WILLIAMS AFB
ARIZONA

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 1541

Former Williams Air Force Base (AFB)
Restoration Advisory Board (RAB)
Meeting Minutes

August 21, 2012, 7:00 p.m.
Highland High School
4301 E. Guadalupe Rd.
Gilbert, AZ

Attendees:

Ms. Michelle Lewis	Air Force Center for Engineering and the Environment (AFCEE)/Base Realignment and Closure (BRAC) Environmental Coordinator (BEC)/Air Force Co-chair
Mr. Len Fuchs	RAB Community Co-chair/Gilbert resident
Mr. Scott Johnston	AFRPA Public Affairs/ Napkin Communications
Ms. Mary Hall	AFRPA Public Affairs/Napkin Communications
Mr. Len Fuchs	RAB Community Co-chair/Gilbert resident
Mr. Don Atkinson	Arizona Department of Environmental Quality (ADEQ)
Mr. Dennis Orr	Phoenix-Mesa Gateway Airport
Mr. Geoff Watkin	Cherokee Nation Government Services
Mr. Dale Anderson	Gila River Indian Community
Mr. Jim Holt	RAB Member/Queen Creek resident
Mr. Glen Smith	Gilbert resident
Mr. Alan Ruffalo	Gilbert resident
Ms. Lisa Gerdl	RAB Member/Gilbert
Mr. Tom Zuppan	RAB Member/Gilbert
Mr. Victor Gomez	CH2MHILL
Mr. Everett Wessner	AMEC
Mr. Don Smallbeck	AMEC

Mr. Len Fuchs called the meeting to order at 7:00 p.m. and asked the attendees to introduce themselves. The RAB approved the May 2012 meeting minutes without changes.

Ms. Michelle Lewis introduced Mr. Don Atkinson as the new project manager for the Arizona Department of Environmental Quality. Mr. Atkinson is taking over for Mr. Andre Chiaradia.

Mr. Scott Johnston reviewed action items from the May RAB meeting: Mr. Stark asked at the May RAB meeting if 1,4-dioxane has been sampled for at LF004. Mr. Don Smallbeck answered that historical data was looked at and it was determined that there has not been a requirement or identified basis for sampling and analysis of 1,4-dioxane in groundwater and thus no groundwater samples have been analyzed for 1,4-dioxane in groundwater.

Status Updates for UST 1114, FT002, SS017, LF004, ST035 and ST012
Mr. Everett Wessner presented updates for each site, see attached slides for more information. RAB and community discussions for each site are presented below.

UST 1114 (Underground Storage Tank, VORTAC facility)
Mr. Wessner stated that UST1114 was an underground storage tank located on the flight line; it was removed in 1993. In order to support closure, ADEQ required sampling under the former tank for volatile organic compounds (VOCs) and polynuclear aromatic hydrocarbons (PAHs). Samples were collected and analyzed in April; there were no detections that exceeded cleanup levels established for unrestricted

use. A report will be submitted to ADEQ and regulatory approval for unrestricted site closure is expected.

FT002 (Fire Training Area No. 2)

Mr. Wessner stated that the initial investigations at the former fire training area found VOC contamination in the soil down to 80 feet. The OU3 Record of Decision (ROD) established bioventing as the selected remedy for the soil problem. Bioventing and soil vapor extraction were implemented and operated until 1997, but cleanup goals in the ROD were not achieved and a land use control was put into place. A draft sampling plan was submitted to ADEQ and EPA to determine if through natural attenuation over the past ten years the ROD cleanup goals have been reached. If that is the case another request for closure will be prepared and the site will hopefully be closed in the spring of 2013.

Questions asked during FT002 presentation:

Mr. Ruffalo asked if closure means monitoring.

Mr. Wessner responded that an unrestricted closure would not require monitoring. Right now the site is under restricted use and still being monitored.

Mr. Zuppan asked about the sampling plan and how deep AMEC planned to go on the borings.

Mr. Smallbeck responded that the sampling will go down 85 feet. The plan is to go back into the area where there was still contamination when the system was decommissioned back in the 1990s to confirm that those concentrations are actually gone. If contaminants are still present then a path forward will be discussed.

Mr. Zuppan asked if sampling will be done all the way down to non-detect or just to the residential standards.

Mr. Smallbeck responded that sampling would be conducted to the method detection limit for the particular compound of interest so there would be results of non-detect.

Mr. Zuppan asked if it will just be re-characterizing them in effect.

Mr. Smallbeck responded that it is re-characterizing in a sense.

Mr. Zuppan asked if there are any groundwater wells.

Mr. Smallbeck responded that there are not any groundwater wells because as it shows in the ROD it is strictly a soil problem. There is no evidence of groundwater contamination. They are not any groundwater wells right in that area.

Mr. Zuppan asked if the contamination went down to 80 feet.

Mr. Smallbeck responded that about 85 feet was as far as it was detected.

Mr. Holt asked relative to this site the type of contaminants found there do they normally go down in elevation over time.

Mr. Smallbeck asked do you mean that they descend.

Mr. Holt responded yes.

Mr. Smallbeck responded that most of those are not the chlorinated compounds. These are hydrocarbon type compounds and they did not get down into the lower soil.

Mr. Holt asked how far down into the water table is the contamination at this site.

Mr. Smallbeck responded that at this point the water table is at 150 feet so there is about 70 feet of soil between where the last detection was and the water table.

Mr. Ruffalo asked if there are any cross-contamination issues they should be concerned about regarding the Power Ranch supply well they use for landscaping purposes because it pumps perforated pipe.

Mr. Wessner responded that he expects the sampling data for FT002 to verify that contaminants no longer exceed cleanup levels. Groundwater contamination was not identified at FT002 so there would be no impacts to the Power Ranch supply well. Landfill LF004, located at the southeast corner of the base, is the closest site to Power Ranch, but the Power Ranch supply well is located up gradient of LF004 and pumping of the Power Ranch well has not affected the groundwater gradient at LF004. Because the supply well is up gradient of the landfill site and doesn't influence the LF004 area, there is no potential for LF004 groundwater contaminants to impact the Power Ranch supply well. *(see further discussion regarding LF004 below)*

SS017, Former Pesticide/Paint Shop

Mr. Wessner provided a status update on remedial actions at SS017. SS017 is the old pesticide/paint shop and the chemical of concern is Dieldrin in both the soil and groundwater. Currently the Air Force is preparing a response to regulator comments on the OU-6 ROD. A groundwater work plan is currently under review by the regulators.

LF004, Former Solid Waste Landfill

Mr. Wessner said that at this site the ROD dealt with soil contaminants, and the remedy, a permeable cap, was successfully implemented. The groundwater at the time was not a problem, but since the groundwater has started to rise it has picked up some contamination and it must be addressed. The chemicals of concern are perchloroethylene (PCE) and trichloroethylene (TCE). Results from the May 2012 sampling event depicted little change in contaminant concentration. A Focused Feasibility Study that evaluates potential groundwater remedial alternatives. The Proposed Plan/Public Comment period is currently anticipated to occur in the winter of 2012/2013.

Questions asked during LF004 presentation:

Mr. Smith asked approximately what depth the groundwater table currently was at.

Mr. Smallbeck responded that the shallow aquifer is around 110 feet and the lower is 200 to 230 feet below ground surface.

Mr. Zuppan asked if the two wells on the far east side extend all the way down to the third layer at the deepest point.

Mr. Smallbeck responded that one does.

Mr. Smith asked if the cleanup followed a linear degradation and if you do nothing does it have a flat degradation with a sudden fall off at the end or is it a top left of the graph to the bottom right of the graph type of degradation. If you remediate it or put a contractor on it and you wash it does that cause it to run linear for a while then have a rapid fall off.

Mr. Smallbeck responded that's typically what happens. It could be a consistent fall off or it could, in fact be a large drop off.

Mr. Zuppan asked if it was correct to say that in six months it has naturally attenuated without anything being done.

Mr. Smallbeck responded that is actually longer than that. The graph shows a three-year period and potentially since 2008. The graph shows a slow, progressive decline of that concentration.

Mr. Zuppan asked if there was any change in method.

Mr. Smallbeck responded the same analytical and sampling methods are being used.

Mr. Watkin added that one possibility for the decline in concentrations is that there was not groundwater contamination until water levels rose. It's possible that the rising groundwater hit an historic contaminant zone and produced groundwater contamination, but as it continued to rise it began diluting.

Mr. Zuppan stated that it might not be natural attenuation.

Mr. Smallbeck responded that dilution is a part of natural attenuation.

Mr. Wessner added that it's attenuating without any remedial action currently.

Mr. Zuppan asked if it is through dilution, and not through any type of biological activity.

Ms. Lewis responded that it could be biological or dilution.

Mr. Zuppan added that his recollection over the last 10 years was that historically the plume has migrated and the Air Force had to keep chasing it with wells. That it has crept off the property. Before it was defined as being contained on the property and now it has slowly migrated off.

Mr. Smallbeck responded that was the perception, but it could be that it was there all along, but the wells were not in the right place. It may have looked like it was creeping because the Air Force kept putting wells out until the boundary was found.

Mr. Wessner stated that the good news now in all the zones is that there are wells now that are either non-detect, or that are really close to non-detect.

Mr. Ruffalo asked if, given the close proximity and the possibility of sharing groundwater at Power Ranch's shallow well level, it would be a good idea for them to test the water beyond the typical contaminants.

Mr. Smallbeck responded that the Power Ranch well is up gradient, meaning that it is up hill from where the groundwater is going, so the water is running away from the Power Ranch wells.

Mr. Ruffalo responded that they also have the rising groundwater issue and if that touches the Air Force's contaminated area is the rising groundwater also touching the Power Ranch well.

Ms. Lewis responded that Power Ranch is on the other side (east of the Air Force site) and its water is flowing to the Air Force site, not the other way around.

Mr. Ruffalo asked if it be advisable to do additional testing on the Power Ranch water.

Mr. Wessner responded that while it might be something to do for their peace of mind, he did not see a need to do it due to possible concern from Air Force contamination. He explained that the water flow diagram shows a pretty consistent, flat water table with a small gradient from east to west. If pumping from the Power Ranch supply well were pulling water from the LF004 area, the ongoing measurement of groundwater levels would show an opposite gradient.

Mr. Ruffalo asked if it would be a waste of time to do additional testing.

Mr. Wessner answered that if their concern is Air Force contamination getting in their well then yes it would be.

Mr. Wessner summarized by pointing out that concentrations are decreasing in the hot spots and it's a relatively stable plume. Additional data will be collected in November.

Mr. Holt asked if AMEC could speculate on what the remedial action would be.

Mr. Smallbeck responded that an in-situ application would remediate the groundwater in the saturated zone above these hotspots. There's a soil gas that is either TCE or PCE so a system will be put in that will treat the unsaturated zone and remove those vapors. There will also be a groundwater treatment that will take place to treat the hotspot and the area around it and get rid of all the concentrations. After that is complete, monitoring will continue to determine if additional treatments are needed.

Mr. Zuppan asked if AMEC is looking at soil remediation and groundwater treatment.

Mr. Smallbeck responded yes.

Mr. Wessner added that they want to remove contaminants from the soil before groundwater is further impacted.

Mr. Ruffalo asked if as the water table rises will it tend to push the soil vapor up or will it become part of the groundwater.

Mr. Smallbeck responded that it would be a dissolution process. As groundwater levels rise, contaminants present in soil or soil vapor will dissolve into groundwater.

Mr. Zuppan asked if AMEC will have the feasibility study submitted before the next RAB.

Mr. Smallbeck responded that it has already been submitted for review.

Mr. Zuppan asked what AMEC will have at the next RAB to discuss in regards to this timeline.

Mr. Smallbeck responded that by the RAB meeting they will have comments back from the regulators on the feasibility study, but would not be in the public comment period yet.

Mr. Zuppan added the RAB will be before the public comment period so they wouldn't see anything at the next RAB.

Mr. Wessner responded that they will be approaching finalization of the documents, but it would most likely not be in the public comment period by the RAB meeting.

Mr. Smallbeck added that the next step of the process after agency comments are received and resolved, is to set a date for the public comment meeting.

ST035, Former Base Gasoline Station Building 760

Mr. Wessner summarized the slides presenting the site background, contaminants and the cleanup methods in place. Soil vapor extraction continues to remove fuel contaminants from the soil and groundwater monitoring is ongoing. Regulatory agencies are currently reviewing the Work Plan for installation of groundwater monitoring wells and a groundwater remediation well. Well installation is expected in the fall/winter of 2012.

ST012, Former Liquid Fuels Storage Operation

Mr. Wessner summarized the slides presenting the site background, contaminants, cleanup methods in place, and the path forward.

Mr. Holt asked what the results of the steam injection pilot study were.

Mr. Wessner responded that AMEC is in the process of doing another focus feasibility study to determine what to do with the groundwater. Steam is likely the only method that will work. The Air Force is currently responding to agency comments on the Draft Focused Feasibility Study.

Mr. Holt asked if the plan includes thermal enhanced extraction.

Mr. Wessner responded that it does.

Mr. Zuppan asked if the documents for the public comment period will be available at the ADEQ site or the EPA site or will they be emailed to the RAB members.

Ms. Lewis responded that the public will have access and will be made aware of where the documents will be available both hard copy and electronically.

Contracting Update

Ms. Lewis provided an update on contracting issues.
Regarding the MMRP site located east of the landfill Ms. Lewis stated that the money has been sent over to the Army Corp of Engineers and they will conduct a site visit in the next month or so to prepare to finish clearing that site.

The other contracting piece is that the Performance Based Remediation (PBR) contract with AMEC has been modified to cover the containment system at site ST012. It was being run by URS and is now switching to AMEC.

Meeting Wrap-up
That concluded the information portion of the evening.

Mr. Fuchs asked if it was possible to receive an electronic copy of the RAB slides before each meeting.

Ms. Lewis responded it would be possible to do that after noon on the day of each RAB meeting.

Mr. Zuppan asked if the Air Force could preview the feasibility studies it is working at this time.

Ms. Lewis responded that they should be ready by the next RAB meeting.

No other topics were suggested for the next meeting. Ms. Lewis thanked the RAB for attending and Mr. Fuchs adjourned the meeting at 8:35 p.m.

The next Williams RAB meeting date is scheduled for Tuesday, November 13, 2012 at 7:00 p.m. at Highland High School.

