated August 13, 2015, filed August 17, 2015, under Instrument No. 201500218982, Official Public Records of Dallas County, Texas.

**Tract 6A and 6B:**

46. Easement as set out on plat recorded in Instrument No. 200600172708, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
47. Easement dated August 26, 1969, executed by General Mills, Inc., to The Trinity River Authority of Texas, recorded in Volume 69179, Page 2443, Deed Records of Dallas County, Texas, and as shown on plat recorded in Instrument No. 200600172708, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
48. Easement dated September 9, 1982, executed by Centre Development Co., Inc., Trustee to Southwestern Bell Telephone Company, recorded in Volume 82183, Page 1488, Deed Records of Dallas County, Texas, and as shown on plat recorded in Instrument No. 200600172708, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
49. Easement dated September 12, 2002, executed by Income Opportunity Realty Investors, Inc. to the City of Farmers Branch, recorded in Volume 2002205, Page 3537, Real Property Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.

50. Developer's Contract dated May 14, 1987, executed by and between The City of Farmers Branch, Dallas County, Texas, and CDI No. 3, a Texas general partnership, recorded in Volume 87094, Page 945, Official Public Records of Dallas County, Texas, and as affected by Partial Release of Covenants, recorded in Volume 96010, Page 2807, Official Public Records of Dallas County, Texas, as affected by the Memorandum of Assignment of Development Agreements recorded December 14, 2001, in Volume 2001243, Page 6248, Official Public Records of Dallas County, Texas, and by Memorandum of Assignment of Development Agreements recorded September 7, 2005, in Volume 2005175, Page 2788, Official Public Records of Dallas County, Texas.
51. Ordinance No. 2551, dated July 10, 2000, executed by the City of Farmers Branch, recorded in Volume 2004007, Page 2795, Official Public Records of Dallas County, Texas, and as noted on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
52. Ordinance No. 2450, dated December 21, 1998, executed by the City of Farmers Branch, recorded in Volume 2000142, Page 1660, Official Public Records of Dallas County, Texas, and as affected by Ordinance No. 2551, recorded in Volume 2000142, Page 1677, Official Public Records of Dallas County, Texas.
53. Easement dated July 2, 1984, executed by Centre Development Co., Inc., Trustee to Farmers Branch-Carrollton Flood Control District, recorded in Volume 84135, Page 2185, Official Public Records of Dallas County, Texas, and as shown on plat recorded in Instrument No. 200600172708, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
54. Easement dated January 20, 1984, executed by Centre Development Co., Inc., Trustee to Texas Power & Light Company, recorded in Volume 84119, Page 775, Real Property Records of Dallas County, Texas, and as shown on plat recorded in Instrument No. 200600172708, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665. (Tract 6B, only)
55. Easement dated July 2, 1976, executed by Henry S. Miller Company, Trustee to Farmers Branch-Carrollton Flood Control District, recorded in Volume 76103, Page 2402, Official Public Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665. (Tract 6B, only)
56. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument dated July 19, 2006, under Instrument No. 200600299826, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars. As affected by Waiver of Surface Rights recorded May 2, 2008, in Instrument No. 20080146912, Official Public Records of Dallas County, Texas.
57. Landscape Maintenance Agreement dated October 16, 2006, executed by and between American Realty Trust, Inc., Art One Hickory Corporation, Art Palm limited partnership,

Art Two Hickory Corporation, Art Walker Cummings, Inc., Downtown Development, Inc., Art Gnb, Inc., Income Opportunity Realty Investors, Inc., and Transcontinental Realty Investors, Inc. and The City of Farmers Branch, Texas, recorded in Instrument No. 200600450012, Official Public Records of Dallas County, Texas.

58. Easement dated January 20, 1984, executed by Centre Development Co., Inc., Trustee to Texas Power & Light Company, recorded in Volume 84119, Page 779, Real Property Records of Dallas County, Texas, and as shown on plat recorded in Instrument No. 200600172708, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665. (Tract 6B, only)
59. Easement dated June 11, 2009, executed by Income Opportunity Realty Investors, Inc., to Trinity East Emery, LLC, recorded in Instrument No. 200900217489, Official Public Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665. (Tract 6B, only)
60. Memorandum of Surface Use Agreement executed by and between Trinity East Energy, LLC, TCI 600 Las Colinas, Inc., Art Palm, LLC, American Realty Trust, Inc., Art Walker Cummings, Inc., Art Four Hickory Corporation, Art Two Hickory Corporation, Art One Hickory Corporation, TCI Texas Properties, LLC, TCI Mercer Crossing, Inc., TCI Texas Plaza Land, LLC, IORI Valley View, Inc., Transcontinental Brewery, Inc., Transcontinental Treehouse Corporation, Income Opportunity Realty Investors, Inc. Transcontinental Realty Investors, Inc., TCI Countryside, Inc., TCI 109 Beltline, Inc., TCI Park West I, Inc. and TCI Park West II, Inc., dated August 10, 2007, filed October 15, 2007, recorded in Instrument No. 20070369500, and correction recorded December 15, 2008 under Instrument No. 20080388255 of the Official Public Records of Dallas County, Texas, as Affected by Amendment recorded November 11, 2008 under Instrument No. 20080360996 and Amendment recorded December 15, 2008 under Instrument No. 20080388256 of the Official Public Records of Dallas County, Texas, and as affected by Partial Release of Surface Use Agreement, and Grant of Limited Surface Rights, dated August 13, 2015, filed August 17, 2015, under Instrument No. 201500218982, Official Public Records of Dallas County, Texas.
61. Easement dated August 10, 2015, executed by Income Opportunity Realty Investors, Inc. to Valwood Improvement Authority, recorded in Instrument No. 201500219841, Official Public Records of Dallas County, Texas.

**Tract 7:**

62. Easement as set out on plat recorded in Instrument No. 200600172708, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
63. Developer's Contract dated May 14, 1987, executed by and between The City of Farmers Branch, Dallas County, Texas, and CDI No. 3, a Texas general partnership, recorded in Volume 87094, Page 945, Official Public Records of Dallas County, Texas, and as affected

by Partial Release of Covenants, recorded in Volume 96010, Page 2807, Official Public Records of Dallas County, Texas, as affected by the Memorandum of Assignment of Development Agreements recorded December 14, 2001, in Volume 2001243, Page 6248, Official Public Records of Dallas County, Texas, and by Memorandum of Assignment of Development Agreements recorded September 7, 2005, in Volume 2005175, Page 2788, Official Public Records of Dallas County, Texas.

64. Easement dated September 28, 2006, executed by Art Walker Cummings, Inc. to City of Farmers Branch, Dallas County, Texas, recorded in Instrument No. 200600450011, Official Public Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
65. Landscape Maintenance Agreement dated October 16, 2006, executed by and between American Realty Trust, Inc., Art One Hickory Corporation, Art Palm limited partnership, Art Two Hickory Corporation, Art Walker Cummings, Inc., Downtown Development, Inc., Art Gnb, Inc., Income Opportunity Realty Investors, Inc., and Transcontinental Realty Investors, Inc. and The City of Farmers Branch, Texas, recorded in Instrument No. 200600450012, Official Public Records of Dallas County, Texas.
66. Ordinance No. 2551, dated July 10, 2000, executed by the City of Farmers Branch, recorded in Volume 2004007, Page 2795, Official Public Records of Dallas County, Texas, and as noted on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
67. Ordinance No. 2450, dated December 21, 1998, executed by the City of Farmers Branch, recorded in Volume 2000142, Page 1660, Official Public Records of Dallas County, Texas, and as affected by Ordinance No. 2551, recorded in Volume 2000142, Page 1677, Official Public Records of Dallas County, Texas, and as noted on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
68. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument dated January 31, 2006, filed March 28, 2006, under Instrument No. 200600112054, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars.
69. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument dated January 31, 2006, filed March 28, 2006, under Instrument No. 200600112082, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars.
70. Memorandum of Surface Use Agreement dated June 15, 2010, effective January 1, 2008, executed by TCI Mercer Crossing, Inc., recorded in Instrument No. 201100163206, Official Public Records of Dallas County, Texas.
71. Memorandum of Surface Use Agreement executed by and between Trinity East Energy, LLC, TCI 600 Las Colinas, Inc., Art Palm, LLC, American Realty Trust, Inc., Art Walker

Cummings, Inc., Art Four Hickory Corporation, Art Two Hickory Corporation, Art One Hickory Corporation, TCI Texas Properties, LLC, TCI Mercer Crossing, Inc., TCI Texas Plaza Land, LLC, IORI Valley View, Inc., Transcontinental Brewery, Inc., Transcontinental Treehouse Corporation, Income Opportunity Realty Investors, Inc. Transcontinental Realty Investors, Inc., TCI Countryside, Inc., TCI 109 Beltline, Inc., TCI Park West I, Inc. and TCI Park West II, Inc., dated August 10, 2007, filed October 15, 2007, recorded in Instrument No. 20070369500, and correction recorded December 15, 2008 under Instrument No. 20080388255 of the Official Public Records of Dallas County, Texas, as Affected by Amendment recorded November 11, 2008 under Instrument No. 20080360996 and Amendment recorded December 15, 2008 under Instrument No. 20080388256 of the Official Public Records of Dallas County, Texas, and as affected by Partial Release of Surface Use Agreement, and Grant of Limited Surface Rights, dated August 13, 2015, filed August 17, 2015, under Instrument No. 201500218982, Official Public Records of Dallas County, Texas.

**Tract 8:**

72. Easement as set out on plat recorded in Instrument No. 200600172708, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
73. Easement as set out on plat recorded in Instrument No. 201100225465, Map Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
74. Developer's Contract dated May 14, 1987, executed by and between The City of Farmers Branch, Dallas County, Texas, and CDI No. 3, a Texas general partnership, recorded in Volume 87094, Page 945, Official Public Records of Dallas County, Texas, and as affected by Partial Release of Covenants, recorded in Volume 96010, Page 2807, Official Public Records of Dallas County, Texas, as affected by the Memorandum of Assignment of Development Agreements recorded December 14, 2001, in Volume 2001243, Page 6248, Official Public Records of Dallas County, Texas, and by Memorandum of Assignment of Development Agreements recorded September 7, 2005, in Volume 2005175, Page 2788, Official Public Records of Dallas County, Texas.
75. Landscape Maintenance Agreement dated October 16, 2006, executed by and between American Realty Trust, Inc., Art One Hickory Corporation, Art Palm limited partnership, Art Two Hickory Corporation, Art Walker Cummings, Inc., Downtown Development, Inc., Art Gnb, Inc., Income Opportunity Realty Investors, Inc., and Transcontinental Realty Investors, Inc. and The City of Farmers Branch, Texas, recorded in Instrument No. 200600450012, Official Public Records of Dallas County, Texas.
76. Easement dated September 16, 1976, executed by Joe Hollingsworth to Farmers Branch-Carrollton Flood Control District, recorded in Volume 76185, Page 1406, Official Public Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.

77. Easement dated June 3, 1976, executed by Henry H. Dickerson, et al to Farmers Branch-Carrollton Flood Control District, recorded in Volume 76112, Page 1901, Official Public Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
78. Ordinance No. 2551, dated July 10, 2000, executed by the City of Farmers Branch, recorded in Volume 2004007, Page 2795, Official Public Records of Dallas County, Texas, and as noted on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
79. Ordinance No. 2450, dated December 21, 1998, executed by the City of Farmers Branch, recorded in Volume 2000142, Page 1660, Official Public Records of Dallas County, Texas, and as affected by Ordinance No. 2551, recorded in Volume 2000142, Page 1677, Official Public Records of Dallas County, Texas, and as noted on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
80. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument dated January 31, 2006, filed March 28, 2006, under Instrument No. 200600112054, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars.
81. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument dated January 31, 2006, filed March 28, 2006, under Instrument No. 200600112082, of the Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars.
82. Memorandum of Surface Use Agreement dated June 15, 2010, effective January 1, 2008, executed by TCI Mercer Crossing, Inc., recorded in Instrument No. 201100163206, Official Public Records of Dallas County, Texas.
83. Easement dated June 11, 2009, executed by TCI Mercer Crossing, Inc., to Trinity East Energy, LLC, recorded in Instrument No. 200900217487, Official Public Records of Dallas County, Texas, and as shown on survey dated October 30, 2015, prepared by Jason B. Rawlings, RPLS, No. 5665.
84. Memorandum of Surface Use Agreement executed by and between Trinity East Energy, LLC, TCI 600 Las Colinas, Inc., Art Palm, LLC, American Realty Trust, Inc., Art Walker Cummings, Inc., Art Four Hickory Corporation, Art Two Hickory Corporation, Art One Hickory Corporation, TCI Texas Properties, LLC, TCI Mercer Crossing, Inc., TCI Texas Plaza Land, LLC, IORI Valley View, Inc., Transcontinental Brewery, Inc., Transcontinental Treehouse Corporation, Income Opportunity Realty Investors, Inc. Transcontinental Realty Investors, Inc., TCI Countryside, Inc., TCI 109 Beltline, Inc., TCI Park West I, Inc. and TCI Park West II, Inc., dated August 10, 2007, filed October 15, 2007, recorded in Instrument No. 20070369500, and correction recorded December 15, 2008 under Instrument No. 20080388255 of the Official Public Records of Dallas County,

Texas, as Affected by Amendment recorded November 11, 2008 under Instrument No. 20080360996 and Amendment recorded December 15, 2008 under Instrument No. 20080388256 of the Official Public Records of Dallas County, Texas, and as affected by Designation of Drill Site and Amendment of Surface Use Agreement filed July 11, 2014, executed by TCI Mercer Crossing, Inc., and Trinity East Energy, LLC, recorded in Instrument No. 201400173329, Official Public Records of Dallas County, Texas, and refiled in Instrument No. 201400275277, Official Public Records of Dallas County, Texas, and as affected by Partial Release of Surface Use Agreement, and Grant of Limited Surface Rights, dated August 13, 2015, filed August 17, 2015, under Instrument No. 201500218982, Official Public Records of Dallas County, Texas.

**Tract 9:**

85. Any rights of adjoining property owners in and to the part of the hereinabove property which may constitute accretion or avulsion by virtue of the possible shifting of the bed or shores of the river, stream or body of water which bounds the subject property.
86. Easement filed July 3, 1975, executed by George D. Bowmer et al to Texas Power & Light Company recorded in Volume 75130, Page 2028, Official Public Records, Dallas County, Texas, as noted on survey dated November 11, 2015, prepared by Paul Hubert, RPLS No. 1942.
87. Easement dated April 22, 1980, executed by Manhattan Land Company to Trinity River Authority of Texas, recorded in Volume 80122, Page 1597, Official Public Records, Dallas County, Texas, as noted on survey dated November 11, 2015, prepared by Paul Hubert, RPLS No. 1942.
88. Easement dated July 13, 1983, executed by Manhattan Land Company to the City of Farmers Branch, recorded in Volume 83195, Page 4473, Official Public Records, Dallas County, Texas, as shown on survey dated November 11, 2015, prepared by Paul Hubert, RPLS No. 1942.
89. Ordinance No. 2551, dated July 10, 2000, executed by the City of Farmers Branch, recorded in Volume 2004007, Page 2795, Official Public Records of Dallas County, Texas, as noted on survey dated November 11, 2015, prepared by Paul Hubert, RPLS No. 1942.
90. Ordinance No. 2450, dated December 21, 1998, executed by the City of Farmers Branch, recorded in Volume 2000142, Page 1660, Official Public Records of Dallas County, Texas, and as affected by Ordinance No. 2551, recorded in Volume 2000142, Page 1677, Official Public Records of Dallas County, Texas, as noted on survey dated November 11, 2015, prepared by Paul Hubert, RPLS No. 1942.
91. Easement dated June 11, 2009, executed by TCI Manhattan 1, LLC, a Nevada limited liability company and TCI Manhattan 2, LLC, a Nevada limited liability company, to Trinity East Energy, LLC, a Texas limited liability company, recorded under Instrument

No. 200900217493, Official Public Records, Dallas County, Texas, as shown on survey dated November 11, 2015, prepared by Paul Hubert, RPLS No. 1942.

92. Easement dated June 11, 2009, executed by TCI Manhattan 1, LLC, a Nevada limited liability company and TCI Manhattan 2, LLC, a Nevada limited liability company, to Trinity East Energy, LLC, a Texas limited liability company, recorded under Instrument No. 200900293517, Official Public Records, Dallas County, Texas, as shown on survey dated November 11, 2015, prepared by Paul Hubert, RPLS No. 1942.
93. City of Farmer's Branch Ordinance No. 2450, recorded in Volume 2000142, Page 1660, refiled in Volume 2000153, Page 61, Official Public Records, Dallas County, Texas, as noted on survey dated November 11, 2015, prepared by Paul Hubert, RPLS No. 1942.
94. City of Farmer's Branch Ordinance No. 2551, recorded in Volume 2000142, Page 1677, Official Public Records, Dallas County, Texas, refiled in Volume 2004007, Page 2795, Official Public Records, Dallas County, Texas, as noted on survey dated November 11, 2015, prepared by Paul Hubert, RPLS No. 1942.
95. Landscape Maintenance Agreement dated October 16, 2006, executed by and between American Realty Trust, Inc., Art One Hickory Corporation, Art Palm limited partnership, Art Two Hickory Corporation, Art Walker Cummings, Inc., Downtown Development, Inc., Art Gnb, Inc., Income Opportunity Realty Investors, Inc., and Transcontinental Realty Investors, Inc. and The City of Farmers Branch, Texas, recorded in Instrument No. 200600450012, Official Public Records of Dallas County, Texas, as noted on survey dated November 11, 2015, prepared by Paul Hubert, RPLS No. 1942.
96. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded under Instrument No. 200600250790, of the Official Public Records of Dallas, Texas. Reference to which instrument is here made for particulars. As affected by Waiver of Surface Rights, dated February 1, 2007, executed by T Majestic, Inc. and recorded under Instrument No. 20070043344, Official Public Records, Dallas County, Texas.
97. Terms, conditions and stipulations contained in Memorandum of Surface Use Agreement dated August 10, 2007 executed by and between Trinity East Energy, LLC and TCI 600 Las Colinas, Inc., et al, and recorded under Instrument No. 20070369500, of the Official Public Records of Dallas County, Texas. As affected by Amendment of Surface Use Agreement, recorded under Instrument No. 20080360996, Correction of Surface Use Agreement recorded under Instrument No. 20080388255 and Second Amendment of Surface Use Agreement recorded Instrument No. 20080388256, Official Public Records, Dallas County, Texas, and amended by Instrument No. 201400275278, Official Public Records Dallas County, Texas.
98. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, dated September 24, 2008, by and between T Majestic, Inc., as Lessor, and Trinity East Energy, LLC, as Lessee, recorded on under Instrument No. 20080310210 and 20080360995, of the

Official Public Records of Dallas County, Texas. Reference to which instrument is here made for particulars. As affected by Ratification, filed September 14, 2012, recorded under Instrument No. 201200272525, of the Official Public Records of Dallas County, Texas.

**Filed and Recorded  
Official Public Records  
John F. Warren, County Clerk  
Dallas County, TEXAS  
11/19/2015 03:33:04 PM  
\$182.00  
201500309379**



## APPENDIX B

### PROPERTY USE INFORMATION

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The MSD Designated Property consists of 3 tracts of land located at 1880 Valley View Lane (West Tract), 1880 Valley View Lane (East Tract), and 1800 Lakeway Boulevard, Farmers Branch, Dallas County, Texas 75234. The Site is bounded on the southwest by undeveloped land and bounded by commercial buildings on the east, west, north, and southeast. The Designated Property is currently undeveloped vacant land. The 1880 Valley View Lane (West Tract) consists of 34.00 acres and is currently owned by Edina Park Plaza Associates, LP. The 1880 Valley View Lane – East Tract consists of 8.63 acres and is currently owned by ART GNB, Inc. The 1800 Lakeway Boulevard tract consists of 16.86 acres and is currently owned by CADG Mercer Crossing Holdings, LLC. CADG Mercer Crossing is a perspective purchaser and is the MSD Applicant.

The businesses around and near the Designated Property are commercial interests. There are no schools, day cares or hospitals immediately adjacent to the Designated Property. The Designated Property and surrounding properties are zoned as a Planned Development District.

The proposed MSD Designated Property is 59.49 acres and does not include City right-of ways.

The Site affected by contaminants is located at 1880 Valley View Lane (West Tract) and consists of approximately 34.00 acres. The Site was developed as commercial by the early-1960's. It remained commercial until the site was razed by 2010. The Site is currently undeveloped.

The Site property has been used for a variety of purposes including a gravel pit, manufacturing and packaging of pickled food products, and manufacturing of lead automotive batteries. Gravel pits were visible in aerial photographs from 1942 until at least 1979. Aerial photographs indicate the Site had been improved with a building between the 1958 and 1968 and the building had been demolished between 2008 and 2010. The manufacturing of food products historically operated on the property from approximately 1963 to 1971. The manufacturing of lead automotive batteries historically operated on the property from approximately 1971 to 2001.

The properties within 500-feet of the Designated Property are currently used for a variety of commercial purposes along with associated parking lots. The area includes office buildings and undeveloped land. Anticipated future use of the site property and surrounding properties is residential with some mixed commercial developments.

Examples of nearby businesses are as follows:

Business Name	Address	Direction from designated property	Type of Business
North			
Data Center Systems	1881 Valley View Lane	North	Fiber Optic Technology Provider
Golf Academy of America Dallas	1861 Valley View Lane	North	Golf Education and Career Facility
AT&T	1801 Valley View Lane	North	Multi-Story Office
West			
Commercial Buildings	1800 Valley View Lane	West	Multi-Story Office
Chartwell Crest followed by Commercial Buildings	1755 Wittington Place	West-Southwest	Multi-Story Office
Southwest			
Wittington Place followed by Vacant Land	1700 Block of Wittington Place	Southwest	N/A
Southeast			
Wittington Place followed by Commercial Buildings	1990 Wittington Place	South	Multi-Story Office
East			
VH Printing	1930 Valley View Lane	East – Northeast	Commercial Printing Company
Hutton Drive followed by Vacant Land	12900 Block of Hutton Drive	East	N/A
Hutton Drive followed by Commercial Building	2002 Academy Drive	East	Multi-Story Office

## APPENDIX C

### SITE MAPS

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Maps are attached in this section depicting relevant Designated Property information, including location, adjacent businesses, topography, the area of groundwater contamination, sampling locations, groundwater elevation and gradient, and chemicals of concern impacting groundwater above ingestion PCLs.

The Designated Property includes three tracts of land located at 1880 Valley View Lane (West Tract), 1880 Valley View Lane (East Tract), and 1800 Lakeway Boulevard. Site improvements were demolished by 2010. The property is currently vacant and undeveloped land.

The current configuration of the Designated Property is depicted in **Figure A**. Site topography slopes gently to the south with area topography generally sloping west towards the Elm Fork of the Trinity River (**Figure B**). Soil borings and monitoring well installations on the property identified clay, silty clay, sandy clay, gravelly clay, clayey sand, sand, gravelly sand, and weathered shale above competent shale of the Eagle Ford Formation. The approximate depth to competent limestone of the Eagle Ford was encountered at 13 to 19.5 feet bgs. The groundwater bearing zone on the Designated Property is contained within gravelly sand, sandy clay, and clay soils above the competent bedrock contact with the Eagle Ford formation. The competent bedrock acts as the lower confining formation below the shallow groundwater bearing unit and near surface soil complex.

Soils typical of flood plain deposits were encountered in the soil borings from the surface to depths of approximately 19.5 feet below ground surface (bgs). The clay, silty clay, sandy clay, gravelly clay, clayey sand, sand, and gravelly sand encountered in borings are generally referenced as Quaternary Alluvium deposits associated with the Elm Fork Trinity River. Groundwater in the vicinity of the Designated Property can be highly sporadic and discontinuous with alternating lenses (layers) of more or less permeable materials which can yield groundwater to wells. Groundwater yield can vary significantly based on horizontal and vertical distribution of sand and gravel deposits. The Eagle Ford can also produce or yield groundwater to wells in the upper weathered zones but is generally dry in the competent (or unweathered) material.

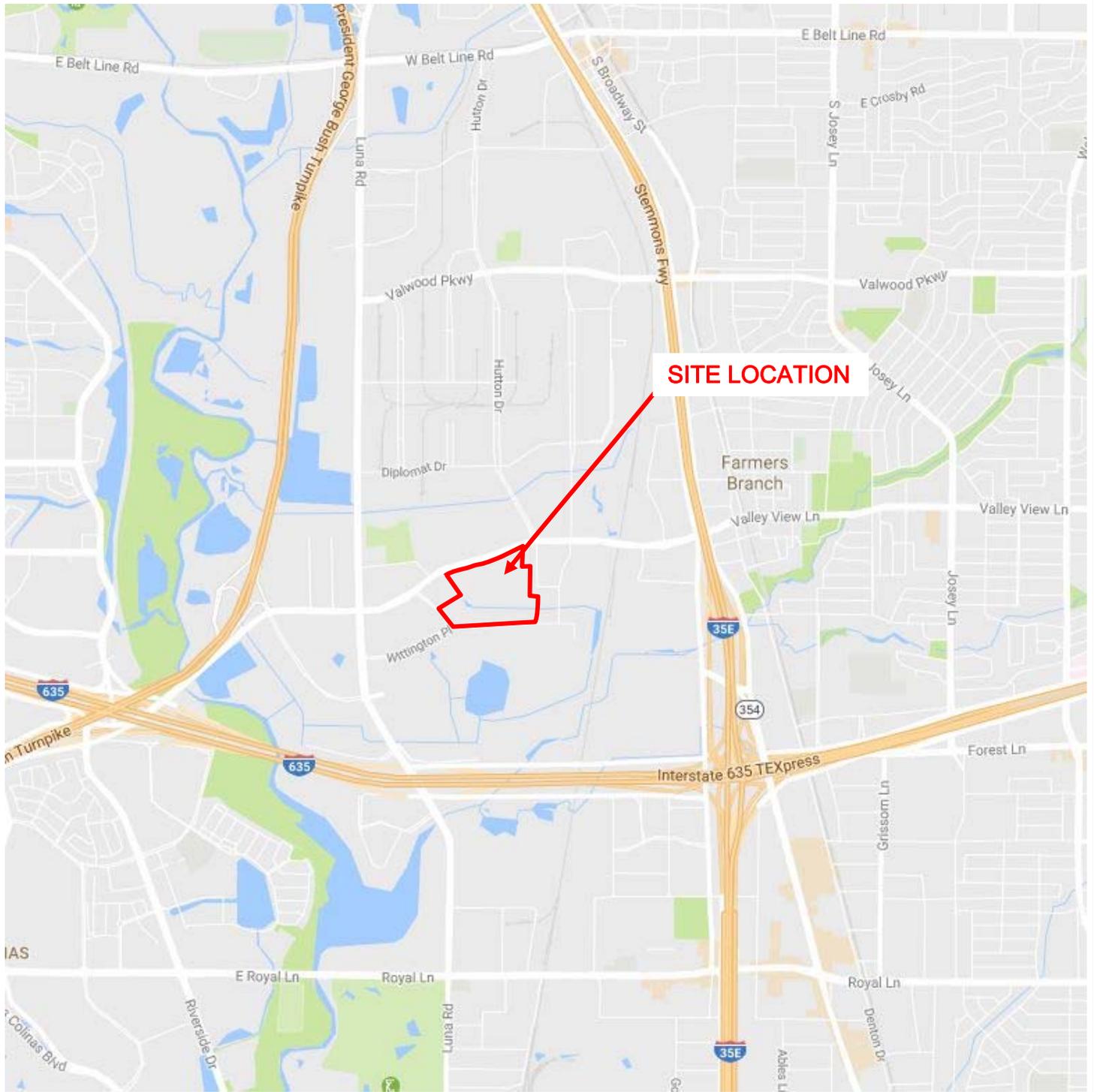
Groundwater was encountered in monitoring wells MW-1 through MW-6 at depths of 12 to 15 feet bgs during drilling. Groundwater was not encountered during soil boring installation related to monitoring wells MW-7 through MW-11. Groundwater in MW-7 through MW-11 developed after well installation. Groundwater flow based on monitoring well gauging data indicates a groundwater gradient towards southwest/west-southwest. The principal potable supply aquifers in Dallas County are the Woodbine and Trinity Group aquifers. The Woodbine is present at an approximate depth of 215 feet bgs and consists of sandstone with some clay and shale. The Trinity Group Aquifer is present at an approximate depth of 1,030 and is comprised of the Paluxy and Twin Mountain Formations. The Paluxy is composed of sandstone, mudstone and limestone while the Twin Mountains is composed of claystone and sandstone. The Woodbine aquifer is separated from the surface formations by the massive, low permeability Eagle Ford Shale formation.

Arsenic is the only COC that has consistently exceeded the ingestion PCLs in groundwater samples collected from monitoring wells. The COCs cadmium and vinyl chloride historically exceeded the PCL at one time during historical sampling events. The overall Protective Concentration Level Exceedance (PCLE) zone for all COCs historically and currently exceeding PCLs is depicted in **Figure C**. It should be noted that high turbidity levels noted in groundwater samples tend to contribute to false positives especially for metals (such as arsenic and cadmium) thus results tend to be overestimated and may not be reliable.

The locations of groundwater monitoring wells and soil borings installed and/or drilled at the Site are presented in **Figure D-1**. Surface soil sample locations are presented in **Figure D-2**.

Measured static groundwater elevations collected from sampling events conducted from October 2015 through December 2016 were used to establish groundwater gradient flow directions (Note: groundwater measurement data was not available for samples collected in August 2014 and gradient direction could not be established for the August 2014 sampling event). The Groundwater flow direction is towards the southwest and west-southwest (**Figures E-1, E-2, E-3, and E-4**). The shallow groundwater bearing zone, based on the TCEQ Groundwater Resource Classification System is indicative of a borderline Class 2/Class 3 Groundwater Resource with many wells indicative of a Class 3 Groundwater Resource, although the overall shallow groundwater bearing zone is being considered a Class 2 Groundwater resource. This is based on low to moderate groundwater yields from Site monitoring wells. There is no anticipated current use of groundwater on the Designated Property for domestic or potable use(s).

The area of contamination exceeding ingestion PCLs as indicated from sampling events conducted from August 2014 through December 2016 assessments are depicted on **Figures F-1, F-2a, F-2b, F-3, F-4, and F-5**. These figures present the arsenic, cadmium, and vinyl chloride concentrations in milligrams per liter (ppm). Upon applicability of the MSD, the inhalation of vapors from affected groundwater ( $AirGW_{Inh-V}$ ) PCL will become the Critical PCL. No COC concentrations will exceed the Tier 1 Groundwater PCL for the airborne inhalation pathway. Data tables contained in Appendix E present the Groundwater Sample Results for VOC, TPH, metals, and PAH analysis from Site monitoring wells.



APPROXIMATE SCALE: 1" ≈ 75'  
 Map Source: Bing Maps



**APPENDIX C**

**Figure A**  
 Site Location Map

**1880 Valley View Lane &  
 1800 Lakeway Boulevard  
 Farmers Branch, Texas 75234**

**Project Number:**

**EP-5210**

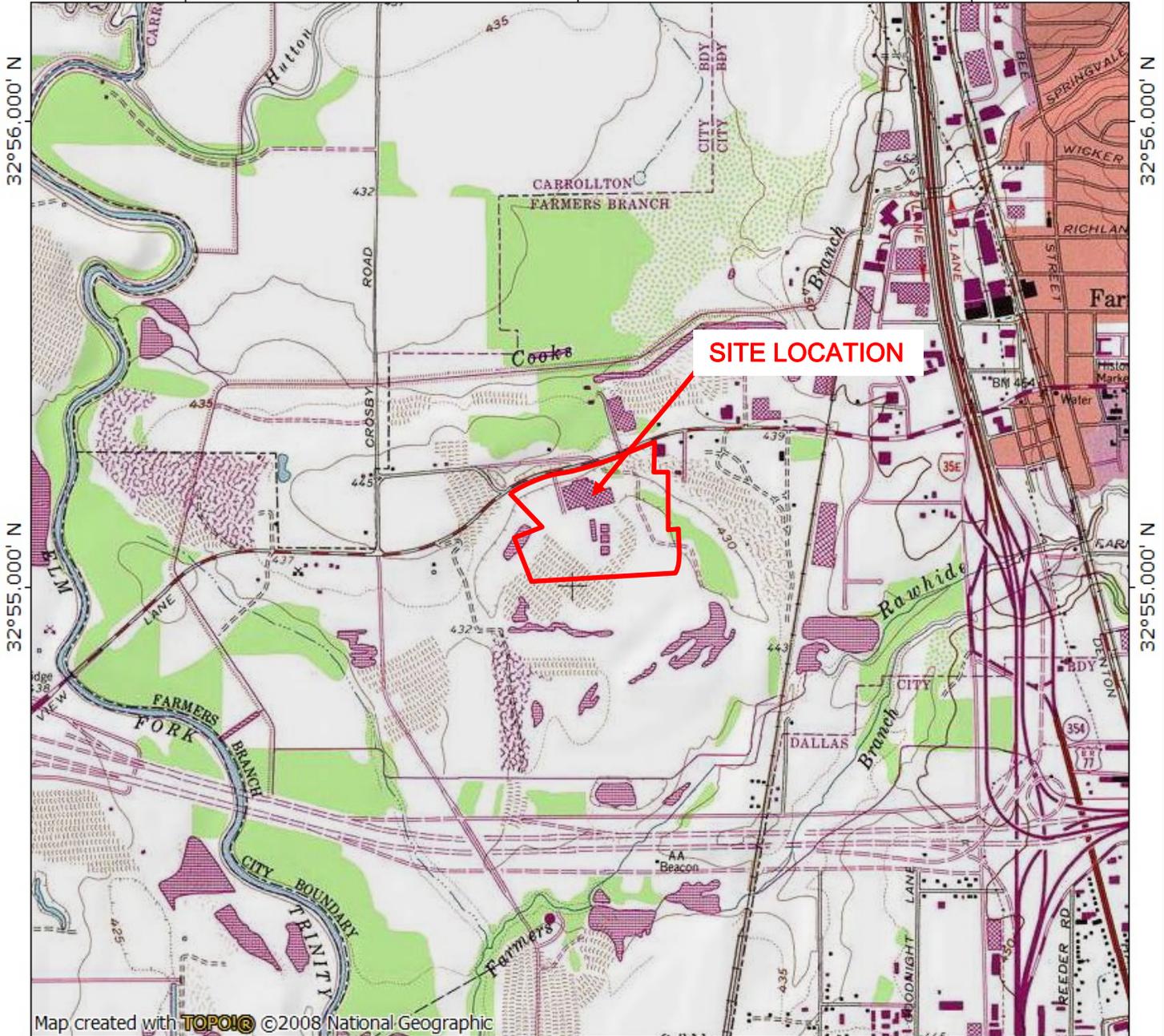


Carrollton, Texas 1978; Revised 1981 - Topographic Map

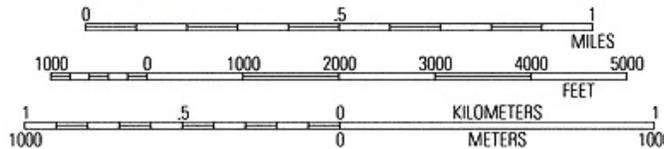
96°56.000' W

96°55.000' W

WGS84 96°54.000' W



Map created with **TOPOIC** ©2008 National Geographic



**APPENDIX C**

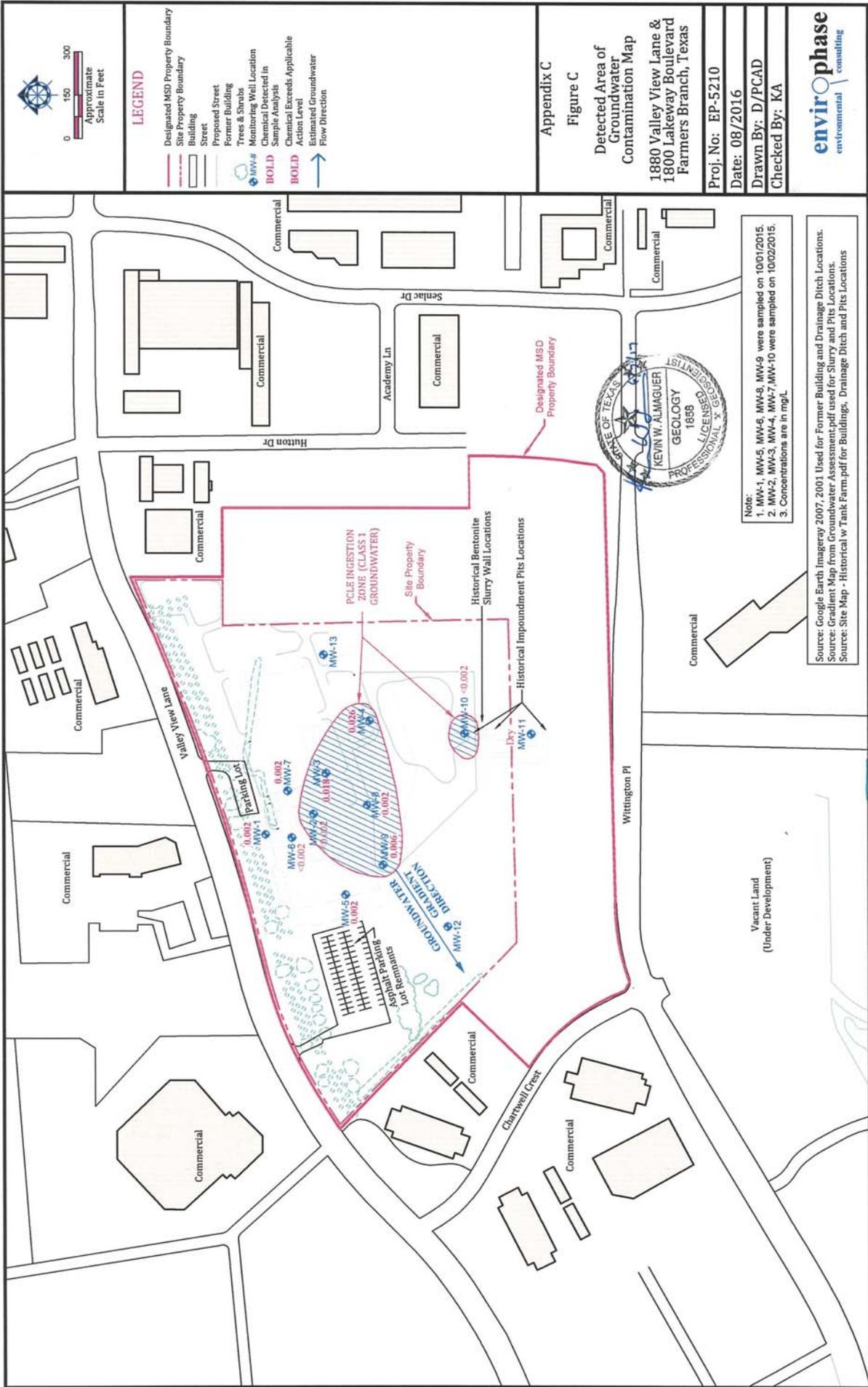
**Figure B**  
**Site Topography Map**

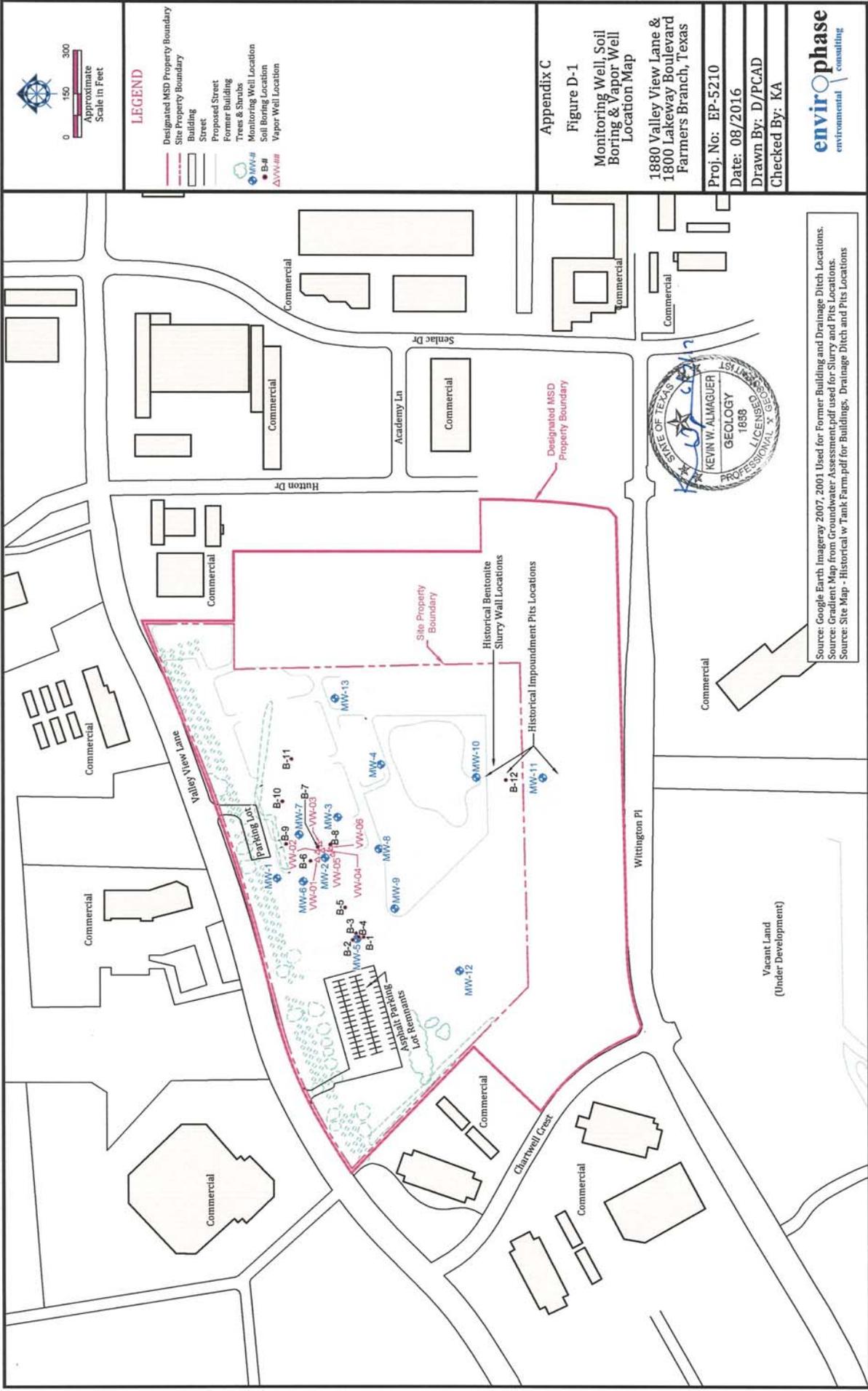
**1880 Valley View Lane &  
1800 Lakeway Boulevard  
Farmers Branch, Texas 75234**

**Project Number:**

**EP-5210**







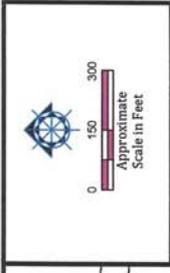
Source: Google Earth Imagery 2007, 2001 Used for Former Building and Drainage Ditch Locations.  
 Source: Gradient Map From Groundwater Assessment.pdf used for Slurry and Pits Locations.  
 Source: Site Map - Historical w Tank Farm.pdf for Buildings, Drainage Ditch and Pits Locations



**Appendix C**  
**Figure D-1**  
**Monitoring Well, Soil Boring & Vapor Well Location Map**  
 1880 Valley View Lane & 1800 Lakeway Boulevard  
 Farmers Branch, Texas  
 Proj. No: EP-5210  
 Date: 08/2016  
 Drawn By: D/PCAD  
 Checked By: KA







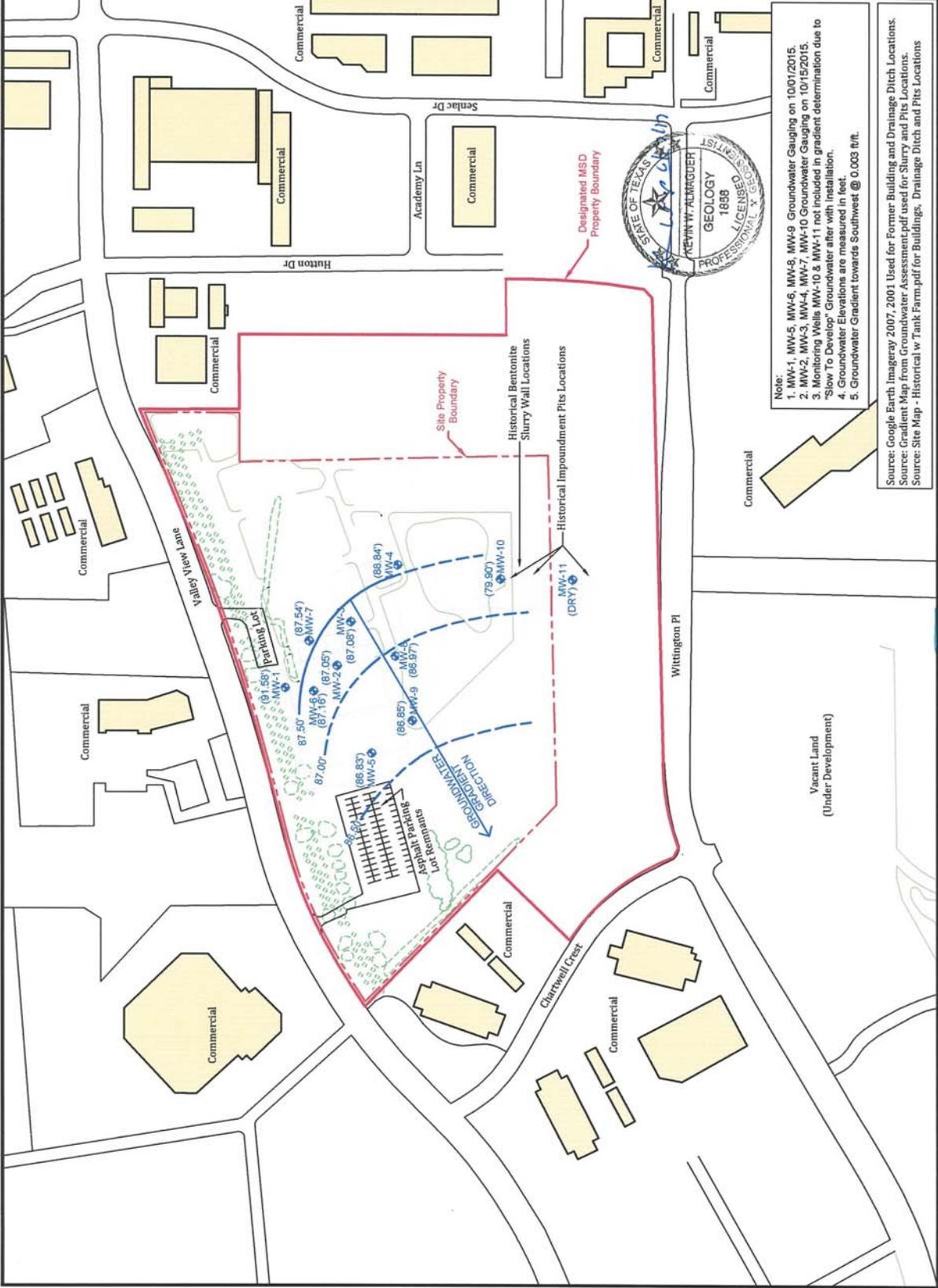
**LEGEND**

- Designated MSD Property Boundary
- Site Property Boundary
- Building
- Proposed Street
- Former Building
- Trees & Shrubs
- Monitoring Well Location
- Groundwater Elevation Contour (feet)
- Groundwater Elevation Contour
- Estimated Water Level Contour
- Estimated Groundwater Flow Direction

Appendix C  
Figure E-1  
Groundwater Gradient Map  
1880 Valley View Lane & 1800 Lakeway Boulevard  
Farmers Branch, Texas

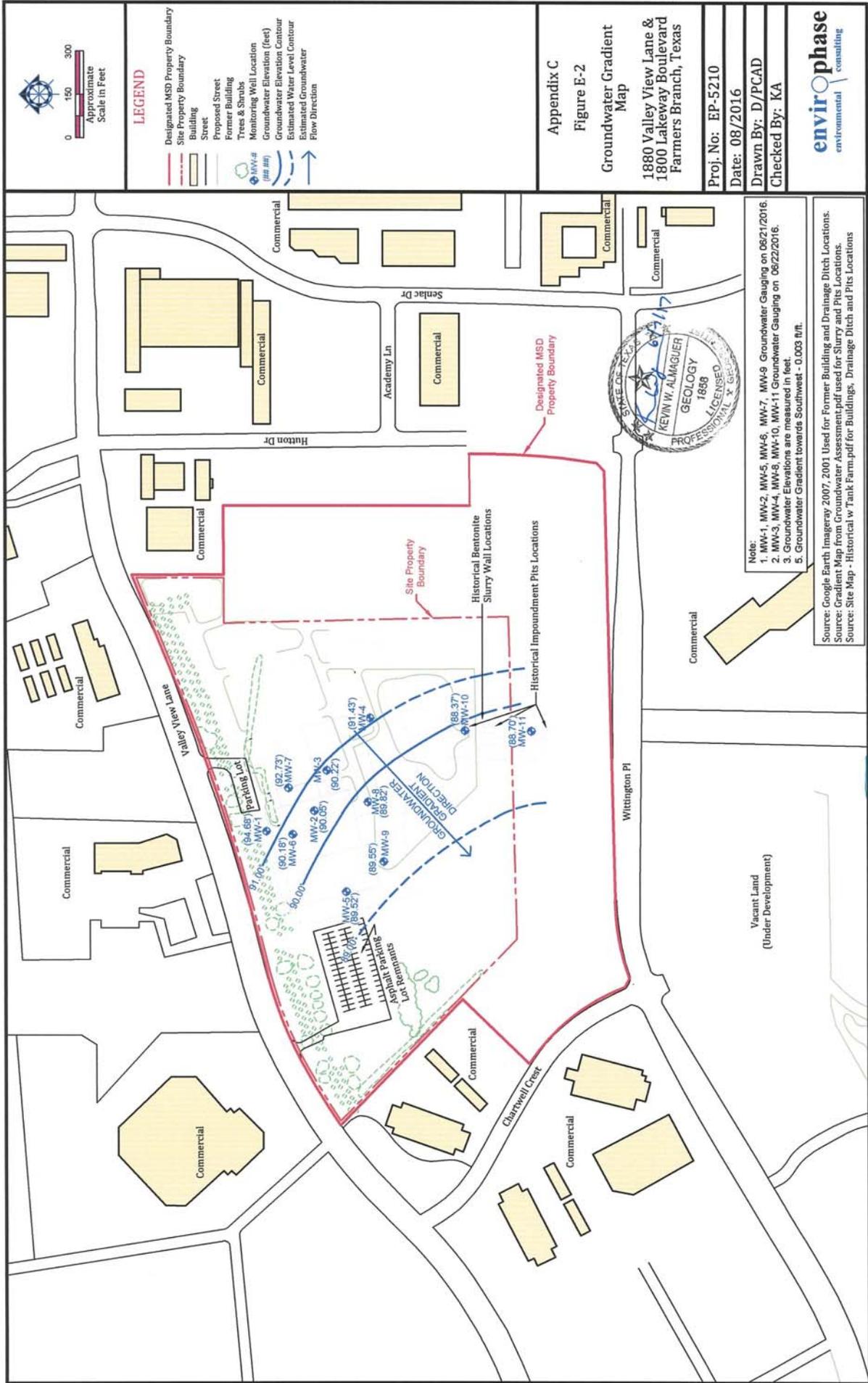
Proj. No: EP-5210  
Date: 08/2016  
Drawn By: D/PCAD  
Checked By: KA

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- Note:
- MW-1, MW-5, MW-6, MW-8, MW-9, MW-10 Groundwater Gauging on 10/01/2015.
  - MW-2, MW-3, MW-4, MW-7, MW-10 Groundwater Gauging on 10/15/2015.
  - Monitoring Wells MW-10 & MW-11 not included in gradient determination due to "Slow To Develop" Groundwater after with installation.
  - Groundwater Elevations are measured in feet.
  - Groundwater Gradient towards Southwest @ 0.003 ft/ft.

Source: Google Earth Imagery 2007, 2001 Used for Former Building and Drainage Ditch Locations.  
Source: Gradient Map from Groundwater Assessment.pdf used for Slurry and Pits Locations.  
Source: Site Map - Historical w Tank Farm.pdf for Buildings, Drainage Ditch and Pits Locations



Appendix C  
 Figure E-2  
 Groundwater Gradient Map  
 1880 Valley View Lane &  
 1800 Lakeway Boulevard  
 Farmers Branch, Texas

Proj. No: EP-5210  
 Date: 08/2016  
 Drawn By: D/PCAD  
 Checked By: KA

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**Note:**

- MW-1, MW-2, MW-5, MW-6, MW-7, MW-9 Groundwater Gauging on 06/21/2016.
- MW-3, MW-4, MW-8, MW-10, MW-11 Groundwater Gauging on 06/22/2016.
- Groundwater Elevations are measured in feet.
- Groundwater Gradient towards Southwest - 0.003 ft/ft.

Source: Google Earth Imagery 2007, 2001 Used for Former Building and Drainage Ditch Locations.  
 Source: Gradient Map from Groundwater Assessment.pdf used for Slurry and Pits Locations.  
 Source: Site Map - Historical w Tank Farm.pdf for Buildings, Drainage Ditch and Pits Locations

Approximate Scale in Feet

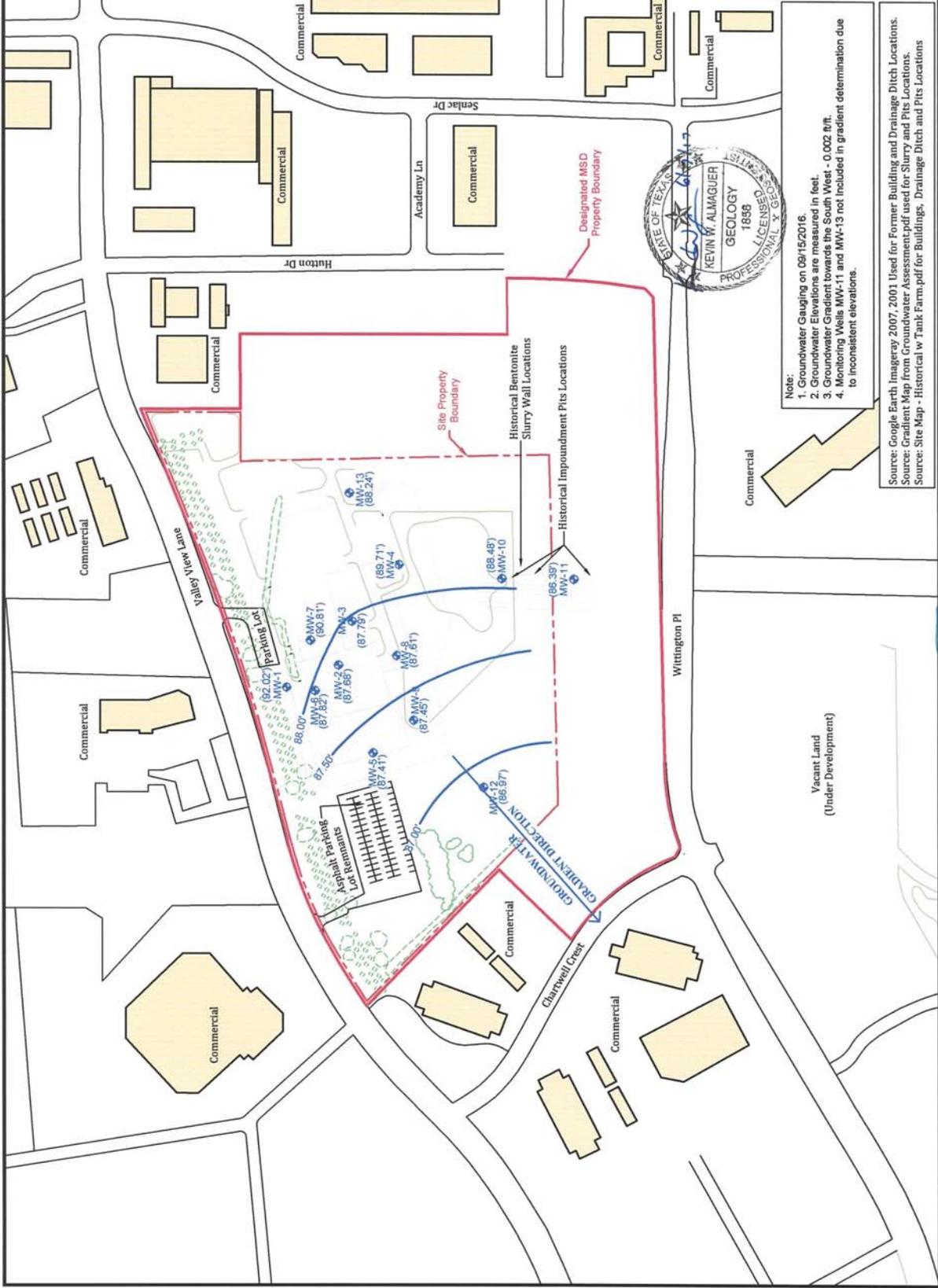
**LEGEND**

- Designated MSD Property Boundary
- Site Property Boundary
- Building
- Proposed Street
- Former Building
- Trees & Shrubs
- Monitoring Well Location
- Groundwater Elevation Contour (feet)
- Groundwater Level Contour
- Estimated Groundwater Flow Direction

**Appendix C**  
**Figure E-3**  
**Groundwater Gradient Map**

1880 Valley View Lane & 1800 Lakeway Boulevard  
Farmers Branch, Texas

Proj. No: EP-5210  
Date: 9/2016  
Drawn By: D/PCAD  
Checked By: KA



Approximate Scale in Feet

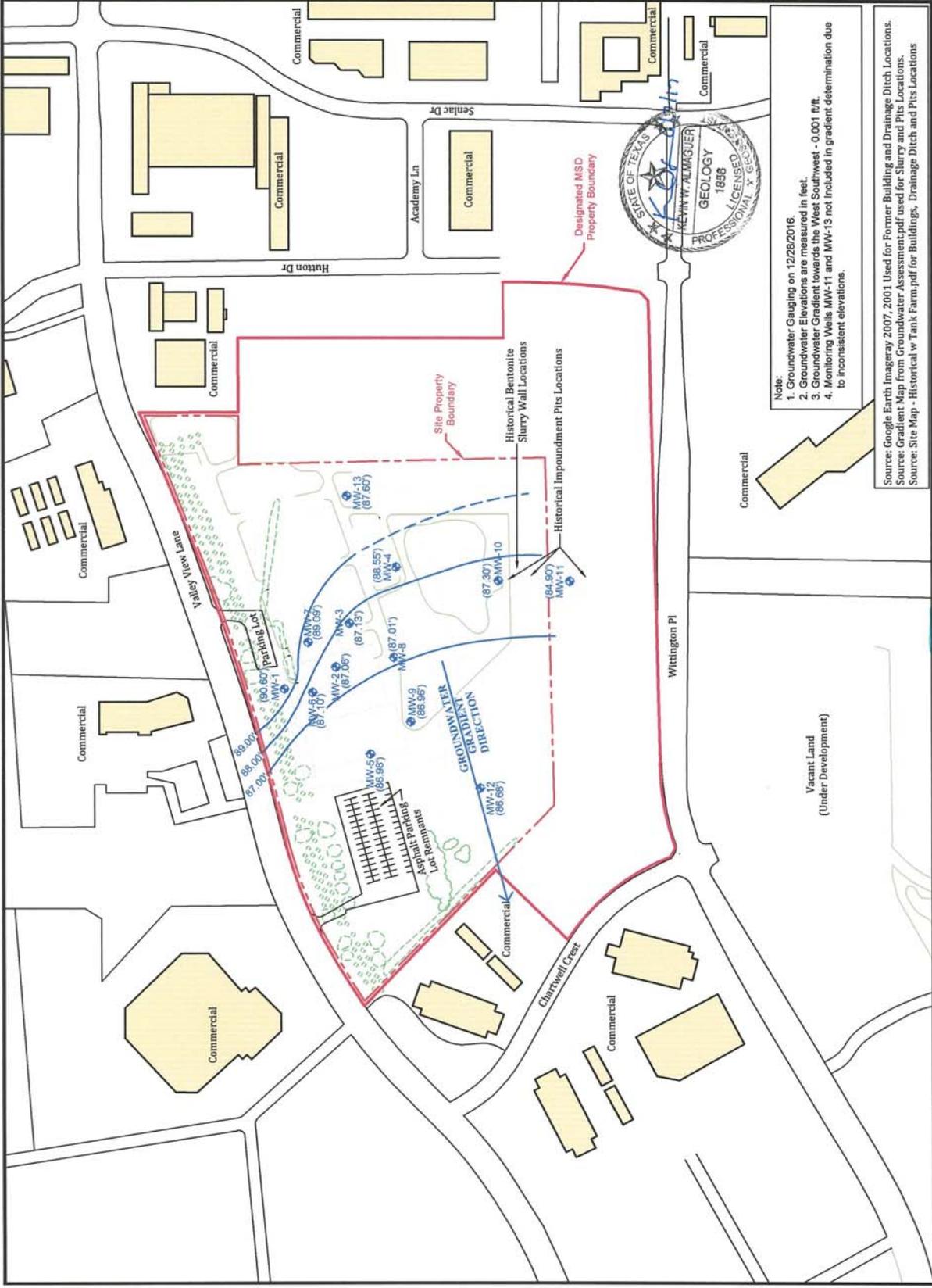
**LEGEND**

- Designated MSD Property Boundary
- Site Property Boundary
- Proposed Street
- Former Building
- Street
- Trees & Shrubs
- Monitoring Well Location
- Groundwater Elevation (feet)
- Estimated Water Level Contour
- Estimated Groundwater Flow Direction

**Appendix C**  
**Figure E-4**  
**Groundwater Gradient Map**

1880 Valley View Lane & 1800 Lakeway Boulevard  
Farmers Branch, Texas

Proj. No: EP-5210  
Date: 9/2016  
Drawn By: D/PCAD  
Checked By: KA



**Note:**

1. Groundwater Gauging on 12/28/2016
2. Groundwater Elevations are measured in feet.
3. Groundwater Gradient towards the West Southwest - 0.001 ft/ft.
4. Monitoring Wells MW-11 and MW-13 not included in gradient determination due to inconsistent elevations.

