



*Kirtland Air Force Base
Citizen's Advisory Board (CAB)*

*Cesar Chavez Community Center
7505 Kathryn Avenue SE
Albuquerque, New Mexico 87108*



*August 21, 2012
6:00 – 8:00 p.m.*



Agenda



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- **Introduction**
 - **Department of Defense Presentation – Bulk Fuels Facility Update (Site SS-111)**
 - **Colonel Jeff Lanning, Commander, 377th Mission Support Group**
 - **Tom Cooper, Shaw Environmental & Infrastructure Inc.**
 - **Summary**
 - **Discussion**
 - **CAB Process and Agenda for next CAB**
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Acronyms



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- **ATSDR – Agency for Toxic Substances and Disease Registry**
 - **BTEX – Benzene, toluene, ethylbenzene, xylene**
 - **CAB – Citizen’s Advisory Board**
 - **EDB – Ethylene dibromide**
 - **FFOR – Former Fuel Offloading Rack**
 - **ICE – Internal combustion engine**
 - **DPT – Direct Push Technology**
 - **IM – Interim Measure**
 - **LNAPL – Light Non-Aqueous Phase Liquid**
 - **PBC – Performance Based Contract**
 - **ROI - Radius of influence**
 - **SMWU – Solid Waste Management Unit**
 - **SVE – Soil vapor extraction**
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Bulk Fuels Facility Overview



- **EDB Characterization Update**
 - **Drilling Update**
 - **SVE Treatment System – current and new**
 - **Path Forward**
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Milestone Overview

CHARACTERIZATION

RCRA Facility Investigation

- ✓ Installation of 78 Groundwater Wells
- ✓ Installation of 35 Soil Vapor Wells
- ✓ DPT Soil Samples at FFOR
- ✓ Installation of 9 Pneulog Wells
 - Installation of 9 Groundwater Wells

EVALUATION

Corrective Measures Evaluations

- ✓ Baildown Testing
- ROI Testing
- Quarterly Monitoring
- ✓ Pneulog Well Testing
- Slug Testing
- Use Phase II IM to Conduct Extended ROI Testing
- Continue to Evaluate Early Treatment

Interim Measures

- ICE Unit Operation - Pre-Remedy O&M
 - Soil Removal at FFOR - Phase I Interim Measures
- SVE Treatment System - Phase II Interim Measures
- ✓ Move ICE Units to New SVE Wells
- Design and Build of Centralized SVE Treatment System

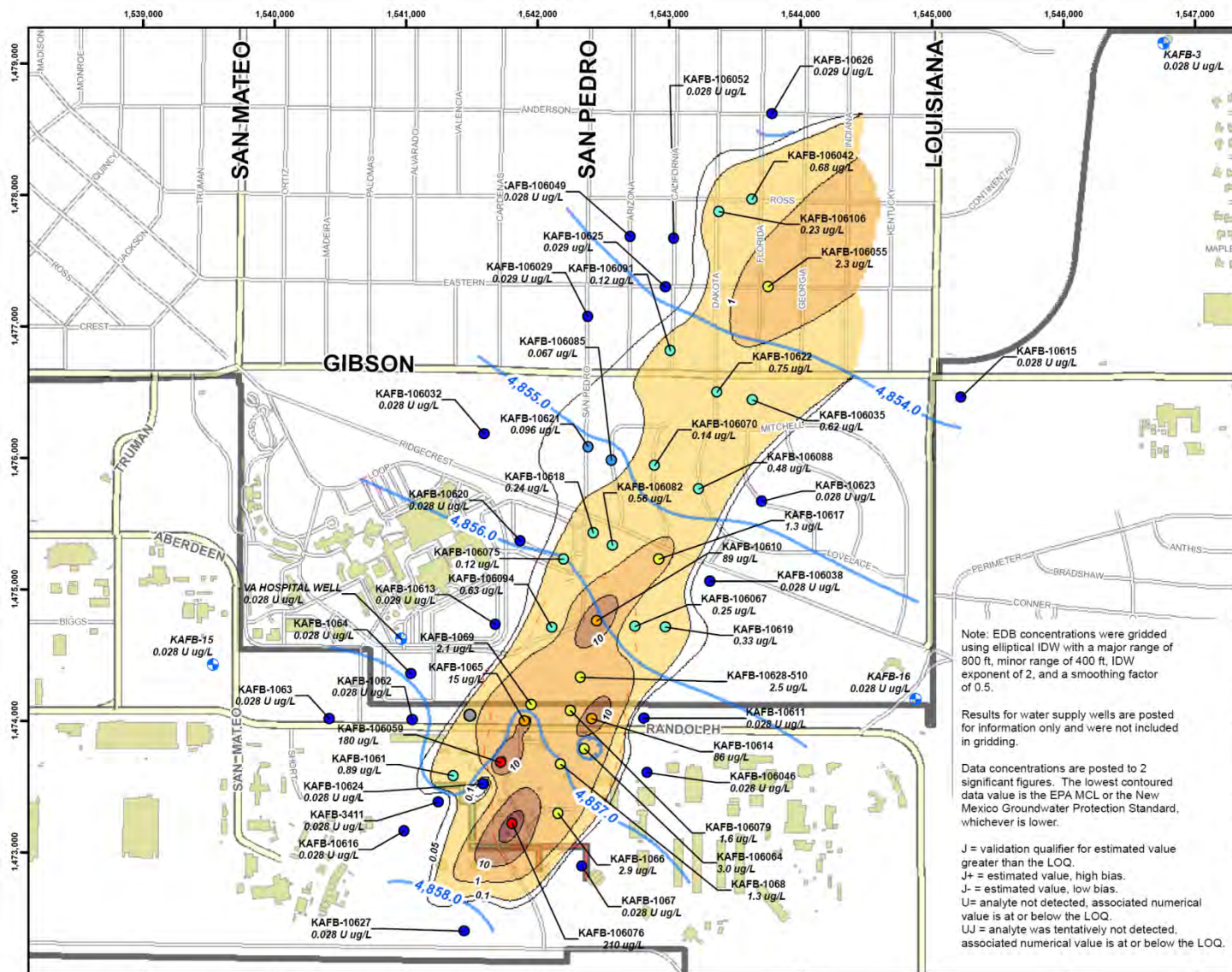
EARLY/INITIAL TREATMENT

FINAL REMEDY REMEDY IN PLACE





EDB Plume: Shallow January – March 2012



Legend

- Water Supply Well
- EDB Result (ug/L)
 - 0.028 - 0.050
 - 0.051 - 0.10
 - 0.11 - 1.0
 - 1.1 - 10
 - 11 - 100
 - 110 - 210
 - Not Sampled
- Groundwater Contour (ft msl)
- Groundwater Depression
- EDB Concentration Contour (ug/L)
 - 0.01 - 0.1
 - 0.1 - 1
 - 1.0 - 10
 - 10 - 100
 - 100 - 210
- Historical Area of Observed NAPL (July 2009)
- Major Road
- Road
- Aboveground Fuel Transfer Line
- Underground Fuel Transfer Line
- Previously Existing Structure
- Existing Structure
- Installation Boundary