Attachments:

August 21 2012 RAB meeting slide presentation

Headquarters U.S. Air Force

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Former Williams AFB Restoration Advisory Board (RAB)

August 21, 2012

Highland High School
4301 E. Guadalupe Rd.
Gilbert, AZ

Headquarters U.S. Air Force

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Welcome & Introductions

Presented by:
Mr. Len Fuchs / Ms. Michelle Lewis,
RAB Community Co-Chairmen
and Scott Johnston

Welcome & Introductions

- Mr. Len Fuchs, RAB Community Co-Chair
- Ms. Michelle Lewis, Air Force Center for Engineering & the Environment, PM/BEC and RAB Co-Chair
- Ms. Carolyn d'Almeida, Project Manager, U.S. Environmental Protection Agency, Region 9
- Mr. Donald Atkinson, Project Manager, ADEQ

Agenda

Time	Topic	Presenter
7:00 PM	RAB Meeting Convenes • Welcome and introductions • Community co-chair remarks • Review May 2012 meeting minutes and action items	Mr. Len Fuchs Ms. Michelle Lewis Mr. Scott Johnston
7:15-8:00 PM	Program Updates • UST114 Status Update • FT002 Status Update • SS017 Status Update • LF004 Status Update - May 2012 GW Results	Ms. Michelle Lewis Mr. Everett Wessner

Agenda Continued

Time	Topic	Presenter
7:15-8:00 PM	**Program Updates *continued*** • **ST035 Status Update** – **May 2012 GW Results** – **Apr-June 2012 SVE Performance Results** • **ST012 Status Update** – **April-June 2012 SVE Performance Results** – **Groundwater Containment Study Results**	**Mr. Everett Wessner**

Agenda Continued

Time	Topic	Presenter
8:00 p.m.	**Meeting wrap-up** • Review action items for next meeting • Call for agenda items for next meeting • Propose next RAB meeting – NOV 13, 2012	Ms. Michelle Lewis
8:30 p.m.	Adjourn	Mr. Len Fuchs

Minutes and Action Items

- Review May 2012 RAB meeting minutes
- Action items from May 2012 RAB meeting

Presented by:
Mr. Scott Johnston
Napkin Communications

Headquarters U.S. Air Force

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Program Updates

Sites UST1114, FT002, SS017, LF004, ST035, and ST012

Presented by:
Ms. Michelle Lewis, AFCEE
Mr. Everett Wessner, AMEC

Headquarters U.S. Air Force

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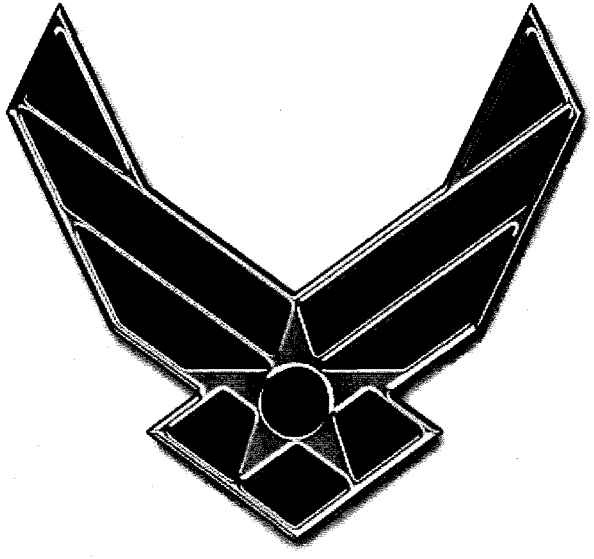

Former UST 1114

Former UST 1114 Location Map

Former UST 1114 Site Background

- Underground storage tank (UST) source of release; removed in 1993
- Volatile organic compounds (VOCs) and polyaromatic hydrocarbons (PAHs) in soil
- Collected verification soil samples
- Site closure under Tier 1 UST regulations by ADEQ

Former UST 1114 Site Update

- Soil Sampling Work Plan for site closure approved March 27, 2012
- Field work performed week of April 2, 2012
- No detections above cleanup levels for unrestricted use
- Site closure documentation in progress
- Anticipate regulatory approval for site closure Sept 2012

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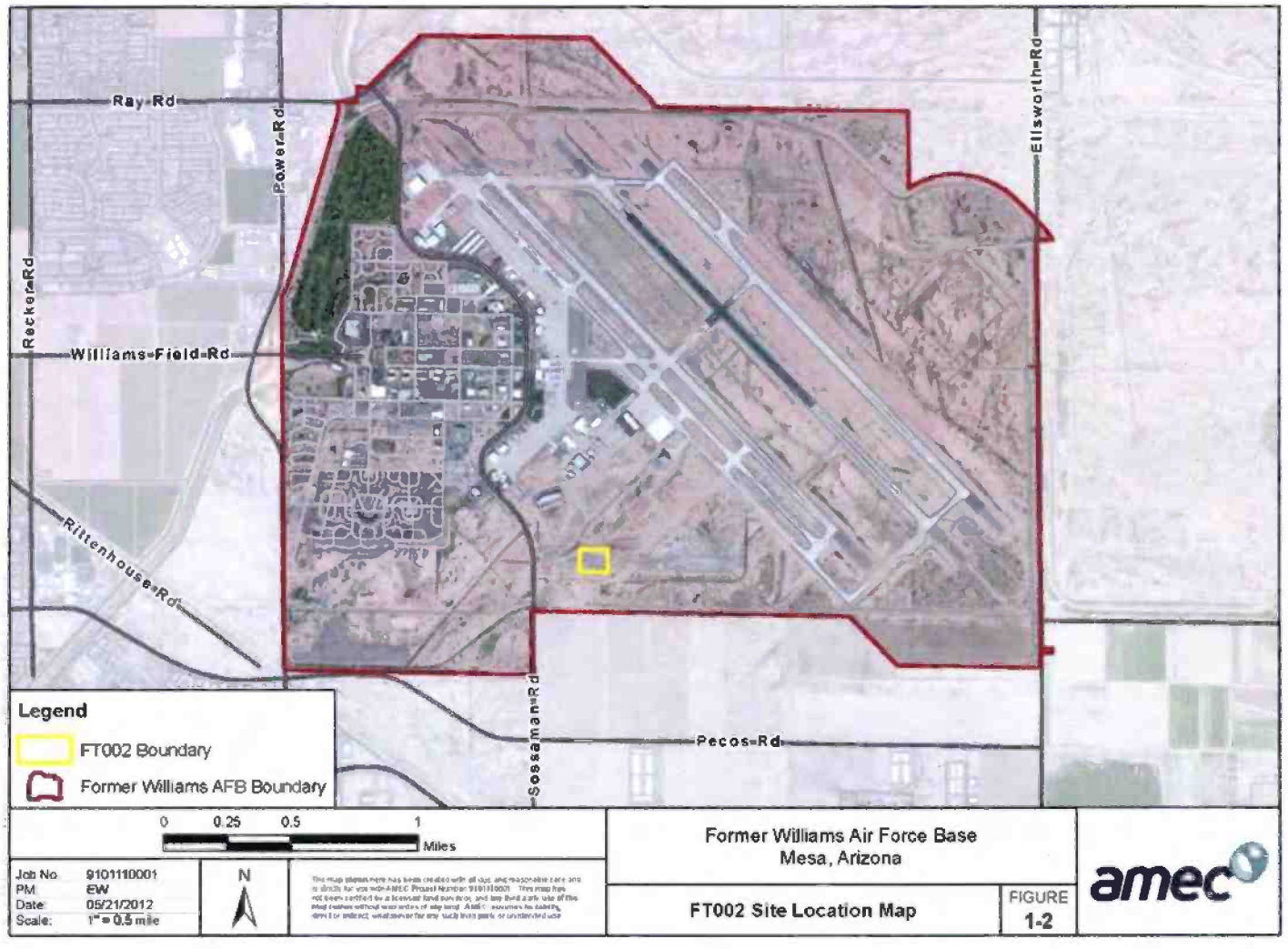
Site FT002, Fire Training Area Number 2

Site FT002 Location Map



Site FT002 Site Background

- Fire protection training activities (1958-1991)
- Soil chemicals of concern (COC); benzene, chloroform, 1,4-dichlorobenzene
- No evidence of groundwater impact
- OU- 3 Record of Decision (ROD) 1996. Soil Remedy (bioventing) implemented in 1996-97
- Final soil cleanup goals for unrestricted use not yet achieved
- Declaration of Environmental Use Restriction (DEUR) to prohibit residential use and require soil management below 5 feet

Site FT002 Site Update

- Soil and Soil Vapor Sampling Work Plan under regulatory review, submitted June 2012
- Verification sampling Nov 2012
- If ROD cleanup goals are achieved, site closure documentation Jan 2013
- Anticipate regulatory approval for site closure Spring 2013

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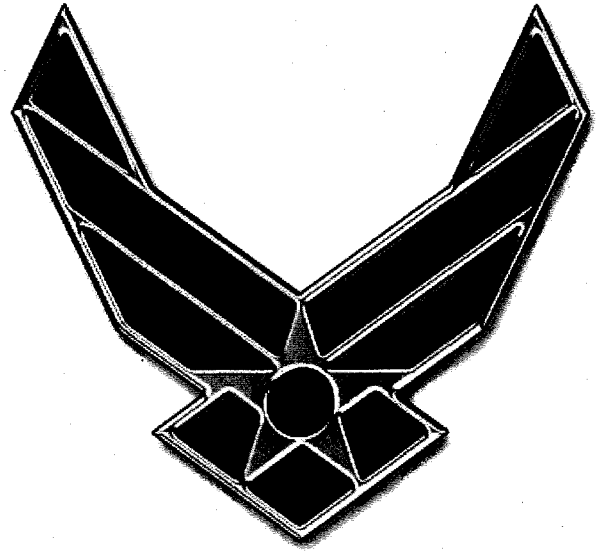

Site SS017, Old Pesticide/Paint Shop

Site SS017 Site Location Map

Site SS017 Site Background

- Old pesticide / paint shop
- Soil and groundwater COC: Dieldrin
- Removal action for soil completed in 2000
- Ongoing groundwater monitoring
- Draft OU-6 ROD March, 2012

Site SS017 Site Update

- Dieldrin concentrations in groundwater remain stable near source area (last five years)
- Dieldrin concentrations above EPA regional screening level (0.0015 µg/l); continue groundwater monitoring
- Air Force preparing response to regulator comments on Draft ROD
- Groundwater monitoring work plan under regulatory review
- Annual groundwater monitoring event Aug 2012

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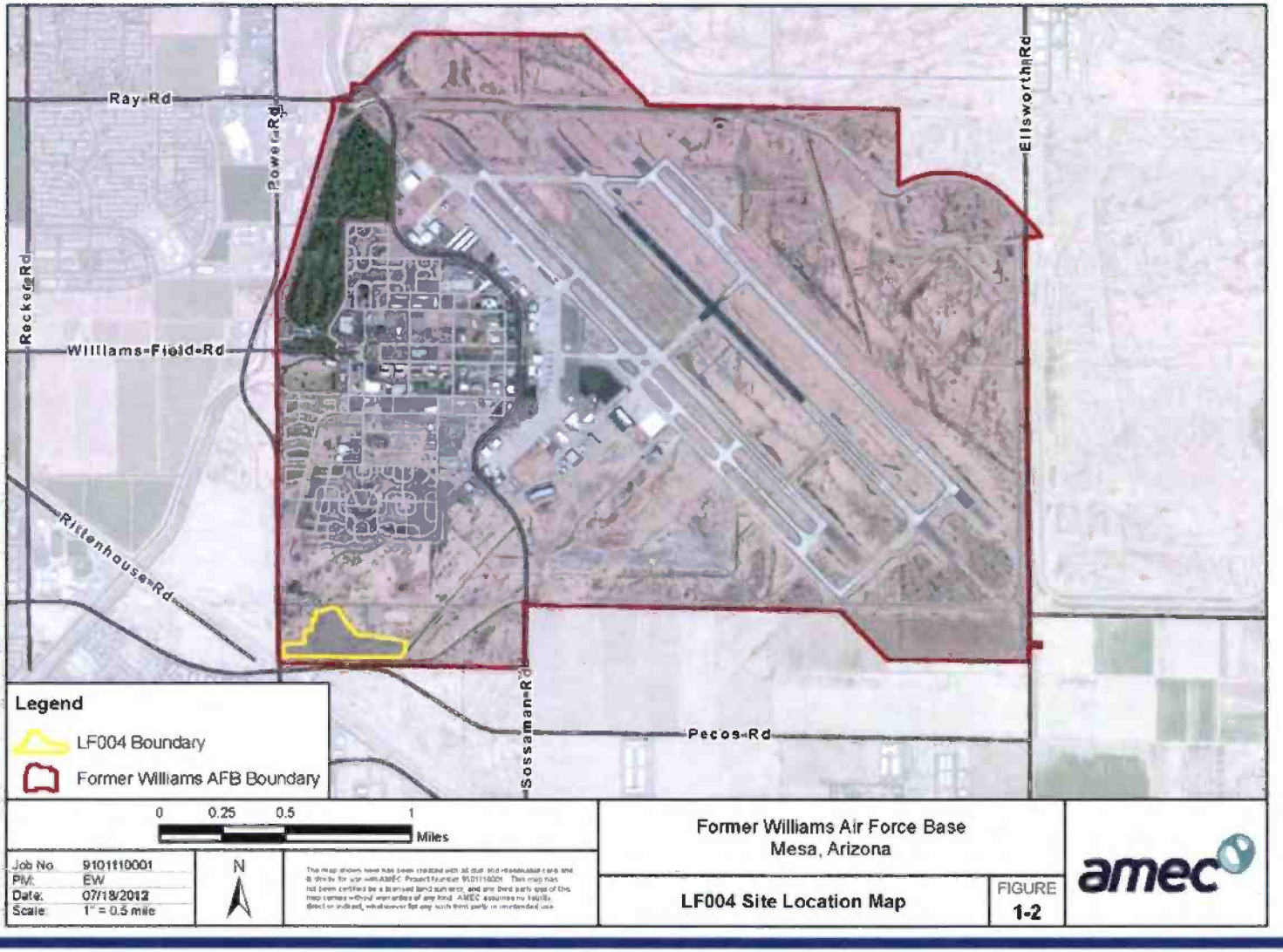
Site LF004, Landfill

