

28th Bomb Wing

Public Meeting Restoration Advisory Board



4 December 2012
Ellsworth Air Force Base

UNCLASSIFIED



Presentation Outline

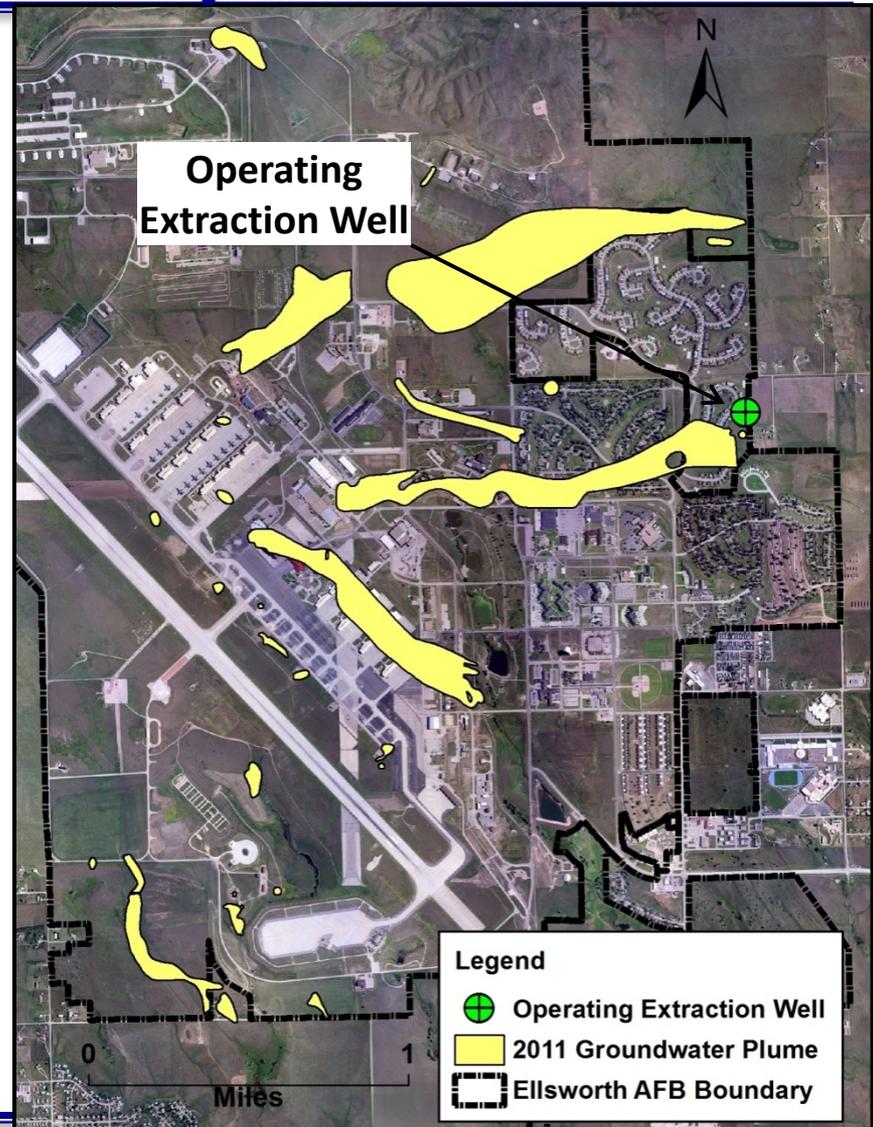


- **Operable Unit 11 (OU-11) Basewide Groundwater**
- **Partial Deletion**
- **East off-base plume**
- **Future plans**