Source: Google Earth Imagery 2007, 2001 Used for Former Building and Drainage Ditch Locations.  
Source: Gradient Map from Groundwater Assessment.pdf used for Slurry and Pits Locations.  
Source: Site Map - Historical w Tank Farm.pdf for Buildings, Drainage Ditch and Pits Locations

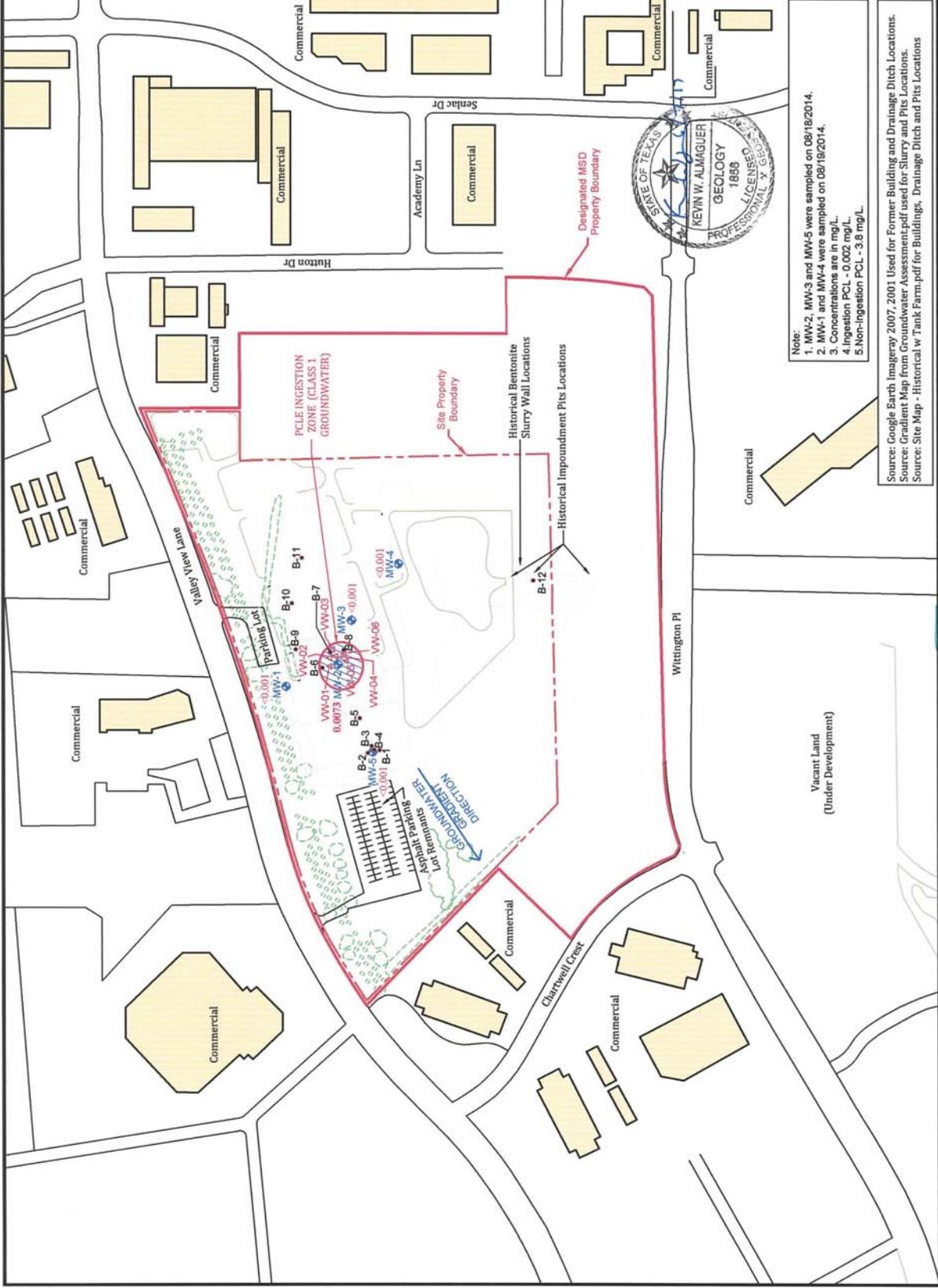
Approximate Scale in Feet

**LEGEND**

- Designated MSD Property Boundary
- Site Property Boundary
- Building
- Street
- Proposed Street
- Former Building
- Trees & Shrubs
- MW# Monitoring Well Location
- B# Soil Boring Location
- VW# Vapor Well Location
- Chemical Detected in Sample Analysis
- HOLD** Chemical Exceeds Applicable Action Level
- HOLD** Estimated Groundwater Flow Direction

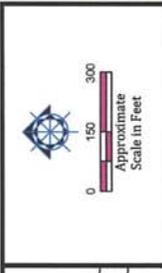
**Appendix C**  
**Figure F-1**  
**Vinyl Chloride COC**  
**1880 Valley View Lane & 1800 Lakeway Boulevard**  
**Farmers Branch, Texas**

Proj. No: EP-5210  
 Date: 08/2016  
 Drawn By: D/PCAD  
 Checked By: KA



Note:  
 1. MW-2, MW-3 and MW-5 were sampled on 08/18/2014.  
 2. MW-1 and MW-4 were sampled on 08/18/2014.  
 3. Concentrations are in mg/L  
 4. Ingestion PCL - 0.002 mg/L  
 5. Non-Ingestion PCL - 3.8 mg/L

Source: Google Earth Imagery, 2007, 2001 Used for Former Building and Drainage Ditch Locations.  
 Source: Gradient Map from Groundwater Assessment.pdf used for Slurry and Pits Locations.  
 Source: Site Map - Historical w Tank Farm.pdf for Buildings, Drainage Ditch and Pits Locations



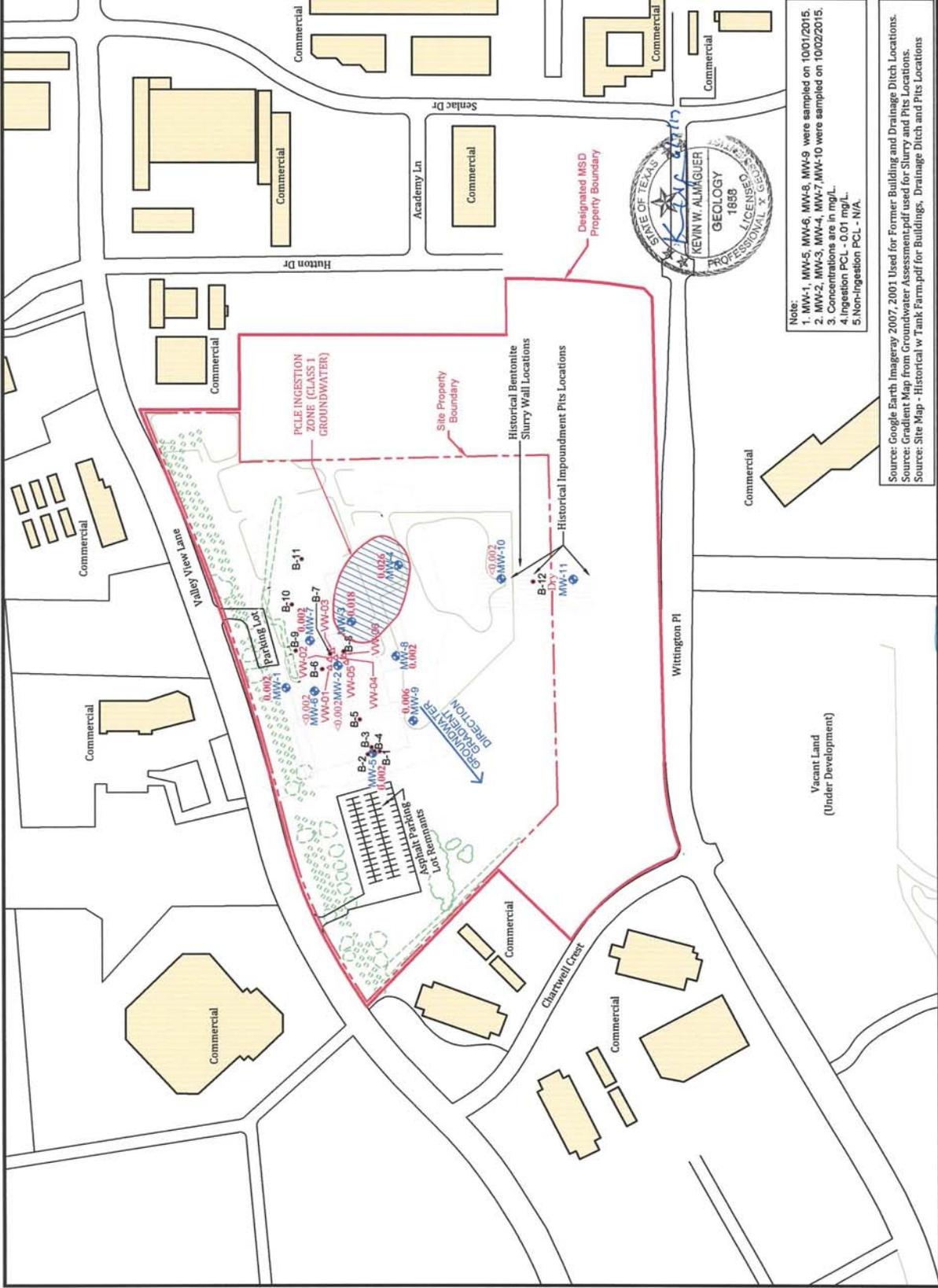
**LEGEND**

- Designated MSD Property Boundary
- Site Property Boundary
- Building
- Street
- Proposed Street
- Former Building
- Trees & Shrubs
- Monitoring Well Location
- Soil Boring Location
- Vapor Well Location
- Chemical Detected in Sample Analysis
- Chemical Exceeds Applicable Action Level
- Estimated Groundwater
- Flow Direction

Appendix C  
Figure F-2a  
Arsenic COC Map  
1880 Valley View Lane &  
1800 Lakeway Boulevard  
Farmers Branch, Texas

Proj. No: EP-5210  
Date: 08/2016  
Drawn By: D/PCAD  
Checked By: KA

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Note:  
1. MW-1, MW-5, MW-6, MW-8, MW-9 were sampled on 10/01/2015.  
2. MW-2, MW-3, MW-4, MW-7, MW-10 were sampled on 10/02/2015.  
3. Concentrations are in mg/L.  
4. Ingestion PCL - 0.01 mg/L.  
5. Non-ingestion PCL - N/A.

Source: Google Earth Imagery 2007, 2001 Used for Former Building and Drainage Ditch Locations.  
Source: Gradient Map from Groundwater Assessment.pdf used for Slurry and Pits Locations.  
Source: Site Map - Historical w Tank Farm.pdf for Buildings, Drainage Ditch and Pits Locations

Approximate Scale in Feet

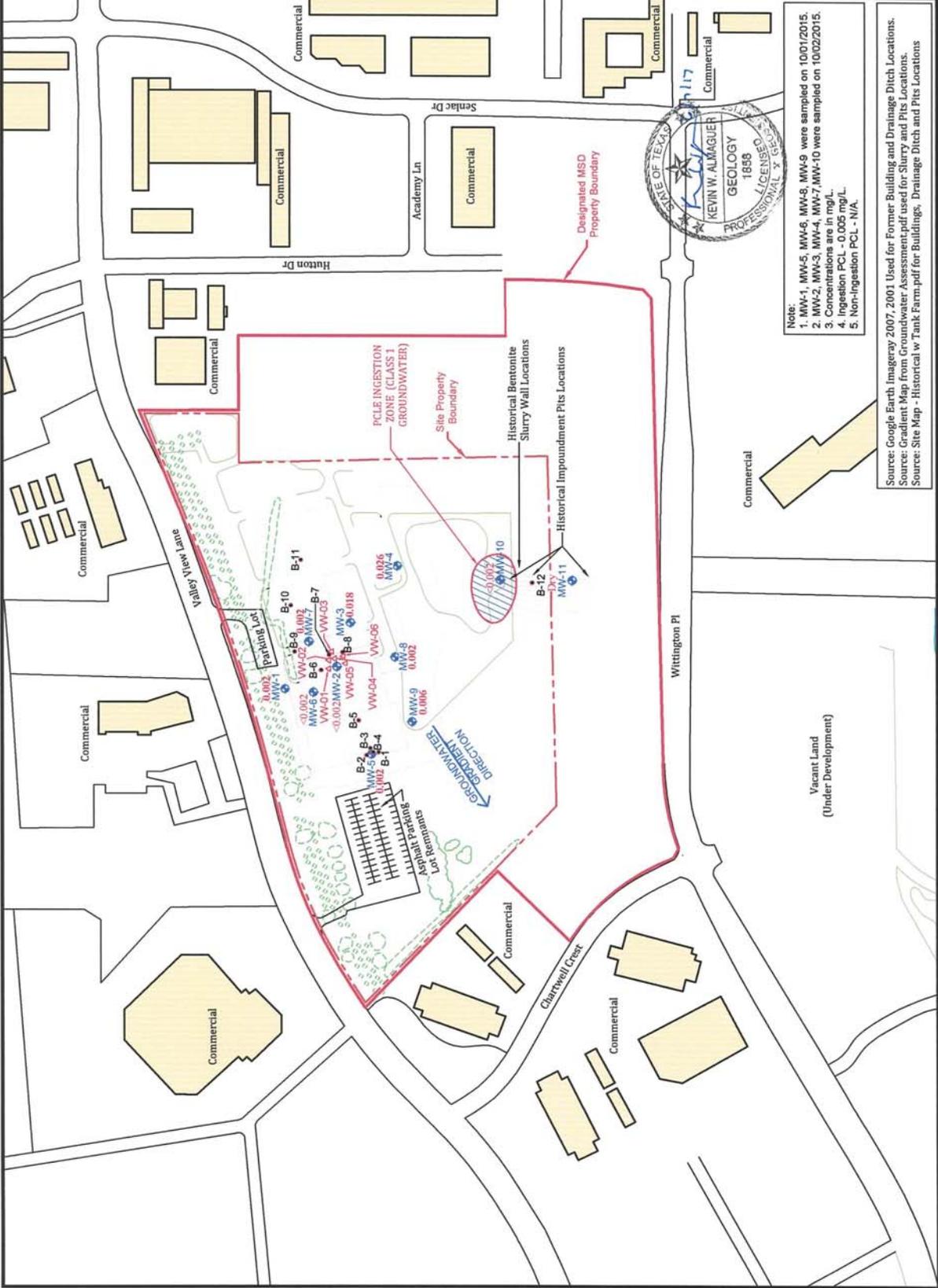
**LEGEND**

- Designated MSD Property Boundary
- Site Property Boundary
- Building
- Street
- Proposed Street
- Former Building
- Trees & Shrubs
- Monitoring Well Location
- Soil Boring Location
- Vapor Well Location
- Chemical Detected in Sample Analysis
- Chemical Exceeds Applicable Action Level
- Estimated Groundwater Flow Direction

**Appendix C**  
**Figure F-2b**  
**Cadmium COC Map**

1880 Valley View Lane &  
1800 Lakeway Boulevard  
Farmers Branch, Texas

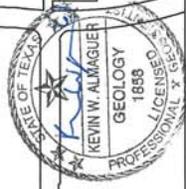
Proj. No: EP-5210  
Date: 08/2016  
Drawn By: D/PCAD  
Checked By: KA



Note:

1. MW-1, MW-5, MW-6, MW-9 were sampled on 10/01/2015.
2. MW-2, MW-3, MW-4, MW-7, MW-10 were sampled on 10/02/2015.
3. Concentrations are in mg/L.
4. Ingestion PCL - 0.005 mg/L.
5. Non-Ingestion PCL - N/A.

Source: Google Earth Imagery 2007, 2001 Used for Former Building and Drainage Ditch Locations.  
Source: Gradient Map from Groundwater Assessment.pdf used for Slurry and Pits Locations.  
Source: Site Map - Historical w Tank Farm.pdf for Buildings, Drainage Ditch and Pits Locations





Approximate Scale in Feet

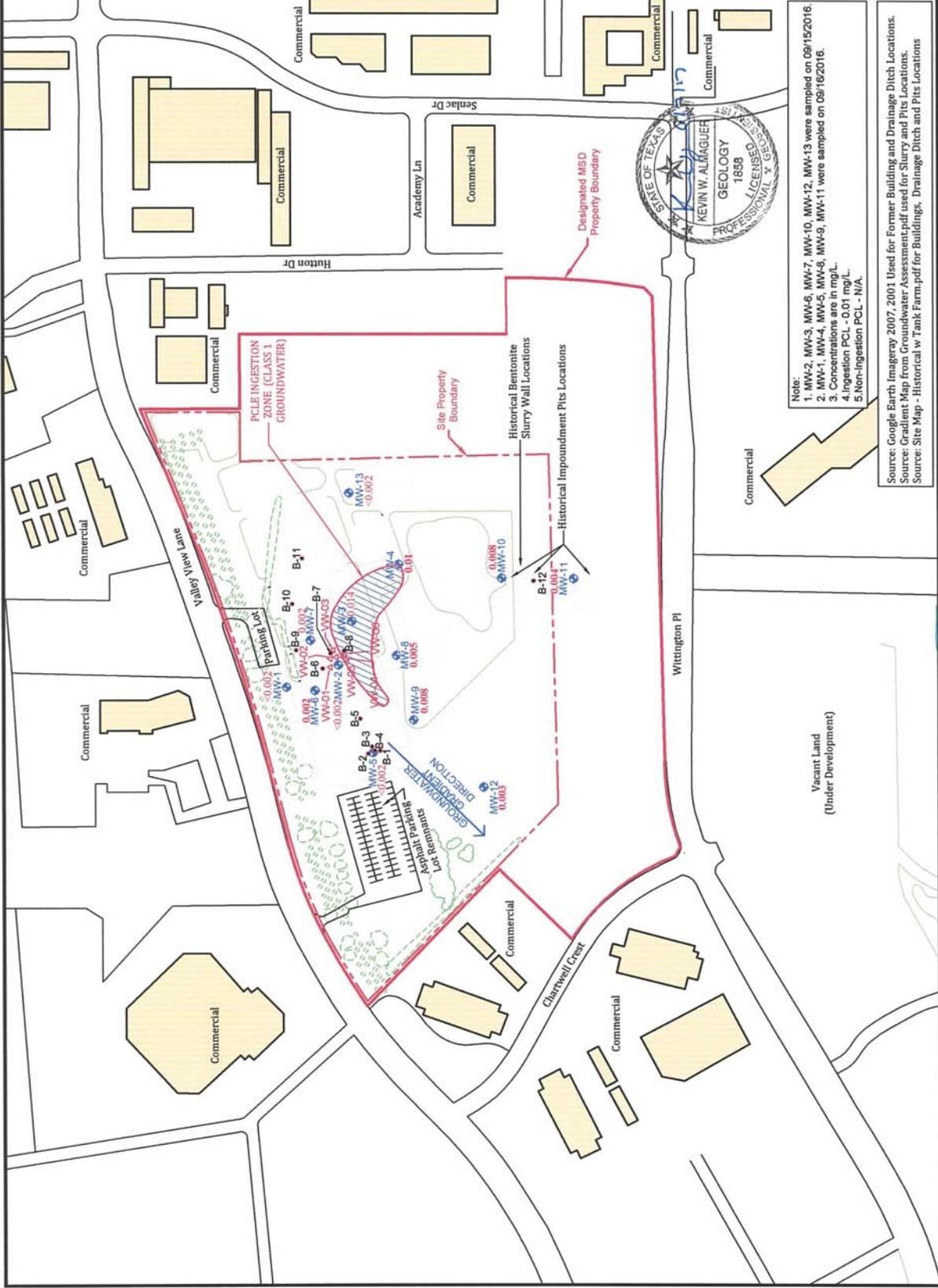
**LEGEND**

- Designated MSD Property Boundary
- Site Property Boundary
- Building
- Street
- Proposed Street
- Former Building
- Trees & Shrubs
- Monitoring Well Location
- Soil Boring Location
- Vapor Well Location
- Chemical Detected In Sample Analysis
- Chemical Exceeds Applicable Action Level
- Estimated Groundwater Flow Direction

**Appendix C**  
**Figure F-4**  
**Arsenic COC Map**

1880 Valley View Lane & 1800 Lakeway Boulevard  
Farmers Branch, Texas

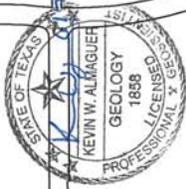
Proj. No: EP-5210  
Date: 08/2016  
Drawn By: D/PCAD  
Checked By: KA



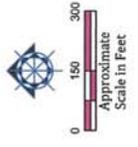
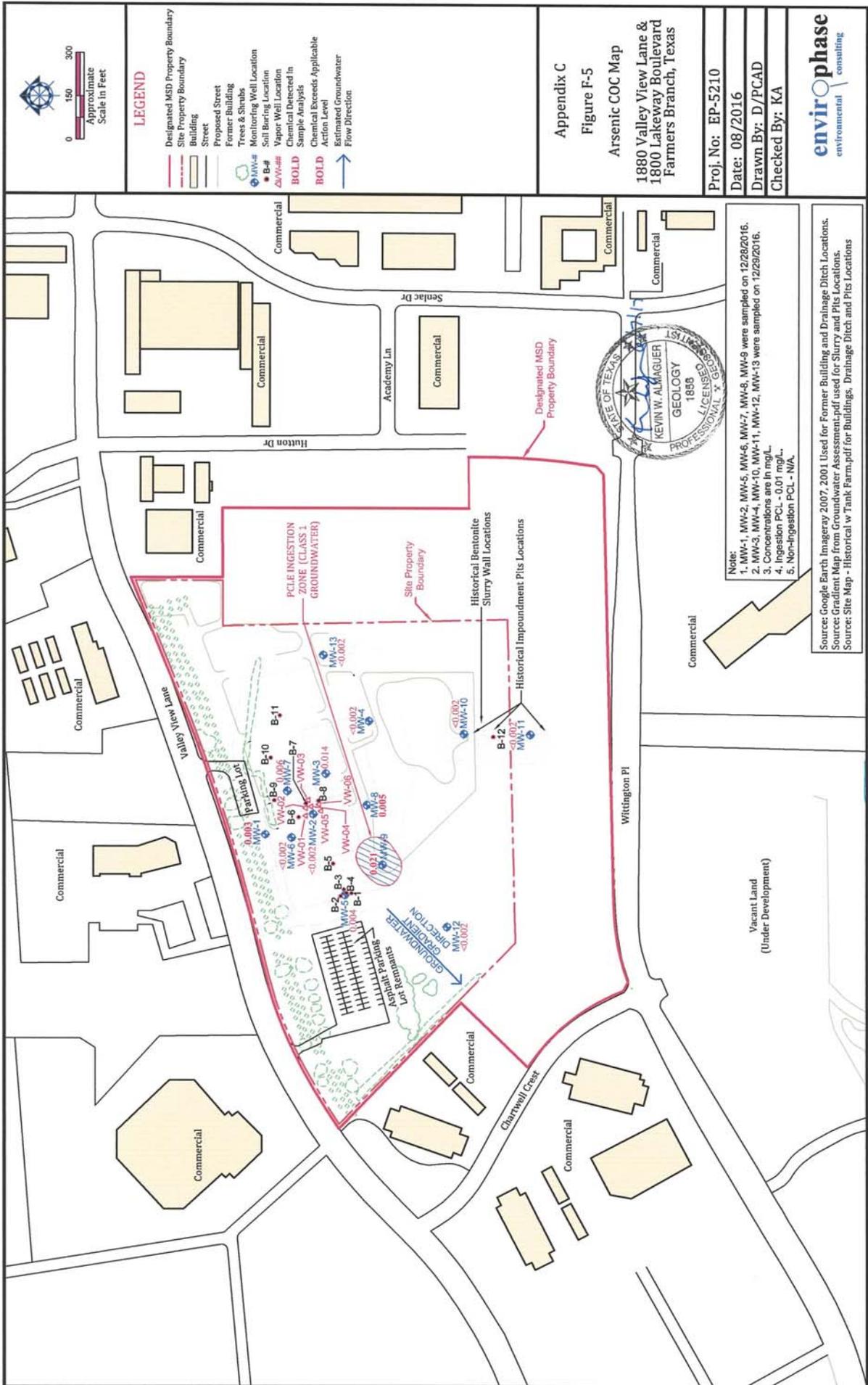
**Note:**

1. MW-2, MW-3, MW-6, MW-7, MW-10, MW-12, MW-13 were sampled on 09/15/2016.
2. MW-1, MW-4, MW-5, MW-8, MW-9, MW-11 were sampled on 08/16/2016.
3. Concentrations are in mg/L.
4. Ingestion PCL - 0.01 mg/L.
5. Non-Ingestion PCL - N/A.

Source: Google Earth Imagery 2007, 2001 Used for Former Building and Drainage Ditch Locations.  
 Source: Gradient Map from Groundwater-Assessment.pdf used for Slurry and Pits Locations.  
 Source: Site Map - Historical w Tank Farm.pdf for Buildings, Drainage Ditch and Pits Locations



Vacant Land  
(Under Development)



- LEGEND**
- Designated MSD Property Boundary
  - Site Property Boundary
  - Building
  - Street
  - Proposed Street
  - Former Building
  - Trees & Shrubs
  - Monitoring Well Location
  - Soil Boring Location
  - Vapor Well Location
  - Chemical Detected In
  - Sample Analysis
  - BOLD** Chemical Exceeds Applicable Action Level
  - BOLD** Estimated Groundwater Flow Direction

Appendix C  
 Figure F-5  
 Arsenic COC Map  
 1880 Valley View Lane &  
 1800 Lakeway Boulevard  
 Farmers Branch, Texas

Proj. No: EP-5210  
 Date: 08/2016  
 Drawn By: D/PCAD  
 Checked By: KA

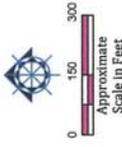
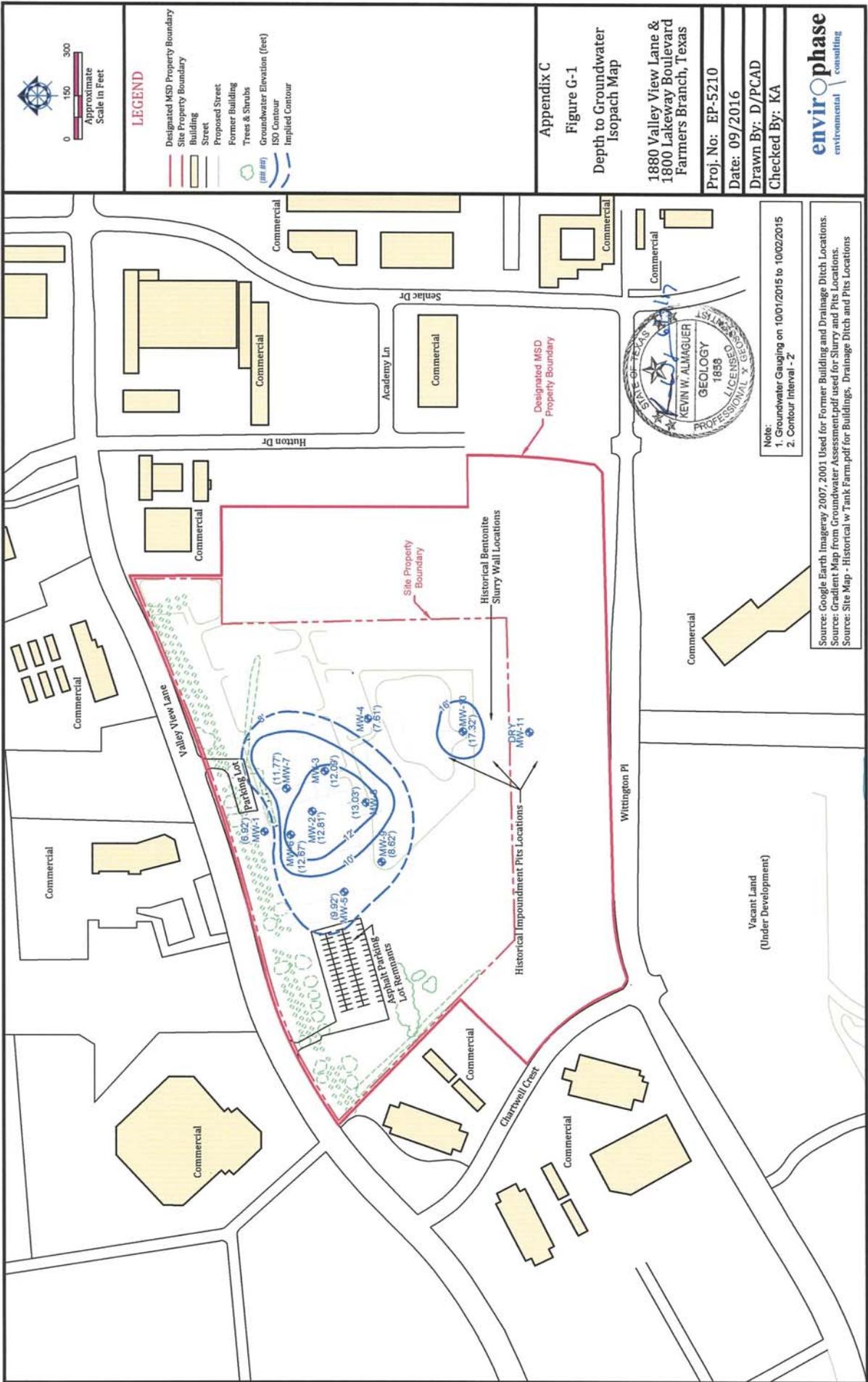
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Note:  
 1. MW-1, MW-2, MW-5, MW-6, MW-7, MW-9, MW-10, MW-11, MW-12, MW-13 were sampled on 12/28/2016.  
 2. MW-3, MW-4, MW-10, MW-11, MW-12, MW-13 were sampled on 12/29/2016.  
 3. Concentrations are in mg/L.  
 4. Ingestion PCL - 0.01 mg/L.  
 5. Non-Ingestion PCL - N/A.

Source: Google Earth Imagery 2007, 2001 Used for Former Building and Drainage Ditch Locations.  
 Source: Gradient Map from Groundwater Assessment.pdf used for Slurry and Pits Locations.  
 Source: Site Map - Historical w Tank Farm.pdf for Buildings, Drainage Ditch and Pits Locations



Vacant Land  
 (Under Development)



- LEGEND**
- Designated MSD Property Boundary
  - Site Property Boundary
  - Building
  - Street
  - Proposed Street
  - Former Building
  - Trees & Shrubs
  - Groundwater Elevation (feet)
  - ISO Contour
  - Implied Contour

**Appendix C**  
**Figure G-1**  
**Depth to Groundwater**  
**- Isopach Map**

1880 Valley View Lane &  
 1800 Lakeway Boulevard  
 Farmers Branch, Texas

Proj. No: EP-5210  
 Date: 09/2016  
 Drawn By: D/PCAD  
 Checked By: KA



Note:  
 1. Groundwater Gauging on 10/01/2015 to 10/02/2015  
 2. Contour Interval - 2'

Source: Google Earth Imagery 2007, 2001 Used for Former Building and Drainage Ditch Locations.  
 Source: Gradient Map from Groundwater Assessment.pdf used for Slurry and Pits Locations.  
 Source: Site Map - Historical w Tank Farm.pdf for Buildings, Drainage Ditch and Pits Locations



Approximate Scale in Feet

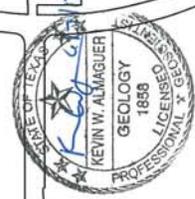
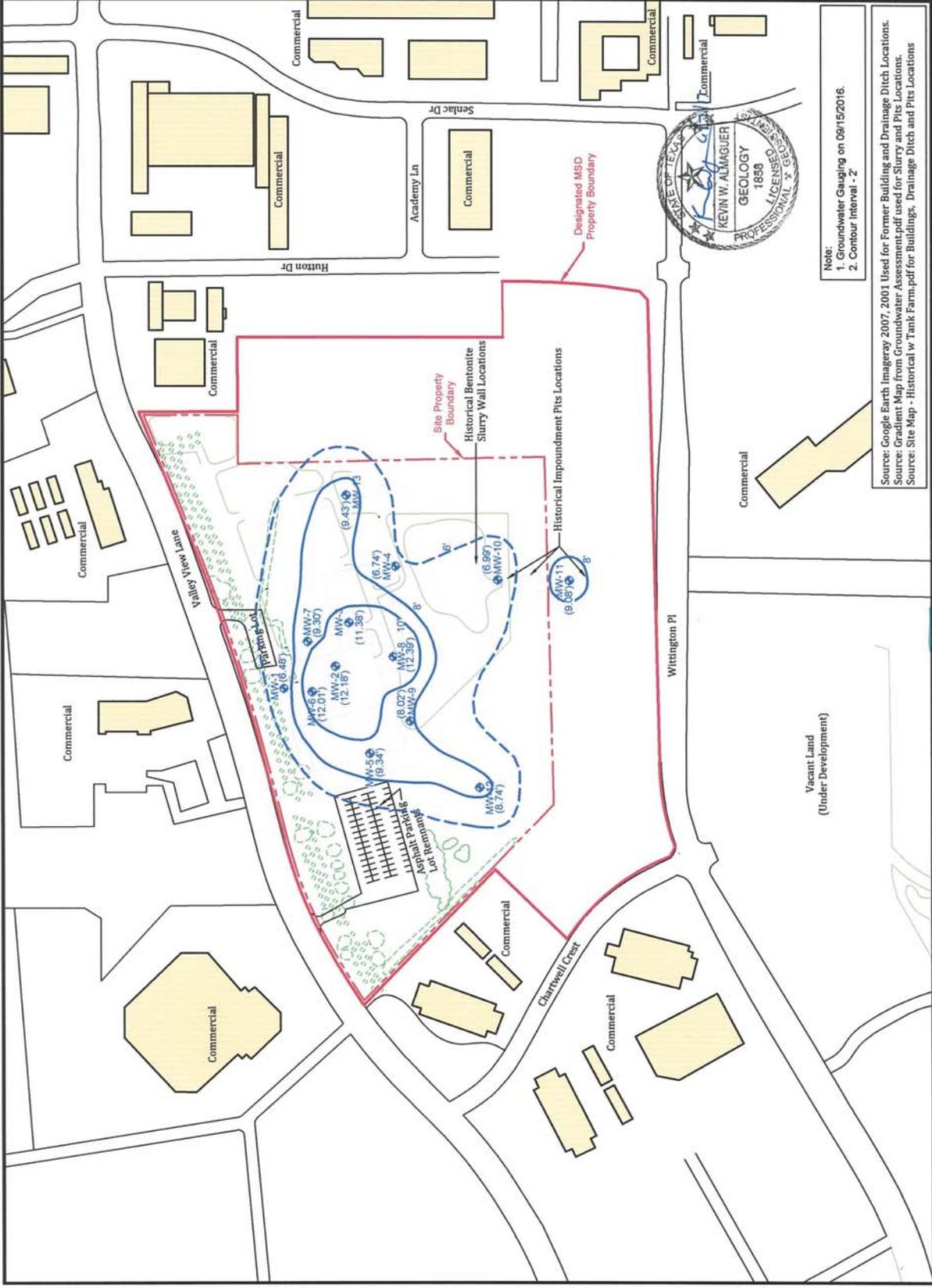
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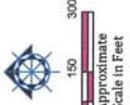
- Designated MSD Property Boundary
- Site Property Boundary
- Building
- Street
- Proposed Street
- Former Building
- Trees & Shrubs
- Groundwater Elevation (feet)
- ISO Contour
- Implied Contour

**Appendix C**  
**Figure G-3**  
**Depth to Groundwater**  
**Isopach Map**

1880 Valley View Lane &  
1800 Lakeway Boulevard  
Farmers Branch, Texas

Proj. No: EP-5210  
Date: 09/2016  
Drawn By: D/PCAD  
Checked By: KA





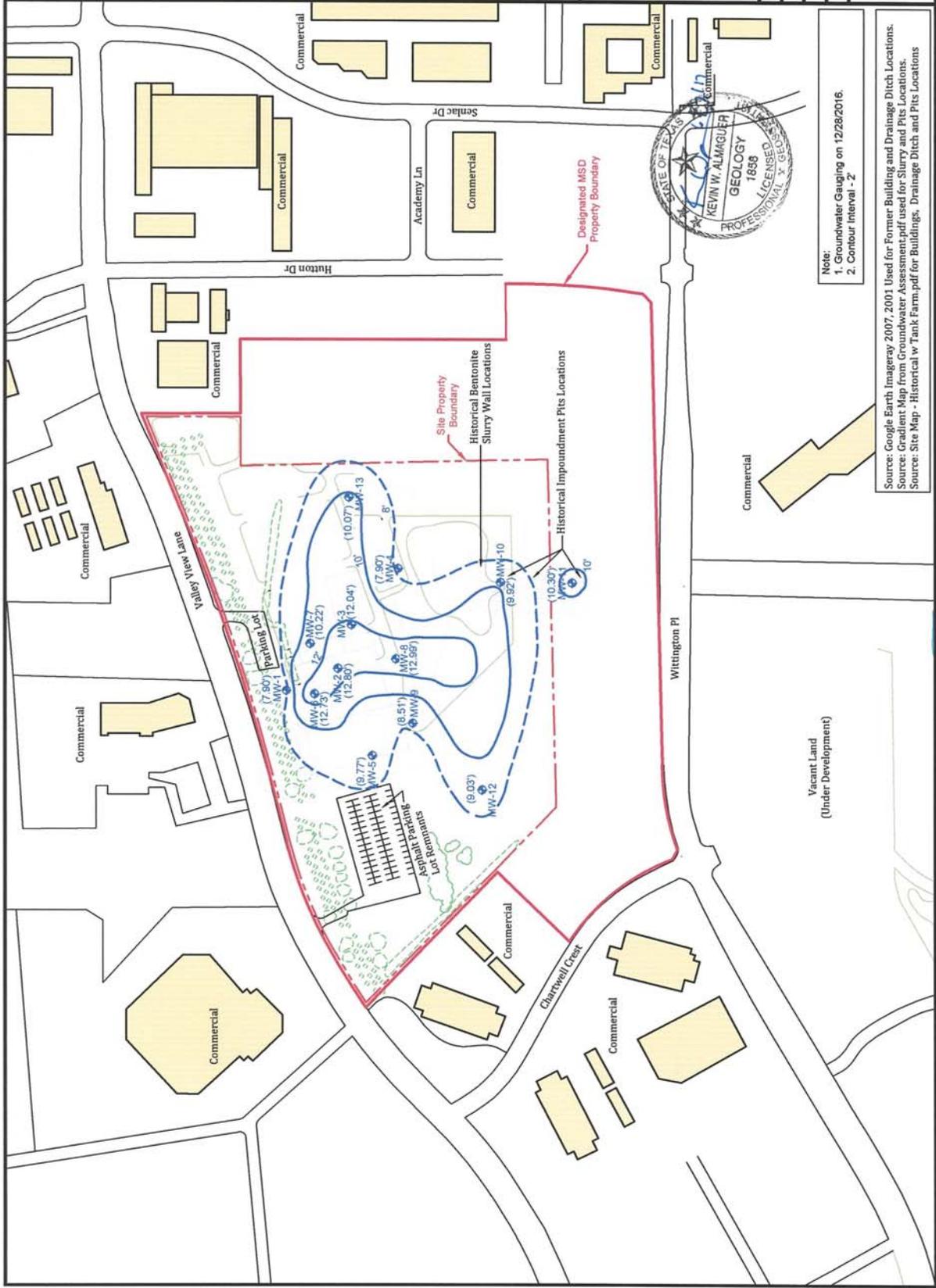
**LEGEND**

- Designated MSD Property Boundary
- Site Property Boundary
- Proposed Street
- Former Building
- Trees & Shrubs
- Groundwater Elevation (feet)
- 150 Contour
- Implied Contour

**Appendix C**  
Figure G-4  
Depth to Groundwater  
Isopach Map

1880 Valley View Lane &  
1800 Lakeway Boulevard  
Farmers Branch, Texas

Proj. No: EP-5210  
Date: 09/2016  
Drawn By: D/PCAD  
Checked By: KA



Note:  
1. Groundwater Gauging on 12/28/2016.  
2. Contour Interval - 2'

Source: Google Earth Imagery 2007, 2001 Used for Former Building and Drainage Ditch Locations.  
Source: Gradient Map from Groundwater Assessment.pdf used for Slurry and Pits Locations.  
Source: Site Map - Historical w Tank Farm.pdf for Buildings, Drainage Ditch and Pits Locations

## APPENDIX D

### PROPERTIES OF CHEMICALS OF CONCERN (COCs) WITHIN INGESTION PCL EXCEEDANCE ZONE

Ingestion PCL Exceedance Zones currently or have historically existed for the following COCs:

- **Arsenic**
- **Cadmium**
- **Vinyl Chloride**

Figures F-1, F-2a, F-2b, F-3, F-4, and F-5 contained in Appendix C present the horizontal extent of the ingestion PCL Exceedance Zone in the shallow groundwater zone for each identified COC. It should be noted that Cadmium and Vinyl Chloride were only observed above the ingestion PCL during a single sampling event following well installation and are not representative of current conditions. The horizontal areas of the ingestion PCL Exceedance (PCLE) Zone was measured digitally from the above referenced Figures and presented in the table below (Note: The PLCE zone for vinyl chloride has been exaggerated to stand out on maps better due to the scale):

COC	Upper Groundwater Zone (sq ft)	Maximum Concentration (mg/L)*	Ingestion PCL (mg/L)	Non-ingestion PCL (mg/L)	Minimum Depth to Groundwater (feet bgs)	Minimum Depth to Groundwater (feet bgs)
<b>Arsenic</b>	69,000	<b>0.021*</b> (MW-9)	0.01	-	5.92 (MW-9)	8.62 (MW-9)
<b>Cadmium</b>	31,000	<b>0.025**</b> (MW-10)	0.005	-	6.51 (MW-10)	17.32 (MW-10)
<b>Vinyl Chloride</b>	3,000	<b>0.0073***</b> (MW-2)	0.002	3.8	***Data Not Available	***Data Not Available

\*Maximum current concentration during groundwater sampling event on 12/28/16.

\*\*Maximum current concentration during groundwater sampling event on 10/2/15.

\*\*\*Maximum current concentration during groundwater sampling event on 8/18/14.

\*\*\*Information obtained from APEX Titian, Inc. (APEX) report titled “Oversight of Site Investigation Activities” dated September 12, 2014

The groundwater bearing zone for which this MSD applies is located at a maximum depth of 19.5 feet bgs; i.e., the depth to the base of the shallow groundwater zone as described during the site assessment. The groundwater bearing zone exists within clay, sandy clay, sand, and weathered shale units at approximate depths of 12 to 15 feet bgs. These soil types were typically encountered from the surface to depths of 13 to 19.5 feet bgs and terminated at the contact with competent bedrock (Eagle Ford Shale). The water bearing zone in some wells was indeterminate since groundwater was not encountered during drilling but appears to be producing water along the native soil/limestone contact at depths of 13 to 19.5 feet bgs due to slow groundwater development.

The Eagle Ford Shale underlies the shallow groundwater bearing sands and clays and may provide minor amounts of groundwater to wells along the upper weathered zone contact with

competent bedrock. Surface soils are considered to be Quaternary Alluvium deposits related to flood plain deposits associated with the Elm Fork Branch of the Trinity River. The actual thickness of the Alluvium at the Designated Property is expected to be approximately 13 to 19.5 feet. The Eagle Ford Formation underlies the Alluvium and is estimated to be approximately 215 feet thick. The Eagle Ford consists of shale, sandstone, and limestone.

The current configuration of the Designated Property is depicted in **Figure A** contained in Appendix C. Area topography slopes gently to the west toward the Trinity River based upon local topographic maps (**Figure B in Appendix C**). The groundwater bearing zone is within localized layers of sand, clayey sand, clay, and weathered shale. Groundwater was encountered at approximately 12 to 15 feet bgs in some wells where saturated conditions were noted within the clayey sand and sand units. Groundwater flow has been determined to be towards the southwest/west-southwest based on groundwater level measurements collected from monitoring wells (**Figures F-1, F-2a, F-2b, F-3, F-4, and F-5 in Appendix C**). The shallow groundwater bearing zone in some wells is indicative of a Class 2 Groundwater Resource with many wells having Class 3 Groundwater Resource characteristics. Based on some wells having Class 2 Groundwater Resource characteristics the entire site is being classified as a Class 2 Groundwater Resource (which defaults to consideration as a Class 1 Groundwater Resource). The principal aquifers in Dallas County are the Woodbine and Trinity Group aquifers. The Woodbine is present at an approximate depth of 215 feet bgs and consists of sandstone with some clay and shale. The Trinity Group Aquifer is present at an approximate depth of 1,030 feet bgs and is composed of the Paluxy and Twin Mountain Formations. The Paluxy is composed of sandstone, mudstone and limestone while the Twin Mountains is composed of claystone and sandstone. The Woodbine aquifer is separated from the surface formations by the massive, low permeability Eagle Ford Shale formation.

There are groundwater ingestion PCLE Zones for arsenic, cadmium, and vinyl chloride on the Site. PCLE Zones are depicted in Figures F-1, F-2a, F-2b, F-3, F-4, and F-5 contained in Appendix C. Arsenic is the only COC that has consistently exceeded the ingestion PCL. The ingestion PCLE Zones for cadmium and vinyl chloride were limited to single sampling events following monitoring well installation and have not exceeded ingestion PCLs for at least 3 consecutive groundwater sampling events. The horizontal extent of the groundwater ingestion PCLE Zone has been delineated on-site.

There is no non-ingestion PCL Exceedance Zone on the Designated Property.

There are soil PCL exceedances for the metals arsenic, barium, cadmium, lead, and silver within the Site. Soil PCL exceedances are related to the soils leaching to groundwater ( $^{GW}Soil_{Ing}$ ) exposure pathway. All detected soil concentrations are below the human health ( $^{Tot}Soil_{Comb}$ ) PCL.

Soil Ingestion PCL Exceedance Zones exist for the following COCs:

- **Arsenic**
- **Barium**
- **Cadmium**
- **Lead**

- Silver

COC	Affected Soils (sq ft)	Maximum Concentration (mg/L)*	Ingestion PCL** (mg/L)	Non-ingestion PCL (mg/L)
<b>Arsenic</b>	479,000***	<b>14.1 [MW-8 (3')]</b>	5	24
<b>Barium</b>	300	<b>466 [MW-4 (6')]</b>	440	8,100
<b>Cadmium</b>	300	<b>2.26 [B-8 (4.5')]</b>	1.5	52
<b>Lead</b>	479,000***	<b>348.7 [V6-C (0-0.5')]</b>	3	500
<b>Silver</b>	420	<b>3.905 [MW-12 (12.5')]</b>	0.48	97

\*Maximum concentration during all soil sampling events.

\*\*Ingestion PCLs based on <sup>GW</sup>Soil<sub>Ing</sub> PCLs.

\*\*\*Conservative Estimate based on property size due to variability in sample results and natural background levels.

The attached soil and groundwater analytical data (Tables E-1, E-2, E-3, E-4, E-5, E-6, E-7, E-8, E-9, E-10, and E-11 contained in Appendix E) presents the concentrations of each COC from 2014, 2015, and 2016 soil and groundwater assessments. The Tables present their respective ingestion and non-ingestion PCL values.

The basic geochemical properties of the detected COC are provided in the chemical safety cards and fact sheets located in **Item 6, Tab A**.

The chemical properties of the detected COCs are provided in the table below and in the chemical safety cards and fact sheets located in Tab A of this Appendix D.

COCs	Solubility (mg/L)	Relative Density (water = 1)
<b>Metals/Volatile Organic Compounds</b>		
<b>Arsenic</b>	None	5.7
<b>Barium</b>	Reaction	3.6
<b>Cadmium</b>	None	8.6
<b>Lead</b>	None	11.34
<b>Vinyl Chloride</b>	2,760 <sup>2</sup>	0.9

Notes:

- 1.) Items in bold are COCs which currently exceed or have historically exceeded Ingestion PCLs. Sources: NIOSH International Chemical Safety Cards  
<https://www.cdc.gov/niosh/ipcsneng/neng0013.html>  
<https://www.cdc.gov/niosh/ipcsneng/neng1052.html>  
<https://www.cdc.gov/niosh/ipcsneng/neng0020.html>  
<https://www.cdc.gov/niosh/ipcsneng/neng0052.html>  
<https://www.cdc.gov/niosh/ipcsneng/neng0082.html>
- 2.) Chemical Safety Card indicates Solubility in water as "None". Solubility value used is based on values published in TCEQ TRRP Tables.

The COCs Arsenic, Barium, Cadmium, and Lead are denser than water and will tend to sink in groundwater if present above the solubility limit. The COC vinyl chloride is less dense than water and will tend to float on groundwater if present above the solubility limit.

## APPENDIX D

### ADDITIONAL INFORMATION

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Tab

1 COC Chemical Property Data

# International Chemical Safety Cards

## ARSENIC

ICSC: 0013

	
<p>Grey arsenic As Atomic mass: 74.9 ICSC # 0013 CAS # 7440-38-2 UN # 1558 EC # 033-001-00-X May 04, 2010 Validated Fa, rack corrections: 10-2004, Sankt Augustin;</p>	
	

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Combustible. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames. NO contact with strong oxidizers. NO contact with hot surfaces.	Powder, water spray, foam, carbon dioxide.
<b>EXPLOSION</b>	Risk of fire and explosion on contact with : see Chemical Dangers.	No contact with incompatible materials: see Chemical dangers.	
<b>EXPOSURE</b>		PREVENT DISPERSION OF DUST! AVOID ALL CONTACT!	
<b>•INHALATION</b>	see Ingestion.	Closed system and ventilation.	Fresh air, rest. Seek medical attention if you feel unwell .
<b>•SKIN</b>		Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
<b>•EYES</b>		Face shield or eye protection in combination with breathing protection if powder.	Rinse with plenty of water (remove contact lenses if easily possible).
<b>•INGESTION</b>	Abdominal pain. Diarrhoea. Nausea. Vomiting. Weakness. Shock or collapse. Unconsciousness.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Refer immediately for medical attention.
<b>SPILLAGE DISPOSAL</b>	<b>STORAGE</b>	<b>PACKAGING &amp; LABELLING</b>	
Personal protection: chemical protection suit including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Sweep spilled substance	Separated from strong oxidants, acids, halogens, food and feedstuffs. Well closed. Provision to contain effluent from fire extinguishing. Store in an area without drain or sewer access.	Do not transport with food and feedstuffs. T symbol N symbol R: 23/25-50/53	

<p>into sealable containers. Carefully collect remainder, then remove to safe place.</p>		<p>S: 1/2-20/21-28-45-60-61                  UN Hazard Class: 6.1                  UN Packing Group: II                  Signal: Danger                  Skull-Health haz                  Toxic if swallowed                  May cause cancer                  Suspected of damaging fertility or the unborn child                  Causes damage to the gastrointestinal tract if swallowed                  Causes damage to organs through prolonged or repeated exposure                  Toxic to aquatic life                  May cause long lasting harmful effects to aquatic life</p>
<b>SEE IMPORTANT INFORMATION ON BACK</b>		
<b>ICSC: 0013</b>	<p>Prepared in the context of cooperation between the International Programme on Chemical Safety &amp; the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.</p>	

## International Chemical Safety Cards

### ARSENIC

ICSC: 0013

<p><b>I M P O R T A N T D A T A</b></p>	<p><b>PHYSICAL STATE; APPEARANCE:</b> BRITTLE, GREY, METALLIC-LOOKING CRYSTALS.</p> <p><b>PHYSICAL DANGERS:</b></p> <p><b>CHEMICAL DANGERS:</b> Upon heating, toxic fumes are formed. Reacts violently with strong oxidants and halogens, causing fire and explosion hazard. Reacts with reducing agents to produce toxic and flammable arsine gas (See ICSC 0222) .</p> <p><b>OCCUPATIONAL EXPOSURE LIMITS:</b>                  OSHA PEL: 1910.1018 TWA 0.010 mg/m<sup>3</sup>                  NIOSH REL: Ca C 0.002 mg/m<sup>3</sup> 15-minute  <a href="#">See Appendix A</a>                  NIOSH IDLH: Ca 5 mg/m<sup>3</sup> (as As) See: <a href="#">7440382</a>                  TLV: 0.01 mg/m<sup>3</sup> as TWA; A1 (confirmed human carcinogen); BEI issued; (ACGIH 2010).                  MAK:                  Carcinogen category: 1; Germ cell mutagen group: 3A; (DFG 2009).</p>	<p><b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.</p> <p><b>INHALATION RISK:</b> A harmful concentration of airborne particles can be reached quickly when dispersed, especially, if powdered.</p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b> The substance may cause effects on the gastrointestinal tract , resulting in severe gastroenteritis, loss of fluid, and electrolytes, cardiac disorders , shock and convulsions . Exposure far above the OEL may result in death. The effects may be delayed. Medical observation is indicated.</p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b> The substance may have effects on the skin, mucous membranes, peripheral nervous system , liver and bone marrow , resulting in pigmentation disorders, hyperkeratosis, perforation of nasal septum, neuropathy, anaemia , liver impairment . This substance is carcinogenic to humans. Animal tests show that this substance possibly causes toxicity to human reproduction or development.</p>
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<p><b>PHYSICAL PROPERTIES</b></p>	<p>Sublimation point: 613°C                  Density: 5.7 g/cm<sup>3</sup></p> <p>Solubility in water: none                  Auto-ignition temperature: 180°C</p>
<p><b>ENVIRONMENTAL DATA</b></p>	<p>The substance is toxic to aquatic organisms. It is strongly advised that this substance does not enter the environment.</p> 
<p style="text-align: center;"><b>NOTES</b></p>	
<p>The substance is combustible but no flash point is available in literature. Depending on the degree of exposure, periodic medical examination is suggested. Do NOT take working clothes home.</p>	
<p style="text-align: center;"><b>ADDITIONAL INFORMATION</b></p>	
<p> </p>	
<p><b>ICSC: 0013</b></p>	<p style="text-align: right;"><b>ARSENIC</b></p> <p style="text-align: center;">(C) IPCS, CEC, 1994</p>
<p><b>IMPORTANT LEGAL NOTICE:</b></p>	<p>Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.</p>

(/niosh/index.htm)

**BARIUM**

**ICSC: 1052**

Ba Atomic mass: 137.3 ICSC # 1052		 CAS # 7440-39-3 RTECS # <u>CQ8370000</u> UN # 1400 October 20, 1999 Validated	
TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Flammable. Many reactions may cause fire or explosion.	NO open flames, NO sparks, and NO smoking. NO contact with water.	Special powder, dry sand, NO hydrous agents, NO water.
<b>EXPLOSION</b>	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
<b>EXPOSURE</b>		<b>PREVENT DISPERSION OF DUST! STRICT HYGIENE!</b>	
• <b>INHALATION</b>	Cough. Sore throat.	Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
• <b>SKIN</b>	Redness.	Protective gloves.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
• <b>EYES</b>	Redness. Pain.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• <b>INGESTION</b>		Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.
SPILLAGE DISPOSAL		STORAGE	PACKAGING & LABELLING
Sweep spilled substance into sealable containers. Carefully collect remainder, then remove to safe place. Chemical protection suit including self-contained breathing apparatus. Do NOT wash away into sewer.		Separated from halogenated solvents, strong oxidants, acids. Dry. Keep under inert gas, oil or oxygen-free liquid.	UN Hazard Class: 4.3 UN Packing Group: II
<b>ICSC: 1052</b>		Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.	