Site LF004 Site Location Map

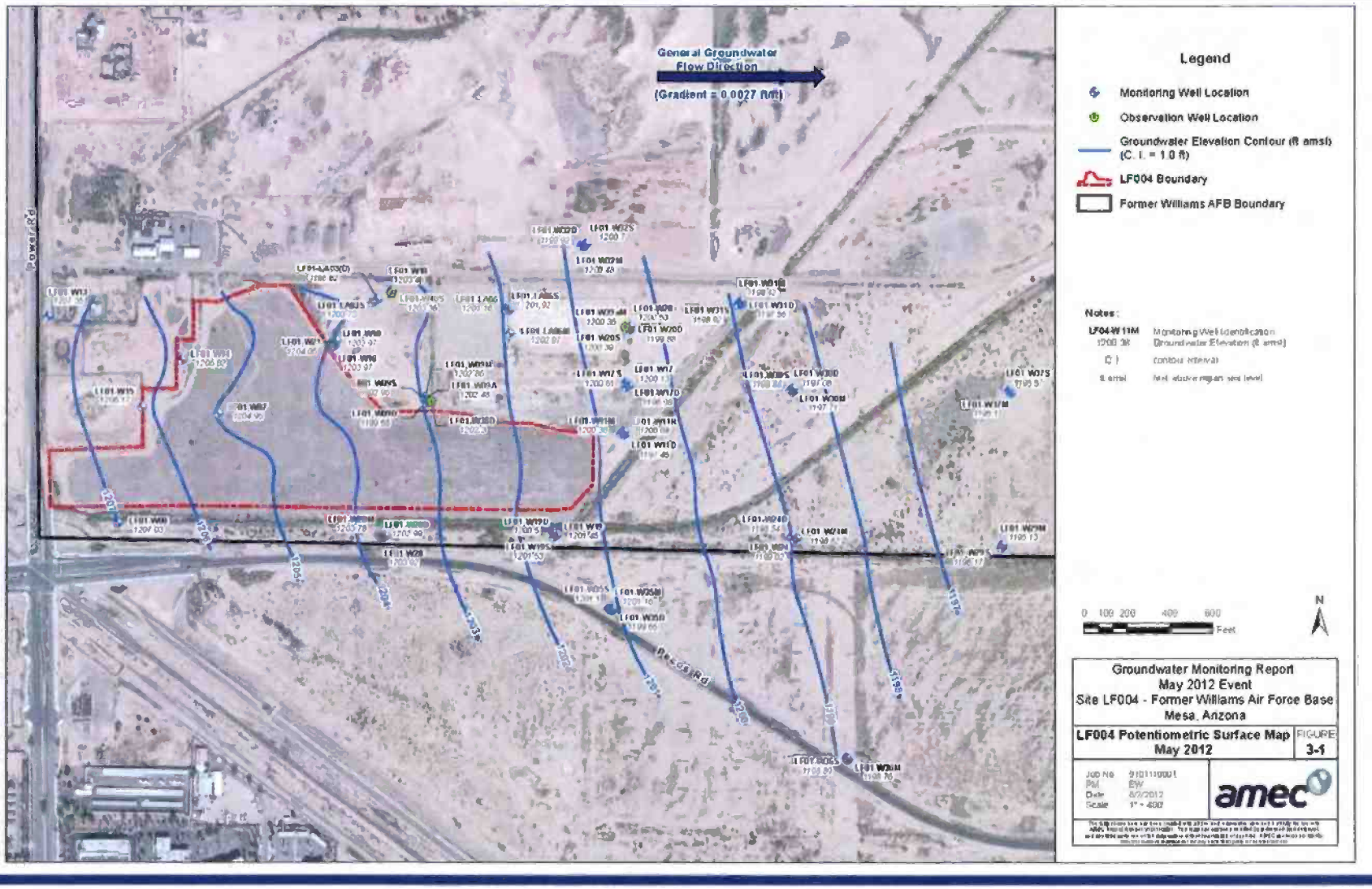


Site LF004 Site Background

- Landfill
  - Former solid waste landfill
  - Operated from 1941 to 1976
  - Closed in 1995 with a permeable soil cap (OU-1 ROD 1994)
  - Rising groundwater table
- COCs
  - Perchloroethylene (PCE)
  - Trichloroethylene (TCE)

Site LF004 Groundwater Monitoring Update
Well Locations

Site LF004 Groundwater Monitoring Update
Groundwater Flow Direction

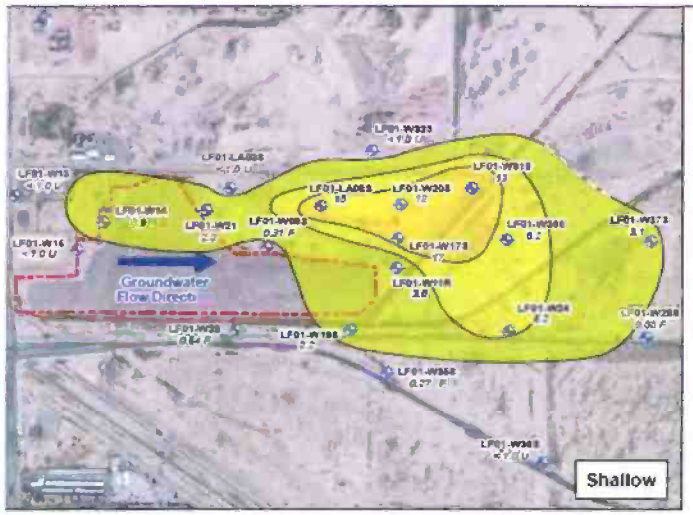


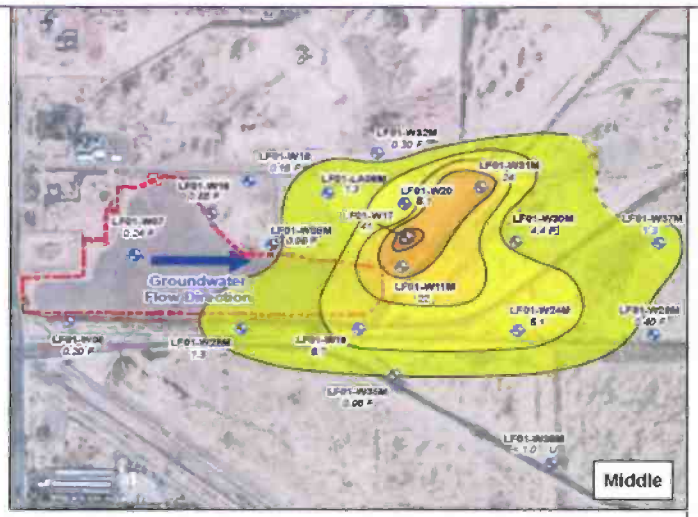
Site LF004 Groundwater Monitoring Update May 2012 Sampling Event

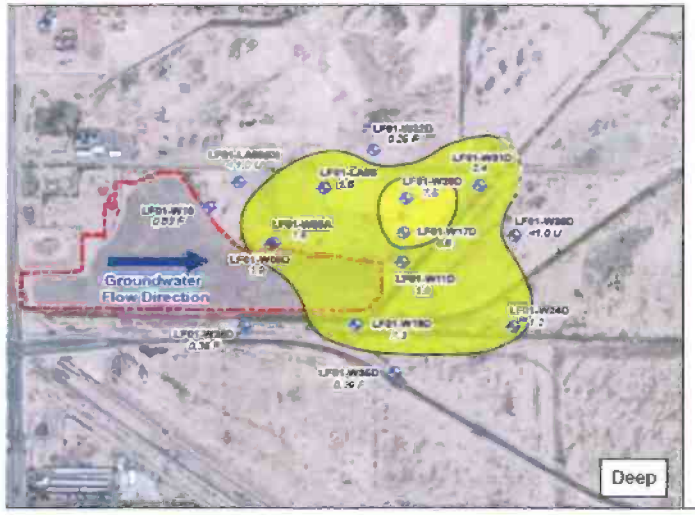
- 54 wells sampled
- Results similar to past events
  - PCE and TCE only contaminants above EPA Maximum Contaminant Levels (MCLs) and Arizona Aquifer Water Quality Standards (AWQS)*
  - PCE and TCE continue to decline in hot spot areas
  - PCE concentrations exceeded the standards in 14 wells, highest concentration 53 µg/L in LF01-W19 down from 71.9 in Nov
  - TCE concentrations exceeded the standards in 14 wells, highest concentration 41 µg/L in LF01-W17 down from 50.3 in Nov

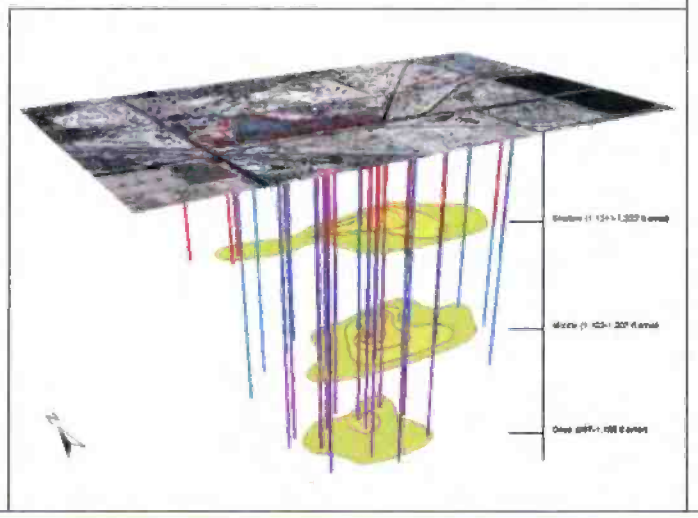
*MCL/AWQS 5 µg/L

Site LF004 Groundwater Monitoring Update
May TCE Sampling Results









Legend

TCE Concentration in Groundwater
(Dashed Where Inferred)
- 1-5 µg/L
- 5-10 µg/L
- 10-20 µg/L
- 20-30 µg/L
- 30-40 µg/L
- 40-50 µg/L
- Monitoring Well Location
- LF004 Boundary

Notes:

LF04-W11M 22	Monitoring Well Identification Maximum TCE Concentration (µg/L)
µg/L	microgram per liter
<1	Not detected at or above the RL shown
F	The analyte was positively identified but the associated concentration is an estimation above the MDL and below the RL
MDL	Method Detection Limit
TCE	Trichloroethene
RL	Reporting Limit
U	The analyte was analyzed for, but not detected at or above the RL shown

0 225 450 900 1,350 Feet

N

Groundwater Monitoring Report
May 2012 Event
Site LF004 - Former Williams Air Force Base
Mesa, Arizona

LF004 Depth Specific Distribution of Trichloroethene (TCE) in Groundwater - May 2012 | FIGURE 3-4

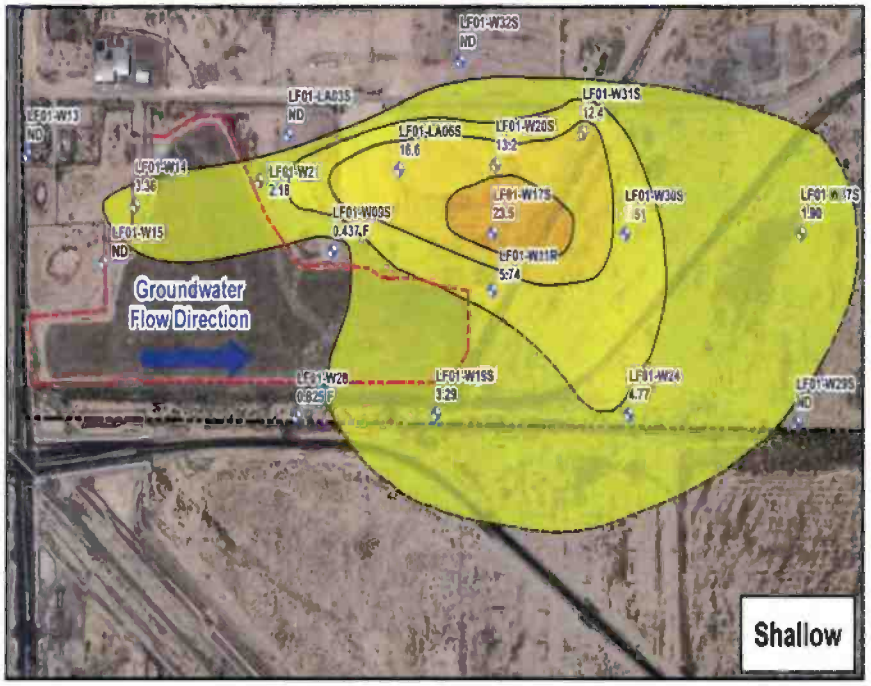
Job No. 9103110000.1
File: tce
Date: 6/2/2012
Scale: 1" = 900'

amec

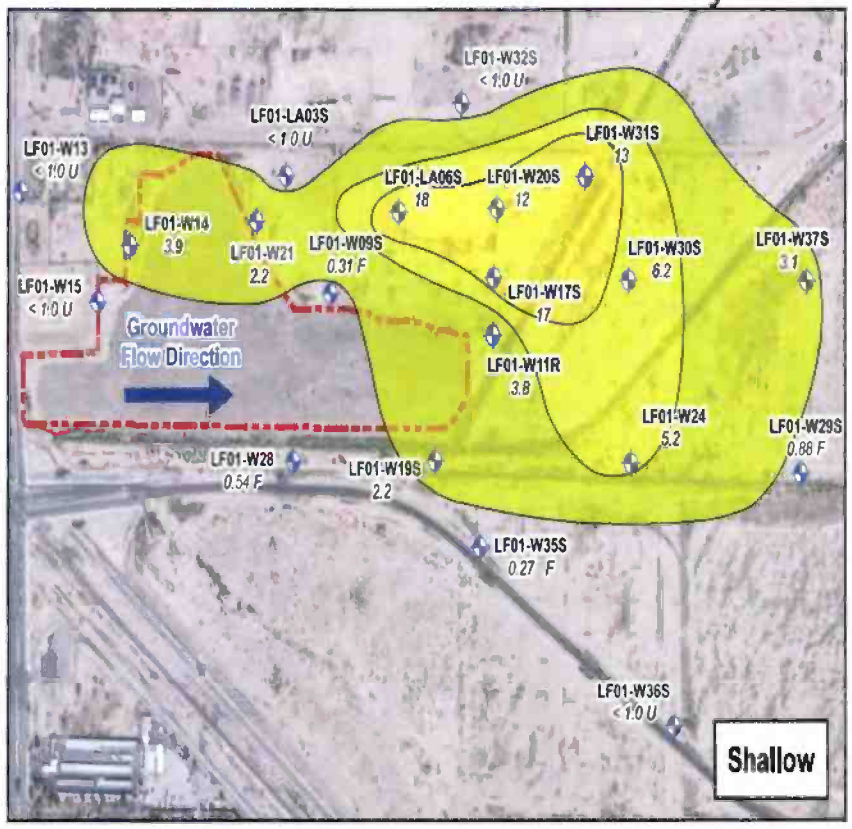
Site LF004 Groundwater Monitoring Update
TCE Sampling Results

Shallow Groundwater Zone

Nov 2011



May 2012



TCE Concentration in Groundwater
(Dashed Where Inferred)

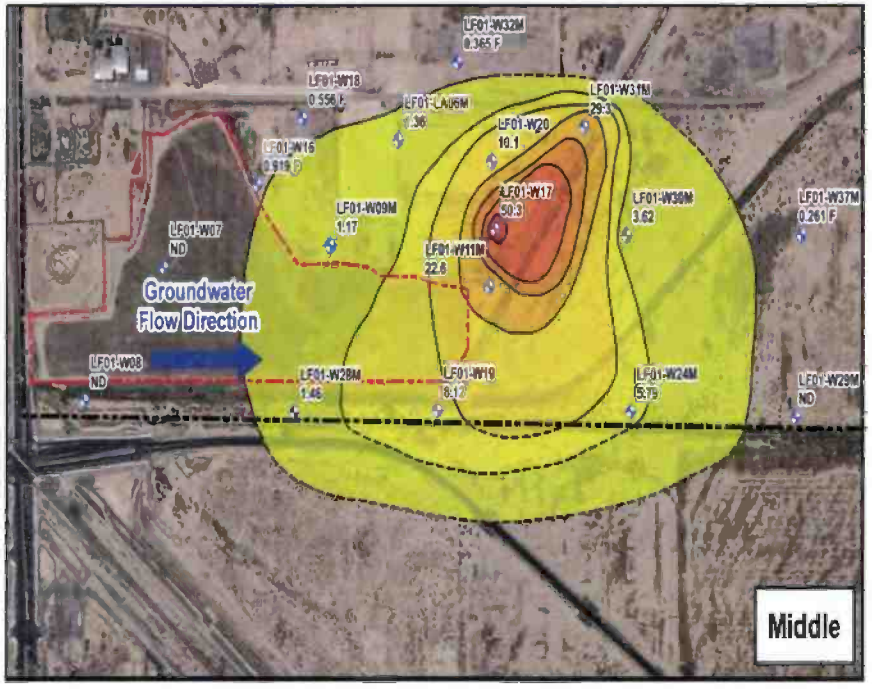
1-5 µg/L	10-20 µg/L	30-40 µg/L	50-60 µg/L
5-10 µg/L	20-30 µg/L	40-50 µg/L	>60 µg/L