OU-11 Basewide Groundwater Pump and Treat System



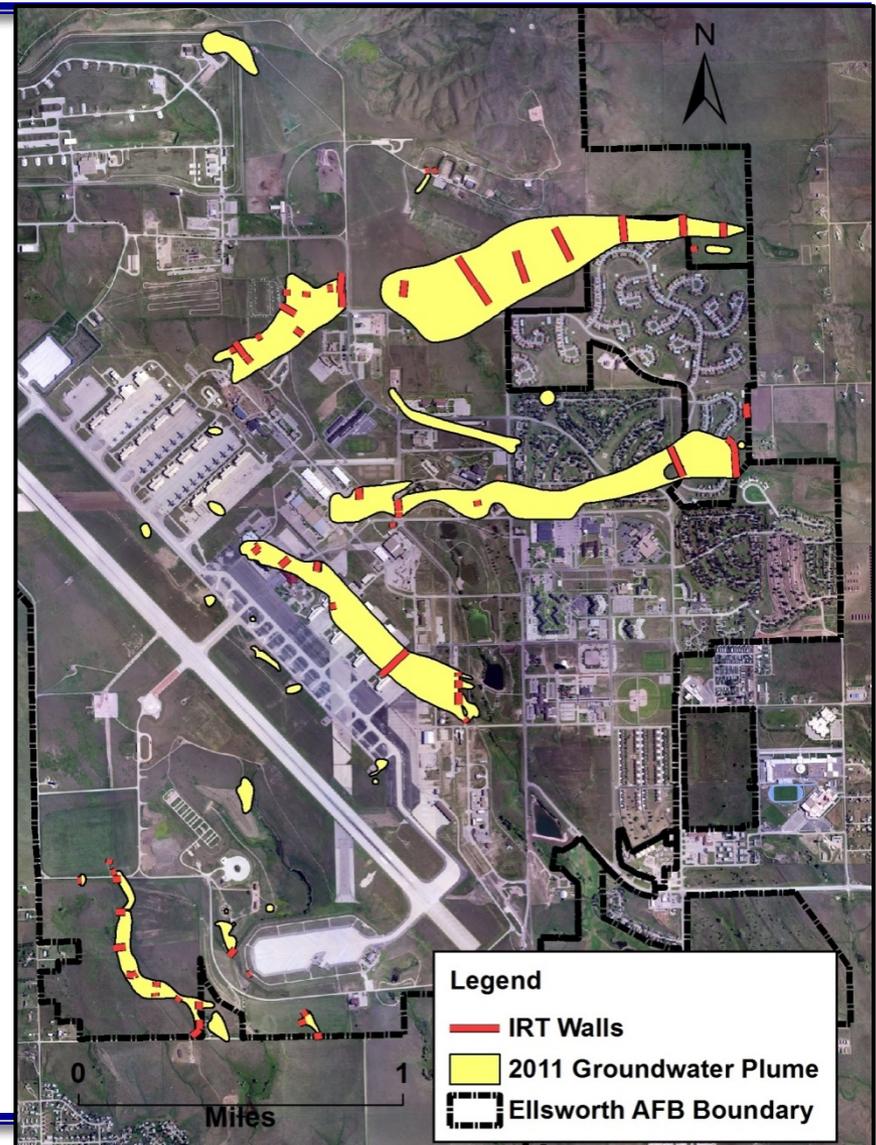
- ROD Amendment signed in February 2012, allowed shut down of pump and treat systems
- Systems shut down November 30, 2011, may need to be restarted based on groundwater results
 - BG05 was turned back on April 2012 (well BG5BEW04)



OU-11 Basewide Groundwater IRT Zones



- In 2011, several IRT zones were reinjected to “revitalize” the IRT zones
- Two IRT zones were extended
- One new IRT zone was installed (former OU-2)



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OU-11 Basewide Groundwater IRT Zones