**ICSC: 1052**

**BARIUM**

<p style="text-align: center;">I M P O R T A N T D A T A</p>	<p><b>PHYSICAL STATE; APPEARANCE:</b> YELLOWISH TO WHITE LUSTROUS SOLID IN VARIOUS FORMS.</p> <p><b>PHYSICAL DANGERS:</b> Dust explosion possible if in powder or granular form, mixed with air.</p> <p><b>CHEMICAL DANGERS:</b> The substance may spontaneously ignite on contact with air (if in powder form). The substance is a strong reducing agent and reacts violently with oxidants and acids. Reacts violently with halogenated solvents. Reacts with water, forming flammable/explosive gas (hydrogen - see ICSC0001), causing fire and explosion hazard.</p> <p><b>OCCUPATIONAL EXPOSURE LIMITS:</b> TLV: 0.5 mg/m<sup>3</sup> as TWA A4 (not classifiable as a human carcinogen); (ACGIH 2008). EU OEL: 0.5 mg/m<sup>3</sup> as TWA (EU 2006).</p>	<p><b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by ingestion.</p> <p><b>INHALATION RISK:</b></p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b> The substance irritates the eyes, the skin and the respiratory tract.</p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b></p>
<p style="text-align: center;">PHYSICAL PROPERTIES</p>	<p>Boiling point: 1640°C Melting point: 725°C Density: 3.6 g/cm<sup>3</sup></p>	<p>Solubility in water: reaction</p>
<p style="text-align: center;">ENVIRONMENTAL DATA</p>		
<p><b>NOTES</b></p>		
<p>Reacts violently with fire extinguishing agents such as water, bicarbonate, powder, foam, and carbon dioxide. Rinse contaminated clothes (fire hazard) with plenty of water.</p> <p style="text-align: right;">Transport Emergency Card: TEC (R)-43G12 Card has been partially updated in November 2008: see Occupational Exposure Limits.</p>		
<p><b>ADDITIONAL INFORMATION</b></p>		
<p><b>ICSC: 1052</b> <span style="float: right;"><b>BARIUM</b></span></p> <p style="text-align: center;">(C) IPCS, CEC, 1994</p>		
<p style="text-align: center;"><b>IMPORTANT LEGAL NOTICE:</b></p>	<p>Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.</p>	

(/niosh/index.htm)

## CADMIUM

ICSC: 0020

Cd Atomic mass: 112.4 ICSC # 0020		CAS # 7440-43-9 RTECS # <u>EU9800000</u> UN # 2570 EC # 048-002-00-0 April 22, 2005 Validated	
TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Flammable in powder form and spontaneously combustible in pyrophoric form. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames, NO sparks, and NO smoking. NO contact with heat or acid(s).	Dry sand. Special powder. NO other agents.
<b>EXPLOSION</b>	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
<b>EXPOSURE</b>		PREVENT DISPERSION OF DUST! AVOID ALL CONTACT!	IN ALL CASES CONSULT A DOCTOR!
● <b>INHALATION</b>	Cough. Sore throat.	Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
● <b>SKIN</b>		Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
● <b>EYES</b>	Redness. Pain.	Safety goggles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
● <b>INGESTION</b>	Abdominal pain. Diarrhoea. Headache. Nausea. Vomiting.	Do not eat, drink, or smoke during work.	Rest. Refer for medical attention.
SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING	
Evacuate danger area! Personal protection: chemical protection suit including self-contained breathing apparatus. Remove all ignition sources. Sweep spilled substance into containers. Carefully collect remainder, then remove to safe place.	Fireproof. Dry. Keep under inert gas. Separated from ignition sources, oxidants acids, food and feedstuffs .	Airtight. Unbreakable packaging; put breakable packaging into closed unbreakable container. Do not transport with food and feedstuffs. Note: E T+ symbol N symbol R: 45-26-48/23/25-62-63-68-50/53 S: 53-45-60-61 UN Hazard Class: 6.1	
<b>ICSC: 0020</b>		Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.	

ICSC: 0020

CADMIUM

<p style="text-align: center;">I M P O R T A N T D A T A</p>	<p><b>PHYSICAL STATE; APPEARANCE:</b> SOFT BLUE-WHITE METAL LUMPS OR GREY POWDER. MALLEABLE. TURNS BRITTLE ON EXPOSURE TO 80°C AND TARNISHES ON EXPOSURE TO MOIST AIR.</p> <p><b>PHYSICAL DANGERS:</b> Dust explosion possible if in powder or granular form, mixed with air.</p> <p><b>CHEMICAL DANGERS:</b> Reacts with acids forming flammable/explosive gas (hydrogen - see ICSC0001). Dust reacts with oxidants, hydrogen azide, zinc, selenium or tellurium , causing fire and explosion hazard.</p> <p><b>OCCUPATIONAL EXPOSURE LIMITS:</b> TLV: (Total dust) 0.01 mg/m<sup>3</sup>; (Respirable fraction) 0.002 mg/m<sup>3</sup>; as TWA; A2 (suspected human carcinogen); BEI issued; (ACGIH 2005). MAK: skin absorption (H); Carcinogen category: 1; Germ cell mutagen group: 3A; (DFG 2004). OSHA PEL*: 1910.1027 TWA 0.005 mg/m<sup>3</sup> *Note: The PEL applies to all Cadmium compounds (as Cd). NIOSH REL*: Ca See <u>Appendix A</u> *Note: The REL applies to all Cadmium compounds (as Cd). NIOSH IDLH: Ca 9 mg/m<sup>3</sup> (as Cd) See: <u>IDLH INDEX</u></p>	<p><b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.</p> <p><b>INHALATION RISK:</b> A harmful concentration of airborne particles can be reached quickly when dispersed, especially if powdered.</p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b> The fume is irritating to the respiratory tract . Inhalation of fume may cause lung oedema (see Notes). Inhalation of fumes may cause metal fume fever. The effects may be delayed. Medical observation is indicated.</p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b> Lungs may be affected by repeated or prolonged exposure to dust particles. The substance may have effects on the kidneys , resulting in kidney impairment . This substance is carcinogenic to humans.</p>
<p style="text-align: center;">PHYSICAL PROPERTIES</p>	<p>Boiling point: 765°C Melting point: 321°C Density: 8.6 g/cm<sup>3</sup></p>	<p>Solubility in water: none Auto-ignition temperature: (cadmium metal dust) 250°C</p>
<p style="text-align: center;">ENVIRONMENTAL DATA</p>		
<p>NOTES</p>		
<p>Reacts violently with fire extinguishing agents such as water, foam, carbon dioxide and halons. Depending on the degree of exposure, periodic medical examination is indicated. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Do NOT take working clothes home. Cadmium also exists in a pyrophoric form (EC No. 048-011-00-X), which bears the additional EU labelling symbol F, R phrase 17, and S phrases 7/8 and 43. UN numbers and packing group will vary according to the physical form of the substance.</p>		
<p>ADDITIONAL INFORMATION</p>		
<p>ICSC: 0020 <span style="float: right;">CADMIUM</span></p> <p style="text-align: center;">(C) IPCS, CEC, 1994</p>		
<p style="text-align: center;"><b>IMPORTANT LEGAL NOTICE:</b></p>	<p>Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.</p>	

(/niosh/index.htm)

## LEAD

ICSC: 0052

Lead metal Plumbum Pb (powder) ICSC # 0052	CAS # 7439-92-1 RTECS # <u>QF7525000</u> August 10, 2002 Validated		
TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: use appropriate extinguishing media.
<b>EXPLOSION</b>	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
<b>EXPOSURE</b>	See EFFECTS OF LONG-TERM OR REPEATED EXPOSURE.	<b>PREVENT DISPERSION OF DUST! AVOID EXPOSURE OF (PREGNANT) WOMEN!</b>	
<b>•INHALATION</b>		Local exhaust or breathing protection.	Fresh air, rest.
<b>•SKIN</b>		Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
<b>•EYES</b>		Safety spectacles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>•INGESTION</b>	Abdominal pain. Nausea. Vomiting.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Give plenty of water to drink. Refer for medical attention.
SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING	
Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment. Personal protection: P3 filter respirator for toxic particles.	Separated from food and feedstuffs and incompatible materials . See Chemical Dangers.		
Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.			

ICSC: 0052

LEAD

I M P O R T A N T D A T A	<b>PHYSICAL STATE; APPEARANCE:</b> BLUISH-WHITE OR SILVERY-GREY SOLID IN VARIOUS FORMS. TURNS TARNISHED ON EXPOSURE TO AIR.	<b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by inhalation and by ingestion.
	<b>PHYSICAL DANGERS:</b> Dust explosion possible if in powder or granular form, mixed with air.	<b>INHALATION RISK:</b> A harmful concentration of airborne particles can be reached quickly when dispersed, especially if powdered.
	<b>CHEMICAL DANGERS:</b> On heating, toxic fumes are formed. Reacts with oxidants. Reacts with hot concentrated nitric acid, boiling concentrated hydrochloric acid and sulfuric acid. Attacked by pure water and by weak organic acids in the presence of oxygen.	<b>EFFECTS OF SHORT-TERM EXPOSURE:</b>
	<b>OCCUPATIONAL EXPOSURE LIMITS:</b> TLV: 0.05 mg/m <sup>3</sup> as TWA; A3 (confirmed animal carcinogen with unknown relevance to humans); BEI issued; (ACGIH 2004). MAK: Carcinogen category: 2; Germ cell mutagen group: 3A; (DFG 2006). EU OEL: as TWA 0.15 mg/m <sup>3</sup> ; (EU 2002). OSHA PEL*: 1910.1025 TWA 0.050 mg/m <sup>3</sup> <u>See Appendix C</u> *Note: The PEL also applies to other lead compounds (as Pb) -- <u>See Appendix C</u> . NIOSH REL*: TWA 0.050 mg/m <sup>3</sup> <u>See Appendix C</u> *Note: The REL also applies to other lead compounds (as Pb) -- <u>See Appendix C</u> . NIOSH IDLH: 100 mg/m <sup>3</sup> (as Pb) See: <u>7439921</u>	<b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b> The substance may have effects on the blood, bone marrow, central nervous system, peripheral nervous system and kidneys, resulting in anaemia, encephalopathy (e.g., convulsions), peripheral nerve disease, abdominal cramps and kidney impairment. Causes toxicity to human reproduction or development. This substance is probably carcinogenic to humans. fast track change Oct 06 - IARC 2A.

PHYSICAL PROPERTIES	Boiling point: 1740°C Melting point: 327.5°C	Density: 11.34 g/cm <sup>3</sup> Solubility in water: none
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ENVIRONMENTAL DATA	Bioaccumulation of this chemical may occur in plants and in mammals. It is strongly advised that this substance does not enter the environment.	
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**NOTES**

Depending on the degree of exposure, periodic medical examination is suggested. Do NOT take working clothes home. Card has been partly updated in April 2005. See section Occupational Exposure Limits. Card has been partly updated in October 2006: see section Occupational Exposure Limits, Effects Long Tem Exposure.

**ADDITIONAL INFORMATION**

ICSC: 0052	(C) IPCS, CEC, 1994	<b>LEAD</b>
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<b>IMPORTANT LEGAL NOTICE:</b>	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.
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(/niosh/index.htm)

## SILVER

ICSC: 0810

Argentium C.I. 77820 Ag ICSC # 0810		CAS # 7440-22-4 RTECS # <u>VW3500000</u> September 10, 1997 Validated	
TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Not combustible, except as powder.		
<b>EXPLOSION</b>			
<b>EXPOSURE</b>		<b>PREVENT DISPERSION OF DUST!</b>	
• <b>INHALATION</b>		Local exhaust or breathing protection.	Fresh air, rest.
• <b>SKIN</b>		Protective gloves.	Rinse skin with plenty of water or shower.
• <b>EYES</b>		Safety spectacles, or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• <b>INGESTION</b>		Do not eat, drink, or smoke during work.	
<b>SPILLAGE DISPOSAL</b>		<b>STORAGE</b>	<b>PACKAGING &amp; LABELLING</b>

<p>Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment.</p>	<p>Separated from ammonia, strong hydrogen peroxide solutions, strong acids.</p>	
<p><b>ICSC: 0810</b> Prepared in the context of cooperation between the International Programme on Chemical Safety &amp; the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.</p>		

**ICSC: 0810**

**SILVER**

<p style="text-align: center;">I M P O R T A N T  D A T A</p>	<p><b>PHYSICAL STATE; APPEARANCE:</b> WHITE METAL, TURNS DARK ON EXPOSURE TO OZONE, HYDROGEN SULFIDE OR SULFUR.</p> <p><b>PHYSICAL DANGERS:</b></p> <p><b>CHEMICAL DANGERS:</b> Shock-sensitive compounds are formed with acetylene. Reacts with acids causing fire hazard. Contact with strong hydrogen peroxide solution will cause violent decomposition to oxygen gas. Contact with ammonia may cause formation of compounds that are explosive when dry.</p> <p><b>OCCUPATIONAL EXPOSURE LIMITS:</b>                  TLV (metal): 0.1 mg/m<sup>3</sup> (ACGIH 1997).                  EU OEL: 0.1 mg/m<sup>3</sup> as TWA (EU 2000).                  OSHA PEL: TWA 0.01 mg/m<sup>3</sup>                  NIOSH REL: TWA 0.01 mg/m<sup>3</sup>                  NIOSH IDLH: 10 mg/m<sup>3</sup> (as Ag)                  See: <u>IDLH INDEX</u></p>	<p><b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by inhalation and by ingestion.</p> <p><b>INHALATION RISK:</b> Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.</p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b> Inhalation of high amounts of metallic silver vapours may cause lung damage with pulmonary oedema.</p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b> The substance may cause a grey-blue discoloration of the eyes, nose, throat and skin (argyria/argyrosis).</p>
<p style="text-align: center;">PHYSICAL PROPERTIES</p>	<p>Boiling point: 2212°C Melting point: 962°C</p>	<p>Relative density (water = 1): 10.5 Solubility in water: none</p>

<p><b>ENVIRONMENTAL DATA</b></p>	<p>This substance may be hazardous to the environment; special attention should be given to aquatic organisms.</p>	
<p><b>NOTES</b></p>		
<p>Card has been partially updated in March 2008: see Occupational Exposure Limits.</p>		
<p><b>ADDITIONAL INFORMATION</b></p>		
<p> </p>		
<p><b>ICSC: 0810</b></p>	<p>(C) IPCS, CEC, 1994</p>	<p><b>SILVER</b></p>
<p><b>IMPORTANT LEGAL NOTICE:</b></p>	<p>Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.</p>	

Page last reviewed: July 22, 2015

Page last updated: July 1, 2014

Content source: National Institute for Occupational Safety and Health (<http://www.cdc.gov/NIOSH/>)

(/niosh/index.htm)

## VINYL CHLORIDE

ICSC: 0082

Chloroethene Chloroethylene VCM $C_2H_3Cl / H_2C=CHCl$ Molecular mass: 62.5 (cylinder) ICSC # 0082		 CAS # 75-01-4 RTECS # <u>KU9625000</u> UN # 1086 (stabilized) EC # 602-023-00-7 April 13, 2000 Validated	
TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
<b>FIRE</b>	Extremely flammable. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames, NO sparks, and NO smoking.	Shut off supply; if not possible and no risk to surroundings, let the fire burn itself out; in other cases extinguish with powder, carbon dioxide.
<b>EXPLOSION</b>	Gas/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Use non-sparking handtools.	In case of fire: keep cylinder cool by spraying with water. Combat fire from a sheltered position.
<b>EXPOSURE</b>		<b>AVOID ALL CONTACT!</b>	<b>IN ALL CASES CONSULT A DOCTOR!</b>
• <b>INHALATION</b>	Dizziness. Drowsiness. Headache. Unconsciousness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
• <b>SKIN</b>	ON CONTACT WITH LIQUID: FROSTBITE.	Protective gloves. Cold-insulating gloves. Protective clothing.	ON FROSTBITE: rinse with plenty of water, do NOT remove clothes.
• <b>EYES</b>	Redness. Pain.	Safety goggles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• <b>INGESTION</b>		Do not eat, drink, or smoke during work.	
SPILLAGE DISPOSAL		STORAGE	PACKAGING & LABELLING
Evacuate danger area! Consult an expert! Ventilation. Remove all ignition sources. Personal protection: complete protective clothing including self-contained breathing apparatus.		Fireproof. Separated from incompatible materials. ( See Chemical Dangers. ) Cool. Store only if stabilized.	Note: D F+ symbol T symbol R: 45-12 S: 53-45 UN Hazard Class: 2.1
<b>ICSC: 0082</b> Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.			

ICSC: 0082

VINYL CHLORIDE

<p>I M P O R T A N T D A T A</p>	<p><b>PHYSICAL STATE; APPEARANCE:</b> COLOURLESS COMPRESSED LIQUEFIED GAS , WITH CHARACTERISTIC ODOUR.</p> <p><b>PHYSICAL DANGERS:</b> The gas is heavier than air, and may travel along the ground; distant ignition possible. Vinyl chloride monomer vapours are uninhibited and may form polymers in vents or flame arresters of storage tanks, resulting in blockage of vents.</p> <p><b>CHEMICAL DANGERS:</b> The substance can under specific circumstances form peroxides, initiating explosive polymerization. The substance will polymerize readily due to heating and under the influence of air, light and on contact with a catalyst, strong oxidizing agents and metals such as copper and aluminium, with fire or explosion hazard. The substance decomposes on burning producing toxic and corrosive fumes ( hydrogen chloride , phosgene ). Attacks iron and steel in the presence of moisture.</p> <p><b>OCCUPATIONAL EXPOSURE LIMITS:</b> TLV: 1 ppm as TWA; A1 (confirmed human carcinogen); (ACGIH 2004). MAK: Carcinogen category: 1; (DFG 2004). OSHA PEL: 1910.1017 TWA 1 ppm C 5 ppm 15-minute NIOSH REL: Ca <a href="#">See Appendix A</a> NIOSH IDLH: Ca N.D. See: <a href="#">IDLH INDEX</a></p>	<p><b>ROUTES OF EXPOSURE:</b> The substance can be absorbed into the body by inhalation.</p> <p><b>INHALATION RISK:</b> A harmful concentration of this gas in the air will be reached very quickly on loss of containment.</p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b> The substance is irritating to the eyes . The liquid may cause frostbite. The substance may cause effects on the central nervous system . Exposure could cause lowering of consciousness. Medical observation is indicated.</p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b> The substance may have effects on the liver, spleen, blood and peripheral blood vessels, and tissue and bones of the fingers. This substance is carcinogenic to humans.</p>
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<p><b>PHYSICAL PROPERTIES</b></p>	<p>Boiling point: -13°C Melting point: -154°C Relative density (water = 1): 0.9 (liquid) Density: 8 (vapour) at 15°C g/l Solubility in water: none</p>	<p>Relative vapour density (air = 1): 2.2 Flash point: -78°C c.c. Auto-ignition temperature: 472°C Explosive limits, vol% in air: 3.6-33 Octanol/water partition coefficient as log Pow: 0.6</p>
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<p><b>ENVIRONMENTAL DATA</b></p>	<p>This substance may be hazardous to the environment; special attention should be given to ground water contamination.</p>	
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**NOTES**

Depending on the degree of exposure, periodic medical examination is suggested. The odour warning when the exposure limit value is exceeded is insufficient. Do NOT use in the vicinity of a fire or a hot surface, or during welding. An added stabilizer or inhibitor can influence the toxicological properties of this substance, consult an expert. Card has been partly updated in April 2005. See section Occupational Exposure Limits.

Transport Emergency Card: TEC (R)-20S1086

NFPA Code: H 2; F 4; R 2;

**ADDITIONAL INFORMATION**

<p>ICSC: 0082</p>	<p>VINYL CHLORIDE</p>
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(C) IPCS, CEC, 1994

<p><b>IMPORTANT LEGAL NOTICE:</b></p>	<p>Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.</p>
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Content source: National Institute for Occupational Safety and Health (<http://www.cdc.gov/NIOSH/>)

## APPENDIX E

### COC TABLES

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Tables E-1 through E-11 show the cumulative soil and groundwater data and compare that data to the critical PCLs with and without an MSD. Critical PCL exceedances without an MSD are depicted by yellow shaded cells. Critical PCLs with an MSD are depicted by orange shaded cells.

A critical PCL for the groundwater to surface water pathway was not considered for the following reasons. The horizontal extent of the COC Ingestion PCLE Zone has been delineated on-site and nearest surface water feature is a pond connected to a drainage tributary of the Trinity River located approximately 1,200 feet to the south of the Designated Property's boundary. Therefore, the groundwater to surface water pathway (<sup>SW</sup>GW) is excluded.

**TABLE E-1**  
**SOIL ANALYTICAL RESULTS - VOCs/TPH**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS											
Sample ID	Sample Date	Tetrachloro-ethylene (mg/kg)	Trichloro-ethylene (mg/kg)	Cis-1,2-Dichloro-ethylene (mg/kg)	Trans-1,2-Dichloro-ethylene (mg/kg)	1,1-Dichloro-ethylene (mg/kg)	Vinyl Chloride (mg/kg)	All Other VOCs (mg/kg)	TPH (C6-C12) (mg/kg)	TPH (C12-C28) (mg/kg)	TPH (C28-C35) (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>0.05</b>	<b>0.034</b>	<b>0.25</b>	<b>0.49</b>	<b>0.05</b>	<b>0.022</b>	<b>Varies</b>	<b>65</b>	<b>200</b>	<b>200</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>710</b>	<b>18</b>	<b>140</b>	<b>590</b>	<b>2,300</b>	<b>3.7</b>	<b>Varies</b>	<b>1,600</b>	<b>2,300</b>	<b>2,300</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>940</b>	<b>31</b>	<b>920</b>	<b>920</b>	<b>5,200</b>	<b>43</b>	<b>Varies</b>	<b>3,100</b>	<b>20,000</b>	<b>20,000</b>
B-6 (3.5')	9/23/2015	<0.00041	<0.00027	<0.00038	<0.00023	<0.00030	<0.00026	BDL	-	-	-
B-6 (5')	9/23/2015	<0.00043	<0.00029	<0.00040	<0.00025	<0.00032	<0.00027	BDL	-	-	-
B-7 (4.5')	9/23/2015	<0.00043	<0.00029	<0.00040	<0.00025	<0.00031	<0.00027	BDL	-	-	-
B-7 (6')	9/23/2015	<0.00043	<0.00029	<0.00040	<0.00025	<0.00032	<0.00027	BDL	-	-	-
B-8 (4.5')	9/23/2015	<0.00048	<0.00032	<0.00045	<0.00028	<0.00036	<0.00030	BDL	-	-	-
B-8 (5.5')	9/23/2015	<0.00044	<b>0.024</b>	<b>0.0073</b>	<0.00025	<0.00032	<0.00028	BDL	-	-	-
B-8 (7')	9/23/2015	<0.00045	<b>0.016</b>	<0.00042	<0.00026	<0.00033	<0.00028	BDL	-	-	-
B-8 (8.5')	9/23/2015	<0.00042	<0.00028	<0.00039	<0.00024	<0.00031	<0.00027	BDL	-	-	-
B-8 (10')	9/23/2015	<0.00042	<0.00028	<0.00039	<0.00024	<0.00031	<0.00026	BDL	-	-	-
B-9 (3')	9/23/2015	<0.00040	<0.00026	<0.00037	<0.00023	<0.00029	<0.00025	BDL	<1.66	<1.64	<0.56
B-9 (4.5')	9/23/2015	<0.00043	<0.00029	<0.00040	<0.00025	<0.00032	<0.00027	BDL	<1.82	<1.80	<0.62

**TABLE E-1**  
**SOIL ANALYTICAL RESULTS - VOCs/TPH**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS											
Sample ID	Sample Date	Tetrachloro-ethylene (mg/kg)	Trichloro-ethylene (mg/kg)	Cis-1,2-Dichloro-ethylene (mg/kg)	Trans-1,2-Dichloro-ethylene (mg/kg)	1,1-Dichloro-ethylene (mg/kg)	Vinyl Chloride (mg/kg)	All Other VOCs (mg/kg)	TPH (C6-C12) (mg/kg)	TPH (C12-C28) (mg/kg)	TPH (C28-C35) (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>0.05</b>	<b>0.034</b>	<b>0.25</b>	<b>0.49</b>	<b>0.05</b>	<b>0.022</b>	<b>Varies</b>	<b>65</b>	<b>200</b>	<b>200</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>710</b>	<b>18</b>	<b>140</b>	<b>590</b>	<b>2,300</b>	<b>3.7</b>	<b>Varies</b>	<b>1,600</b>	<b>2,300</b>	<b>2,300</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>940</b>	<b>31</b>	<b>920</b>	<b>920</b>	<b>5,200</b>	<b>43</b>	<b>Varies</b>	<b>3,100</b>	<b>20,000</b>	<b>20,000</b>
B-12 (2')	9/24/2015	<0.00039	<0.00026	<0.00036	<0.00022	<0.00029	<0.00025	BDL	-	-	-
B-12 (4')	9/24/2015	<0.00040	<0.00027	<0.00038	<0.00023	<0.00030	<0.00025	BDL	-	-	-
MW-6 (4')	9/23/2015	<0.00041	<0.00027	<0.00038	<0.00024	<0.00030	<0.00026	BDL	<1.73	<1.71	<0.59
MW-6 (18')	9/23/2015	<0.00041	<0.00027	<0.00038	<0.00023	<0.00030	<0.00026	BDL	<1.71	<1.69	<0.58
MW-6 (20')	9/23/2015	<0.00045	<0.00030	<0.00042	<0.00026	<0.00033	<0.00028	BDL	<1.87	<1.85	<0.64
MW-7 (9')	9/23/2015	<0.00043	<0.00029	<0.00040	<0.00025	<0.00032	<0.00027	BDL	<1.82	<1.80	<0.62
MW-7 (16')	9/23/2015	<0.00045	<0.00030	<0.00042	<0.00026	<0.00033	<0.00028	BDL	<1.88	<1.86	<0.64
MW-7 (20')	9/23/2015	<0.00043	<0.00029	<0.00040	<0.00025	<0.00032	<0.00027	BDL	<1.82	<1.80	<0.62
MW-8 (3')	9/23/2015	<0.00037	<0.00025	<0.00035	<0.00021	<0.00027	<0.00023	BDL	<1.56	<1.54	<0.53
MW-8 (10')	9/23/2015	<0.00041	<0.00027	<0.00038	<0.00024	<0.00030	<0.00026	BDL	<1.73	<1.71	<0.59
MW-8 (18')	9/23/2015	<0.00040	<0.00027	<0.00037	<0.00023	<0.00030	<0.00025	BDL	<1.68	<1.67	<0.57

**TABLE E-1**  
**SOIL ANALYTICAL RESULTS - VOCs/TPH**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS											
Sample ID	Sample Date	Tetrachloro-ethylene (mg/kg)	Trichloro-ethylene (mg/kg)	Cis-1,2-Dichloro-ethylene (mg/kg)	Trans-1,2-Dichloro-ethylene (mg/kg)	1,1-Dichloro-ethylene (mg/kg)	Vinyl Chloride (mg/kg)	All Other VOCs (mg/kg)	TPH (C6-C12) (mg/kg)	TPH (C12-C28) (mg/kg)	TPH (C28-C35) (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>0.05</b>	<b>0.034</b>	<b>0.25</b>	<b>0.49</b>	<b>0.05</b>	<b>0.022</b>	<b>Varies</b>	<b>65</b>	<b>200</b>	<b>200</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>710</b>	<b>18</b>	<b>140</b>	<b>590</b>	<b>2,300</b>	<b>3.7</b>	<b>Varies</b>	<b>1,600</b>	<b>2,300</b>	<b>2,300</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>940</b>	<b>31</b>	<b>920</b>	<b>920</b>	<b>5,200</b>	<b>43</b>	<b>Varies</b>	<b>3,100</b>	<b>20,000</b>	<b>20,000</b>
MW-9 (7')	9/23/2015	<0.00045	<0.00030	<0.00042	<0.00026	<0.00033	<0.0029	BDL	<1.92	<1.89	<0.65
MW-9 (13')	9/23/2015	<0.00050	<0.00037	<0.00046	<0.00029	<0.00037	<0.00031	BDL	<2.09	<2.07	<0.71
MW-9 (19')	9/23/2015	<0.00045	<0.00030	<0.00042	<0.00026	<0.00033	<0.00028	BDL	<1.89	<1.86	<0.64
MW-10 (8')	9/24/2015	<0.00039	<0.00026	<0.00036	<0.00022	<0.00029	<0.00025	BDL	<1.64	<1.62	<0.56
MW-10 (14')	9/24/2015	<0.00040	<0.00026	<0.00037	<0.00023	<0.00029	<0.00025	BDL	<1.67	<1.65	<0.57
MW-10 (19')	9/24/2015	<0.00041	<0.00027	<0.00038	<0.00024	<0.00030	<0.00026	BDL	<1.72	<1.70	<0.59
MW-11 (4')	9/24/2015	<0.00038	<0.00026	<0.00036	<0.00022	<0.00028	<0.00024	BDL	<1.61	<1.59	<0.55
MW-11 (10')	9/24/2015	<0.00038	<0.00025	<0.00035	<0.00022	<0.00028	<0.00024	BDL	<1.60	<1.58	<0.54
MW-11 (13')	9/24/2015	<0.00041	<0.00027	<0.00038	<0.00023	<0.00030	<0.00026	BDL	<1.71	<1.69	<0.58
MW-12 (12.5')	9/6/2016	<0.00028	<0.00019	<0.00026	<0.00016	<0.00021	<0.00018	BDL	N/A	N/A	N/A
MW-12 (19.5')	9/6/2016	<0.00041	<0.00027	<0.00038	<0.00024	<0.00030	<0.00026	BDL	N/A	N/A	N/A

**TABLE E-1**  
**SOIL ANALYTICAL RESULTS - VOCs/TPH**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS											
Sample ID	Sample Date	Tetrachloro-ethylene (mg/kg)	Trichloro-ethylene (mg/kg)	Cis-1,2-Dichloro-ethylene (mg/kg)	Trans-1,2-Dichloro-ethylene (mg/kg)	1,1-Dichloro-ethylene (mg/kg)	Vinyl Chloride (mg/kg)	All Other VOCs (mg/kg)	TPH (C6-C12) (mg/kg)	TPH (C12-C28) (mg/kg)	TPH (C28-C35) (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>0.05</b>	<b>0.034</b>	<b>0.25</b>	<b>0.49</b>	<b>0.05</b>	<b>0.022</b>	<b>Varies</b>	<b>65</b>	<b>200</b>	<b>200</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>710</b>	<b>18</b>	<b>140</b>	<b>590</b>	<b>2,300</b>	<b>3.7</b>	<b>Varies</b>	<b>1,600</b>	<b>2,300</b>	<b>2,300</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>940</b>	<b>31</b>	<b>920</b>	<b>920</b>	<b>5,200</b>	<b>43</b>	<b>Varies</b>	<b>3,100</b>	<b>20,000</b>	<b>20,000</b>
MW-13 (13')	9/6/2016	<0.00040	<0.00026	<0.00037	<0.00023	<0.00029	<0.00025	BDL	N/A	N/A	N/A
MW-13 (20')	9/6/2016	<0.00043	<0.00029	<0.00040	<0.00025	<0.00032	<0.00027	BDL	N/A	N/A	N/A
Bold Text in Cell = Chemical Detected in Sample Analysis Yellow Shaded Cell = Chemical Exceeds Ingestion PCL											

**TABLE E-2**  
**SOIL ANALYTICAL RESULTS (SOIL BORINGS/MONITORING WELLS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
B-1 (2')	9/23/2015	7.82	99.2	<0.156	13.2	10.41	<0.0407	0.348	<0.241
B-1 (4')	9/23/2015	4.7	68.8	<0.156	9.242	10.37	<0.0398	0.364	<0.240
B-2 (2.5')	9/23/2015	4.42	88.6	<0.157	13.15	7.099	<0.0408	0.315	<0.241
B-2 (4')	9/23/2015	4.4	78	<0.168	11.2	9.406	<0.0416	0.423	<0.258
B-3 (3')	9/23/2015	9.45	69.6	<0.173	10.02	11.04	<0.0420	0.416	<0.266
B-3 (4.5')	9/23/2015	3.58	71.7	<0.168	10.23	6.213	<0.0417	0.239	<0.259
B-4 (2')	9/23/2015	3.28	85.6	<0.163	12.45	7.482	<0.0409	<0.186	<0.251
B-4 (4')	9/23/2015	5.34	85.8	<0.168	14.61	5.835	<0.0409	<0.191	<0.259
B-4 (6')	9/23/2015	10.7	466	<0.810	16.2	12.24	<0.0410	<0.922	<1.248
B-4 (8')	9/23/2015	5.77	132	<0.8060	11.44	8.148	<0.0388	<0.918	<1.241
B-4 (10')	9/23/2015	2.33	25.2	<0.157	6.299	4.14	<0.0385	<0.179	<0.242
B-5 (3')	9/23/2015	3.68	73.6	<0.166	11.74	7.45	<0.0423	<0.189	<0.255
B-5 (4.5')	9/23/2015	4.57	61.4	<0.172	9.67	5.966	<0.0422	0.207	<0.264
B-6 (3.5')	9/23/2015	1.76	42.4	<0.152	6.085	5.306	<0.0385	<0.174	<0.235
B-6 (5')	9/23/2015	3.14	63.4	<0.167	12.68	6.62	<0.0412	<0.191	<0.258
B-7 (4.5')	9/23/2015	4.57	56.1	<0.160	10.66	6.232	<0.0406	0.223	<0.247
B-7 (6')	9/23/2015	3.89	329	<0.166	27.11	8.777	<0.0409	0.297	<0.256
B-8 (4.5')	9/23/2015	11.2	76.2	2.26	45.21	19.83	<0.0459	0.254	<0.282
B-8 (5.5')	9/23/2015	3.86	74.3	<0.166	10.1	6.811	<0.0415	<0.189	<0.255
B-9 (3')	9/23/2015	2.47	47.0	<0.156	7.472	6.093	<0.0376	<0.178	<0.241
B-9 (4.5')	9/23/2015	6.18	59.7	<0.168	13.21	6.698	<0.0409	0.233	<0.259

**TABLE E-2**  
**SOIL ANALYTICAL RESULTS (SOIL BORINGS/MONITORING WELLS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
B-10 (2')	9/24/2015	5.81	49.0	<0.166	20.45	10.72	<0.0429	0.571	<0.256
B-10 (4')	9/24/2015	4.2	71.6	<0.170	13.08	7.23	<0.0409	<0.193	<0.262
B-11 (2')	9/24/2015	7.35	89.8	<0.155	17.27	6.941	<0.0387	0.355	<0.238
B-11 (4')	9/24/2015	4.72	81.1	<0.165	12.74	8.25	<0.0402	0.476	<0.255
B-12 (2')	9/24/2015	5.45	39.6	<0.141	28.98	9.006	<0.0370	0.231	<0.217
B-12 (4')	9/24/2015	6.84	89.9	<0.147	20.72	12.51	<0.0384	<0.168	<0.227
MW-6 (4')	9/23/2015	3.63	122	<0.783	8.489	6.317	<0.0389	<0.892	<1.206
MW-6 (18')	9/23/2015	10.5	25.5	<0.160	16.63	8.129	<0.0387	<0.183	<0.247
MW-6 (20')	9/23/2015	8.56	49.2	<0.171	25.77	12.71	<0.0424	0.424	<0.263
MW-7 (9')	9/23/2015	3.79	76.6	<0.161	13.8	7.349	<0.0412	0.371	<0.248
MW-7 (16')	9/23/2015	5.08	33.9	<0.171	17.7	8.153	<0.0425	<0.195	<0.264
MW-7 (20')	9/23/2015	6.41	34.5	<0.169	21.96	14.42	<0.0411	0.222	<0.260
MW-8 (3')	9/23/2015	14.1	78.8	<0.147	14	16.15	<0.0354	<0.167	<0.226
MW-8 (10')	9/23/2015	4.72	60.1	<0.160	16.73	8.489	<0.0389	0.234	<0.246
MW-8 (18')	9/23/2015	9.29	26.8	<0.146	5.871	4.387	<0.0380	<0.167	<0.225
MW-9 (7')	9/23/2015	4.52	103	<0.179	15.62	9.023	<0.0430	0.228	<0.275
MW-9 (13')	9/23/2015	6.16	104	<0.192	18.13	13.53	<0.0472	0.883	<0.296
MW-9 (19')	9/23/2015	7.33	46.2	<0.175	26.05	12.33	<0.0425	0.446	<0.269
MW-10 (8')	9/24/2015	4.17	32.1	<0.145	9.146	5.428	<0.0369	0.364	<0.223
MW-10 (14')	9/24/2015	3.51	46.1	<0.150	9.744	6.13	<0.0376	0.411	<0.231
MW-10 (19')	9/24/2015	7.64	45.4	<0.161	26.31	11.46	<0.0389	0.689	<0.249

**TABLE E-2**  
**SOIL ANALYTICAL RESULTS (SOIL BORINGS/MONITORING WELLS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
MW-11 (4')	9/24/2015	<b>8.57</b>	<b>109</b>	<b>0.499</b>	<b>10.51</b>	<b>6.868</b>	<0.0364	<b>0.348</b>	<0.219
MW-11 (10')	9/24/2015	<b>3.41</b>	<b>40</b>	<0.136	<b>9.145</b>	<b>7.916</b>	<0.036	<b>0.431</b>	<0.209
MW-11 (13')	9/24/2015	<b>6.29</b>	<b>47.6</b>	<0.151	<b>20.69</b>	<b>10.83</b>	<0.0385	<b>0.33</b>	<0.232
MW-12 (12.5')	9/6/2016	<b>9.86</b>	<b>115</b>	<0.804	<b>18.23</b>	<b>11.42</b>	<0.021	<b>2.202</b>	<b>3.905</b>
MW-12 (19.5')	9/6/2016	<b>11.4</b>	<b>45.7</b>	<0.160	<b>26.37</b>	<b>10.92</b>	<0.023	<b>0.821</b>	<b>2.363</b>
MW-13 (13')	9/6/2016	<b>8.68</b>	<b>37.6</b>	<0.152	<b>11.82</b>	<b>5.192</b>	<0.022	<b>0.587</b>	<b>2.82</b>
MW-13 (20')	9/6/2016	<b>7.89</b>	<b>37.3</b>	<0.166	<b>27.41</b>	<b>11.35</b>	<0.024	<b>0.721</b>	<b>2.376</b>
Bold Text in Cell = Chemical Detected in Sample Analysis Yellow Shaded Cell = Metal Exceeds Ingestion PCL and Texas Specific Median Background * - PCL for Mercury based on pH of 6.8 or higher (based on historical EPA assessments determining soils on property are Alkaline) Note: Soil PCL based on the higher of the Ingestion PCL or Texas Specific Median Background --- = Inhalation pathway not applicable									

**TABLE E-3**  
**SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
A1-G	10/6/2015	-	-	-	-	27.22	-	-	-
A1-C	10/6/2015	-	-	-	-	13.18	-	-	-
A2-G	10/6/2015	-	-	-	-	20.01	-	-	-
A2-C	10/6/2015	-	-	-	-	11.33	-	-	-
A3-G	10/6/2015	-	-	-	-	13.25	-	-	-
A3-C	10/6/2015	-	-	-	-	11.02	-	-	-
A4-G	10/6/2015	-	-	-	-	14.65	-	-	-
A4-C	10/6/2015	-	-	-	-	13.81	-	-	-
A5-G	10/6/2015	-	-	-	-	11.54	-	-	-
A5-C	10/6/2015	-	-	-	-	11.41	-	-	-
A6-G	10/6/2015	-	-	-	-	11.39	-	-	-
A6-C	10/6/2015	-	-	-	-	11.12	-	-	-
B1-G	10/6/2015	-	-	-	-	10.32	-	-	-
B1-C	10/6/2015	-	-	-	-	10.15	-	-	-
B2-G	10/6/2015	-	-	-	-	9.367	-	-	-
B2-C	10/6/2015	-	-	-	-	9.451	-	-	-
B3-G	10/6/2015	-	-	-	-	9.316	-	-	-
B3-C	10/6/2015	-	-	-	-	10.57	-	-	-
B4-G	10/6/2015	-	-	-	-	18.9	-	-	-

**TABLE E-3**  
**SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
B4-C	10/6/2015	-	-	-	-	11.88	-	-	-
C1-G	10/6/2015	-	-	-	-	11.17	-	-	-
C1-C	10/6/2015	-	-	-	-	10.99	-	-	-
C2-G	10/6/2015	-	-	-	-	10.73	-	-	-
C2-C	10/6/2015	-	-	-	-	10.86	-	-	-
D1-G	10/6/2015	-	-	-	-	11.13	-	-	-
D1-C	10/6/2015	-	-	-	-	9.257	-	-	-
D2-G	10/6/2015	-	-	-	-	15.76	-	-	-
D2-C	10/6/2015	-	-	-	-	7.156	-	-	-
D3-G	10/6/2015	-	-	-	-	27.75	-	-	-
D3-C	10/6/2015	-	-	-	-	19.69	-	-	-
D4-G	10/6/2015	-	-	-	-	22.19	-	-	-
D4-C	10/6/2015	-	-	-	-	19.71	-	-	-
E1-G	10/7/2015	-	-	-	-	31.61	-	-	-
E1-C	10/7/2015	-	-	-	-	9.663	-	-	-
E2-G	10/7/2015	-	-	-	-	15.12	-	-	-
E2-C	10/7/2015	-	-	-	-	26.47	-	-	-
F1-G	10/6/2015	-	-	-	-	8.087	-	-	-
F1-C	10/6/2015	-	-	-	-	11.98	-	-	-

**TABLE E-3**  
**SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
F2-G	10/6/2015	-	-	-	-	<b>20.15</b>	-	-	-
F2-C	10/6/2015	-	-	-	-	<b>13.27</b>	-	-	-
F3-G	10/6/2015	-	-	-	-	<b>10.16</b>	-	-	-
F3-C	10/6/2015	-	-	-	-	<b>12.49</b>	-	-	-
F4-G	10/6/2015	-	-	-	-	<b>15.45</b>	-	-	-
F4-C	10/6/2015	-	-	-	-	<b>12.21</b>	-	-	-
G1-G	10/6/2015	-	-	-	-	<b>11.66</b>	-	-	-
G1-C	10/6/2015	-	-	-	-	<b>37.16</b>	-	-	-
G2-G	10/6/2015	-	-	-	-	<b>9.386</b>	-	-	-
G2-C	10/6/2015	-	-	-	-	<b>10.2</b>	-	-	-
G3-G	10/6/2015	-	-	-	-	<b>7.612</b>	-	-	-
G3-C	10/6/2015	-	-	-	-	<b>11.32</b>	-	-	-
H1-G	10/6/2015	-	-	-	-	<b>10.32</b>	-	-	-
H2-G	10/6/2015	-	-	-	-	<b>7.797</b>	-	-	-
H3-G	10/6/2015	-	-	-	-	<b>9.419</b>	-	-	-
H4-G	10/6/2015	-	-	-	-	<b>11.05</b>	-	-	-
H5-G	10/6/2015	-	-	-	-	<b>6.229</b>	-	-	-
H6-G	10/6/2015	-	-	-	-	<b>10.57</b>	-	-	-
I1-G	10/7/2015	-	-	-	-	<b>13.75</b>	-	-	-

**TABLE E-3**  
**SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
I1-C	10/7/2015	-	-	-	-	10.7	-	-	-
I2-G	10/7/2015	-	-	-	-	14.55	-	-	-
I2-C	10/7/2015	-	-	-	-	14.52	-	-	-
I3-G	10/7/2015	-	-	-	-	13.06	-	-	-
I3-C	10/7/2015	-	-	-	-	14.5	-	-	-
I4-G	10/7/2015	-	-	-	-	9.603	-	-	-
I4-C	10/7/2015	-	-	-	-	10.19	-	-	-
J1-G	10/6/2015	-	-	-	-	20.29	-	-	-
J1-C	10/6/2015	-	-	-	-	12.12	-	-	-
J2-G	10/6/2015	-	-	-	-	10.91	-	-	-
J2-G	10/6/2015	-	-	-	-	11.02	-	-	-
J3-G	10/6/2015	-	-	-	-	11.14	-	-	-
J3-C	10/6/2015	-	-	-	-	11.12	-	-	-
J4-G	10/6/2015	-	-	-	-	16.13	-	-	-
J4-C	10/6/2015	-	-	-	-	30.67	-	-	-
J5-G	10/6/2015	-	-	-	-	10.51	-	-	-
J5-C	10/6/2015	-	-	-	-	17.8	-	-	-
J6-G	10/6/2015	-	-	-	-	11	-	-	-
J6-C	10/6/2015	-	-	-	-	10.19	-	-	-

**TABLE E-3**  
**SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
K1-G	10/7/2015	4.09	37.4	0.096	8.004	27.29	<0.0351	<0.096	<0.130
K1-C	10/7/2015	4.01	43.3	0.103	9.811	73.78	<0.0372	<0.089	<0.121
K2-G	10/7/2015	7.91	70.8	0.198	16.26	11.9	<0.0373	<0.176	<0.239
K2-C	10/7/2015	5.51	70.7	<0.145	14.33	11.55	<0.0370	<0.165	<0.223
K3-G	10/7/2015	4.94	18.9	<0.134	5.367	10.67	<0.0336	<0.153	<0.206
K3-C	10/7/2015	8.97	47.6	0.149	11.43	81.93	<0.0355	<0.166	<0.225
L1-G	10/7/2015	6.28	65.1	0.152	16.1	10.82	<0.0372	<0.153	<0.207
L1-C	10/7/2015	7.58	64.6	0.208	15.72	22.51	<0.037	<0.151	<0.204
L2-G	10/7/2015	8.67	95.3	<0.747	22.53	19.91	<0.0371	<0.851	<1.151
L2-C	10/7/2015	5.34	78.7	<0.139	14.13	11.98	<0.0346	<0.159	<0.215
L3-G	10/7/2015	3.96	32.6	<0.141	7.62	14.04	<0.0342	0.231	<0.216
L3-C	10/7/2015	5.07	41.9	<0.131	11.7	12.15	<0.0347	0.234	<0.202
M1-G	10/7/2015	12.1	46	<0.141	10.74	61.29	<0.0364	<0.161	<0.218
M1-C	10/7/2015	6.85	40.8	<0.131	9.844	10.39	<0.0343	0.363	<0.201
M2-G	10/7/2015	5.79	76.6	<0.145	11.08	6.589	<0.0357	0.466	<0.224
M2-C	10/7/2015	4.9	30.9	<0.134	9.53	9.335	<0.0342	0.401	<0.206
M3-G	10/7/2015	4.36	29.3	<0.131	7.197	4.505	<0.0350	<0.149	<0.202
M3-C	10/7/2015	5.38	44.4	<0.132	10.05	10.81	<0.0337	0.164	<0.203
N1-G	10/7/2015	7.37	70.5	<0.142	11.27	6.998	<0.0350	0.494	<0.219

**TABLE E-3**  
**SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
N1-C	10/7/2015	<b>11.8</b>	<b>41.7</b>	<0.139	<b>10.09</b>	<b>8.496</b>	<0.0344	<b>0.329</b>	<0.214
N2-G	10/7/2015	-	-	-	-	<b>7.787</b>	-	-	-
N2-C	10/7/2015	-	-	-	-	<b>7.88</b>	-	-	-
N3-G	10/7/2015	-	-	-	-	<b>11.72</b>	-	-	-
N3-C	10/7/2015	-	-	-	-	<b>11.14</b>	-	-	-
O1-G	10/7/2015	-	-	-	-	<b>10.42</b>	-	-	-
O1-C	10/7/2015	-	-	-	-	<b>6.785</b>	-	-	-
O2-G	10/7/2015	-	-	-	-	<b>10.91</b>	-	-	-
O2-C	10/7/2015	-	-	-	-	<b>11.84</b>	-	-	-
O3-G	10/7/2015	-	-	-	-	<b>14.99</b>	-	-	-
O3-C	10/7/2015	-	-	-	-	<b>15.41</b>	-	-	-
P1-G	10/7/2015	-	-	-	-	<b>8.455</b>	-	-	-
P1-C	10/7/2015	-	-	-	-	<b>15.75</b>	-	-	-
P2-G	10/7/2015	-	-	-	-	<b>12.03</b>	-	-	-
P2-C	10/7/2015	-	-	-	-	<b>8.555</b>	-	-	-
Q1-G	10/7/2015	-	-	-	-	<b>12.34</b>	-	-	-
Q1-C	10/7/2015	-	-	-	-	<b>346.5</b>	-	-	-
R1-G	10/7/2015	-	-	-	-	<b>11.1</b>	-	-	-
R1-C	10/7/2015	-	-	-	-	<b>10.04</b>	-	-	-

**TABLE E-3**  
**SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
R2-G	10/7/2015	-	-	-	-	<b>10.73</b>	-	-	-
R2-C	10/7/2015	-	-	-	-	<b>11.52</b>	-	-	-
S1-G	10/7/2015	-	-	-	-	<b>9.308</b>	-	-	-
S1-C	10/7/2015	-	-	-	-	<b>10.3</b>	-	-	-
S2-G	10/7/2015	-	-	-	-	<b>18.24</b>	-	-	-
S2-C	10/7/2015	-	-	-	-	<b>14.1</b>	-	-	-
T1-G	10/8/2015	-	-	-	-	<b>10.59</b>	-	-	-
T1-C	10/8/2015	-	-	-	-	<b>10.8</b>	-	-	-
T2-G	10/8/2015	-	-	-	-	<b>10.71</b>	-	-	-
T2-C	10/8/2015	-	-	-	-	<b>11.79</b>	-	-	-
T3-G	10/8/2015	-	-	-	-	<b>10.04</b>	-	-	-
T3-C	10/8/2015	-	-	-	-	<b>10.23</b>	-	-	-
T4-G	10/8/2015	-	-	-	-	<b>10.62</b>	-	-	-
T4-C	10/8/2015	-	-	-	-	<b>13.84</b>	-	-	-
U1-G	10/8/2015	-	-	-	-	<b>9.837</b>	-	-	-
U1-C	10/8/2015	-	-	-	-	<b>8.978</b>	-	-	-
U2-G	10/8/2015	-	-	-	-	<b>8.985</b>	-	-	-
U2-C	10/8/2015	-	-	-	-	<b>10.46</b>	-	-	-
U3-G	10/8/2015	-	-	-	-	<b>11.94</b>	-	-	-

**TABLE E-3**  
**SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
U3-C	10/8/2015	-	-	-	-	13.59	-	-	-
U4-G	10/8/2015	-	-	-	-	25.24	-	-	-
U4-C	10/8/2015	-	-	-	-	17.37	-	-	-
U5-G	10/8/2015	-	-	-	-	16.23	-	-	-
U5-C	10/8/2015	-	-	-	-	14.06	-	-	-
V1-G	10/8/2015	-	-	-	-	28.89	-	-	-
V1-C	10/8/2015	-	-	-	-	20.2	-	-	-
V2-G	10/8/2015	-	-	-	-	23.07	-	-	-
V2-C	10/8/2015	-	-	-	-	10.74	-	-	-
V3-G	10/8/2015	-	-	-	-	12.81	-	-	-
V3-C	10/8/2015	-	-	-	-	18.77	-	-	-
V4-G	10/8/2015	-	-	-	-	61.62	-	-	-
V4-C	10/8/2015	-	-	-	-	43.87	-	-	-
V5-G	10/8/2015	-	-	-	-	190	-	-	-
V5-C	10/8/2015	-	-	-	-	27.45	-	-	-
V6-G	10/8/2015	-	-	-	-	44.07	-	-	-
V6-C	10/8/2015	-	-	-	-	348.7	-	-	-
V7-G	10/8/2015	-	-	-	-	16.13	-	-	-
V7-C	10/8/2015	-	-	-	-	63.37	-	-	-

**TABLE E-3**  
**SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
W1-G	10/8/2015	-	-	-	-	<b>17.59</b>	-	-	-
W1-C	10/8/2015	-	-	-	-	<b>9.519</b>	-	-	-
W2-G	10/8/2015	-	-	-	-	<b>10.09</b>	-	-	-
W2-C	10/8/2015	-	-	-	-	<b>12.82</b>	-	-	-
WX1-G	10/8/2015	-	-	-	-	<b>11.88</b>	-	-	-
WX1-C	10/8/2015	-	-	-	-	<b>11.76</b>	-	-	-
WX2-G	10/8/2015	-	-	-	-	<b>11.89</b>	-	-	-
WX2-C	10/8/2015	-	-	-	-	<b>10.69</b>	-	-	-
X1-G	10/8/2015	-	-	-	-	<b>11.41</b>	-	-	-
X1-C	10/8/2015	-	-	-	-	<b>11.28</b>	-	-	-
X2-G	10/8/2015	-	-	-	-	<b>12.49</b>	-	-	-
X2-C	10/8/2015	-	-	-	-	<b>11.76</b>	-	-	-
X3-G	10/8/2015	-	-	-	-	<b>11.9</b>	-	-	-
X3-C	10/8/2015	-	-	-	-	<b>11.59</b>	-	-	-
X4-G	10/8/2015	-	-	-	-	<b>17.56</b>	-	-	-
X4-C	10/8/2015	-	-	-	-	<b>11.64</b>	-	-	-
X5-G	10/8/2015	-	-	-	-	<b>17.41</b>	-	-	-
X5-C	10/8/2015	-	-	-	-	<b>11.09</b>	-	-	-
X6-G	10/8/2015	-	-	-	-	<b>19.41</b>	-	-	-

**TABLE E-3**  
**SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCL - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
X6-C	10/8/2015	-	-	-	-	<b>50.66</b>	-	-	-
Y1-G	10/9/2015	-	-	-	-	<b>29.6</b>	-	-	-
Y1-C	10/9/2015	-	-	-	-	<b>49.82</b>	-	-	-
Y2-G	10/9/2015	-	-	-	-	<b>11.98</b>	-	-	-
Y2-C	10/9/2015	-	-	-	-	<b>133.6</b>	-	-	-
Y3-G	10/9/2015	-	-	-	-	<b>26.98</b>	-	-	-
Y3-C	10/9/2015	-	-	-	-	<b>157.7</b>	-	-	-
Y4-G	10/9/2015	-	-	-	-	<b>5.925</b>	-	-	-
Y4-C	10/9/2015	-	-	-	-	<b>15.56</b>	-	-	-
Y5-G	10/9/2015	-	-	-	-	<b>35.52</b>	-	-	-
Y5-C	10/9/2015	-	-	-	-	<b>15.93</b>	-	-	-
Y6-G	10/9/2015	-	-	-	-	<b>88.36</b>	-	-	-
Y6-C	10/9/2015	-	-	-	-	<b>33.43</b>	-	-	-
Z1-G	10/9/2015	-	-	-	-	<b>12.98</b>	-	-	-
Z1-C	10/9/2015	-	-	-	-	<b>20.46</b>	-	-	-

Bold Text in Cell = Chemical Detected in Sample Analysis

Yellow Shaded Cell = Metal Exceeds Ingestion PCL and Texas Specific Median Background

\* - PCL for Mercury based on pH of 6.8 or higher (based on historical EPA assessments determining soils on property are Alkaline)

Note: Soil PCL based on the higher of the Ingestion PCL or Texas Specific Median Background

--- = Inhalation pathway not applicable

**TABLE E-4**  
**SOIL ANALYTICAL RESULTS - SPLP METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS						
Sample ID	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Silver (mg/L)
<b>Tier 1 Groundwater PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>0.01</b>	<b>2.0</b>	<b>0.005</b>	<b>0.015</b>	<b>0.12</b>
<b>Tier 1 Groundwater PCL with MSD - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		---	---	---	---	---
BORINGS AND MONITORING WELLS						
B-4 (6')	9/23/2015	<b>0.104</b>	<b>3.9</b>	-	-	-
B-8 (4.5')	9/23/2015	<b>0.002</b>	-	<b>0.001</b>	<b>0.005</b>	-
MW-6 (18')	9/23/2015	<b>0.112</b>	-	-	-	-
MW-8 (3')	9/23/2015	<b>0.084</b>	-	-	<b>0.23</b>	-
MW-12 (12.5')	9/6/2016	-	-	-	-	<0.001
MW-12 (19.5')	9/6/2016	<0.002	-	-	-	-
MW-13 (13')	9/6/2016	<0.002	-	-	-	<0.001
SURFACE SOILS						
G1-C	10/6/2015	-	-	-	<b>0.021</b>	-
K3-C	10/7/2015	-	-	-	<b>0.665</b>	-
Q1-C	10/7/2015	-	-	-	<b>0.281</b>	-
V6-C	10/8/2015	-	-	-	<b>0.274</b>	-
Y3-C	10/9/2015	-	-	-	<b>0.134</b>	-
Y6-G	10/9/2015	-	-	-	<b>0.024</b>	-
Bold Text in Cell = Chemical Detected in Sample Analysis Yellow Shaded Cell = Metal Exceeds Ingestion PCL --- = Inhalation pathway not applicable Note: SPLP leaching results compared to Groundwater Ingestion PCL.						