LF004 Boundary | Monitoring Well Location | Groundwater Flow Direction

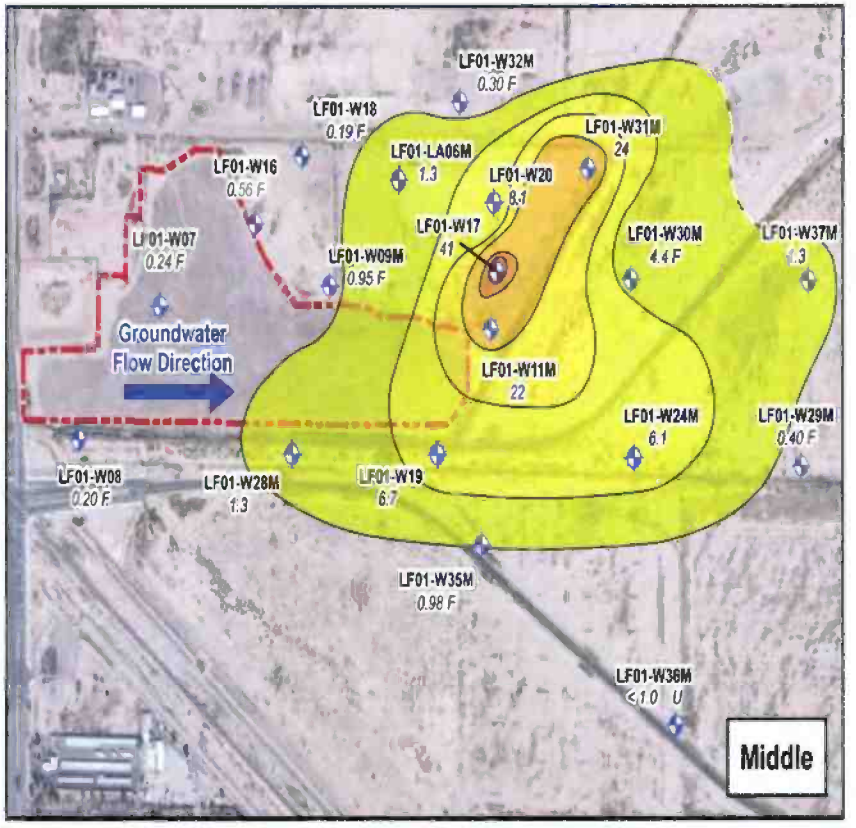
Site LF004 Groundwater Monitoring Update
TCE Sampling Results

Middle Groundwater Zone

Nov 2011



May 2012



TCE Concentration in Groundwater
(Dashed Where Inferred)

1-5 µg/L	10-20 µg/L	30-40 µg/L	50-60 µg/L
5-10 µg/L	20-30 µg/L	40-50 µg/L	>60 µg/L

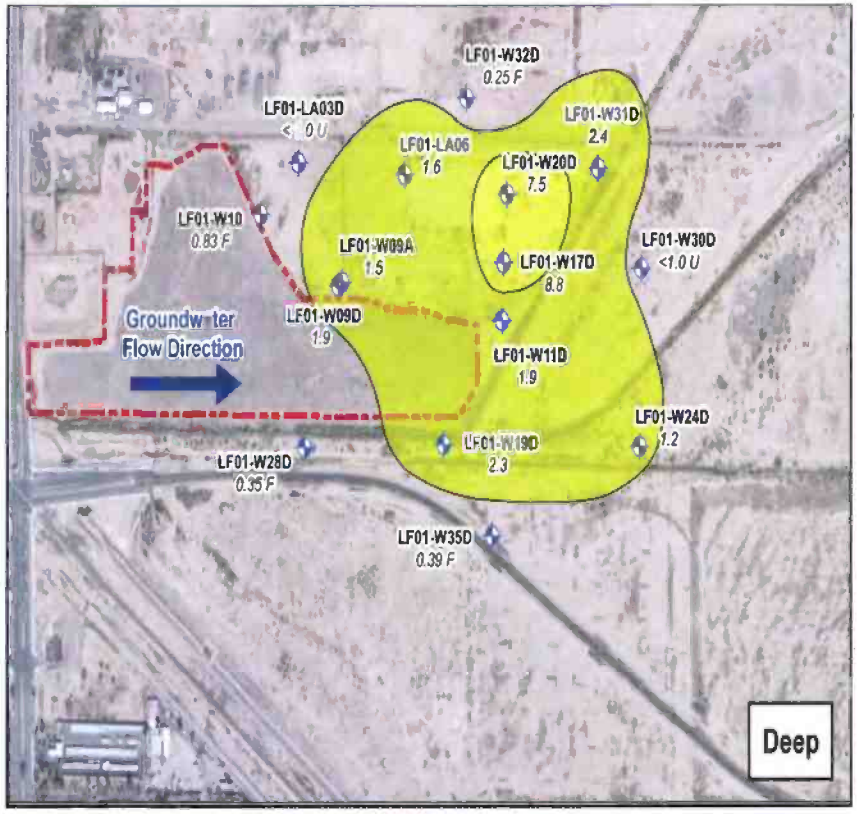
LF004 Boundary | Monitoring Well Location | Groundwater Flow Direction

Site LF004 Groundwater Monitoring Update
TCE Sampling Results

Deep Groundwater Zone

Nov 2011

May 2012

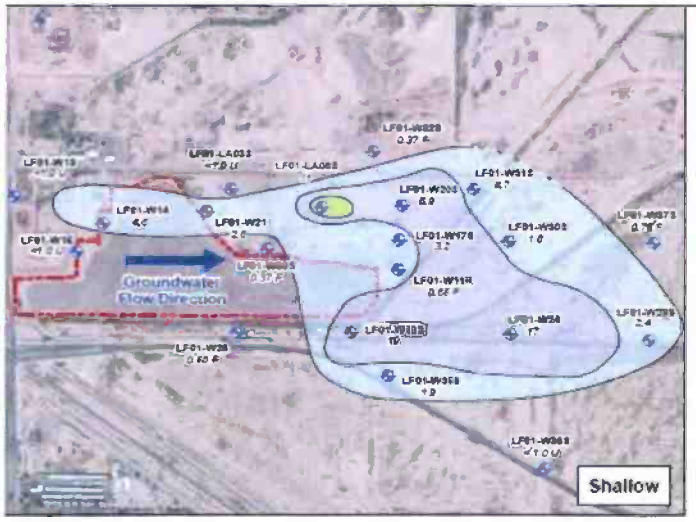


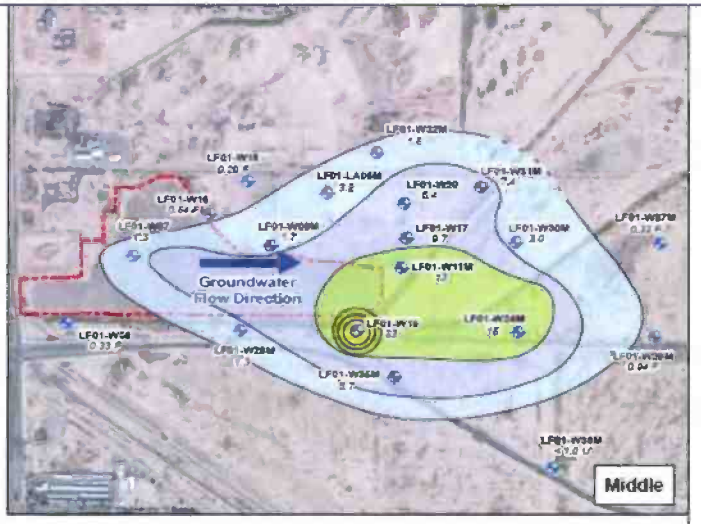
TCE Concentration in Groundwater
(Dashed Where Inferred)

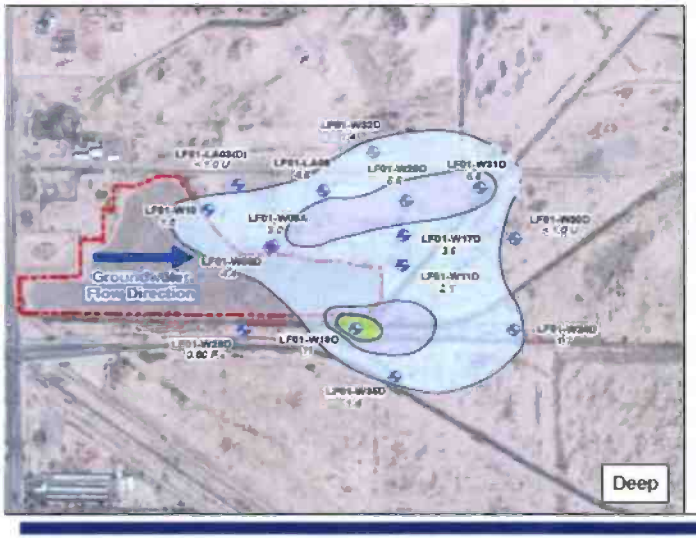
1-5 µg/L	10-20 µg/L	30-40 µg/L	50-60 µg/L
5-10 µg/L	20-30 µg/L	40-50 µg/L	>60 µg/L

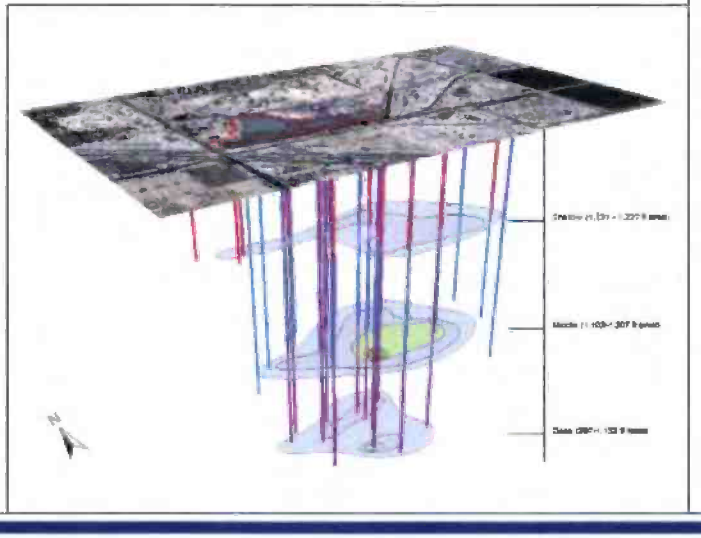
LF004 Boundary | Monitoring Well Location | Groundwater Flow Direction

Site LF004 Groundwater Monitoring Update
May PCE Sampling Results









Legend

PCE Concentration in Groundwater
(Dashed Where Inferred)

- 1-5 µg/L
- 5-10 µg/L
- 10-20 µg/L
- 20-30 µg/L
- 30-40 µg/L
- 40-50 µg/L
- 50-60 µg/L
- Monitoring Well Location
- LF004 Boundary

Notes:

LF04-W11M 13	Monitoring Well Identification Maximum PCE Concentration (µg/L)
µg/L	microgram per liter
<	Not detected at or above the RL shown
F	The analyte was positively identified but the associated concentration is an estimation above the MDL and below the RL
MDL	Method Detection Limit
PCE	Perchloroethene
RL	Reporting Limit
U	The analyte was analyzed for, but not detected at or above the RL shown

0 225 450 900 1,350 Feet

N

Groundwater Monitoring Report
May 2012 Event
Site LF004 - Former Williams Air Force Base
Mesa, Arizona

LF004 Depth Specific Distribution of Perchloroethene (PCE) in Groundwater - May 2012

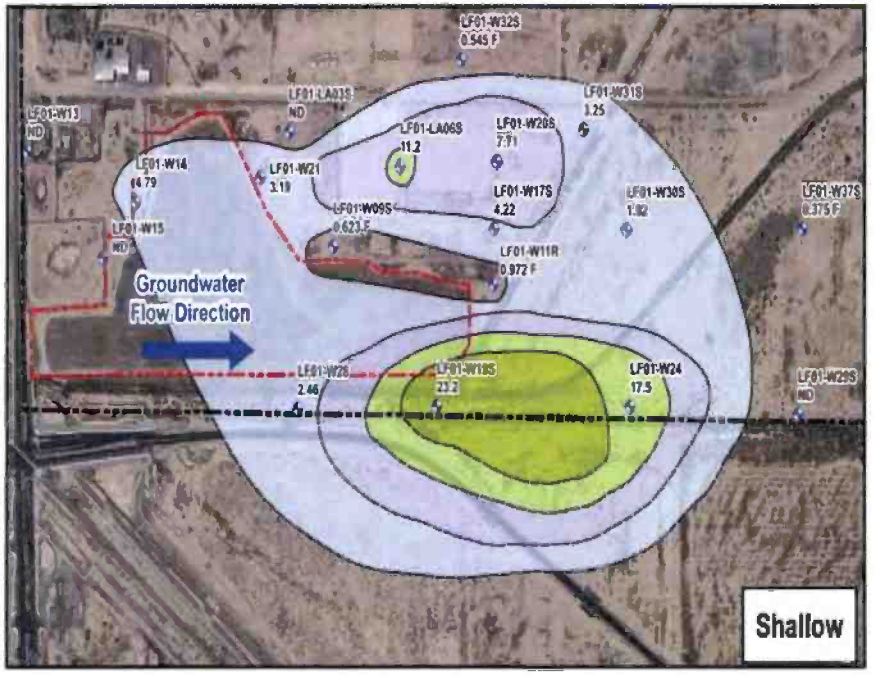
FIGURE 3-7

amec

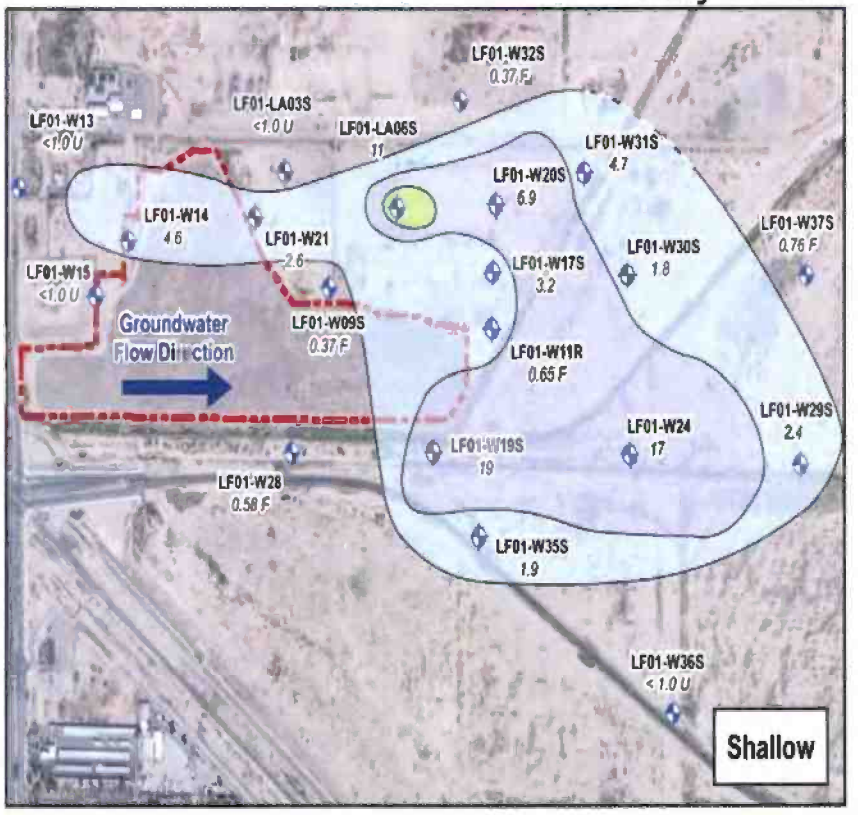
Site LF004 Groundwater Monitoring Update
PCE Sampling Results