EDB Concentration (ug/L)

Revision Date: 08/20/12

0 400 800 1,600
Feet
1 inch = 800 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

2012 QUARTERLY REPORT 01
BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 5-13

1,2-DIBROMOETHANE (EDB)
CONCENTRATIONS IN
SHALLOW GROUNDWATER

Note: EDB concentrations were gridded using elliptical IDW with a major range of 800 ft, minor range of 400 ft, IDW exponent of 2, and a smoothing factor of 0.5.

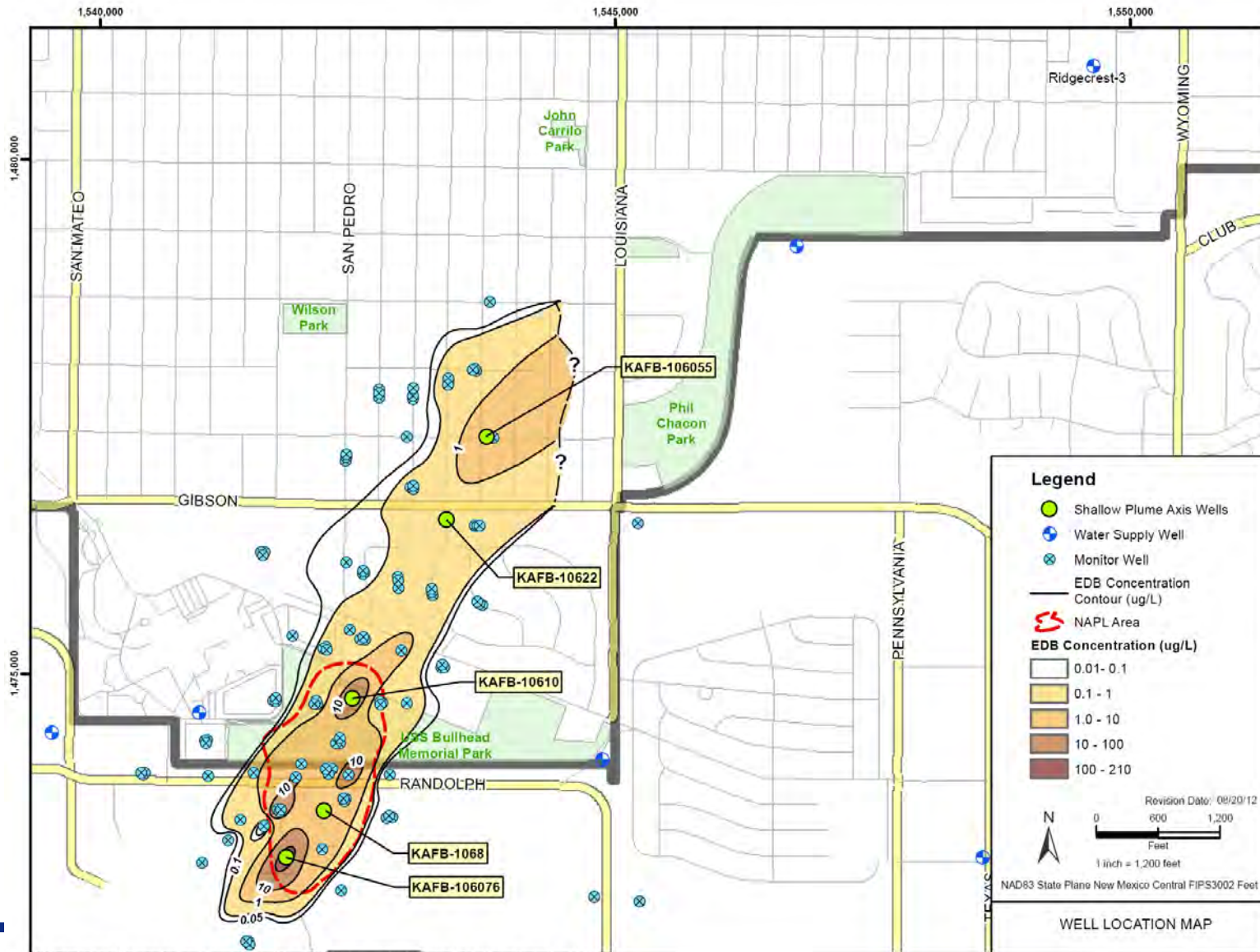
Results for water supply wells are posted for information only and were not included in gridding.

Data concentrations are posted to 2 significant figures. The lowest contoured data value is the EPA MCL or the New Mexico Groundwater Protection Standard, whichever is lower.

J = validation qualifier for estimated value greater than the LOQ.
 J+ = estimated value, high bias.
 J- = estimated value, low bias.
 U = analyte not detected, associated numerical value is at or below the LOQ.
 UJ = analyte was tentatively not detected, associated numerical value is at or below the LOQ.

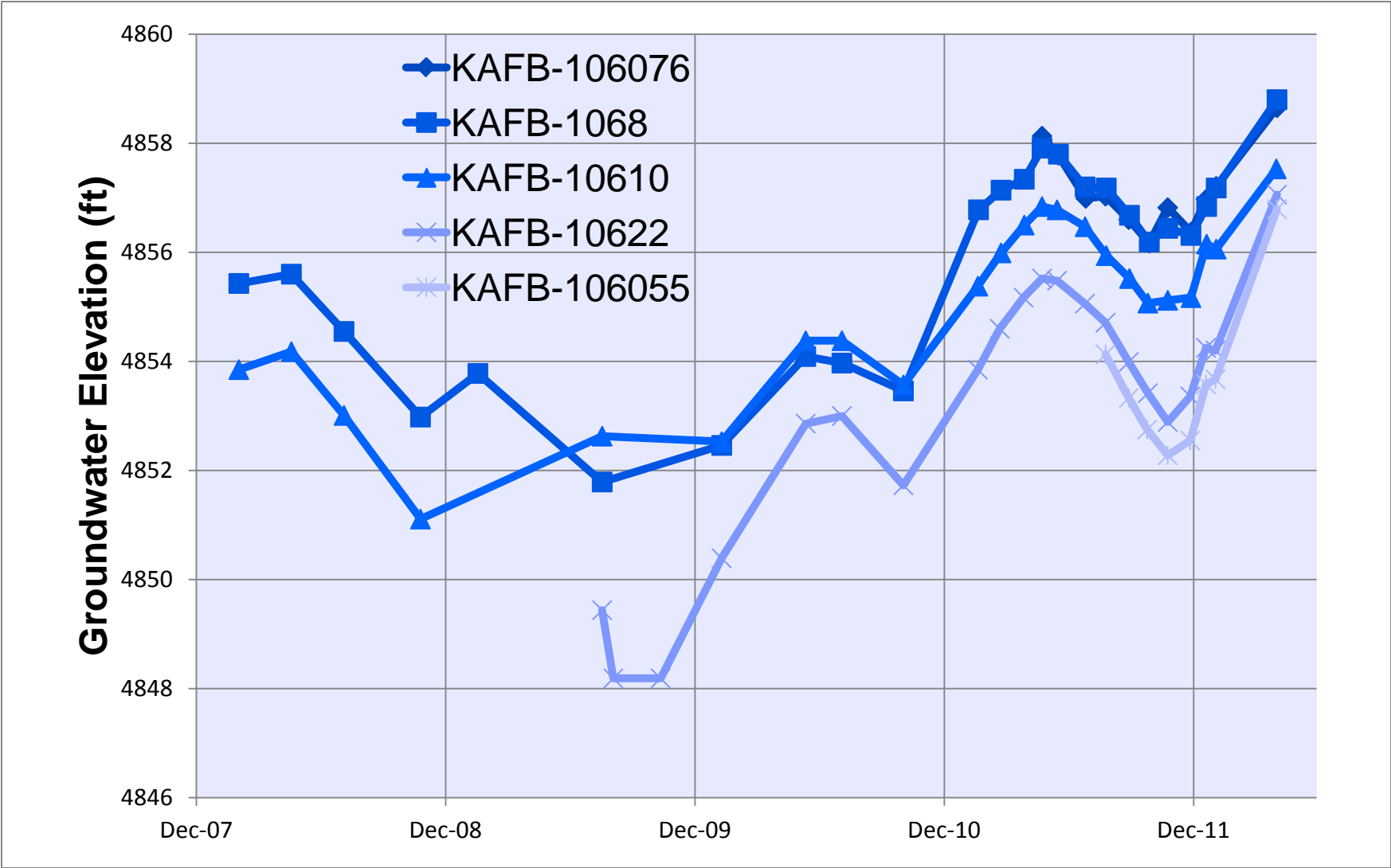


Hydrographs and EDB in Groundwater



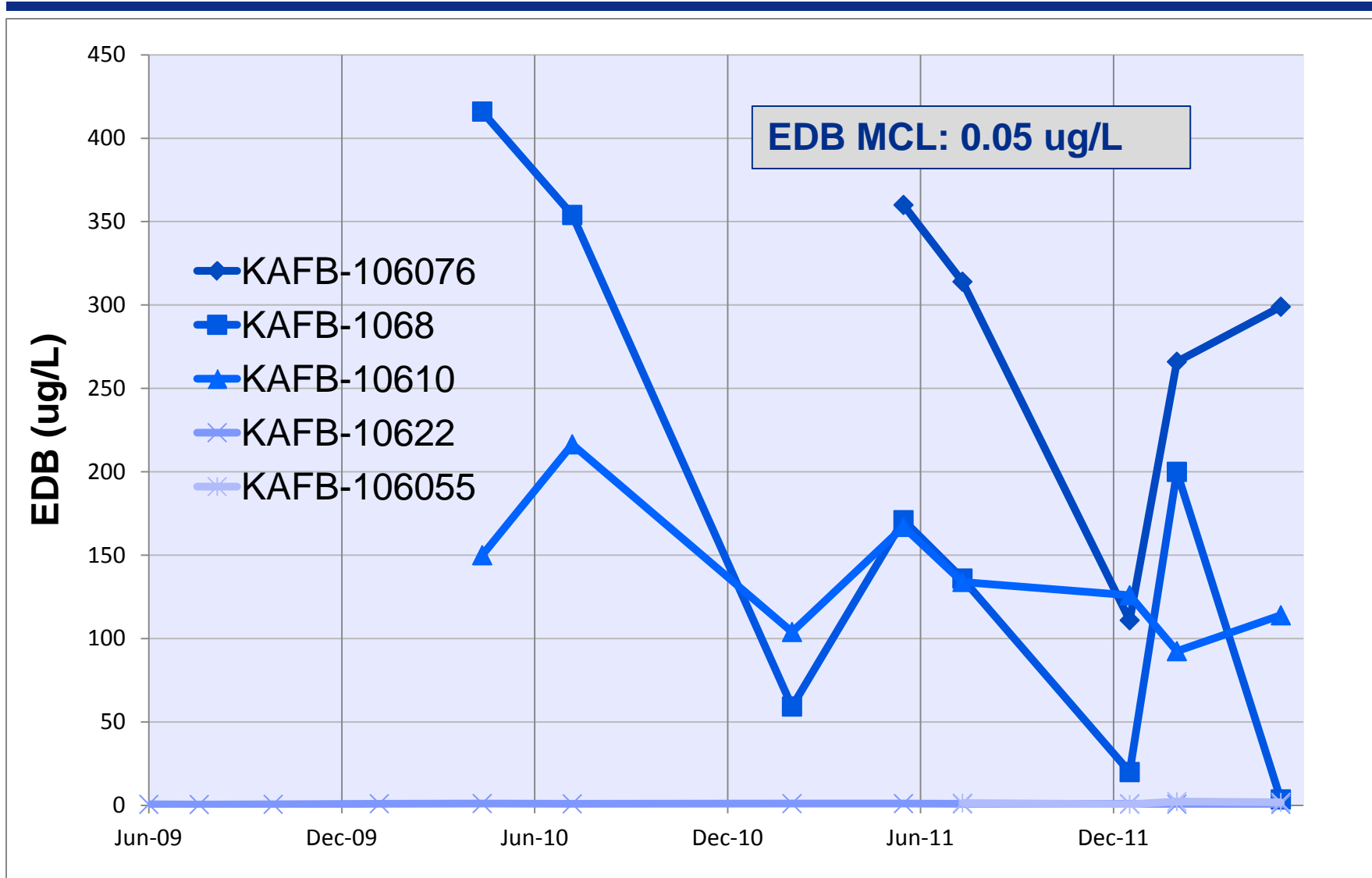


Hydrograph





EDB in Groundwater

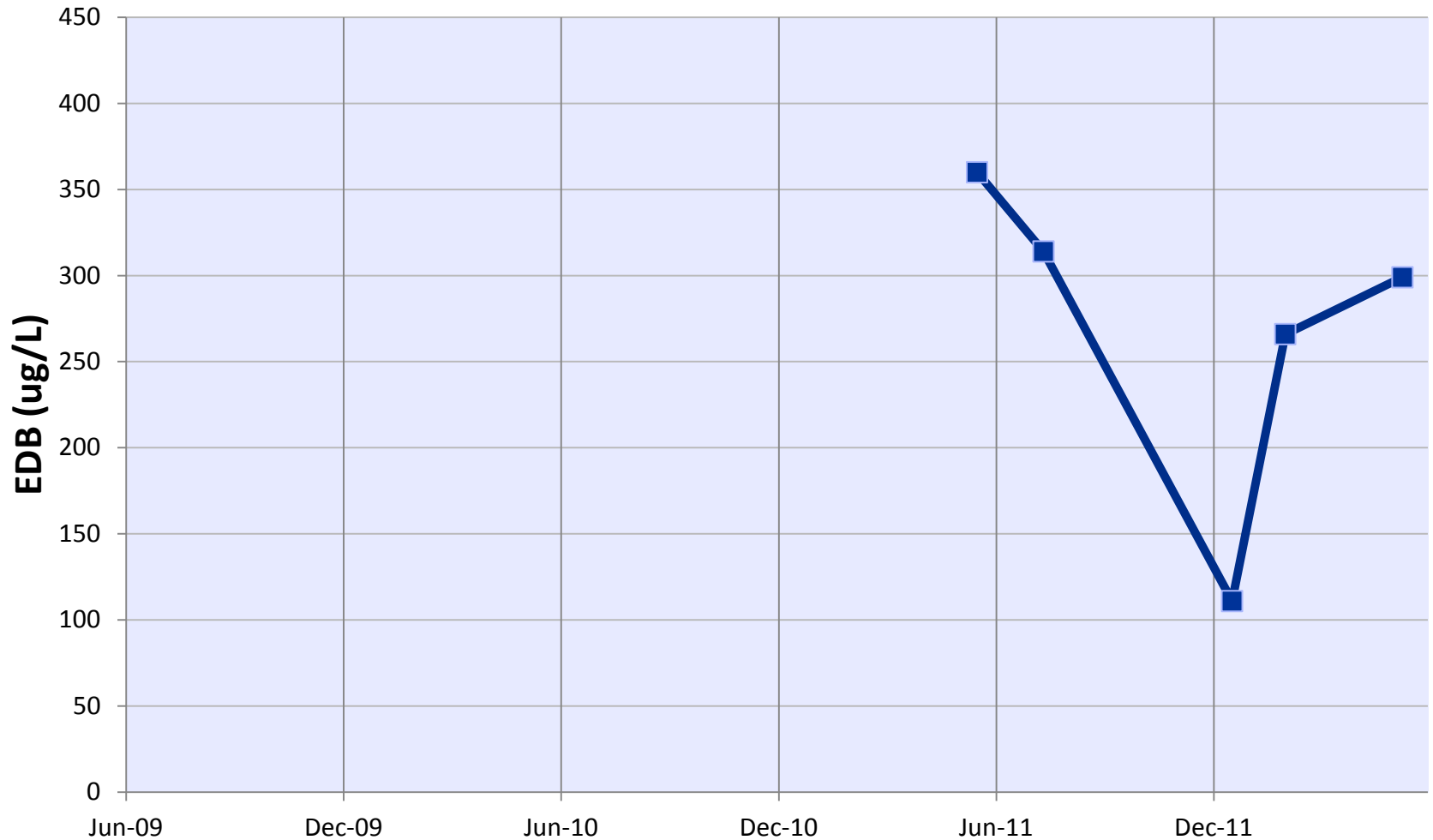




EDB In Groundwater



KAFB-106076

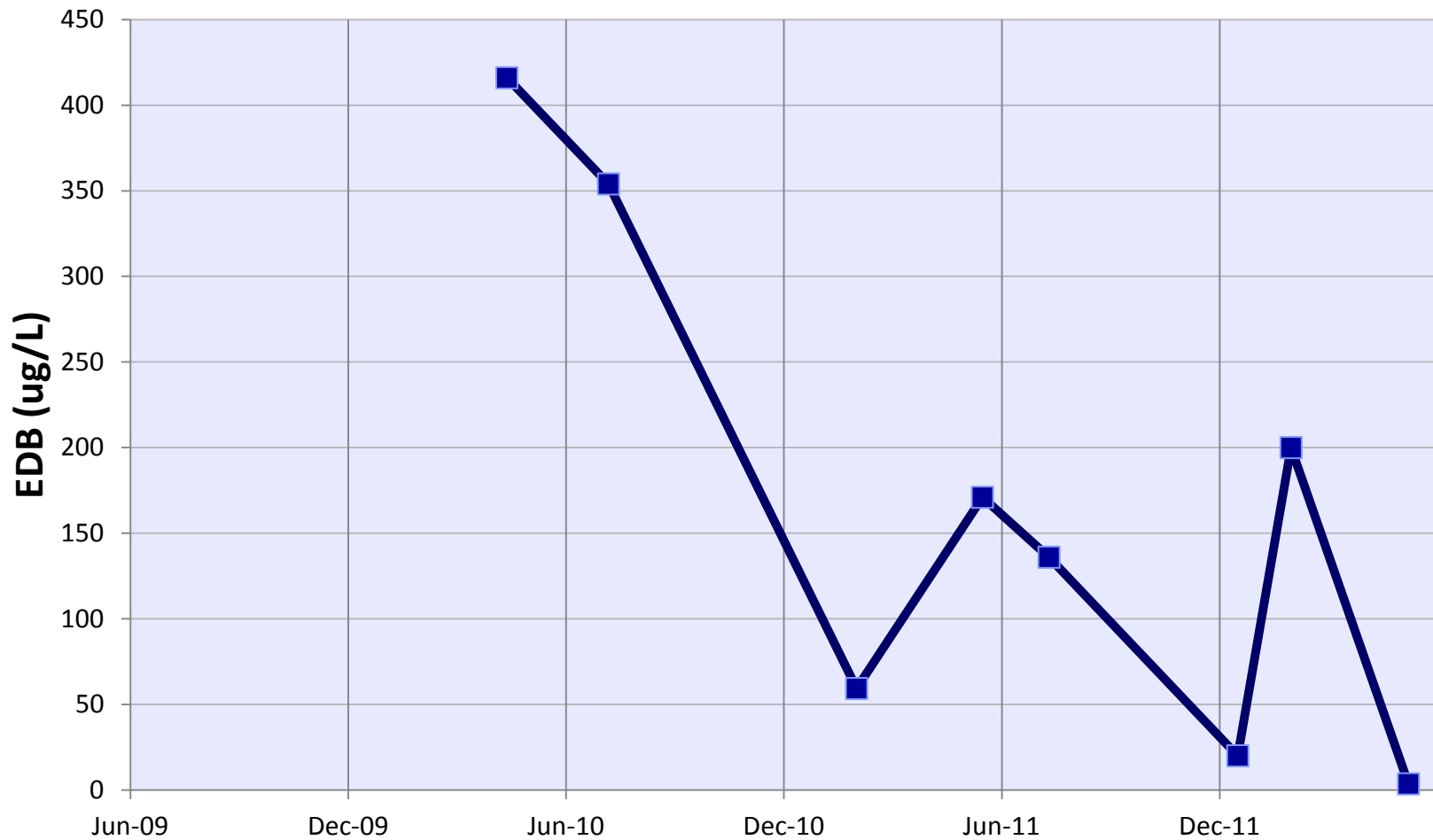




EDB In Groundwater



KAFB-1068

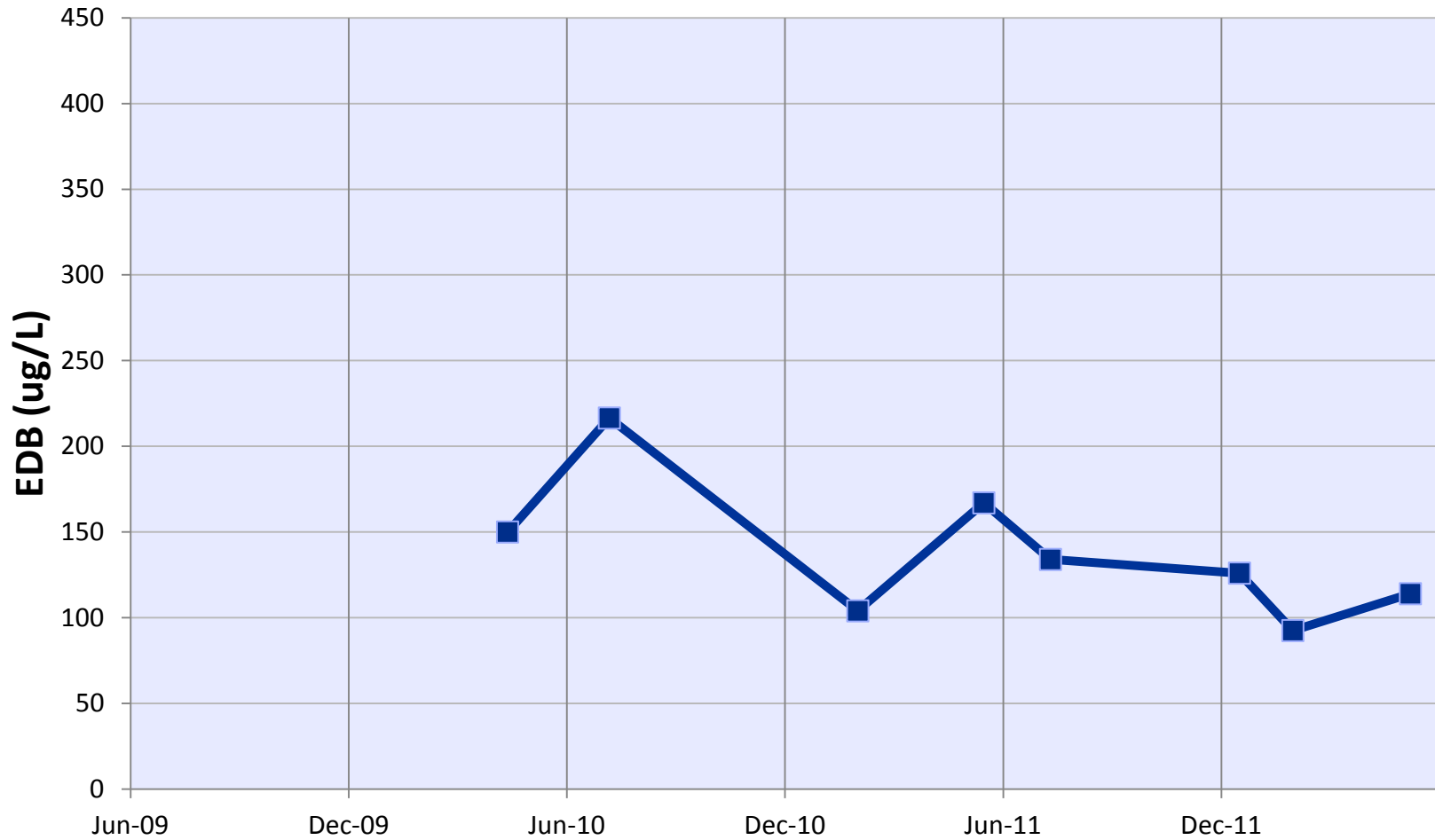




EDB In Groundwater

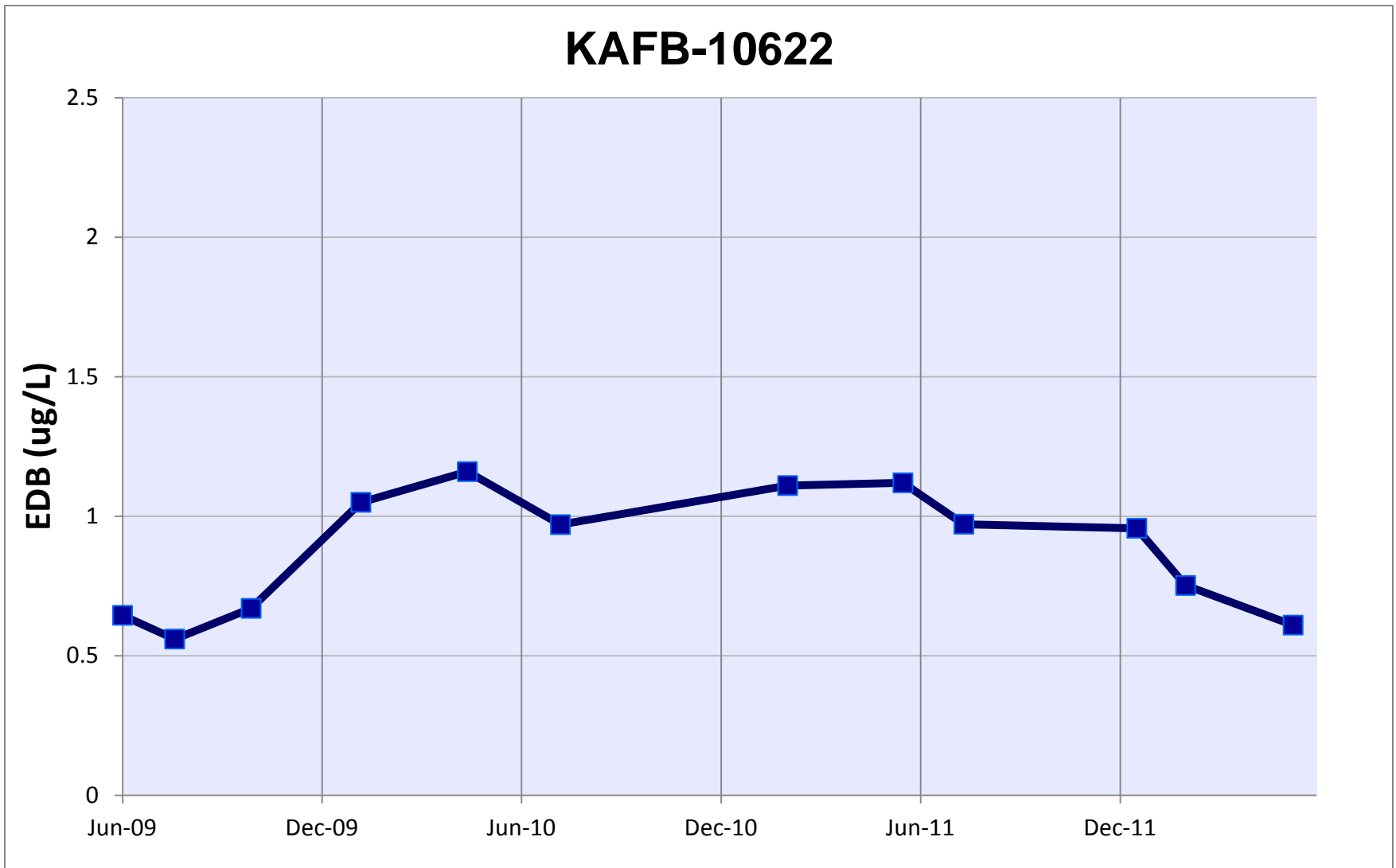


KAFB-10610





EDB In Groundwater

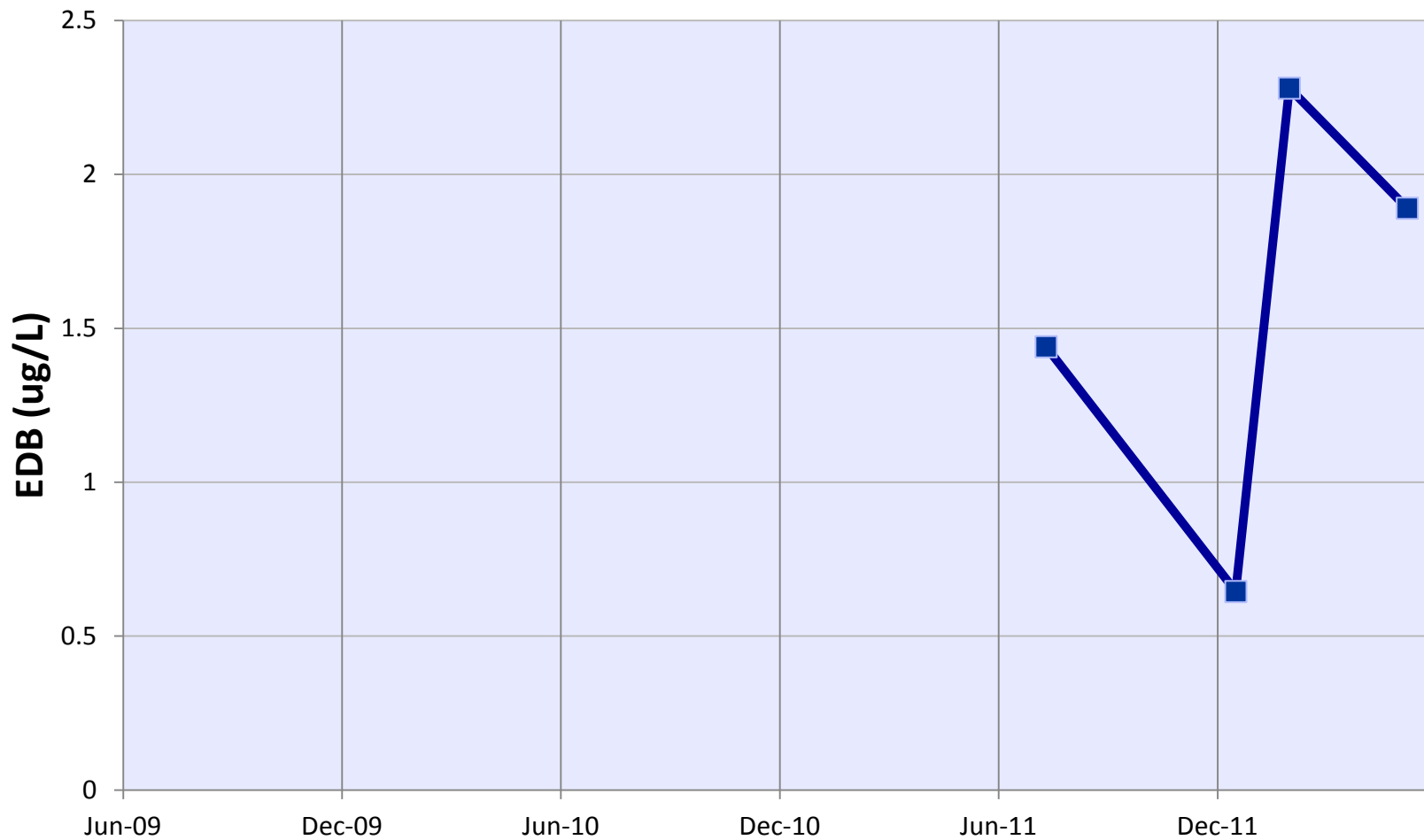




EDB In Groundwater



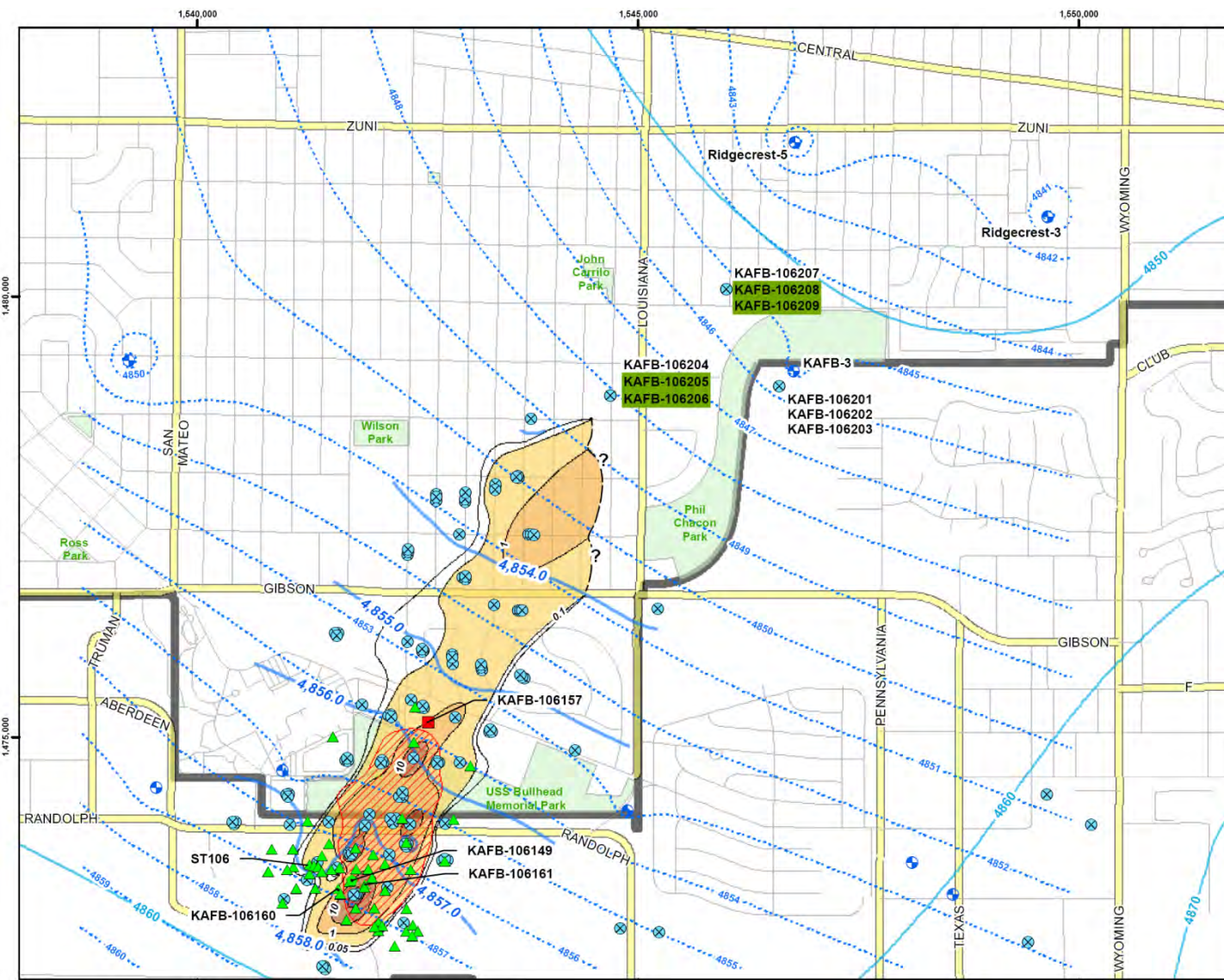
KAFB-106055





Groundwater Monitoring Wells

July – October 2012



Legend

- KAFB-106208 Completed Wells
- ★ Pneu Log
- ★ Monitor Well
- ▲ SVE Monitor Well
- Water Supply Well
- Containment Well
- ▲ SVE Extraction Well
- Proposed Monitor Well
- Regional Water Level Contour 2002 (ft)
- - - Groundwater Model Water Level Contour (ft)
- NAPL Area
- Groundwater Contour (ft msl)
- - - Groundwater Depression
- EDB Concentration Contour (ug/L)

EDB Concentration (ug/L)

- 0.01 - 0.1
- 0.1 - 1
- 1.0 - 10
- 10 - 100
- 100 - 210
- Major Road
- Road
- Park
- Installation Boundary

Kirtland AF B
Harris Corp, Earthstar
© 2012
PRODUCTION

Revision Date: 08/16/12

0 600 1,200 2,400
Feet
1 inch = 1,204 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 1

**PROPOSED
MONITORING WELLS**



Drilling Update



- **Letter Addendum Work Plan detailing the three additional cluster locations – Approved by NMED**
 - **Three wells per location: shallow, intermediate, and deep**
 - **Door-to-door neighborhood visits conducted**
 - **Drilling began July 2012 at two locations (residential)**
 - **Two drilling rigs working concurrently**
 - **Estimated completion of all three cluster locations in October 2012**
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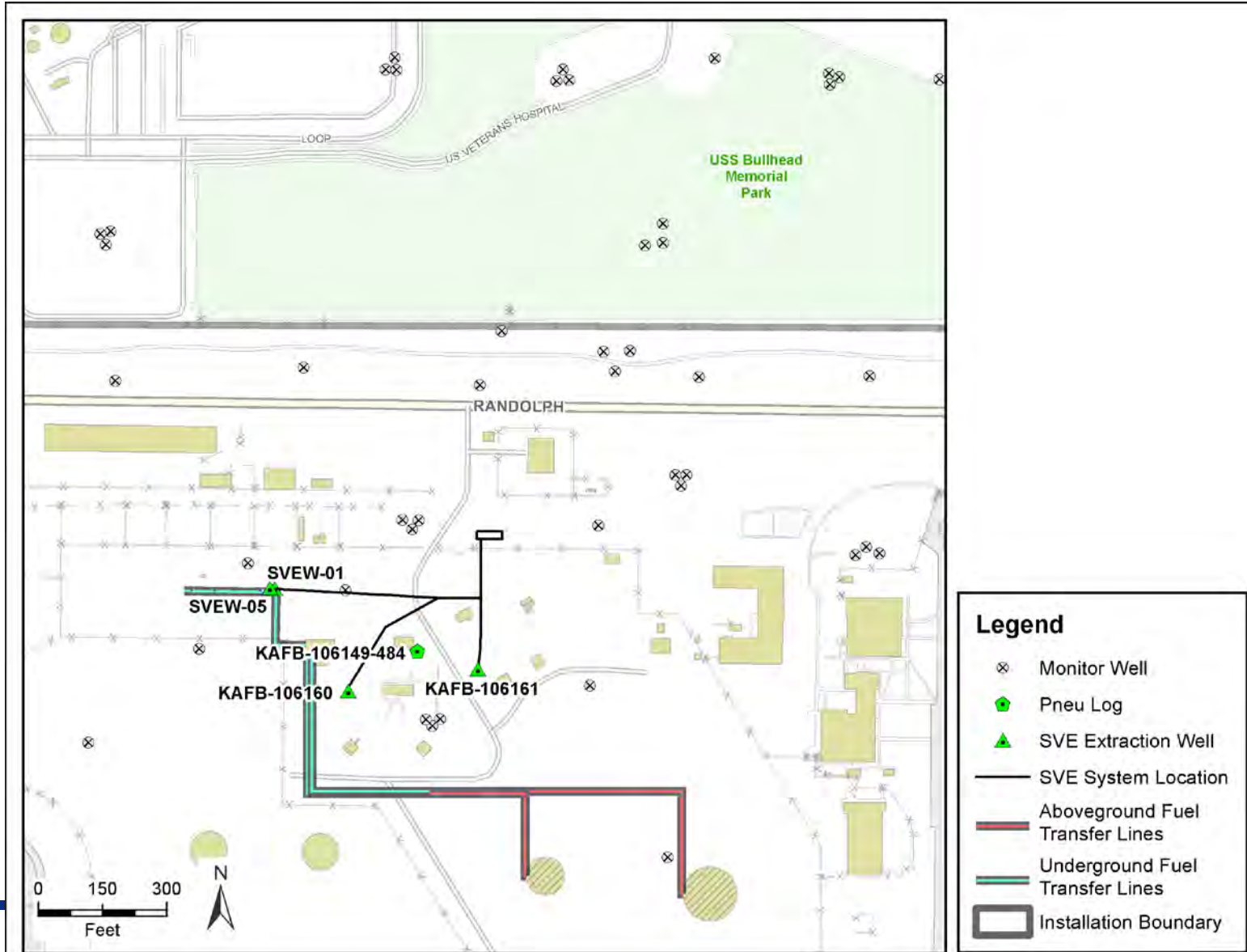
Phase II Interim Measure



- **SVE ICE units resumed operation on 23 April 2012**
 - **Moved to new locations to optimize efficiency of treatment**
- **Letter addendum for main SVE treatment system components – Approved by NMED**
- **Long lead-time components ordered**
- **New treatment system estimated completion date of December 2012**
- **Process air flow for the new treatment system will be approximately 10 times more volume compared to current system**
- **Air emissions will be in compliance with AEHD approved permit**
- **Data from new system will be incorporated into evaluation of final remedy**



SVE Treatment System



Legend

- ⊗ Monitor Well
- ◆ Pneu Log
- ▲ SVE Extraction Well
- SVE System Location
- Aboveground Fuel Transfer Lines
- Underground Fuel Transfer Lines
- ▭ Installation Boundary



Path Forward



Task/Milestone	Schedule
NMED Approval of Groundwater RFI	Summer 2013
Finalize SVE treatment system design (submit to NMED)	Fall 2012
SVE treatment system begins operation	Winter 2012
Complete soil removal at FFOR	Spring 2013
ATSDR Draft Report	December 2012
ABCWUA Contingency Plan	In process – Air Force and WUA



Summary



- **Drilling of 9 additional monitoring wells to be completed October 2012**
- **New treatment system estimated completion date of December 2012**
- **ATSDR study is on going; public comment period to be scheduled by end of year**
- **Air Force continues to work with the ABCWUA on development of contingency plan**



POINTS OF CONTACT



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Citizens may review Air Force Environmental Restoration Program (ERP) documents at the Kirtland AFB Information Repository (IR) located at the Central New Mexico (CNM) Community College-Montoya Campus Library, 4700 Morris NE, (505) 224-5721

or

by visiting the Kirtland AFB website at <http://www.kirtland.af.mil> in the Environmental Issues section for Public Records.



Discussion



Request for Agenda

Next CAB (4th Quarter 2012)