**TABLE E-5**  
**SOIL ANALYTICAL RESULTS - CHLORIDE/SULFIDE/pH**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS				
Sample ID	Sample Date	pH	Chloride* (mg/kg)	Sulfide* (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		-	-	-
B-9 (3')	9/23/2015	8.87	-	<b>6.354</b>
B-9 (4.5')	9/23/2015	8.49	-	<b>3.772</b>
B-10 (2')	9/24/2015	8.13	<b>76.1</b>	<0.250
B-10 (4')	9/24/2015	8.34	<b>72.4</b>	<0.250
B-11 (2')	9/24/2015	8.41	<b>280</b>	<0.250
B-11 (4')	9/24/2015	8.54	<b>588</b>	<0.250
* = Compounds are not of concern from a human health standpoint. However, aesthetics and ecological criteria would still apply. Bold Text in Cell = Chemical Detected in Sample Analysis --- = Ingestion PCL not Developed				

**TABLE E-6**  
**SOIL ANALYTICAL RESULTS - PAH**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

				Sample Results (mg/kg)							
Sample Date:				9/23/2015							
COC	Tier 1 Soil PCLs ( <sup>GW</sup> Soil <sub>Ing</sub> )	Tier 1 Soil PCLs ( <sup>Total</sup> Soil <sub>Comb</sub> )	Tier 1 Soil PCLs ( <sup>Air</sup> Soil <sub>Inh.v</sub> )	B-9 (3')	B-9 (4.5')	MW-6 (4')	MW-6 (18')	MW-6 (20')	MW-7 (9')	MW-7 (16')	MW-7 (20')
Acenaphthene	240	3,000	---	<0.0047	<0.0054	<0.0053	<0.0049	<0.0053	<0.0055	<0.0057	<0.0052
Acenaphthylene	410	3,800	---	<0.0040	<0.0046	<0.0045	<0.0041	<0.0045	<0.0047	<0.0048	<0.0044
Anthracene	6900	18,000	---	<0.0074	<0.0086	<0.0083	<0.0076	<0.0083	<0.0086	<0.0089	<0.0081
Benzo (j) fluoranthene	26	5.4	3,200	<0.0140	<0.0160	<0.0160	<0.0140	<0.0160	<0.0160	<0.0170	<0.0150
Benzo (a) anthracene	N/A	5.7	3,700	<0.0036	<0.0041	<0.0040	<0.0037	<0.0041	<0.0042	<0.0043	<0.0039
Benzo (a) pyrene	7.6	0.56	850	<0.0060	<0.0068	<0.0067	<0.0061	<0.0067	<0.0070	<0.0072	<0.0065
Benzo (b) fluoranthene	60	5.7	6,100	<0.0041	<0.0047	<0.0046	<0.0042	<0.0046	<0.0048	<0.0049	<0.0045
Benzo (a,h) acridine	N/A	3.7	15,000	<0.0250	<0.0290	<0.0280	<0.0260	<0.0280	<0.0290	<0.0300	<0.0270
Benzo (g,h,i) perylene	46000	1,800	---	<0.0190	<0.0210	<0.0210	<0.0190	<0.0210	<0.0220	<0.0220	<0.0200
Benzo (k) fluoranthene	620	57	150,000	<0.0039	<0.0044	<0.0043	<0.0040	<0.0044	<0.0045	<0.0047	<0.0042
Dibenzo (a,e) pyrene	130	0.61	7,200	<0.0220	<0.0250	<0.0240	<0.0220	<0.0250	<0.0250	<0.0260	<0.0240
Dibenzo (a,h) pyrene	12	0.061	700	<0.0160	<0.0180	<0.0170	<0.0160	<0.0180	<0.0180	<0.0190	<0.0170
Dibenzo (a,i) pyrene	12	0.061	700	<0.0150	<0.0170	<0.0170	<0.0150	<0.0170	<0.0170	<0.0180	<0.0160
7H-Dibenzo (c,g) carbazole	N/A	N/A	N/A	<0.0180	<0.0210	<0.0200	<0.0190	<0.0200	<0.0210	<0.0220	<0.0200
Chrysene	1500	560	590,000	<0.0110	<0.0130	<0.0130	<0.0120	<0.0130	<0.0130	<0.0140	<0.0120
Dibenz (a,h) anthracene	9.5	0.55	200	<0.0066	<0.0075	<0.0074	<0.0068	<0.0074	<0.0077	<0.0080	<0.0072
Dibenzo (a,j) acridine	110	3.7	15,000	<0.0052	<0.0060	<0.0058	<0.0054	<0.0059	<0.0061	<0.0063	<0.0057
Dibenzofuran	33	270	---	<0.0048	<0.0055	<0.0054	<0.00449	<0.0054	<0.0056	<0.0058	<0.0053
Fluoranthene	1900	2,300	---	<0.0060	<0.0068	<0.0067	<0.0061	<0.0067	<0.0070	<0.0072	<0.0065
Fluorene	300	2,300	---	<0.0036	<0.0041	<0.0040	<0.0037	<0.0041	<0.0042	<0.0043	<0.0039
3-Methylcholanthrene	15	0.19	1,800	<0.0170	<0.0190	<0.0190	<0.0170	<0.0190	<0.0200	<0.0200	<0.0180
Naphthalene	31	220	270	<0.0065	<0.0074	<0.0073	<0.0067	<0.0073	<0.0076	<0.0079	<0.0071
Pheneanthrene	420	1,700	---	<0.0065	<0.0074	<0.0072	<0.0067	<0.0073	<0.0075	<0.0078	<0.0071
Pyrene	1100	1,700	---	<0.0055	<0.0062	<0.0061	<0.0056	<0.0061	<0.0063	<0.0066	<0.0060

Bold Text in Cell = Chemical Detected in Sample Analysis  
Yellow Shaded Cell = Chemical Exceeds Ingestion PCL

**TABLE E-6**  
**SOIL ANALYTICAL RESULTS - PAH**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

				Sample Results (mg/kg)							
Sample Date:				9/23/2015						9/24/2015	
COC	Tier 1 Soil PCLs ( <sup>GW</sup> Soil <sub>Ing</sub> )	Tier 1 Soil PCLs ( <sup>Total</sup> Soil <sub>Comb</sub> )	Tier 1 Soil PCLs ( <sup>Air</sup> Soil <sub>Inh-v</sub> )	MW-8 (3')	MW-8 (10')	MW-8 (18')	MW-9 (7')	MW-9 (13')	MW-9 (19')	MW-10 (8')	MW-10 (14')
Acenaphthene	240	3,000	---	<0.0045	<0.0049	<0.0054	<0.0054	<0.0059	<0.0056	<0.0047	<0.0048
Acenaphthylene	410	3,800	---	<0.0038	<0.0042	<0.0046	<0.0046	<0.0050	<0.0048	<0.0040	<0.0040
Anthracene	6900	18,000	---	<0.0069	<0.0077	<0.0084	<0.0085	<0.0092	<0.0088	<0.0073	<0.0074
Benzo (j) fluoranthene	26	5.4	3,200	<0.0130	<0.0150	<0.0160	<0.0160	<0.0180	<0.0170	<0.0140	<0.0140
Benzo (a) anthracene	N/A	5.7	3,700	<0.0034	<0.0037	<0.0041	<0.0041	<0.0045	<0.0043	<0.0035	<0.0036
Benzo (a) pyrene	7.6	0.56	850	<0.0056	<0.0062	<0.0068	<0.0069	<0.0075	<0.0071	<0.0059	<0.0060
Benzo (b) fluoranthene	60	5.7	6,100	<0.0038	<0.0042	<0.0046	<0.0047	<0.0051	<0.0049	<0.0040	<0.0041
Benzo (a,h) acridine	N/A	3.7	15,000	<0.0240	<0.0260	<0.0280	<0.0290	<0.0310	<0.0300	<0.0250	<0.025
Benzo (g,h,i) perylene	46000	1,800	---	<0.0170	<0.0190	<0.0210	<0.0210	<0.0230	<0.0220	0.25	<0.019
Benzo (k) fluoranthene	620	57	150,000	<0.0036	<0.0040	<0.0044	<0.0044	<0.0048	<0.0046	<0.0038	<0.0039
Dibenzo (a,e) pyrene	130	0.61	7,200	<0.0210	<0.0230	<0.0250	<0.0250	<0.0270	<0.0260	<0.022	<0.022
Dibenzo (a,h) pyrene	12	0.061	700	<0.0150	<0.0160	<0.0180	<0.0180	<0.0200	<0.0190	<0.015	<0.016
Dibenzo (a,i) pyrene	12	0.061	700	<0.0140	<0.0160	<0.0170	<0.0170	<0.0190	<0.0180	<0.015	<0.015
7H-Dibenzo (c,g) carbazole	N/A	N/A	N/A	<0.0170	<0.0190	<0.0200	<0.0210	<0.0230	<0.0210	<0.018	<0.018
Chrysene	1500	560	590,000	<0.0110	<0.0120	<0.0130	<0.0130	<0.0140	<0.0130	<0.011	<0.011
Dibenz (a,h) anthracene	9.5	0.55	200	<0.0062	<0.0068	<0.0075	<0.0075	<0.0082	<0.0078	<0.0065	<0.0066
Dibenzo (a,j) acridine	110	3.7	15,000	<0.0049	<0.0054	<0.0059	<0.0060	<0.0065	<0.0062	<0.0051	<0.0052
Dibenzofuran	33	270	---	<0.0045	<0.0050	<0.0055	<0.0055	<0.0060	<0.0057	<0.0047	<0.0048
Fluoranthene	1900	2,300	---	<0.0056	<0.0062	<0.0068	<0.0069	<0.0075	<0.0071	<0.0059	<0.0060
Fluorene	300	2,300	---	<0.0034	<0.0037	<0.0041	<0.0041	<0.0045	<0.0043	<0.0035	<0.0036
3-Methylcholanthrene	15	0.19	1,800	<0.0160	<0.0180	<0.0190	<0.0190	<0.0210	<0.0200	<0.017	<0.017
Naphthalene	31	220	270	<0.0061	<0.0068	<0.0074	<0.0075	<0.0082	<0.0078	<0.0064	<0.0065
Pheneanthrene	420	1,700	---	<0.0061	<0.0067	<0.0074	<0.0074	<0.0081	<0.0077	<0.0064	<0.0065
Pyrene	1100	1,700	---	<0.0051	<0.0057	<0.0062	<0.0062	<0.0068	<0.0065	<0.0054	<0.0055

Bold Text in Cell = Chemical Detected in Sample Analysis  
Yellow Shaded Cell = Chemical Exceeds Ingestion PCL

**TABLE E-6**  
**SOIL ANALYTICAL RESULTS - PAH**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

				Sample Results (mg/kg)			
Sample Date:				9/24/2015			
COC	Tier 1 Soil PCLs ( <sup>GW</sup> Soil <sub>Ing</sub> )	Tier 1 Soil PCLs ( <sup>Total</sup> Soil <sub>Comb</sub> )	Tier 1 Soil PCLs ( <sup>Air</sup> Soil <sub>Inh-v</sub> )	MW-10 (19')	MW-11 (4')	MW-11 (10')	MW-11 (13')
Acenaphthene	240	3,000	---	<0.0049	<0.0050	<0.045	<0.0048
Acenaphthylene	410	3,800	---	<0.0041	<0.0042	<0.038	<0.0041
Anthracene	6900	18,000	---	<0.0076	<0.0078	<0.070	<0.0075
Benzo (j) fluoranthene	26	5.4	3,200	<0.0140	<0.015	<0.130	<0.0140
Benzo (a) anthracene	N/A	5.7	3,700	<0.0037	<0.0038	<0.034	<0.0037
Benzo (a) pyrene	7.6	0.56	850	<0.0062	<0.0063	<0.057	<0.0061
Benzo (b) fluoranthene	60	5.7	6,100	<0.0042	<0.0043	<0.039	<0.0042
Benzo (a,h) acridine	N/A	3.7	15,000	<0.026	<0.026	<0.240	<0.025
Benzo (g,h,i) perylene	46000	1,800	---	<0.019	<0.020	<0.180	<0.019
Benzo (k) fluoranthene	620	57	150,000	<0.0040	<0.0041	<0.037	<0.0039
Dibenzo (a,e) pyrene	130	0.61	7,200	<0.023	<0.023	<0.210	<0.022
Dibenzo (a,h) pyrene	12	0.061	700	<0.016	<0.016	<0.150	<0.016
Dibenzo (a,i) pyrene	12	0.061	700	<0.015	<0.016	<0.140	<0.015
7H-Dibenzo (c,g) carbazole	N/A	N/A	N/A	<0.019	<0.019	<0.170	<0.018
Chrysene	1500	560	590,000	<0.012	<0.012	<0.110	<0.011
Dibenz (a,h) anthracene	9.5	0.55	200	<0.0068	<0.0069	<0.063	<0.0067
Dibenzo (a,j) acridine	110	3.7	15,000	<0.0054	<0.0055	<0.050	<0.0053
Dibenzofuran	33	270	---	<0.0050	<0.0051	<0.046	<0.0061
Fluoranthene	1900	2,300	---	<0.0062	<0.0063	<0.057	<0.0049
Fluorene	300	2,300	---	<0.0037	<0.0038	<0.034	<0.0037
3-Methylcholanthrene	15	0.19	1,800	<0.017	<0.018	<0.160	<0.017
Naphthalene	31	220	270	<0.0067	<0.0069	<0.062	<0.0066
Pheneanthrene	420	1,700	---	<0.0067	<0.0068	<0.062	<0.0066
Pyrene	1100	1,700	---	<0.0056	<0.0057	<0.052	<0.0055

Bold Text in Cell = Chemical Detected in Sample Analysis  
Yellow Shaded Cell = Chemical Exceeds Ingestion PCL

**TABLE E-7**  
**SEDIMENT ANALYTICAL RESULTS - METALS (SOLID)**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SEDIMENT ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 PCL (<sup>Tot</sup>Sed<sub>Comb</sub>)</b>		<b>110</b>	<b>23,000</b>	<b>1,100</b>	<b>36,000</b>	<b>500</b>	<b>34</b>	<b>2,700</b>	<b>350</b>
<b>Tier 1 PCL (<sup>Sed</sup>Sed<sub>Ing</sub>)<sup>N</sup></b>		<b>280</b>	<b>150,000</b>	<b>2,300</b>	<b>1,000,000</b>	<b>NA</b>	<b>220</b>	<b>3,700</b>	<b>3,700</b>
Sed-1	10/21/2015	<b>15.0</b>	<b>66.8</b>	<0.211	<b>26.54</b>	<b>17.8</b>	---	<0.240	<0.325
Sed-2	10/21/2015	<b>15.6</b>	<b>181</b>	<0.259	<b>27.57</b>	<b>22.73</b>	---	<0.295	<0.398
Sed-3	10/21/2015	<b>12.5</b>	<b>68.7</b>	<0.203	<b>34.38</b>	<b>16.81</b>	---	<0.232	<0.313
Sed-4	10/21/2015	<b>11.3</b>	<b>59.3</b>	<0.210	<b>22.0</b>	<b>12.56</b>	---	<0.239	<0.323
Sed-5	10/21/2015	<b>11.8</b>	<b>71.7</b>	<0.899	<b>28.92</b>	<b>21.91</b>	---	<1.023	<1.384
Sed-6	10/21/2015	<b>9.43</b>	<b>45.4</b>	<0.202	<b>16.75</b>	<b>12.04</b>	---	<0.230	<0.311
Sed-7	10/21/2015	<b>8.66</b>	<b>71.6</b>	<0.195	<b>38.34</b>	<b>19.13</b>	---	<0.222	<0.301
Sed-8	10/21/2015	<b>14.4</b>	<b>76.5</b>	<0.231	<b>28.45</b>	<b>28.74</b>	---	<0.263	<0.356
NA = Not Applicable N = Noncarcinogenic Bold Text in Cell = Chemical Detected in Sample Analysis Shaded Cell = Chemical Exceeds Applicable Action Level									

**TABLE E-8**  
**GROUNDWATER ANALYTICAL RESULTS - VOCs/TPH**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

GROUNDWATER ANALYTICAL RESULTS												
Sample ID	Sample Date	Tetrachloro-ethene (mg/L)	Trichloro-ethene (mg/L)	1,1-Dichloro-ethene (mg/L)	Cis-1,2-Dichloro-ethene (mg/L)	Trans-1,2-Dichloro-ethene (mg/L)	Vinyl Chloride (mg/L)	1,2,3-Trichloro-benzene (mg/L)	All Other VOCs	TPH (C6-C12) (mg/L)	TPH (C12-C28) (mg/L)	TPH (C28-C35) (mg/L)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>GW<sub>Ing</sub>)</b>		<b>0.005</b>	<b>0.005</b>	<b>0.007</b>	<b>0.07</b>	<b>0.1</b>	<b>0.002</b>	<b>0.073</b>	<b>Varies</b>	<b>0.98</b>	<b>0.98</b>	<b>0.98</b>
<b>Tier 1 Critical PCL with MSD - Non-Ingestion PCL (<sup>Air</sup>GW<sub>Inh-v</sub>)</b>		<b>500</b>	<b>24</b>	<b>1,700</b>	<b>1,200</b>	<b>770</b>	<b>3.8</b>	<b>1,300</b>	<b>Varies</b>	<b>1,800</b>	<b>7,500</b>	<b>7,500</b>
MW-1	08/19/14	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.001	BDL	NR	NR	NR
	10/01/15	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	<0.09	<0.09	<0.05
	06/21/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	09/16/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/28/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
MW-2	08/18/14	<0.00100	<0.00100	<0.00100	<b>0.0359</b>	<b>0.0022</b>	<b>0.0073</b>	<0.001	BDL	NR	NR	NR
	10/02/15	<0.00015	<0.00012	<0.00018	<b>0.00992</b>	<0.00017	<0.00028	<0.00114	BDL	<0.09	<0.09	<0.05
	06/21/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	09/15/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/28/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<b>0.00649</b>	BDL	N/A	N/A	N/A
MW-3	08/18/14	<0.00100	<0.00100	<0.00100	<b>0.0113</b>	<0.00100	<0.00100	<0.001	BDL	NR	NR	NR
	10/02/15	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	<0.09	<0.09	<0.05
	06/22/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	09/15/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/29/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
MW-4	08/19/14	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.001	BDL	NR	NR	NR
	10/02/15	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	<0.09	<0.10	<0.05
	06/22/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	09/16/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/29/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A

**TABLE E-8**  
**GROUNDWATER ANALYTICAL RESULTS - VOCs/TPH**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

GROUNDWATER ANALYTICAL RESULTS												
Sample ID	Sample Date	Tetrachloro-ethene (mg/L)	Trichloro-ethene (mg/L)	1,1-Dichloro-ethene (mg/L)	Cis-1,2-Dichloro-ethene (mg/L)	Trans-1,2-Dichloro-ethene (mg/L)	Vinyl Chloride (mg/L)	1,2,3-Trichloro-benzene (mg/L)	All Other VOCs	TPH (C6-C12) (mg/L)	TPH (C12-C28) (mg/L)	TPH (C28-C35) (mg/L)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>GW<sub>Ing</sub>)</b>		<b>0.005</b>	<b>0.005</b>	<b>0.007</b>	<b>0.07</b>	<b>0.1</b>	<b>0.002</b>	<b>0.073</b>	<b>Varies</b>	<b>0.98</b>	<b>0.98</b>	<b>0.98</b>
<b>Tier 1 Critical PCL with MSD - Non-Ingestion PCL (<sup>Air</sup>GW<sub>Inh-v</sub>)</b>		<b>500</b>	<b>24</b>	<b>1,700</b>	<b>1,200</b>	<b>770</b>	<b>3.8</b>	<b>1,300</b>	<b>Varies</b>	<b>1,800</b>	<b>7,500</b>	<b>7,500</b>
MW-5	08/18/14	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.001	BDL	NR	NR	NR
	10/01/15	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	<0.09	<0.09	<0.05
	06/21/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	09/16/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/28/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
MW-6	10/01/15	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	<0.09	<0.09	<0.05
	06/21/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	09/15/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/28/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
MW-7	10/02/15	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	<0.09	<0.09	<0.05
	06/21/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	09/15/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/28/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
MW-8	10/01/15	<0.00015	<0.00012	<0.00018	<b>0.00506</b>	<0.00017	<0.00028	<0.00114	BDL	<0.09	<0.09	<0.05
	06/22/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	09/16/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/28/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A

**TABLE E-8**  
**GROUNDWATER ANALYTICAL RESULTS - VOCs/TPH**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

GROUNDWATER ANALYTICAL RESULTS												
Sample ID	Sample Date	Tetrachloro-ethene (mg/L)	Trichloro-ethene (mg/L)	1,1-Dichloro-ethene (mg/L)	Cis-1,2-Dichloro-ethene (mg/L)	Trans-1,2-Dichloro-ethene (mg/L)	Vinyl Chloride (mg/L)	1,2,3-Trichloro-benzene (mg/L)	All Other VOCs	TPH (C6-C12) (mg/L)	TPH (C12-C28) (mg/L)	TPH (C28-C35) (mg/L)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>GW<sub>Ing</sub>)</b>		<b>0.005</b>	<b>0.005</b>	<b>0.007</b>	<b>0.07</b>	<b>0.1</b>	<b>0.002</b>	<b>0.073</b>	<b>Varies</b>	<b>0.98</b>	<b>0.98</b>	<b>0.98</b>
<b>Tier 1 Critical PCL with MSD - Non-Ingestion PCL (<sup>Air</sup>GW<sub>Inh-v</sub>)</b>		<b>500</b>	<b>24</b>	<b>1,700</b>	<b>1,200</b>	<b>770</b>	<b>3.8</b>	<b>1,300</b>	<b>Varies</b>	<b>1,800</b>	<b>7,500</b>	<b>7,500</b>
MW-9	10/01/15	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	<0.09	<0.09	<0.05
	06/21/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	09/16/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/28/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
MW-10	10/02/15	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	<0.09	<0.09	<0.05
	06/22/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	09/15/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/29/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
MW-11	10/01/15	Well Dry										
	06/22/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	09/16/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/29/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
MW-12	09/15/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/29/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
MW-13	09/15/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A
	12/29/16	<0.00015	<0.00012	<0.00018	<0.00021	<0.00017	<0.00028	<0.00114	BDL	N/A	N/A	N/A

Note: PCLs based on Residential Assessment Levels and assuming a Class I Groundwater Resource

NR - Not Reported

Bolded Text in Cells - Chemical Detected in Sample

Yellow Shaded Cells - COC Concentration exceeds Ingestion PCL

N/A - Not Analyzed

**TABLE E-9  
GROUNDWATER ANALYTICAL RESULTS - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

GROUNDWATER ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>GW<sub>Ing</sub>)</b>		<b>0.01</b>	<b>2</b>	<b>0.005</b>	<b>0.1</b>	<b>0.015</b>	<b>0.002</b>	<b>0.05</b>	<b>0.12</b>
<b>Tier 1 Critical PCL with MSD - Non-Ingestion PCL (<sup>Air</sup>GW<sub>Inh-v</sub>)</b>		---	---	---	---	---	<b>7.3</b>	---	---
MW-1	8/19/2014	<b>0.0032</b>	<b>0.35</b>	<0.00020	<0.00013	<0.000020	<0.000018	<b>0.0047</b>	<0.000060
	10/1/2015	<b>0.002</b>	<b>0.055</b>	<0.001	<b>0.005</b>	<0.004	<0.0002	<0.002	<0.001
	6/21/2016	<b>0.005</b>	<b>0.057</b>	<b>0.001</b>	<b>0.005</b>	<0.004	<0.0002	<0.002	<0.001
	9/16/2016	<0.002	<b>0.06</b>	<0.001	<b>0.012</b>	<0.004	<0.0002	<0.002	<b>0.002</b>
	12/28/2016	<b>0.003</b>	<b>0.048</b>	<0.001	<b>0.005</b>	<0.004	<0.0002	<0.002	<b>0.002</b>
MW-2	8/18/2014	<b>0.0019</b>	<b>0.054</b>	<0.00020	<0.00013	<0.000020	<0.000018	<b>0.0027</b>	<0.000060
	10/2/2015	<0.002	<b>0.028</b>	<b>0.001</b>	<0.003	<0.004	<0.0002	<0.002	<0.001
	6/21/2016	<0.002	<b>0.055</b>	<0.001	<b>0.003</b>	<0.004	<0.0002	<0.002	<0.001
	9/15/2016	<0.002	<b>0.052</b>	<0.001	<b>0.009</b>	<0.004	<0.0002	<0.002	<b>0.003</b>
	12/28/2016	<0.002	<b>0.055</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
MW-3	8/18/2014	<b>0.0022</b>	<b>0.081</b>	<0.00020	<0.00013	<b>0.00052</b>	<0.000018	<b>0.0021</b>	<0.000060
	10/2/2015	<b>0.018</b>	<b>0.089</b>	<b>0.003</b>	<0.003	<b>0.004</b>	<0.0002	<b>0.002</b>	<0.001
	6/22/2016	<0.002	<b>0.044</b>	<0.001	<0.003	<0.004	<0.0002	<b>0.004</b>	<0.001
	9/15/2016	<b>0.014</b>	<b>0.077</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<b>0.001</b>
	12/29/2016	<0.002	<b>0.068</b>	<0.001	<0.003	<0.004	<b>0.0005</b>	<0.002	<0.001
MW-4	8/19/2014	<b>0.0032</b>	<b>0.049</b>	<0.00020	<0.00013	<0.000020	<0.000018	<b>0.014</b>	<0.000060
	10/2/2015	<b>0.026</b>	<b>0.145</b>	<b>0.004</b>	<0.003	<0.004	<0.0002	<0.002	<0.001
	6/22/2016	<b>0.011</b>	<b>0.205</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
	9/16/2016	<b>0.01</b>	<b>0.236</b>	<0.001	<b>0.007</b>	<0.004	<0.0002	<0.002	<b>0.002</b>
	12/29/2016	<0.002	<b>0.094</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001

**TABLE E-9  
GROUNDWATER ANALYTICAL RESULTS - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

GROUNDWATER ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>GW<sub>Ing</sub>)</b>		<b>0.01</b>	<b>2</b>	<b>0.005</b>	<b>0.1</b>	<b>0.015</b>	<b>0.002</b>	<b>0.05</b>	<b>0.12</b>
<b>Tier 1 Critical PCL with MSD - Non-Ingestion PCL (<sup>Air</sup>GW<sub>Inh-v</sub>)</b>		---	---	---	---	---	<b>7.3</b>	---	---
MW-5	8/18/2014	<b>0.0020</b>	<b>0.049</b>	<0.00020	<0.00013	<0.000020	<0.000018	<0.00033	<0.000060
	10/1/2015	<b>0.002</b>	<b>0.099</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
	6/21/2016	<0.002	<b>0.104</b>	<0.001	<b>0.006</b>	<b>0.004</b>	<0.0002	<0.002	<0.001
	9/16/2016	<0.002	<b>0.081</b>	<0.001	<b>0.01</b>	<b>0.005</b>	<0.0002	<0.002	<b>0.001</b>
	12/28/2016	<b>0.004</b>	<b>0.078</b>	<0.001	<b>0.004</b>	<b>0.007</b>	<0.0002	<0.002	<0.001
MW-6	10/1/2015	<0.002	<b>0.076</b>	<b>0.002</b>	<b>0.004</b>	<0.004	<0.0002	<0.002	<0.001
	6/21/2016	<b>0.003</b>	<b>0.064</b>	<0.001	<b>0.003</b>	<0.004	<0.0002	<0.002	<0.001
	9/15/2016	<b>0.002</b>	<b>0.058</b>	<0.001	<b>0.006</b>	<0.004	<0.0002	<b>0.002</b>	<b>0.001</b>
	12/28/2016	<0.002	<b>0.058</b>	<0.001	<b>0.009</b>	<0.004	<0.0002	<0.002	<0.001
MW-7	10/2/2015	<b>0.002</b>	<b>0.044</b>	<b>0.003</b>	<0.003	<0.004	<0.0002	<0.002	<0.001
	6/21/2016	<0.002	<b>0.087</b>	<0.001	<0.003	<0.004	<0.0002	<b>0.002</b>	<0.001
	9/15/2016	<b>0.002</b>	<b>0.066</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<b>0.002</b>
	12/28/2016	<b>0.006</b>	<b>0.063</b>	0.003	<0.003	<0.004	<0.0002	<0.002	<0.001
MW-8	10/1/2015	<b>0.002</b>	<b>0.096</b>	<b>0.005</b>	<b>0.004</b>	<0.004	<0.0002	<b>0.004</b>	<0.001
	6/22/2016	<b>0.007</b>	<b>0.056</b>	<0.001	<b>0.01</b>	<0.004	<0.0002	<b>0.003</b>	<0.001
	9/16/2016	<b>0.005</b>	<b>0.093</b>	<0.001	<b>0.008</b>	<0.004	<0.0002	<0.002	<b>0.002</b>
	12/28/2016	<b>0.007</b>	<b>0.078</b>	<0.001	<b>0.005</b>	<0.004	<0.0002	<0.002	<0.001
MW-9	10/1/2015	<b>0.006</b>	<b>0.101</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
	6/21/2016	<b>0.017</b>	<b>0.144</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<b>0.001</b>
	9/16/2016	<b>0.008</b>	<b>0.073</b>	<0.001	<b>0.005</b>	<0.004	<0.0002	<0.002	<b>0.002</b>
	12/28/2016	<b>0.021</b>	<b>0.083</b>	<0.001	<b>0.003</b>	<0.004	<0.0002	<0.002	<0.001

**TABLE E-9  
GROUNDWATER ANALYTICAL RESULTS - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

GROUNDWATER ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>GW<sub>Ing</sub>)</b>		<b>0.01</b>	<b>2</b>	<b>0.005</b>	<b>0.1</b>	<b>0.015</b>	<b>0.002</b>	<b>0.05</b>	<b>0.12</b>
<b>Tier 1 Critical PCL with MSD - Non-Ingestion PCL (<sup>Air</sup>GW<sub>Inh-v</sub>)</b>		---	---	---	---	---	<b>7.3</b>	---	---
MW-10	10/2/2015	<0.002	<b>0.58</b>	<b>0.025</b>	<b>0.006</b>	<0.004	<0.0002	<b>0.002</b>	<0.001
	6/22/2016	<b>0.004</b>	<b>0.046</b>	<0.001	<0.003	<0.004	<0.0002	<b>0.004</b>	<0.001
	9/15/2016	<b>0.009</b>	<b>0.094</b>	<0.001	<b>0.006</b>	<0.004	<0.0002	<b>0.002</b>	<b>0.002</b>
	12/29/2016	<0.002	<b>0.078</b>	<0.001	<b>0.004</b>	<0.004	<0.0002	<0.002	<0.001
MW-11	10/2/2015	Well Dry							
	6/22/2016	<b>0.002</b>	<b>0.041</b>	<b>0.003</b>	<b>0.005</b>	<0.004	<0.0002	<b>0.002</b>	<0.001
	9/16/2016	<b>0.004</b>	<b>0.086</b>	<b>0.001</b>	<b>0.032</b>	<0.004	<0.0002	<b>0.002</b>	<b>0.002</b>
	12/29/2016	<0.002	<b>0.076</b>	<0.001	<b>0.012</b>	<0.004	<0.0002	<0.002	<0.001
MW-12	9/15/2016	<b>0.003</b>	<b>0.118</b>	<0.001	<b>0.01</b>	<0.004	<0.0002	<b>0.003</b>	<b>0.002</b>
	12/29/2016	<0.002	<b>0.065</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
MW-13	9/15/2016	<0.002	<b>0.108</b>	<0.001	<b>0.014</b>	<0.004	<0.0002	<0.002	<b>0.003</b>
	12/29/2016	<0.002	<b>0.048</b>	<0.001	<b>0.006</b>	<0.004	<0.0002	<0.002	<0.001
Bold Text in Cell = Chemical Detected in Sample Analysis Shaded Cell = Chemical Exceeds Applicable Action Level --- = Inhalation pathway not applicable									

**TABLE E-10**  
**GROUNDWATER ANALYTICAL RESULTS - PAH**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

			Sample Results (mg/L)						
Sample Date:			10/1/2015	10/2/2015			10/1/2015	10/2/2015	
COC	Tier 1 Critical PCL without MSD - Ingestion PCL ( <sup>GW</sup> GW <sub>Ing</sub> )	Tier 1 Groundwater PCL with MSD - Non Ingestion PCL ( <sup>Air</sup> GW <sub>Inh-v</sub> )	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
			Acenaphthene	1.5	1.5	<0.000147	<0.000139	<0.000145	<0.000154
Acenaphthylene	1.5	1.5	<0.000125	<0.000118	<0.000123	<0.000131	<0.000112	<0.000112	<0.000118
Anthracene	7.3	7.3	<0.000230	<0.000217	<0.000227	<0.000240	<0.000205	<0.000205	<0.000217
Benzo (j) fluoranthene	0.0013	0.0013	<0.000437	<0.000412	<0.000431	<0.000458	<0.000391	<0.000391	<0.000412
Benzo (a) anthracene	N/A	N/A	<0.000112	<0.000106	<0.000110	<0.000117	<0.000100	<0.000100	<0.000106
Benzo (a) pyrene	0.0002	0.0002	<0.000186	<0.000176	<0.000184	<0.000195	<0.000166	<0.000166	<0.000176
Benzo (b) fluoranthene	0.0013	0.0013	<0.000127	<0.000120	<0.000126	<0.000133	<0.000114	<0.000114	<0.000120
Benzo (a,h) acridine	N/A	N/A	<0.000779	<0.000734	<0.000769	<0.000815	<0.000696	<0.000696	<0.000734
Benzo (g,h,i) perylene	0.73	0.73	<0.000578	<0.000546	<0.000571	<0.000606	<0.000517	<0.000517	<0.000546
Benzo (k) fluoranthene	0.013	0.013	<0.000120	<0.000113	<0.000119	<0.000126	<0.000107	<0.000107	<0.000113
Dibenzo (a,e) pyrene	0.00013	0.00013	<0.000681	<0.000642	<0.000672	<0.000713	<0.000608	<0.000608	<0.000642
Dibenzo (a,h) pyrene	0.000013	0.000013	<0.000485	<0.000458	<0.000479	<0.000508	<0.000434	<0.000434	<0.000458
Dibenzo (a,i) pyrene	0.000013	0.000013	<0.000468	<0.000441	<0.000462	<0.000490	<0.000418	<0.000418	<0.000441
7H-Dibenzo (c,g) carbazole	N/A	N/A	<0.000468	<0.000529	<0.000553	<0.000587	<0.000501	<0.000501	<0.000529
Chrysene	0.13	0.13	<0.000561	<0.000330	<0.000345	<0.000366	<0.000313	<0.000313	<0.000330
Dibenz (a,h) anthracene	0.00013	0.00013	<0.000350	<0.000193	<0.000202	<0.000215	<0.000183	<0.000183	<0.000193
Dibenzo (a,j) acridine	0.0013	0.0013	<0.000205	<0.000153	<0.000160	<0.000170	<0.000145	<0.000145	<0.000153
Dibenzofuran	0.098	0.098	<0.000163	<0.000141	<0.000184	<0.000195	<0.000166	<0.000134	<0.000176
Fluoranthene	0.98	0.98	<0.000150	<0.000176	<0.000148	<0.000157	<0.000134	<0.000166	<0.000141
Fluorene	0.98	0.98	<0.000186	<0.000106	<0.000110	<0.000117	<0.000100	<0.000100	<0.000106
Indeno (1,2,3-cd) pyrene	0.0013	0.0013	<0.000112	<0.000114	<0.000120	<0.000127	<0.000108	<0.000108	<0.000114
Naphthalene	0.49	0.49	<0.000203	<0.000191	<0.000200	<0.000212	<0.000181	<0.000181	<0.000191
Phenanthrene	0.73	0.73	<0.000201	<0.000190	<0.000199	<0.000211	<0.000180	<0.000180	<0.000190
Pyrene	0.73	0.73	<0.000170	<0.000160	<0.000167	<0.000178	<0.000152	<0.000152	<0.000160

Bold Text in Cell = Chemical Detected in Sample Analysis

Yellow Shaded Cell = Chemical Exceeds Ingestion PCL

**TABLE E-10**  
**GROUNDWATER ANALYTICAL RESULTS - PAH**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

			Sample Results (mg/L)			
Sample Date:			10/1/2015		10/2/2015	
COC	Tier 1 Critical PCL without MSD - Ingestion PCL (GW <sub>Ing</sub> )	Tier 1 Groundwater PCL with MSD - Non Ingestion PCL (Air <sub>GW<sub>Inh-v</sub></sub> )	MW-8	MW-9	MW-10	MW-11
Acenaphthene	1.5	1.5	<0.000139	<0.000154	<0.000147	Well Dry
Acenaphthylene	1.5	1.5	<0.000118	<0.000131	<0.000125	
Anthracene	7.3	7.3	<0.000217	<0.000241	<0.000229	
Benzo (j) fluoranthene	0.0013	0.0013	<0.000412	<0.000458	<0.000436	
Benzo (a) anthracene	N/A	N/A	<0.000106	<0.000117	<0.000112	
Benzo (a) pyrene	0.0002	0.0002	<0.000176	<0.000195	<0.000186	
Benzo (b) fluoranthene	0.0013	0.0013	<0.000120	<0.000133	<0.000127	
Benzo (a,h) acridine	N/A	N/A	<0.000734	<0.000817	<0.000778	
Benzo (g,h,i) perylene	0.73	0.73	<0.000546	<0.000607	<0.000578	
Benzo (k) fluoranthene	0.013	0.013	<0.000113	<0.000126	<0.000120	
Dibenzo (a,e) pyrene	0.00013	0.00013	<0.000642	<0.000714	<0.000680	
Dibenzo (a,h) pyrene	0.000013	0.000013	<0.000458	<0.000509	<0.000485	
Dibenzo (a,i) pyrene	0.000013	0.000013	<0.000441	<0.000490	<0.000467	
7H-Dibenzo (c,g) carbazole	N/A	N/A	<0.000529	<0.000588	<0.000468	
Chrysene	0.13	0.13	<0.000330	<0.000367	<0.000560	
Dibenz (a,h) anthracene	0.00013	0.00013	<0.000193	<0.000215	<0.000349	
Dibenzo (a,j) acridine	0.0013	0.0013	<0.000153	<0.000170	<0.000205	
Dibenzofuran	0.098	0.098	<0.000141	<0.000195	<0.000162	
Fluoranthene	0.98	0.98	<0.000176	<0.000157	<0.000149	
Fluorene	0.98	0.98	<0.000106	<0.000117	<0.000186	
Indeno (1,2,3-cd) pyrene	0.0013	0.0013	<0.000114	<0.000127	<0.000112	
Naphthalene	0.49	0.49	<0.000191	<0.000212	<0.000202	
Phenanthrene	0.73	0.73	<0.000190	<0.000211	<0.000201	
Pyrene	0.73	0.73	<0.000160	<0.000178	<0.000169	

Bold Text in Cell = Chemical Detected in Sample Analysis  
Yellow Shaded Cell = Chemical Exceeds Ingestion PCL

**TABLE E-11**  
**SEDIMENT ANALYTICAL RESULTS - METALS (LEACHATE)**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SEDIMENT ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>GW<sub>Ing</sub>)</b>		<b>0.01</b>	<b>2</b>	<b>0.005</b>	<b>0.1</b>	<b>0.015</b>	<b>0.002</b>	<b>0.05</b>	<b>0.12</b>
<b>Tier 1 Critical PCL with MSD - Non-Ingestion PCL (<sup>Air</sup>GW<sub>Inh-v</sub>)</b>		<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>7.3</b>	<b>N/A</b>	<b>N/A</b>
Sed-1	10/21/2015	<0.002	<b>0.158</b>	<0.001	<b>0.05</b>	<0.004	<0.0002	<0.002	<0.001
Sed-2	10/21/2015	<0.002	<b>0.081</b>	<0.001	<b>0.009</b>	<0.004	<0.0002	<0.002	<0.001
Sed-3	10/21/2015	<0.002	<b>0.084</b>	<0.001	<b>0.01</b>	<0.004	<0.0002	<0.002	<0.001
Sed-4	10/21/2015	<0.002	<b>0.11</b>	<0.001	<b>0.016</b>	<b>0.005</b>	<0.0002	<0.002	<0.001
Sed-5	10/21/2015	<0.002	<b>0.072</b>	<0.001	<b>0.012</b>	<0.004	<0.0002	<0.002	<0.001
Sed-6	10/21/2015	<0.002	<b>0.082</b>	<0.001	<b>0.004</b>	<0.004	<0.0002	<0.002	<0.001
Sed-7	10/21/2015	<0.002	<b>0.074</b>	<0.001	<b>0.006</b>	<0.004	<0.0002	<0.002	<0.001
Sed-8	10/21/2015	<b>0.008</b>	<b>0.129</b>	<0.001	<b>0.04</b>	<b>0.008</b>	<0.0002	<b>0.002</b>	<0.001
Bold Text in Cell = Chemical Detected in Sample Analysis Shaded Cell = Metal Exceeds Ingestion PCL									

## **APPENDIX F**

### **STATEMENT REGARDING OFF-SITE PLUME MIGRATION AND AFFECTED PROPERTIES**

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Not Applicable.

Groundwater PCLE Zones in shallow groundwater have been delineated on-site in the down-gradient, up-gradient, and side-gradient directions and appear to be wholly contained on the site property.

## APPENDIX G

### STATEMENT REGARDING PLUME STABILITY

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Impacts in shallow groundwater appear localized to the north-central portion of the Designated Property at 1880 Valley View Lane (West Tract). The soil impact is primarily in the surficial top one-half (½) foot depth range on the central and south central portions of the Designated Property.

Arsenic in groundwater is the only COC currently exceeding the groundwater ingestion PCL. PCL exceedances are inconsistent with low level fluctuations and overall trends in all but one (1) well indicative of a stable plume. The highest arsenic concentration in monitoring well (MW-9) occurred during the most recent sampling event and is indicative of an unstable plume but groundwater concentrations are very low and the overall plume size has been contracting. Groundwater concentrations in MW-9 are inconsistent and could be the result of excessive turbidity in groundwater samples.

Vinyl chloride and cadmium in groundwater historically exceeded the groundwater ingestion PCL during one (1) individual sampling event following initial well installation but have been below groundwater ingestion PCLs during subsequent sampling events. Vinyl chloride has contracted and not been detected in any groundwater samples for the past four (4) sampling events. Cadmium concentrations have been below groundwater ingestion PCLs for the past three (3) sampling events and concentrations appear stable. Cadmium was detected in two (2) samples during the past three sampling events but detections were based on estimated values (“J” flag) and concentrations did not exceed method quantitation limits (MQLs).

The horizontal distribution of the arsenic plume has been fully defined on the Site property. The vertical extent of the plume is confined by the underlying aquitard (Eagle Ford Shale). Vertical migration of constituents is also limited by the relatively impermeable clay soils on the Site. Given the presence of the underlying Eagle Ford aquitard, the plume is considered stable in a vertical perspective.

Battery manufacturing operations on the property ceased in September 2000 (over 16 years ago) and the facility closed in 2001. The facility had been completely vacated by September 2002 with site structures having been demolished by 2010. Based on correspondence with City of Farmers Branch personnel, it is understood that some soil excavation occurred following demolition of site structures but excavation and disposal documentation was not available. Given this fact and the passage of time, the plume is considered stable.

## APPENDIX H

### STATEMENT REGARDING EXCEEDANCE OF RESIDENTIAL ASSESSMENT LEVEL WITHOUT MSD

Arsenic, cadmium, and vinyl chloride impacts in shallow groundwater on the Site, as indicated from sampling events, exceeded the TRRP Tier 1 Residential Assessment Levels (RALs) without an MSD for the COCs. The maximum arsenic, cadmium, and vinyl chloride in groundwater are presented on Table H-1 and maximum metals concentrations in soils are presented in Table H-2 below. Refer to Tables E-1, E-2, E-3, E-4, E-5, E-6, and E-7 for all reported soil concentrations and Tables E-8, E-9, E-10, and E-11 for all reported groundwater concentrations (contained in Appendix E).

Table H-1: Groundwater COCs exceeding Residential Assessment Level (RAL) without an MSD

Constituent of Concern	Maximum Concentration (mg/L)	Sample Date	Sample Location	Residential Assessment Level (mg/L)	
Arsenic	<b>0.026</b>	10/2/2015	MW-4	0.01	<sup>GW</sup> GW <sub>Ing</sub>
Cadmium	<b>0.025</b>	10/2/2015	MW-10	0.005	<sup>GW</sup> GW <sub>Ing</sub>
Vinyl Chloride	<b>0.0073</b>	8/18/14	MW-2	0.002	<sup>GW</sup> GW <sub>Ing</sub>

The volatile organic compounds (VOCs) cis-1,2-dichloroethene (cis-DCE), trans-1,2-dichloroethene (trans-DCE), and 1,2,3-trichlorobenzene were the only other volatiles detected in groundwater and all three chemicals were present in groundwater below residential PCL benchmarks. The chemical cis-1,2-DCE was present in groundwater in three of the thirteen monitoring wells during the two (2) initial sampling events and has not been detected during the past three (3) sampling events. Trans-1,2-DCE and 1,2,3-trichlorobenzene were present during only one sampling event. None of these chemicals exceeded their respective <sup>GW</sup>GW<sub>Ing</sub> PCLs.

Based on a Class 1 Groundwater Resource (Class 2 Groundwater encountered on the site defaults to Class 1 Groundwater) designation and groundwater gradient direction, it is estimated groundwater in excess of the <sup>GW</sup>GW<sub>Ing</sub> PCL for arsenic and cadmium would be wholly contained within the site property and would not extend beyond the property boundary.

Concentrations of metals in soils exceeded the RAL for arsenic, barium, cadmium, lead, and silver. COC impacts to soil were evaluated against Tier 1 Ingestion PCLs and Texas Background Specific Concentrations (TSBC), where applicable. RALs for metals in soil are based on the higher of the Tier 1 Ingestion PCL (<sup>GW</sup>Soil<sub>Class1</sub>) and the TSBC. The primary COCs exceeding the RAL in soil are “lead” and “arsenic” with isolated RAL exceedances for barium, cadmium, and silver. The area of lead impact in soil exceeding the RAL occurs in shallow surficial soils located on the south-central portion of the property and appears to be wholly

contained within the site property. The area of arsenic impact in soil exceeding the RAL appears to occur sporadically throughout the property with variability in samples. The occurrence of arsenic tends to be naturally occurring in the area with many of the exceedances occurring in samples collected from the underlying shale unit. The occurrence of elevated arsenic levels within the Eagle Ford shale unit tends to be common in the DFW area based on experience. Barium and cadmium exceedances were isolated to single individual samples with exceedances being delineated vertically and horizontally on the property. Silver exceedances were limited to the southern portion of the property in the former impoundment pit locations. Cadmium and silver can be screened from being a regulatory concern based on synthetic precipitate leaching procedure (SPLP) analysis which indicates COC leaching to groundwater would be below RALs and groundwater not affected by cadmium or silver impacts.

Chemical contaminants from VOCs were detected in two soil samples, but neither exceeded the RAL. The non-detect soil VOC concentrations on the Site were below RALs without an MSD.

Table H-2: Soil constituents exceeding RAL without a MSD

Chemical of Concern	Maximum Detected Concentration (mg/kg)	Sample Date	Sample Location	Residential Assessment Level (RAL)	
				Concentration (mg/kg)	Pathway
Arsenic	14.1	9/23/2015	MW-8 (3')	5.9*	TSBC
Barium	466	9/23/2015	B-4 (6')	440* <sup>1</sup>	<sup>GW</sup> Soil <sub>Class1</sub>
Cadmium	2.26	9/23/2015	B-8 (4.5')	1.5*	<sup>GW</sup> Soil <sub>Class1</sub>
Lead	348.7	10/8/2015	V6-C	15*	TSBC
Silver	3.905	9/6/2016	MW-12 (12.5')	0.48* <sup>1</sup>	<sup>GW</sup> Soil <sub>Class1</sub>

\* RAL based on the higher of the Tier 1 IPCL or Texas-Specific Background Concentration (TSBC).

<sup>1</sup> Metal can be screened from regulatory concern based on SPLP results and lack of groundwater impact.

Refer to Tables E-1, E-2, E-3, E-4, E-5, E-6, and E-7 in Appendix E for all reported soil concentrations.

## APPENDIX I

### STATEMENT REGARDING EXCEEDANCE OF RESIDENTIAL ASSESSMENT LEVEL WITH THE MSD

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COCs in groundwater on the Site will not exceed the TRRP Tier 1 Residential Assessment Levels (RALs) with a MSD. RALs for groundwater with an MSD would be based on the inhalation of vapors from affected groundwater (<sup>Air</sup>GW<sub>Inh-v</sub>) PCL. This statement is based on the current data (see Tables E-8, E-9, E-10 in Appendix E and Table I-1 below). In addition, no new release of COCs to soil and groundwater are anticipated since the source of impact (battery manufacturing operations) ceased operations over 16 years ago and all site structures were demolished over 6 years ago.

The identified groundwater contamination has been accurately documented in groundwater monitoring wells located on the Site, and no soil or groundwater quality information is available beyond the Site. Based on the degree and extent of contamination at the Site and the physical characteristics (geology and groundwater flow) observed on the Site, COCs are unlikely to exceed the Tier 1 RALs with an MSD beyond the boundaries of the Designated Property.

COCs in soil on the site will not exceed the TRRP Tier 1 RALs with an MSD. RALs for soil with an MSD would be based on total soil combined (<sup>Tot</sup>Soil<sub>Comb</sub>) PCLs. Refer to Tables E-1, E-2, E-3, E-5, and E-6 in Appendix E for all reported soil concentrations.

Table I-1: COCs in groundwater exceeding RALs with a MSD

Constituent of Concern	Maximum Concentration (mg/L)	Sample Date	RAL with MSD (mg/L)
Arsenic	0.026 (MW-4)	10/2/15	N/A
Cadmium	0.025 (MW-10)	10/2/15	N/A
Vinyl Chloride	0.0073 (MW-2)	10/1/15	3.8

## APPENDIX J

### ORIGIN OF CONTAMINATION

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The suspected source of arsenic, cadmium, and vinyl chloride contamination in groundwater appear to be related to former manufacturing of lead automotive batteries on the Site as suggested in the Phase I Environmental Site Assessment report issued by EnviroPhase on May 29, 2015. Results of a Phase II Limited Subsurface Investigation Report prepared by EnviroPhase on November 6, 2015 indicated that groundwater was impacted by metals. Arsenic and cadmium were identified as the primary chemicals of concern. The soils at the Site are impacted with arsenic, barium, cadmium, lead, and silver at levels which exceed RALs.

The Site was occupied by a lead battery manufacturing company from approximately the early 1970's to the early 2000's. During that time frame, the facility was owned by the following entities: Gould, Inc., GNB, Inc., and Exide Technologies, respectively. There is no confirmation information that these facilities used tetrachloroethene (PCE) or trichloroethene (TCE) as a general solvent but the presence of TCE and the breakdown chemicals cis-1,2-dichloroethene (cis-DCE), trans-1,2-dichloroethene (trans-DCE), and vinyl chloride in soil and/or groundwater on-site would seem to suggest the presence of an on-site source. Metals impacts to soils are anticipated to be the result of lead automotive battery manufacturing activities although arsenic impacts to soil are typical of natural background levels common in the DFW area.

**APPENDIX K**  
**ENVIRONMENTAL REGULATORY ACTIONS IN**  
**CONNECTION WITH THE PROPERTY**

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The Applicant submitted an application for enrollment into the Voluntary Cleanup Program (“VCP”) and intends to seek regulatory closure for the “Site” property at 1880 Valley View Lane (west Tract) under Texas Risk Reduction Program Remedy Standard A (30 Tex. Admin. Code § 350.34(2)). The TCEQ responded with a letter dated September 7, 2016 indicating site is eligible for the VCP and issuing VCP ID No. 2832 to the Site property.

The TCEQ response letter dated September 7, 2016, also requesting the submittal of an Affected Property Assessment Report (APAR) along with a Response Action Completion Report (RACR). EnviroPhase responded with an extension request for APAR and RACR submittal, which the TCEQ granted. The Affected Property Assessment Report (APAR) was eventually submitted to the TCEQ in April 2017.

The applicant also submitted a Self-Implementation Notice to the TCEQ along with the VCP Application. The TCEQ responded with a letter dated October 14, 2016 to which EnviroPhase responded with a letter dated November 14, 2016. The TCEQ again responded with a letter dated February 1, 2017 concurring with most comments provided in EnviroPhase response letter dated October 14, 2016. After further discussions with the TCEQ concerning applicability of Remedy Standard A or B for Self-Implementation sites with an MSD, it was determined that EnviroPhase would submit a response to TCEQ letter dated February 1, 2017 requesting retraction of the Self-Implementation Notice and closure under Remedy Standard B pursued.

No other regulatory actions have occurred in connection with the Designated Property during the past five (5) years.

Historical regulatory involvement (more than 5 years ago) included EPA enforcement actions and oversight.

Response actions are related to arsenic impacts to groundwater in the first shallow groundwater bearing zone. Shallow groundwater was encountered above competent bedrock at depths of less than 25 feet below ground surface (bgs). The depth to groundwater was from 12 to 15 feet bgs.

## APPENDIX L

### TCEQ and US EPA REGISTRATION, PERMITS, and ID NUMBERS IN CONNECTION WITH THE SITE

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#### TCEQ Voluntary Cleanup Program

**Registered Entity:** 1880 Valley View Lane  
**Customer Name:** CADG Mercer Crossing Holdings, LLC  
**Customer Number:** CN605204817  
**Registered Entity:** RN100857267  
**VCP # 2832**

#### TCEQ Industrial Hazardous Waste

**Registered Entity:** 1880 Valley View Lane  
**Customer Name:** Exide Technologies  
**Customer Number:** CN600129787  
**Registered Entity:** RN100857267  
**IHW # 31697**  
**EPA ID: TXD007331879**

#### TCEQ Wastewater Permit

**Registered Entity:** 1880 Valley View Lane  
**Customer Name:** GNB Batteries Incorporated  
**Customer Number:** CN602455305  
**Registered Entity:** RN100857267  
**ID # WQ0001988000**

#### TCEQ Leaking Petroleum Storage Tanks Remediation

**Registered Entity:** 1880 Valley View Lane  
**Customer Name:** GNB, Inc.  
**Customer Number:** CN601171176  
**Registered Entity:** RN100857267  
**LPST ID # 98730**

#### TCEQ Petroleum Storage Tanks Registration

**Registered Entity:** 1880 Valley View Lane  
**Customer Name:** GNB Technologies Inc.  
**Customer Number:** CN600129779  
**Registered Entity:** RN100857267  
**PST ID # 29398**

**TCEQ Stormwater Permit**

**Registered Entity:** 1880 Valley View Lane  
**Customer Name:** Edina Park Plaza Associates Limited Partnership  
**Customer Number:** CN604537431  
**Registered Entity:** RN100857267  
**ID # TXR15ZP42**

The Designated Property currently has no US EPA registration number and no known permits from TCEQ or the City of Farmers Branch.

## **APPENDIX M**

### **STATEMENT REGARDING PROPERTY'S PARTICIPATION IN STATE/FEDERAL ENVIRONMENTAL PROGRAMS**

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The Applicant submitted an application for enrollment into the Texas Commission on Environmental Quality ("TCEQ") Voluntary Cleanup Program ("VCP") for the Site property at 1880 Valley View Lane (West Tract). The TCEQ responded to the VCP Application in a letter dated September 7, 2016 accepting the site into the VCP and issued VCP ID No. 2832 to the Site property. The TCEQ assigned Joe Bell as the VCP Project Manager.

The applicant also submitted a Self-Implementation Notice to the TCEQ along with the VCP Application. After further discussions with the TCEQ concerning applicability of Remedy Standard A or B for Self-Implementation sites with an MSD, EnviroPhase submitted a letter to the TCEQ requesting withdrawal of the Self-Implementation Notice and indicting closure under Remedy Standard B would be pursued.

## Appendix M

### ADDITIONAL INFORMATION

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Tab

- 1 TCEQ VCP Acceptance Letter dated September 7, 2016  
TCEQ Comment Letter dated October 14, 2016  
EnviroPhase Letter dated November 14, 2016 in response to TCEQ dated October 14, 2016  
TCEQ Letter dated February 1, 2017 in response to EnviroPhase Letter dated November 14, 2016  
EnviroPhase Letter dated April 21, 2017 in response to TCEQ dated February 1, 2017

Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Jon Niermann, *Commissioner*  
Richard A. Hyde, P.E., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

September 7, 2016

Mr. Mehrdad Moayedi, Manager  
CADG Mercer Crossing Holdings, LLC  
1800 Valley View Lane, Ste. 300  
Farmers Branch, TX 75234

Re: Voluntary Cleanup Program (VCP) Application and Agreement Acceptance for the Former GNB-Exide Battery site located at 1880 Valley View Lane, Farmers Branch, Dallas County, TX; VCP No. 2832; Regulated Entity No. RN100857267; Customer No. CN605204817

Dear Mr. Moayedi:

The Texas Commission on Environmental Quality (TCEQ) has received your VCP Application and supplemental environmental information submitted pursuant to §361.604 of the Texas Solid Waste Disposal Act for assistance and review of site investigation and cleanup activities for the above-referenced site. After careful review, the application is determined to be administratively complete, and is eligible for the VCP. Enclosed for your records is a signed copy of the VCP Agreement. Mr. Joe Bell has been assigned as the project manager for this site. Based on the VCP Agreement submittal schedule, the Affected Property Assessment Report and the Response Action Completion Report will be due by December 31, 2017 and quarterly status reports will be due by the 15<sup>th</sup> day following each three-month quarter beginning November 15, 2016.

Please reference VCP No. 2832 on the front of any future letters or reports. Future submittals should be mailed to the TCEQ, VCP-CA Section, mail code MC-221, at the letterhead address. Please feel free to contact Mr. Joe Bell if you have any questions by email at [joseph.bell@tceq.texas.gov](mailto:joseph.bell@tceq.texas.gov) or by phone at (512) 239-6753.

Sincerely,

A handwritten signature in black ink, appearing to read "Merrie Smith".

Merrie Smith, P.G., Section Manager  
VCP-CA Section  
Remediation Division

MS/DC/jdm

Enclosure: Executed VCP Agreement

cc: Mr. Kevin Almaguer, PG, EnviroPhase Inc., 1708 N. Griffin Street, Dallas, TX 75202 ✓  
Mr. Sam Barrett, Waste Section Manager, TCEQ Fort Worth/Dallas Regional Office, R-4

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • [tceq.texas.gov](http://tceq.texas.gov)

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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
VOLUNTARY CLEANUP PROGRAM AGREEMENT

INTRODUCTION

This Agreement is entered into voluntarily by CADG Mercer Crossing Holdings, LLC (Applicant) and the executive director of the Texas Commission on Environmental Quality (TCEQ). This Agreement is not and shall not be construed as an admission of any liability under the Texas Solid Waste Disposal Act or any other law or as a waiver of any defense to such liability. No approval hereunder or receipt of funds hereby shall be taken as a warranty as to sufficiency or efficacy of the response action. The purpose of this Agreement is to detail the obligations and functions of each party, related to the voluntary response action process at the Former GNB/Exide Battery (Site), Voluntary Cleanup Program (VCP) No. ~~Pending~~ GM #2832 9/6

The activities conducted by the Applicant under this Agreement are subject to approval by TCEQ. The activities conducted by the Applicant shall be consistent with this Agreement, all applicable laws and regulations and any appropriate guidance documents. Applicant shall employ sound scientific, engineering and construction practices.

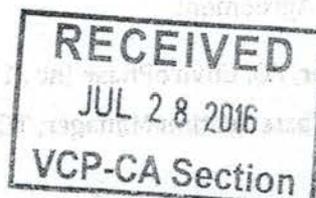
STATEMENT OF ELIGIBILITY

The executive director has determined that the application submitted by the Applicant is complete and that the Site is eligible to participate in the VCP established under Subchapter S of Chapter 361 of the Health and Safety Code (HSC). If the TCEQ determines that the Applicant withheld or misrepresented information that would be relevant to the Site's eligibility, the executive director may exercise his/her right to withdraw from this Agreement.

PARTIES BOUND

This Agreement shall apply to and be binding upon the Applicant, its officers, directors, principals, employees, receivers, trustees, agents, successors, subsidiaries over which the Applicant exercises control and assigns and upon the TCEQ, its employees, agents, assigns and successors. The signatories to this Agreement certify that they are fully authorized to execute and legally bind the parties they represent. No change in ownership, corporate, or partnership status of the Applicant shall in any way alter its status or responsibilities under this Agreement unless Applicant or TCEQ withdraws from this Agreement.

The Applicant shall provide a copy of this Agreement to any subsequent business owners or successors before ownership rights are transferred. If the Applicant is also the owner of the Site, the Applicant shall provide a copy of this Agreement to prospective purchasers of the Site prior to transfer of title. The Applicant shall provide a copy of this Agreement to all contractors and consultants who are retained to conduct any work performed under this Agreement, within 14 days after the effective date of this Agreement or within 14 days after the date of retaining their services, whichever is later.



## DEFINITIONS

"Site" means the area described in the VCP application, attached and incorporated herein as Exhibit "A" or, if the executive director approves the Applicant's request to address a partial response action area, then only that portion (i.e., the partial response action area) of the area described in Exhibit "A."

## ADDRESSES FOR ALL CORRESPONDENCE

Documents, including reports, approvals, notifications, disapprovals, and other correspondence to be submitted under this Agreement, may be sent by certified mail, return receipt requested, hand delivery, overnight mail or by courier service to the following addresses or to such addresses as the Applicant or TCEQ may designate in writing.