Shallow Groundwater Zone

Nov 2011



May 2012



PCE Concentration in Groundwater
(Dashed Where Inferred)

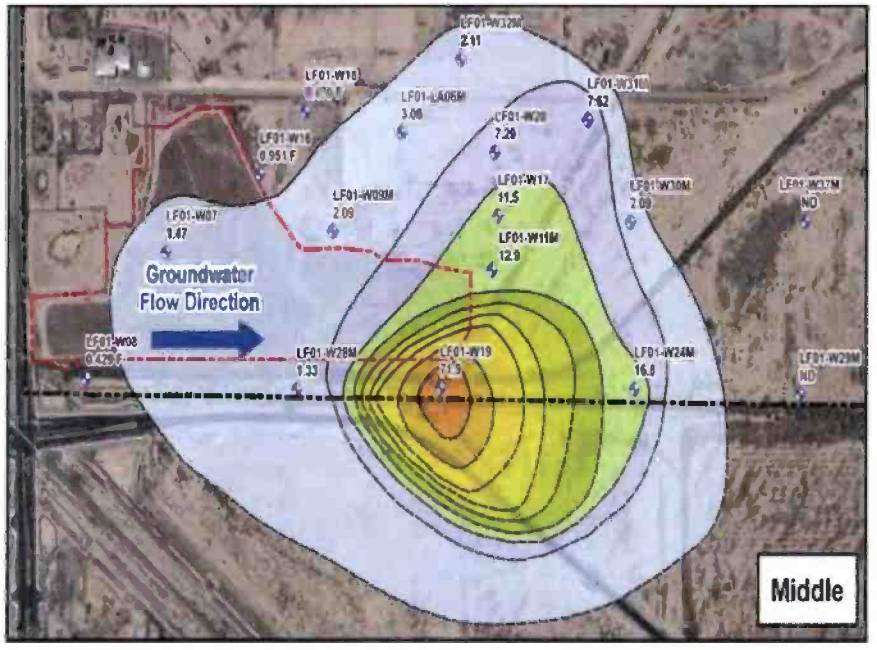
1-5 µg/L	10-20 µg/L	30-40 µg/L	70-80 µg/L	50-60 µg/L	
5-10 µg/L	20-30 µg/L	40-50 µg/L	60-70 µg/L		

LF004 Boundary | Monitoring Well Location | Groundwater Flow Direction

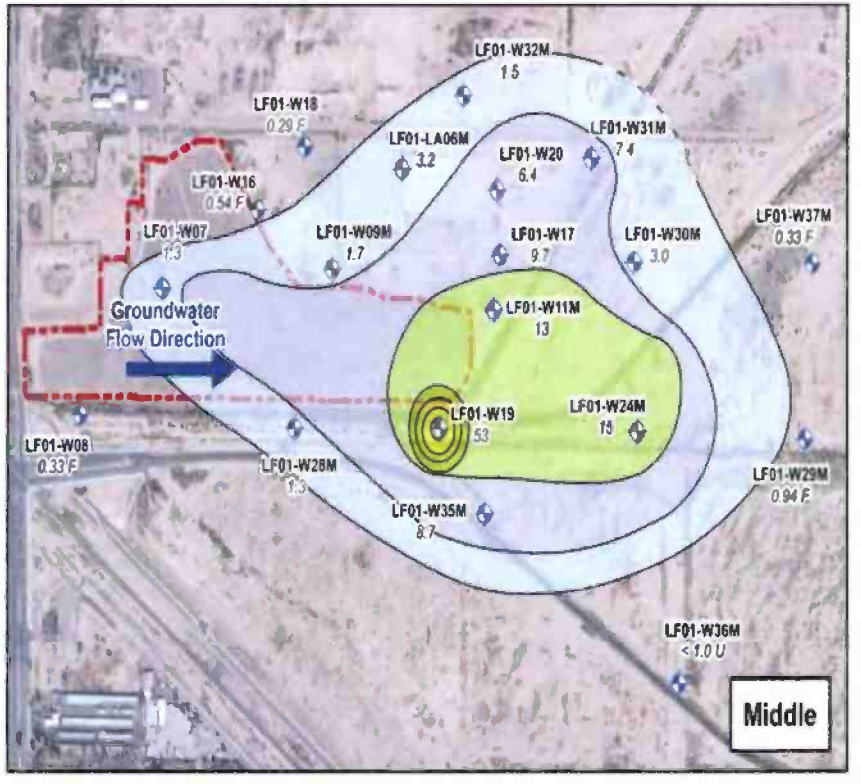
Site LF004 Groundwater Monitoring Update
PCE Sampling Results

Middle Groundwater Zone

Nov 2011



May 2012



PCE Concentration in Groundwater
(Dashed Where Inferred)

1-5 µg/L	10-20 µg/L	30-40 µg/L	50-60 µg/L	70-80 µg/L
5-10 µg/L	20-30 µg/L	40-50 µg/L	60-70 µg/L	

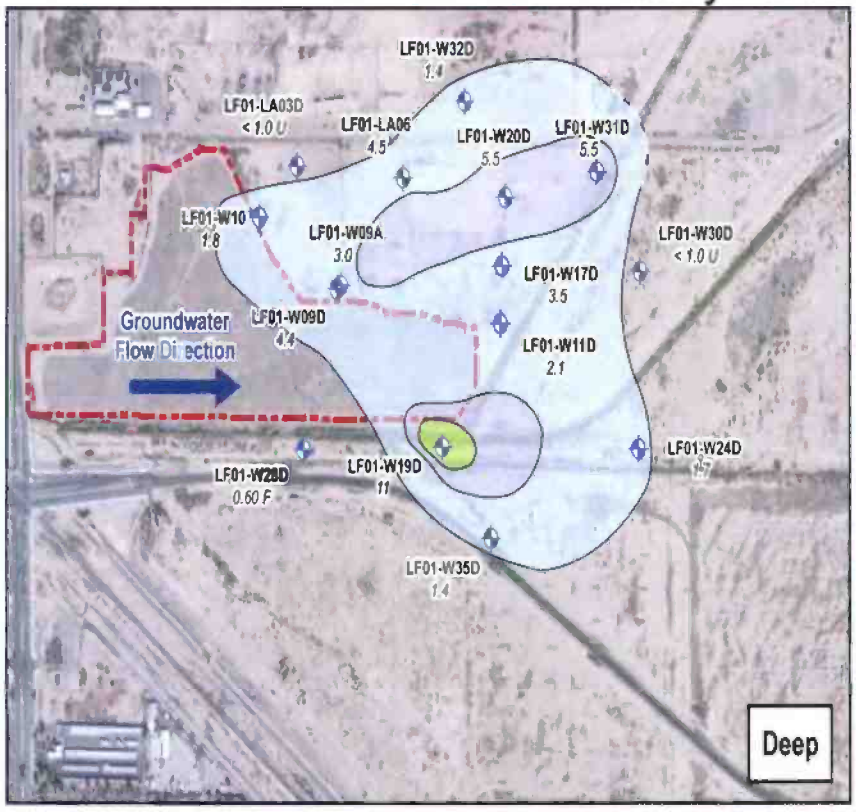
LF004 Boundary | Monitoring Well Location | Groundwater Flow Direction

Site LF004 Groundwater Monitoring Update
PCE Sampling Results

Deep Groundwater Zone

Nov 2011

May 2012



PCE Concentration in Groundwater
(Dashed Where Inferred)

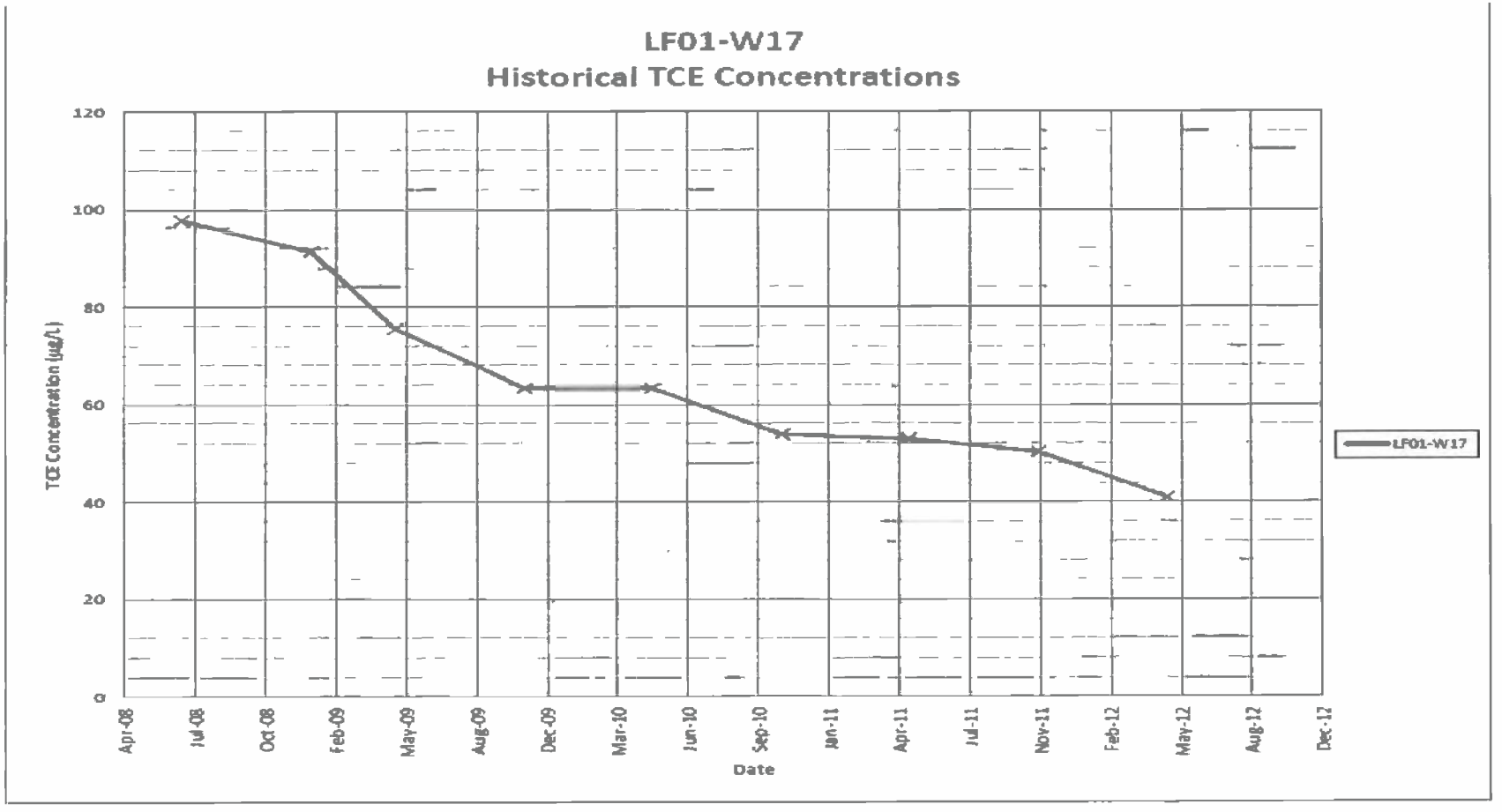
1-5 µg/L	10-20 µg/L	30-40 µg/L	50-60 µg/L
5-10 µg/L	20-30 µg/L	40-50 µg/L	60-70 µg/L
			70-80 µg/L

LF004 Boundary | Monitoring Well Location | Groundwater Flow Direction

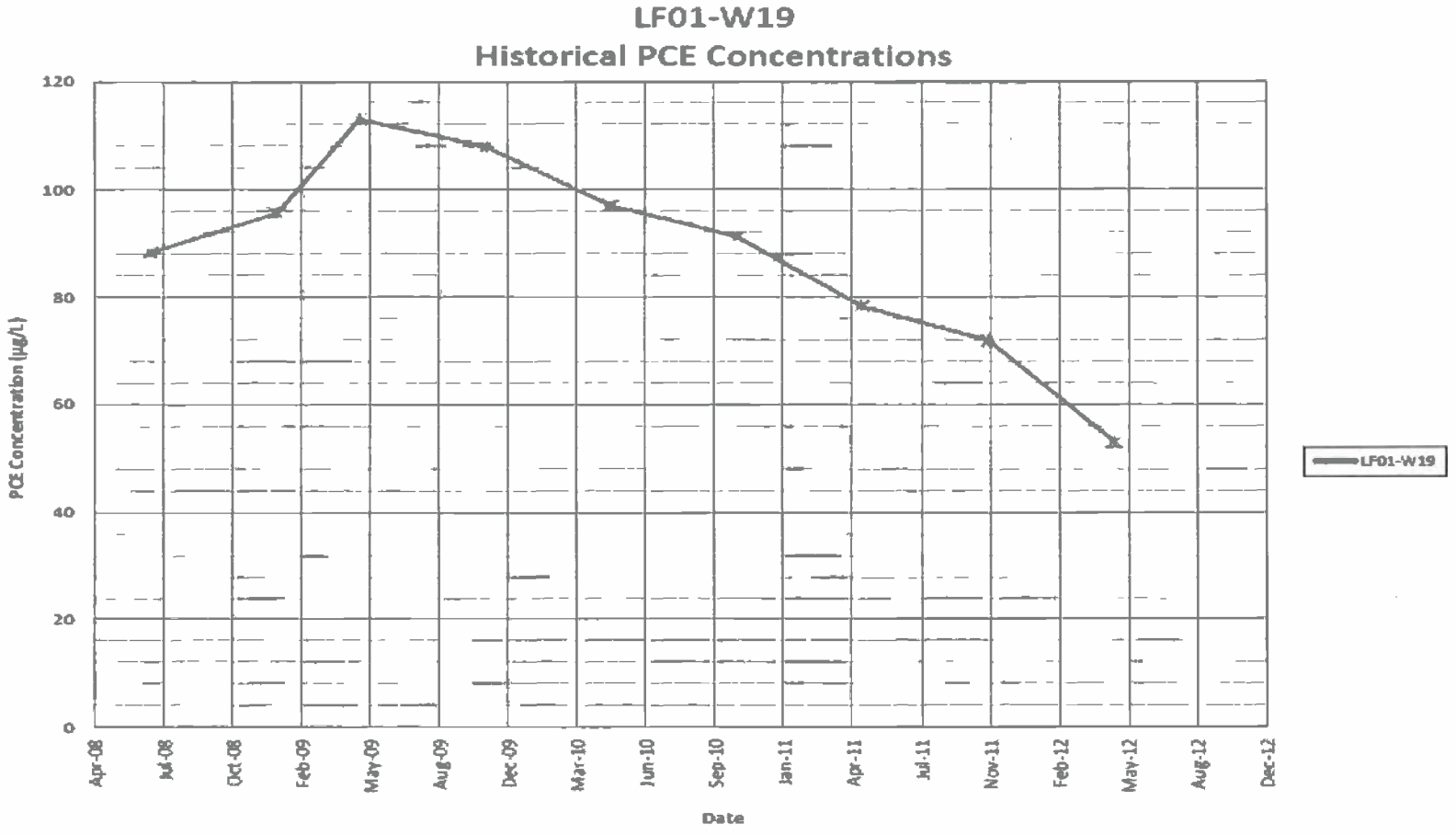
Site LF004 Summary

- Groundwater results indicate decreasing concentrations of TCE and PCE in hot spot areas
- Plume is stable
- Next groundwater sampling event November 2012

