

Fort Monmouth
Oceanport, Monmouth County, New Jersey
Parcel 76 Work Plan Addendum for Former UST Sites
Date: February 2016

1.0 PURPOSE

The purpose of this Parcel 76 Work Plan Addendum is to outline the site-specific Scope of Work (SOW) for the environmental investigation of former No. 2 fuel oil underground storage tank (UST) sites within Parcel 76 at Fort Monmouth. In general, the scope consists of supplemental groundwater sampling at select former UST sites to assess the potential for impacts to groundwater. This approach was requested by the New Jersey Department of Environmental Protection (NJDEP) in their comment letter dated August 31, 2015, and agreed to in the Army's letter dated February 29, 2016. The field activities will involve installation of temporary monitor wells within 2 Geoprobe borings, and collection of "grab" groundwater samples for chemical analysis of petroleum constituents.

2.0 REFERENCE DOCUMENTS

HEALTH AND SAFETY - All Site personnel are required to read, understand, and comply with the safety guidelines in the Accident Prevention Plan (APP) including the Site Health and Safety Plan (SHASP), which is included as Appendix A of the APP.

FIELD PROCEDURES – The detailed field procedures to be used for the activities described in this sampling plan are described in the March 2013 Final Sampling and Analysis Plan (SAP).

3.0 SITE BACKGROUND

Parcel 76 is located within the north-central portion of the Main Post at Fort Monmouth. The 200 Area of Parcel 76 is located north of Allen Avenue and south of Parkers Creek (**Figure 1**). Available information for multiple USTs at Parcel 76 was previously provided to NJDEP in the Army's submittal dated February 10, 2015 entitled *Underground Storage Tanks Within ECP Parcel 76, Fort Monmouth, New Jersey*. The NJDEP responded in their letter dated August 31, 2015: that no monitoring wells are placed in a location to acceptably characterize or monitor groundwater quality at USTs 538 and 543; and that a groundwater investigation at each of the USTs is required. Groundwater flow directions are interpreted as to the north-northwest towards Parker's Creek at this portion of Parcel 76 (**Figure 2**).

4.0 SAMPLING LOCATIONS

Sampling locations are shown on **Figure 2**. A summary of the field sampling and analytical activities is presented in **Table 1**. Groundwater samples are proposed to be collected immediately downgradient of the limits of excavation at former tank locations UST 538 and UST 543. One Geoprobe® boring will be

Fort Monmouth
Parcel 76 Work Plan Addendum

completed to approximately 4 feet below the water table at each location shown on **Figure 2**. Groundwater from these locations will be sampled using temporary wells within the Geoprobe borings, and then the borings will be abandoned. Each groundwater sample will be analyzed for volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) plus tentatively identified compounds (TICs), in accordance with Table 2-1 of the NJAC 7:26E Technical Requirements for Site Remediation.

TABLE 1
SAMPLING SUMMARY FOR PARCEL 76 WORK PLAN ADDENDUM
FORT MONMOUTH, NEW JERSEY

Parcel	Location	Field Meter Readings ^{a/}	VOCs + TICs by Method 8260C ^{b/}	SVOCs + TICs by Method 8270D ^{c/}
Groundwater				
76	USTs 538 and 543 (Figure 2) - 1 groundwater sample each	2	2	2
QA/QC samples (see SAP for additional details) ^{d/}				
Field Duplicates (5% Sampling Frequency per media)		NA ^{g/}	1	1
Matrix Spike (5% Sampling Frequency per media)		NA	1	1
Matrix Spike Duplicate (5% Sampling Frequency per media)		NA	1	1
Trip Blank (1 per cooler of VOCs per media)		NA	1	0
QA Split (5% per media)		NA	1	1
Equipment Blank (5% Sampling Frequency per media)		NA	1	1
TOTAL		NA	8	7

Notes:

NA = not applicable.