Documents to be submitted to TCEQ should be sent to:

### Mailing Address

Mr. Joe Bell, Project Manager  
VCP-CA Section, MC-221  
P.O. Box 13087  
Austin, TX 78711-3087

### Overnight/Express Mail Address

Mr. Joe Bell, Project Manager  
VCP-CA Section, MC-221  
12100 Park 35 Circle  
Austin, TX 78753

Documents to be delivered to the Applicant should be sent to (include name, address and phone number):

Mehrdad Moayed  
CADG Mercer Crossing Holdings, LLC  
1800 Valley View Lane  
Farmers Branch, TX 75234  
817-287-9009

Kevin W. Almaguer  
EnviroPhase, Inc.  
1708 N. Griffin Street  
Dallas, TX 75202  
214-392-7179

## COMPLIANCE WITH APPLICABLE LAWS

All work undertaken by the Applicant pursuant to this Agreement shall be performed in compliance with all applicable federal, state and local laws, ordinances and regulations, including, but not limited to, all Occupational Safety and Health Administration, Department of Transportation and Resource Conservation and Recovery Act regulations. In the event of a conflict in the application of federal, state, or local laws, ordinances and regulations, the Applicant shall comply with the more/most stringent such laws, ordinances, or regulations, unless authorized otherwise in writing by TCEQ. Federal requirements shall be followed if they are the more/most stringent. However, as provided by HSC, Section 361.611 a state or local permit shall not be required, although the Applicant must coordinate with ongoing federal and state hazardous waste programs and must comply with the substantive requirements of an otherwise required state permit. Where it is determined that a permit is required under federal law, the Applicant shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. The Applicant shall be responsible for obtaining all federal permits which are necessary for the performance of any work hereunder.

APPLICABLE RULES AND REGULATIONS

The VCP rules, 30 Texas Administrative Code (TAC) 333, Subchapter A and the following rules or regulations are specifically designated as being directly applicable for the Site and must be followed. Citation of these rules does not imply that they are the only applicable rules.

- 30 TAC 350 (Texas Risk Reduction Program Rules - TRRP)
- 30 TAC 334 (Petroleum Storage Tank Rules)
- Other \_\_\_\_\_

SUBMITTALS AND SCHEDULES

The following plans and reports were included with the VCP application, in this Agreement, or have been added by amendment to this Agreement:

- Phase I Environmental Site Assessment (ESA)
- Phase II/Limited Phase II ESA
- Affected Property Assessment Report - Texas Risk Reduction Program (TRRP) Rules
- Response Action Plan (TRRP)
- Other: Self-Implementation Notice

In compliance with the aforementioned rules or regulations, the required submittals shall include a monthly status report, which describes all activities completed for the current month and those planned for the upcoming month. In order to complete the voluntary cleanup activities which are necessary for Certificate of Completion issuance, the following plans and reports will be submitted according to the schedule specified below (put anticipated date of submittal of report in blanks or NA if not applicable):

TRRP Submittals:

Affected Property Assessment Report and RACR ~~December 2017~~ December 29, 2017 *dk*

Response Action Plan N/A

Response Action Completion Report Submit with APAR

Response Action Effectiveness Reports N/A

Post-Response Action Completion Reports N/A

*Quarterly* ~~Monthly~~ Status Report will be submitted by the 15 of each month, following each quarter *dk*

Other reports (or indicate if attached Exhibit B): beginning Nov. 15, 2016

If the Applicant is self-implementing to Remedy Standard A, a completed TCEQ Form 10323 (Self-Implementation Notice) must be attached to this Agreement. If the Applicant is self-implementing, TCEQ will not review or comment on site-specific issues submitted by the Applicant prior to submittal of the Response Action Completion Report (RACR) or the Response Action Effectiveness Report if the RACR has not been previously submitted.

Petroleum Storage Tank Submittals:

- Release Determination Report (TCEQ-0621) \_\_\_\_\_
- Assessment Report Form (TCEQ-0562) \_\_\_\_\_
- Plan B Risk Assessment Report \_\_\_\_\_
- Corrective Action Plan Worksheets (TCEQ-0707) \_\_\_\_\_
- Operation, Monitoring and Performance Report Form (TCEQ-0696) \_\_\_\_\_
- Site Closure Request Form (TCEQ-0028) \_\_\_\_\_
- Other Reports (or indicate if attached Exhibit B): \_\_\_\_\_

The TCEQ may terminate this Agreement if:

- 1) the aforementioned submittals are not submitted by the time frames stated above unless TCEQ approves an Applicant's revised schedule; or
- 2) responses to TCEQ comments on the aforementioned submittals are not submitted in accordance with time frames provided in TCEQ comments letters.

Proposed future land use to be achieved:

- Residential (i.e., unrestricted)
- Non-residential (i.e., commercial/industrial)
- Other (e.g., agricultural or recreational) \_\_\_\_\_

**DESIGNATED PROJECT MANAGER**

On or before the effective date of this Agreement, the TCEQ and the Applicant shall each designate a project manager. Each project manager shall be responsible for overseeing the implementation of this Agreement. The TCEQ project manager will be the TCEQ- designated representative at the Site. To the maximum extent possible, communications between the Applicant and TCEQ and all documents (including reports, approvals and other correspondence) concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the project managers. During implementation of this Agreement, the respective project managers shall whenever possible, operate by consensus and shall attempt in good faith to resolve disputes informally through discussion of the issues. Each party has the right to change its respective project manager by notifying the other party in writing at least five days prior to the change.

**ACCESS**

To the extent that the Site or other areas where work is to be performed hereunder is presently owned or controlled by parties other than those bound by this Agreement, the Applicant shall obtain, or shall use its best efforts to obtain access agreements from the present owners. Best efforts shall include at a minimum, a certified letter from Applicant to the present owner of such property requesting an access agreement to permit Applicant, TCEQ, their authorized representatives and persons designated by the TCEQ in accordance with HSC, Section 361.752(c) access to such property. Any such access agreement shall be incorporated by reference into this Agreement. Such an agreement shall provide access for Applicant, TCEQ and authorized representatives of TCEQ, and persons designated by the TCEQ in accordance with

HSC, Section 361.752(c), as specified below. In the event that such access agreement is not obtained, the Applicant shall so notify TCEQ, which may then, at its discretion, assist the Applicant in gaining access.

The Applicant shall provide authorized representatives of TCEQ access to the Site and other areas where work is to be performed at all reasonable times. Such access shall be related solely to the work being performed on the Site and shall include, but not be limited to inspecting records, operating logs and contracts related to the Site; reviewing the progress of the Applicant in carrying out the terms of this Agreement; conducting such tests, inspections, and sampling as TCEQ may deem necessary; using a camera, sound recording, or other documentary type equipment for field activities; and verifying the data submitted to TCEQ by the Applicant hereunder. The Applicant shall permit TCEQ's authorized representatives to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, which pertain to this Agreement and over which the Applicant may exercise control. All persons with access to the Site pursuant to this Agreement shall comply with submitted health and safety plans. The TCEQ does not approve health and safety plans.

#### DISPUTE RESOLUTION

This section (Dispute Resolution) shall apply to any dispute arising under any section of this Agreement, unless specifically excepted. It should be noted, that as provided for in HSC, Section 361.607, the executive director or the Applicant in its sole discretion may terminate the Agreement by giving 15 days advanced written notice to the other.

The parties shall use their best effort to, in good faith; resolve all disputes or differences of opinion informally. If, however, disputes arise concerning this Agreement which the parties are unable to resolve informally, the Applicant may present written notice of such dispute to TCEQ and set forth specific points of dispute and the position of the Applicant. This written notice shall be submitted no later than five calendar days after the Applicant discovers the project managers are unable to resolve the dispute. The Applicant's project manager shall notify the TCEQ's project manager immediately by phone or other appropriate methods of communication prior to written notice, when he/she believes the parties are unable to resolve a dispute. Within ten days of receipt of such a written notice, the TCEQ will provide a written response to the Applicant setting forth its position and the basis therefore. During the five calendar days following the receipt of the response, the parties shall attempt to negotiate in good faith a resolution of their differences. If during this negotiation period, the TCEQ concurs with the position of the Applicant, the Applicant will be notified in writing and this Agreement shall be modified to include any necessary extensions of time or variances of work.

Following the expiration of the previously described time periods, if no resolution of the disputed issue(s) has been reached, the executive director shall make a determination regarding the dispute, based upon and consistent with the terms of this Agreement and will provide written documentation of such determination to the Applicant.

At this juncture, if dispute resolution fails and either or both parties exercise their right to withdraw from the Agreement by giving 15 days advance written notice to the other, only those costs incurred or obligated by the TCEQ before notice of termination of the Agreement are recoverable under the Agreement.

## RESERVATION OF RIGHTS

TCEQ and Applicant reserve all rights and defenses they may have pursuant to any available legal authority unless expressly waived herein.

Nothing herein is intended to release, discharge, or in any way affect any claims, causes of action or demands in law or equity which the parties may have against any person, firm, partnership or corporation, not a party to this Agreement for any liability it may have arisen out of, or relating in any way to the generation, storage, treatment, handling, transportation, release or disposal of any materials, hazardous substances, hazardous waste, contaminants or pollutants at, to or from the Site. The parties to this Agreement expressly reserve all rights, claims, demands, and causes of action they have against each other, and against any and all other persons and entities who are not parties to this Agreement.

The Applicant reserves the right to seek contribution, indemnity, or any other available remedy against any person other than TCEQ found to be responsible or liable for contribution, indemnity or otherwise for any amounts which have been or will be expended by the Applicant in connection with the Site.

During the term of this Agreement, TCEQ will not bring an enforcement action against Applicant for any violations of statutes or regulations for the specific violations or releases that are being remediated by this Agreement, unless the Applicant or TCEQ withdraws from this Agreement prior to completion of the response action. However, a responsible party remains liable for contamination should response action standards change or additional contamination be discovered. Non-responsible party Applicants have a release from liability upon issuance of the Certificate of Completion subject to statutory conditions in Section 361.610(c) HSC.

## ADMINISTRATIVE COSTS

Applicant A, unless indicated otherwise in Exhibit "A", agrees to reimburse TCEQ for all of its costs associated with implementation of this Agreement. TCEQ's costs may include direct and indirect costs of overhead, salaries, equipment, utilities, legal, management and support costs associated with the review of the Applicant's work plans and reports and oversight of field activities.

The TCEQ will track all costs to the TCEQ for review and oversight activities related to the Site and provide monthly invoices to the person responsible, per this Agreement for said costs. If TCEQ costs are less than the application fee of one thousand (\$1,000) dollars, the remaining balance in the Site account will not be refunded. The Applicant shall pay these invoiced costs to the TCEQ within 30 days after the date the Applicant receives notice that these costs are due and owing. If payment is not made within 30 days after the date the second notice that these costs are due and owing is sent, the TCEQ will stop reviewing any site-related submittals. If payment is not made within 30 days after the date the third notice is sent, the TCEQ shall terminate this Agreement and request that the attorney general bring action to recover all costs allowed by law.

Checks shall be made payable to the Texas Commission on Environmental Quality and be mailed along with a transmittal letter stating the Site name, VCP number, and addressed to the Texas Commission on Environmental Quality; MC-214; Attention: Cashier; P.O. Box 13088, Austin, Texas, 78711-3088.

In the event that this Agreement is terminated for any reason, Applicant A, unless indicated otherwise in Exhibit "A", agrees to reimburse TCEQ for all costs incurred or obligated by the TCEQ before notice of termination of the Agreement.

## NOTICE OF BANKRUPTCY

As soon as Applicant has knowledge of its intention to file bankruptcy or no later than seven days prior to the actual filing of a voluntary bankruptcy petition, Applicant shall notify TCEQ of its intention to file a bankruptcy petition. In the case of an involuntary bankruptcy petition, Applicant shall give notice to the TCEQ as soon as it acquires knowledge of such petition.

## INDEMNIFICATION

The Applicant agrees to indemnify and save and hold the State of Texas, its agencies, successors, departments, agents and employees, harmless from any and all claims, damages or causes of action arising from or on account of, the willful or negligent acts or omissions of the Applicant, its officers, directors, principals, employees, receivers, trustees, agents, successors, subsidiaries over which the Applicant exercises control and assigns in carrying out the activities pursuant to this Agreement. By entering into this Agreement, the Applicant does not assume any liability arising from the acts or omissions of the TCEQ or its agents or employees in carrying out any activities pursuant to this Agreement.

## EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

The effective date of this Agreement shall be the date on which this Agreement is signed by the Executive Director of TCEQ or his/her authorized representative.

This Agreement may be amended by mutual agreement of TCEQ and the Applicant. Amendments shall be in writing and shall be effective when signed by the Executive Director of TCEQ, or his/her authorized representative.

## TERMINATION AND SATISFACTION

The provisions of the Agreement shall be satisfied when TCEQ gives the Applicant written notice in the form of a Final Certificate of Completion that the Applicant has demonstrated to TCEQ's satisfaction that all terms of this Agreement have been completed, including the selection and implementation of a response action, when appropriate.

Nothing in the Agreement shall restrict the State of Texas from seeking other appropriate relief to protect human health or the environment from pollution or contamination at or from this Site not remediated in accordance with this Agreement.

SIGNATURES

Applicant A

By:   
(signature)  
Date: 2016.07.21

Name: Mehrdad Moayedi  
(print or type)  
Title: Manager  
CADG Mercer Crossing Holdings, LLC

Applicant B

By: \_\_\_\_\_  
(signature)  
Date: \_\_\_\_\_

Name: \_\_\_\_\_  
(print or type)  
Title: \_\_\_\_\_

Applicant C

By: \_\_\_\_\_  
(signature)  
Date: \_\_\_\_\_

Name: \_\_\_\_\_  
(print or type)  
Title: \_\_\_\_\_

Applicant D

By: \_\_\_\_\_  
(signature)  
Date: \_\_\_\_\_

Name: \_\_\_\_\_  
(print or type)  
Title: \_\_\_\_\_

TCEQ Representative

By:   
(signature of authorized representative)  
Date: 9/7/16

Name: Merric Smith, PA  
(print or type)  
Title: Section Manager

Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Jon Niermann, *Commissioner*  
Richard A. Hyde, P.E., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

October 14, 2016

Mr. Mehrdad Moayedi, Manager  
CADG Mercer Crossing Holdings, LLC  
1800 Valley View Lane, STE. 300  
Farmers Branch, TX 75234

Re: Former GNB-Exide Battery, 1880 Valley View Lane, Farmers Branch, Dallas County, TX; Voluntary Cleanup Program (VCP) No. 2832; Leaking Petroleum Storage Tank No. 98730; Solid Waste Registration No. 31697; Customer No. CN605204817; Regulated Entity No. RN100857267

Dear Mr. Moayedi:

The Texas Commission on Environmental Quality (TCEQ) has reviewed the VCP Application dated June 2016 and Phase I Environmental Site Assessment (ESA) dated May 29, 2015, each prepared by Envirophase Inc. Please prepare a written response to each of the following comments, referencing the assigned TCEQ comment number, unless otherwise specifically requested. The information in the TCEQ reference line above should be included in your response. Additionally, please note that comments offered in this letter do not form the scope of an expected Affected Property Assessment Report but are, rather, items to consider when completing such a document.

### **General Comments:**

Self-implementation notice (SIN):

1. Self-implementation of a Remedy Standard A response action: The VCP application states that the VCP applicant will self-implement a Remedy Standard A response action and includes a SIN. The VCP application appears to focus on soils based upon the historic information collected about the site in multiple investigations and historical response measures.

The TCEQ cautions that self-implementation is not medium-specific. Therefore, other media, groundwater and air, if applicable (as proposed as a potential in the VCP application) must similarly be remediated to Remedy Standard A criteria. There is some mention to alternative remedies for these other media that might necessitate Remedy Standard B closure. For instance, Page 3 of the SIN states that groundwater plume stability may be determined. Please note that there are no groundwater plume stability options under Remedy Standard A. Therefore, while the TCEQ does not object to the self-implementation of soils cleanup, it

Mr. Mehrdad Moayedi, Manager

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VCP No. 2832

should occur with an understanding that other environmental media must also have similar Remedy Standard A closure goals.

2. Demonstration of groundwater concentrations of chemicals of concern (COCs): The SIN states that the plan is to excavate surficial soils to concentrations below  $TotSoil_{Comb}$  protective concentration levels (PCLs). The SIN lists that groundwater has been affected by arsenic and cadmium impacts but additional groundwater sampling will be performed to verify groundwater concentrations and that groundwater impacts appear to be the results of false positives due to excessive turbidity in wells. The TCEQ is uncertain as to the implication of this statement. The latter statement implies that COC concentrations may be the result of excess turbidity which, unless it is the result of turbidity associated with affected aquifer matrix material, would not generally be considered an "affect" to groundwater and, rather, would be considered natural occurring levels of the chemicals.

Notwithstanding the above, the determination of groundwater impacts has an important bearing upon the ability to self-implement closure (as discussed in General Comment No. 1). It may be appropriate for the VCP applicant to determine and seek concurrence upon this groundwater issue prior to beginning a self-implementation. As previously stated, if the groundwater will be addressed to Remedy Standard A levels if an impact is established, then such a determination would not be necessary.

3. Exposure: The SIN describes the exposure conditions as an undeveloped property and that all sample results from surface soil sampling were below human health PCLs for the  $TotSoil_{Comb}$  exposure pathway. Please note that this information departs from the table on the previous page with respect to lead that lists a concentration of 8,100 mg/Kg in surface soil.

#### Phase I ESA:

4. Potential area of wetlands: The Phase I ESA lists portions of the environmental setting as a potential wetland. Please be aware that, if determined to be a wetland, ecological concerns not generally considered during self-implementation may manifest. If such concerns exist, then the entirety of the response action performed at the site may have to be reconsidered in the context of ecological risk. This could greatly affect the response action and, potentially, if the site is developed, result in habitat loss.
5. Underground Storage Tanks (USTs): The Phase I ESA lists that three USTs were removed from the property in 1991; however, no site sampling or closure records

Mr. Mehrdad Moayedi, Manager

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VCP No. 2832

were available for review. In addition, the Phase I ESA states that the subject property is registered as a Leaking Petroleum Storage Tank (LPST) facility with closure granted from a TCEQ predecessor agency. However, no closure records were available for review.

Please indicate whether historical information, such as Sanborn maps, may be of assistance in locating the USTs and the LPST. The location of these potential sources will need to be determined or, if they cannot be located, a demonstration must be made of a thorough and appropriate inquiry into attempting to locate these potential sources of contamination.

6. Site visit limitations: The Phase I ESA lists that much of the property was inaccessible during the site visit due to standing water and dense vegetation. While not supposing that such inaccessible areas may have indications of past spills or releases, or other wastes, these areas should be inspected during subsequent site visits in order to determine if surface wastes, areas of stressed vegetation or disturbed ground exist in the areas. Such areas, if encountered, may need to be characterized.
7. Sampling of drill cutting contents in unlabeled drums: The Phase I ESA states that fourteen unlabeled 55-gallon drums containing drill cuttings were located on the property. The VCP concurs with the applicant's proposal to sample and dispose of the drums and contents appropriately, but proposed analyses of samples collected from the drums are not listed. Unless there is reason to limit the analyses, the TCEQ believes that the analyses should be inclusive of all intended analyses contemplated for the facility based upon the results of all appropriate inquiry.
8. Historically installed monitoring wells: The Phase I ESA states that three monitoring wells were observed on the subject property during the site visit and that additional wells may be present that were not seen. Supporting documentation submitted with the Phase I ESA seems to support the potential presence of additional monitoring wells. One monitoring well was observed to be open and unplugged and below standing water on the site, resulting in an open conduit to groundwater. The Phase I ESA notes the monitoring wells as recognized environmental conditions (RECs). However, elsewhere in the report, it is recommended that the wells be properly sampled. The TCEQ has two concerns regarding this latter statement. First, the TCEQ has concerns that any water well that is constructed below standing water that is not the result of extreme weather events, may not be properly constructed and should be plugged and abandoned. Second, if any monitoring wells from the site are to be used for

sampling purposes, the TCEQ believes that they should be redeveloped prior to sampling.

9. Prohibition on functioning caps: The Phase I ESA states that the commercial building on the subject property has been cleared; however, the pad site and the building foundation remains. Please note that if there are COCs above residential PCLs below the pad and/or the building foundation, then removal and decontamination to the residential PCLs will be necessary to attain the necessary Remedy Standard A response action required for self-implementation specified under General Comment No. 1.
10. Areas of potential fill: The Phase I ESA lists the historical use of the subject property as a battery manufacturing facility with extensive generation of hazardous waste as a REC. The determination is, according to the report, based in part on violations issued for improper waste handling. The TCEQ concurs. While information submitted with the Phase I ESA supports the filling of two surface impoundments with clean fill material, the potential exists for other low lying areas to have been filled with facility waste. An evaluation of this potential should occur in the planning stages of the Affected Property Assessment Report.
11. Vapor encroachment: The Phase I ESA lists the possibility for vapor intrusion issues to exist at the site. The TCEQ is making no determination on this matter at this time, but reserves the right to comment on the matter in the future as additional site data is collected. A response to this comment is not required.
12. Detection of volatile organic compounds in groundwater: A detection of vinyl chloride of 7.3 ug/L was reported from monitoring well MW-2, which exceeds the PCL of 2 ug/L. The detection of this chlorinated solvent, often a degradation product of other chlorinated solvents, is of concern and attempts should be made to locate the source of the release with placement of additional monitoring wells. The TCEQ acknowledges that the Phase I ESA proposes additional investigation as a general approach for the entirety of the site, but is pointing out this matter in particular because of the noted groundwater exceedance of the PCL.

**Specific Comments:**

13. Point of Contact: The Self-Implementation Notice lists the point-of-contact (signature person) as Mehrdad Moadedi. This conflicts with other information in the VCP application. Please clarify the appropriate name. A correction to the Self-Implementation Notice is not necessary, but, if the name on the Self-Implementation Notice is correct, then documents such as the VCP application and agreement will need to be amended. Unfortunately, the signature of the

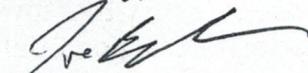
Mr. Mehrdad Moayed, Manager  
Page 5  
October 14, 2016  
VCP No. 2832

point-of-contact cannot be relied upon to make this distinction.

14. Appropriate level for groundwater lead concentration comparisons: The Phase I ESA compares lead to a maximum contaminant level of 0.05 mg/L. Please note that the appropriate concentration level for groundwater lead comparisons is the Class 1 and 2 groundwater classification PCL of 0.015 mg/L, unless a Class 3 or "non-groundwater-bearing unit" designation is granted for the site.

A response to these comments should be submitted to my attention at the TCEQ at the letterhead address using mail code MC-221. Your response should be received within 60 days of the date of this letter. Please provide two copies of your submittals, one electronic (on disk or USB drive) and one hard copy. Should you need additional information or wish to discuss these comments or due date, please call me at (512) 239-6753 or e-mail me at [Joseph.Bell@tceq.texas.gov](mailto:Joseph.Bell@tceq.texas.gov).

Sincerely,



Joe Bell, P.G., Project Manager  
VCP-CA Section  
Remediation Division  
Texas Commission on Environmental Quality

JNB/jdm

cc: Mr. Kevin Almaguer, P.G., Envirophase, Inc., 1708 N. Griffin Street, Dallas, TX  
75202

Mr. Sam Barrett, Waste Section Manager, TCEQ Dallas/Ft. Worth Region Office,  
R-4



November 14, 2016

Mr. Joe Bell, P.G., Project Manager  
Texas Commission on Environmental Quality  
VCP/CA Section – Remediation Division  
MC-221  
P.O. Box 13087  
Austin, Texas 78711-3087

**RE: RESPONSE TO TCEQ LETTER DATED OCTOBER 14, 2016**

**FORMER GNB-EXIDE BATTERY  
1880 VALLEY VIEW LANE  
FARMERS BRANCH, DALLAS COUNTY, TEXAS 75234**

**VCP No. 2832**

Mr. Bell:

In response to the letter dated January 7, 2016 for the above referenced property, the following responses are provided to address the comments contained in the letter.

It should be noted that the Phase II ESA Subsurface Investigation Report prepared by EnviroPhase is included in the Phase I ESA report and can be found on the last 1288 pages of the report (beginning on page 2658 of the electronic copy submitted on CD Disc).

### ***General Comments***

#### **Self-implementation notice (SIN):**

- 1. Self-implementation of a Remedy Standard A response action: The VCP application states that the VCP applicant will self-implement a Remedy Standard A response action and includes a SIN. The VCP application appears to focus on soils based upon the historic information collected about the site in multiple investigations and historical response measures.***

***The TCEQ cautions that self-implementation is not medium-specific. Therefore, other media, groundwater and air, if applicable (as proposed as a potential in the VCP application) must similarly be remediated to Remedy Standard A criteria. There is some mention to alternative remedies for these other media that might necessitate Remedy Standard B closure. For instance, Page 3 of the SIN states that groundwater plume stability may be determined. Please note that there are no groundwater plume stability options under Remedy Standard A. Therefore, while the TCEQ does not object to the self-implementation of soils cleanup, it should occur with an understanding that other environmental media must also have similar Remedy Standard A closure goals.***

Response: Based on subsurface investigation activities conducted on the property it appears that soils are the primary media of concern. A Municipal Settings Designation (MSD) is being pursued which will restrict the use of shallow groundwater and eliminate the groundwater ingestion pathway as a concern. Plume stability is being demonstrated as a condition for obtaining an MSD from the City of Farmers Branch. It is our understanding that an MSD will not affect Self Implementation. Media such as indoor air are not considered a concern since there were no known indoor impacts and TCEQ has not promulgated Rules for Vapor Intrusion assessments. Soil-gas samples collected indicated the presence of TCE and vinyl chloride at concentrations above EPA Regional Screening Levels (RSLs) but soils were very tight with little air flow which appears to have biased sample results. Additionally, volatile organic compounds (VOCs) were not detected in groundwater during the past 2 groundwater monitoring events.

- 2. Demonstration of groundwater concentrations of chemicals of concern (COCs): The SIN states that the plan is to excavate surficial soils to concentrations below TotSoilcomb protective concentration levels (PCLs). The SIN lists that groundwater has been affected by arsenic and cadmium impacts but additional groundwater sampling will be performed to verify groundwater concentrations and that groundwater impacts appear to be the results of false positives due to excessive turbidity in wells. The TCEQ is uncertain as to the implication of this statement. The latter statement implies that COC concentrations may be the result of excess turbidity which, unless it is the result of turbidity associated with affected aquifer matrix material, would not generally be considered an "affect" to groundwater and, rather, would be considered natural occurring levels of the chemicals.*

*Notwithstanding the above, the determination of groundwater impacts has an important bearing upon the ability to self-implement closure (as discussed in General Comment No. 1). It may be appropriate for the VCP applicant to determine and seek concurrence upon this groundwater issue prior to beginning a self-implementation. As previously stated, if the groundwater will be addressed to Remedy Standard A levels if an impact is established, then such a determination would not be necessary.*

Response: A Municipal Settings Designation (MSD) is being pursued which will restrict the use of shallow groundwater and eliminate the groundwater ingestion pathway as a concern. Plume stability is being demonstrated as a condition for obtaining an MSD from the City of Farmers Branch. It is our understanding that an MSD will not have an affect on Self Implementation. An MSD is being pursued as a conservative recognition of groundwater impacts despite the possibility of turbidity affecting groundwater sample results. Arsenic is the only COC that currently exceeds the groundwater ingestion pathway. Arsenic concentrations in only 2 monitoring wells have consistently exceeded or equaled the PCL during the past 3 groundwater sampling events. Current arsenic concentrations of 0.01 and 0.014 mg/L in 2 monitoring wells equal or exceed the PCL of 0.01 mg/L.

3. ***Exposure: The SIN describes the exposure conditions as an undeveloped property and that all sample results from surface soil sampling were below human health PCLs for the TotSoilcomb exposure pathway. Please note that this information departs from the table on the previous page with respect to lead that lists a concentration of 8,100 mg/Kg in surface soil.***

Response: The 8,100 mg/kg refers to the Critical PCL for barium. The values used for maximum arsenic, barium, and lead appear to have inadvertently been carried over from another application. Maximum COC concentrations for arsenic, barium, and lead have been revised on page 2 of the Self-Implementation Notice. The updated Page 2 is attached.

#### Phase I ESA

4. ***Potential area of wetlands: The Phase I ESA lists portions of the environmental setting as a potential wetland. Please be aware that, if determined to be a wetland, ecological concerns not generally considered during self-implementation may manifest. If such concerns exist, then the entirety of the response action performed at the site may have to be reconsidered in the context of ecological risk. This could greatly affect the response action and, potentially, if the site is developed, result in habitat loss.***

Response: Chemical concentrations for the primary COCs (arsenic, barium, lead) in soil in the area identified in National Wetlands Inventory were mostly below Ecological Benchmarks. One soil sample collected within the identified wetlands did exceed the “plants” benchmark for lead but this sample was collected from a depth of 6 feet bgs and vegetative growth was not observed to have been restricted in this area. The area identified as a “freshwater pond” in the Wetlands Inventory is in the same location as the former “impoundment pit” locations associated with historical operations. The entire property is covered with grass and weeds that are frequently mowed. No distinctions could be made between the areas designated as “Wetlands” and the remainder of the property. If required, an application could be made to the Army Corp of Engineers by a Wetlands Expert to re-designate the wetlands areas or other properties owned by the VCP Applicant could be reapportioned for wetlands in exchange for use of the wetlands identified on the property.

5. ***Underground Storage Tanks (USTs): The Phase I ESA lists that three USTs were removed from the property in 1991; however, no site sampling or closure records were available for review. In addition, the Phase I ESA states that the subject property is registered as a Leaking Petroleum Storage Tank (LPST) facility with closure granted from a TCEQ predecessor agency. However, no closure records were available for review.***

***Please indicate whether historical information, such as Sanborn maps, may be of assistance in locating the USTs and the LPST. The location of these potential sources will need to be determined or, if they cannot be located, a demonstration must be made***

***of a thorough and appropriate inquiry into attempting to locate these potential sources of contamination.***

Response: Review of maps contained in historical reports appeared to indicate a tank farm existed near the northeast portion of the former building. Soil borings B-9 and B-10 were installed in the general area of the tank farm in an attempt to identify the former tank location. A second tank farm was identified along the southeast corner of the main parking lot. Monitoring wells MW-1 and MW-7 are also located downgradient of both former tank farm areas. No contaminants indicative of petroleum hydrocarbons were present in any soil or groundwater samples. Sanborn maps were not available for the area.

- 6. Site visit limitations: The Phase I ESA lists that much of the property was inaccessible during the site visit due to standing water and dense vegetation. While not supposing that such inaccessible areas may have indications of past spills or releases, or other wastes, these areas should be inspected during subsequent site visits in order to determine if surface wastes, areas of stressed vegetation or disturbed ground exist in the areas. Such areas, if encountered, may need to be characterized.***

Response: Standing water was the result of record rainfall events that flooded most of the Dallas-Fort Worth area. Standing water was no longer present after flood waters receded and the entire property was accessible. The dense vegetation observed was related to weed growth. There were no indications of stressed vegetation and the entire property is routinely mowed. It should be noted that the Phase I investigation was performed during the Spring season when abundant rainfall was occurring and mowing could not be performed.

It should be noted that comprehensive surface soil sampling was performed. A total of 186 surface samples were collected from 93 different locations. There were no obvious indications of disturbed soils.

- 7. Sampling of drill cutting contents in unlabeled drums: The Phase I ESA states that fourteen unlabeled 55-gallon drums containing drill cuttings were located on the property. The VCP concurs with the applicant's proposal to sample and dispose of the drums and contents appropriately, but proposed analyses of samples collected from the drums are not listed. Unless there is reason to limit the analyses, the TCEQ believes that the analyses should be inclusive of all intended analyses contemplated for the facility based upon the results of all appropriate inquiry.***

Response: The drums contain drill cuttings generated during subsurface investigations performed for the City of Farmers Branch by APEX Titan, Inc (APEX). Soil sample analysis performed during the APEX subsurface investigation activities included analysis for metals. Soil samples collected from numerous soil borings subsequently installed by EnviroPhase were analyzed for VOCs and TPH. The presence of TCE and cis-DCE was detected in samples collected from only 1 boring (B-8). No VOCs or TPH were detected in any other

samples. Given the fact that the EnviroPhase subsurface investigation encompassed most of the areas covered by APEX and VOC detections were limited to 1 small area, comprehensive chemical analysis of drum contents does not seem warranted. Sampling is proposed to be based on landfill requirements. The plan would be to combine drum contents with grubbed soils and dispose of all soil wastes together.

Given the fact that drums contain disturbed soils which have been on the property for over a year and exposed to the hot summer it is not anticipated that volatiles would be present in soils containerized in the drums.

8. ***Historically installed monitoring wells: The Phase I ESA states that three monitoring wells were observed on the subject property during the site visit and that additional wells may be present that were not seen. Supporting documentation submitted with the Phase I ESA seems to support the potential presence of additional monitoring wells. One monitoring well was observed to be open and unplugged and below standing water on the site, resulting in an open conduit to groundwater. The Phase I ESA notes the monitoring wells as recognized environmental conditions (RECs). However, elsewhere in the report, it is recommended that the wells be properly sampled. The TCEQ has two concerns regarding this latter statement. First, the TCEQ has concerns that any water well that is constructed below standing water that is not the result of extreme weather events, may not be properly constructed and should be plugged and abandoned. Second, if any monitoring wells from the site are to be used for sampling purposes, the TCEQ believes that they should be redeveloped prior to sampling.***

Response: Monitoring wells appear to be properly constructed. Standing water was the result of record rainfall events that flooded most of the Dallas-Fort Worth area. Standing water was no longer present after flood waters receded. It should be noted that all monitoring wells were aggressively developed prior to the groundwater sampling activities in June 2016 and select wells were again aggressively developed prior to groundwater sampling activities in September 2016, especially MW-3 which was observed to have been uncapped and below standing water.

9. ***Prohibition on functioning caps: The Phase I ESA states that the commercial building on the subject property has been cleared; however, the pad site and the building foundation remains. Please note that if there are COCs above residential PCLs below the pad and/or the building foundation, then removal and decontamination to the residential PCLs will be necessary to attain the necessary Remedy Standard A response action required for self-implementation specified under General Comment No.1.***

Response: The building foundation had been removed prior to subsurface investigations conducted by EnviroPhase in September 2015. A significant amount of surface soil samples (12 composite and 12 grab samples) were collected in the area of the former building foot print/pad site. None of the soil samples collected beneath the former building foundation/pad site exceeded the total soil combined ( $T^{Tot}Soil_{Comb}$ ) PCL of 500 mg/kg for lead. The three highest lead concentrations beneath the building footprint/pad site were reported at 61.29, 73.78, and 83.78

mg/kg with all remaining soil concentrations reported below 30 mg/kg. The presence of the volatile organic compounds TCE and cis-DCE was observed in samples collected from one soil boring advanced within the former building footprint/pad site. No other VOCs or TPHs were detected in any of the five (5) other soil boring advanced within the former building footprint/pad site.

Correspondence with City of Farmers Branch officials indicated that soils beneath the former building foundation had been excavated but disposal documentation was not available.

***10. Areas of potential fill: The Phase I ESA lists the historical use of the subject property as a battery manufacturing facility with extensive generation of hazardous waste as a REC. The determination is, according to the report, based in part on violations issued for improper waste handling. The TCEQ concurs. While information submitted with the Phase I ESA supports the filling of two surface impoundments with clean fill material, the potential exists for other low lying areas to have been filled with facility waste. An evaluation of this potential should occur in the planning stages of the Affected Property Assessment Report.***

Response: A comprehensive surface soil sampling event was performed. A total of 186 surface samples were collected from 93 different locations. There was no obvious indications facility wastes were used to fill in low lying areas since surface soils/color tended to be consistent throughout the entire property. The Phase II ESA conducted by EnviroPhase is included in the Phase I ESA report and can be found on the last 1288 pages of the report (beginning on page 2658 of the electronic copy submitted on CD Disc).

***11. Vapor encroachment: The Phase I ESA lists the possibility for vapor intrusion issues to exist at the site. The TCEQ is making no determination on this matter at this time, but reserves the right to comment on the matter in the future as additional site data is collected. A response to this comment is not required.***

Response: No Response Required

***12. Detection of volatile organic compounds in groundwater: A detection of vinyl chloride of 7.3 ug/L was reported from monitoring well MW-2, which exceeds the PCL of 2 ug/L. The detection of this chlorinated solvent, often a degradation product of other chlorinated solvents, is of concern and attempts should be made to locate the source of the release with placement of additional monitoring wells. The TCEQ acknowledges that the Phase I ESA proposes additional investigation as a general approach for the entirety of the site, but is pointing out this matter in particular because of the noted groundwater exceedance of the PCL.***

Response: The source area of chlorinated solvent impact appears to have been identified in the area of boring B-8. Soil samples collected from vadose zone soils in B-8 detected the presence of TCE and cis-DCE at depths of 5.5' and 7'. Soil-gas

samples collected from vapor well VW-06 (located next to boring B-8) exhibited the highest chlorinated solvent concentrations. It should be noted that chlorinated solvents have not been detected in any groundwater samples collected on the site during the past two (2) groundwater monitoring events.

**Specific Comments:**

**13. Point of Contact: The Self-Implementation Notice lists the point-of-contact (signature person) as Mehrdad Moadedi. This conflicts with other information in the VCP application. Please clarify the appropriate name. A correction to the Self-Implementation Notice is not necessary, but, if the name on the Self-Implementation Notice is correct, then documents such as the VCP application and agreement will need to be amended. Unfortunately, the signature of the point-of-contact cannot be relied upon to make this distinction.**

Response: The spelling of the last name for the Point of Contact has been updated on the Self-Implementation Notice.

**14. Appropriate level for groundwater lead concentration comparisons: The Phase I ESA compares lead to a maximum contaminant level of 0.05 mg/L. Please note that the appropriate concentration level for groundwater lead comparisons is the Class 1 and 2 groundwater classification PCL of 0.015 mg/L, unless a Class 3 or "non-groundwater-bearing unit" designation is granted for the site.**

Response: We agree with the 0.015 mg/L PCL for lead in groundwater is appropriate for a Class 1 and 2 groundwater resource.

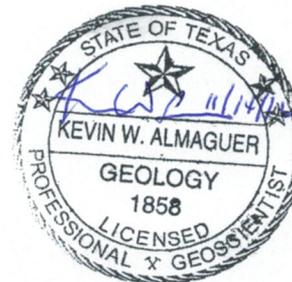
If you have any questions regarding any of the above, please do not hesitate to call me at (214) 392-7179.

Sincerely,

**EnviroPhase, Inc. – Texas Geoscience Firm #50444**

Kevin W. Almaguer, P.G.  
Geologist

Attachments – Supporting Documentation for Responses



**Texas Commission on Environmental Quality  
SELF-IMPLEMENTATION NOTICE**

TCEQ Regulatory ID No.: Pending

Page 2

**Acknowledgement**

By my signature below, I acknowledge the requirement of §350.2(a) that no person shall submit information to the executive director or to parties who are required to be provided information under this chapter which they know or reasonably should have known to be false or intentionally misleading, or fail to submit available information which is critical to the understanding of the matter at hand or to the basis of critical decisions which reasonably would have been influenced by that information. Violation of this rule may subject a person to the imposition of civil, criminal, or administrative penalties.

I acknowledge that any permits needed to implement the remedy will be obtained prior to implementation of the remedy.

Signature of Person  Name (print) Mehrdad Moayedi Date 2016-07-21

**Chemicals of Concern:**

Provide a list of the chemicals of concern that require a response action as determined pursuant to program area requirements. For each environmental media, provide a comparison of the Critical Protective Concentration Level (PCL) to the available maximum or representative chemical of concern (COC) concentrations. Also identify the Tier (1, 2 or 3) and ecological (Eco) or human health (HH residential or commercial/industrial) on which each critical PCL is based:

Chemical of Concern	Environmental Media	COC Concentration (specify unit, e.g., mg/kg or mg/L)	Critical PCL		Tier (1, 2, or 3)
			Concentration (specify unit, e.g., mg/kg or mg/L)	Eco or HH (Res or Com/Ind)	
Arsenic	Surface Soil	14.1 mg/kg (max)	24 mg/kg	HH	1
Barium	Surface Soil	466 mg/kg (max)	8,100 mg/kg	HH	1
Lead	Surface Soil	348.9 mg/kg (max)	500 mg/kg	HH	1

Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Jon Niermann, *Commissioner*  
Richard A. Hyde, P.E., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

February 1, 2017

Mr. Mehrdad Moayedi, Manager  
CADG Mercer Crossing Holdings, LLC  
1800 Valley View Lane, STE. 300  
Farmers Branch, TX 75234

Re: Former GNB-Exide Battery site located at 1880 Valley View Lane, Farmers Branch, Dallas County, TX; Voluntary Cleanup Program (VCP) No. 2832; Leaking Petroleum Storage Tank No. 98730; Solid Waste Registration No. 31697; Customer No. CN605204817; Regulated Entity No. RN100857267

Dear Mr. Moayedi:

The Texas Commission on Environmental Quality (TCEQ) has reviewed the November 14, 2016 "Response to Comments" letter prepared on your behalf by Envirophase Inc. Please prepare a written response to Comment No. 3 of this correspondence. The information in the TCEQ reference line above should be included in your response.

### General Comments:

1. Concurrence with responses to comments Nos. 3, 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14 of the TCEQ letter dated October 14, 2016. Based upon the responses, no further comments regarding these matters are necessary at this time.
2. Conditional concurrence with the response to comment No. 4: Contingent upon the successful completion of the activities described in response to Comment No. 4 of the above-referenced TCEQ letter, should such activities become necessary, the TCEQ concurs with the response and no additional comments regarding this matter are necessary at this time.
3. Responses to comments No. 1 and 2 of the October 14, 2016 TCEQ letter: The responses provided in the letter address the issue of self-implementation under Remedy Standard A and characterization/stability of possible groundwater contaminants. The response states in both cases that a municipal setting designation (MSD) will not have an effect on self-implementation. The TCEQ does not concur and adds that the need for assessment/characterization of groundwater is not eliminated by pursuit of an MSD, but is rather considered upon issuance of the TCEQ certified MSD. Closure to Remedy Standard A standards may occur with an MSD for some exposure pathways, but generally does not for the  $^{GW}GW_{Ing}$  or  $^{GW}GW_{Class\ 3}$  exposure pathways and often does not for the  $^{GW}Soil_{Ing}$  or  $^{GW}Soil_{Class\ 3}$  exposure pathways. As such, the site cannot be said to meet Remedy Standard A in its entirety under such conditions. In addition, as previously mentioned, the MSD is only being pursued at this stage and, therefore, cannot factor into the self-implementation determination even if the exposure pathways above are

Mr. Mehrdad Moayedi, Manager  
Page 2  
February 1, 2017  
VCP No. 2832

determined to be removed from consideration with the issuance of an MSD. Therefore, the TCEQ reiterates that the self-implementation notice must include all media contemplated under the Texas Risk Reduction Program (TRRP) rule.

The document also states that the media, such as indoor air, are not considered a concern since there were no known indoor air impacts and TCEQ has not promulgated rules for vapor intrusion assessments. While not making a determination on whether an indoor air assessment is needed at this time, the TCEQ believes it is necessary to clarify the supplied comment. The absence of collected data does not influence whether an exposure pathway should be considered complete or reasonably anticipated to be complete. In addition, please consider that TRRP rules promulgated in 30 Texas Administrative Code (TAC) §350.51(b) specifically describe potential indoor air assessments on a property-specific basis.

Unless otherwise noted, a response to this comment should be submitted within 60 days from the date of this correspondence. The information in the TCEQ reference line should be included in the response. Please reference VCP No. 2832 on the front of any future letters or reports. Future submittals should be mailed to the TCEQ, Voluntary Cleanup Program, mail code MC-221, at the letterhead address. Please provide two copies of your submittals, one electronic (on disk or USB drive) and one hard copy. You may contact me at (512) 239-6753 or by e-mail at [Joseph.Bell@tceq.texas.gov](mailto:Joseph.Bell@tceq.texas.gov) if you have any questions or comments.

Sincerely,



Joe Bell, P.G., Project Manager  
VCP-CA Section  
Remediation Division  
Texas Commission on Environmental Quality

JNB/bk

cc: Mr. Kevin Almaguer, P.G., Envirophase, Inc., 1708 N. Griffin Street, Dallas, TX 75202  
Mr. Sam Barrett, Waste Section Manager, TCEQ Dallas/Ft. Worth Region Office, R-4



April 21, 2017

Mr. Joe Bell, P.G., Project Manager  
Texas Commission on Environmental Quality  
VCP/CA Section – Remediation Division  
MC-221  
P.O. Box 13087  
Austin, Texas 78711-3087

**RE: RESPONSE TO TCEQ LETTER DATED FEBRUARY 1, 2017**

**FORMER GNB-EXIDE BATTERY  
1880 VALLEY VIEW LANE  
FARMERS BRANCH, DALLAS COUNTY, TEXAS 75234**

**VCP No. 2832**

Mr. Bell:

In response to the letter dated February 1, 2017 for the above referenced property, the following responses are provided to address the comments contained in the letter.

Also attached is the Affected Property Assessment Report (APAR) that was prepared for the above referenced facility. Ecological

***General Comments***

**Self-implementation notice (SIN):**

- 1. Concurrence with responses to comments Nos. 3, 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14 of the TCEQ letter dated October 14, 2016. Based upon the responses, no further comments regarding these matters are necessary at this time.***

Response: No Response Required

- 2. Conditional concurrence with the response to comment No. 4: Contingent upon the successful completion of the activities described in response to Comment No. 4 of the above-referenced TCEQ letter, should such activities become necessary, the TCEQ concurs with the response and no additional comments regarding this matter are necessary at this time.***

Response: Please refer the attached letter provided by Benchmark Environmental Consultants for a larger track of land which included the site property at 1880 Valley View Lane.

3. *Responses to comments No. 1 and 2 of the October 14, 2016 TCEQ letter: The responses provided in the letter address the issue of self-implementation under Remedy Standard A and characterization/stability of possible groundwater contaminants. The response states in both cases that a municipal setting designation (MSD) will not have an effect on self-implementation. The TCEQ does not concur and adds that the need for assessment/characterization of groundwater is not eliminated by pursuit of an MSD, but is rather considered upon issuance of the TCEQ certified MSD. Closure to Remedy Standard A standards may occur with an MSD for some exposure pathways, but generally does not for the  $^{GW}GW_{Ing}$  or  $^{GW}GW_{Class3}$  exposure pathways and often does not for the  $^{GW}Soil_{Ing}$  or  $^{GW}Soil_{Class3}$  exposure pathways. As such, the site cannot be said to meet Remedy Standard A in its entirety under such conditions. In addition, as previously mentioned, the MSD is only being pursued at this stage and, therefore, cannot factor into the self-implementation determination even if the exposure pathways above are determined to be removed from consideration with the issuance of an MSD. Therefore, the TCEQ reiterates that the self-implementation notice must include all media contemplated under the Texas Risk Reduction Program (TRRP) rule.*

*The document also states that the media, such as indoor air, are not considered a concern since there were no known indoor air impacts and TCEQ has not promulgated rules for vapor intrusion assessments. While not making a determination on whether an indoor air assessment is needed at this time, the TCEQ believes it is necessary to clarify the supplied comment. The absence of collected data does not influence whether an exposure pathway should be considered complete or reasonably anticipated to be complete. In addition, please consider that TRRP rules promulgated in 30 Texas Administrative Code (TAC) §350.51(b) specifically describe potential indoor air assessments on a property-specific basis.*

Response: Request to withdraw from Self-Implementation. Self-Implementation had been requested to avoid delaying commencement of construction processes. Response Actions will be pursued under Remedy Standard B. The attached Soil and Groundwater Management Plan has been developed to allow proper management of soil and groundwater wastes generated during property re-development.

Evaluation of potential indoor air exposure from affected soil and groundwater was performed using the EPA Office of Solid Waste and Emergency Response (OSWER) Vapor Intrusion Screening Level (VISL) calculator. Calculated indoor concentrations from soil gas samples were slightly above TCEQ Risk Based Exposure Levels (RBELs) for 1,2-DCE, trichloroethene, and vinyl chloride but soils were very tight with very little available air flow (pump kept shutting off on PID being used to purge vapor wells and had difficulty obtaining soil gas samples). Tight soils would not be conducive for vapor migration. Calculated indoor concentrations from affected groundwater indicated 1,2-DCE and vinyl chloride concentrations in indoor air would be below TCEQ Risk Based Exposure Levels (RBEL). Thus the indoor exposure pathway is considered incomplete.

Additionally, given modern building design and the positive pressure HVAC systems exert on new modern buildings; the low concentrations detected in soils and groundwater are not considered to be a concern, especially since volatiles in groundwater have dissipated.

If you have any questions regarding any of the above, please do not hesitate to call me at (214) 392-7179.

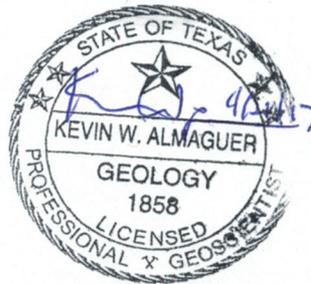
Sincerely,

**EnviroPhase, Inc. – Texas Geoscience Firm #50444**



Kevin W. Almaguer, P.G.  
Geologist

Attachments – Wetlands Letter – Benchmark Environmental Consultants  
Soil and Groundwater Management Plan



RE: Mercer Crossing  
Preliminary Wetlands & Waters Assessment

Dear Mr. Beaty,

On October 14, 2015 Benchmark Environmental Consultants (BEC) visited the site known as Mercer Crossing in order to conduct a preliminary wetlands and waters assessment. The purpose of this assessment was to determine if the USACE Ft. Worth District (ACE) will likely exert jurisdictional authority over portions of the subject property. This assessment was conducted by qualified biologists with local experience.

**Observations:** There are several major drainage canals throughout the property. These canals appear to be manmade or at least man modified (See figure 1). A pond was noted on the eastern side of the property. This pond has typical wetland fringe of about 5 feet (See figure 2). The remainder of the property consists of maintained upland hay field (See figure 3).

**Conclusions:** The large canals are likely jurisdictional waters of the US. It would appear that the pond is connected to the drainage canal meaning that it is jurisdictional as well. Impacting these features will require authorization from the USACE.

**Recommendations:** As long as a proposed development avoids impacting the pond or the canals it is the professional opinion of Benchmark Environmental that the proposed development should be able to proceed with full compliance of section 404 of the Clean Water Act.



Figure 1: Drainage Canal



Figure 2: Pond



Figure 3: Typical Upland Field

April 21, 2017

Mr. Michael Beaty  
CADG Mercer Crossing  
1800 Valley View Lane  
Suite 350  
Farmers Branch, Texas 75234

RE: **SOIL and GROUNDWATER MANAGEMENT PLAN  
FORMER GNB-EXIDE BATTERY  
1880 VALLEY VIEW LANE  
FARMERS BRANCH, TEXAS 75234**

Mr. Beaty:

It should be known that the site property referenced above is known to contain surficial soils and groundwater that have been negatively affected by chemical impacts. The affected soils and groundwater are currently being addressed through a Texas Commission on Environmental Quality (TCEQ) remediation program. As part of current involvement in the TCEQ remediation program, affected soils and groundwater have been allowed to remain in place. The attached Soil and Groundwater Management Plan is intended as a guide to assist the property owner and/or land developer in handling procedures should affected soils be encountered and disturbed during property re-development.

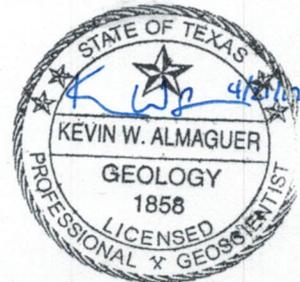
Thank you for allowing us the opportunity to assist you on this project.

Sincerely,  
**ENVIROPHASE, INCORPORATED**



Kevin W. Almaguer, P.G.  
Professional Geoscientist

Attachments:            Soil and Groundwater Management Plan  
                                 Area of Affected Soil Map  
                                 Data Tables



## SOIL AND GROUNDWATER MANAGEMENT PLAN

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, Texas 75234

### Purpose

The purpose of the Soil and Groundwater Management Plan is to provide guidance for handling of affected soils and groundwater that could be encountered on the property located at 1880 Valley View Lane in Farmers Branch, Dallas County, Texas. Affected soils that are disturbed and affected groundwater generated would require proper handling and disposal evaluation. The Soil and Groundwater Management Plan described below is intended as a guide to assist the property owner and/or land developer in handling procedures should affected soils and/or groundwater be encountered during property re-development.

### Background

The property consists of approximately 34 acres located on the south side of Valley View Lane between Hutton Drive and Chartwell Crest. The property was listed as a battery manufacturing facility from approximately 1971 to 2001. The source of chemical impacts on the property appears to be related to the former battery manufacturing operation.

It should be noted that the site property is known to contain surficial soils and groundwater that have been negatively affected by heavy metals, primarily lead in soils and arsenic in groundwater. The affected soils and groundwater are currently being addressed through a Texas Commission on Environmental Quality (TCEQ) remediation program. As part of current/historical involvement in the TCEQ remediation program, affected soils and groundwater will be allowed to remain in place.

### Affected Soil

Based on results from previous environmental site assessments, soils are known to have been affected by heavy metals. Arsenic in groundwater and lead in soil are the primary compounds known to exceed Protective Concentration Levels (PCLs) for the groundwater ingestion exposure pathway ( $^{GW}Soil_{Ing}$  and  $^{GW}GW_{Ing}$ ) in soils however other chemical contaminants related to chlorinated solvents could exist on portions of the property.

If soils exhibiting odors and/or visual discoloration/staining are disturbed during future development these soils should be segregated from other soils, sampled for laboratory analysis, and evaluated for re-use on the site or disposal at a landfill approved to accept such wastes. The attached map depicts areas that may contain soil concentrations in excess of  $^{GW}Soil_{Ing}$  PCLs. Soil excavated from the depicted areas should be segregated from other soils. Soil excavated

from the top 1 foot in the depicted area should also be segregated from soils excavated from deeper depths.

Soil sample analysis should include analysis for metals (8 RCRA) via EPA methods 6010B/7471B.

If odors or visual staining are observed, those soils should also be segregated and additional analysis performed for volatile organic compounds (VOCs) via EPA method 8260B and total petroleum hydrocarbons (TPH) via TCEQ method TX1005.

All known soil impacts are protective of residential exposure via the total soils combined ( $T_{\text{TotSoilComb}}$ ) PCL and as such would be protective of construction worker exposure however construction workers should minimize direct contact with affected soils.

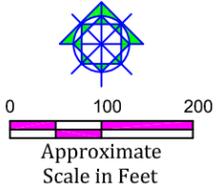
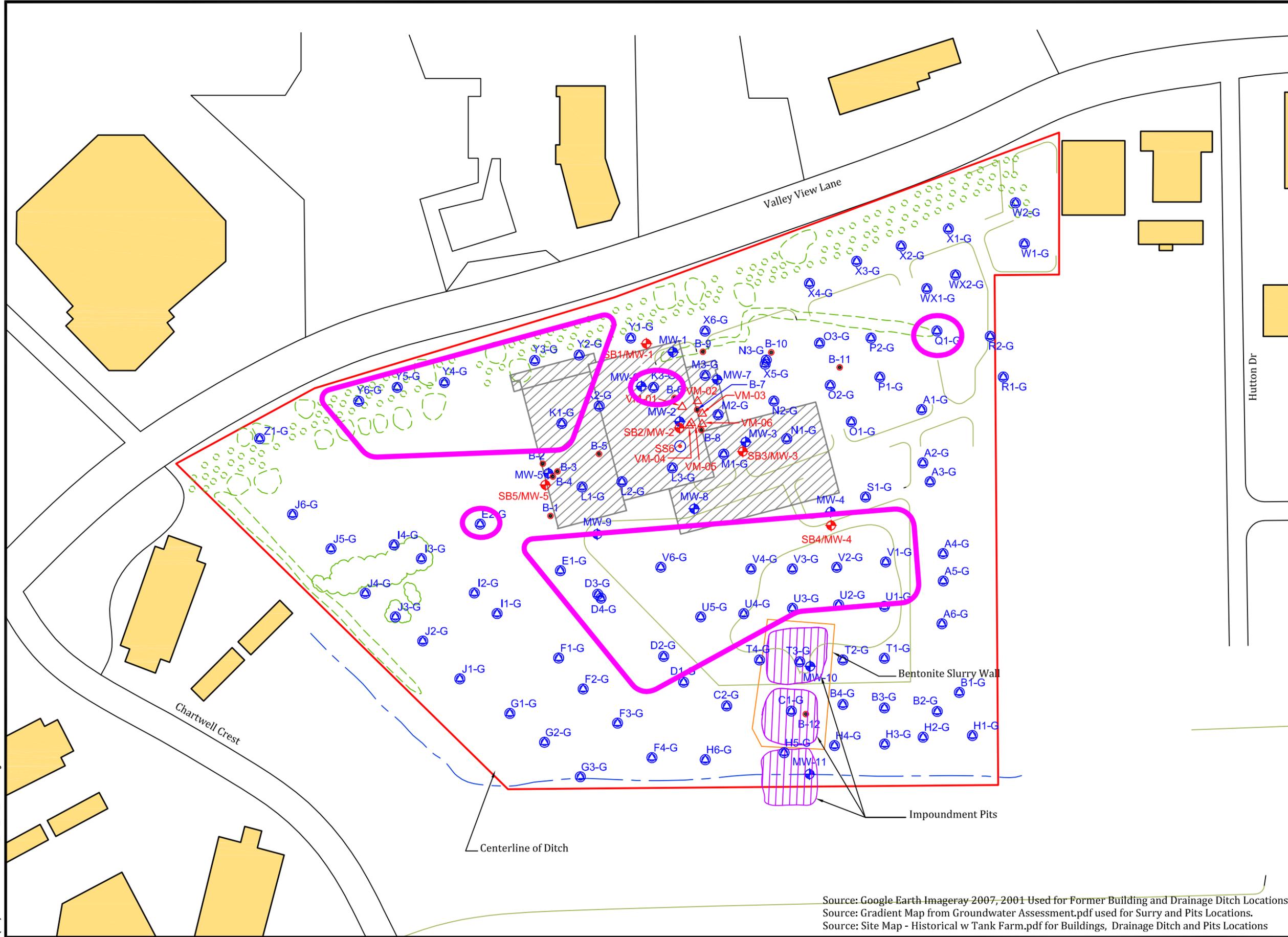
### **Affected Groundwater**

Groundwater was encountered at approximate depths of 12 to 15 feet below the ground surface (bgs) during drilling with groundwater levels stabilizing at depths from 6 to 13 feet bgs.

The Site's groundwater is impacted by the heavy metal "arsenic". This groundwater impact at the Site exceeds TCEQ Texas Risk Reduction (TRRP) Tier 1 Residential Assessment Levels (RALs) for the chemicals of concern (COCs). Arsenic is the only COC that exceed the groundwater ingestion PCL, although the chemical vinyl chloride historically exceeded the groundwater PCL.

If groundwater is encountered requiring groundwater removal/dewatering during future development activities, groundwater should be sampled and evaluated for potential treatment and disposal options before discharging into a storm sewer or sanitary sewer system.

Groundwater sample analysis should include volatile organic compounds (VOCs) via EPA method 8260B, metals (8 RCRA) via EPA methods 6010B/7471B, and total petroleum hydrocarbons (TPH) via TCEQ method TX1005.