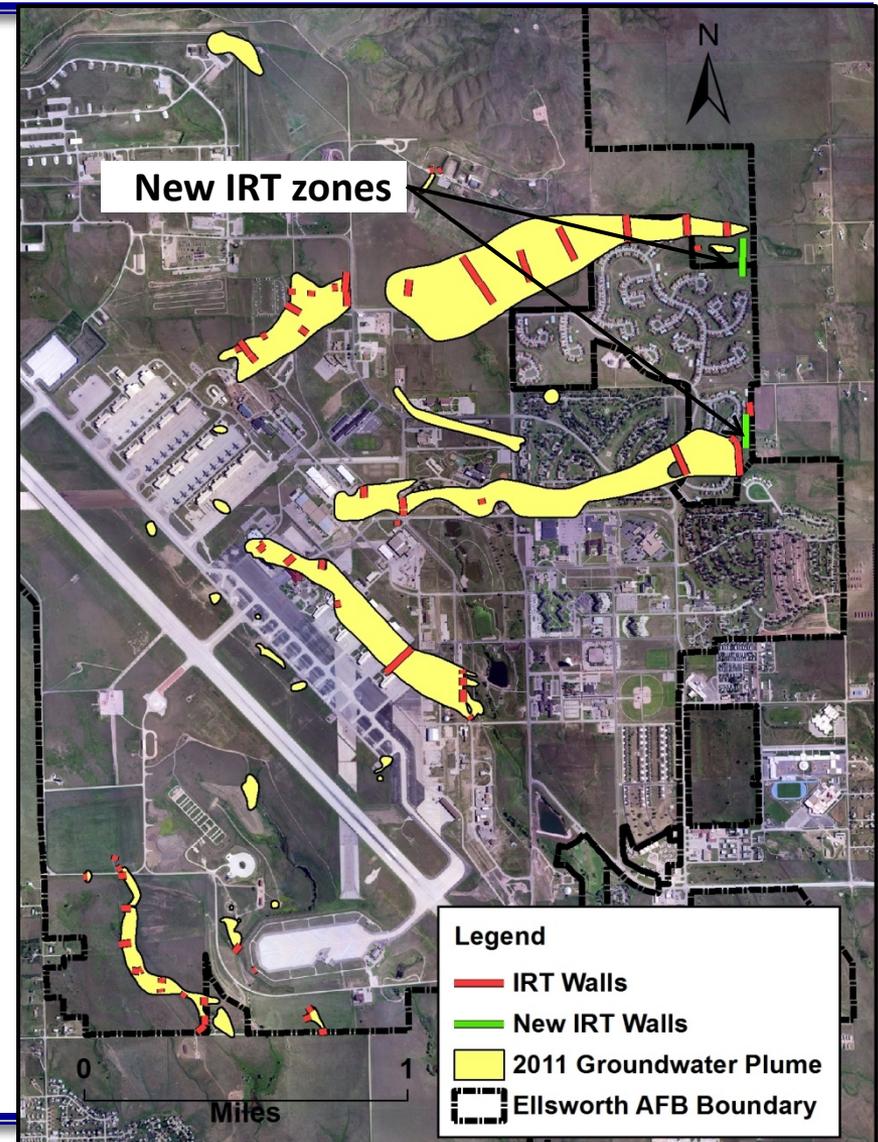


➤ Current work:

- Re-inject nine IRT zones to revitalize them
- Install two additional IRT walls
- Install monitoring wells at the two additional IRT walls for performance monitoring

➤ Future work:

- Collect samples from performance monitoring wells to ensure proper performance
- Maintain backup pump and treat systems





Partial Deletions from the NPL



- **2006 – Partial deletion of all Operable Units (including landfills and spill areas) except the following areas:**