Site LF004 TCE Source Area Concentrations since 2008



Site LF004 PCE Source Area Concentrations since 2008



Site LF004 Path Forward

- Focused Feasibility Study submitted to regulatory agencies
- Proposed Plan/Public Comment- Winter 2012/2013
- Record of Decision- Spring 2013
- Remedial Design / Remedial Action- Fall 2013
- Continue groundwater monitoring and landfill maintenance

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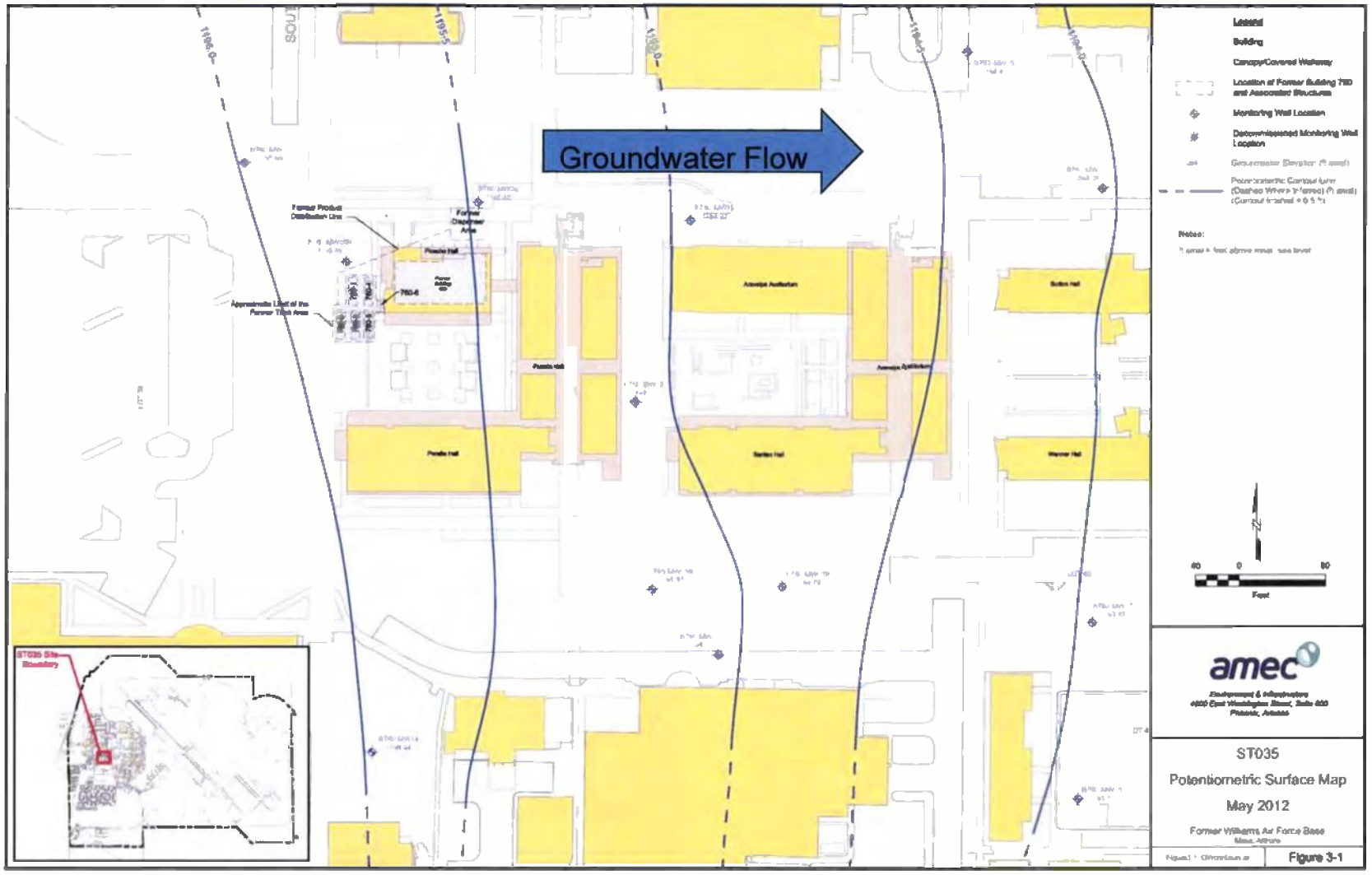
Site ST035, Former Building 760 USTs

Site ST035 Location Map

Site ST035 Site Background

- Building 760 gas station and oil/water separator
  - Gas dispensing until 1986
  - Tank and dispensing equipment removed in 1993-1994
  - Oil/water separator removed in 1996
- Vadose zone soil COC
  - Benzene
- Groundwater COCs
  - Benzene, toluene, ethylbenzene, xylenes (BTEX)
  - 1,2 –Dibromoethane (EDB)
  - Methyl tertiary butyl ether (MTBE)
  - 1,2-Dichloroethane (DCA)
- Soil Vapor Extraction (SVE) system to treat COCs in vadose zone soil in operation
- Site cleanup regulated by ADEQ under Leaking Underground Storage Tank (LUST) regulation (R18-12-263.04)

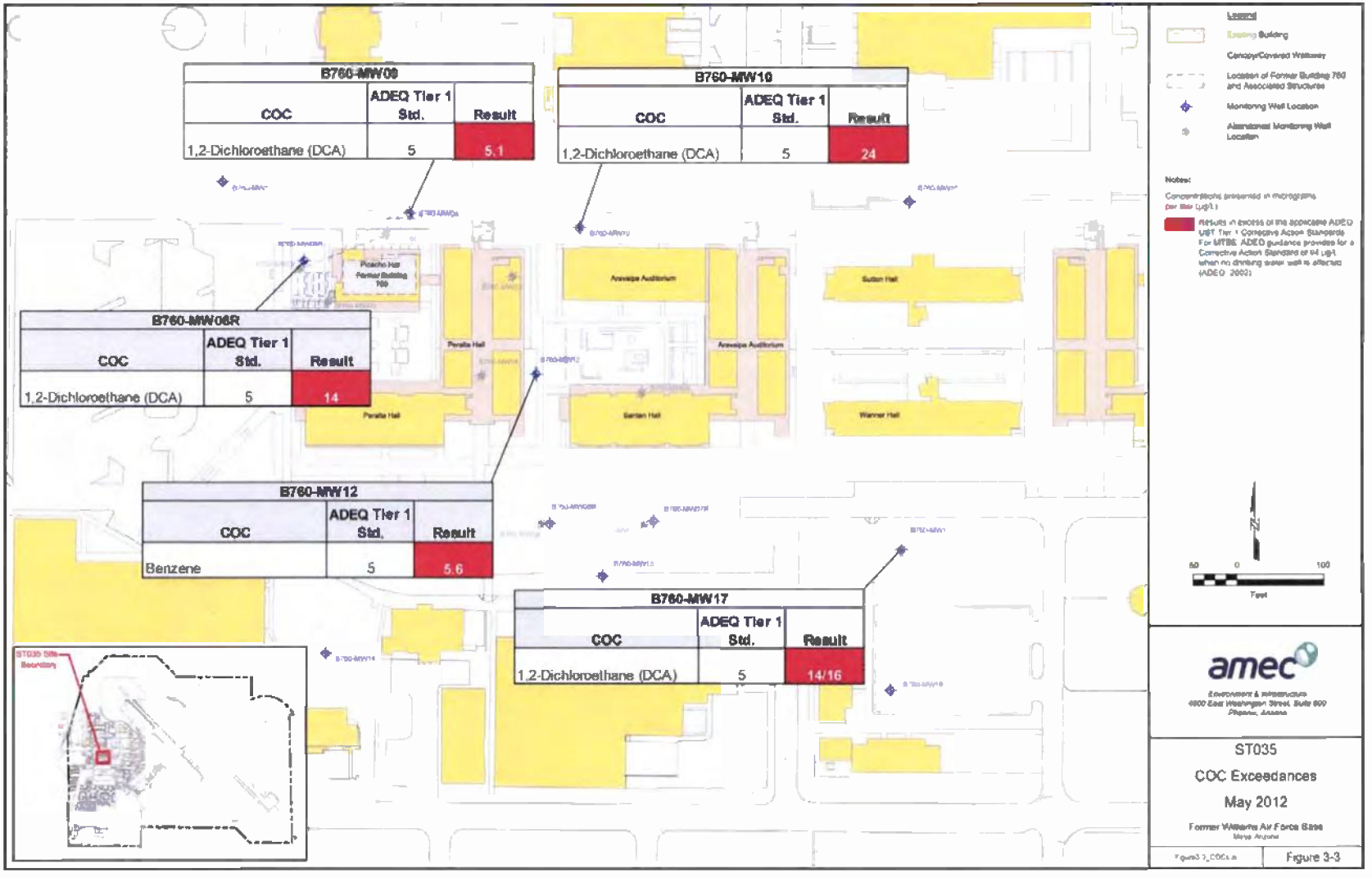
Site ST035 Groundwater Monitoring Update
May 2012 Groundwater Flow Direction



Site ST035 Groundwater Monitoring Update May 2012 Sampling Event

- 13 wells sampled
- Benzene detected in 9 wells, exceeded AWQS/MCL of 5 µg/L in 1 well
- 1,2 –dichloroethane (1,2-DCA) exceeded ADEQ/MCL regulatory levels in 4 wells
- Concentrations of MTBE and EDB continue to be below ADEQ/MCL regulatory levels in all wells

Site ST035 Groundwater Monitoring Update
May 2012 Sampling Results



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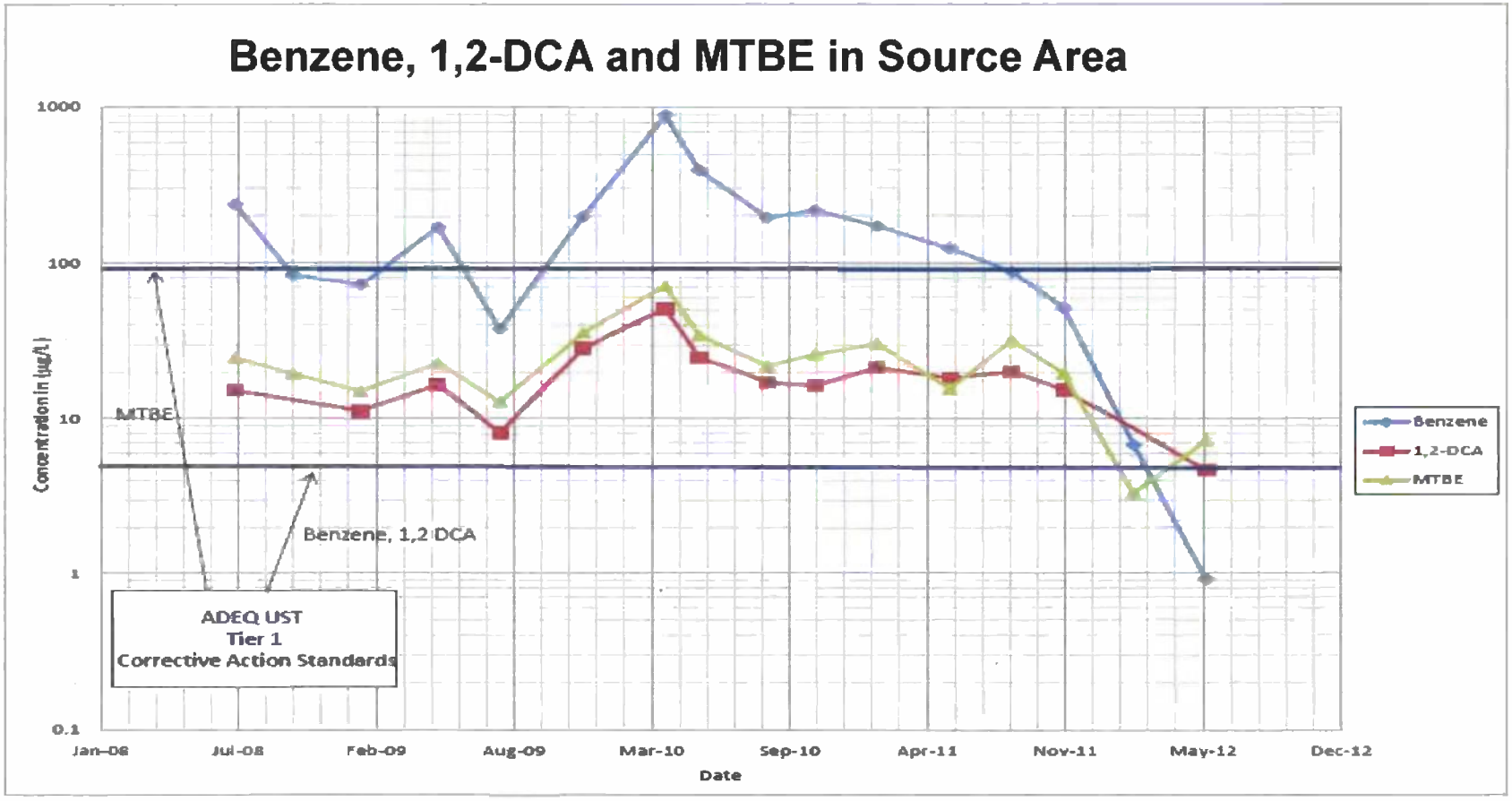
Site ST035 Groundwater Summary

- Concentrations of benzene, 1-2-DCA, and MTBE in source area have significantly decreased since SVE startup in 2010
- Toluene, Xylenes, MTBE, and EDB below AWQS/MCL in all wells
- Next quarterly groundwater sampling August 2012