**LEGEND**

- Approximate Property Boundary
- Building
- Street
- ⊕ MW-# Monitoring Well Location
- B-# Soil Boring Location
- ⊙ X#-G Grab Sample Location
- △ VM-## Vapor Well Location
- Proposed lots
- Proposed Street
- Former Building
- ⊕ Trees & Shrubs
- Drainage Ditch
- Area of Affected Soils Requiring Landfill Disposal

**Area of Affected Soils**  
 1880 Valley View Lane  
 Farmers Branch, Texas

Proj. No: EP-5210

Date: 1/2017

Drawn By: D/PCAD

Checked By: KA



Source: Google Earth Imagery 2007, 2001 Used for Former Building and Drainage Ditch Locations.  
 Source: Gradient Map from Groundwater Assessment.pdf used for Slurry and Pits Locations.  
 Source: Site Map - Historical w Tank Farm.pdf for Buildings, Drainage Ditch and Pits Locations

(EP) Farmers Branch\_01\_10\_2017.dwg

**TABLE 4D-2  
SOIL ANALYTICAL RESULTS (SOIL BORINGS/MONITORING WELLS) - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
B-1 (2')	9/23/2015	7.82	99.2	<0.156	13.2	10.41	<0.0407	0.348	<0.241
B-1 (4')	9/23/2015	4.7	68.8	<0.156	9.242	10.37	<0.0398	0.364	<0.240
B-2 (2.5')	9/23/2015	4.42	88.6	<0.157	13.15	7.099	<0.0408	0.315	<0.241
B-2 (4')	9/23/2015	4.4	78	<0.168	11.2	9.406	<0.0416	0.423	<0.258
B-3 (3')	9/23/2015	9.45	69.6	<0.173	10.02	11.04	<0.0420	0.416	<0.266
B-3 (4.5')	9/23/2015	3.58	71.7	<0.168	10.23	6.213	<0.0417	0.239	<0.259
B-4 (2')	9/23/2015	3.28	85.6	<0.163	12.45	7.482	<0.0409	<0.186	<0.251
B-4 (4')	9/23/2015	5.34	85.8	<0.168	14.61	5.835	<0.0409	<0.191	<0.259
B-4 (6')	9/23/2015	10.7	466	<0.810	16.2	12.24	<0.0410	<0.922	<1.248
B-4 (8')	9/23/2015	5.77	132	<0.8060	11.44	8.148	<0.0388	<0.918	<1.241
B-4 (10')	9/23/2015	2.33	25.2	<0.157	6.299	4.14	<0.0385	<0.179	<0.242
B-5 (3')	9/23/2015	3.68	73.6	<0.166	11.74	7.45	<0.0423	<0.189	<0.255
B-5 (4.5')	9/23/2015	4.57	61.4	<0.172	9.67	5.966	<0.0422	0.207	<0.264
B-6 (3.5')	9/23/2015	1.76	42.4	<0.152	6.085	5.306	<0.0385	<0.174	<0.235
B-6 (5')	9/23/2015	3.14	63.4	<0.167	12.68	6.62	<0.0412	<0.191	<0.258
B-7 (4.5')	9/23/2015	4.57	56.1	<0.160	10.66	6.232	<0.0406	0.223	<0.247
B-7 (6')	9/23/2015	3.89	329	<0.166	27.11	8.777	<0.0409	0.297	<0.256
B-8 (4.5')	9/23/2015	11.2	76.2	2.26	45.21	19.83	<0.0459	0.254	<0.282
B-8 (5.5')	9/23/2015	3.86	74.3	<0.166	10.1	6.811	<0.0415	<0.189	<0.255
B-9 (3')	9/23/2015	2.47	47.0	<0.156	7.472	6.093	<0.0376	<0.178	<0.241

**TABLE 4D-2**  
**SOIL ANALYTICAL RESULTS (SOIL BORINGS/MONITORING WELLS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
B-9 (4.5')	9/23/2015	<b>6.18</b>	<b>59.7</b>	<0.168	<b>13.21</b>	<b>6.698</b>	<0.0409	<b>0.233</b>	<0.259
B-10 (2')	9/24/2015	<b>5.81</b>	<b>49.0</b>	<0.166	<b>20.45</b>	<b>10.72</b>	<0.0429	<b>0.571</b>	<0.256
B-10 (4')	9/24/2015	<b>4.2</b>	<b>71.6</b>	<0.170	<b>13.08</b>	<b>7.23</b>	<0.0409	<0.193	<0.262
B-11 (2')	9/24/2015	<b>7.35</b>	<b>89.8</b>	<0.155	<b>17.27</b>	<b>6.941</b>	<0.0387	<b>0.355</b>	<0.238
B-11 (4')	9/24/2015	<b>4.72</b>	<b>81.1</b>	<0.165	<b>12.74</b>	<b>8.25</b>	<0.0402	<b>0.476</b>	<0.255
B-12 (2')	9/24/2015	<b>5.45</b>	<b>39.6</b>	<0.141	<b>28.98</b>	<b>9.006</b>	<0.0370	<b>0.231</b>	<0.217
B-12 (4')	9/24/2015	<b>6.84</b>	<b>89.9</b>	<0.147	<b>20.72</b>	<b>12.51</b>	<0.0384	<0.168	<0.227
MW-6 (4')	9/23/2015	<b>3.63</b>	<b>122</b>	<0.783	<b>8.489</b>	<b>6.317</b>	<0.0389	<0.892	<1.206
MW-6 (18')	9/23/2015	<b>10.5</b>	<b>25.5</b>	<0.160	<b>16.63</b>	<b>8.129</b>	<0.0387	<0.183	<0.247
MW-6 (20')	9/23/2015	<b>8.56</b>	<b>49.2</b>	<0.171	<b>25.77</b>	<b>12.71</b>	<0.0424	<b>0.424</b>	<0.263
MW-7 (9')	9/23/2015	<b>3.79</b>	<b>76.6</b>	<0.161	<b>13.8</b>	<b>7.349</b>	<0.0412	<b>0.371</b>	<0.248
MW-7 (16')	9/23/2015	<b>5.08</b>	<b>33.9</b>	<0.171	<b>17.7</b>	<b>8.153</b>	<0.0425	<0.195	<0.264
MW-7 (20')	9/23/2015	<b>6.41</b>	<b>34.5</b>	<0.169	<b>21.96</b>	<b>14.42</b>	<0.0411	<b>0.222</b>	<0.260
MW-8 (3')	9/23/2015	<b>14.1</b>	<b>78.8</b>	<0.147	<b>14</b>	<b>16.15</b>	<0.0354	<0.167	<0.226
MW-8 (10')	9/23/2015	<b>4.72</b>	<b>60.1</b>	<0.160	<b>16.73</b>	<b>8.489</b>	<0.0389	<b>0.234</b>	<0.246
MW-8 (18')	9/23/2015	<b>9.29</b>	<b>26.8</b>	<0.146	<b>5.871</b>	<b>4.387</b>	<0.0380	<0.167	<0.225
MW-9 (7')	9/23/2015	<b>4.52</b>	<b>103</b>	<0.179	<b>15.62</b>	<b>9.023</b>	<0.0430	<b>0.228</b>	<0.275
MW-9 (13')	9/23/2015	<b>6.16</b>	<b>104</b>	<0.192	<b>18.13</b>	<b>13.53</b>	<0.0472	<b>0.883</b>	<0.296
MW-9 (19')	9/23/2015	<b>7.33</b>	<b>46.2</b>	<0.175	<b>26.05</b>	<b>12.33</b>	<0.0425	<b>0.446</b>	<0.269
MW-10 (8')	9/24/2015	<b>4.17</b>	<b>32.1</b>	<0.145	<b>9.146</b>	<b>5.428</b>	<0.0369	<b>0.364</b>	<0.223

**TABLE 4D-2**  
**SOIL ANALYTICAL RESULTS (SOIL BORINGS/MONITORING WELLS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh.v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
MW-10 (14')	9/24/2015	<b>3.51</b>	<b>46.1</b>	<0.150	<b>9.744</b>	<b>6.13</b>	<0.0376	<b>0.411</b>	<0.231
MW-10 (19')	9/24/2015	<b>7.64</b>	<b>45.4</b>	<0.161	<b>26.31</b>	<b>11.46</b>	<0.0389	<b>0.689</b>	<0.249
MW-11 (4')	9/24/2015	<b>8.57</b>	<b>109</b>	<b>0.499</b>	<b>10.51</b>	<b>6.868</b>	<0.0364	<b>0.348</b>	<0.219
MW-11 (10')	9/24/2015	<b>3.41</b>	<b>40</b>	<0.136	<b>9.145</b>	<b>7.916</b>	<0.036	<b>0.431</b>	<0.209
MW-11 (13')	9/24/2015	<b>6.29</b>	<b>47.6</b>	<0.151	<b>20.69</b>	<b>10.83</b>	<0.0385	<b>0.33</b>	<0.232
MW-12 (12.5')	9/6/2016	<b>9.86</b>	<b>115</b>	<0.804	<b>18.23</b>	<b>11.42</b>	<0.021	<b>2.202</b>	<b>3.905</b>
MW-12 (19.5')	9/6/2016	<b>11.4</b>	<b>45.7</b>	<0.160	<b>26.37</b>	<b>10.92</b>	<0.023	<b>0.821</b>	<b>2.363</b>
MW-13 (13')	9/6/2016	<b>8.68</b>	<b>37.6</b>	<0.152	<b>11.82</b>	<b>5.192</b>	<0.022	<b>0.587</b>	<b>2.82</b>
MW-13 (20')	9/6/2016	<b>7.89</b>	<b>37.3</b>	<0.166	<b>27.41</b>	<b>11.35</b>	<0.024	<b>0.721</b>	<b>2.376</b>
Bold Text in Cell = Chemical Detected in Sample Analysis Yellow Shaded Cell = Metal Exceeds Ingestion PCL and Texas Specific Median Background * - PCL for Mercury based on pH of 6.8 or higher (based on historical EPA assessments determining soils on property are Alkaline) Note: Soil PCL based on the higher of the Ingestion PCL or Texas Specific Median Background --- = Inhalation pathway not applicable									

**TABLE 4D-3  
SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
A1-G	10/6/2015	-	-	-	-	<b>27.22</b>	-	-	-
A1-C	10/6/2015	-	-	-	-	<b>13.18</b>	-	-	-
A2-G	10/6/2015	-	-	-	-	<b>20.01</b>	-	-	-
A2-C	10/6/2015	-	-	-	-	<b>11.33</b>	-	-	-
A3-G	10/6/2015	-	-	-	-	<b>13.25</b>	-	-	-
A3-C	10/6/2015	-	-	-	-	<b>11.02</b>	-	-	-
A4-G	10/6/2015	-	-	-	-	<b>14.65</b>	-	-	-
A4-C	10/6/2015	-	-	-	-	<b>13.81</b>	-	-	-
A5-G	10/6/2015	-	-	-	-	<b>11.54</b>	-	-	-
A5-C	10/6/2015	-	-	-	-	<b>11.41</b>	-	-	-
A6-G	10/6/2015	-	-	-	-	<b>11.39</b>	-	-	-
A6-C	10/6/2015	-	-	-	-	<b>11.12</b>	-	-	-
B1-G	10/6/2015	-	-	-	-	<b>10.32</b>	-	-	-
B1-C	10/6/2015	-	-	-	-	<b>10.15</b>	-	-	-
B2-G	10/6/2015	-	-	-	-	<b>9.367</b>	-	-	-
B2-C	10/6/2015	-	-	-	-	<b>9.451</b>	-	-	-
B3-G	10/6/2015	-	-	-	-	<b>9.316</b>	-	-	-

**TABLE 4D-3  
SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
B3-C	10/6/2015	-	-	-	-	<b>10.57</b>	-	-	-
B4-G	10/6/2015	-	-	-	-	<b>18.9</b>	-	-	-
B4-C	10/6/2015	-	-	-	-	<b>11.88</b>	-	-	-
C1-G	10/6/2015	-	-	-	-	<b>11.17</b>	-	-	-
C1-C	10/6/2015	-	-	-	-	<b>10.99</b>	-	-	-
C2-G	10/6/2015	-	-	-	-	<b>10.73</b>	-	-	-
C2-C	10/6/2015	-	-	-	-	<b>10.86</b>	-	-	-
D1-G	10/6/2015	-	-	-	-	<b>11.13</b>	-	-	-
D1-C	10/6/2015	-	-	-	-	<b>9.257</b>	-	-	-
D2-G	10/6/2015	-	-	-	-	<b>15.76</b>	-	-	-
D2-C	10/6/2015	-	-	-	-	<b>7.156</b>	-	-	-
D3-G	10/6/2015	-	-	-	-	<b>27.75</b>	-	-	-
D3-C	10/6/2015	-	-	-	-	<b>19.69</b>	-	-	-
D4-G	10/6/2015	-	-	-	-	<b>22.19</b>	-	-	-
D4-C	10/6/2015	-	-	-	-	<b>19.71</b>	-	-	-
E1-G	10/7/2015	-	-	-	-	<b>31.61</b>	-	-	-
E1-C	10/7/2015	-	-	-	-	<b>9.663</b>	-	-	-

**TABLE 4D-3  
SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
E2-G	10/7/2015	-	-	-	-	<b>15.12</b>	-	-	-
E2-C	10/7/2015	-	-	-	-	<b>26.47</b>	-	-	-
F1-G	10/6/2015	-	-	-	-	<b>8.087</b>	-	-	-
F1-C	10/6/2015	-	-	-	-	<b>11.98</b>	-	-	-
F2-G	10/6/2015	-	-	-	-	<b>20.15</b>	-	-	-
F2-C	10/6/2015	-	-	-	-	<b>13.27</b>	-	-	-
F3-G	10/6/2015	-	-	-	-	<b>10.16</b>	-	-	-
F3-C	10/6/2015	-	-	-	-	<b>12.49</b>	-	-	-
F4-G	10/6/2015	-	-	-	-	<b>15.45</b>	-	-	-
F4-C	10/6/2015	-	-	-	-	<b>12.21</b>	-	-	-
G1-G	10/6/2015	-	-	-	-	<b>11.66</b>	-	-	-
G1-C	10/6/2015	-	-	-	-	<b>37.16</b>	-	-	-
G2-G	10/6/2015	-	-	-	-	<b>9.386</b>	-	-	-
G2-C	10/6/2015	-	-	-	-	<b>10.2</b>	-	-	-
G3-G	10/6/2015	-	-	-	-	<b>7.612</b>	-	-	-
G3-C	10/6/2015	-	-	-	-	<b>11.32</b>	-	-	-
H1-G	10/6/2015	-	-	-	-	<b>10.32</b>	-	-	-

**TABLE 4D-3  
SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
H2-G	10/6/2015	-	-	-	-	7.797	-	-	-
H3-G	10/6/2015	-	-	-	-	9.419	-	-	-
H4-G	10/6/2015	-	-	-	-	11.05	-	-	-
H5-G	10/6/2015	-	-	-	-	6.229	-	-	-
H6-G	10/6/2015	-	-	-	-	10.57	-	-	-
I1-G	10/7/2015	-	-	-	-	13.75	-	-	-
I1-C	10/7/2015	-	-	-	-	10.7	-	-	-
I2-G	10/7/2015	-	-	-	-	14.55	-	-	-
I2-C	10/7/2015	-	-	-	-	14.52	-	-	-
I3-G	10/7/2015	-	-	-	-	13.06	-	-	-
I3-C	10/7/2015	-	-	-	-	14.5	-	-	-
I4-G	10/7/2015	-	-	-	-	9.603	-	-	-
I4-C	10/7/2015	-	-	-	-	10.19	-	-	-
J1-G	10/6/2015	-	-	-	-	20.29	-	-	-
J1-C	10/6/2015	-	-	-	-	12.12	-	-	-
J2-G	10/6/2015	-	-	-	-	10.91	-	-	-
J2-G	10/6/2015	-	-	-	-	11.02	-	-	-

**TABLE 4D-3  
SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
J3-G	10/6/2015	-	-	-	-	<b>11.14</b>	-	-	-
J3-C	10/6/2015	-	-	-	-	<b>11.12</b>	-	-	-
J4-G	10/6/2015	-	-	-	-	<b>16.13</b>	-	-	-
J4-C	10/6/2015	-	-	-	-	<b>30.67</b>	-	-	-
J5-G	10/6/2015	-	-	-	-	<b>10.51</b>	-	-	-
J5-C	10/6/2015	-	-	-	-	<b>17.8</b>	-	-	-
J6-G	10/6/2015	-	-	-	-	<b>11</b>	-	-	-
J6-C	10/6/2015	-	-	-	-	<b>10.19</b>	-	-	-
K1-G	10/7/2015	<b>4.09</b>	<b>37.4</b>	<b>0.096</b>	<b>8.004</b>	<b>27.29</b>	<0.0351	<0.096	<0.130
K1-C	10/7/2015	<b>4.01</b>	<b>43.3</b>	<b>0.103</b>	<b>9.811</b>	<b>73.78</b>	<0.0372	<0.089	<0.121
K2-G	10/7/2015	<b>7.91</b>	<b>70.8</b>	<b>0.198</b>	<b>16.26</b>	<b>11.9</b>	<0.0373	<0.176	<0.239
K2-C	10/7/2015	<b>5.51</b>	<b>70.7</b>	<0.145	<b>14.33</b>	<b>11.55</b>	<0.0370	<0.165	<0.223
K3-G	10/7/2015	<b>4.94</b>	<b>18.9</b>	<0.134	<b>5.367</b>	<b>10.67</b>	<0.0336	<0.153	<0.206
K3-C	10/7/2015	<b>8.97</b>	<b>47.6</b>	<b>0.149</b>	<b>11.43</b>	<b>81.93</b>	<0.0355	<0.166	<0.225
L1-G	10/7/2015	<b>6.28</b>	<b>65.1</b>	<b>0.152</b>	<b>16.1</b>	<b>10.82</b>	<0.0372	<0.153	<0.207
L1-C	10/7/2015	<b>7.58</b>	<b>64.6</b>	<b>0.208</b>	<b>15.72</b>	<b>22.51</b>	<0.037	<0.151	<0.204
L2-G	10/7/2015	<b>8.67</b>	<b>95.3</b>	<0.747	<b>22.53</b>	<b>19.91</b>	<0.0371	<0.851	<1.151

**TABLE 4D-3  
SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
L2-C	10/7/2015	5.34	78.7	<0.139	14.13	11.98	<0.0346	<0.159	<0.215
L3-G	10/7/2015	3.96	32.6	<0.141	7.62	14.04	<0.0342	0.231	<0.216
L3-C	10/7/2015	5.07	41.9	<0.131	11.7	12.15	<0.0347	0.234	<0.202
M1-G	10/7/2015	12.1	46	<0.141	10.74	61.29	<0.0364	<0.161	<0.218
M1-C	10/7/2015	6.85	40.8	<0.131	9.844	10.39	<0.0343	0.363	<0.201
M2-G	10/7/2015	5.79	76.6	<0.145	11.08	6.589	<0.0357	0.466	<0.224
M2-C	10/7/2015	4.9	30.9	<0.134	9.53	9.335	<0.0342	0.401	<0.206
M3-G	10/7/2015	4.36	29.3	<0.131	7.197	4.505	<0.0350	<0.149	<0.202
M3-C	10/7/2015	5.38	44.4	<0.132	10.05	10.81	<0.0337	0.164	<0.203
N1-G	10/7/2015	7.37	70.5	<0.142	11.27	6.998	<0.0350	0.494	<0.219
N1-C	10/7/2015	11.8	41.7	<0.139	10.09	8.496	<0.0344	0.329	<0.214
N2-G	10/7/2015	-	-	-	-	7.787	-	-	-
N2-C	10/7/2015	-	-	-	-	7.88	-	-	-
N3-G	10/7/2015	-	-	-	-	11.72	-	-	-
N3-C	10/7/2015	-	-	-	-	11.14	-	-	-
O1-G	10/7/2015	-	-	-	-	10.42	-	-	-
O1-C	10/7/2015	-	-	-	-	6.785	-	-	-

**TABLE 4D-3  
SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
O2-G	10/7/2015	-	-	-	-	<b>10.91</b>	-	-	-
O2-C	10/7/2015	-	-	-	-	<b>11.84</b>	-	-	-
O3-G	10/7/2015	-	-	-	-	<b>14.99</b>	-	-	-
O3-C	10/7/2015	-	-	-	-	<b>15.41</b>	-	-	-
P1-G	10/7/2015	-	-	-	-	<b>8.455</b>	-	-	-
P1-C	10/7/2015	-	-	-	-	<b>15.75</b>	-	-	-
P2-G	10/7/2015	-	-	-	-	<b>12.03</b>	-	-	-
P2-C	10/7/2015	-	-	-	-	<b>8.555</b>	-	-	-
Q1-G	10/7/2015	-	-	-	-	<b>12.34</b>	-	-	-
Q1-C	10/7/2015	-	-	-	-	<b>346.5</b>	-	-	-
R1-G	10/7/2015	-	-	-	-	<b>11.1</b>	-	-	-
R1-C	10/7/2015	-	-	-	-	<b>10.04</b>	-	-	-
R2-G	10/7/2015	-	-	-	-	<b>10.73</b>	-	-	-
R2-C	10/7/2015	-	-	-	-	<b>11.52</b>	-	-	-
S1-G	10/7/2015	-	-	-	-	<b>9.308</b>	-	-	-
S1-C	10/7/2015	-	-	-	-	<b>10.3</b>	-	-	-
S2-G	10/7/2015	-	-	-	-	<b>18.24</b>	-	-	-

**TABLE 4D-3  
SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
S2-C	10/7/2015	-	-	-	-	<b>14.1</b>	-	-	-
T1-G	10/8/2015	-	-	-	-	<b>10.59</b>	-	-	-
T1-C	10/8/2015	-	-	-	-	<b>10.8</b>	-	-	-
T2-G	10/8/2015	-	-	-	-	<b>10.71</b>	-	-	-
T2-C	10/8/2015	-	-	-	-	<b>11.79</b>	-	-	-
T3-G	10/8/2015	-	-	-	-	<b>10.04</b>	-	-	-
T3-C	10/8/2015	-	-	-	-	<b>10.23</b>	-	-	-
T4-G	10/8/2015	-	-	-	-	<b>10.62</b>	-	-	-
T4-C	10/8/2015	-	-	-	-	<b>13.84</b>	-	-	-
U1-G	10/8/2015	-	-	-	-	<b>9.837</b>	-	-	-
U1-C	10/8/2015	-	-	-	-	<b>8.978</b>	-	-	-
U2-G	10/8/2015	-	-	-	-	<b>8.985</b>	-	-	-
U2-C	10/8/2015	-	-	-	-	<b>10.46</b>	-	-	-
U3-G	10/8/2015	-	-	-	-	<b>11.94</b>	-	-	-
U3-C	10/8/2015	-	-	-	-	<b>13.59</b>	-	-	-
U4-G	10/8/2015	-	-	-	-	<b>25.24</b>	-	-	-
U4-C	10/8/2015	-	-	-	-	<b>17.37</b>	-	-	-

**TABLE 4D-3  
SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
U5-G	10/8/2015	-	-	-	-	<b>16.23</b>	-	-	-
U5-C	10/8/2015	-	-	-	-	<b>14.06</b>	-	-	-
V1-G	10/8/2015	-	-	-	-	<b>28.89</b>	-	-	-
V1-C	10/8/2015	-	-	-	-	<b>20.2</b>	-	-	-
V2-G	10/8/2015	-	-	-	-	<b>23.07</b>	-	-	-
V2-C	10/8/2015	-	-	-	-	<b>10.74</b>	-	-	-
V3-G	10/8/2015	-	-	-	-	<b>12.81</b>	-	-	-
V3-C	10/8/2015	-	-	-	-	<b>18.77</b>	-	-	-
V4-G	10/8/2015	-	-	-	-	<b>61.62</b>	-	-	-
V4-C	10/8/2015	-	-	-	-	<b>43.87</b>	-	-	-
V5-G	10/8/2015	-	-	-	-	<b>190</b>	-	-	-
V5-C	10/8/2015	-	-	-	-	<b>27.45</b>	-	-	-
V6-G	10/8/2015	-	-	-	-	<b>44.07</b>	-	-	-
V6-C	10/8/2015	-	-	-	-	<b>348.7</b>	-	-	-
V7-G	10/8/2015	-	-	-	-	<b>16.13</b>	-	-	-
V7-C	10/8/2015	-	-	-	-	<b>63.37</b>	-	-	-
W1-G	10/8/2015	-	-	-	-	<b>17.59</b>	-	-	-

**TABLE 4D-3  
SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
W1-C	10/8/2015	-	-	-	-	<b>9.519</b>	-	-	-
W2-G	10/8/2015	-	-	-	-	<b>10.09</b>	-	-	-
W2-C	10/8/2015	-	-	-	-	<b>12.82</b>	-	-	-
WX1-G	10/8/2015	-	-	-	-	<b>11.88</b>	-	-	-
WX1-C	10/8/2015	-	-	-	-	<b>11.76</b>	-	-	-
WX2-G	10/8/2015	-	-	-	-	<b>11.89</b>	-	-	-
WX2-C	10/8/2015	-	-	-	-	<b>10.69</b>	-	-	-
X1-G	10/8/2015	-	-	-	-	<b>11.41</b>	-	-	-
X1-C	10/8/2015	-	-	-	-	<b>11.28</b>	-	-	-
X2-G	10/8/2015	-	-	-	-	<b>12.49</b>	-	-	-
X2-C	10/8/2015	-	-	-	-	<b>11.76</b>	-	-	-
X3-G	10/8/2015	-	-	-	-	<b>11.9</b>	-	-	-
X3-C	10/8/2015	-	-	-	-	<b>11.59</b>	-	-	-
X4-G	10/8/2015	-	-	-	-	<b>17.56</b>	-	-	-
X4-C	10/8/2015	-	-	-	-	<b>11.64</b>	-	-	-
X5-G	10/8/2015	-	-	-	-	<b>17.41</b>	-	-	-
X5-C	10/8/2015	-	-	-	-	<b>11.09</b>	-	-	-

**TABLE 4D-3**  
**SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>4.6</b>	<b>---</b>	<b>---</b>
X6-G	10/8/2015	-	-	-	-	<b>19.41</b>	-	-	-
X6-C	10/8/2015	-	-	-	-	<b>50.66</b>	-	-	-
Y1-G	10/9/2015	-	-	-	-	<b>29.6</b>	-	-	-
Y1-C	10/9/2015	-	-	-	-	<b>49.82</b>	-	-	-
Y2-G	10/9/2015	-	-	-	-	<b>11.98</b>	-	-	-
Y2-C	10/9/2015	-	-	-	-	<b>133.6</b>	-	-	-
Y3-G	10/9/2015	-	-	-	-	<b>26.98</b>	-	-	-
Y3-C	10/9/2015	-	-	-	-	<b>157.7</b>	-	-	-
Y4-G	10/9/2015	-	-	-	-	<b>5.925</b>	-	-	-
Y4-C	10/9/2015	-	-	-	-	<b>15.56</b>	-	-	-
Y5-G	10/9/2015	-	-	-	-	<b>35.52</b>	-	-	-
Y5-C	10/9/2015	-	-	-	-	<b>15.93</b>	-	-	-
Y6-G	10/9/2015	-	-	-	-	<b>88.36</b>	-	-	-
Y6-C	10/9/2015	-	-	-	-	<b>33.43</b>	-	-	-
Z1-G	10/9/2015	-	-	-	-	<b>12.98</b>	-	-	-
Z1-C	10/9/2015	-	-	-	-	<b>20.46</b>	-	-	-

Bold Text in Cell = Chemical Detected in Sample Analysis

Yellow Shaded Cell = Metal Exceeds Ingestion PCL and Texas Specific Median Background

**TABLE 4D-3**  
**SOIL ANALYTICAL RESULTS (SURFACE SOILS) - METALS**

Former GNB/Exide Battery Facility  
 1880 Valley View Lane  
 Farmers Branch, TX 75234

SOIL ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
<b>Tier 1 Critical PCL without MSD - Ingestion PCL (<sup>GW</sup>Soil<sub>Ing</sub>)</b>		<b>5</b>	<b>440</b>	<b>1.5</b>	<b>2,400</b>	<b>3</b>	<b>2.1*</b>	<b>2.3</b>	<b>0.48</b>
<b>Texas Specific Median Background</b>		<b>5.9</b>	<b>300</b>	<b>N/A</b>	<b>30</b>	<b>15</b>	<b>8.3*</b>	<b>0.3</b>	<b>N/A</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Tot</sup>Soil<sub>Comb</sub>)</b>		<b>24</b>	<b>8,100</b>	<b>52</b>	<b>33,000</b>	<b>500</b>	<b>3.6</b>	<b>310</b>	<b>97</b>
<b>Tier 1 Soil PCLs - Non Ingestion PCL (<sup>Air</sup>Soil<sub>Inh-v</sub>)</b>		---	---	---	---	---	<b>4.6</b>	---	---

\* - PCL for Mercury based on pH of 6.8 or higher (based on historical EPA assessments determining soils on property are Alkaline)

Note: Soil PCL based on the higher of the Ingestion PCL or Texas Specific Median Background

--- = Inhalation pathway not applicable

**TABLE 5B-2  
GROUNDWATER ANALYTICAL RESULTS - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

GROUNDWATER ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
<b>Tier 1 Critical PCL without MSD Ingestion PCL (<sup>GW</sup>GW<sub>Ing</sub>)</b>		<b>0.01</b>	<b>2</b>	<b>0.005</b>	<b>0.1</b>	<b>0.015</b>	<b>0.002</b>	<b>0.05</b>	<b>0.12</b>
<b>Tier 1 Critical PCL Non-Ingestion PCL (<sup>Air</sup>GW<sub>Inh-v</sub>)</b>		---	---	---	---	---	<b>7.3</b>	---	---
MW-1	8/19/2014	<b>0.0032</b>	<b>0.35</b>	<0.00020	<0.00013	<0.000020	<0.000018	<b>0.0047</b>	<0.000060
	10/1/2015	<b>0.002</b>	<b>0.055</b>	<0.001	<b>0.005</b>	<0.004	<0.0002	<0.002	<0.001
	6/21/2016	<b>0.005</b>	<b>0.057</b>	<b>0.001</b>	<b>0.005</b>	<0.004	<0.0002	<0.002	<0.001
	9/16/2016	<0.002	<b>0.06</b>	<0.001	<b>0.012</b>	<0.004	<0.0002	<0.002	<b>0.002</b>
	12/28/2016	<b>0.003</b>	<b>0.048</b>	<0.001	<b>0.005</b>	<0.004	<0.0002	<0.002	<b>0.002</b>
	3/21/2017	<b>0.003</b>	<b>0.029</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
MW-2	8/18/2014	<b>0.0019</b>	<b>0.054</b>	<0.00020	<0.00013	<0.000020	<0.000018	<b>0.0027</b>	<0.000060
	10/2/2015	<0.002	<b>0.028</b>	<b>0.001</b>	<0.003	<0.004	<0.0002	<0.002	<0.001
	6/21/2016	<0.002	<b>0.055</b>	<0.001	<b>0.003</b>	<0.004	<0.0002	<0.002	<0.001
	9/15/2016	<0.002	<b>0.052</b>	<0.001	<b>0.009</b>	<0.004	<0.0002	<0.002	<b>0.003</b>
	12/28/2016	<0.002	<b>0.055</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
	3/21/2017	<0.002	<b>0.029</b>	<b>0.002</b>	<0.003	<0.004	<0.0002	<0.002	<0.001
MW-3	8/18/2014	<b>0.0022</b>	<b>0.081</b>	<0.00020	<0.00013	<b>0.00052</b>	<0.000018	<b>0.0021</b>	<0.000060
	10/2/2015	<b>0.018</b>	<b>0.089</b>	<b>0.003</b>	<0.003	<b>0.004</b>	<0.0002	<b>0.002</b>	<0.001
	6/22/2016	<0.002	<b>0.044</b>	<0.001	<0.003	<0.004	<0.0002	<b>0.004</b>	<0.001
	9/15/2016	<b>0.014</b>	<b>0.077</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<b>0.001</b>
	12/29/2016	<0.002	<b>0.068</b>	<0.001	<0.003	<0.004	<b>0.0005</b>	<0.002	<0.001
	3/21/2017	<b>0.005</b>	<b>0.063</b>	<b>0.002</b>	<0.003	<0.004	<0.0002	<0.002	<0.001
MW-4	8/19/2014	<b>0.0032</b>	<b>0.049</b>	<0.00020	<0.00013	<0.000020	<0.000018	<b>0.014</b>	<0.000060
	10/2/2015	<b>0.026</b>	<b>0.145</b>	<b>0.004</b>	<0.003	<0.004	<0.0002	<0.002	<0.001
	6/22/2016	<b>0.011</b>	<b>0.205</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
	9/16/2016	<b>0.01</b>	<b>0.236</b>	<0.001	<b>0.007</b>	<0.004	<0.0002	<0.002	<b>0.002</b>
	12/29/2016	<0.002	<b>0.094</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
	3/22/2017	<b>0.013</b>	<b>0.164</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001

**TABLE 5B-2  
GROUNDWATER ANALYTICAL RESULTS - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

GROUNDWATER ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
<b>Tier 1 Critical PCL without MSD Ingestion PCL (<sup>GW</sup>GW<sub>Ing</sub>)</b>		<b>0.01</b>	<b>2</b>	<b>0.005</b>	<b>0.1</b>	<b>0.015</b>	<b>0.002</b>	<b>0.05</b>	<b>0.12</b>
<b>Tier 1 Critical PCL Non-Ingestion PCL (<sup>Air</sup>GW<sub>Inh.v</sub>)</b>		---	---	---	---	---	<b>7.3</b>	---	---
MW-5	8/18/2014	<b>0.0020</b>	<b>0.049</b>	<0.00020	<0.00013	<0.000020	<0.000018	<0.00033	<0.000060
	10/1/2015	<b>0.002</b>	<b>0.099</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
	6/21/2016	<0.002	<b>0.104</b>	<0.001	<b>0.006</b>	<b>0.004</b>	<0.0002	<0.002	<0.001
	9/16/2016	<0.002	<b>0.081</b>	<0.001	<b>0.01</b>	<b>0.005</b>	<0.0002	<0.002	<b>0.001</b>
	12/28/2016	<b>0.004</b>	<b>0.078</b>	<0.001	<b>0.004</b>	<b>0.007</b>	<0.0002	<0.002	<0.001
	3/21/2017	<0.002	<b>0.049</b>	<b>0.001</b>	<0.003	<0.004	<0.0002	<0.002	<0.001
MW-6	10/1/2015	<0.002	<b>0.076</b>	<b>0.002</b>	<b>0.004</b>	<0.004	<0.0002	<0.002	<0.001
	6/21/2016	<b>0.003</b>	<b>0.064</b>	<0.001	<b>0.003</b>	<0.004	<0.0002	<0.002	<0.001
	9/15/2016	<b>0.002</b>	<b>0.058</b>	<0.001	<b>0.006</b>	<0.004	<0.0002	<b>0.002</b>	<b>0.001</b>
	12/28/2016	<0.002	<b>0.058</b>	<0.001	<b>0.009</b>	<0.004	<0.0002	<0.002	<0.001
	3/21/2017	<0.002	<b>0.032</b>	<b>0.002</b>	<0.003	<0.004	<0.0002	<0.002	<0.001
MW-7	10/2/2015	<b>0.002</b>	<b>0.044</b>	<b>0.003</b>	<0.003	<0.004	<0.0002	<0.002	<0.001
	6/21/2016	<0.002	<b>0.087</b>	<0.001	<0.003	<0.004	<0.0002	<b>0.002</b>	<0.001
	9/15/2016	<b>0.002</b>	<b>0.066</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<b>0.002</b>
	12/28/2016	<b>0.006</b>	<b>0.063</b>	0.003	<0.003	<0.004	<0.0002	<0.002	<0.001
	3/21/2017	<0.002	<b>0.042</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
MW-8	10/1/2015	<b>0.002</b>	<b>0.096</b>	<b>0.005</b>	<b>0.004</b>	<0.004	<0.0002	<b>0.004</b>	<0.001
	6/22/2016	<b>0.007</b>	<b>0.056</b>	<0.001	<b>0.01</b>	<0.004	<0.0002	<b>0.003</b>	<0.001
	9/16/2016	<b>0.005</b>	<b>0.093</b>	<0.001	<b>0.008</b>	<0.004	<0.0002	<0.002	<b>0.002</b>
	12/28/2016	<b>0.007</b>	<b>0.078</b>	<0.001	<b>0.005</b>	<0.004	<0.0002	<0.002	<0.001
	3/21/2017	<0.002	<b>0.056</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001

**TABLE 5B-2  
GROUNDWATER ANALYTICAL RESULTS - METALS**

Former GNB/Exide Battery Facility  
1880 Valley View Lane  
Farmers Branch, TX 75234

GROUNDWATER ANALYTICAL RESULTS									
Sample ID	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
<b>Tier 1 Critical PCL without MSD Ingestion PCL (<sup>GW</sup>GW<sub>Ing</sub>)</b>		<b>0.01</b>	<b>2</b>	<b>0.005</b>	<b>0.1</b>	<b>0.015</b>	<b>0.002</b>	<b>0.05</b>	<b>0.12</b>
<b>Tier 1 Critical PCL Non-Ingestion PCL (<sup>Air</sup>GW<sub>Inh-v</sub>)</b>		---	---	---	---	---	<b>7.3</b>	---	---
MW-9	10/1/2015	<b>0.006</b>	<b>0.101</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
	6/21/2016	<b>0.017</b>	<b>0.144</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<b>0.001</b>
	9/16/2016	<b>0.008</b>	<b>0.073</b>	<0.001	<b>0.005</b>	<0.004	<0.0002	<0.002	<b>0.002</b>
	12/28/2016	<b>0.021</b>	<b>0.083</b>	<0.001	<b>0.003</b>	<0.004	<0.0002	<0.002	<0.001
	3/22/2017	<b>0.017</b>	<b>0.133</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
MW-10	10/2/2015	<0.002	<b>0.58</b>	<b>0.025</b>	<b>0.006</b>	<0.004	<0.0002	<b>0.002</b>	<0.001
	6/22/2016	<b>0.004</b>	<b>0.046</b>	<0.001	<0.003	<0.004	<0.0002	<b>0.004</b>	<0.001
	9/15/2016	<b>0.009</b>	<b>0.094</b>	<0.001	<b>0.006</b>	<0.004	<0.0002	<b>0.002</b>	<b>0.002</b>
	12/29/2016	<0.002	<b>0.078</b>	<0.001	<b>0.004</b>	<0.004	<0.0002	<0.002	<0.001
	3/22/2017	<b>0.005</b>	<b>0.077</b>	<0.001	<b>0.003</b>	<0.004	<0.0002	<0.002	<0.001
MW-11	10/2/2015	Well Dry							
	6/22/2016	<b>0.002</b>	<b>0.041</b>	<b>0.003</b>	<b>0.005</b>	<0.004	<0.0002	<b>0.002</b>	<0.001
	9/16/2016	<b>0.004</b>	<b>0.086</b>	<b>0.001</b>	<b>0.032</b>	<0.004	<0.0002	<b>0.002</b>	<b>0.002</b>
	12/29/2016	<0.002	<b>0.076</b>	<0.001	<b>0.012</b>	<0.004	<0.0002	<0.002	<0.001
	3/22/2017	<0.002	<b>0.056</b>	<b>0.005</b>	<b>0.005</b>	<0.004	<0.0002	<0.002	<0.001
MW-12	9/15/2016	<b>0.003</b>	<b>0.118</b>	<0.001	<b>0.01</b>	<0.004	<0.0002	<b>0.003</b>	<b>0.002</b>
	12/29/2016	<0.002	<b>0.065</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
	3/22/2017	<b>0.007</b>	<b>0.039</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
MW-13	9/15/2016	<0.002	<b>0.108</b>	<0.001	<b>0.014</b>	<0.004	<0.0002	<0.002	<b>0.003</b>
	12/29/2016	<0.002	<b>0.048</b>	<0.001	<b>0.006</b>	<0.004	<0.0002	<0.002	<0.001
	3/22/2017	<b>0.005</b>	<b>0.051</b>	<0.001	<0.003	<0.004	<0.0002	<0.002	<0.001
Bold Text in Cell = Chemical Detected in Sample Analysis Shaded Cell = Chemical Exceeds Applicable Action Level --- = Inhalation pathway not applicable									

## APPENDIX N

### STATEMENT REGARDING ASSESSMENT REPORTS FILED WITH TCEQ

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The VCP Application submitted to the TCEQ included copies of the Phase I Environmental Site Assessment (Phase I ESA) and Phase II Environmental Site Assessment (Phase II ESA) reports prepared by EnviroPhase for the Site property. An Affected Property Assessment Report (APAR) was also submitted to the TCEQ.

No other report filings with the TCEQ have occurred as of the date of this submittal.

#### **Summary of Phase II Site Assessment**

Subsurface assessment activities were performed as part of a Phase II Environmental Site Assessment (Phase II ESA) for a real estate transaction on the Site property to determine whether historical operations had negatively affected the Site. The initial assessment was performed by APEX Titan, Inc. (APEX) in August 2014 and confirmed groundwater impacts in excess of TCEQ regulatory action levels. The assessment task performed by EnviroPhase, Inc. was the installation and sampling of six groundwater monitoring wells (MW-6 through MW-11), twelve soil borings (B-1 through B-12), six soil-gas vapor wells (VW-1 through VW-6), and one hundred eighty-six surface soil samples in September/October 2015. Groundwater samples from monitoring wells were collected using low-flow purge and sampling techniques for obtaining representative samples. The samples were analyzed for volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), metals (8 RCRA), and polycyclic aromatic hydrocarbons (PAH). Analytical testing results indicated the presence of arsenic and cadmium in groundwater at concentrations above residential Protective Concentration Levels (PCLs). Soil sample results also exceeded PCLs for arsenic, barium, cadmium, lead, and silver in samples collected from boring locations and surface soil samples. Sample results for soil-gas samples collected from vapor wells showed concentrations of trichloroethene (TCE) and vinyl chloride above EPA Region 9 Residential Risk Screening Levels (RSLs).

An additional groundwater sampling event was performed on June 21 and 22, 2016. Groundwater samples were collected from monitoring wells MW-1 through MW-11. Groundwater samples were collected using low flow purge/sample techniques and submitted for VOC, TPH, and metals analysis.

Additional assessment activities were conducted in September 2016. This assessment included installation of permanent monitoring wells (MW-12 and MW-13) to confirm groundwater delineation. Once the monitoring wells were completed and developed, groundwater samples were collected on September 15 and 16, 2016 and on December 28 and 29, 2016 using low flow purge/sample techniques and submitted for VOC, TPH, and metals analysis.

Upon review of groundwater data collected from August 2014 through December 2016 it appears that the primary chemicals of concern to groundwater are arsenic, cadmium, and vinyl chloride, although cadmium has not been detected above the ingestion PCL for the past 3 consecutive groundwater sampling events and vinyl chloride has not been detected in groundwater samples for the past 4 consecutive groundwater sampling events.

### **Ongoing or Planned Activities**

Concurrently while applying for the MSD and waiting for TCEQ acceptance of the Affected Property Assessment Report (APAR) a quarterly groundwater monitoring program has been implemented and is ongoing. Upon issuance of the MSD Ordinance by the City an MSD Application will be submitted to the TCEQ. No other site investigations, response actions, or reporting is planned unless directed by the TCEQ. Upon Certification of the MSD by the TCEQ MSD Program and obtaining a Certificate of Completion (COC) from the VCP, onsite groundwater monitoring wells will be plugged and abandoned in accordance with applicable procedures.

## **APPENDIX O**

### **STATEMENT REGARDING DRINKING WATER SUPPLY SYSTEM WITHIN 1/2-MILE OF PROPERTY**

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The Designated Property and area (City of Farmers Branch and City of Carrollton) within 1/2 mile are serviced by the City of Dallas municipal water supply, operated and maintained by the City of Dallas Water Utilities (“DWU”) department. The DWU is a registered TCEQ Texas Public Water System and provides water to about 2.5 million people in Dallas and 27 nearby communities. The DWU service area covers approximately 699 square miles, and DWU maintains approximately 5,024 miles of pipe, 21 storage tanks, three treatment plants, and 22 pumping stations. DWU’s drinking water comes from seven sources: the Elm Fork of the Trinity River and lakes Grapevine, Lewisville, Ray Roberts, Ray Hubbard, Tawakoni, and Fork.

**APPENDIX P**

**INFORMATION ON WATER WELLS  
WITHIN FIVE MILES OF THE PROPERTY**

---

A Water Well Report has been developed by GeoSearch identifying all registered wells located within 5 miles of the Designated Property. The ½ Mile Water Well Report is included in Tab 1 of this Appendix P and the 5 Mile Water Well Report, excluding the water well drillers logs, is included in Tab 2 of this Appendix P. Due to the length, the complete 5 Mile Water Well Report is provided electronically in Tab 1 of Appendix Y. Hard copies will be provided upon request.

A map with identified water wells and water well address information for identified wells within the 5 mile search is included in Tab 3 of this Appendix P. The corresponding spreadsheet and mail merge file are provided electronically in Tab 1 of Appendix Y.

There were three water wells identified within a ½ mile radius of the Designated Property. The first well associated with Beasley Building Material was listed as being located on the Designated Property but is suspected of having been plugged since the property is undeveloped and there are no visual indications of water wells. The second and third wells were identified as being owned by the J. Fred Smith Gravel Company with the second well listed as having been plugged and abandoned and the third well listed as “employee’s household”, respectively. The third J Fred Smith well listed as “employee household” is suspected of having been plugged since the well was related to historical gravel pit operations (employee use) that are no longer present and property is now vacant undeveloped land with no visual signs of water wells.

A total of 156 water wells were identified within a 5 mile radius. Of the 156 water wells identified, 25 of the wells were identified as heat pumps, 4 of the wells were identified as test wells or environmental soil borings, and 2 of the wells were identified as plugged or destroyed. As a result only a total of 125 actual water wells were identified within a 5-mile radius. Of the 125 wells identified, 5 wells were listed as public supply wells.

Five wells were identified as public supply wells. The first well, owned by the City of Dallas, is listed as a public supply well # 33-01-301. The well is located at 1440 Whitlock Lane in Carrollton, Texas 75006. The well is 3.54 miles north of the Designated Property and is drilled to a depth of 2305 ft bgs. The second well, owned by the City of Carrollton, is listed as a public supply well # 33-02-102 and is located at 2415 Country Club Drive in Carrollton, Texas 75006. The well is 3.58 miles northeast of the Designated Property and is drilled to a depth of 2475 ft bgs. The third well, owned by Hackberry Ranch, is listed as a public supply well # 33-01-805. The well is located at 700 Meadow Creek Drive in Irving, Texas 75038. The well is 3.67 miles southwest of the Designated Property and is drilled to a depth of 1187 ft bgs. The fourth well, owned by the Dallas Power and Light Company, is listed as a public supply well # 33-01-401. The well is located at 14901 North Lake Road in Dallas, Texas 75253. The well is 3.91 miles northwest of the Designated Property and is drilled to a depth of 1144 ft bgs. The fifth well, owned by North Lake College, is listed as a public supply well # TX196554. The well is located at 5001 N MacArthur Boulevard in Irving, Texas 75038. The well is 4.45 miles southwest of the

Designated Property and is drilled to a depth of 200 ft bgs. These wells are located in a deeper hydraulic zone than the Designated Property and there is no connection to the affected groundwater on the Designated Property.

The remaining wells (120 total) are listed as domestic, irrigation, or industrial wells. An additional 5 wells were found to have been plugged and abandoned and a total of 9 wells are unused, leaving a total of 116 water wells that are being used (One of the wells reported as unused had been reported as plugged and abandoned as mentioned above). A total of 27 shallow wells (less than 50 feet deep) were identified. All other identified water wells were deeper than 50 feet with a majority of the deep wells deeper than 215 feet. Wells 215 feet and deeper are extracting water from the Woodbine, Twin Mountains or Paluxy Formations. The closest well extracting, or previously extracting, from the Woodbine, Twin Mountains, or Paluxy Aquifers is approximately 0.47 miles south-southwest of the Designated Property. Due to the distance from the Designated Property, the depth of the wells, and the Site/regional geology, it is unlikely the wells deeper than 215 feet would be affected since there is no hydraulic connection from the affected groundwater zone to the identified wells.

Shallow wells extracting water from depths less than 50 feet are not considered a concern since shallow wells are producing from locations outside the Trinity River flood plain and tend to be at least 60 feet higher in elevation than the Designated Property and would penetrate bedrock of the Eagle Ford Shale (west of the flood plain) or the Austin Chalk (east of the flood plain), with no hydraulic connection to the Trinity River flood plain. All water wells identified within the Trinity River flood plain tend to produce groundwater from depths of 200 feet bgs or more and typically produce from the Woodbine or Trinity Aquifers. The closest shallow well was identified as an industrial well located on the Designated Property but existence of this well could not be confirmed due to lack of visual evidence. Due to the distance from the Designated Property and the Site/regional geology, it is unlikely shallow wells would be affected since there is no hydraulic connection from the affected groundwater zone to the identified wells.

At the time of this application, the applicant has not provided notice to each water well owner in accordance with Section 361.805 of the Texas Health and Safety Code; because the applicant understands that the MSD must be determined “technically complete” by the City of Farmers Branch and a Public Meeting date scheduled. Notice will be provided once the MSD is deemed “technically complete” and Public Meeting date confirmed.

## **APPENDIX P**

### **ADDITIONAL INFORMATION**

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Tab

- 1 ½ Mile Water Well Report
- 2 5 Mile Water Well Report (without well logs)
- 3 Printout of Water Well Owner Names and Addresses within Five-Mile Radius of Site



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## ***1/2 Mile Municipal Setting Designation (MSD) Report***

---

<http://www.geo-search.net/QuickMap/index.htm?DataID=Standard0000156946>

*Click on link above to access the map and satellite view of current property*

*Target Property:*  
**1880 Valley View Lane**  
**1880 Valley View Ln**  
**Farmers Branch, Dallas County, Texas 75234**

*Prepared For:*  
**Envirophase Inc**

**Order #: 73063**  
**Job #: 156946**  
**Date: 08/22/2016**

## TARGET PROPERTY SUMMARY

**1880 Valley View Lane**

**1880 Valley View Ln**

**Farmers Branch, Dallas County, Texas 75234**

USGS Quadrangle: **Carrollton, TX**

Target Property Geometry: **Area**

Target Property Longitude(s)/Latitude(s):

**(-96.913657, 32.921820), (-96.913649, 32.920972), (-96.914023, 32.920975), (-96.913997, 32.918321),  
(-96.917660, 32.918298), (-96.919688, 32.920004), (-96.918790, 32.920425), (-96.917887, 32.920694),  
(-96.916104, 32.921041), (-96.914416, 32.921562), (-96.913657, 32.921820)**

County/Parish Covered:

**Dallas (TX)**

Zipcode(s) Covered:

**Carrollton TX: 75006**

**Dallas TX: 75234**

State(s) Covered:

**TX**

**\*Target property is located in Radon Zone 3.**

**Zone 3 areas have a predicted average indoor radon screening level less than 2 pCi/L  
(picocuries per liter).**

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## DATABASE FINDINGS SUMMARY

DATABASE	ACRONYM	LOCA- TABLE	UNLOCA- TABLE	SEARCH RADIUS (miles)
<b><u>FEDERAL</u></b>				
UNITED STATES GEOLOGICAL SURVEY NATIONAL WATER INFORMATION SYSTEM	NWIS	0	0	0.5000
<b>SUB-TOTAL</b>		<b>0</b>	<b>0</b>	
<b><u>STATE (TX)</u></b>				
SELECT SUBMITTED DRILLERS REPORT DATABASE WELLS	SSDRD	0	0	0.5000
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER WELLS	TCEQ	2	0	0.5000
TEXAS WATER DEVELOPMENT BOARD GROUNDWATER DATABASE	TWDB	1	0	0.5000
WATER UTILITY DATABASE	WUD	0	0	0.5000
<b>SUB-TOTAL</b>		<b>3</b>	<b>0</b>	
<b>TOTAL</b>		<b>3</b>	<b>0</b>	



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## LOCATABLE DATABASE FINDINGS

ACRONYM	SEARCH RADIUS (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
<b><u>FEDERAL</u></b>								
NWIS	.5000	0	0	0	0	NS	NS	0
<b>SUB-TOTAL</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b><u>STATE (TX)</u></b>								
SSTRD	.5000	0	0	0	0	NS	NS	0
TCEQ	.5000	1	0	1	0	NS	NS	2
TWDB	.5000	0	0	1	0	NS	NS	1
WUD	.5000	0	0	0	0	NS	NS	0
<b>SUB-TOTAL</b>		<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>

<b>TOTAL</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>
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**NOTES:**

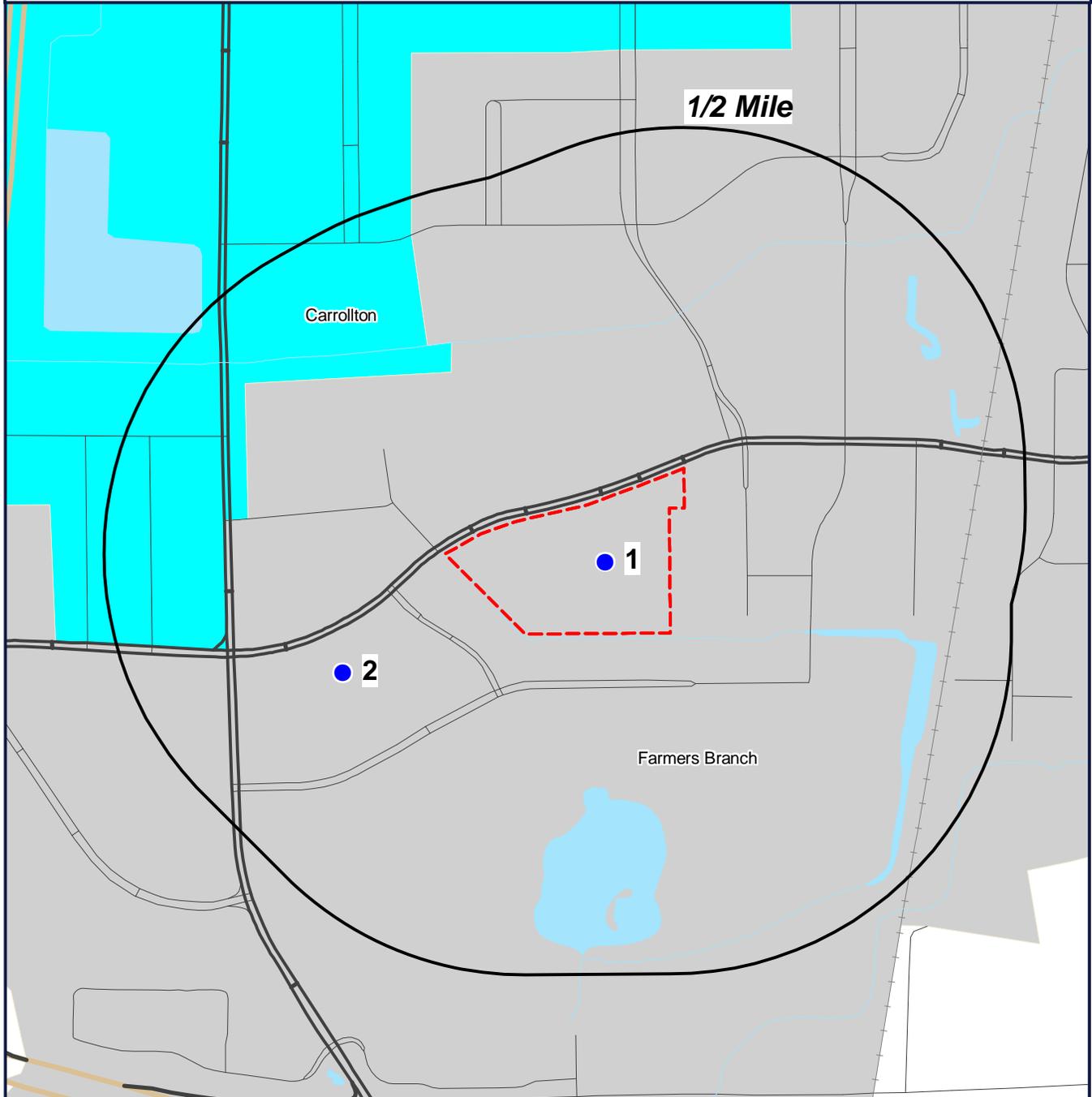
NS = NOT SEARCHED

TP/AP = TARGET PROPERTY/ADJACENT PROPERTY



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**1/2 MILE MUNICIPAL SETTING DESIGNATION (MSD) SITE MAP**



-  Target Property (TP)
-  TCEQ

**1880 Valley View Lane  
1880 Valley Ln  
Farmers Branch, Texas  
75234**



0' 600' 1200' 1800'  
SCALE: 1" = 1200'

## REPORT SUMMARY OF LOCATABLE SITES

MAP ID#	DATABASE NAME	SITE ID#	DISTANCE FROM SITE	SITE NAME	ADDRESS	CITY, ZIP CODE	PAGE #
1	TCEQ	TX196440	0.001 SW	BEASLEY BLDG MATERIAL	1880 VALLEY VIEW LN	DALLAS, 75234	1
2	TWDB	33-01-501	0.240 SW	J.FRED SMITH GRAVEL CO	1 VALLEY VIEW LN	FARMERS BRANCH, 75234	3
2	TCEQ	TX196438	0.240 SW	J. FRED SMITH GRAVEL CO	1 VALLEY VIEW LN	FARMERS BRANCH, 75234	8



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**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER WELLS (TCEQ)**

**MAP ID# 1**

Distance from Property: 0.00 mi. SW

ID NUMBER: TX196440  
STATE ID : 33-01-6E  
OWNER NAME: BEASLEY BLDG MATERIAL  
DATE DRILLED: 07/09/1964  
DEPTH DRILLED: 50'  
STATIC LEVEL: NOT REPORTED  
WATER USAGE: INDUSTRIAL  
LONGITUDE: -96.915648000  
LATITUDE: 32.919860000

**1 PAGE(S) OF DRILLERS' LOGS**



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# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER WELLS (TCEQ)

Page # 1 out of 1  
Water Well ID: 196440

33-01-6E      6E

File original copy with Texas Water Commission, P. O. Box 2311, Capitol Station, Austin 11, Texas

State of Texas  
**DRILLERS LOG AND WELL DATA REPORT**

For use by TCEQ only  
Well No. 33-01-6E  
Located on map yes  
By JK Date 4-85  
Map no. \_\_\_\_\_

1) Well Owner: Beasley Bldg. Material 1480 W. Valley View - Dallas, Tex.

2) Land Owner: same

3) Intended use: Industrial  Municipal  Irrigation  Other Handicapped

4) Location of well: County Dallas Labor \_\_\_\_\_ League \_\_\_\_\_ Abstract No. \_\_\_\_\_  
NW 1/4 NE 1/4 SE 1/4 SW 1/4 of Section Block No. \_\_\_\_\_ Survey \_\_\_\_\_  
(Circle as many as are shown)

3 miles in S. direction from Carrollton, Tex.  
on Valley View Lv.

Sketch map of well location with distances from two section or survey lines, and to landmarks, roads, and creeks.

**DRILLERS LOG OF WELL**

Method of drilling: Rotary Diameter of hole 36 in. Date drilled 7-9-64  
 All measurements made from 0 ft. above ground level.