 - Pride Hangar Area of Concern
 - Gateway Lake Ash Area of Concern
 - OU-1 (Fire Protection Training Area)
 - OU-11 (Basewide Groundwater)

- **In March 2012, EPA issued a Notice of Intent to Partially Delete three of these areas**

- **EPA published a Notice of Partial Deletion in May 2012**

- **OU-11 Basewide Groundwater remains on the National Priorities List (NPL)**

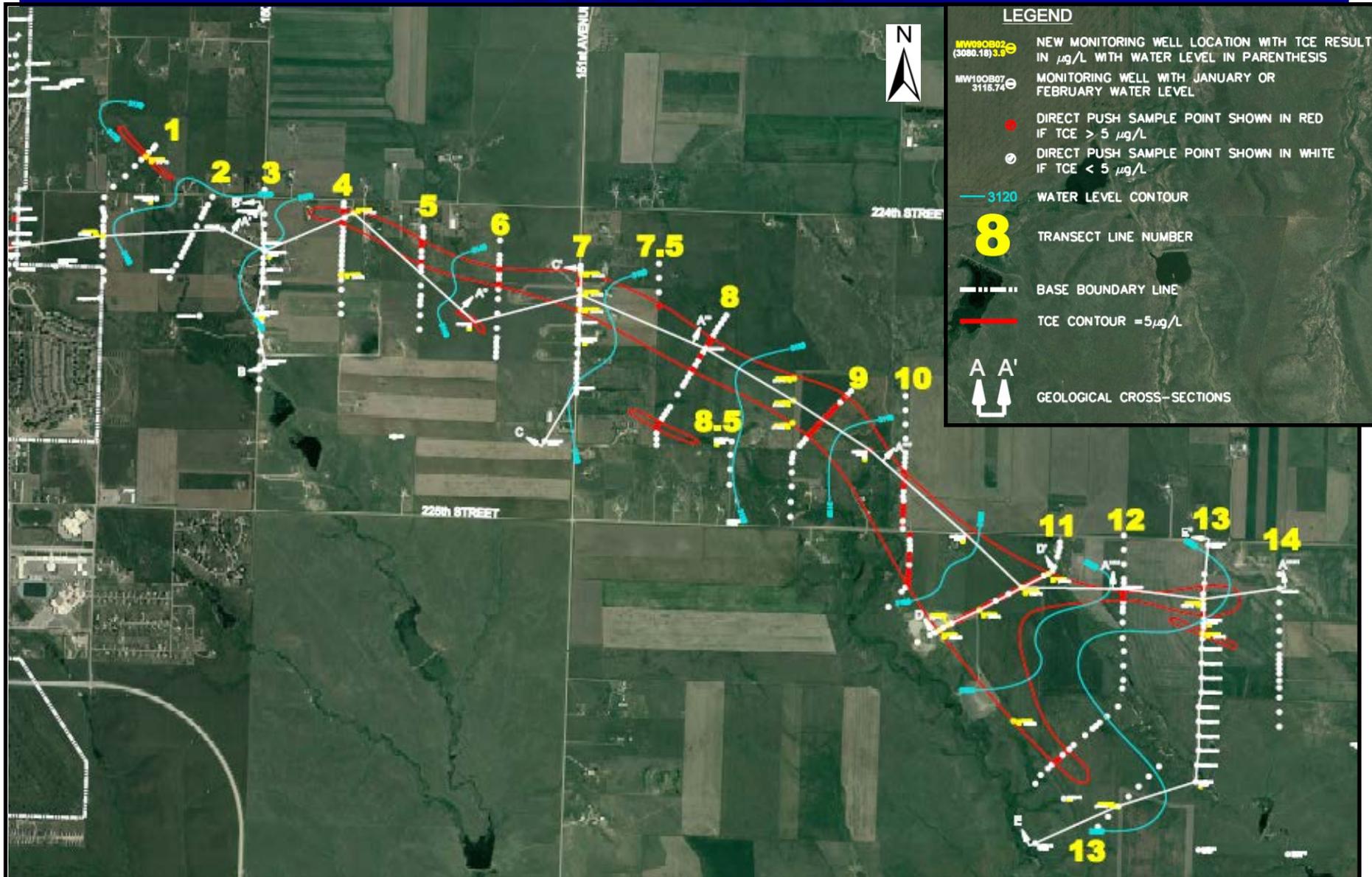
East Off-Base Plume Investigation 2009-2010