Site ST035 Source Area Concentrations since 2008

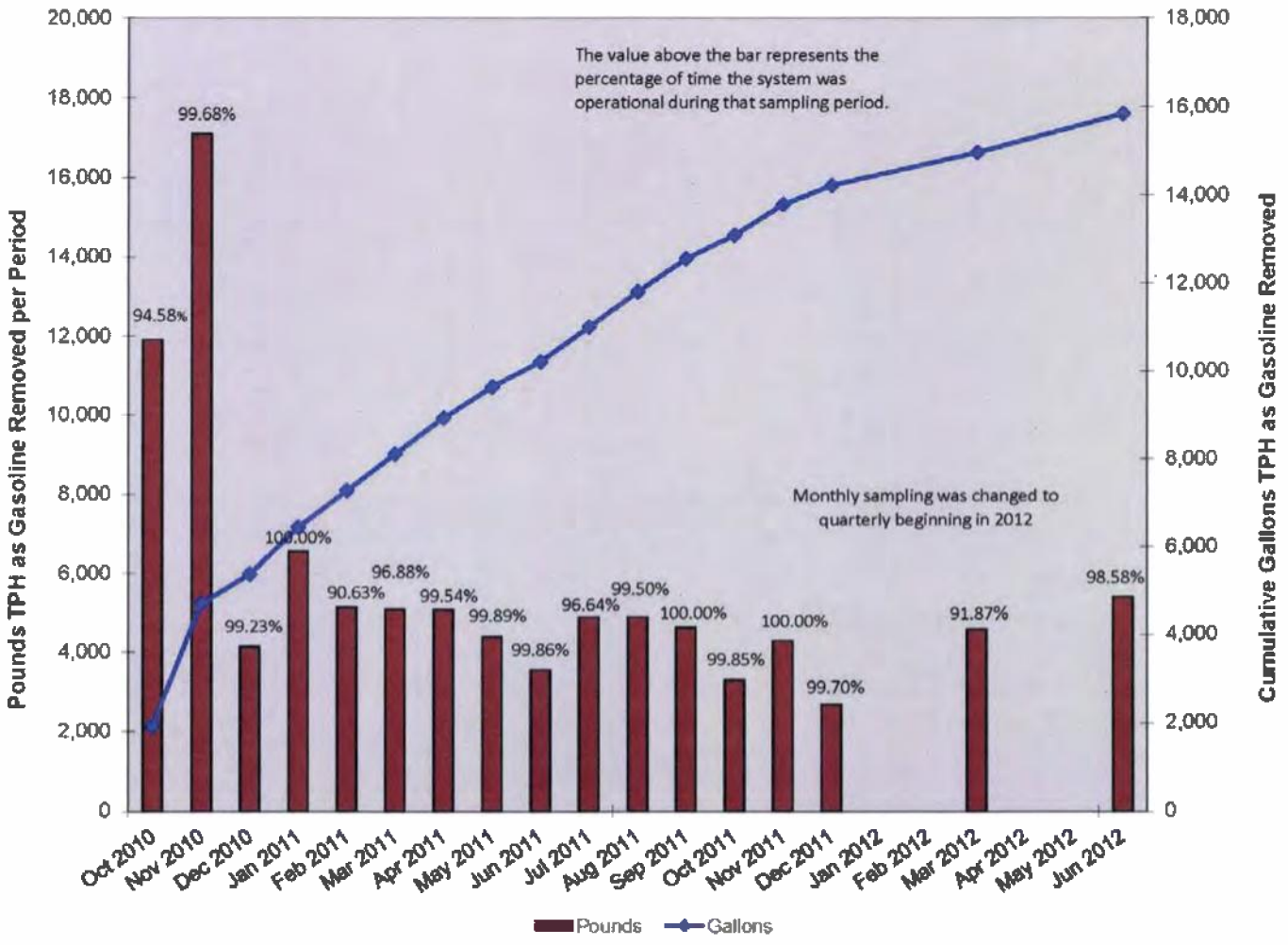


Site ST035 SVE System Update

April-June 2012

- 98.6% operational uptime
- Petroleum Hydrocarbons (PHC) removed – 878 gallons
- 7 of 15 SVE wells continue in operation

Site ST035 SVE System Performance



Site ST035 SVE System Summary

- Average mass removal of PHC stable to slightly declining as expected
- Nearly 16,000 gallons of PHC removed to date
- SVE system continues operation within permit emission requirements
- Next performance sampling August 2012

Site ST035 Path Forward

- In Well Air Stripping (IWAS) / Groundwater Characterization Work Plan under final ADEQ review
- Characterization and IWAS remedial action- Fall/Winter 2012
  - Planning and coordination-Aug-Sept 2012
  - Well Installation- Oct-Nov 2012
  - Well sampling-Jan-Feb 2013
- Continue SVE operation and groundwater monitoring
- Site closure under LUST regulation (R18-12-263.04)

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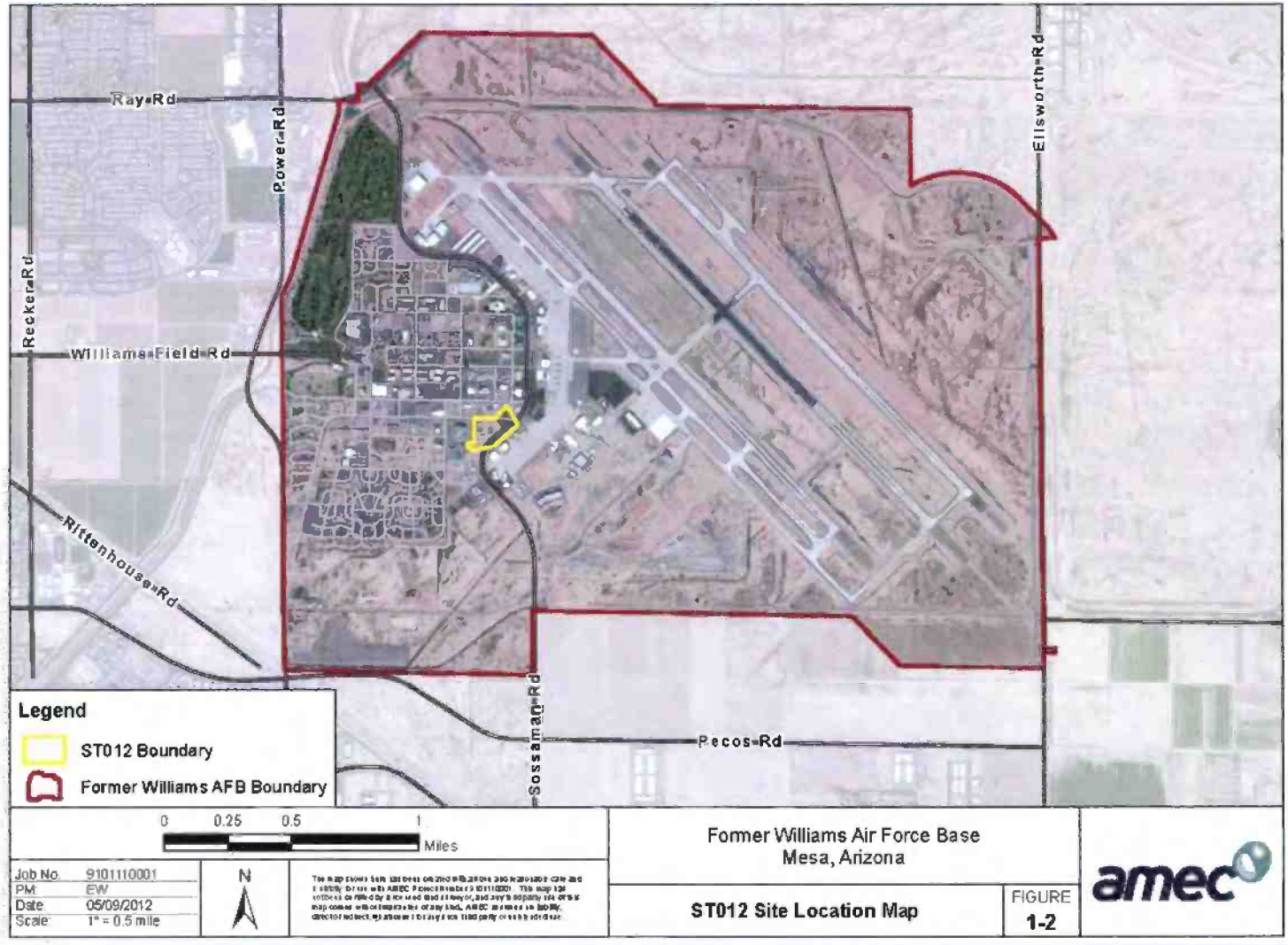
Site ST012, Former Liquid Fuels Storage Area

Site ST012 Location Map



Site ST012 Site Background

- Former liquid fuels storage operation
- 19 USTs and piping were removed in 1990
- COCs in soil and groundwater are petroleum hydrocarbons and benzene
- Shallow soil (< 25 feet deep) cleanup achieved: OU-2 ROD 1992
- Deep vadose zone soil (> 25 feet deep) currently being treated by SVE: OU-2 ROD 1992
- Groundwater pump and treat remedy ineffective
- Current water table at ~154 feet up from ~245 feet in 1978

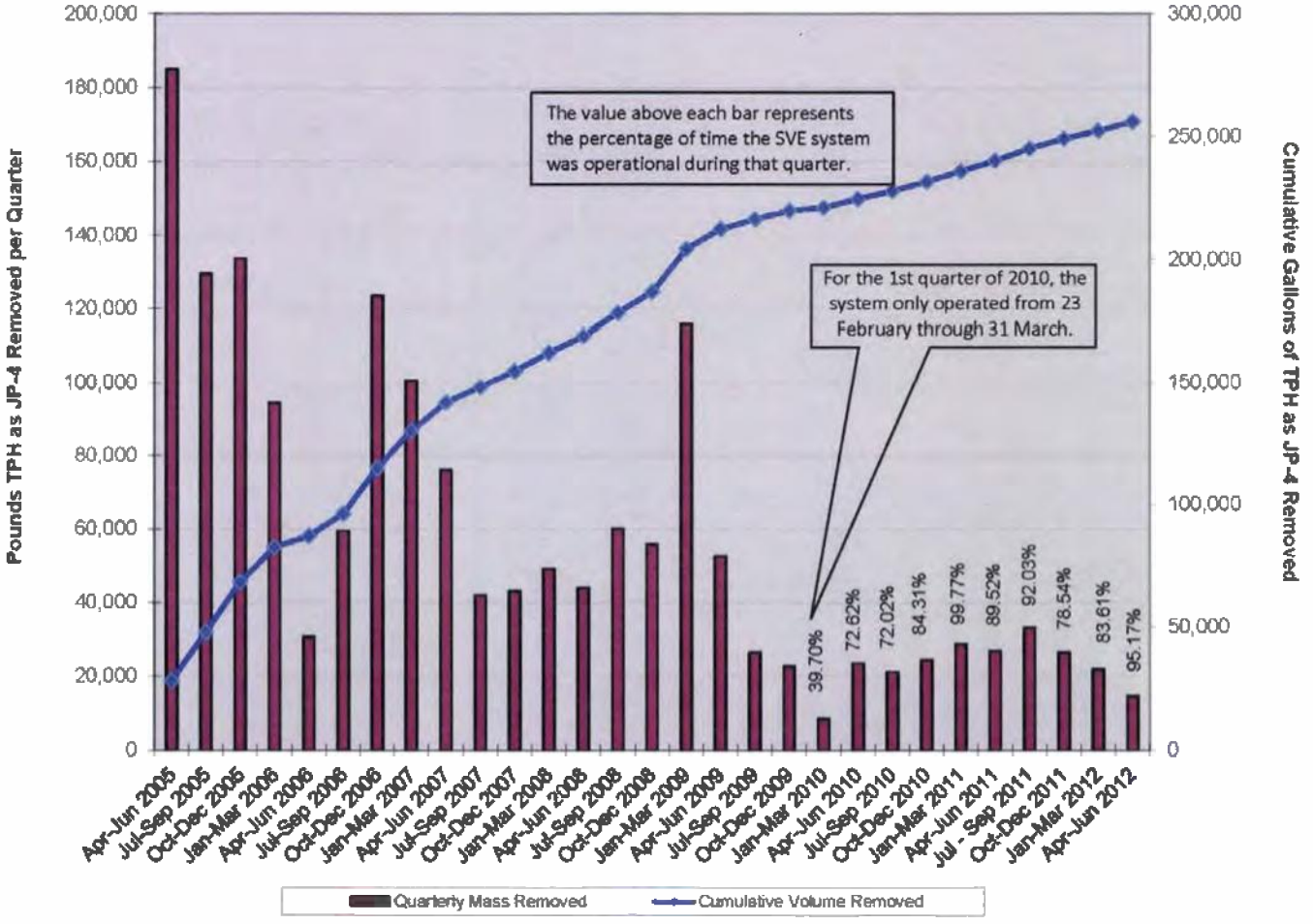
Site ST012 SVE System Update

April-June 2012

- 95% operational uptime
- PHC removed – 2,225 gallons
- 10 of 27 SVE wells are in operation

Site ST012 SVE System Performance Reporting

Figure 4-1. Hydrocarbon Mass Removal by SVE System



Site ST012 SVE System Summary

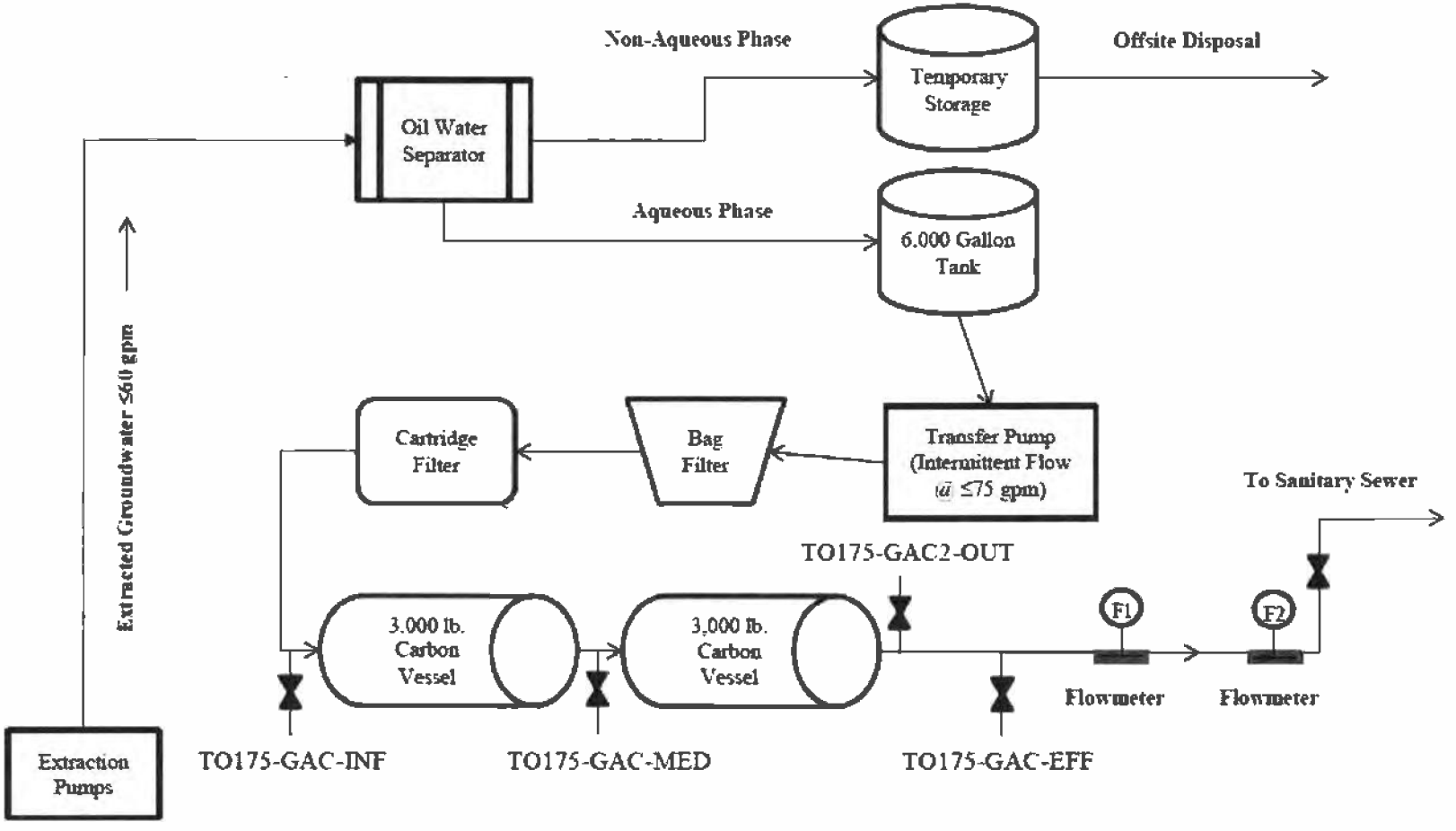
- Mass removal rate continues to decrease
- PHC removed to date – 256,000 gallons
- Next SVE performance monitoring August 2012

