

# Fort Detrick, Maryland

Off-Post Private Well Investigation and  
Associated Activities



Progress Report to the  
Restoration Advisory Board

8 May 2013

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Imagine the result

# Off-Post Private Well Investigation

## Status of Project Activities

- ✓ Identify/verify drinking water wells through research Sept-Oct 2012
- ✓ Public Outreach (Mailings, Newspaper Announcement) Sept-Oct 2012
- ✓ Public Meeting October 2012
- ✓ Private Well Survey: 135 Residences Visited November 2012
- ✓ Certified Letters (Third Mailing) January 2013
- ✓ Private Well Sampling: 93 Wells/91 Properties Nov-Dec 2012 (main effort)  
Jan-Feb 2013 (certified letter responses)  
May 3, 2013 (PCE confirmation sample collected)
- ▶ **Reporting Results to Residents** **Jan-July 2013**  
**60 days after last sampling event**
- ▶ **Final Public Meeting** **July/August 2013**

Grey = completed

## Off-Post Private Well Investigation Tasks Completed Since February 2013

- Private Well Sampling / Reporting:
  - Received validated data from January 2013
  - Confirmed very low level presence of TCE one well
  - One low level detection of PCE
  - Reported results to residents
  - Collected PCE confirmation sample May 3<sup>rd</sup>
  - Drafting report documenting the results
  - Sampling activities are complete

# Off-Post Private Well Investigation Summary of Sampling Results

- No VOC detections at or near federal drinking water standards
- No VOCs detected in 66 of 93 wells sampled
- A total of 27 wells with very low level VOC detections
  - 26 wells with 1 VOC detected
  - 1 well with 2 VOCs detected
- February resample confirmed very low level presence of TCE in one well
- One low level detection of PCE and confirmation sample collected May 3<sup>rd</sup>

# Off-Post Private Well Investigation Summary of Sampling Results

Chemical	Description/Use	Number of Detections	Range of Detections (ppb)	Drinking Water Standard (ppb) <sup>a</sup>
TCE	Solvent	1	0.2 J	5
PCE	Solvent	1	0.1 J	5
Chloroform	Drinking water disinfectant byproduct	8	0.1J-0.3 J	70 <sup>b</sup>
MTBE	Gasoline additive	14	0.1J-0.4 J	12 <sup>c</sup>
1,2-Dichlorobenzene	Paint and insecticide additive	1	0.9	600
2-Butanone	Car exhaust component, cleaning agent	1	2.7 J	4,900
Benzene	Gasoline component	1	0.3 J	5
Styrene	Car exhaust component, plastics component	1	0.4 J	100

*No VOCs Detected in 66 wells*

ppb: parts per billion = µg/L

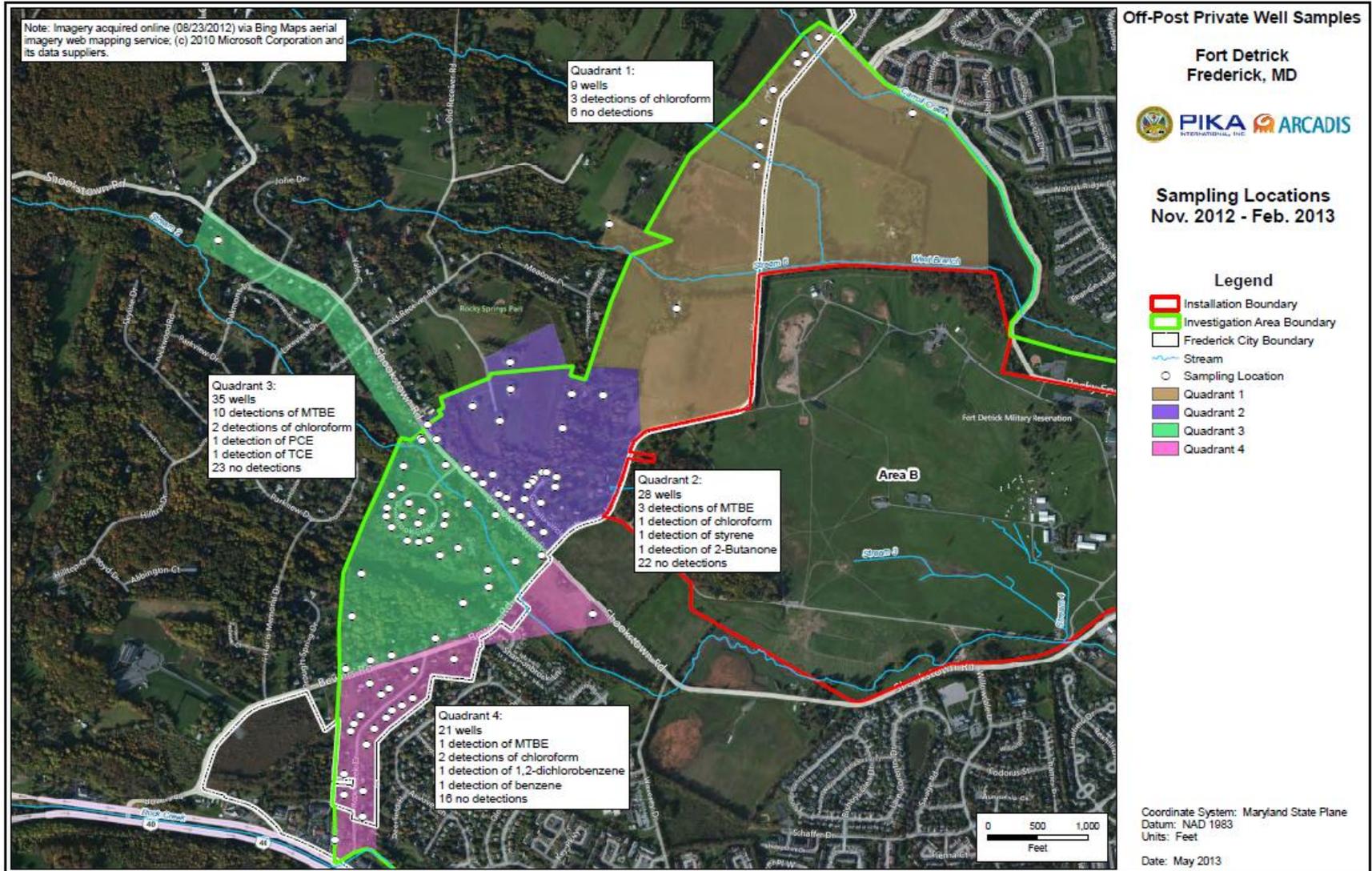
J: estimated concentration, near/at laboratory detection limits below reporting limits

<sup>a</sup> *Drinking Water Standard: US Environmental Protection Agency (USEPA) Maximum Contaminant Level*

<sup>B</sup> *Drinking Water Standard for Chloroform: Maximum Contaminant Level Goal (MCLG)*

<sup>c</sup> *Drinking Water Standard for MTBE: USEPA Risk Based Limit (RBC)*

# Off-Post Private Well Investigation Summary of Sampling Results



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- Detections unlikely associated with Area B groundwater based on:
  - Groundwater flow direction (eastward away from private wells sampled)
  - Distribution of detections across study area and in relation to Area B.
  - Private wells topographically “higher” than Area B and hydraulically upgradient
  - Well location with the low level TCE detection and well location with low level PCE detection will be included in the Area B tracing test to confirm not affected by Area B Groundwater.
- Based on concentrations detected no immediate public health concern indicated.