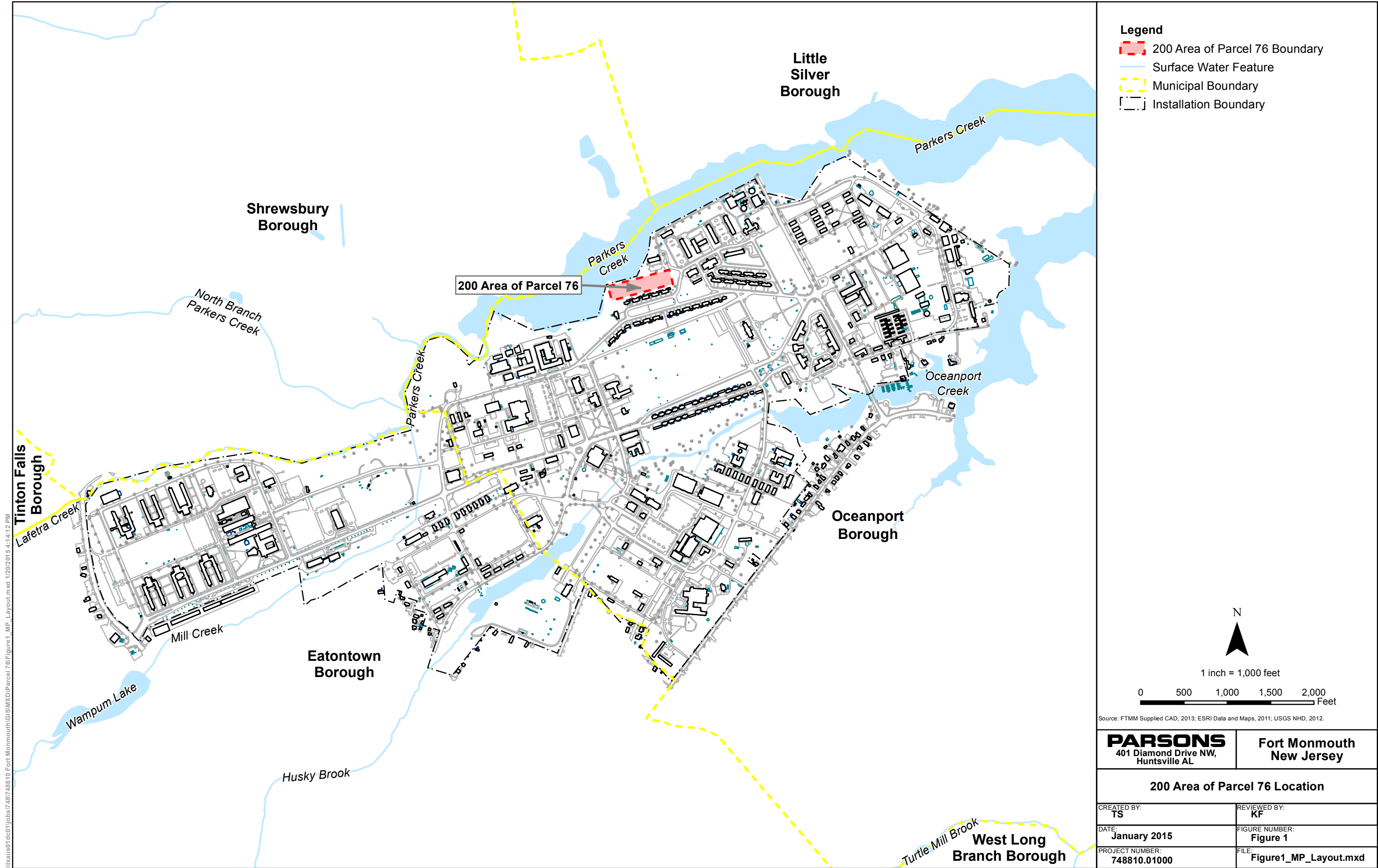
TBD = to be determined.

^{a/} Field meter readings include, in soil samples: photoionization detector (PID) readings along entire soil column; and in groundwater: PID headspace, pH, temperature, electrical conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity.

