MIDESSA
(MIDLAND COUNTY)
MIDLAND, TEXAS

EPA ID# TXN000606668
Site ID: 0606668

EPA REGION 6
CONGRESSIONAL DISTRICT 11

Contact: Vincent Malott
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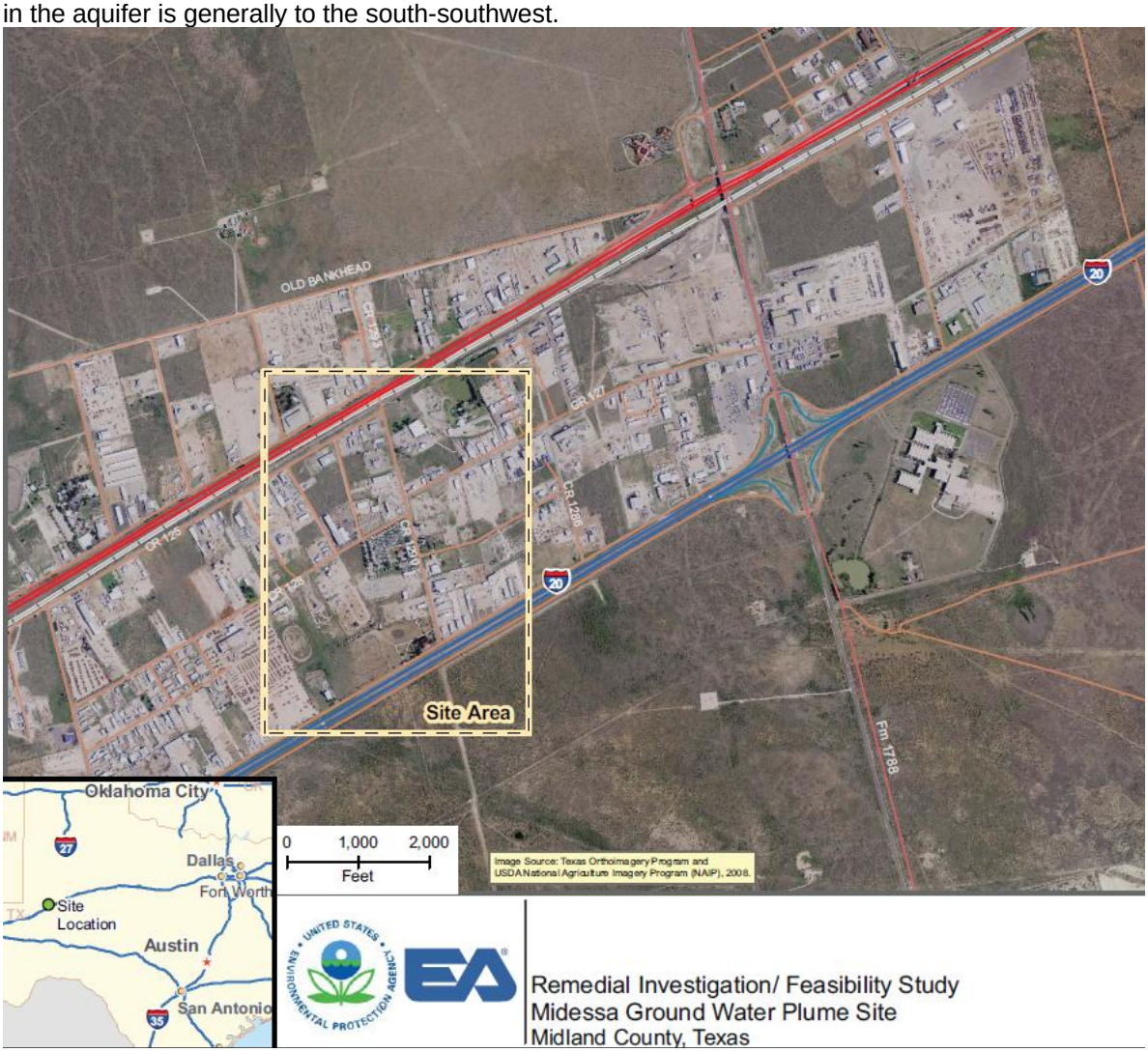
Last Updated: April 2013

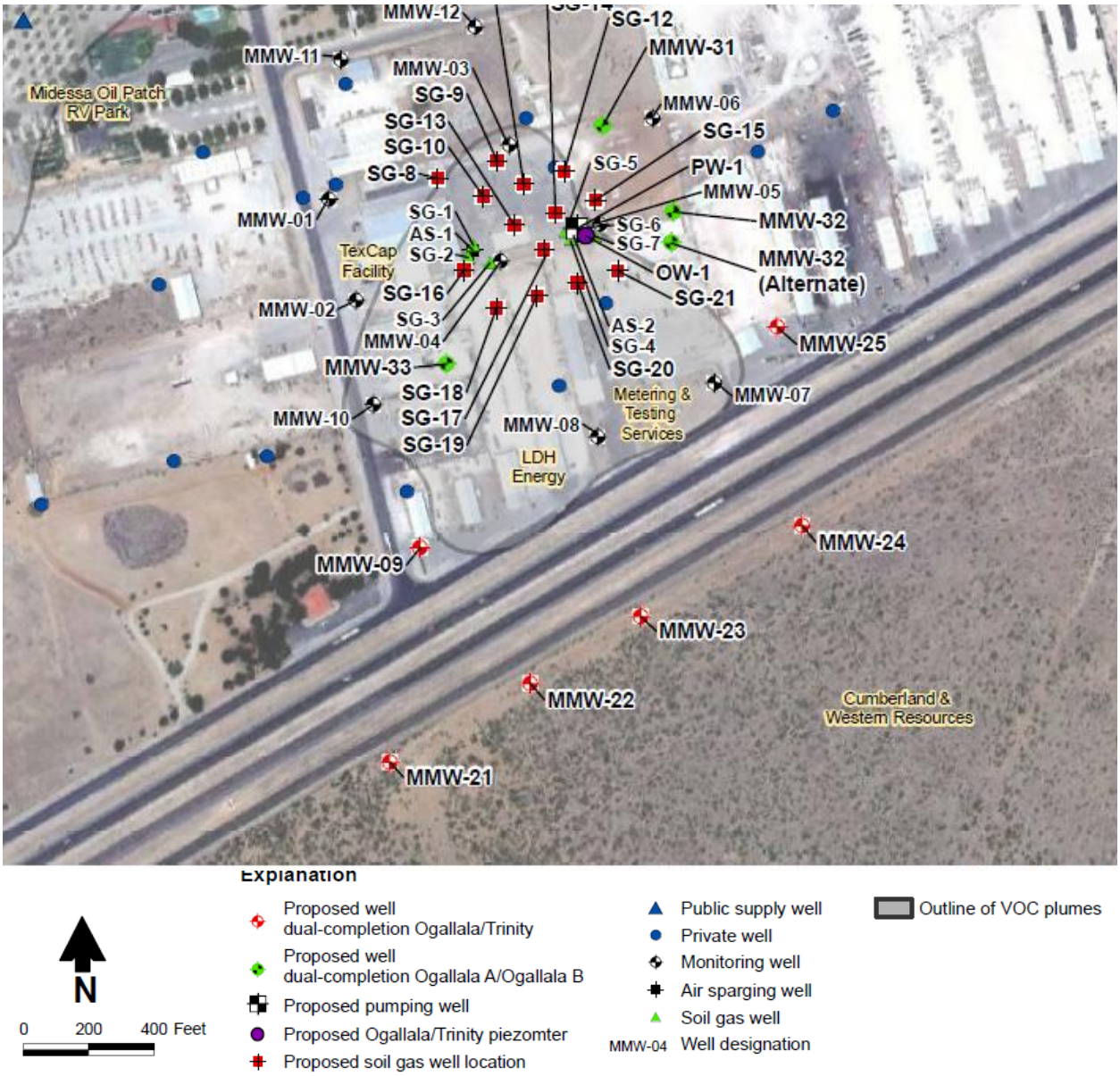
Background

The Site consists of three contaminated ground water plumes originating from an unidentified source(s). The contaminant plumes are located along County Road 1290, between Interstate 20 to the south, and Interstate Business 20 to the north, in the western part of Midland County. The Trinity and Ogallala aquifer is the only ground water source for drinking water in the site area. The water table is shallow as 19 feet below the ground surface in the Ogallala aquifer and the base of the lower Trinity aquifer is approximately 95 – 105 feet below ground surface. The Triassic red beds form the base of the aquifer. Ground water flow in the aquifer is generally to the south-southwest.



Current Status

The second round of monitoring well installation began the week of December 12th 2011, and resumed the week of January 2nd 2012. Sampling of the new wells was conducted the week of January 16th 2012 and January 30th 2012. Tetrachlorethene contamination was detected at all four of the new well locations on the south side of Interstate 20. Locations of the existing and recently installed monitoring wells are shown in the figure below.



Ground water monitoring wells were also installed in June 2011 to provide data on the ground water flow direction, vertical and horizontal distribution of the contaminants, and identification of possible source areas as shown on the figure immediately below (Note: monitoring wells MW-09 and MW-23 were not installed during this field event). In addition, soil vapour monitoring wells and air sparging test wells were installed at the TexCap property. The new monitoring wells and selected private supply wells were sampled the week of July 25, 2011. A second round of vapor intrusion sampling was collected the week of July 11, 2011, to assess differences in VOC concentrations between the summer and winter months.