- **Groundwater investigation conducted 2009-2010**
- **307 groundwater samples collected from 335 borings**
- **Based on results, 19 new monitoring wells were installed**
- **These wells, along with 11 existing monitoring wells, constitute 30 wells that are used to monitor the east off-base plume**

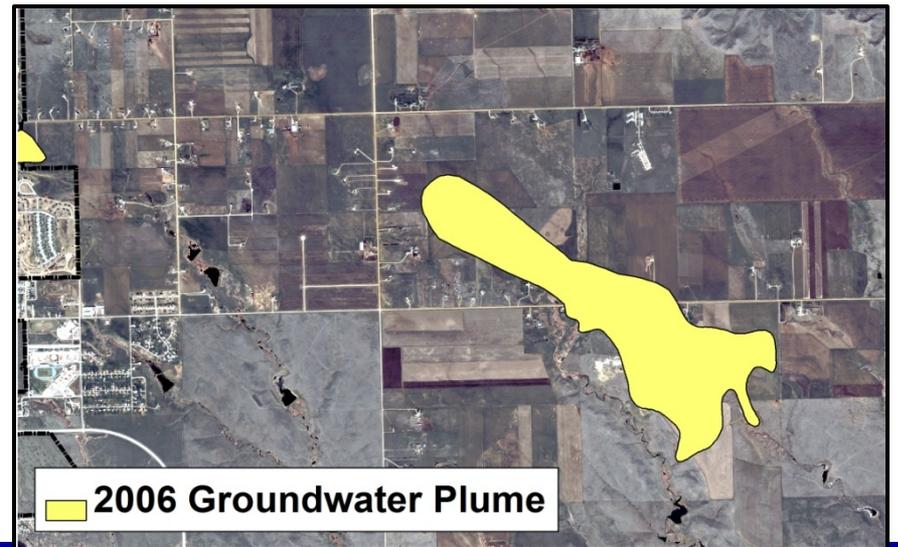
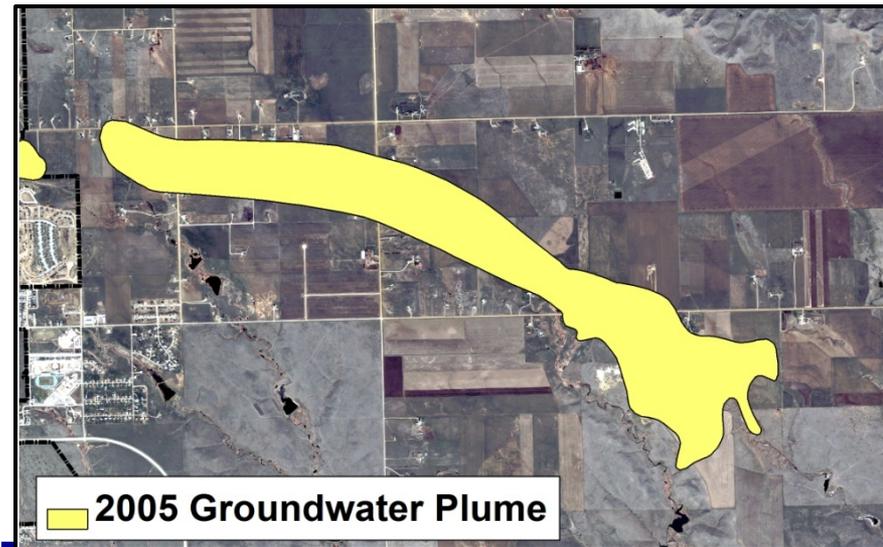
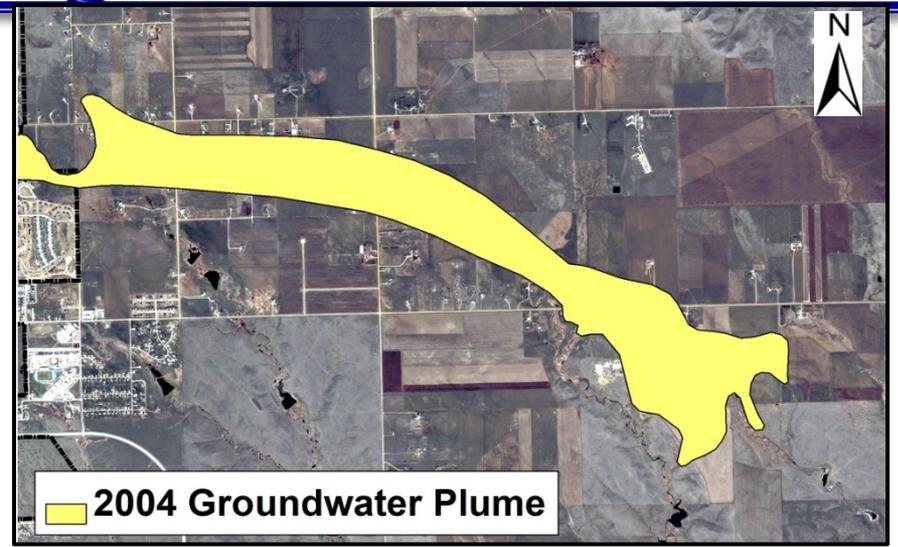
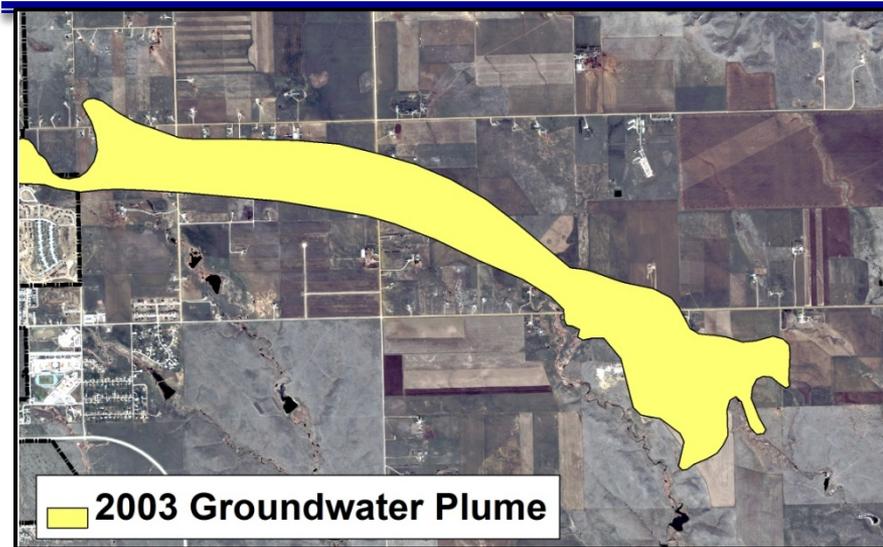