From (ft)	To (ft)	Description and color of formation material	From (ft)	To (ft)	Description and color of formation material
1	2	Brown S. Topsoil			
2	10	Red Sandy Clay			
10	27	Water Bearing Sand + Gravel			
27	50	Blue Shale			
50		" "			

(Use continuation sheets if necessary)

**COMPLETION DATA**

<b>COMPLETION</b> Straight wall <input type="checkbox"/> Under reamed <input type="checkbox"/> Gravel packed <input checked="" type="checkbox"/> Open hole <input type="checkbox"/> Other _____	<b>Concrete CASING</b> Type: Old <input type="checkbox"/> New <input checked="" type="checkbox"/> Cemented from _____ ft. to _____ ft. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Diameter (inches)</th> <th colspan="2">Setting</th> </tr> <tr> <th>from (ft)</th> <th>to (ft)</th> </tr> </thead> <tbody> <tr> <td>30 ID</td> <td>1</td> <td>50</td> </tr> </tbody> </table>	Diameter (inches)	Setting		from (ft)	to (ft)	30 ID	1	50	<b>SCREEN</b> Type _____ Perforated <input type="checkbox"/> Slotted <input type="checkbox"/> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Diameter (inches)</th> <th colspan="2">Setting</th> </tr> <tr> <th>from (ft)</th> <th>to (ft)</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Diameter (inches)	Setting		from (ft)	to (ft)			
Diameter (inches)	Setting																	
	from (ft)	to (ft)																
30 ID	1	50																
Diameter (inches)	Setting																	
	from (ft)	to (ft)																

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief.

George Combs      **COMBS DRILLING SERVICE**      Reg. No. \_\_\_\_\_  
Signature      Company Name

Please attach electric log, chemical analysis, and other pertinent information if available.

If well was tested by your company or if you installed the permanent pump please complete the following:

WATER LEVEL AND PUMP DATA			
Static water level _____ ft. below _____		Pump type _____	
Pumping level		Designed pumping rate _____ gpm <input type="checkbox"/> gph <input type="checkbox"/>	
feet	hours	Type power unit _____	
		Horsepower _____	
		Depth to bowls, cylinder, jet, etc., _____ ft. below pump base.	

Name of contractor testing well or installing permanent pump if other than your company: \_\_\_\_\_

C-34 (62-6)

## TEXAS WATER DEVELOPMENT BOARD GROUNDWATER DATABASE (TWDB)

**MAP ID# 2** Distance from Property: 0.24 mi. SW

STATE ID: 33-01-501  
OWNER'S NAME: J.FRED SMITH GRAVEL CO  
DATE DRILLED: 00/00/1959  
DEPTH DRILLED: 515'  
WATER USAGE: UNUSED  
LONGITUDE: -96.922273000  
LATITUDE: 32.917501000  
SOURCE: TWDB



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# TEXAS WATER DEVELOPMENT BOARD GROUNDWATER DATABASE (TWDB)

Page # 1 out of 4  
State ID: 33-01-501

TEXAS WATER DEVELOPMENT BOARD  
WELL SCHEDULE

Aquifer woodbine Field No. \_\_\_\_\_ State Well No. 33-01-501  
Owner's Well No. \_\_\_\_\_ County Dallas

1. Location: 1/4, 1/4 Sec., Block \_\_\_\_\_ Survey \_\_\_\_\_  
Valley View Lane
2. Owner: J. Fred Smith Gravel Co. Address: FARMERS BRANCH, TEXAS  
Tenant: \_\_\_\_\_ Address: \_\_\_\_\_  
Driller: J. L. MYERS SONS Address: DALLAS, TEXAS
3. Elevation of \_\_\_\_\_ is 430 ft. above msl, determined by \_\_\_\_\_
4. Drilled: 7-2 19 59; Dug, Cable Tool, Rotary \_\_\_\_\_
5. Depth: Rept. 515 ft. Mess. 447 ft. Plugged back
6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed \_\_\_\_\_
7. Pump: Mfg. \_\_\_\_\_ Type Turbine  
No. Stages \_\_\_\_\_, Bowls Diam. \_\_\_\_\_ in., Setting 250 ft.  
Column Diam. \_\_\_\_\_ in., Length Tailpipe \_\_\_\_\_ ft.
8. Motor: Fuel Elect Make & Model \_\_\_\_\_ HP 15
9. Yield: Flow \_\_\_\_\_ gpm, Pump 10 gpm, Mess. Rept., Est. \_\_\_\_\_
10. Performance Test: Date \_\_\_\_\_ Length of Test \_\_\_\_\_ Made by \_\_\_\_\_  
Static Level \_\_\_\_\_ ft. Pumping Level \_\_\_\_\_ ft. Drawdown \_\_\_\_\_ ft.  
Production \_\_\_\_\_ gpm Specific Capacity \_\_\_\_\_ gpm/ft.


CASING & BLANK PIPE			
Cemented From _____ ft. to _____ ft.		Setting, ft. to	
Diam. (in.)	Type	From	To
9 5/8	steel	0	22
7	steel	0	447

11. Water Level: 222 ft. Rept. 7-2 19 59 above 250 ft. \_\_\_\_\_ which is \_\_\_\_\_ ft. above surface.  
\_\_\_\_\_ ft. Rept. \_\_\_\_\_ 19 \_\_\_\_\_ below \_\_\_\_\_ ft. above surface.  
\_\_\_\_\_ ft. Rept. \_\_\_\_\_ 19 \_\_\_\_\_ above \_\_\_\_\_ ft. above surface.  
\_\_\_\_\_ ft. Rept. \_\_\_\_\_ 19 \_\_\_\_\_ below \_\_\_\_\_ ft. above surface.

12. Use: Dam., Stock, Public Supply  Irr., Waterflooding, Observation, Not Used, Plugged & Abandoned
13. Quality: (Remarks on taste, odor, color, etc.) \_\_\_\_\_  
Temp. \_\_\_\_\_ °F, Date sampled for analysis \_\_\_\_\_ Laboratory \_\_\_\_\_  
Temp. \_\_\_\_\_ °F, Date sampled for analysis \_\_\_\_\_ Laboratory \_\_\_\_\_  
Temp. \_\_\_\_\_ °F, Date sampled for analysis \_\_\_\_\_ Laboratory \_\_\_\_\_

WELL SCREEN			
Screen Openings _____		Setting, ft. to	
Diam. (in.)	Type	From	To
7	steel	440	447

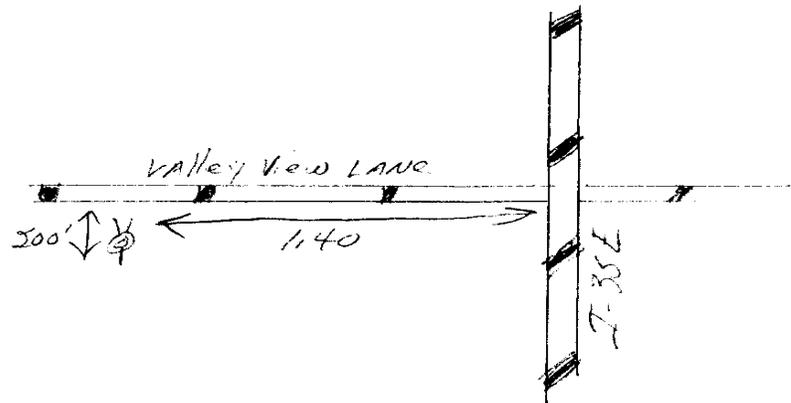
14. Other data available as circled: Driller's Log, Radioactivity Log, Electric Log, Formation Samples, Pumping Test, \_\_\_\_\_
15. Record by: Gene Davis Date 6-19-1975  
Source of Data TBWE 526 & 525
16. Remarks: Gravel Co. no longer there  
Plugged & Abandoned

TWDBE-WD-2

(Sketch)

33-01-501

Driller's Log  
0-15 - SAND & GRAVEL  
203 - SHALE  
318 - SAND  
242 - SAND & SHALE  
325 - SHALE  
339 - SAND  
350 - SHALE  
393 - SAND  
402 - SAND & SHALE  
447 - SAND  
499 - SHALE  
506 - SAND  
508 - SHALE  
515 - LIME



TEXAS WATER DEVELOPMENT BOARD GROUNDWATER DATABASE (TWDB)

Page # 3 out of 4  
State ID: 33-01-501

Form GW-1

TEXAS BOARD OF WATER ENGINEERS  
GROUND-WATER DIVISION

WELL SCHEDULE

Date 7/11, 1961 Field No. \_\_\_\_\_  
Record by UJL Office No. HR 3301501  
Source of data Myers files

1. Location: County Dallas  
well loc. is So. side of Valley View Lane 1 1/2 mi. Survey west of Farness Branch, Texas

2. Owner: V. Fred Smith Davello Address \_\_\_\_\_  
Tenant \_\_\_\_\_ Address \_\_\_\_\_  
Driller V. Myers Sons Address Dallas

3. Topography: 440+5

4. Elevation: 150-110 ft. <sup>above</sup> MSL <sub>below</sub>

5. Type: Dug, drilled, driven, bored, jetted 7/2 19 59

6. Depth: Rept. 515 ft. Meas. plugged back to 449' of gravel ft.

7. Casing: Diam. \_\_\_\_\_ in., to \_\_\_\_\_ in., Type \_\_\_\_\_  
Depth \_\_\_\_\_ ft., Finish \_\_\_\_\_

8. Chief Aquifer: Red From \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
Others \_\_\_\_\_

9. Water level: 90 ft. <sup>Rept.</sup> 7/2 19 59 <sup>above</sup> water table <sub>meas.</sub> <sub>below</sub> which is \_\_\_\_\_ ft. above surface below

10. Pump: Type T Capacity \_\_\_\_\_ gpm  
Power: Kind E Horsepower 15

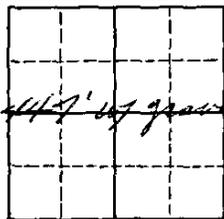
11. Yield: Flow \_\_\_\_\_ gpm, Pump 100 gpm, Meas., Rept. Est. \_\_\_\_\_  
Drawdown \_\_\_\_\_ ft. after \_\_\_\_\_ hours pumping \_\_\_\_\_ gpm

12. Use: Dom., Stock, PS., RR. (Ind.) Obs. Irr. \_\_\_\_\_  
Adequacy, permanence \_\_\_\_\_

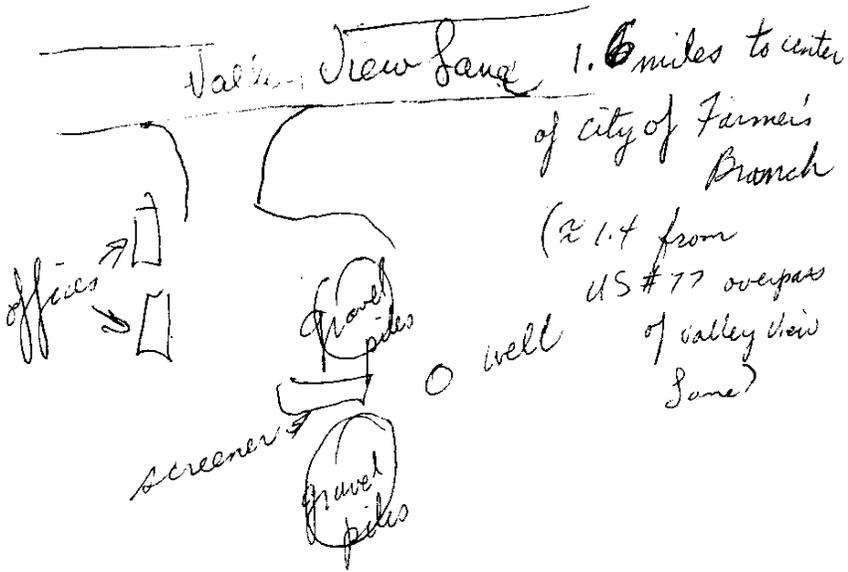
13. Quality: \_\_\_\_\_  
Temp. \_\_\_\_\_ °F Sample Yes <sub>No</sub>

14. Log: Yes Davello @ Myers

15. Remarks: P.S. @ 250  
used to screen gravel when water is low in pit & not used regularly; gravel will plug out in five years



17  
0-30 9 7/8" *slip* pipe (cemented)  
0-447 7" OD, bottom 27' perforated  
(cemented)  
John Lively's drain



HR 33-01-501

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER WELLS (TCEQ)**

**MAP ID# 2**

Distance from Property: 0.24 mi. SW

ID NUMBER: TX196438  
STATE ID : 33-01-6D  
OWNER NAME: J. FRED SMITH GRAVEL CO  
DATE DRILLED: 07/10/1964  
DEPTH DRILLED: 26'  
STATIC LEVEL: NOT REPORTED  
WATER USAGE: EMPLOYEE'S HOUSEHOLD  
LONGITUDE: -96.922273000  
LATITUDE: 32.917501000

**1 PAGE(S) OF DRILLERS' LOGS**



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# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER WELLS (TCEQ)

Page # 1 out of 1  
Water Well ID: 196438

33-01-6D

File original copy with Texas Water Commission, P. O. Box 2311, Capitol Station, Austin 11, Texas

State of Texas  
**DRILLERS LOG AND WELL DATA REPORT**

For use by TWC only  
Well No. 33-01-6D  
Located on map 400  
By dt Date 76  
Map no.

1) Well Owner: Jo Fred Smith Dravel Co. - P.O. Box 14244 - Dallas 34

2) Land Owner: Same

3) Intended use: Industrial  Municipal  Irrigation  Other Employee's Household

4) Location of well: County Dallas Labor League Abstract No.

Section 34 of Section Block No. Survey

3 miles in S direction from Canvallon on Valley View Ln.

Sketch map of well location with distance from two section or survey lines, and to landmarks, roads, and creeks.

Method of drilling: Rotary Diameter of hole 36 in. Date drilled 7-10-64

All measurements made from 0 ft. above ground level.

From (ft)	To (ft)	Description and color of formation material	From (ft)	To (ft)	Description and color of formation material
1	2	Brown s. Topsoil			
2	10	Red sandy clay			
10	15	Unstable sand			
15	20	Water bearing sand gravel			
20	26	Blue shale			

(Use continuation sheets if necessary)

### COMPLETION DATA

<b>COMPLETION</b> Straight wall <input checked="" type="checkbox"/> Under reamed <input type="checkbox"/> Gravel packed <input checked="" type="checkbox"/> Open hole <input type="checkbox"/> Other _____		<b>CONCRETE CASING</b> Type: Old <input type="checkbox"/> New <input checked="" type="checkbox"/> Cemented from _____ ft. to _____ ft. Diameter (inches) _____ Setting from (ft) _____ to (ft) _____ 30FD      1      26		<b>SCREEN</b> Type _____ Perforated <input type="checkbox"/> Slotted <input type="checkbox"/> Diameter (inches) _____ Setting from (ft) _____ to (ft) _____	
---	--	---	--	---	--

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief.

George Combs **COMBS DRILLING SERVICE** Reg. No. \_\_\_\_\_

Please attach electric log, chemical analysis, and other pertinent information if available.

If well was tested by your company or if you installed the permanent pump please complete the following:

### WATER LEVEL AND PUMP DATA

Static water level _____ ft. below _____	Pump type _____									
<table border="1"> <thead> <tr> <th>feet</th> <th>hours</th> <th>gpm</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	feet	hours	gpm							Designed pumping rate _____ gpm <input type="checkbox"/> gph <input type="checkbox"/> Type power unit _____ Horsepower _____ Depth to _____ ft. below pump base.
feet	hours	gpm								

\_\_\_\_\_ of contractor testing well or installing permanent pump if other than your company:

## ENVIRONMENTAL RECORDS DEFINITIONS - FEDERAL

**NWIS**

United States Geological Survey National Water Information System

**VERSION DATE: 5/2015**

This USGS National Water Information System database only includes groundwater wells. The USGS defines this well type as: A hole or shaft constructed in the earth intended to be used to locate, sample, or develop groundwater, oil, gas, or some other subsurface material. The diameter of a well is typically much smaller than the depth. Wells are also used to artificially recharge groundwater or to pressurize oil and gas production zones. Additional information about specific kinds of wells should be recorded under the secondary site types or the Use of Site field. Underground waste-disposal wells should be classified as waste-injection wells.



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## ENVIRONMENTAL RECORDS DEFINITIONS - STATE (TX)

**SSDRD** Select Submitted Drillers Report Database Wells

**VERSION DATE:** 4/2016

This Texas Water Development Board database was created from the online Texas Well Report Submission and Retrieval System (a cooperative TDLR, TWDB system) that registered water-well drillers use to submit their required reports. The system was started in February 2001 and is optional for the drillers to use. This data excludes the following well types: Monitor Wells, Environmental Soil Borings, Injections Wells, De-watering and Test Wells.

**TCEQ** Texas Commission on Environmental Quality Water Wells

**VERSION DATE:** NR

The Texas Commission on Environmental Quality (TCEQ) maintains a filing system of plotted and unnumbered water wells. Plotted water wells are filed according to the County indicated by the driller and the state well number assigned by State of Texas personnel. Given the available location information provided by the driller, personnel identify where the approximate well location should be. After well placement a state well number is assigned indicating that the well lies within a specific 2.5' section of a 7.5' quadrangle. This method allows for quicker, more refined, reference when researching a specific area. Unnumbered water wells have not been assigned a state well number. This can occur for a variety of reasons; however it does not mean the well cannot be accurately spotted. Unnumbered water well records are filed according to County and are often broken up by year or by a span of years.

**TWDB** Texas Water Development Board Groundwater Database

**VERSION DATE:** 1/2016

The Texas Water Development Board Groundwater Database contains information for more than 123,500 sites in Texas including data on water wells, springs, oil/gas tests, water levels, and water quality. The purpose of the Board's data collection effort over the years has been to gain representative information about aquifers in the state in order to do water planning. It is very important, however, to realize that the wells in the database represent only a small percentage of the wells that actually exist in Texas. A registered water well driller is required by law to send in a report to the State for every well that is drilled. This requirement began in 1965, and we estimate that approximately 500,000 wells have been drilled in Texas since then. Of the 1,000,000 plus water wells drilled in Texas over the past 100 years, more than 130,000 have been inventoried and placed into the TWDB groundwater database. State well numbers have been assigned to these based on their location within numbered 7 1/2 minute quadrangles formed by lines of latitude and longitude. This database contains well information including location, depth, well type, owner, driller, construction and completion data.

**WUD** Water Utility Database

**VERSION DATE:** 2/2011

The Water Utility Database is defined as a collection of data from Texas Water Districts, Public



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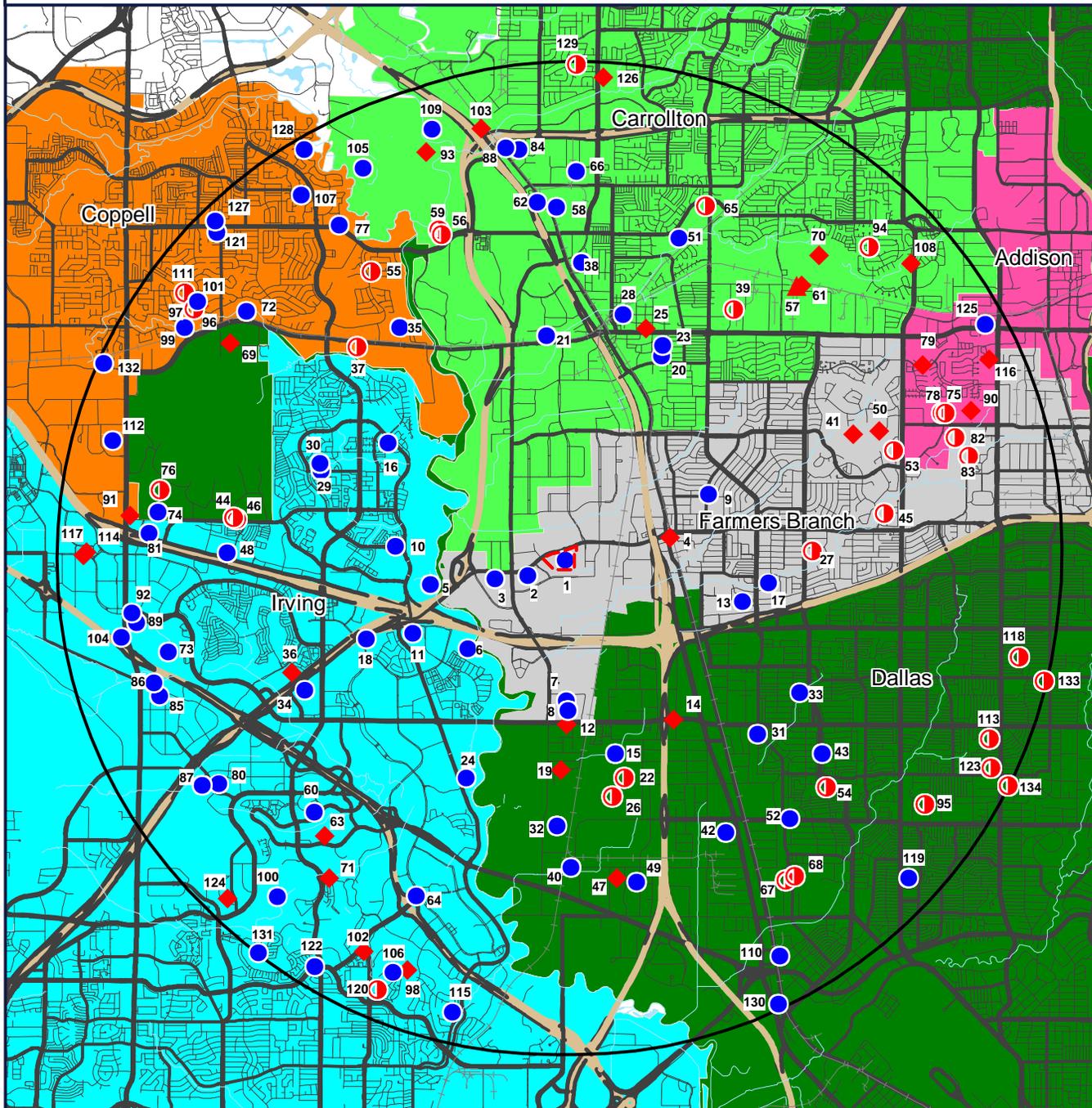
## *ENVIRONMENTAL RECORDS DEFINITIONS - STATE (TX)*

Drinking Water Systems and Water and Sewer Utilities who submit information to the TCEQ. This database is an integrated database designed and developed to replace over 160 stand alone legacy systems representing over 5 million records of the former Texas Water Commission and the Texas Department of Health.



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# 5 MILE MUNICIPAL SETTING DESIGNATION (MSD) SITE MAP



- Target Property (TP)
- TCEQ
- ◆ TWDB
- ⊝ SSDRD
- ▲ WUD

**1880 Valley View Lane  
1880 Valley Ln  
Farmers Branch, Texas  
75234**



**GeoSearch**

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## REPORT SUMMARY OF LOCATABLE SITES

MAP ID#	DATABASE NAME	SITE ID#	DISTANCE FROM SITE	SITE NAME	ADDRESS	CITY, ZIP CODE	PAGE #
1	TCEQ	TX196440	0.001 SW	BEASLEY BLDG MATERIAL	1880 VALLEY VIEW LN	DALLAS, 75234	1
2	TWDB	33-01-501	0.240 SW	J.FRED SMITH GRAVEL CO	1 VALLEY VIEW LN	FARMERS BRANCH, 75234	3
2	TCEQ	TX196438	0.240 SW	J. FRED SMITH GRAVEL CO	1 VALLEY VIEW LN	FARMERS BRANCH, 75234	8
3	TWDB	33-01-502	0.540 W	FREEWAY READY MIX	12099 LUNA RD	DALLAS, 75039	10
3	TCEQ	TX196423	0.540 W	FREEWAY READY MIX CO	12099 LUNA RD	IRVING, 75039	15
4	TWDB	33-01-603	0.980 E	CITY OF FARMERS BRANCH	13020 ROSSFORD ST	DALLAS, 75234	17
5	TCEQ	TX196425	1.200 W	GIFFORD HILL CONCRETE	8400 E VALLEY RANCH P	IRVING, 75063	24
6	TCEQ	TX196426	1.210 SW	BILL HUDSON	100 LBJ FWY	IRVING, 75039	27
7	TCEQ	TX203713	1.350 S	SULLIVAN DEVELOPMENT COMPANY	1850 CROWN DR	DALLAS, 75234	29
8	TCEQ	TX203712	1.440 S	SULLIVAN DEVELOPMENT COMPANY	11431 FERRELL DR	DALLAS, 75234	32
9	TCEQ	TX196439	1.480 E	MR. G.E. WEATHERFORD	13618 DENNIS RD	DALLAS, 75234	35
10	TCEQ	TX196452	1.540 W	WILLIAM COBB	8601 ELM VALLEY DR	IRVING, 75063	37
11	TWDB	33-01-804	1.560 SW	HYDRO CONDUIT CORP	7550 VALLEY VIEW LN	IRVING, 75039	40
11	TCEQ	TX196424	1.560 SW	NORTH AMERICAN EQUIPMENT CO	7550 VALLEY VIEW LN	IRVING, 75039	43
12	TWDB	33-01-901	1.620 S	SOUTHWESTERN STATES CORP #1	1878 ROYAL LN	DALLAS, 75229	46
13	TCEQ	TX196825	1.790 E	MR. O.W. STANDIFER	2806 BAY MEADOWS CIR	FARMERS BRANCH, 75234	48
14	TWDB	33-01-902	1.880 SE		2464 ROYAL LN	DALLAS, 75229	50
15	TCEQ	TX186758	1.960 S	RON HENSLEY	2108 JOE FIELD RD	DALLAS, 75229	52
16	TCEQ	TX196451	2.000 NW	WARREN, RAY	9501 E VALLEY RANCH P	IRVING, 75063	54
17	TCEQ	TX196412	2.020 E	NORMAN CHANDLER	12411 VERONICA CIR	FARMERS BRANCH, 75234	57
18	TCEQ	TX196422	2.040 SW	C.J. BENDER #2	7323 PALUXY DR	IRVING, 75039	59
18	TWDB	33-01-801	2.040 SW	C.J. BENDER	7323 PALUXY DR	IRVING, 75039	61
18	TWDB	33-01-802	2.040 SW	C.J. BENDER	7323 PALUXY DR	IRVING, 75039	64
18	TCEQ	TX196421	2.020 SW	C.J. BENDER #1	7316 PALUXY DR	IRVING, 75039	66
19	TWDB	33-01-803	2.080 S	DEL-TEX PIPE INC	1715 Z STREET	DALLAS, 75229	68



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## REPORT SUMMARY OF LOCATABLE SITES

MAP ID#	DATABASE NAME	SITE ID#	DISTANCE FROM SITE	SITE NAME	ADDRESS	CITY, ZIP CODE	PAGE #
20	TCEQ	TX196441	2.180 NE	STEVE MOODY	1608 ROSS AVE	CARROLLTON, 75006	73
21	TCEQ	TX196446	2.230 N	WALTER FULLER	1515 W COLLEGE AVE	CARROLLTON, 75006	75
22	SSDRD	TX295896	2.240 S	BIG CITY CRUSHED CONCRETE			77
23	TCEQ	TX196445	2.290 NE	MR. ERNEST B. PARSONS	1616 FRANCIS ST	CARROLLTON, 75006	78
24	TCEQ	TX196545	2.340 SW	DR. J.E. MILLER	5902 N OCONNOR BLVD	IRVING, 75039	81
25	TWDB	33-01-602	2.350 N	CITY OF CARROLLTON WELL #1	1501 E BELT LINE RD	CARROLLTON, 75011	83
25	TWDB	33-01-604	2.350 N	CITY OF COROLLTON	1501 E BELT LINE RD	CARROLLTON, 75011	89
25	TWDB	33-01-601	2.350 N	CITY OF CARROLLTON WELL #2	1501 E BELT LINE RD	CARROLLTON, 75011	92
26	SSDRD	TX263744	2.400 S	BIG CITY CRUSHED CONCRETE	11131 GOODNIGHT	DALLAS, 75229	104
27	SSDRD	TX234299	2.440 E	BROWNLEE RESIDENCE	3116 BROOKHOLLOW DRIVE	DALLAS, 75234	105
28	TCEQ	TX197942	2.480 N	MR. E. L. KENT	1214 JACKSON ST	CARROLLTON, 75006	106
29	TCEQ	TX196448	2.500 W	AIRCO	9404 APPLE WAY	IRVING, 75063	108
29	TCEQ	TX196450	2.480 W	AIR CO	9403 ABBEY RD	IRVING, 75063	111
29	TCEQ	TX196449	2.500 W	AIRCO	9409 ABBEY RD	IRVING, 75063	114
30	TCEQ	TX196457	2.530 W	WILLIAM & JUNE HOLTZ	9420 ABBEY RD	IRVING, 75064	117
31	TCEQ	TX196828	2.560 SE	MR. DEAN A. RAMSAY	10761 BROCKBANK CT	DALLAS, 75229	120
32	TCEQ	TX196427	2.630 S	JOE CANTERBURY	10850 LUNA RD	DALLAS, 75220	122
33	TCEQ	TX196827	2.680 SE	MR. M.G. ROGERS	3134 SATSUMA DR	DALLAS, 75229	125
34	TCEQ	TX196432	2.830 SW	GARY REED	7100 N STATE HWY 161	IRVING, 75038	127
35	TCEQ	TX196447	2.840 NW	RADIO STATION KAAM	510 RIVERCHASE DR	COPPELL, 75019	130
36	TWDB	33-01-702	2.880 SW	E.R. BYER ESTATES	1000 SAN JACINTO DR	IRVING, 75063	132
37	SSDRD	TX40524	2.930 NW	BLOOMING COLORS NURSERY	1701 E. BELTLINE RD.	COPPELL, 75019	134
38	TCEQ	TX196465	2.950 N	MR, ROSS WASHAM	1410 WESTWAY CIR	DALLAS, 75006	135
39	SSDRD	TX125886	2.950 NE	LENNOX INDUSTRIES	1600 METROCREST DRIVE	CARROLLTON, 75006	138
40	TWDB	33-01-903	3.060 S	TECHNICAL CHEMICAL CO	10737 SPANGLER RD	DALLAS, 75220	139
40	TCEQ	TX186744	3.060 S	TECHANICAL CHEMICAL CO.	10737 SPANGLER RD	DALLAS, 75220	144



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## REPORT SUMMARY OF LOCATABLE SITES

MAP ID#	DATABASE NAME	SITE ID#	DISTANCE FROM SITE	SITE NAME	ADDRESS	CITY, ZIP CODE	PAGE #
41	TWDB	33-02-402	3.100 E	BROOKHAVEN COUNTRY CLUB	2227 BROOKHAVEN CLUB DR	DALLAS, 75234	146
42	TCEQ	TX186754	3.160 SE	FOREST LAWN CEMETERY	10977 HARRY HINES BLVD	DALLAS, 75220	151
42	TCEQ	TX186755	3.160 SE	FOREST LAWN CEMETERY	10977 HARRY HINES BLVD	DALLAS, 75220	153
42	TCEQ	TX186756	3.160 SE	FOREST LAWN CEMETARY	10977 HARRY HINES BLVD	DALLAS, 75220	155
42	TWDB	33-01-904	3.160 SE	CHARLES S. PEEPLE	10977 HARRY HINES BLVD	DALLAS, 75220	157
42	TCEQ	TX186743	3.160 SE	CHARLES S. PEEPLE	10977 HARRY HINES BLVD	DALLAS, 75220	161
43	TCEQ	TX196808	3.180 SE	WILLIAM A. MCDONALD	10541 ROYAL CLUB LN	DALLAS, 75229	163
44	SSDRD	TX317972	3.210 W	COPPEL ISD--LEE ELEMENTARY	100YDS W OF OLYMPUS & RANCH TRL	IRVING, 75063	165
45	SSDRD	TX387062	3.230 E	CHARLES ZUBAVIK	13219 GLADE ACRES	FARMERS BRANCH, 75234	166
46	SSDRD	TX372377	3.250 W	COPPELL ISD	8808 CHAPARRAL WATERS WAY	DALLAS, 75063	167
47	TWDB	33-09-301	3.260 S	TEXAS INDUSTRIES INC	2202 MANANA RD	DALLAS, 75220	168
48	TCEQ	TX196459	3.260 W	TOM DAILY	2280 MARKET PLACE BLV	IRVING, 75063	173
49	TCEQ	TX186746	3.310 S	A.J. AIROLDI	10709 GOODNIGHT LN	DALLAS, 75220	176
50	TWDB	33-02-403	3.360 E	BROOKHAVEN COUNTRY CLUB	14330 OLYMPIC	DALLAS, 75234	178
51	TCEQ	TX196462	3.360 N	PIERCE PUMP CO	1440 KELLER SPRINGS R	CARROLLTON, 75006	189
52	TCEQ	TX186757	3.420 SE	C.W. CAVE	10008 GOODYEAR DR	DALLAS, 75229	191
53	SSDRD	TX414872	3.430 E	KEVIN CALDWELL	14127 TANGLEWOOD	FARMERS BRANCH, 75234	193
54	SSDRD	TX232482	3.470 SE	DALLAS I.S.D.	130 WEBB CHAPEL BLVD.	DALLAS	194
55	SSDRD	TX223955	3.480 NW	EBBY HOLIDAY	10210 TEA GARDEN	DALLAS, 75204	195
56	SSDRD	TX30372	3.490 NW	SOUTHWEST WHOLESALE NURSERY	2220 SANDY LAKE ROAD	CARROLLTON, 75006	196
57	WUD	3796	3.530 NE	CITY OF CARROLLTON	2415 COUNTRY CLUB DR	CARROLLTON, 75011	197
58	TCEQ	TX196464	3.540 N	C.O. WISE	1440 WHITLOCK LN	DALLAS, 75006	198
58	TWDB	33-01-301	3.540 N	CITY OF DALLAS	1440 WHITLOCK LN	CARROLLTON, 75006	200
58	TWDB	33-01-302	3.540 N	CITY OF DALLAS	1440 WHITLOCK LN	CARROLLTON, 75006	208
58	TCEQ	TX196463	3.540 N	GARY DUFF	1440 WHITLOCK LN	CARROLLTON, 75006	217
59	SSDRD	TX407238	3.540 NW	STEVE TABER SWW NURSERY	2220 SANDY LAKE RD	CARROLLTON, 75006	219



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## REPORT SUMMARY OF LOCATABLE SITES

MAP ID#	DATABASE NAME	SITE ID#	DISTANCE FROM SITE	SITE NAME	ADDRESS	CITY, ZIP CODE	PAGE #
60	TCEQ	TX196803	3.550 SW	RAUL DOMINGUEZ	5302 CARNABY ST	IRVING, 75038	220
61	TWDB	33-02-102	3.580 NE	CITY OF CARROLLTON WELL #3	2415 COUNTRY CLUB DR	CARROLLTON, 75006	223
62	TCEQ	TX196469	3.620 N	CHAPMAN CONSTRUCTION CO	2200 N IH 35E	RICHARDSON, 75080	241
63	TWDB	33-01-805	3.670 SW	HACKBERRY RANCH	700 MEADOW CREEK DR	IRVING, 75038	244
64	TCEQ	TX186745	3.680 SW	HOLLAWAY CONST. CO. #1	5101 N OCONNOR BLVD	IRVING, 75039	253
65	SSDRD	TX236430	3.780 N	BILL HOPKINS	2129 NORTH JOSEY LN.	CARROLLTON, 75006	255
66	TCEQ	TX196466	3.880 N	MOSHER IND	1115 CROWLEY DR	CARROLLTON, 75006	256
67	SSDRD	TX101223	3.900 SE	DALLAS ISD.	BROCKBANK DRIVE AND VALLEY MEADOWS DRIVE	DALLAS, 75220	259
67	SSDRD	TX131357	3.900 SE	DALLAS ISD	9801 BROCKBANK	DALLAS, 75220	260
68	SSDRD	TX420027	3.900 SE	DALLAS ISD	9815 BROCKBANK DRIVE	DALLAS, 75220	261
69	TWDB	33-01-401	3.910 NW	DALLAS POWER AND LIGHT WELL #1	14901 NORTH LAKE RD	DALLAS, 75253	262
70	TWDB	33-02-101	3.930 NE	COLUMBIAN CLUB	2525 COUNTRY CLUB DR	CARROLLTON, 75006	268
71	TWDB	33-09-203	3.950 SW	LAS COLINAS CORP	4930 N MACARTHUR BLVD	IRVING, 75038	271
72	TCEQ	TX196458	4.010 NW	CENTEX	640 S MOORE RD	COPPELL, 75019	277
73	TCEQ	TX196433	4.010 W	H.B. ZACHRY	3400 W JOHN W CARPENT	IRVING, N/A	280
74	TCEQ	TX196455	4.040 W	TU ELECTRIC	8840 CYPRESS WATERS BLVD	DALLAS, 75019	282
75	SSDRD	TX217265	4.040 E	DALLAS ISD-GEORGE BUSH ELEM.	3939 SPRING VALLEY ROAD	ADDISON, 75204	284
76	SSDRD	TX260326	4.050 W	BILLINGSLY DEV. CO.	VAN ZANDT DR.	COPPELL	285
77	TCEQ	TX196470	4.070 NW	W.M. WILSON	1132 E SANDY LAKE RD	COPPELL, 75019	286
78	SSDRD	TX194458	4.070 E	DALLAS I.S.D.	1/2 MILE WEST OF MIDWAY ROAD AND SPRING VALLEY ROAD	ADDISON, 75001	288
79	TWDB	33-02-406	4.080 NE	LES LACS VILLAGE, INC.	3792 PARK PL	ADDISON, 75001	289
80	TCEQ	TX196430	4.080 SW	C.W. MINOR	1660 N WESTRIDGE CIR	IRVING, 75038	302
81	TCEQ	TX196460	4.090 W	L.V. CRIBBS	3200 HACKBERRY RD	DALLAS, 75201	305
82	SSDRD	TX346544	4.090 E	EDWARD .B.FRANKEL	LAKEVEIW APARTMENTS 3950 SPRINGVALLEY RD	FARMERS BRANCH, 75244	309
83	SSDRD	TX276112	4.190 E	CITY OF ADDISON	BELLA LANE	ADDISON, 75001	310



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## REPORT SUMMARY OF LOCATABLE SITES

MAP ID#	DATABASE NAME	SITE ID#	DISTANCE FROM SITE	SITE NAME	ADDRESS	CITY, ZIP CODE	PAGE #
84	TCEQ	TX196472	4.200 N	BRYAN JONES	1441 W TRINITY MILLS	CARROLLTON, 75009	311
85	TCEQ	TX196431	4.210 W	JUNEAU & ASSOCIATES	6502 N BELTLINE RD	IRVING, 75063	313
86	TCEQ	TX196434	4.210 W	M & S CONSTRUCTION CO INC	3400 CABELL DR	IRVING, 75063	316
87	TCEQ	TX196436	4.240 SW	WESTERN HEIGHTS BAPTIST CHURCH	1616 CORPORATE CT	IRVING, 75038	318
88	TCEQ	TX196468	4.240 N	DR. DON G. PANSEGRAU	1500 TRINITY MILLS RD	DALLAS, 75006	320
89	TCEQ	TX203720	4.280 W	H.B. ZACHRY	3330 W ROYAL LN	IRVING, N/A	323
90	TWDB	33-02-401	4.310 E	GREENHILL SCHOOL	4141 SPRING VALLEY RD	ADDISON, 75001	325
91	TWDB	33-01-403	4.320 W	SOUTHERN CONCRETE	8500 S BELTLINE RD	COPPELL, 75019	329
92	TCEQ	TX196437	4.320 W	M F C	7700 N BELTLINE RD	IRVING, 75063	333
93	TWDB	33-01-201	4.340 N	J. FRED SMITH GRAVEL	2529 N IH 35E	CARROLLTON, 75007	336
94	SSDRD	TX241208	4.380 NE	MR JOHN JOHNSON	2705 QUAIL RIDGE DR.	CARROLLTON, 75006	340
95	SSDRD	TX300901	4.380 SE	BURNER	3837 MARTHA DR	DALLAS, 75229	341
96	TWDB	33-01-402	4.390 NW	SERVICE INDUSTRY PROPERTIES MANAGEMENT	529 HERITAGE OAK CT	GRAPEVINE, 76051	342
97	SSDRD	TX129185	4.410 NW	KATHY FOSS	441 CARTER DR.	COPPELL, 75019	347
98	TWDB	33-09-201	4.430 S	LAS COLINAS GOLF COURSE	4400 N OCONNOR RD	IRVING, 75062	348
99	TCEQ	TX196456	4.430 NW	JOHN PARKS	413 MEADOWCREEK RD	COPPELL, 75019	351
100	TWDB	33-09-103	4.450 SW	NORTH LAKE COLLEGE DALLAS COMM. COLLEGE	5001 N MACARTHUR BLVD	IRVING, 75038	353
100	TCEQ	TX196554	4.450 SW	NORTH LAKE COLLEGE (WATER FURNACE)	5001 N MACARTHUR BLVD	IRVING, 75038	368
101	TCEQ	TX196476	4.450 NW	TOM MILLER	425 CARTER DR	COPPELL, 75019	371
102	TWDB	33-09-202	4.460 SW	LAS COLINAS CORP	4519 N OCONNOR RD	IRVING, 75062	373
103	TWDB	33-01-202	4.460 N	LONG MANUFACTURING	2610 N IH 35E	CARROLLTON, 75007	376
104	TCEQ	TX196429	4.470 W	M.C. DEARING	6700 BELTLINE RD	IRVING, 75063	381
105	TCEQ	TX196467	4.490 NW	W.R. WOODROOF	2801 N IH 35E	NOT REPORTED, N/A	384
106	TCEQ	TX196544	4.500 SW	RAY GLOVER	306 STEEPLE CHASE DR	IRVING, 75062	387



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MAP ID#	DATABASE NAME	SITE ID#	DISTANCE FROM SITE	SITE NAME	ADDRESS	CITY, ZIP CODE	PAGE #
107	TCEQ	TX196477	4.530 NW	FRED LUECK	232 COVE DR	COPPELL, 75019	391
108	TWDB	33-02-103	4.550 NE	WARREN CLARK DEV.	1827 LAKECREST CIR	CARROLLTON, 75006	393
109	TCEQ	TX196471	4.560 N	D.L. JONES	2733 N IH 35E	DALLAS, 75221	397
110	TCEQ	TX186741	4.570 SE	JOHN RICHARDSON	10100 DENTON DR	DALLAS, 75220	399
111	SSDRD	TX39831	4.600 NW	HARVEY CUNOV	413 E. BETHEL SCHOOL RD.	COPPELL, 75019	401
112	TCEQ	TX196454	4.620 W	EISENHOUR CONST CO	1221 S BELT LINE RD	COPPELL, 75019	402
113	SSDRD	TX209632	4.670 SE	NEW RESIDENCE	9824 ROCKBROOK DRIVE	DALLAS, 75220	405
114	TWDB	32-08-603	4.700 W	SOUTHWEST CONTRACTING	3950 REGENT BLVD	IRVING, TX, 75063	406
115	TCEQ	TX196548	4.720 S	DICK KEATS	608 SONORA CT	IRVING, 75062	410
115	TCEQ	TX196547	4.720 S	DICK KEATS	608 SONORA CT	IRVING, 75062	413
116	TWDB	33-02-405	4.720 NE	C.S. HAMILTON	14775 MIDWAY RD	ADDISON, 75001	416
117	TWDB	32-08-604	4.730 W	H.B. ZACHRY	3901 W ROYAL LN	IRVING, TX, 75063	420
118	SSDRD	TX242304	4.730 E	LEE WILLIAMS	4360 HALLMARK DRIVE	DALLAS, 75229	423
119	TCEQ	TX198103	4.740 SE	CHAS TUCKER	3731 LA JOYA DR	DALLAS, 75220	424
120	SSDRD	TX118674	4.740 SW	DON HARPER	129 FOX GLEN CIRCLE	IRVING, 75062	427
121	TCEQ	TX196474	4.820 NW	CARL KANIMAYA	108 NASH ST	COPPELL, 75019	428
122	TCEQ	TX231818	4.820 SW	NES STORE	1113 NORTHGATE	IRVING, 75062	430
122	TCEQ	TX231819	4.820 SW	NES STORE	1113 NORTHGATE	IRVING, 75062	432
123	SSDRD	TX348546	4.820 SE	DALLAS EPISCOPAL SCHOOL	4100 MERREL ROAD	DALLAS, 75229	434
124	TWDB	33-09-104	4.840 SW	ABBOTT LABS	1921 HURD DR	IRVING, 75038	435
125	TCEQ	TX196411	4.850 NE	FRED HARRINGTON	4135 BELT LINE RD	DALLAS, 75001	445
126	TWDB	33-01-303	4.870 N	M.E. MOORE	2899 GARDENIA ST	CARROLLTON, 75007	447
127	TCEQ	TX196478	4.910 NW	TRILAND INVESTMENT GROUP #3	2884 MEADOW PORT DR	FARMERS BR, 75234-7	450
128	TCEQ	TX196475	4.940 NW	BARNEY LIPSCOME	636 N ALLEN RD	COPPELL, 75019	453
129	SSDRD	TX222170	4.970 N	AL GREEN	1028 HAMPSHIRE LANE	CARROLLTON, 75007	455
130	TCEQ	TX186748	5.000 SE	MRS. W.W. JONES	9752 HARRY HINES BLVD	DALLAS, 75220	456
131	TCEQ	TX196555	5.000 SW	KAREN ERWIN	1717 DRISKILL DR	IRVING, 75038	458



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132	TCEQ	TX196453	5.000 W	DON CARTER	260 SOUTHWESTERN BLVD	COPPELL, 75019	461
133	SSDRD	TX353550	5.030 E	MR CRAIG BURKETT	4530 NORTHAVEN	DALLAS, 75229	463
134	SSDRD	TX87379	5.060 SE	BILL BANOWSKY	4311 MIDDLETON RD.	DALLAS, 75229	464



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Appendix P

Water Well Owner Information

mapid	sitename	well_address	well_city	well_ip	well_z	current_owner	mail_address	mail_city	mail_state	mail_zip	water_usage	date_drill	depth_drill
1	BEASLEY BLDG MATERIAL	1880 VALLEY VIEW LN	DALLAS	TX	75234	EDINA PARK PLAZA ASSOC LP	1603 LBJ FWY STE 300	DALLAS	TX	75234-6057	INDUSTRIAL	07/09/1964	50
2	J. FRED SMITH GRAVEL CO	1 VALLEY VIEW LN	FARMERS BRANCH	TX	75234	CADG MERCER CROSSING HOLDINGS LLC	1800 VALLEY VIEW LN	DALLAS	TX	75234-8945	UNUSED	00/00/1959	515
2	J. FRED SMITH GRAVEL CO	1 VALLEY VIEW LN	FARMERS BRANCH	TX	75234	CADG MERCER CROSSING HOLDINGS LLC	1800 VALLEY VIEW LN STE 300	DALLAS	TX	75234-8945	EMPLOYEE'S HOUSEHOLD	07/10/1964	26
3	FREEWAY READY MIX	12099 LUNA RD	DALLAS	TX	75039	CADG MERCER CROSSING HOLDINGS LLC	1800 VALLEY VIEW LN	DALLAS	TX	75234-8945	INDUSTRIAL	00/00/1968	550
3	FREEWAY READY MIX CO	12099 LUNA RD	IRVING	TX	75039	CADG MERCER CROSSING HOLDINGS LLC	1800 VALLEY VIEW LN 300	FARMERS BRANCH	TX	75234-8945	INDUSTRIAL	01/15/1979	492
4	CITY OF FARMERS BRANCH	13020 ROSSFORD ST	DALLAS	TX	75234	CITY OF FARMERS BRANCH	PO BOX 819010	DALLAS	TX	75381-9010	UNUSED	00/00/1947	558
5	GIFFORD HILL CONCRETE	8400 E VALLEY RANCH P	IRVING	TX	75063	IRVING CITY OF	PO BOX 152288	IRVING	TX	75015-2288	INDUSTRIAL	09/16/1972	480
6	BILL HUDSON	100 LBJ FWY	IRVING	TX	75039	IRVING CITY OF	825 W IRVING BLVD	IRVING	TX	75060-2845	FARM	09/25/1978	195
9	MR. G.E. WEATHERFORD	13618 DENNIS RD	DALLAS	TX	75234	CAZARES RAFAEL JR	13839 DENNIS LN	FARMERS BRANCH	TX	75234-4809	IRRIGATION	05/03/1968	50
10	WILLIAM COBB	8601 ELM VALLEY DR	IRVING	TX	75063	PROFFER KENT B	8601 ELM VALLEY DR	IRVING	TX	75063-7223	DOMESTIC	04/77/1984	310
11	HYDRO CONDUIT CORP	7550 VALLEY VIEW LN	IRVING	TX	75039	J C MORRIS	5107 SPRINGMEADOW DR	DALLAS	TX	75229-4327	INDUSTRIAL	00/00/1961	379
11	NORTH AMERICAN EQUIPMENT CO	7550 VALLEY VIEW LN	IRVING	TX	75039	MORRIS J C	5107 SPRINGMEADOW DR	DALLAS	TX	75229-4327	DOMESTIC	11/07/1978	402
12	SOUTHWESTERN STATES CORP #1	1878 ROYAL LN	DALLAS	TX	75229	GSMHJ REALTY INC	1878 ROYAL LN #200	DALLAS	TX	75229-3158	INDUSTRIAL	01/31/1950	642
13	MR. O.W. STANDIFER	2806 BAY MEADOWS CIR	FARMERS BRANCH	TX	75234	MILLER DAVID R	2806 BAY MEADOWS CIR	FARMERS BR	TX	75234-7227	WATER LAWN	05/26/1966	50
14	NOT REPORTED	2464 ROYAL LN	DALLAS	TX	75229	KLACHIAN GARY & ELIZABETH KLACHIAN ELIZ	2218 HEADS LANE	CARROLLTON	TX	75006-2861	DEWATER	NOT REPORTED	NOT REPORTED
15	RON HENSLEY	2108 JOE FIELD RD	DALLAS	TX	75229	HENSLEY G H	PO BOX 29779	DALLAS	TX	75229-0779	DOMESTIC	06/09/1996	330
16	WARREN, RAY	9501 E VALLEY RANCH P	IRVING	TX	75063	9800 MACARTHUR BLVD APT	PO BOX 1368	CARLSBAD	CA	92018-1368	DOMESTIC	08/10/1988	210
17	NORMAN CHANDLER	12411 VERONICA CIR	FARMERS BRANCH	TX	75234	CHANDLER LIVING TRUST	12411 VERONICA CIR	FARMERS BRANCH	TX	75234-6403	HOME YARD WATERING	04/05/1966	25
18	C.J. BENDER #2	7323 PALUXY DR	IRVING	TX	75039	WALLACE SMILEY JAY	7323 PALUXY DR	IRVING	TX	75039-3362	DOMESTIC	10/29/1968	280
18	C.J. BENDER	7323 PALUXY DR	IRVING	TX	75039	SMILEY JAY WALLACE	7323 PALUXY DR	IRVING	TX	75039-3362	DOMESTIC	00/00/1968	318
18	C.J. BENDER	7323 PALUXY DR	IRVING	TX	75039	SMILEY JAY WALLACE	7323 PALUXY DR	IRVING	TX	75039-3362	DOMESTIC	00/00/1968	320
18	C.J. BENDER #1	7316 PALUXY DR	IRVING	TX	75039	CHHABRA SANDEEP & TANUJA BHATT	7316 PALUXY DR	IRVING	TX	75039-3362	DOMESTIC	10/16/1968	318
19	DEL-TEX PIPE INC	1715 Z STREET	DALLAS	TX	75229	F & F INVESTMENTS	11226 INDIAN TRL	DALLAS	TX	75229-3518	INDUSTRIAL	00/00/1970	258
20	STEVE MOODY	1608 ROSS AVE	CARROLLTON	TX	75006	HARDIN FLOYD E & ARDETH K REVOCABLE LIVING TRUST	1608 ROSS AVE	CARROLLTON	TX	75006-7333	IRRIGATION	11/13/1999	47
21	WALTER FULLER	1515 W COLLEGE AVE	CARROLLTON	TX	75006	WALKER BARTH P DESCENDANTS TRUST	JOHN P WALKER 3509 NW 69TH ST	OKLAHOMA CITY	OK	73116-2126	DOMESTIC/TEST WELL	02/23/1976	58
22	BIG CITY CRUSHED CONCRETE	ADDRESS NOT LISTED	DALLAS	TX	N/A	AUSTIN INTERNATIONAL VENTURES INC	PO BOX 1590	DALLAS	TX	75221-1590	INDUSTRIAL	NOT REPORTED	560
23	MR. ERNEST B. PARSONS	1616 FRANCIS ST	CARROLLTON	TX	75006	MILLER JESSE W & LINDA A	1616 FRANCIS ST	CARROLLTON	TX	75006-7329	IRRIGATION	08/03/1967	50
24	DR. J.E. MILLER	5902 N OCONNOR BLVD	IRVING	TX	75039	TEXAS UTILITIES ELEC CO	PO BOX 219071	DALLAS	TX	75221-9071	FARM	12/07/1965	391
69	DALLAS POWER AND LIGHT WELL #1	14901 NORTH LAKE RD	DALLAS	TX	75253	LUMINANT GENERATION CO LLC	PO BOX 219071	DALLAS	TX	75221-9071	PUBLIC SUPPLY	02/17/1958	1144
109	D.L. JONES	2733 N IH 35E	DALLAS	TX	75221	TEXAS UTILITIES ELEC CO	PO BOX 219071	DALLAS	TX	75221-9071	HOUSEHOLD	10/15/1961	35
25	CITY OF CARROLLTON	1501 E BELT LINE RD	CARROLLTON	TX	75011	GORDON E & DONNA SORBER	PO BOX 110403	CARROLLTON	TX	75011-0403	UNUSED	00/00/1940	410
26	Big City Crushed Concrete	11131 GOODNIGHT	DALLAS	TX	75229	ALMA S JACKSON ET AL	PO BOX 831500	DALLAS	TX	75283-1500	INDUSTRIAL	NOT REPORTED	20
28	MR. E. L. KENT	1214 JACKSON ST	CARROLLTON	TX	75006	OLDHAM SHANNON	764 SID RICH DR	IRVING	TX	75039-0003	N/A	05/22/1968	60
31	MR. DEAN A. RAMSAY	10761 BROCKBANK CT	DALLAS	TX	75229	REUTER HEINZ E	4310 VALLEY RIDGE RD	DALLAS	TX	75220-1928	NOT REPORTED	06/09/1966	60
32	JOE CANTERBURY	10850 LUNA RD	DALLAS	TX	75220	TCI LUNA VENTURES LLC	1603 LBJ FWY STE 300	DALLAS	TX	75234-6057	DOMESTIC	05/27/1978	420
33	MR. M.G. ROGERS	3134 SATSUMA DR	DALLAS	TX	75229	ALVARADO MARGARITA	3134 SATSUMA DR	DALLAS	TX	75229-3748	HOME USE	07/01/1966	75
34	GARY REED	7100 N STATE HWY 161	IRVING	TX	75038	MICROSOFT CORPORATION	1 MICROSOFT WAY	REDMOND	WA	98052-8300	DOMESTIC	11/27/1986	260
35	RADIO STATION KAAM	510 RIVERCHASE DR	COPELL	TX	75019	RIVERCHASE GOLF LLC	1245 E WARNER RD STE 202	GILBERT	AL	85296-3109	DOMESTIC	12/01/1981	451
36	E.R. BYER ESTATES	1000 SAN JACINTO DR	IRVING	TX	75063	JIK ARBORS 2 LLC &	7900 MIAMI LAKES DR W	MIAMI LAKE	FL	33016-5816	DOMESTIC	00/00/1955	1164
37	BLOOMING COLORS NURSERY	1701 E. BELTLINE RD.	COPELL	TX	75019	VALLEY RANCH BAPTIST CHURCH	1501 E BELT LINE RD	COPELL	TX	75019-4210	IRRIGATION	NOT REPORTED	230
38	MR. ROSS WASHAM	1410 WESTWAY CIR	DALLAS	TX	75006	M&E PARTNERS LTD	1410 WESTWAY CIR	CARROLLTON	TX	75006-3734	DOMESTIC	11/11/1971	50
40	TECHNICAL CHEMICAL CO	10737 SPANGLER RD	DALLAS	TX	75220	GT MANAGEMENT	PO BOX 284	ROCKWALL	TX	75087-0284	INDUSTRIAL	00/00/1970	523
40	TECHNICAL CHEMICAL CO.	10737 SPANGLER RD	DALLAS	TX	75220	GT MANAGEMENT INC	PO BOX 284	ROCKWALL	TX	75087-0284	INDUSTRIAL	06/09/1970	523
41	BROOKHAVEN COUNTRY CLUB	2227 BROOKHAVEN CLUB DR	DALLAS	TX	75234	BROOKHAVEN COUNTRY CLUB	PO BOX 790830	DALLAS	TX	78279-0830	IRRIGATION	00/00/1959	2565
98	LAS COLINAS GOLF COURSE	4400 N OCONNOR RD	IRVING	TX	75062	IRVING CLUB ACQUISITION	PO BOX 790830	SAN ANTONIO	TX	78279-0830	IRRIGATION	06/00/1963	1202
42	FOREST LAWN CEMETERY	10977 HARRY HINES BLVD	DALLAS	TX	75220	FOREST LAWN	10977 HARRY HINES BLVD	DALLAS	TX	75220-1315	OFFICE,SOME SPRINKLING	05/23/1963	40
42	FOREST LAWN CEMETERY	10977 HARRY HINES BLVD	DALLAS	TX	75220	FOREST LAWN	10977 HARRY HINES BLVD	DALLAS	TX	75220-1315	IRRIGATION	NOT REPORTED	NOT REPORTED
42	FOREST LAWN CEMETERY	10977 HARRY HINES BLVD	DALLAS	TX	75220	FOREST LAWN	10977 HARRY HINES BLVD	DALLAS	TX	75220-1315	IRRIGATION	03/30/1974	40
42	CHARLES S. PEEPLE	10977 HARRY HINES BLVD	DALLAS	TX	75220	FOREST LAWN	10977 HARRY HINES BLVD	DALLAS	TX	75220-1315	IRRIGATION	00/00/1971	31
42	CHARLES S. PEEPLE	10977 HARRY HINES BLVD	DALLAS	TX	75220	FOREST LAWN	10977 HARRY HINES BLVD	DALLAS	TX	75220-1315	IRRIGATION	04/01/1971	31
43	WILLIAM A. MCDONALD	10541 ROYAL CLUB LN	DALLAS	TX	75229	RAMIREZ TONY & CONCEPTION	10541 ROYAL CLUB LN	DALLAS	TX	75229-5046	HOME YARD WATERING	04/01/1966	49
47	TEXAS INDUSTRIES INC	2202 MANANA RD	DALLAS	TX	75220	REALTY IV USTC MANANA LP	3819 MAPLE AVE	DALLAS	TX	75219-3913	UNUSED	00/00/1959	490
48	TOM DAILY	2280 MARKET PLACE BLV	IRVING	TX	75063	NNN HUNTER PLAZA LLC	1551 N TUSTIN AVE	SANTA ANA	CA	92705-8634	IRRIGATION	07/77/1994	214
49	A.J. AIROLDI	10709 GOODNIGHT LN	DALLAS	TX	75220	ANTHONY DOUGLAS AIROLDI TRUST	PO BOX 810236	DALLAS	TX	75381-0236	INDUSTRIAL	05/31/1966	20
50	BROOKHAVEN COUNTRY CLUB	14330 OLYMPIC	DALLAS	TX	75234	A C MUSGRAVES JR	2929 STOREY LN	DALLAS	TX	75220-4515	IRRIGATION	00/00/1968	2600
51	PIERCE PUMP CO	1440 KELLER SPRINGS R	CARROLLTON	TX	75006	CARROLLTON CITY OF	1945 E JACKSON RD	CARROLLTON	TX	75006-1737	FOR LAWN & TOILETS	07/28/1969	55
52	C.W. CAVE	10008 GOODYEAR DR	DALLAS	TX	75229	CHAVEZ ADALBERTO &	10008 GOODYEAR DR	DALLAS	TX	75229-5819	DOMESTIC	05/31/1966	38
53	Kevin Caldwell	14127 Tanglewood	Farmers Branch	TX	75234	CHADWELL CINDY L	14105 TANGLEWOOD DR	FARMERS BRANCH	TX	75234-3851	IRRIGATION	NOT REPORTED	640
56	Southwest Wholesale Nursery	2220 SANDY LAKE ROAD	CARROLLTON	TX	75006	SW TABER 2014 LP	1241 KENTUCKY DERBY DR	BARTONVILLE	TX	76226-7005	IRRIGATION	NOT REPORTED	480
59	Steve Taber SWW Nursery	2220 SANDY LAKE RD	CARROLLTON	TX	75006	SW TABER 2014 LP	1241 KENTUCKY DERBY DR	BARTONVILLE	TX	76226-7005	IRRIGATION	NOT REPORTED	36
57	CITY OF CARROLLTON	2415 COUNTRY CLUB DR	CARROLLTON	TX	75011	CITY OF CARROLLTON	PO BOX 110535	CARROLLTON	TX	75011-0535	ACTIVE - EMERGENCY	04/29/1974	NOT REPORTED
61	CITY OF CARROLLTON WELL #3	2415 COUNTRY CLUB DR	CARROLLTON	TX	75006	CITY OF CARROLLTON	PO BOX 110535	CARROLLTON	TX	75011-0535	PUBLIC SUPPLY	04/03/1974	2475
58	C.O. WISE	1440 WHITLOCK LN	DALLAS	TX	75006	DALLAS CITY OF	320 E JEFFERSON BLVD	DALLAS	TX	75203-2632	DOMESTIC	04/23/1967	420
58	CITY OF DALLAS	1440 WHITLOCK LN	CARROLLTON	TX	75006	CITY OF DALLAS	320 E JEFFERSON BLVD	DALLAS	TX	75203-2632	PUBLIC SUPPLY	04/18/1957	2305
58	CITY OF DALLAS	1440 WHITLOCK LN	CARROLLTON	TX	75006	CITY OF DALLAS	320 E JEFFERSON BLVD	DALLAS	TX	75203-2632	UNUSED	00/00/1957	2275
58	GARY DUFF	1440 WHITLOCK LN	CARROLLTON	TX	75006	DALLAS CITY OF	320 E JEFFERSON BLVD	DALLAS	TX	75203-2632	DOMESTIC	07/09/1969	140
60	RAUL DOMINGUEZ	5302 CARNABY ST	IRVING	TX	75038	KNIGHTSBRIDGE APARTMENTS LTD PS	10510 SPRINGBORO PIKE	MIAMISBURG	OH	45342-4956	DOMESTIC	10/15/1997	700
62	CHAPMAN CONSTRUCTION CO	2200 N IH 35E	RICHARDSON	TX	75080	GNL LIVELY LLC	SUITE 129 1131 ROCKINGHAM DR STE 129	RICHARDSON	TX	75080-4366	DOMESTIC	10/04/1973	470
63	HACKBERRY RANCH	700 MEADOW CREEK DR	IRVING	TX	75038	DALLAS AREA RAPID TRANSIT	PO BOX 660163	DALLAS	TX	75266-0163	PUBLIC SUPPLY	00/00/1955	1187
88	DR. DON G. PANSEGRAU	1500 TRINITY MILLS RD	DALLAS	TX	75006	DART	PO BOX 660163	DALLAS	TX	75266-0163	DOMESTIC	11/23/1977	466
130	MRS. W.W. JONES	9752 HARRY HINES BLVD	DALLAS	TX	75220	DART	PO BOX 660163	DALLAS	TX	75266-0163	YARD	02/23/1974	40
64	HOLLOWAY CONST. CO. #1	5101 N OCONNOR BLVD	IRVING	TX	75039	MJS DEVELOPMENT INC	8115 PRESTON RD STE 400	DALLAS	TX	75225-6311	OTHER	09/30/1973	402

Appendix P

Water Well Owner Information

mapid	sitename	well_address	well_city	well_z	well_ip	current_owner	mail_address	mail_city	mail_state	mail_zip	water_usage	date_drill	depth_drill
65	Bill Hopkins	2129 NORTH JOSEY LN.	CARROLLTON	TX	75006	JR FOX & CO INC	2129 N JOSEY LN	CARROLLTON	TX	75006-2903	IRRIGATION	NOT REPORTED	100
66	MOSHER INC	1115 CROWLEY DR	CARROLLTON	TX	75006	VINTAGE CROWLEY/MCDANIEL	2525 FAIRMOUNT ST	DALLAS	TX	75201-1966	DOMESTIC/INDUSTRIAL	08/16/1979	450
70	COLUMBIAN CLUB	2525 COUNTRY CLUB DR	CARROLLTON	TX	75006	MARIDOE GOLF CLUB DALLAS	2525 HONORS CLUB DR	CARROLLTON	TX	75206-5505	UNUSED	00/00/1955	1488
71	LAS COLINAS CORP	4930 N MACARTHUR BLVD	IRVING	TX	75038	BRE LAS COLINAS LLC	345 PARK AVE	NEW YORK	NE	10154-0004	IRRIGATION	07/30/1976	1160
72	CENTEX	640 S MOORE RD	COPELL	TX	75019	CITY OF COPPELL	PO BOX 9478	COPELL	TX	75019-9478	IRRIGATION	06/03/1993	420
73	H.B. ZACHRY	3400 W JOHN W CARPENT	IRVING	TX	N/A	HINES LAS COLINAS ROYAL LN LLC	811 MAIN ST SUITE 4100	HOUSTON	TX	77002-6125	INDUSTRIAL	07/03/1981	360
74	TU ELECTRIC	8840 CYPRESS WATERS BLVD	DALLAS	TX	75019	CWNS LAND NO 2 LTD	1722 ROUTH ST #1313	DALLAS	TX	75201-2517	IRRIGATION	04/15/1999	270
76	Billingsly Dev. Co.	VAN ZANDT DR.	COPELL	TX	N/A	TRAMMELL CROW CO #43 LTD	1722 ROUTH ST STE 1313	DALLAS	TX	75201-2517	IRRIGATION	NOT REPORTED	450
77	W.M. WILSON	1132 E SANDY LAKE RD	COPELL	TX	75019	PREWITT JAMES B	1100 E SANDY LAKE RD	COPELL	TX	75019-3113	DOMESTIC	08/07/1966	146
79	LES LACS VILLAGE, INC.	3792 PARK PL	ADDITION	TX	75001	WEINDORFF JUDITH	3792 PARK PL	ADDITION	TX	75001-4401	IRRIGATION	10/00/1982	1610
80	C.W. MINOR	1660 N WESTRIDGE CIR	IRVING	TX	75038	JAC CATLYN IRVING LLC	210 BARTON SPRINGS RD STE 550	AUSTIN	TX	78704-1251	DOMESTIC	03/14/1972	466
81	L.V. CRIBBS	3200 HACKBERRY RD	DALLAS	TX	75201	CROW BILLINGSLEY 635	1722 ROUTH ST STE 770	DALLAS	TX	75201-2535	DOMESTIC	08/15/1973	351
82	EDWARD .B.FRANKEL	LAKEVIEW APARTMENTS 3950 SPRINGVALE RD	FARMERS BRANCH	TX	75244	LAKEVIEW AT PARKSIDE	1800 E DEERE AVE	SANTA ANNA	CA	92705-5721	IRRIGATION	NOT REPORTED	45
83	City Of Addison	BELLA LANE	ADDITION	TX	75001	THE PARISH DAY SCHOOL OF THE EPISCOPAL	4101 SIGMA RD	DALLAS	TX	75244-4439	IRRIGATION	NOT REPORTED	650
84	BRYAN JONES	1441 W TRINITY MILLS	CARROLLTON	TX	75009	CARROLLTON CITY OF	PO BOX 115125	CARROLLTON	TX	75011-5125	HOUSEHOLD	06/17/1964	46
85	JUNEAU & ASSOCIATES	6502 N BELTLINE RD	IRVING	TX	75063	PARKSIDE LAND EAST LP	2200 ROSS AVE STE 4200W	DALLAS	TX	75201-2763	NOT REPORTED	01/20/1965	380
86	M & S CONSTRUCTION CO INC	3400 CABELL DR	IRVING	TX	75063	PARKSIDE LAND EAST LP	2200 ROSS AVE STE 4200W	DALLAS	TX	752012763	INDUSTRIAL	08/04/1971	315
87	WESTERN HEIGHTS BAPTIST CHURCH	1616 CORPORATE CT	IRVING	TX	75038	DFWSG LLC	1616 CORPORATE COURT STE	IRVING	TX	75038-2206	INDUSTRIAL	05/22/1970	378
89	H.B. ZACHRY	3330 W ROYAL LN	IRVING	TX	N/A	FISERV SOLUTIONS INC	2900 WESTSIDE PKWY	ALPHARETTA	GA	30004-7429	INDUSTRIAL	07/03/1981	378
90	GREENHILL SCHOOL	4141 SPRING VALLEY RD	ADDITION	TX	75001	GREENHILL SCHOOL	4141 SPRING VALLEY RD	ADDITION	TX	75001-3615	UNUSED	00/00/1959	1656
91	SOUTHERN CONCRETE	8500 S BELTLINE RD	COPELL	TX	75019	HACKBELL 27 PARTNERS LP	901 MAIN ST FL 12	DALLAS	TX	75202-3738	INDUSTRIAL	09/05/1980	350
92	M F C	7700 N BELTLINE RD	IRVING	TX	75063	DALLAS COUNTY U R D	PO BOX 140035	IRVING	TX	75014-0035	INDUSTRIAL	12/24/1980	350
93	J. FRED SMITH GRAVEL	2529 N IH 35E	CARROLLTON	TX	75007	CITY OF CARROLLTON	1945 E JACKSON RD	CARROLLTON	TX	75006-1737	UNUSED	00/00/1954	503
96	SERVICE INDUSTRY PROPERTIES MANAGEMENT	529 HERITAGE OAK CT	GRAPEVINE	TX	76051	ROBERT & REBECCA WEATHERFORD	437 CARTER DR	COPEPPELL	TX	75019-4077	IRRIGATION	05/15/1986	406
97	KATHY FOSS	441 CARTER DR.	COPELL	TX	75019	RAO IMRAN AKRAM & SHEHLA NAZ	537 HERITAGE OAK CT	COPELL	TX	75010-5729	IRRIGATION	NOT REPORTED	162
99	JOHN PARKS	413 MEADOWCREEK RD	COPELL	TX	75019	SCOTT JOHN DOUGLAS & KELLIE THOMPSON	413 MEADOWCREEK RD	COPELL	TX	75019-4027	IRRIGATION	01/29/1996	153
100	NORTH LAKE COLLEGE DALLAS COMM. COLLEGE	5001 N MACARTHUR BLVD	IRVING	TX	75038	DALLAS COUNTY COMMUNITY COLLEGE DIST	4343 IH 30	MESQUITE	TX	75150-2018	IRRIGATION	00/00/1975	1184
100	NORTH LAKE COLLEGE (WATER FURNACE)	5001 N MACARTHUR BLVD	IRVING	TX	75038	DALLAS COUNTY COMMUNITY	4343 IH 30	MESQUITE	TX	75150-2018	PUBLIC SUPPLY	04/10/1992	200
101	TOM MILLER	425 CARTER DR	COPELL	TX	75019	OVERMAN TIMOTHY R &	425 CARTER DR	COPELL	TX	75019-4077	IRRIGATION	02/23/1976	32
102	LAS COLINAS CORP	4519 N OCONNOR RD	IRVING	TX	75062	QUAL RUN HOA	4601 N OCONNOR BLVD	IRVING	TX	75062	IRRIGATION	04/17/1974	1222
103	LONG MANUFACTURING	2610 N IH 35E	CARROLLTON	TX	75007	SNOW OIL CO DBA GENE SNOW PROPERTIES	6300 MIDWAY RD	FORT WORTH	TX	76117-5344	INDUSTRIAL	00/00/1973	432
104	M.C. DEARING	6700 BELTLINE RD	IRVING	TX	75063	ROBERT B PAYNE	5400 RENAISSANCE TOWER 4809 CC	IRVING	TX	75205-5598	DOMESTIC	05/06/1972	390
105	W.R. WOODROOF	2801 N IH 35E	NOT REPORTED	TX	N/A	DALLAS GUN CLUB	PO BOX 292848	LEWISVILLE	TX	75029-2848	DOMESTIC	12/15/1972	320
106	RAY GLOVER	306 STEEPLE CHASE DR	IRVING	TX	75062	BYERLY BRUCE D &	306 STEEPLECHASE DR	IRVING	TX	75062-3819	DOMESTIC	06/05/1980	350
107	FRED LUECK	232 COVE DR	COPELL	TX	75019	ROLING CARLA D &	232 COVE DR	COPELL	TX	75019-7366	INDUSTRIAL	01/77/1978	360
108	WARREN CLARK DEV.	1827 LAKECREST CIR	CARROLLTON	TX	75006	ZACHARY L ADAMS	1827 LAKECREST CIR	CARROLLTON	TX	75006-4701	IRRIGATION	00/00/1969	1566
110	JOHN RICHARDSON	10100 DENTON DR	DALLAS	TX	75220	SAWILL PARTNERS LLC	7557 RAMBLER RD STE 1020	DALLAS	TX	75231-2385	IRRIGATION	09/08/1997	410
111	HARVEY CUNOV	413 E. BETHEL SCHOOL RD.	COPELL	TX	75019	CUNOV HARVEY F III & LISA S FAMILY LIVIN	413 E BETHEL SCHOOL RD	COPELL	TX	75019-4007	IRRIGATION	NOT REPORTED	140
112	EISENHOUR CONST CO	1221 S BELT LINE RD	COPELL	TX	75019	COLUMBIA TEXAS LAKESHORE INDUSTRIAL	1221 S BELT LINE RD	COPELL	TX	75019-4956	INDUSTRIAL	10/10/1979	345
114	SOUTHWEST CONTRACTING	3950 REGENT BLVD	IRVING, TX	TX	75063	GI DC 3950 REGENT BLVD LLC	2180 SAND HILL RD STE#210	MENLO PARK	CA	94025-6949	UNUSED	00/00/1972	378
116	C.S. HAMILTON	14775 MIDWAY RD	ADDITION	TX	75001	HABIBOLLAH ELANHINEJAD	5835 CORBIN AVE	TARZANA	CA	91356-1004	DOMESTIC	00/00/1937	800
117	H.B. ZACHRY	3901 W ROYAL LN	IRVING, TX	TX	75063	JSC GID PARC ROYAL PHASE II LLC	4890 ALPHA RD STE 100	DALLAS	TX	75244-4639	INDUSTRIAL	00/00/1977	378
119	CHAS TUCKER	3731 LA JOYA DR	DALLAS	TX	75220	STROMLUND RODNEY J JR	3731 LA JOYA DR	DALLAS	TX	75220-3633	DOMESTIC	08/04/1980	41
120	Don Harper	129 FOX GLEN CIRCLE	IRVING	TX	75062	MEHTA PRAKASH & HEMLATA	3901 FOX GLEN DR	IRVING	TX	75062-3830	IRRIGATION	NOT REPORTED	500
121	CARL KANIMAYA	108 NASH ST	COPELL	TX	75019	BELTRAN YERI & RICARDO	108 NASH DR	COPELL	TX	75019-5757	DOMESTIC	12/08/1966	357
123	Dallas Episcopal School	4100 MERRELL ROAD	DALLAS	TX	75229	DALLAS EPISCOPAL SCHOOL INC	4100 MERRELL RD	DALLAS	TX	75229-6217	IRRIGATION	NOT REPORTED	1680
124	ABBOTT LABS	1921 HURD DR	IRVING	TX	75038	ABBOTT DIAGNOSTIC MFG INC	100 ABBOTT PARK RD	ABBOTT PARK	IL	60064-3502	IRRIGATION	12/00/1984	1192
125	FRED HARRINGTON	4135 BELT LINE RD	DALLAS	TX	75001	RUTTER & WILLBANKS CORP	PO BOX 2492	MIDLAND	TX	79702-2492	DOMESTIC	08/04/1970	320
126	M.E. MOORE	2899 GARDENIA ST	CARROLLTON	TX	75007	ARCADIA RAIFORD CROSSING LLC	3500 MAPLE BLVD ST 1165	DALLAS	TX	75219	DOMESTIC	10/22/1968	1306
127	TRILAND INVESTMENT GROUP #3	2884 MEADOW PORT DR	FARMERS BR	TX	75234-7	METROCREST COMMUNITY CHURCH INC	PO BOX 229	COPELL	TX	75019-0229	IRRIGATION	10/77/1985	370
128	BARNEY LIPSCOME	636 N ALLEN RD	COPELL	TX	75019	SOOFI ADIL KHAN &	636 ALLEN RD	COPELL	TX	75019-3147	DOMESTIC	03/77/1982	326
129	AI Green	1028 HAMPSHIRE LANE	CARROLLTON	TX	75007	LOYCE E MARTIN	1028 HAMPSHIRE LN	CARROLLTON	TX	75007-4821	DOMESTIC	NOT REPORTED	562
132	DON CARTER	260 SOUTHWESTERN BLVD	COPELL	TX	75019	COPELL ISD	200 S DENTON TAP RD	COPELL	TX	75019-3205	DOMESTIC	08/18/1972	1074
25	CITY OF CARROLLTON WELL #1	1501 E BELT LINE RD	CARROLLTON	TX	75011	SORBER DONNA	PO BOX 110403	CARROLLTON	TX	75011-0403	PLUGGED OR DESTROYED	00/00/1929	320
25	CITY OF CARROLLTON WELL #2	1501 E BELT LINE RD	CARROLLTON	TX	75011	SORBER DONNA	PO BOX 110403	CARROLLTON	TX	75011-0403	PLUGGED OR DESTROYED	00/00/1948	2338
7	SULLIVAN DEVELOPMENT COMPANY	1850 CROWN DR	DALLAS	TX	75234	PSBP WESTWOOD LP	701 WESTERN AVE	GLENDALE	CA	91201-2349	TEST WELL	06/19/1990	14
8	SULLIVAN DEVELOPMENT COMPANY	11431 FERRELL DR	DALLAS	TX	75234	RIVERBEND DFW INDUSTRIAL	STE 300 5055 KELLER SPRINGS RD	ADDITION	TX	75001-6201	TEST WELL	06/19/1990	15
122	NES STORE	1113 NORTHGATE	IRVING	TX	75062	OWNER WITHHELD PER DEC 25.025 & 25.026	ADDRESS WITHHELD	CITY WITHHELD	WITHHELD	WITHHELD	ENVIRONMENTAL SOIL BORING	04/28/1997	20
122	NES STORE	1113 NORTHGATE	IRVING	TX	75062	OWNER WITHHELD PER DEC 25.025 & 25.026	ADDRESS WITHHELD	CITY WITHHELD	WITHHELD	WITHHELD	ENVIRONMENTAL SOIL BORING	04/28/1997	6
27	Brownlee Residence	3116 BROOKHOLLOW DRIVE	DALLAS	TX	75234	BROWNLEE JOHN F & JENNIFER L	3116 BROOKHOLLOW DR	DALLAS	TX	75234-6435	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	300
29	AIRCO	9404 APPLE WAY	IRVING	TX	75063	HAMZA MOHAMED A & RAMOUN RIHAB	9404 APPLE WAY	IRVING	TX	75063-6524	HEAT PUMP	07/08/1992	240
29	AIR CO	9403 ABBEY RD	IRVING	TX	75063	BLANTON DONALD & DORIS	9403 ABBEY RD	IRVING	TX	75063-6419	HEAT PUMP	07/05/1991	110
29	AIRCO	9409 ABBEY RD	IRVING	TX	75063	INDAVARA & PREETHI PRITHVI	9409 ABBEY RD	IRVING	TX	75063-6419	HEAT PUMP	09/28/1991	110
30	WILLIAM & JUNE HOLTZ	9420 ABBEY RD	IRVING	TX	75064	PATEL BIFIN C & TARLIKA B	9420 ABBEY RD	IRVING	TX	75063-6439	HEAT PUMP	07/31/1991	220
39	Lennox Industries	1600 METROCREST DRIVE	CARROLLTON	TX	75006	LENNOX INDUSTRIES INC	PO BOX 799900	DALLAS	TX	75379-9900	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	250
44	Coppel ISD -Lee Elementary	100YDS W OF OLYMPUS & RANCH TRL	IRVING	TX	75063	JACKSON ALMA S ET AL NATIONS BANK OF TEX	PO BOX 831500	DALLAS	TX	75283-1500	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	400
45	Charles Zubavik	13219 GLADE ACRES	FARMERS BRANCH	TX	75234	ZUBARIK CHARLES J & KAREN J	13219 GLAD ACRES DR	FARMERS BRANCH	TX	75234-5202	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	400
46	Coppel ISD	8808 CHAPARRAL WATERS WAY	DALLAS	TX	75063	JACKSON ALMA S ET AL NATIONS BANK OF TEX	PO BOX 831500	DALLAS	TX	75283-1500	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	305
54	Dallas I.S.D.	130 WEBB CHAPEL BLVD.	DALLAS	TX	N/A	DALLAS ISD ATTN TREASURER	3700 ROSS AVE BOX 109	DALLAS	TX	75204-5422	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	250

Appendix P

Water Well Owner Information

mapid	sitename	well_address	well_city	well_z	well_ip	current_owner	mail_address	mail_city	mail_state	mail_zip	water_usage	date_drill	depth_drill
55	EBBY HOLIDAY	10210 TEA GARDEN	DALLAS	TX	75204	HICKMAN DUSTIN & JILL	228 LONGMEADOW DR	COPPELL	TX	75019-3663	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	250
67	Dallas ISD.	BROCKBANK DRIVE AND VALLEY MEADOWS DRIVE	DALLAS	TX	75220	DALLAS ISD ATTN TREASURER	3700 ROSS AVE BOX 109	DALLAS	TX	75204-5422	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	250
67	Dallas ISD	9801 BROCKBANK	DALLAS	TX	75220	DALLAS ISD ATTN TREASURER	3700 ROSS AVE BOX 109	DALLAS	TX	75204-5422	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	250
68	Dallas ISD	9815 Brockbank Drive	Dallas	TX	75220	DALLAS ISD ATTN TREASURER	3700 ROSS AVE BOX 109	DALLAS	TX	75204-5422	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	250
75	Dallas ISD-George Bush Elem.	3939 SPRING VALLEY ROAD	ADDISON	TX	75204	DALLAS ISD ATTN TREASURER	3700 ROSS AVE BOX 109	DALLAS	TX	75204-5422	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	300
78	Dallas I.S.D.	1/2 MILE WEST OF MIDWAY ROAD AND SPRING VALLEY ROAD	ADDISON	TX	75001	DALLAS ISD ATTN TREASURER	3700 ROSS AVE BOX 109	DALLAS	TX	75204-5422	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	250
94	Mr John Johnson	2705 QUAIL RIDGE DR.	CARROLLTON	TX	75006	HAMMER TIMOTHY & SUZANNE	2706 QUAIL RIDGE DR	CARROLLTON	TX	75006-4738	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	365
95	burner	3837 MARTHA DR	DALLAS	TX	75229	BURNETT JEFFRY & MARIA	3837 MARTHA LN	DALLAS	TX	75229-6126	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	300
113	New Residence	9824 ROCKBROOK DRIVE	DALLAS	TX	75220	SCOTT JAN W	4144 BROOKPORT DR	DALLAS	TX	75229-5353	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	300
115	DICK KEATS	608 SONORA CT	IRVING	TX	75062	RENE OSCAR V & ROSEMARIE	608 SONORA CT	IRVING	TX	75062-6545	HEAT PUMP	05/30/1980	335
115	DICK KEATS	608 SONORA CT	IRVING	TX	75062	RENE OSCAR V & ROSEMARIE	608 SONORA CT	IRVING	TX	75062-6545	HEAT PUMP	05/20/1980	275
118	Lee Williams	4360 HALLMARK DRIVE	DALLAS	TX	75229	MATTOX MATTHEW JAMES & SUSAN JAN	4350 HALLMARK DR	DALLAS	TX	75229-2849	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	250
131	KAREN ERWIN	1717 DRISKILL DR	IRVING	TX	75038	RAU JOHN PETER & ALYSON M	1717 DRISKILL DR	IRVING	TX	75038-5953	HEAT PUMP	08/08/1991	220
133	Mr Craig Burkett	4530 NORTHAVEN	DALLAS	TX	75229	BURKERT CRAIG & BURKERT MARTHA	PO BOX 560248	DALLAS	TX	75356-0248	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	305
134	Bill Banowsky	4311 MIDDLETON RD.	DALLAS	TX	75229	LICHT KRISTOFFER L	4311 MIDDLETON RD	DALLAS	TX	75229-6323	CLOSED-LOOP GEOTHERMAL	NOT REPORTED	300
Legend													
Orange Highlighted Cells - Represent multiple wells owned by same owner													
Orange Highlighted Cells - Represent multiple wells owned by same owner													
Yellow Highlighted Cells - Well has been plugged and abandoned or destroyed													
Green Highlighted Cells - Well was used as a test well for soil borings or environmental well													
Blue Highlighted Cells - Wells used for Heat Pump (i.e. Geothermal Heat Loop)													

## APPENDIX Q

### WATER UTILITY DISTRICTS OPERATING GROUNDWATER SUPPLY WELLS WITHIN FIVE MILES OF THE PROPERTY

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According to the WUD report prepared by GeoSearch, the following Water Utility District was identified as owning a groundwater supply well within 5 miles of the boundary of the Designated Property:

- City of Carrollton  
P.O. Box 110535  
Carrollton, TX 75011-0535

There were no other water utility districts were identified within 5 miles of the Designated Property. A copy of the 5 Mile WUD Report is included in Appendix P of this application.

Notice and additional information will be provided as required by Section 361.805 of the Texas Health & Safety Code. At the time of this application notice had not yet been provided the City of Carrollton.

## **APPENDIX R**

### **MUNICIPALITIES WITHIN ½-MILE OF THE PROPERTY**

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In addition to the city of Farmers Branch, the following municipality is located within ½ mile of the boundary of the Designated Property:

- The City of Carrollton, Texas

Please refer to the figure included in this Appendix R to view municipalities with ½ mile radius of the Designated Property. The applicant has contacted the City of Farmers Branch and is providing notice and additional information as required by Section 361.805 of the Texas Health & Safety Code. At the time of this application the City of Carrollton had not yet been provided notice.

## **APPENDIX S**

### **MUNICIPALITIES OPERATING GROUNDWATER SUPPLY WELLS WITHIN FIVE MILES OF THE PROPERTY**

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According to the WUD report prepared by GeoSearch, the following municipality was identified as owning a groundwater supply well within 5 miles of the boundary of the Designated Property:

- City of Carrollton

In addition review of the 5 mile water well search identified the following municipalities as owning a groundwater supply wells within 5 miles of the boundary of the Designated Property:

- City of Dallas
- City of Addison

There are no other municipalities beside the City of Farmers Branch that own or operate a groundwater supply well within 5 miles of the Designated Property. Copies of the 5 Mile WUD Report and 5 Mile Water Well Report are included in Appendix P of this application.

The applicant has contacted the City of Farmers Branch and is providing notice and additional information as required by Section 361.805 of the Texas Health & Safety Code. At the time of this application notice had not yet been provided the Cities of Carrollton, Dallas, or Addison.

## **APPENDIX T**

### **LISTING OF OWNERS OF REAL PROPERTY WITHIN 2,500 FEET OF THE PROPERTY**

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Research into ownership of real property within 2,500 feet was performed by GeoSearch. The complete listing of all identified owners of real property within 2,500 feet is included in Tab 1 of this Appendix T.

The corresponding spreadsheet and mail merge file are provided electronically in Tab 1 of Appendix Y.

## APPENDIX T

### ADDITIONAL INFORMATION

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Tab

1 Printout of Real Property Owners Within 2,500 Feet of Site

Appendix T  
Listing of Owners of Real Property Within 2,500 Feet

SOURCE NAME	SOURCE ADDRESS	OWNER NAME	OWNER ADDRESS	OWNER CITY	OWNER STATE	OWNER ZIP
	102 NICHOLSON RD	BURLINGTON NO SANTA FE RR	PO BOX 961089	FORT WORTH	TEXAS	76161-0089
GLAZERS	13600 SENLAC DR	GLAZER INVESTMENTS INC	14911 QUORUM DR STE 400	DALLAS	TEXAS	75254-7042
TREND OFFSET PRINTING	2301 MCDANIEL DR	PROLOGIS MCDANIEL LP	4545 AIRPORT WAY	DENVER	COLORADO	80239-5716
	1800 MONETARY LN	VALWOOD IMPT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
UNITED NOTIONS	13800 HUTTON DR	MODA LANI LAND LP	13795 HUTTON DR	DALLAS	TEXAS	75234-9006
22% OCC	13755 HUTTON DR	ICON OWNER POOL L TEXAS LLC	2 NORTH RIVERSIDE PLAZA STE 23	CHICAGO	ILLINOIS	60606-2600
HUGH CUNNINGHAM CO	13755 BENCHMARK DR	PROLOGIS TEXAS III LP	4545 AIRPORT WAY	DENVER	COLORADO	80239-5716
HUTTIG BUILDING PRODUCTS	2115 VALLEY VIEW LN	2115 VALLEY VIEW LP	50 N WATER ST	NORWALK	CONNECTICUT	06854-2278
SPORT SUPPLY GROUP	13700 BENCHMARK DR	PROLOGIS TEXAS III LP	4545 AIRPORT WAY	DENVER	COLORADO	80239-5716
UNITED NOTIONS	13800 HUTTON DR	HMD HOLDINGS LLC	13795 HUTTON DR	DALLAS	TEXAS	75234-9006
KC CAPS	2168 DIPLOMAT DR	NGAN BROTHERS LLC	17145 MARGAY AVE	CARSON	CALIFORNIA	90746-1209
SAMS PACK FIVE STAR FORD	2075 DIPLOMAT DR	PACK PROPERTIES	1635 S I 35	CARROLLTON	TEXAS	75006-7415
VACANT	2300 MCDANIEL DR	VALWOOD IMPROVEMENT AUTHORITY	1740 BRIERCROFT CT	CARROLLTON	TEXAS	75006-6400
50% OCC 1/2 OF BLDG SHELL	13701 HUTTON DR	DALLAS FLEX LLC	40 WEST 5TH ST	NEW YORK	NEW YORK	10019-0000
2050 DIPLOMAT	2055 DIPLOMAT DR	PACK PROPERTIES LTD PARTNERSHIP	1635 S I 35E	CARROLLTON	TEXAS	75006-7415
BURNS VET SUPPLY MCDONALDS TECHNOLOGIES	1900 DIPLOMAT DR	ICON OWNER POOL I TEXAS LLC	2 NORTH RIVERSIDE PLAZA STE 23	CHICAGO	ILLINOIS	60606-2600
MACE SECURITY PRODUCTS	13710 HUTTON DR	KANSUN ENTERPRISE INC	3712 WICKLOW CT	FLOWER MOUND	TEXAS	75022-2857
DRAINAGE CHANNEL	13699 HUTTON DR	VALWOOD IMPT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
VACANT LAND	1903 W DIPLOMAT DR	VALWOOD DIPLOMAT LLC	7880 SAN FELIPE STE 250	HOUSTON	TEXAS	77063-1693
SPORT SUPPLY	1901 DIPLOMAT DR	MP ACQUIPORT INDUSTRIAL LLC	TWO SEAPORT LN	BOSTON	MASSACHUSET	02210-2001
T&L	1850 DIPLOMAT DR	DENALI TEXAS DIPLOMAT INDUSTRIAL LLC	120 N LASALLE ST STE 1750	CHICAGO	ILLINOIS	60602-0000
VALWOOD PARK VIII	1800 DIPLOMAT DR	DENALI TEXAS DIPLOMAT INDUSTRIAL LLC	120 N LASALLE ST STE 1750	CHICAGO	ILLINOIS	60602-0000
4.59 ACRE BUILDABLE-REMAINDER UNBUILDABLE	13309 SENLAC DR	TCI LUNA VENTURES LLC	1603 LBJ FREEWAY STE 800	DALLAS	TEXAS	75234-6061
DRAINAGE CHANNEL	13400 SENLAC DR	VALWOOD IMPT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
CT AEROSPACE/PRIME TURBINES	1615 DIPLOMAT DR	DCT 1615 DIPLOMAT LP	PO BOX 173382	DENVER	COLORADO	80217-3382
DRAINAGE DITCH	2300 MCDANIEL DR	CARROLLTON FRAMERS BRANCH	3830 OLD DENTON RD APT 101	CARROLLTON	TEXAS	75007-1004
1625 DIPLOMAT	1625 DIPLOMAT DR	G&I VII 1625 DIPLOMAT LP	2001 ROSS AVE STE 2800	DALLAS	TEXAS	75201-2930
ADLETA BUSINESS CENTER	1645 DIPLOMAT DR	ADLETA BUSINESS CENTER JV	1645 DIPLOMAT DR	CARROLLTON	TEXAS	75006-8353
2315 LUNA RD	2315 LUNA RD	2315 LUNA ROAD PARTNERS	11520 N CENTRAL EXPY STE 121	DALLAS	TEXAS	75243-6650
FLOODWAY EASEMENT	13400 SENLAC DR	BLANKEMEYER HAROLD TR	3010 LBJ FWY # 1228	DALLAS	TEXAS	75234-7770
CITY SERVICE CENTER	13333 SENLAC DR	FARMERS BRANCH CITY OF	PO BOX 819010	DALLAS	TEXAS	75381-9010
NETWORK DISTRIBUTION INC	2005 VALLEY VIEW LN	REEP IND VALWOOD TX LLC	51 MADISON AVE ROOM 910	NEW YORK	NEW YORK	10010-1603
LIFT STATION	1905 E DIPLOMAT DR	FARMERS BRANCH CITY OF	PO BOX 819010	DALLAS	TEXAS	75381-9010
ENTERPRISE COMMERCIAL TRUCKS	13210 SENLAC DR	TRANSCONTINENTAL LAMAR INC	1603 LBJ FWY STE 300	DALLAS	TEXAS	75234-6057
LONGHORN BORING	13213 SENLAC DR	LONGHORN ROAD BORING CO	PO BOX 810001	DALLAS	TEXAS	75381-0001
DRAINAGE CHANNEL	13399 HUTTON DR	VALWOOD IMPT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
	1955 VALLEY VIEW LN	VALWOOD IMPT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
2021 VALLEY VIEW LN	2099 VALLEY VIEW LN	OULAD CHIKH FAMILY TRUST	2099 VALLEY VIEW LN	FARMERS BRANCH	TEXAS	75234-8920
PACIFIC PLUS	13241 VALLEY BRANCH LN	YOUNG VALLEY INTERNATIONAL LTD	13241 VALLEY BRANCH LN	FARMERS BRANCH	TEXAS	75234-5739
ST ANDREW KIM CATHOLIC CHURCH	2019 VALLEY VIEW LN	ROMAN CATHOLIC DIOCESE DALLAS	3725 BLACKBURN ST	DALLAS	TEXAS	75219-4404
ENERSYST	2051 VALLEY VIEW LN	DARK HORSE PPTIES LLC	2051 VALLEY VIEW LN	FARMERS BRANCH	TEXAS	75234-8946
HI LINE ELECTRIC	2121 VALLEY VIEW LN	HILINE ELECTRIC CO	2121 VALLEY VIEW LN	DALLAS	TEXAS	75234-8912
	1721 VALLEY VIEW LN	KBTBA REAL ESTATE LLC	5330 STONE FALLS LN	DALLAS	TEXAS	75287-7516
CINGULAR WIRELESS	1801 VALLEY VIEW LN	BHCP FARMERS BRANCH LP	16027 VENTURA BLVD STE 550	ENCINO	CALIFORNIA	91436-2796
	1701 VALLEY VIEW LN	FARMERS BRANCH GROUP	16027 VENTURA BLVD STE 550	ENCINO	CALIFORNIA	91436-2796
VALLEY VIEW COMMERCE CENTER	1881 VALLEY VIEW LN	KBTBA REAL ESTATE LLC	5330 STONE FALLS LN	DALLAS	TEXAS	75287-7516
CDI CORP	2010 VALLEY VIEW LN	IORI VALLEY VIEW INC	1603 LBJ FRWY SUITE 800	DALLAS	TEXAS	75234-6061
FLOORING SERVICES INC	2020 VALLEY VIEW LN	GS REAL PROPERTY TX INC	3190 E MIRALOMA AVE	ANAHEIM	CALIFORNIA	92806-1906
1 FLEX BLDG & 1 WHSE BLDG	2098 VALLEY VIEW LN	GRANTCHESTER LORD	9768 RANCH ROAD 962 E	CYPRESS MILL	TEXAS	78663-8434
VACANT	13150 SENLAC DR	KOMERICA BUILDING MAINTANCE INC	2445 MCIVER LN STE 100	CARROLLTON	TEXAS	75006-6548
2100 VALLEY VIEW LN	2100 VALLEY VIEW LN	2100 RICCHI LLC	15900 LACANTERA PKWY	SAN ANTONIO	TEXAS	78256-0000
KOKO COLLISION REPAIR	1932 VALLEY VIEW LN	KATANJIAN KOKO	1932 VALLEY VIEW LN	FARMERS BRANCH	TEXAS	75234-8907
VACANT	2100 VALLEY VIEW LN	FARMERS BRANCH CITY OF	PO BOX 819010	DALLAS	TEXAS	75381-9010
	12100 NICHOLSON RD	DALLAS CITY OF	1500 MARILLA ST	DALLAS	TEXAS	75201-6318

Appendix T  
Listing of Owners of Real Property Within 2,500 Feet

SOURCE NAME	SOURCE ADDRESS	OWNER NAME	OWNER ADDRESS	OWNER CITY	OWNER STATE	OWNER ZIP
VH PRINTING	1930 VALLEY VIEW LN	VH PRINTING LP	1930 VALLEY VIEW LN	DALLAS	TEXAS	75234-8907
VH PRINTING	1930 VALLEY VIEW LN	VH PRINTING LP	1930 VALLEY VIEW LN	DALLAS	TEXAS	75234-8907
CISCO-EAGLE, INC.	2120 VALLEY VIEW LN	HAC INVESTMENTS INC	2401 COLONIAL DR	PLANO	TEXAS	75093-4144
INDOOR SOCCER TRAINING FACILITY	1641 KEENAN BRIDGE RD	SOCCER MGMT OF TX INC	205 HONEYSUCKLE WAY	FLOWER MOUND	TEXAS	75028-5145
	1637 KEENAN BRIDGE RD	BYRD JOE R	2980 ERIC LN	FARMERS BRANCH	TEXAS	75234-6491
	1617 KEENAN BRIDGE RD	BYRD JULIA E	2980 ERIC LN	FARMERS BRANCH	TEXAS	75234-6491
VACANT	1880 VALLEY VIEW LN	EDINA PARK PLAZA ASSOC LP	1603 LBJ FWY STE 300	DALLAS	TEXAS	75234-6057
VACANT	1880 VALLEY VIEW LN	EDINA PARK PLAZA ASSOC LP	1603 LBJ FWY STE 300	DALLAS	TEXAS	75234-6057
O D L	12901 VALLEY BRANCH LN	CABOT II TX1W09W10 LP	1 BEACON ST	BOSTON	MASSACHUSET	02108-3107
HARTUNG	12900 NICHOLSON RD	SCIOLA FAMILY PROPERTIES LLC	17830 W VALLEY HWY	TUKWILA	WASHINGTON	98188-5532
SOCCER COMPLEX	1667 KEENAN BRIDGE RD	FARMERS BRANCH CITY OF	PO BOX 819010	DALLAS	TEXAS	75381-9010
	13145 HUTTON DR	NORTH DALLAS BIBLE CHAPEL INC	13315 WILMINGTON DR	FARMERS BRANCH	TEXAS	75234-4904
VACANT	1880 VALLEY VIEW LN	ART GNB INC	1603 LBJ FWY STE 300	DALLAS	TEXAS	75234-6057
VACANT	1880 VALLEY VIEW LN	ART GNB INC	1603 LBJ FWY STE 300	DALLAS	TEXAS	75234-6057
VACANT LAND	1800 VALLEY VIEW LN	GRAHAM MORTGAGE CORPORATION	3838 OAK LAWN AVE STE 1250	DALLAS	TEXAS	75219-4792
VACANT	2020 VALLEY VIEW LN	STONEDOME REAL ESTATE LLC	901 QUAIL CREEK CT	SOUTHLAKE	TEXAS	76092-3117
AG LAND	1599 VALLEY VIEW LN	ROSENZWEIG SAMUEL TRUSTEE	7012 DUFFIELD DR	DALLAS	TEXAS	75248-7402
12901 NICHOLSON III	12901 NICHOLSON RD	CH REALTY VII/I	3819 MAPLE AVE	DALLAS	TEXAS	75219-3913
VALLEY VIEW COMMERCE PARK	12920 SENLAC DR	HYDROTEX HQ LLC	12920 SENLAC DR SUITE 190	FARMERS BRANCH	TEXAS	75234-9237
OLMSTED KIRK	1601 VALLEY VIEW LN	COLFIN COBALT I II OWNER LLC	2450 BROADWAY STE 600	SANTA MONICA	CALIFORNIA	90404-3591
SADDLE CREEK CORP	12855 VALLEY BRANCH LN	COLFIN COBALT OWNER III LLC	5605 N MACARTHUR BLVD STE 350	IRVING	TEXAS	75038-2620
VALLEY VIEW COMMERCE PARK	12900 SENLAC DR	FELDER NEIL	1545 W MOCKINGBIRD LN STE 1014	DALLAS	TEXAS	75235-5072
CAL PROPERTY MGMT	12901 HUTTON DR	CAL PROPERTY MANAGEMENT CO LLC	PO BOX 293900	LEWISVILLE	TEXAS	75029-3900
T M CENTURY	2002 ACADEMY LN	FELDER NEIL	PO BOX 543033	DALLAS	TEXAS	75354-3033
ONE HICKORY CENTRE	1800 VALLEY VIEW LN	CADG ONE HICKORY LLC	1800 VALLEY VIEW LN STE 300	FARMERS BRANCH	TEXAS	75234-8945
ONE HICKORY CENTRE	1800 VALLEY VIEW LN	CADG ONE HICKORY LLC	1800 VALLEY VIEW LN STE 300	FARMERS BRANCH	TEXAS	75234-8945
	12900 NICHOLSON RD	FARMERS BRANCH CITY OF	PO BOX 819010	DALLAS	TEXAS	75381-9010
DRAINAGE CHANNEL	12840 NICHOLSON RD	FARMERS BRANCH CITY OF	PO BOX 819010	DALLAS	TEXAS	75381-9010
VACANT	1800 LAKEWAY BLVD	CADG MERCER CROSSING HOLDINGS LLC	1800 VALLEY VIEW LN # 300	DALLAS	TEXAS	75234-8945
VACANT	1800 LAKEWAY BLVD	CADG MERCER CROSSING HOLDINGS LLC	1800 VALLEY VIEW LN # 300	DALLAS	TEXAS	75234-8945
MS INTERNATIONAL INC	12845 VALLEY BRANCH LN	COLFIN COBALT OWNER III LLC	2450 BROADWAY 6TH FLOOR	SANTA MONICA	CALIFORNIA	90404-3570
FOUR HICKORY CENTRE	1755 WITTINGTON PL	LK FOUR HICKORY LLC	1603 LBJ FRWY STE 800	DALLAS	TEXAS	75234-6061
35 AC DEDICATED LAKE UNBUILDABLE	12600 LUNA RD	CADG MERCER CROSSING HOLDINGS LLC	1800 VALLEY VIEW LN 300	FARMERS BRANCH	TEXAS	75234-8945
VACANT	13010 NICHOLSON RD	FB CARR FLOOD CONTL DIST	8300 DOUGLAS AVE STE 800	DALLAS	TEXAS	75225-5826
VACANT	13010 NICHOLSON RD	FB CARR FLOOD CONTL DIST	8300 DOUGLAS AVE STE 800	DALLAS	TEXAS	75225-5826
	12100 NICHOLSON RD	DALLAS CITY OF	1500 MARILLA ST	DALLAS	TEXAS	75201-6318
VACANT	12300 NICHOLSON RD	FB CARR FLOOD CONTL DIST	8300 DOUGLAS AVE STE 800	DALLAS	TEXAS	75225-5826
DRAINAGE AREA	2320 LUNA RD	VALWOOD IMPT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
VACANT	2310 LUNA RD	VALWOOD IMPT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
VACANT	2311 LUNA RD	VALWOOD IMPT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
VACANT	1700 TRINITY VALLEY DR	TEXAS UTILITIES ELEC CO	PO BOX 219071	DALLAS	TEXAS	75221-9071
BEDFORD ADS/NORTH DALLAS COMMUNITY						
BAPTIST CHURCH	1718 TRINITY VALLEY DR	TRINITY VALLEY PTNR LLC	1718 TRINITY VALLEY DR	CARROLLTON	TEXAS	75006-6553
MB2 DENTAL SOLUTIONS	2403 LACY LN	JBC LAND & CATTLE COMPANY LLC	2905 DUBLIN RD	PARKER	TEXAS	75002-6568
AT&T MOBILITY	2400 LACY LN	DALLAS SMSA LTD P/S	909 CHESTNUT ST RM 36M01	SAINT LOUIS	MISSOURI	63101-2017
2410 LUNA RD	2410 LUNA RD	GILLILAND JAMES L JR &	1880 SINCLAIR CT	LEWISVILLE	TEXAS	75067-6029
MAGIC VIDEO INC	2424 LACY LN	MAGIC STUDIOS LLC	2424 LACY LN	CARROLLTON	TEXAS	75006-6513
UNOCCUPIED	2413 LACY LN	ARK HOLDINGS LLC THE	P O BOX 728	ROCKWALL	TEXAS	75087-0728
INTER COOL	2426 LACY LN	BURA W MARK JR	2426 LACY LN	CARROLLTON	TEXAS	75006-6513
HAMM'S CONSTRUCTION	2421 LACY LN	TH & ASSOCIATES LLC	2421 LACY LN	CARROLLTON	TEXAS	75006-6514
VACANT	2432 LUNA RD	GILLILAND JAMES L &	1880 SINCLAIR CT	LEWISVILLE	TEXAS	75067-6029
LINCOLN PRESS/INDUSTRY SERVICES GROUP	2430 LACY LN	PEACOCK LACY LANE VENT	11520 N CENTRAL EXPY STE 121	DALLAS	TEXAS	75243-6650
2433 LACY LN OFFICE SHOWROOM	2433 LACY LN	TFS & SONS LTD	5321 FARQUHAR LN	DALLAS	TEXAS	75209-3503
VITEL/PACIFIC PULMONARY SERVICES/UNOCC	2440 LACY LN	LEEBROOK RESOURCES LLC	129 OAK TRAIL	COPPELL	TEXAS	75019-2514
2441 LACY	2441 LACY LN	MDKT HOLDINGS I LLC	2441 LACY LN	CARROLLTON	TEXAS	75006-6514
2452 LACY LN	2452 LACY LN	KENNINGTON LACY LTD	4514 TRAVIS ST STE 312	DALLAS	TEXAS	75205-4186

Appendix T  
Listing of Owners of Real Property Within 2,500 Feet

SOURCE NAME	SOURCE ADDRESS	OWNER NAME	OWNER ADDRESS	OWNER CITY	OWNER STATE	OWNER ZIP
2445 LACY	2445 LACY LN	MACHADO HOLDING COMPANY LLC	2445 LACY LN	CARROLLTON	TEXAS	75006-6514
JACK IN THE BOX	2452 LUNA RD	SHULER JOHN J & TRUSTEES	9330 BALBOA AVE	SAN DIEGO	CALIFORNIA	92123-1516
VACANT	2453 LACY LN	SEMINOLE MERCER 3 1 LP	7012 DUFFIELD DRIVE	DALLAS	TEXAS	75248-7402
RACETRAC	2464 LUNA RD	RACETRAC PETROLEUM INC	3225 CUMBERLAND BLVD SE	ATLANTA	GEORGIA	30339-6408
THE SHOPS AT MERCER CROSSING	2460 LACY LN	MERCER LACY LLC &	PO BOX 25848	SCOTTSDALE	ARIZONA	85255-0114
VACANT	12099 LUNA RD	CADG MERCER CROSSING HOLDINGS LLC	1800 VALLEY VIEW 300	FARMERS BRANCH	TEXAS	75234-8945
VACANT	12099 LUNA RD	CADG MERCER CROSSING HOLDINGS LLC	1800 VALLEY VIEW LN 300	FARMERS BRANCH	TEXAS	75234-8945
VACANT	12899 LUNA RD	CKL BROTHERS INVESTMENT LLC	11245 NEWKIRK ST	DALLAS	TEXAS	75229-3258
FLOOD AREA	12201 NORTHERN PKWY	STANLEY MECHANICS TOOLS	1000 STANLEY DR	NEW BRITAIN	CONNECTICUT	06053-1675
STANLEY CORPORATION	12827 VALLEY BRANCH LN	NATIONAL HAND TOOL CORP	PO BOX 7000	NEW BRITAIN	CONNECTICUT	06050-7000
VACANT	1979 LAKEWAY BLVD	MERCER CROSSING LAND LTD	1722 ROUTH ST STE 770	DALLAS	TEXAS	75201-2535
VALLEY VIEW COMMERCE CENTER LAND	1861 VALLEY VIEW LN	KENNINGTON VALLEY VIEW LLC	4514 TRAVIS ST STE 312	DALLAS	TEXAS	75205-4186
VALLEY VIEW COMMERCE CENTER	1861 VALLEY VIEW LN	KENNINGTON VALLEY VIEW LLC	4514 TRAVIS ST STE 312	DALLAS	TEXAS	75205-4186
SOCCER COMPLEX	1645 KEENAN BRIDGE RD	FARMERS BRANCH CITY OF	PO BOX 819010	DALLAS	TEXAS	75381-9010
VACANT	2319 LUNA RD	VALWOOD IMPT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
ASSURED SELF STORAGE	2444 LUNA RD	VALK DON	4000 N MACARTHUR BLVD STE A132	IRVING	TEXAS	75038-6418
VACANT	1700 VALLEY VIEW LN	CADG MERCER CROSSING HOLDINGS LLC	1800 VALLEY VIEW LN 300	FARMERS BRANCH	TEXAS	75234-8945
VACANT	1 VALLEY VIEW LN	CADG MERCER CROSSING HOLDINGS LLC	1800 VALLEY VIEW LN # 300	DALLAS	TEXAS	75234-8945
MONITRONICS HEADQUARTERS	1990 WITTINGTON PL	MCO1 LAND LTD	1722 ROUTH ST STE 1313	DALLAS	TEXAS	75201-2517
VACANT	1990 WITTINGTON PL	MCO1 LAND LTD	1722 ROUTH ST STE 1313	DALLAS	TEXAS	75201-2517
TWO HICKORY CENTRE	1750 VALLEY VIEW LN	CCI TWO HICKORY LP	800 BRAZOS ST SUITE 600	AUSTIN	TEXAS	78701-2770
2030 DIPLOMAT	2030 W DIPLOMAT DR	GMJJ PROPERTIES LLC	2317 SPRINGLAKE RD	FARMERS BRANCH	TEXAS	75234-5849
VACANT	2020 W DIPLOMAT DR	WDT VENTURES LLC	1920 HUTTON CT STE500	DALLAS	TEXAS	75234-9018
VACANT	2409 LUNA RD	ADU INVESTMENTS LLC	2401 LUNA RD	CARROLLTON	TEXAS	75006-0000
ALL DOGS UNLEASHED	2401 LUNA RD	ADU INVESTMENTS LLC	2401 LUNA RD	CARROLLTON	TEXAS	75006-0000
(FUTURE MERCER BUSINESS PARK)	2300 WESTSIDE PKWY	MERCER CROSSING LAND LTD	1722 ROUTH ST STE 770	DALLAS	TEXAS	75201-2535
DRAINAGE FLOOD RUN OFF UNBUILDABLE	1700 LAKEWAY BLVD	VALWOOD IMPROVEMENT AUTHORITY	1740 BRIERCROFT CT	CARROLLTON	TEXAS	75006-6400
VACANT	1925 VALLEY VIEW LN	SHORT HAROLD	572 KIRKLAND DR	COPPELL	TEXAS	75019-4827
FIRE STATION 3 / ADMINISTRATION	13303 HUTTON DR	FARMERS BRANCH CITY OF	PO BOX 119010	FARMERS BRANCH	TEXAS	75381-9010
GARDEN DISTRICT	1925 VALLEY VIEW LN	VV1925 LLC	1925 VALLEY VIEW LN	FARMERS BRANCH	TEXAS	75234-8908
DRAINAGE	13800 HUTTON DR	VALWOOD IMPROVEMENT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
DRAINAGE	13800 HUTTON DR	VALWOOD IMPROVEMENT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
DRAINAGE	13800 HUTTON DR	VALWOOD IMPROVEMENT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
DRAINAGE	13800 HUTTON DR	VALWOOD IMPROVEMENT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
VACANT	1999 LAKEWAY BLVD	MERCER CROSSING LAND LTD	1722 ROUTH ST STE 770	DALLAS	TEXAS	75201-2535
VACANT-UNDEVELOPABLE GAS LINE UTILITY AREA	2155 LAKEWAY BLVD	MERCER CROSSING LAND LTD	1722 ROUTH ST STE 770	DALLAS	TEXAS	75201-2535
VACANT	12800 NICHOLSON RD	VALWOOD IMPT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
VACANT	1700 LAKEWAY BLVD	MERCER CROSSING LAND LTD	1722 ROUTH ST STE 770	DALLAS	TEXAS	75201-2535
DRAINAGE DITCH	2099 LAKEWAY BLVD	MERCER CROSSING LAND LTD	1722 ROUTH ST STE 770	DALLAS	TEXAS	75201-2535
VACANT	12800 NICHOLSON RD	VALWOOD IMPT AUTHORITY	1430 VALWOOD PKWY STE 160	CARROLLTON	TEXAS	75006-8378
ROW SPLIT FOR TIF	11111 WITTINGTON PL	FARMERS BRANCH TIF# 1 ZONE 100	13000 WILLIAM DODSON PKWY	FARMERS BRANCH	TEXAS	75234-6253

### Appendix U – Completeness of Information and On-Site and Off-Site Impact(s)

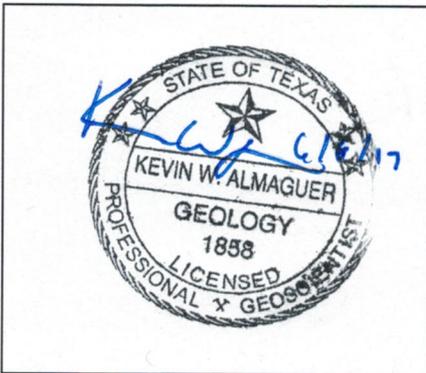
To the best of my knowledge and belief, based upon a review of all public and private records and other information sources available to me in the exercise of due diligence, the opinions stated and conclusions made in this application are supported by such information, and the technical and scientific information submitted with the application is true, accurate and complete. Based on such review, the contaminants of concern from sources on the designated property or migrating from or through the designated property more likely than not [do exceed] OR **do not exceed** a non-ingestion protective concentration level on property beyond the boundaries of the designated property. Further, I certify that all requirements of Section 34-612 of the Farmers Branch Code of Ordinances have been met, including demonstration that the groundwater contamination plume has been fully delineated and is stable or contracting in size.

Kevin W. Almaguer  
(Name)

Geologist  
(Title)

EnviroPhase, Inc.  
(Firm)

Signature:  Date: 6/8/17



Professional Seal

**APPENDIX V**

**STATEMENT BY LICENSED PROFESSIONAL ENGINEER or  
GEOLOGIST REGARDING EXCEEDING NON-INGESTION PCLs  
OFF-SITE**

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No statement or information required in this section.

### Appendix W – Accuracy of Information

I certify under penalty of law that this application and all attachments were prepared under my direction or supervision in a manner designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the persons responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violation.

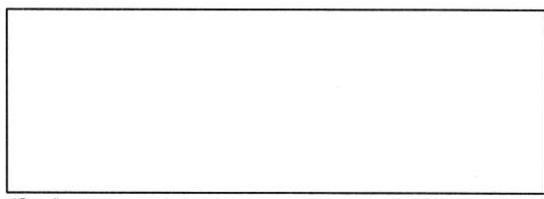
Mehrdad Morayedi  
(Applicant's Name)

CEO  
(Title)

CPG6 inc.com crosslink  
(Company)

Signature: [Signature] Date: 2017/03/07

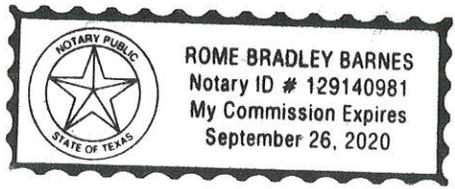
State of Texas     §  
  
County of Dallas   §



(Seal)

This instrument was acknowledged before me on this day the 7 day of March, 2017 by Mehrdad Morayedi  
(Print)

[Signature]



NOTARY PUBLIC, STATE OF TEXAS  
Rome Barnes  
Printed/Typed Name of Notary

My commission expires: 9-26-20

### Appendix X – Signed Restrictive Covenant

I certify under penalty of law that I, the undersigned, as the real property owner or authorized agent of the designated property listed herein, have the legal authority and do agree to prohibit the use of designated groundwater in support of the Municipal Setting Designation by the Texas Commission on Environmental Quality.

Mehrdad Moayedi  
(Owner or Authorized Agent's Name)

MOA  
(Title)

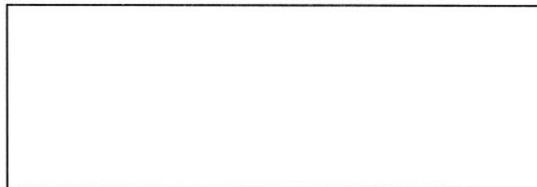
CA06 MENCHER CROSSING  
(Company)

Signature: [Handwritten Signature] Date: 2017/03/07

*If authorized agent, provide proof of legal authorization instrument in the application under appendix x.*

State of Texas §

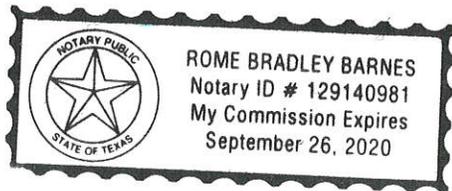
County of Dallas §  
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NOTARY PUBLIC, STATE OF TEXAS  
Rome Barnes  
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