The Remedial Investigation was started on September 23, 2010. The Phase I field event was completed the week of November 15, 2010, and included a site-wide sampling event of the private water supply wells, geophysical logging of selected private supply wells, collection of indoor air samples from potentially affected commercial and residential buildings above the ground water contamination, and collection of surface soil samples and installation of passive soil gas samplers at a former chemical supply facility.

Benefits

The identification and investigation of the source of groundwater contamination is needed to prevent additional private wells from being contaminated, and develop plans for cleanup of the ground water.

National Priorities Listing (NPL) History

NPL Inclusion Proposal Date:	September 19, 2007
NPL Inclusion Final Date:	March 19, 2008

Wastes and Volumes

The ground water contaminants consists of tetrachloroethene (PCE), trichloroethene (TCE), 1,1-dichloroethene, 1,1-dichloroethane, carbon tetrachloride, and 1,4-dioxane. The site is being evaluated as a ground water contaminant plume with no identified source. The outer boundary of the ground water contamination has not yet been defined but the existing sample data obtained from the private water wells has indicated an area of at least 0.5 mile in length.

Health Considerations

There is no other potable water supply for the residents. Human exposure is currently prevented through ground water sampling and the use of filtration systems on individual private wells. There are ten filtration systems currently installed on private water supply wells at the site and the Texas Commission on Environmental Quality (TCEQ) provides maintenance of the filtration systems.

Record of Decision (ROD)

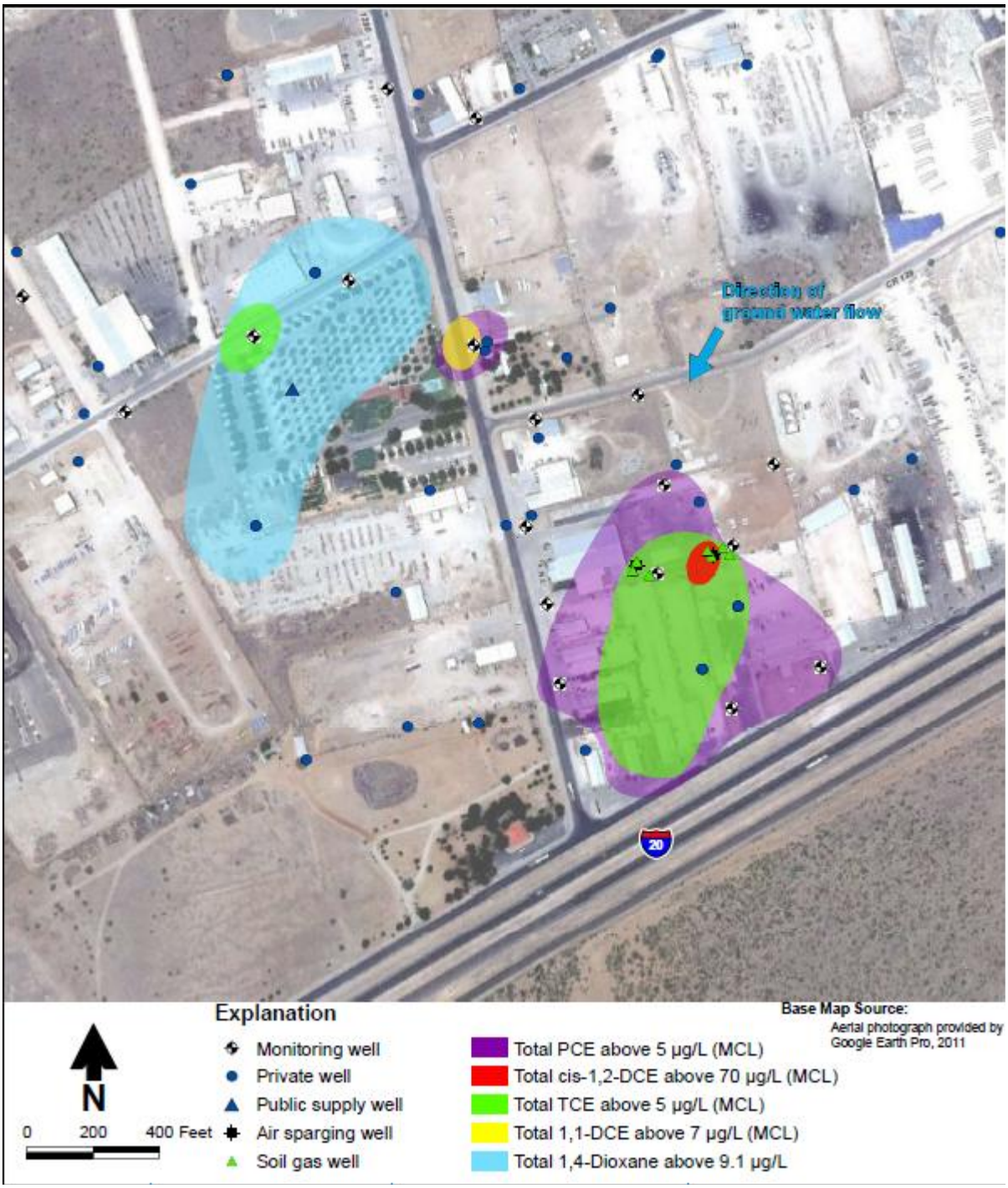
A Record of Decision will be issued following completion of the Remedial Investigation/Feasibility Study and an opportunity for the community and interested parties to review the data and comment on the preferred remedy identified by the EPA.

Community Involvement

EPA held a public meeting on August 7, 2008, at the Midessa Oilpatch RV Park to discuss the project activities, environmental data, and potential health effects.

Site Map

The following site map illustrates the public and private water supply wells and the monitoring wells installed in June 2011. The extent of one or more volatile organic chemicals (VOCs) is illustrated in the colors of the respective plume areas for tetrachloroethene (PCE) as shown in purple, trichloroethene (TCE) as shown in green, cis-1,2-dichloroethene (cis-1,2-DCE) as shown in red, 1,4-dioxane as shown in blue, and 1,1-dichlorothene (1,1-DCE) as shown in yellow.



Site Contacts

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Local Information Repository: Midland County Public Library in Midland, Texas