East Off-Base Plume Investigation 2009-2010





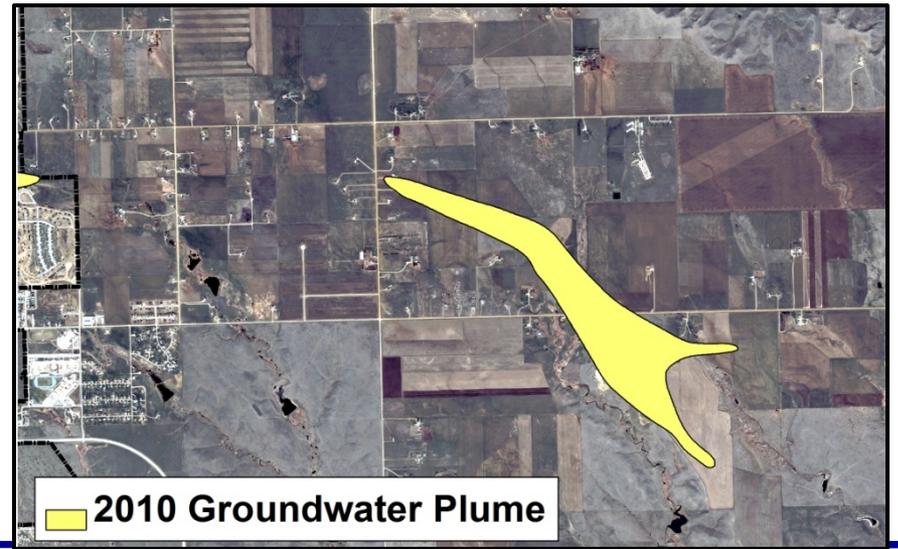
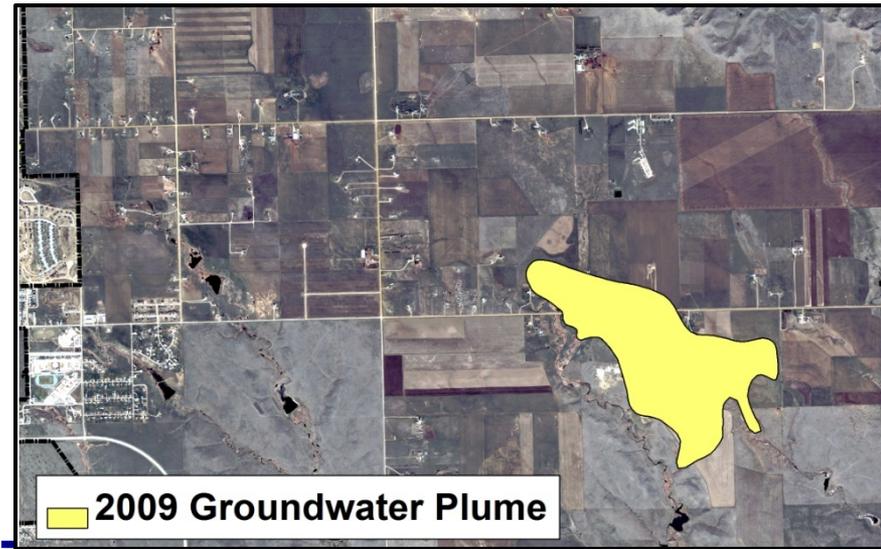
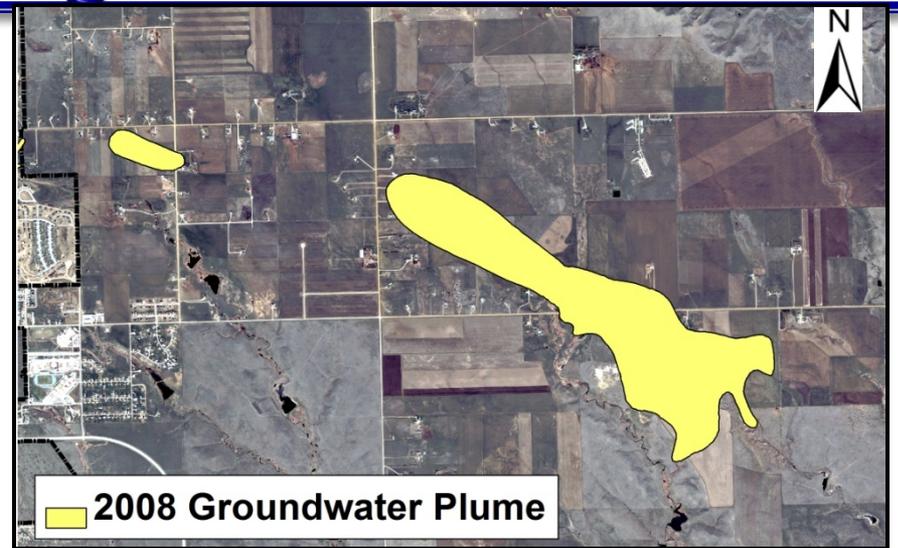
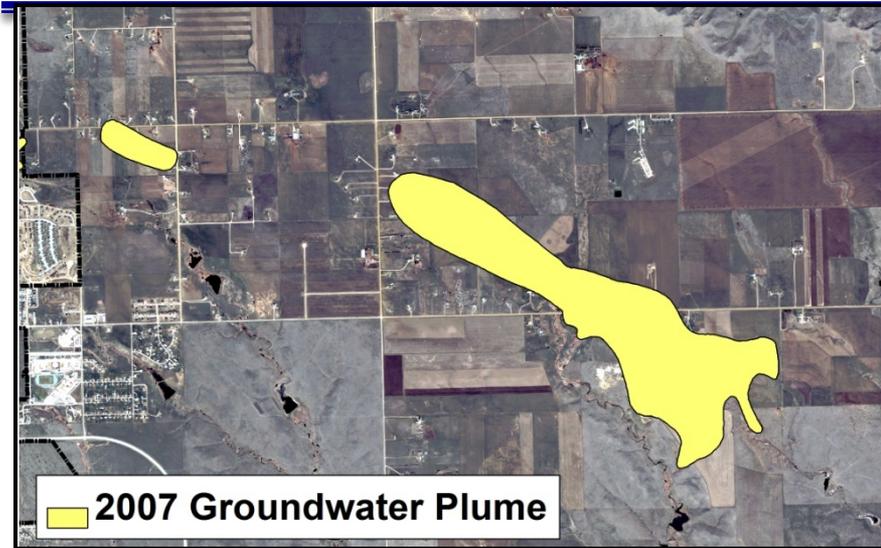
East Off-Base Plume Over Time 2003 through 2006



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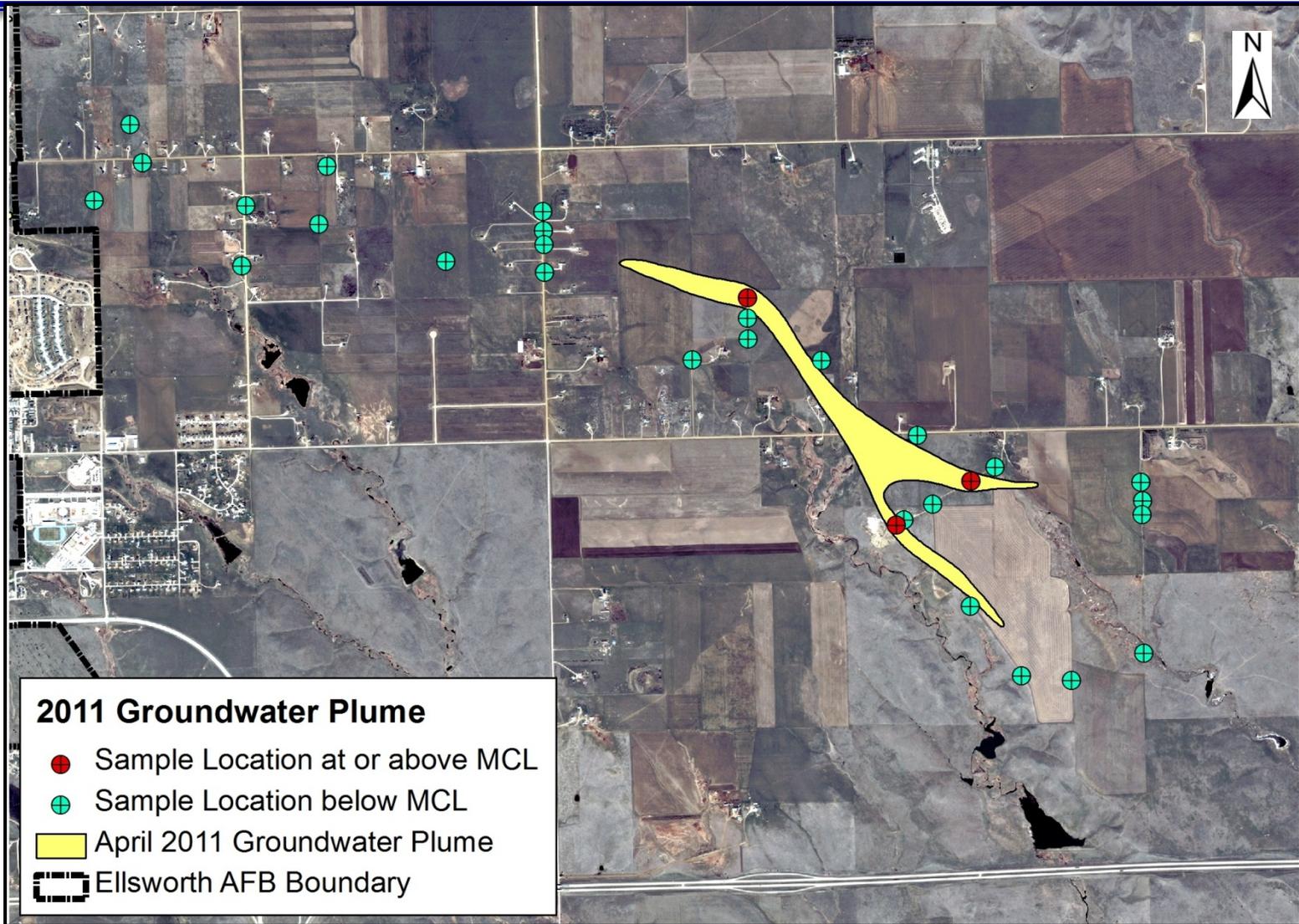
East Off-Base Plume Over Time 2007 through 2010



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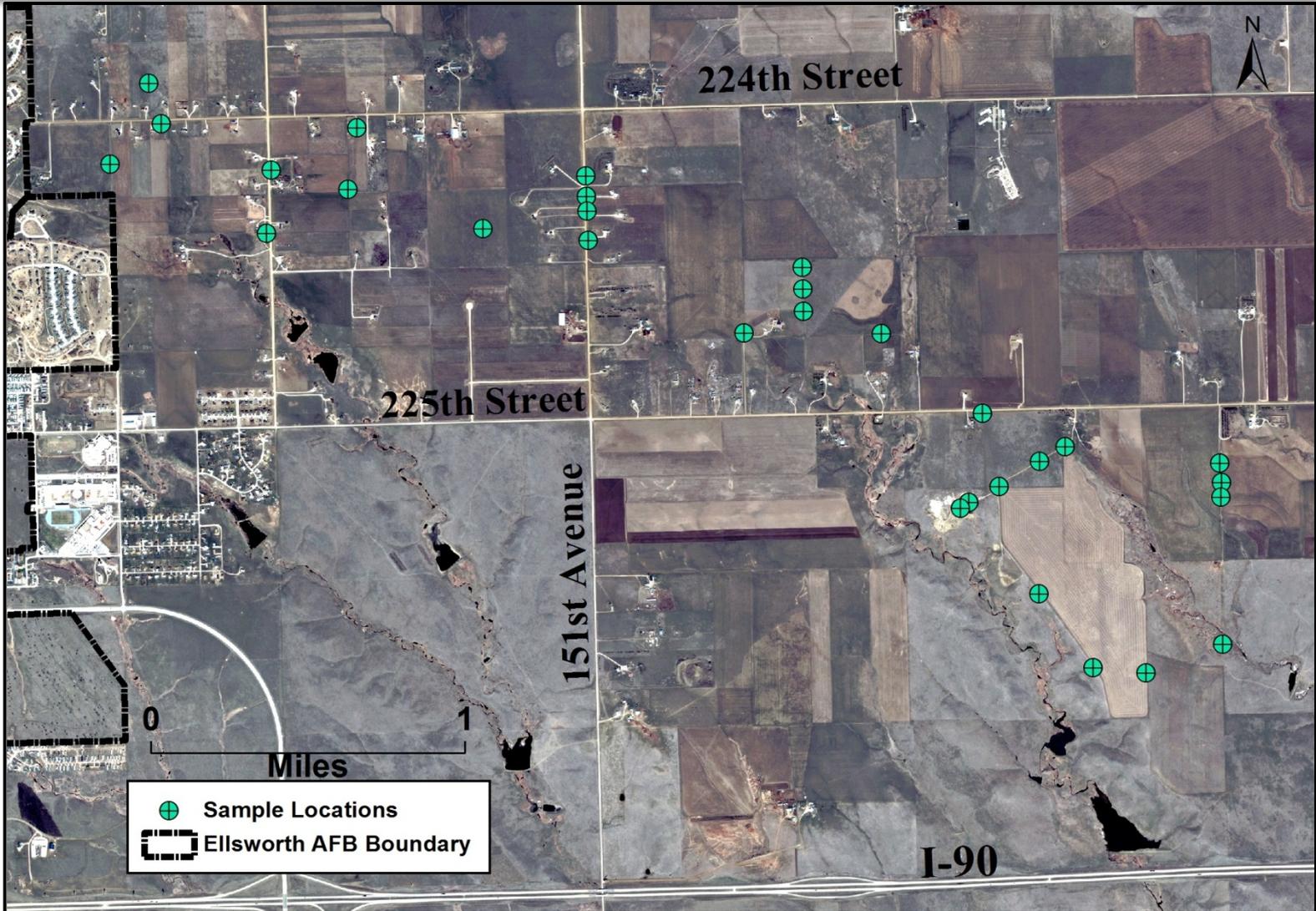
East Off-Base Plume Over Time 2011



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East Off-Base Plume Over Time 2012



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East Off-Base Plume Exit Strategy



- **Exit strategy for off-base plume**
 - 30 wells sampled annually
 - Minimum of 4 samples collected from each well
 - Concentrations must be stable or declining
 - Concentrations must be <Maximum Contaminant Level (MCL) for 3 consecutive years
 - At this point, sampling frequency at individual monitor well changes from annual to every 5 years
 - Once all 30 wells have attained the above milestones, all 30 wells will be sampled simultaneously for verification
 - If verification results are <MCL, site can be deleted and monitoring wells abandoned



East Off-Base Plume Exit Strategy



- **Once exit strategy milestones have been attained and the site is deleted from the NPL, groundwater use restrictions can be removed**
 - Currently, a modified memorandum of agreement (MOA) is required to pump the groundwater for non-potable uses (irrigation and swimming), in accordance with the 2011 Explanation of Significant Differences (ESD)
 - Once groundwater restrictions are removed, it will be okay to install new wells and use existing wells without a modified MOA
 - After groundwater use restrictions are lifted, all landowners remaining on City of Box Elder water will be responsible for paying their own bill

- **The earliest this could happen is at the end of 2015**



Future Plans

- **Continue routine inspection and monitoring at landfills**
- **Continue performance monitoring of IRT zones and “revitalize” as needed**
- **Follow the 2011 ESD which allows non-potable use of groundwater, and continue to update MOAs when requested by landowners**



Future Plans - continued



- **Follow the Exit Strategy and continue to monitor the east off-base plume**
- **Report Exit Strategy status at future public meetings**
- **Continue to send out semi-annual newsletters**