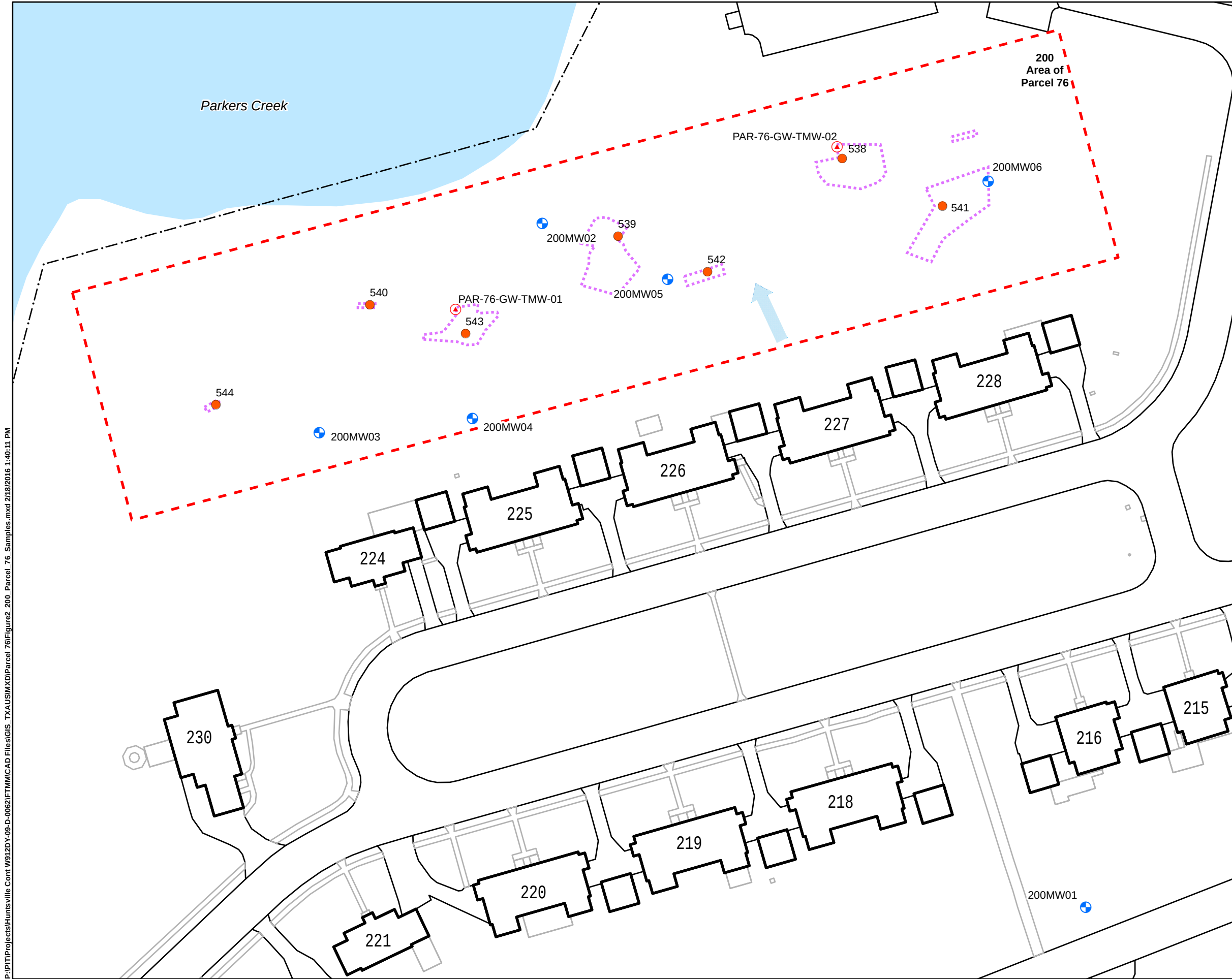
^{b/} VOCs = volatile organic compounds; TICs = tentatively identified compounds.

^{c/} SVOCs = semivolatile organic compounds; TICs = tentatively identified compounds.

^{d/} QA/QC = quality assurance/quality control; SAP = Sampling and Analysis Plan. The requirement for QA/QC samples may be fulfilled with samples from other parcels.



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LEGEND:

- Proposed Groundwater Sample
- Known Removed UST associated with Parcel 76
- Shallow Monitoring Well
- 200 Area of Parcel 76 Boundary
- Approximate Limit of Excavation
- Installation Boundary
- Generalized Groundwater Flow Direction

Source: FTMM Supplied CAD, 2013.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
PARCEL 76 SAMPLE LOCATIONS	
CREATED BY: RR	REVIEWED BY: KF
DATE: FEB. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-01000	FILE: Figure2_200_Parcel_76_Samples.mxd