Site ST012 Groundwater Containment System

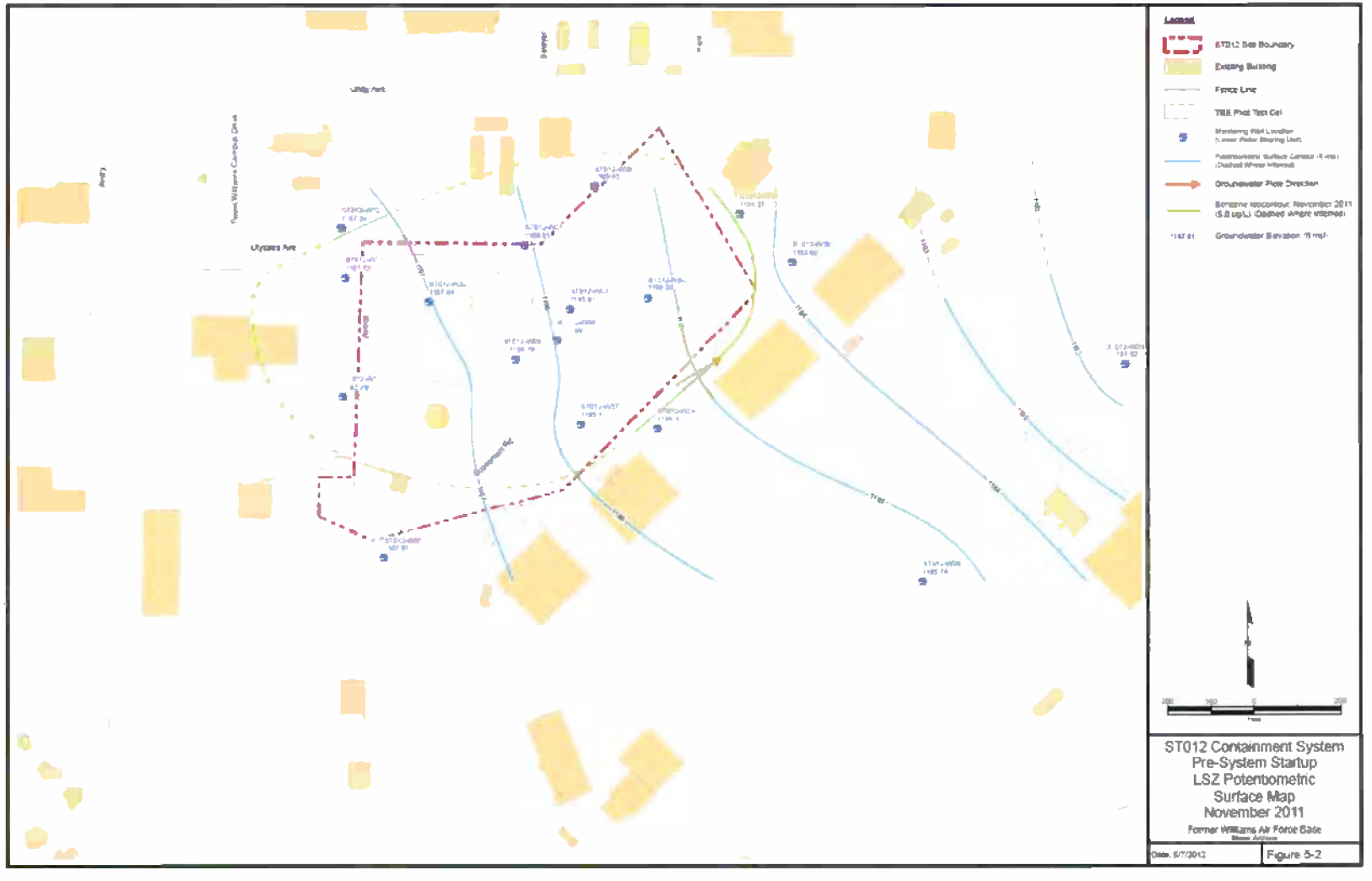
- Existing extraction wells and equipment configured to allow operation of a modified pump-and-treat system
- Lower Saturated Zone (LSZ) extraction wells targeted for pumping
- Containment system configuration initiated in Fall 2011
- Extraction operation began in January 2012

ST012 Groundwater Containment System

Process Flow Diagram

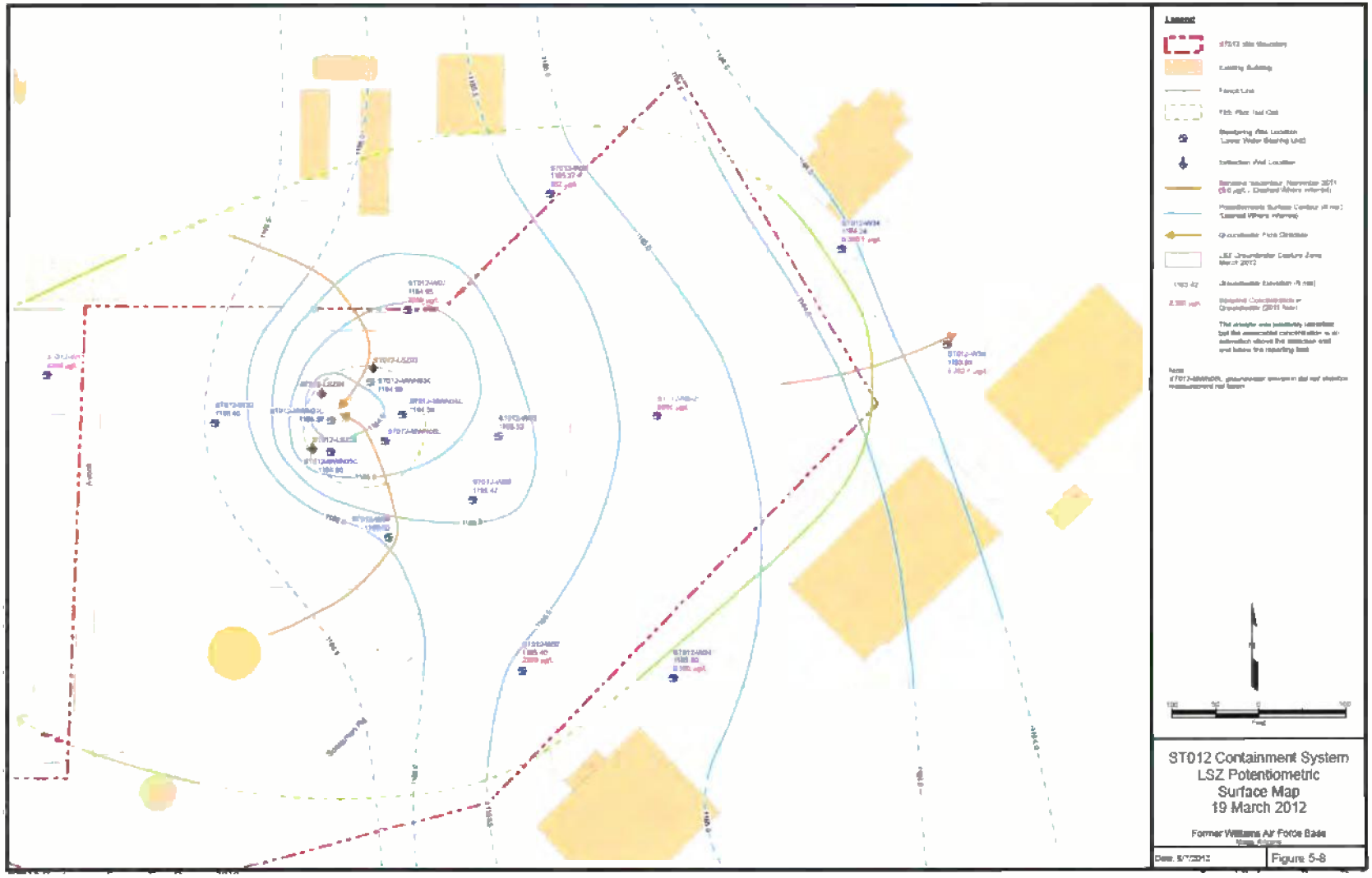


Site ST012 Groundwater Containment System
LSZ Potentiometric Surface Map
November 2011



Site ST012 Groundwater Containment System

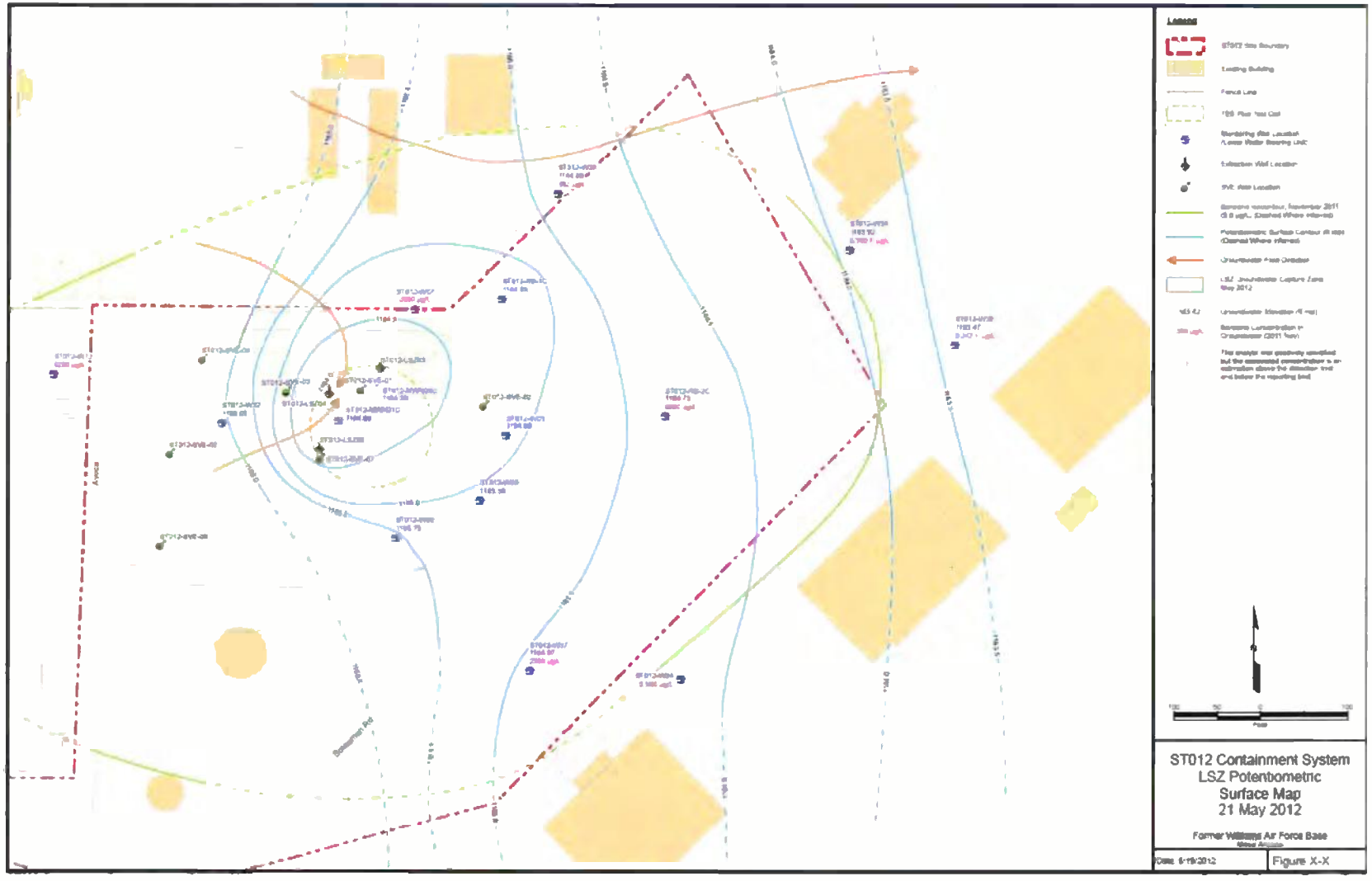
LSZ Potentiometric Surface Map March 2012



Site ST012 Groundwater Containment System

LSZ Potentiometric Surface Map

May 2012



Site ST012 Groundwater Containment System

- Extraction activities influence the potentiometric surface in LSZ
- 5.7 million gallons of groundwater extracted and treated from January through June 2012
- 110 pounds of benzene removed through June 2012

Site ST012 Path Forward

- Air Force preparing response to ADEQ/EPA comments on Focused Feasibility Study
- Proposed Plan/public comment – Winter 2012
- Record of Decision – Spring 2013
- Remedial Design/Remedial Action – Fall 2013
- Ongoing groundwater and SVE performance monitoring

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Contracting Updates

Presented by:
Ms. Michelle Lewis
AFCEE

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Meeting Wrap-Up

Presented by:
Mr. Len Fuchs/ Ms. Michelle Lewis
RAB Community Co-Chairmen
and Scott Johnston, Napkin Communications

Meeting Wrap-Up

- Review action items
- Call for agenda items for next RAB meeting
- Schedule next RAB meeting (Proposed date November 13, 2012)
- Meeting adjourned

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Meeting Adjourned

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE