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18 December 2012

MEMORANDUM FOR DISTRIBUTION

FROM: 60 CES/CEANR
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SUBJECT: Final 2012 Groundwater Sampling and Analysis Program Technical Memorandum, Travis Air Force Base, California

1. Enclosed for your records is the Final 2012 Groundwater Sampling and Analysis Program Technical Memorandum. Remedy design documents will be produced following remedy selection documented in the Final Basewide Groundwater Record of Decision. These remedy design documents will specify long-term groundwater monitoring requirements for each site, which will be developed with Stakeholder concurrence. The Groundwater Sampling and Anaylsis Program will implement the monitoring requirements for each site.

2. If you have any questions or require any further information, please contact Mr. Lonnie Duke either at (707) 424-7520, Lonnie.duke@us.af.mil, or at the address above.

Mark H. Smith

MARK H. SMITH
Chief, Environmental Restoration

Attachment:
Final 2012 Groundwater Sampling and Analysis Program Technical Memorandum, Travis Air Force Base, California

cc:
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TRAVIS AIR FORCE BASE
ENVIRONMENTAL RESTORATION PROGRAM

Final

2012 Groundwater Sampling and Analysis Program Technical Memorandum Travis Air Force Base, California

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Omaha District

60 CES
Travis Air Force Base, California

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CH2MHILL

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2012 Groundwater Sampling and Analysis Program Technical Memorandum, Travis Air Force Base, California

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California Department of Toxic Substances Control
San Francisco Bay Regional Water Quality Control Board

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Introduction

This technical memorandum provides the analytical data collected during the second quarter 2012 (2Q12) Groundwater Sampling and Analysis Program (GSAP) monitoring event, which was performed in April and May 2012, at Travis Air Force Base, California. As an optimization measure, stakeholders agreed to a change in the reporting schedule, which would allow the Annual GSAP and the Annual Remedial Process and Optimization (RPO) Reports to be combined. The combined Annual GSAP and RPO Report will include all data collected in 2012 and will be prepared in 1Q13. Because of the delay in the 2012 reporting schedule, this technical memorandum was produced to support selection of monitoring wells to be included in the 4Q12 GSAP monitoring event and to support the pending Travis AFB Groundwater Record of Decision (ROD).

Scope

The scope of this technical memorandum is as follows:

- Document well selection for the 4Q12 GSAP event in the absence of a 2011-2012 Annual GSAP Report. Data and tools used to support well selection (the 2Q12 GSAP event analytical results, a figure depicting the 2011 groundwater plumes, chemical time-series plots for primary site chemicals of concern (COCs), and Mann-Kendall trend analyses) are included in this technical memorandum.
- Document the results of a study of the nature of the pesticide contamination at Site LF008.
- Document an updated estimate of time to achieve preliminary cleanup goals for groundwater contamination at Site LF007D.

4Q12 GSAP Event

This technical memorandum provides a list of monitoring wells to be sampled and analyses to be performed during the 4Q12 GSAP monitoring event and the rationale for well selection. The sampling schedules for the semiannual GSAP events have historically been specified in the Annual GSAP Reports. However, the combined Annual GSAP and RPO Report will be produced in 1Q13, after the 4Q12 monitoring event has been performed. The shift in document scheduling necessitates documentation of well selection in this technical memorandum. Subsequent technical memorandums specifying semiannual sampling schedules will be unnecessary because the pending combined 2012 Annual GSAP/RPO Report will specify sampling schedules for the entire 2013 calendar year. The sampling schedule will be reviewed annually and documented in each Annual GSAP/RPO report.

Monitoring Well Selection

Table 1 lists the monitoring wells scheduled for sampling in 4Q12 and the analyses that will be performed at each well. In addition to the monitoring wells routinely sampled by the GSAP, Table 1 includes all monitoring wells that will be sampled in 4Q12 to support RPO performance monitoring.

Also provided in Table 1 is the reason the well is included in the semiannual event. With the exception of sites or portions of sites where RPO performance monitoring is ongoing, the Decision Tree presented on Figure 1 was used to determine sampling frequency for the monitoring wells. Sampling frequency is primarily determined based on the location of the monitoring well in relation to the plume and recent analytical results. The locations of the monitoring wells in relation to the 2011 groundwater plumes are depicted on Plate 1.

Attachment 1 provides the analytical results for the 2Q12 annual GSAP event (attachments are provided in electronic format on the CD located at the back of this document). Attachment 2 provides chemical time-series plots for the primary COCs at each site. The Mann-Kendall statistical analysis was performed on the current and historical analytical data for all site COCs detected at each monitoring well routinely sampled in the GSAP. Attachment 3 provides the Mann-Kendall trend analyses for the COCs at each site; wells with statistically significant trends in COC concentrations are listed. Wells for which no statistically significant trends were identified for any site COC are not listed in the attachment. Attachments 1 through 3 were used in conjunction with the Decision Tree and Plate 1 to determine which monitoring wells would be included in the 4Q12 semiannual event.

Differences between 4Q11 and 4Q12

Table 2 provides a summary of the differences between the 4Q11 and 4Q12 sampling events. Table 2 lists monitoring wells whose sampling frequencies have been modified since the 4Q11 sampling event. Some monitoring wells listed in Table 2 have been added and others have been deleted from the 4Q12 sampling event, depending on the change in sampling frequency. Wells listed in Table 2 whose sampling frequencies decreased from semiannual to annual have been removed from Table 1 and will not be sampled in 4Q12. Wells listed in Table 2 whose sampling frequencies increased from annual to semiannual have been added to Table 1, and will be sampled in the 4Q12 semiannual event. Table 2 also provides the reason the sampling frequency of the well changed. Note that not all wells listed in Table 1 are in Table 2. Only monitoring wells whose sampling frequencies have changed are listed in Table 2.

Although listed in Table 2, the sampling frequencies of the Site ST018 monitoring wells have not changed. Rather, the annual sampling for the Site ST018 monitoring wells has been moved up from 2Q13 to 4Q12 to facilitate a microorganism study being performed by the faculty of U.C. Davis. In addition to collecting routine GSAP samples (for volatile organic compounds [VOCs] and total petroleum hydrocarbon as gasoline [TPH-G]) at this site, the field crew will collect a set of groundwater samples at each well, which will be provided to U.C. Davis. These samples will be analyzed by U.C. Davis for microorganisms responsible for degrading methyl tert butyl ether [MTBE]. U.C. Davis will evaluate the data and provide Travis AFB with documentation on the study results.

Nature of Site LF008 Pesticide Contamination

Background

Site LF008, shown on Figure 2, is located in the northwestern portion of Travis AFB. Site LF008 contained multiple burial trenches used to dispose of approximately 30 cubic yards of pesticide containers during the 1970s. In 2003, nine (9) disposal trenches within Site LF008 were excavated, and the recovered debris was shipped offsite for disposal. Residual soil contamination was below the surface and subsurface residential soil cleanup levels established in the *West/Annexes/Basewide Operable Unit Soil Record of Decision* (Travis AFB, 2002). Soil remediation at Site LF008 is therefore complete (Shaw Environmental, Inc., 2004).

Four (4) pesticides (aldrin, heptachlor, alpha-chlordane, and heptachlor epoxide) were identified as groundwater COCs at Site LF008. Of these, alpha-chlordane has been the most widespread and consistently detected pesticide. Pesticides in groundwater at Site LF008 were addressed by an interim remedial action (IRA) of groundwater extraction and treatment (GET) from 2000 through 2008. In December 2008, the three (3) Site LF008 extraction wells were taken offline, and a rebound study was initiated.

Figure 3 shows the alpha-chlordane groundwater plume in 2003 (when groundwater extraction began), in 2008 (when groundwater extraction ceased), in 2010, and in 2012. As Figure 3 illustrates, during the 7.5 years of operation, the Site LF008 GET system had minimal impact on the pesticide concentrations at the site. During GET system operation, pesticide concentrations remained stable and the extent of groundwater contamination remained unchanged. However, once GET ceased, the extent of the pesticide plume decreased. In 2012, the pesticide alpha-chlordane was detected in only two (2) wells at concentrations exceeding the interim remediation goal (IRG) of 0.1 microgram per liter (µg/L). During the 2Q12 sampling event, alpha-chlordane was the only pesticide detected.

Study

The ineffectiveness of the GET system and lack of rebound was thought to be due to the strong sorption of pesticides to the fine-grained sediments present at the site. The organic carbon/water partition coefficient (K_{oc}), which describes how strongly a chemical sorbs to soil material, is extremely high (86,650 milliliters per gram [mL/g]). The alpha-chlordane K_{oc} is approximately 1,000 times higher than the K_{oc} for trichloroethene (TCE), which is 67 mL/g. However, alpha-chlordane's high K_{oc} did not explain why the plume would rapidly decrease in extent over a period of a few years once the GET system was shut down. Given the high K_{oc}, it would be expected for the groundwater plume to remain stable for decades.

The Air Force hypothesized that the pesticides at Site LF008 are not dissolved in groundwater but rather sorbed to fine clay particles that are captured in the groundwater samples collected at the site. To test this hypothesis, two (2) sets of groundwater samples were collected at Site LF008 during the 2Q12 GSAP monitoring event.

The data quality objective for this study is as follows:

- Collect representative filtered and unfiltered groundwater samples to determine whether there is a difference in pesticide concentrations detected in filtered versus unfiltered groundwater.

Therefore, in 2Q12, groundwater samples were collected using the low-flow purging and sampling technique, in accordance with, and met all quality metrics contained in, the Travis AFB *Field Sampling Plan* (CH2M HILL, 2009a). Sampling and analytical procedures followed and met all quality metrics contained in the *Analytical Quality Assurance Project Plan for Remedial Design/Remedial Action, Long-term Monitoring, and Long-term Operation Programs, Revision 2* (CH2M HILL, 2009b) and are consistent with those historically employed at Site LF008.

The low-flow sampling technique, also referred to as micro-purging, was selected for the following reasons:

- It is consistent with the method historically used at the site and therefore supports data comparability.
- It causes minimal disturbance to the aquifer, allowing collection of a representative groundwater sample.
- It is most representative of the only route of exposure (extracting groundwater for drinking water use).

One (1) set of samples was field filtered with a 0.45-micron in-line filter, and the other set of samples was not. Both sets of samples were sent to the laboratory and analyzed for pesticides by Method SW8081. Alpha-chlordane was the only pesticide detected. The alpha-chlordane detections in the filtered and non-filtered samples are summarized below:

Well	Non-filtered Alpha-chlordane Concentration (µg/L)	Filtered Alpha-chlordane Concentration (µg/L)	Turbidity (NTU)	Drawdown during Purging (feet)
EW719x08	0.01 U	0.01 U	109	NA
EW720x08	**0.28**	0.01 U	7.4	NA
EW721x08	**0.2**	0.01 U	222	NA
MW114x08	0.049	0.01 U	9.8	3.27
MW115x08	0.058/0.053 (field duplicate)	0.01/0.01 (field duplicate) U	0	0.77
MW311x08	0.01 U	0.01 U	0.4	0.01
MW712x08	0.01 U	0.01 U	0	1.03
MW714x08	0.01 U	0.01 U	4.7	1.26
MW717x08	0.057	0.0041 J	0	2.5

Notes:

Bolded numbers exceed IRG (0.1 µg/L).
J flag is estimate.
U flag is non-detect; the reporting limit (0.01 µg/L) is provided for non-detect values.

NA = No water level could be taken because it is an extraction well without a port for water level measurements.
NTU = nephelometric turbidity unit(s)

Alpha-chlordane was detected in six (6) of the non-filtered samples collected, but was detected in only one (1) of the filtered samples collected. The alpha-chlordane concentration detected in the filtered sample collected from well MW717x08 was a trace level (0.0041 J µg/L), an order of magnitude lower than the concentration detected in the non-filtered sample (0.057 µg/L). Both detections were below the IRG (0.1 µg/L).

Alpha-chlordane concentrations only exceeded the IRG in unfiltered samples collected from two (2) wells: EW720x08 and EW721x08. The maximum concentration detected was 0.28 µg/L, approximately three (3) times the IRG. Alpha-chlordane was not detected in the filtered samples collected from either well.

The filtered sample results demonstrate that the pesticides are not dissolved in the groundwater at concentrations exceeding IRGs. The only difference between the filtered and non-filtered groundwater samples was the presence of fine, suspended solids in the unfiltered samples. Thus, the difference in pesticide concentrations detected between the filtered and non-filtered sample detections is due to the presence of suspended solids in the non-filtered samples. As indicated by alpha-chlordane's high K_{oc}, the pesticide is more likely to bind to soil particles then dissolve in groundwater.

Turbidity was one of the field parameters monitored during well purging; the turbidity measurements recorded are listed above, along with the alpha-chlordane analytical results. Turbidity was low (less than ten [10] NTUs) at all but two (2) wells sampled (EW719x08 and EW721x08). Comparison of turbidity to the non-filtered alpha-chlordane results does not indicate a clear relationship between turbidity and alpha-chlordane concentrations detected. Well EW721x08, with the highest turbidity measurement (222 NTU) had a non-filtered alpha-chlordane concentration of 0.2 µg/L detected (above the IRG). However, alpha-chlordane was not detected at EW119x08, where the turbidity measured was 109 NTU. The only other well with non-filtered alpha-chlordane concentrations exceeding the IRG was EW720x08, where the turbidity measured was low (7.4 NTU).

The lack of correlation between the turbidity measurements and the non-filtered sample results indicate that sample location (proximity to pesticide source) as well as the amount of suspended sediment in the samples collected affects the non-filtered sampling results.

The objective of low-flow sampling is to minimize disturbance of the aquifer during sampling collection to obtain a representative groundwater sample. Drawdown, in addition to other field parameters, is measured to monitor stress to the aquifer while purging. The amount of drawdown recorded during purging for each of the monitoring wells is listed above, along with the turbidity measurements. Measured drawdown ranged from 0.01 to 3.27 feet. Turbidity measurements of less than 10 NTUs at these wells indicate the aquifer was not overstressed during sampling. Drawdown could not be measured in the extraction wells, which do not have a port for the water level meter.

Study Conclusions

The results of this study indicate that pesticides are bound to the fine-grained sediments at Site LF008 rather than dissolved in the groundwater. GET cannot be an effective remedy, and in fact, appears to be counterproductive. Extracting groundwater mobilizes the fine-grained sediments and results in pesticide detections over a larger area. Under static conditions, because of the high K_{oc} and fine-grained sediments, the pesticides will not migrate.

Remedial Approach

The information obtained during this study will be used to support remedy selection in the pending Travis AFB Groundwater ROD. Site LF008 soil meets residential soil cleanup levels; however, low concentrations of pesticides (primarily alpha-chlordane) remain bound to saturated site sediments. While the concentrations in sediments are below residential soil cleanup levels, when the sediments become entrained in a groundwater sample, the concentrations detected may exceed groundwater IRGs. GET has been demonstrated to be an ineffective groundwater remedy at this site. However, a technical impracticability (TI) waiver is not applicable to this site because it is the saturated sediments rather than groundwater that are contaminated.

Because of the high K_{oc} of pesticides and the high clay content of the site sediments, pesticides are not migrating and are confined to a small area (Figure 4). The only route of exposure to pesticides at this site is consuming unfiltered groundwater. The potential for exposure can be eliminated by imposing land use controls (LUCs) requiring extracted groundwater to be filtered prior to use. LUCs will not be difficult to maintain at Site LF008 because the site is fenced in and a military escort is required for site access. In addition to the physical barriers to site access, the hydraulic conductivity at the site is so low that it is highly unlikely to be used as a drinking water source.

Estimated Time to Achieve Preliminary Cleanup Goals at Site LF007D

Background

Site LF007, former Landfill No. 2, is located in the northeastern portion of Travis AFB. Site LF007 is divided into three (3) study areas designated as Areas LF007B, LF007C, and LF007D. As shown on Figure 4, Site LF007D is located within the footprint of the Base Corrective Action Management Unit (CAMU). The IRA for groundwater at Site LF007D is monitored natural attenuation (MNA).

Currently, only two (2) Site LF007D COCs exceed groundwater IRGs: 1,4-dichlorobenzene (DCB) and benzene. Both COCs exceed IRGs at only one (1) monitoring well, MW261x07. 1,4-DCB concentrations have been declining over time at MW261x07 and the extent of 1,4-DCB contamination at Site LF007D has also decreased over time (Figure 5). In 2Q12, well MW261x07 was the only well at which 1,4-DCB was detected. The concentration detected was 15.4 µg/L; the maximum historical detection at this well was 39 µg/L in 2001. The IRG for 1,4-DCB is 5 µg/L . While 1,4-DCB concentrations have declined over time, benzene concentrations have remained stable at 2 to 3 µg/L at this well. The IRG for benzene is 1 µg/L.

During the 1,4-DCB biodegradation process, 1,4-DCB degrades to chlorobenzene, and chlorobenzene degrades to benzene. This degradation pathway is likely contributing to the relatively constant concentrations of benzene observed in the site groundwater. Once the 1,4-DCB source has been depleted, benzene concentrations are expected to decline through either biological or physical attenuation processes, or a combination of both.

The differences in attenuation of these two (2) chemicals at this monitoring well are attributable to the geochemical conditions near this well. As discussed in the Natural Attenuation Assessment Report (NAAR) (CH2M HILL, 2010), geochemical parameters indicate anaerobic conditions near MW261x07, which are conducive to the biodegradation of chlorinated compounds, such as 1,4-DCB. However, anaerobic conditions are not conducive to biodegradation of fuel hydrocarbon constituents (such as benzene). This has resulted in the degradation of 1,4-DCB while the benzene concentrations remain relatively stable. Interestingly, geochemical conditions across the rest of the site are aerobic.

Because benzene concentrations exhibit only a very slight long-term decreasing trend, the estimated time to achieve preliminary cleanup goals at Site LF007D, documented in Appendix D of the Basewide Groundwater Focused Feasibility Study (FFS) (CH2M HILL, 2011), was greater than 100 years. This estimate was based on the assumption that the rate of benzene attenuation would remain constant, which is unlikely. This assumption has resulted in an overly conservative time estimate. The time estimate has been reviewed and revised as described in the following subsection.

Revised Time Estimate

The following assumptions were made to support the revised time estimate:

- 1,4-DCB concentrations will continue to attenuate under anaerobic conditions until concentrations have declined below the IRG (5 µg/L).
- Conditions near MW261x07 will become aerobic, consistent with conditions across the rest of Site LF007D. An anaerobic zone in the vicinity of MW261x07 has developed because of the presence of relatively high total organic carbon (TOC) near this well. TOC was detected at a concentration of 211 milligrams per liter (mg/L) in 2008; TOC concentrations at the rest of the Site LF007D wells were less than 30 mg/L (CH2M HILL HILL, 2010). TOC provides a carbon source for the anaerobic bacteria and drives the dechlorination process. However, TOC is consumed by the anaerobic bacteria, and once the TOC has been depleted to levels similar to the rest of Site LF007D (less than 20 mg/L), insufficient carbon will remain to support the anaerobic bacteria and conditions will revert to aerobic. Historical detections of TOC at MW261x07 are provided in Table 2. There is not an extensive record of TOC data for MW261x07, but available data indicate that the TOC concentrations measured at MW261x07, although variable, are consistently higher than those detected in other areas of the site (all historical TOC data for Site LF007 monitoring wells are provided in Attachment 4). While available data do not indicate a clear declining TOC trend at MW261x07, the TOC concentration detected in the most recent sample (211 mg/L in November 2008) is lower than the initial TOC concentration detected at the well in September 1997 (251 mg/L). Changes between aerobic and anaerobic conditions, driven by the presence or lack of TOC, have been demonstrated at Travis AFB Sites DP039, SS016, SS015, SD036, and SD037 where TOC has been artificially increased by injection of emulsified vegetable oil (EVO) and/or installation of a bioreactor. Elevated TOC has resulted in anaerobic conditions developing, but where TOC is depleted, aerobic conditions predominate.
- Benzene will readily degrade under aerobic conditions.
- Benzene attenuation rates will be similar to those at aerobic Site ST032. This assumption is considered reasonable because of the similarities in the hydrogeology at both sites (soil boring logs for both sites are provided in Attachment 5). The near surface geology at both sites consists of fine-grained alluvium overlying sedimentary bedrock. The alluvium at both sites consists primarily of silts and clays that are low in permeability and do not transmit groundwater readily. Lenses of more permeable sands occur within the primarily fine-grained matrix. Groundwater conditions at both sites are primarily aerobic. At Site LF007C, the only monitoring well to currently exhibit anaerobic conditions is MW261x07.
- The estimated time to achieve preliminary cleanup goals is the time it takes 1,4-DCB concentrations to reach 5 µg/L plus the time it takes benzene concentrations to reach 1 µg/L.

1,4-DCB

The time for 1,4-DCB to reach the preliminary cleanup goal of 5 µg/L was estimated in the NAAR (CH2M HILL, 2010) by calculating an attenuation rate constant for 1,4-DCB at well MW261x07. Concentration vs. time attenuation (or point attenuation) rates can be calculated for individual wells as described in Calculation and Use of First-Order Rate Constants for Monitored Natural Attenuation Studies (U.S. Environmental Protection Agency [EPA], 2002). The point attenuation rate can be used to evaluate reduction in contaminant concentration over time at a single point and can further be used to estimate the time needed to reach preliminary cleanup goals at that point. As documented in the NAAR, 1,4-DCB concentrations are expected to reach 5 µg/L in 2029. Assuming a start date of 2010 (a baseline consistent with the time estimates for the other groundwater sites included in the FFS), the estimated time to achieve the 1,4-DCB preliminary cleanup goal is 19 years.

Benzene

The same approach can be applied to benzene data to calculate benzene attenuation rate constants and estimate a time frame for meeting the benzene preliminary cleanup goal (1 µg/L). However, benzene attenuation rates under aerobic conditions cannot be calculated with Site LF007D data because benzene detections are limited to one (1) monitoring well where conditions are anaerobic. Therefore, it is necessary to use benzene data collected from an aerobic site, such as Site ST032, to calculate attenuation rates representative of aerobic conditions. Site ST032 was selected because the primary groundwater COC at this site is benzene and the site is aerobic.

Data from three (3) Site ST032 wells (MW246x32, MW1026x32, and MW1028x32) were used to calculate benzene attenuation rate constants. These wells were selected because they have a long history of benzene detections (rather than sporadic detections or very rapid concentration declines). The calculated attenuation rate constants, which are a function of the slope of the benzene concentration trendlines, ranged from 0.28 to 0.45 per year. The most conservative of the attenuation rate constants (0.28 per year), derived for well MW246x32 (Figure 6), was selected to estimate the time required to achieve the preliminary cleanup goal (1 µg/L) at well MW261x07 once aerobic conditions are established. Derivation of the attenuation rate constants for wells MW1026x32 and MW1028x32 are provided in Attachment 6.

The attenuation rate constant can be used to calculate the time it takes for contaminant concentrations to reach a concentration goal as follows:

$$\text{Time} = \frac{-\text{LN}\ (C_{goal}/C_{start})}{\text{rate constant}}$$

Where:

LN = the natural logarithm
C_{goal} = preliminary cleanup goal
C_{start} = starting concentration

Benzene concentrations at MW261x07 range from 2 to 3 µg/L. Assuming a starting concentration of 3 µg/L and an attenuation rate constant of 0.28 per year, it is estimated that it will take 4 years for benzene concentrations at MW261x07 to reach the preliminary cleanup goal (1 µg/L).

Total Estimated Time to Achieve Preliminary Cleanup Goals

The revised estimated time frame to achieve preliminary cleanup goals for both 1,4-DCB and benzene at Site LF007D is 23 years (19 years for 1,4-DCB and an additional 4 years for benzene).

If conditions at well MW261x07 do not change from anaerobic to aerobic once 1,4-DCB has been degraded and benzene biodegradation does not occur as assumed in the estimate above, the benzene physical attenuation rate can be estimated using the same flushing calculation used in the FFS time to cleanup estimates. The flushing calculation estimates the amount of time required to flush sufficient amounts of clean groundwater through the plume before the cleanup goal can be met.

The time for benzene concentrations to achieve cleanup goals at MW261x07 can be estimated using the formula (van der Molen, 1973):

$$t = \frac{-\text{LN}\ ({}^{Ct}/_{Co})}{({}^{f}/_{T} + k)}$$

Where:

Ct = benzene preliminary cleanup goal (1 µg/L)

Co = initial (i.e., recent) COC concentration at MW261x07

f = flushing efficiency (a function of aquifer permeability)

T = time to flush one pore volume of clean water through the groundwater plume (distance between MW261x07 and clean water/groundwater velocity)

k = first-order biodegradation rate constant (assumed to be zero if biodegradation is not occurring)

t = time required to reduce a Co to Ct at MW261x07

Assuming a benzene starting concentration of 3 µg/L, a flushing efficiency of 0.4 (consistent with those used in the FFS estimates for sites with lower permeability aquifers), a distance of 150 feet between clean groundwater (benzene concentrations less than 1 µg/L) and well MW261x07, a groundwater velocity of 150 feet per year (CH2M HILL, 2010), and a biodegradation rate constant of zero, the estimated time for benzene to reach the preliminary cleanup goal at MW261x07 is approximately 4 years.

Because the biodegradation of 1,4-DCB is likely contributing to the stable benzene concentrations at MW261x07, 1,4-DCB concentrations must decrease to 1 µg/L (the benzene MCL) before benzene concentrations can be expected to achieve the MCL. Using the same attenuation rate constant calculated for 1,4-DCB in the NAAR, the estimated time for 1,4-DCB concentrations to reach the benzene MCL of 1 µg/L is 45 years. Derivation of the 1,4-DCB time to cleanup estimate is provided in Attachment 6.

Therefore, in the absence of aerobic biodegradation of benzene, the estimated time frame to achieve preliminary cleanup goals for both 1,4-DCB and benzene is a 49 years (45 years for 1,4-DCB and 4 years for benzene). The estimated time to achieve preliminary cleanup goals at Site LF007D can be bracketed in the range of approximately 23 to 49 years, depending on the natural attenuation mechanisms active at the site. This revised time estimate range will be used to support remedy selection in the pending Travis AFB Groundwater ROD.

References

CH2M HILL. 2011. *Basewide Groundwater Focused Feasibility Study*. Prepared for Travis Air Force Base, California. Final. October.

CH2M HILL. 2010. *Natural Attenuation Assessment Report.* Prepared for Travis Air Force Base, California. Final. July.

CH2M HILL. 2009a. *Field Sampling Plan.* Prepared for Travis Air Force Base, California. Final. November.

CH2M HILL. 2009b. *Analytical Quality Assurance Project Plan for Remedial Design/Remedial Action, Long-term Monitoring, and Long-term Operation Programs, Revision 2*. Prepared for Travis Air Force Base, California. Final. July.

Radian. 1996. *North/East/West Industrial Operable Unit Remedial Investigation*. Travis Air Force Base, California. Final. July.

Shaw Environmental, Inc. 2004. *Remedial Action Report for West/Annexes/Basewide Operable Unit, Soil Remedial Action at Site LF008, Travis Air Force Base, California.* Final. May.

Travis Air Force Base. 2002. *West/Annexes/Basewide Operable Unit Soil Record of Decision.* Travis Air Force Base, California. Final. December.

U.S. Environmental Protection Agency (EPA). 2002. Calculation and Use of First-order Rate Constants for Monitored Natural Attenuation Studies. November.

van der Molen, W.H. 1973. “Salt Balance and Leaching Requirement.” In *Drainage Principles and Applications Vol. II, Theories of Field Drainage and Watershed Runoff.* International Institute for Land Reclamation and Improvement, Wageningen, Netherlands.

TABLE 1

Monitoring Wells Scheduled for the 4Q12 Event

2012 GSAP Technical Memorandum, Travis Air Force Base, California

		Analyses																				
Action or Site	**Well**	**VOCs (SW8260B)**	**Pesticides (SW8081A)**	**TPH-D (SW8015B-E)**	**TPH-G (SW8015B-P)**	**PCBs (SW8082)**	**PAHs (SW8270C-SIM)**	**Dioxins (SW8290)**	**SVOCs (SW8270)**	**Dissolved Metals: Sb, Cd, Cr, Cu, Pb (SW6010B/SW6020)**	**Dissolved Metals: Fe, Mn (SW6010B)**	**Methane, Ethane, Ethene (RSK-175)**	**TOC (SW9060)**	**DOC (SW9060)**	**Volatile Fatty Acids (E300M)**	**Nitrate/Nitrite, Sulfate, and Chloride (E300.1)**	**Sulfate and Chloride (E300.1)**	**Sulfide (SW9030B)**	**Alkalinity (E310.1)**	**Sulfate (SW9056)**	**TDS (E160)**	**Ferrous Iron (Hach Method 8146)**
ERP Sites																						
FT004/SD031	MW585x04	X																				
	MW587x04	X																				
	MW591x04	X																				
	EW565x31	X																				
	EW566x31	X																				
LF007	MW261x07	X	X			X	X	X	X	X												
	MW2163x07	X																				
	MW2169x07	X																				
	MW2170x07	X																				
	MW2171x07	X																				
LF008	MW01x08		X																			
SS015	IW2126x15	X									X	X	X							X	X	
	IW2127x15	X									X	X	X							X	X	
	IW2128x15	X									X	X	X							X	X	
	MW104x15	X																				
	MW105x16	X																				
	MW216x15	X									X	X	X							X	X	
	MW238x15	X																				
	MW306x15	X																				
	MW625x15	X																				
	MW2103x15	X																				
	MW2106x15	X																				
	MW2124x15	X																				
	MW2129x15	X									X	X	X							X	X	
	MW2131x15	X																				
	MW2132x15	X									X	X	X							X	X	

TABLE 1

Monitoring Wells Scheduled for the 4Q12 Event

2012 GSAP Technical Memorandum, Travis Air Force Base, California

		Analyses																				
Action or Site	**Well**	**VOCs (SW8260B)**	**Pesticides (SW8081A)**	**TPH-D (SW8015B-E)**	**TPH-G (SW8015B-P)**	**PCBs (SW8082)**	**PAHs (SW8270C-SIM)**	**Dioxins (SW8290)**	**SVOCs (SW8270)**	**Dissolved Metals: Sb, Cd, Cr, Cu, Pb (SW6010B/SW6020)**	**Dissolved Metals: Fe, Mn (SW6010B)**	**Methane, Ethane, Ethene (RSK-175)**	**TOC (SW9060)**	**DOC (SW9060)**	**Volatile Fatty Acids (E300M)**	**Nitrate/Nitrite, Sulfate, and Chloride (E300.1)**	**Sulfate and Chloride (E300.1)**	**Sulfide (SW9030B)**	**Alkalinity (E310.1)**	**Sulfate (SW9056)**	**TDS (E160)**	**Ferrous Iron (Hach Method 8146)**
SS016	EW03x16	X									X	X		X			X		X			
	TPE-W	X									X	X		X			X		X			
	MW608x16	X																				
	MW1712x16	X																				
	MW2022x16	X									X			X								
	MW2020Ax16	X									X	X		X			X		X			
	MW2023x16	X																				
	MW2026x16	X										X		X			X		X			
	MW2109x16	X									X	X		X			X		X			
	MW2110x16	X										X		X			X					
	MW2112Ax16	X									X	X		X			X		X			
	MW2112Bx16	X									X	X		X			X		X			
ST027	MW278x27	X		X	X																	
	MW791x27	X		X	X																	
	MW794x27	X		X	X																	
	MW2009x27	X		X	X																	
FT005/SS029/SS030	EW01x05	X																				
	EW03x05	X																				
	EW731x05	X																				
	EW732x05	X																				
	EW733x05	X																				
	EW736x05	X																				
	EW737x05	X																				
	EW742x05	X																				
	EW743x05	X																				
	EW744x05	X																				
	EW745x05	X																				
	EW746x05	X																				
	MW766x05	X																				

TABLE 1

Monitoring Wells Scheduled for the 4Q12 Event

2012 GSAP Technical Memorandum, Travis Air Force Base, California

		Analyses																				
Action or Site	**Well**	**VOCs (SW8260B)**	**Pesticides (SW8081A)**	**TPH-D (SW8015B-E)**	**TPH-G (SW8015B-P)**	**PCBs (SW8082)**	**PAHs (SW8270C-SIM)**	**Dioxins (SW8290)**	**SVOCs (SW8270)**	**Dissolved Metals: Sb, Cd, Cr, Cu, Pb (SW6010B/SW6020)**	**Dissolved Metals: Fe, Mn (SW6010B)**	**Methane, Ethane, Ethene (RSK-175)**	**TOC (SW9060)**	**DOC (SW9060)**	**Volatile Fatty Acids (E300M)**	**Nitrate/Nitrite, Sulfate, and Chloride (E300.1)**	**Sulfate and Chloride (E300.1)**	**Sulfide (SW9030B)**	**Alkalinity (E310.1)**	**Sulfate (SW9056)**	**TDS (E160)**	**Ferrous Iron (Hach Method 8146)**
FT005/SS029/SS030 (continued)	EW03x29	X																				
	MW04x29	X																				
	MW329x29	X																				
	MW1031x29	X																				
	MW1032x29	X																				
	MW1043x29	X																				
	PZ01Dx29	X																				
	PZ01Sx29	X																				
	MW03x30	X																				
	MW05x30	X																				
	MW2001Ax30	X																				
	MW2001Bx30	X																				
	DWSET1x30	X																				
WIOU	EW501x33	X																				
	EW503x33	X																				
	MW502x33	X																				
	EW01x34	X																				
	EW03x34	X																				
	EW593x36	X																				
	EW595x36	X																				
	EW594x36	X																				
	IW2133x36	X									X	X	X							X	X	
	IW2134x36	X									X	X	X							X	X	
	IW2135x36	X									X	X	X							X	X	
	IW2136x36	X									X	X	X							X	X	
	IW2137x36	X									X	X	X							X	X	
	IW2138x36	X									X	X	X							X	X	
	IW2139x36	X									X	X	X							X	X	
	IW2140x36	X									X	X	X							X	X	

TABLE 1

Monitoring Wells Scheduled for the 4Q12 Event

2012 GSAP Technical Memorandum, Travis Air Force Base, California

		Analyses																				
Action or Site	**Well**	**VOCs (SW8260B)**	**Pesticides (SW8081A)**	**TPH-D (SW8015B-E)**	**TPH-G (SW8015B-P)**	**PCBs (SW8082)**	**PAHs (SW8270C-SIM)**	**Dioxins (SW8290)**	**SVOCs (SW8270)**	**Dissolved Metals: Sb, Cd, Cr, Cu, Pb (SW6010B/SW6020)**	**Dissolved Metals: Fe, Mn (SW6010B)**	**Methane, Ethane, Ethene (RSK-175)**	**TOC (SW9060)**	**DOC (SW9060)**	**Volatile Fatty Acids (E300M)**	**Nitrate/Nitrite, Sulfate, and Chloride (E300.1)**	**Sulfate and Chloride (E300.1)**	**Sulfide (SW9030B)**	**Alkalinity (E310.1)**	**Sulfate (SW9056)**	**TDS (E160)**	**Ferrous Iron (Hach Method 8146)**
WIOU (continued)	MW2031Ax36	X									X	X	X							X	X	
	MW2031Bx36	X									X	X	X							X	X	
	MW2033Ax36	X									X	X	X							X	X	
	MW2034Ax36	X									X	X	X								X	
	MW2034Bx36	X									X	X	X								X	
	MW2061Ax36	X										X	X							X	X	
	MW2061Bx36	X										X	X							X	X	
	MW2064Ax36	X									X	X	X								X	
	MW2064Bx36	X									X	X	X								X	
	MW2065x36	X										X	X							X	X	
	MW2075Ax36	X																				
	MW2075Bx36	X																				
	MW2107Ax36	X																				
	MW2107Bx36	X																				
	PZ550Cx36	X									X	X	X								X	
	EW510x37	X																				
	EW511x37	X																				
	EW599x37	X									X		X							X	X	
	EW701x37	X									X		X								X	
	EW702x37	X																				
	EW703x37	X																				
	EW704x37	X																				
	EW705x37	X																				
	EW706x37	X																				
	EW707x37	X																				
	IW2094x37	X									X	X	X							X	X	
	IW2095x37	X									X	X	X							X	X	
	IW2096x37	X									X	X	X							X	X	
	IW2097x37	X									X	X	X							X	X	

TABLE 1
Monitoring Wells Scheduled for the 4Q12 Event
2012 GSAP Technical Memorandum, Travis Air Force Base, California

		Analyses																				
Action or Site	**Well**	**VOCs (SW8260B)**	**Pesticides (SW8081A)**	**TPH-D (SW8015B-E)**	**TPH-G (SW8015B-P)**	**PCBs (SW8082)**	**PAHs (SW8270C-SIM)**	**Dioxins (SW8290)**	**SVOCs (SW8270)**	**Dissolved Metals: Sb, Cd, Cr, Cu, Pb (SW6010B/SW6020)**	**Dissolved Metals: Fe, Mn (SW6010B)**	**Methane, Ethane, Ethene (RSK-175)**	**TOC (SW9060)**	**DOC (SW9060)**	**Volatile Fatty Acids (E300M)**	**Nitrate/Nitrite, Sulfate, and Chloride (E300.1)**	**Sulfate and Chloride (E300.1)**	**Sulfide (SW9030B)**	**Alkalinity (E310.1)**	**Sulfate (SW9056)**	**TDS (E160)**	**Ferrous Iron (Hach Method 8146)**
WIOU	IW2098x37	X									X	X	X							X	X	
(continued)	IW2099x37	X									X	X	X							X	X	
	IW2100x37	X									X	X	X							X	X	
	MW04x37	X		X	X																	
	MW116x37	X		X	X																	
	MW514x37	X																				
	MW520x37	X																				
	MW524x37	X									X	X	X							X	X	
	MW535x37	X																				
	MW2117x37	X																				
	MW2039Ax37	X									X	X	X							X	X	
	MW2039Bx37	X									X	X	X							X	X	
	MW2101Bx37	X									X		X							X	X	
	MW2102Bx37	X									X		X								X	
	EW555x43	X																				
DP039	EW563X39	X										X	X		X	X		X	X			X
	EW782x39	X										X	X			X		X	X			X
	IW2079x39	X									X	X	X							X	X	
	IW2080x39	X									X	X	X							X	X	
	IW2081x39	X									X	X	X			X		X	X	X	X	
	IW2082x39	X									X	X	X							X	X	
	IW2083x39	X									X	X	X							X	X	
	IW2084x39	X									X	X	X							X	X	
	IW2085x39	X									X	X	X			X		X	X	X	X	
	IW2086x39	X									X	X	X							X	X	
	IW2087x39	X									X	X	X							X	X	
	IW2088x39	X									X	X	X							X	X	
	IW2089x39	X									X	X	X							X	X	
	IW2090x39	X									X	X	X			X		X	X	X	X	

TABLE 1

Monitoring Wells Scheduled for the 4Q12 Event

2012 GSAP Technical Memorandum, Travis Air Force Base, California

		Analyses																				
Action or Site	**Well**	**VOCs (SW8260B)**	**Pesticides (SW8081A)**	**TPH-D (SW8015B-E)**	**TPH-G (SW8015B-P)**	**PCBs (SW8082)**	**PAHs (SW8270C-SIM)**	**Dioxins (SW8290)**	**SVOCs (SW8270)**	**Dissolved Metals: Sb, Cd, Cr, Cu, Pb (SW6010B/SW6020)**	**Dissolved Metals: Fe, Mn (SW6010B)**	**Methane, Ethane, Ethene (RSK-175)**	**TOC (SW9060)**	**DOC (SW9060)**	**Volatile Fatty Acids (E300M)**	**Nitrate/Nitrite, Sulfate, and Chloride (E300.1)**	**Sulfate and Chloride (E300.1)**	**Sulfide (SW9030B)**	**Alkalinity (E310.1)**	**Sulfate (SW9056)**	**TDS (E160)**	**Ferrous Iron (Hach Method 8146)**
DP039 (continued)	IW2091x39	X									X	X	X							X	X	
	MW02x39	X									X	X	X			X		X	X	X	X	
	MW04x39	X																				
	MW750x39	X											X			X		X	X			X
	MW758x39	X																				
	MW760x39	X																				
	MW787x39	X										X	X			X		X	X			X
	MW788x39	X											X									X
	MW791x39	X										X	X		X	X		X	X			X
	MW792x39	X										X	X			X		X	X			X
	MW793x39	X										X	X		X	X		X	X			X
	MW794x39	X											X			X		X	X			X
	MW2042Bx39	X									X											
	MW2043Ax39	X									X		X			X		X	X	X	X	
	MW2043Bx39	X									X		X			X		X	X	X	X	
	MW2056Ax39	X									X		X			X		X	X	X	X	
	MW2056BX39	X									X		X			X		X	X	X	X	
	MW2057Ax39	X									X		X			X		X	X	X	X	
	MW2057Bx39	X									X		X			X		X	X	X	X	
	MW2060Ax39	X									X	X	X			X		X	X	X	X	
	MW2060Bx39	X									X	X	X			X		X	X	X	X	
	MW2092Ax39	X									X	X	X			X		X	X	X	X	
	MW2092Bx39	X									X	X	X			X		X	X	X	X	
	MW2093x39	X									X	X	X			X		X	X	X	X	
	PZ102x39	X																				X

TABLE 1

Monitoring Wells Scheduled for the 4Q12 Event

2012 GSAP Technical Memorandum, Travis Air Force Base, California

		Analyses																				
Action or Site	**Well**	**VOCs (SW8260B)**	**Pesticides (SW8081A)**	**TPH-D (SW8015B-E)**	**TPH-G (SW8015B-P)**	**PCBs (SW8082)**	**PAHs (SW8270C-SIM)**	**Dioxins (SW8290)**	**SVOCs (SW8270)**	**Dissolved Metals: Sb, Cd, Cr, Cu, Pb (SW6010B/SW6020)**	**Dissolved Metals: Fe, Mn (SW6010B)**	**Methane, Ethane, Ethene (RSK-175)**	**TOC (SW9060)**	**DOC (SW9060)**	**Volatile Fatty Acids (E300M)**	**Nitrate/Nitrite, Sulfate, and Chloride (E300.1)**	**Sulfate and Chloride (E300.1)**	**Sulfide (SW9030B)**	**Alkalinity (E310.1)**	**Sulfate (SW9056)**	**TDS (E160)**	**Ferrous Iron (Hach Method 8146)**
POCO Sites																						
ST018	EW1NSx18	X			X																	
	EW2014x18	X			X																	
	EW2016x18	X			X																	
	EW2019x18	X			X																	
	MW137x18	X			X																	
	MW139x18	X			X																	
	MW2021x18	X			X																	
	MW2044x18	X			X																	
	MW206NSx18	X			X																	
	MW208NSx18	X			X																	
	MW210NSx18	X			X																	
	MW213NSx18	X			X																	
	MW786x18	X			X																	
	MW787x18	X			X																	
	MW796x18	X			X																	
	MW797x18	X			X																	
ST028	MW1744x28	X (BTEX)		X	X																	

Notes:

BTEX = benzene, toluene, ethylbenzene, and xylenes
DOC = dissolved organic carbon
ERP = Environmental Restoration Program
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
POCO = petroleum-only contaminated
SVOC = semivolatile organic compound
TDS = total dissolved solids
TOC = total organic carbon
TPH-D = total petroleum hydrocarbon as diesel
TPH-G = total petroleum hydrocarbon as gasoline
VOC = volatile organic compound
WIOU = West Industrial Operable Unit

TABLE 2

Summary of TOC Concentrations Historically Detected at MW261x07

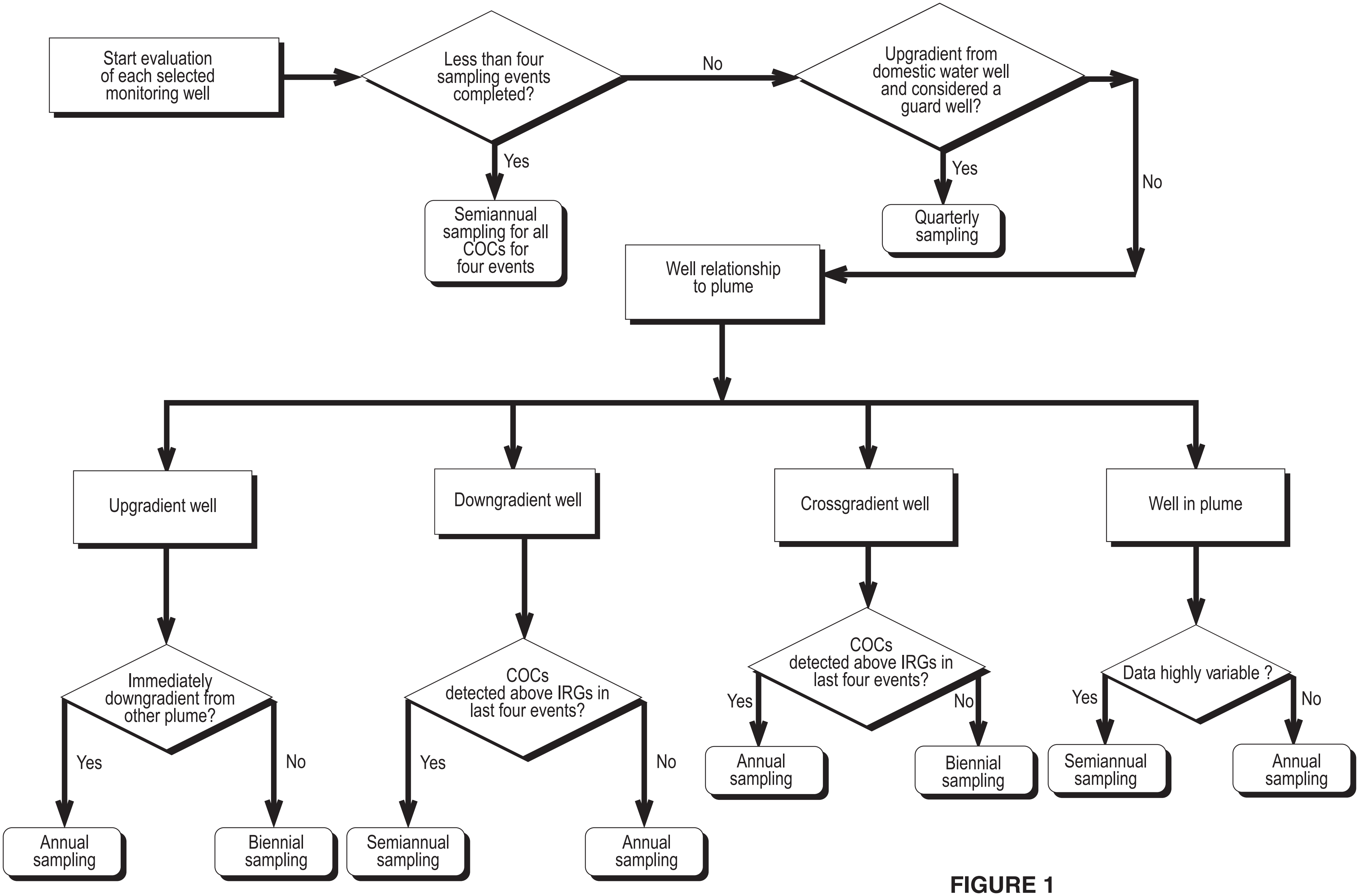
2012 GSAP Technical Memorandum, Travis Air Force Base, California

Sample Date	Result Value (mg/L)	Sample Type
11-Sep-97	259	Normal
10-Apr-98	9.5	Normal
17-Sep-98	151	Normal
04-Mar-99	79.1 J	Normal
	41.5 J	Field duplicate
14-Sep-99	149	Normal
28-Mar-00	120	Normal
13-Sep-00	150	Normal
	151	Field duplicate
24-Nov-08	211	Normal

Note:

J flag is estimate.

mg/L = milligram(s) per liter



NOTE: WITH THE EXCEPTION OF POCO SITES,
TPH-GASOLINE AND TPH-DIESEL ARE NOT
SAMPLED MORE FREQUENTLY THAN ANNUALLY

FIGURE 1
GROUNDWATER MONITORING FREQUENCY DECISION TREE
2012 GSAP TECHNICAL MEMORANDUM
TRAVIS AIR FORCE BASE, CALIFORNIA
CH2MHILL

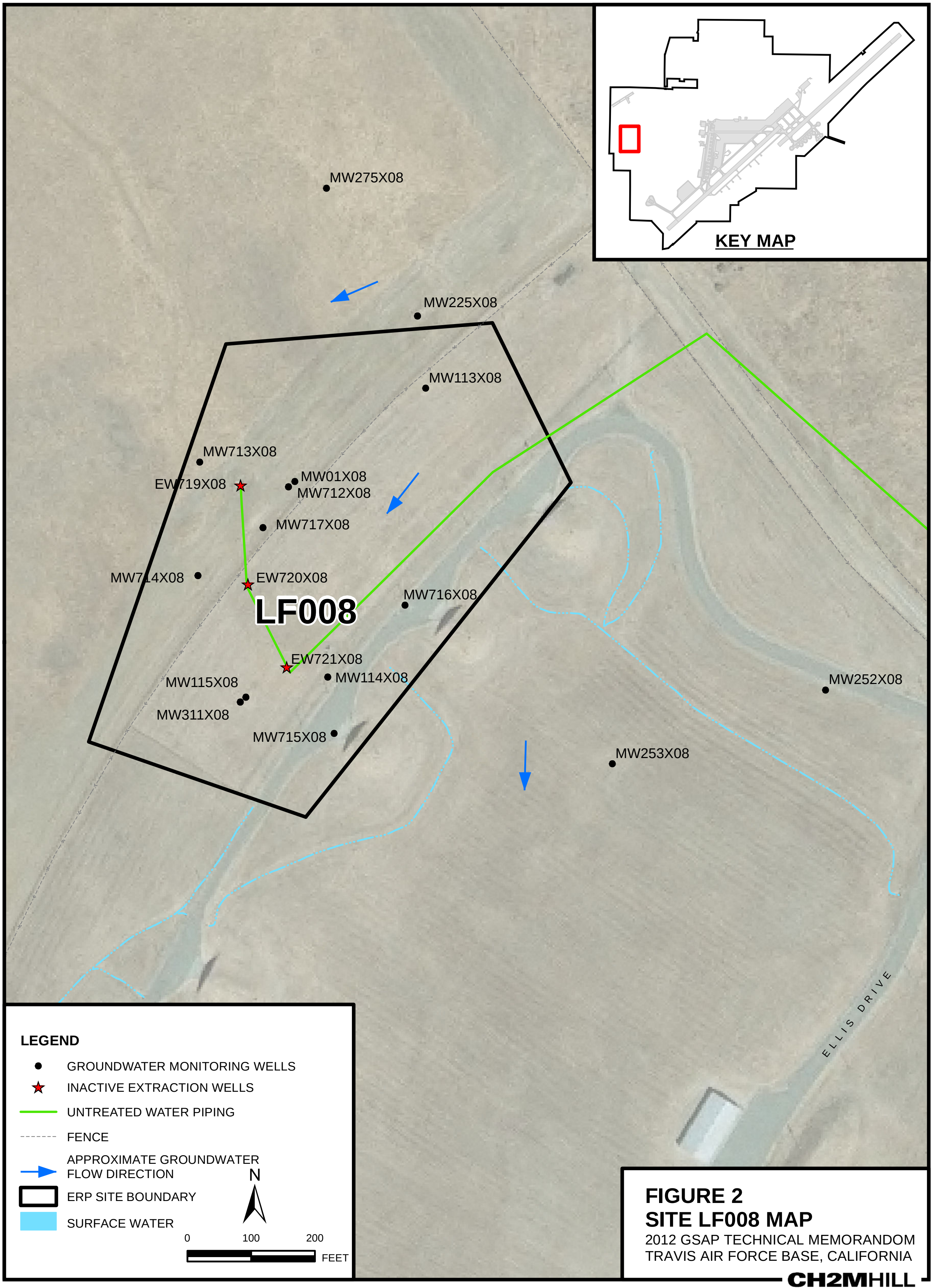
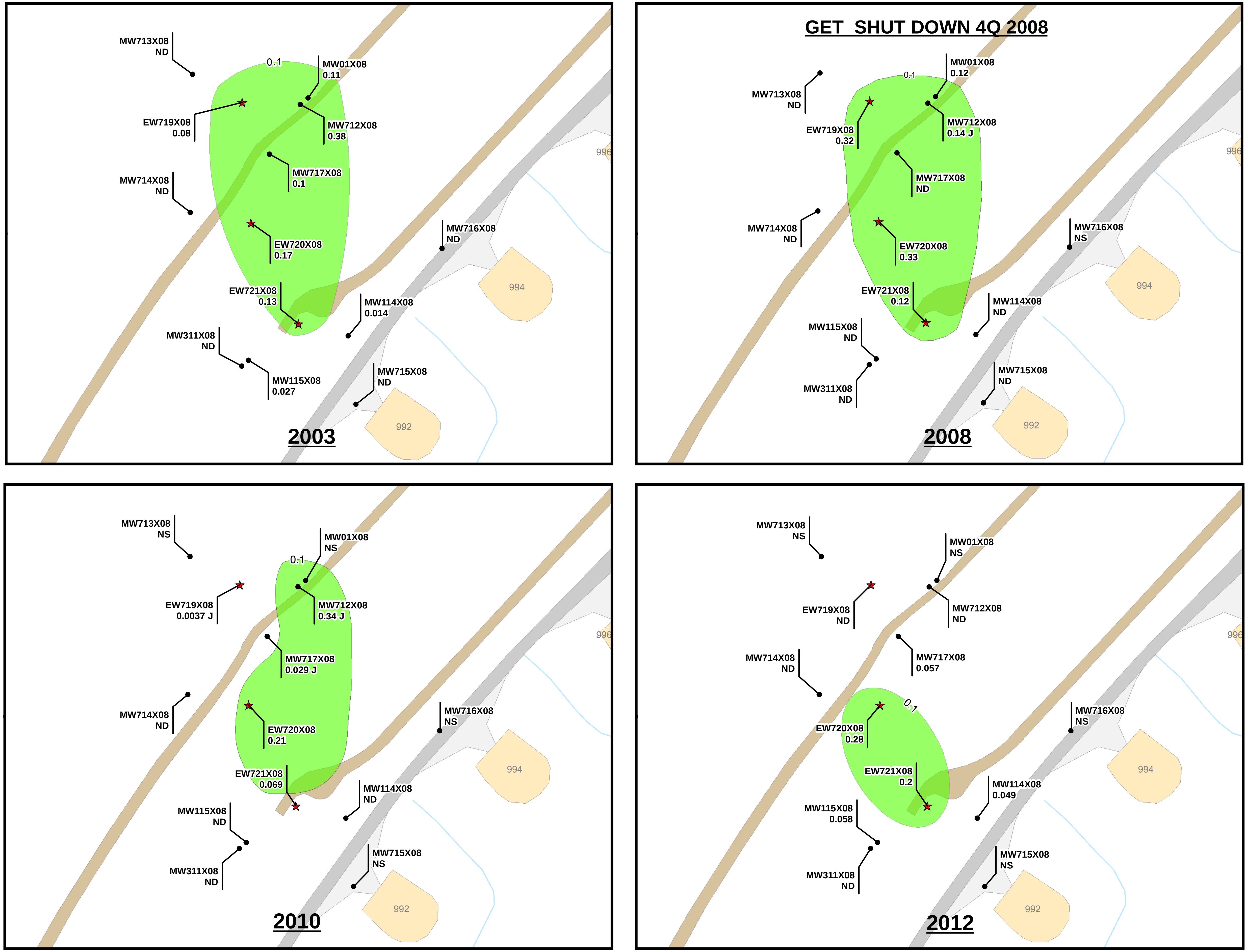
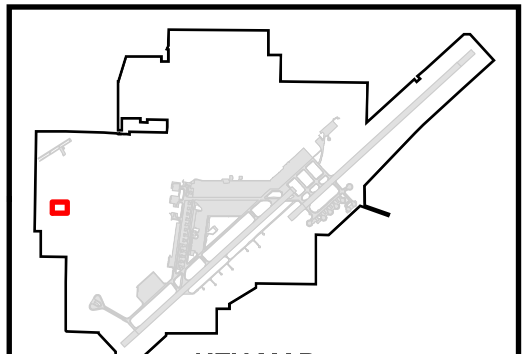


FIGURE 2
SITE LF008 MAP
2012 GSAP TECHNICAL MEMORANDOM
TRAVIS AIR FORCE BASE, CALIFORNIA

CH2MHILL

SAC U:\TRAVIS_AFB\381355_2012ANNUALGSAP\MAPFILES\TECH_MEMO\FIGURE_2_LF008_SITE_MAP.MXD MSCHROCK 9/16/2012 12:36:39 AM





KEY MAP

LEGEND

● GROUNDWATER MONITORING WELL

★ EXTRACTION WELL

— SURFACE WATER

🟩 ALPHA-CHLORDANE ≥ 0.1 µg/L

0.28 UNFILTERED ALPHA-CHLORDANE CONCENTRATION (µg/L)

🟨 BUILDINGS

⬜ PAVED AREA

🟫 UNPAVED ROAD

▩ ROAD

NOTES:
1. ND = NOT DETECTED
2. NS = NOT SAMPLED
3. J = THE RESULT IS AN ESTIMATE
4. THE ALPHA-CHLORDANE REPORTING LIMIT IS 0.01 µg/L.

N

0 50 100
FEET

FIGURE 3
SITE LF008 HISTORICAL AND CURRENT ALPHA-CHLORDANE GROUNDWATER CONTAMINATION

2012 GSAP TECHNICAL MEMORANDUM
TRAVIS AIR FORCE BASE, CALIFORNIA

CH2MHILL

SAC U:\TRAVIS_AFB\381355_2012ANNUALGSAP\MAPFILES\TECH_MEMO\FIGURE_3_GWCONTAM_LF008.MXD MSCHROCK 11/1/2012 4:21:06 AM

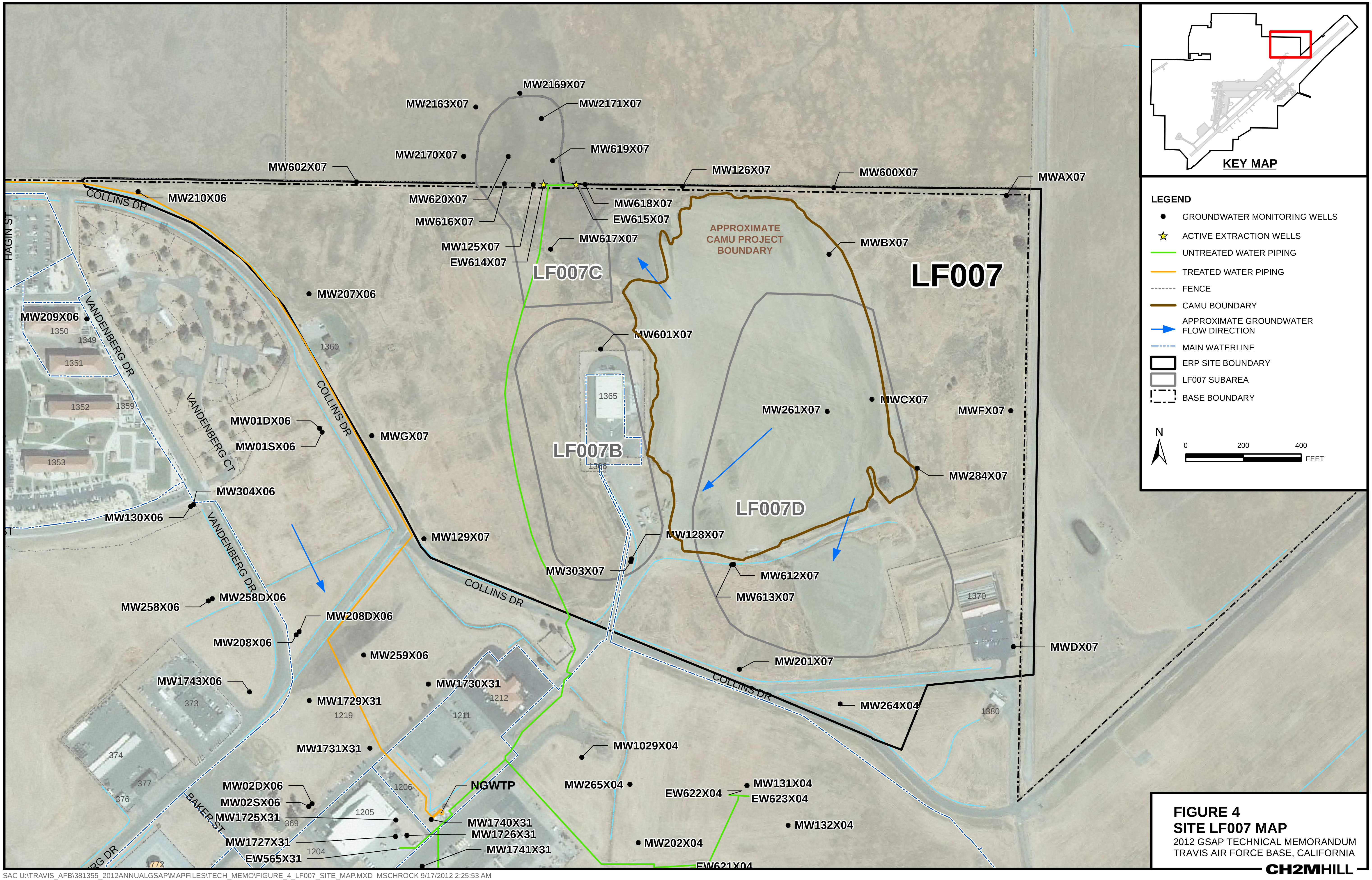
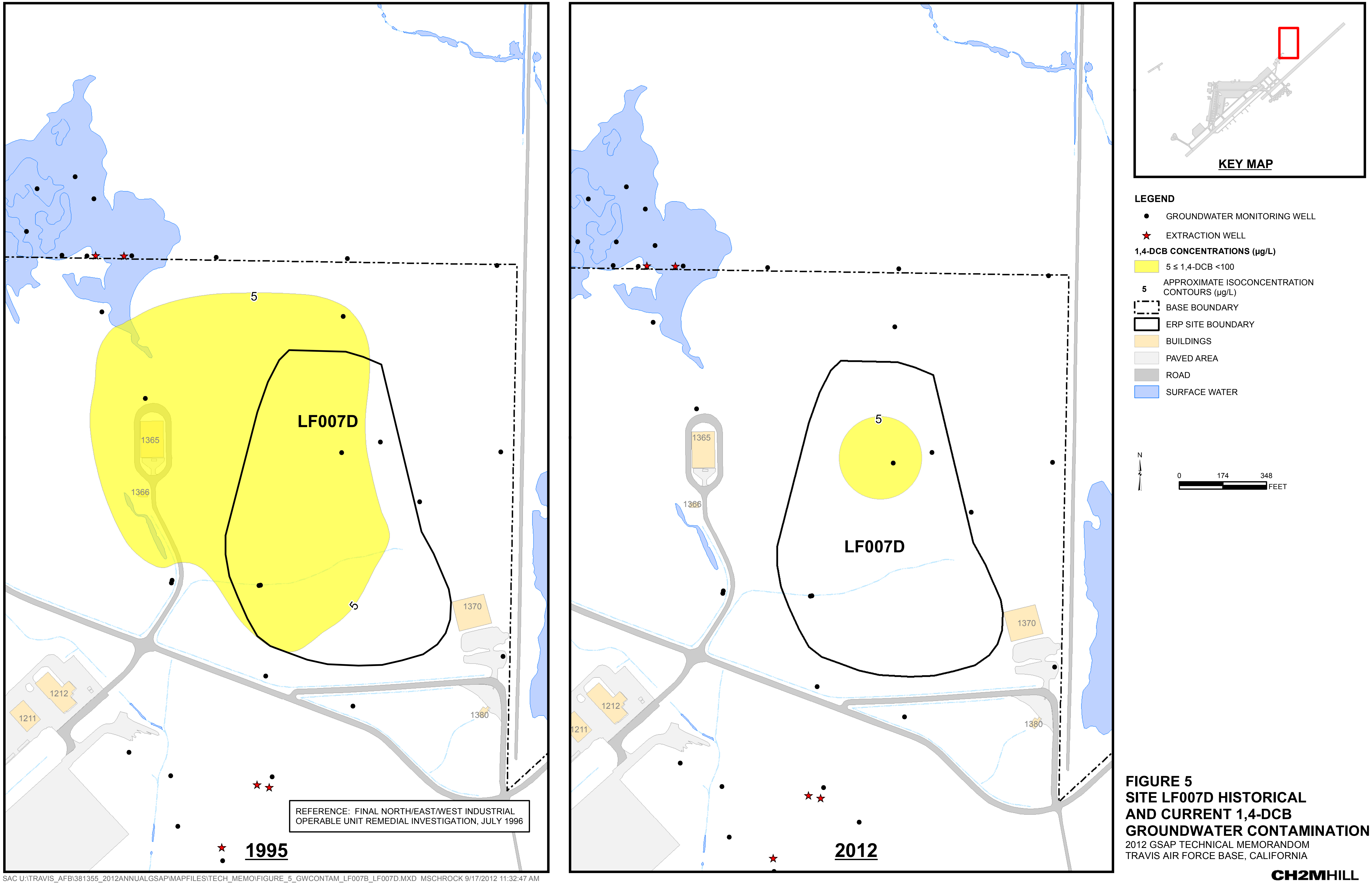


FIGURE 4
SITE LF007 MAP
2012 GSAP TECHNICAL MEMORANDUM
TRAVIS AIR FORCE BASE, CALIFORNIA

CH2MHILL

SAC U:\TRAVIS_AFB\381355_2012ANNUALGSAP\MAPFILES\TECH_MEMO\FIGURE_4_LF007_SITE_MAP.MXD MSCHROCK 9/17/2012 2:25:53 AM



LEGEND

● GROUNDWATER MONITORING WELL

★ EXTRACTION WELL

1,4-DCB CONCENTRATIONS (µg/L)

🟨 5 ≤ 1,4-DCB <100

5 APPROXIMATE ISOCONCENTRATION CONTOURS (µg/L)

BASE BOUNDARY

ERP SITE BOUNDARY

BUILDINGS

PAVED AREA

ROAD

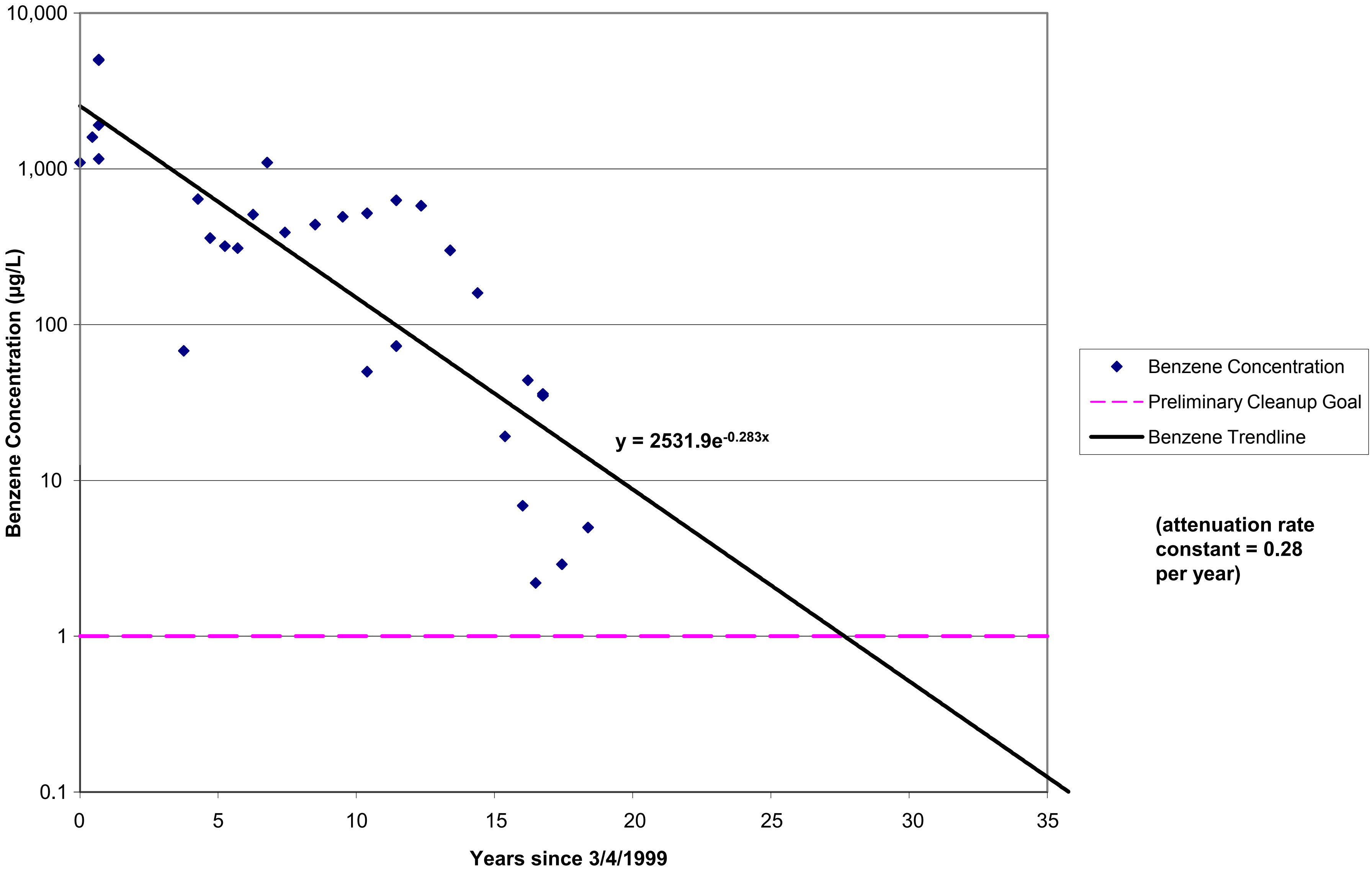
SURFACE WATER

FIGURE 5
SITE LF007D HISTORICAL AND CURRENT 1,4-DCB GROUNDWATER CONTAMINATION

2012 GSAP TECHNICAL MEMORANDUM
TRAVIS AIR FORCE BASE, CALIFORNIA

CH2MHILL

SAC U:\TRAVIS_AFB\381355_2012ANNUALGSAP\MAPFILES\TECH_MEMO\FIGURE_5_GWCONTAM_LF007B_LF007D.MXD MSCHROCK 9/17/2012 11:32:47 AM



(attenuation rate constant = 0.28 per year)

FIGURE 6
ATTENUATION RATE CONSTANT FOR BENZENE AT WELL MW246X32
2012 GSAP TECHNICAL MEMORANDUM
TRAVIS AIR FORCE BASE, CALIFORNIA

CH2MHILL

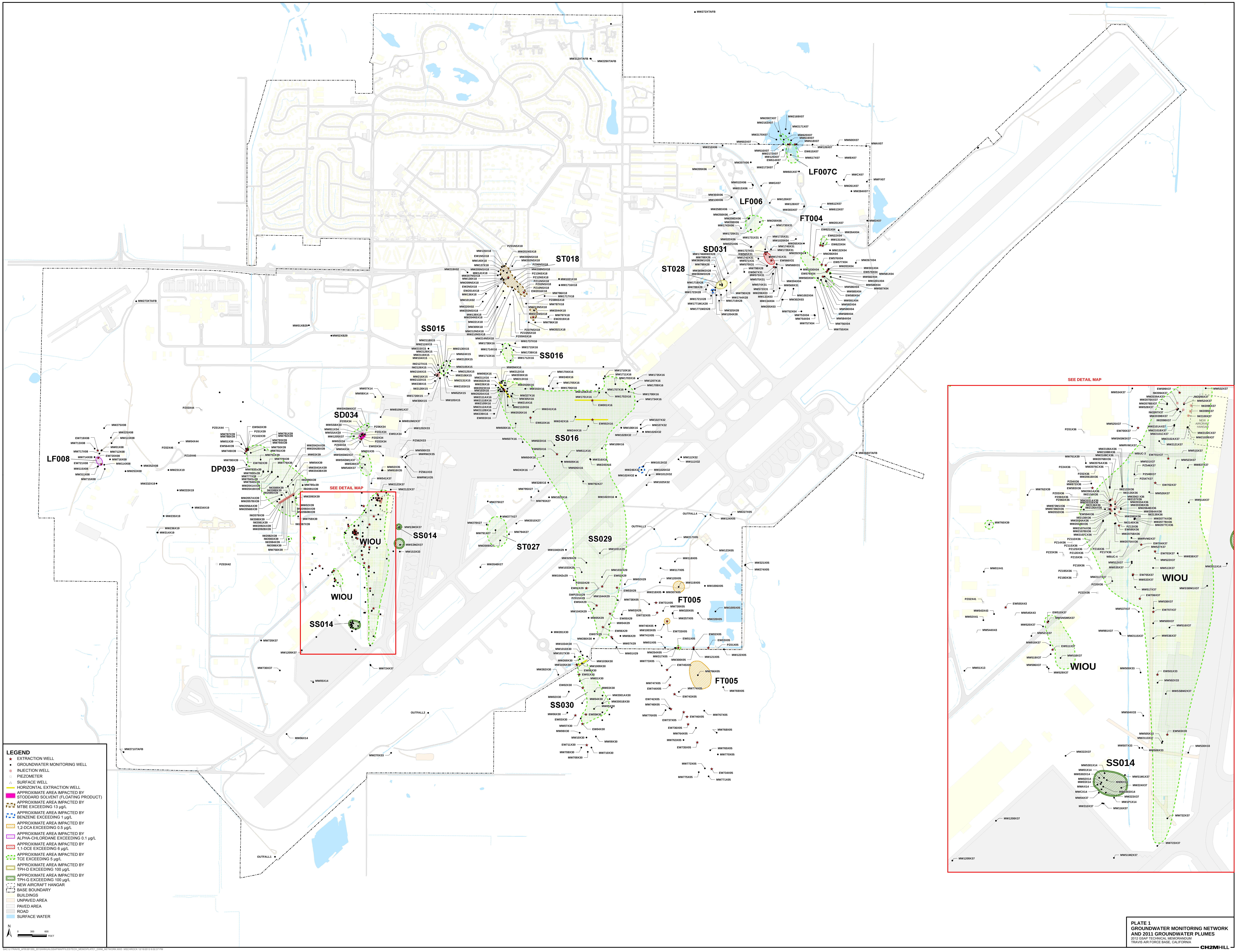


PLATE 1
GROUNDWATER MONITORING NETWORK AND 2011 GROUNDWATER PLUMES

2012 GSAP TECHNICAL MEMORANDUM
TRAVIS AIR FORCE BASE, CALIFORNIA

CH2MHILL

SAC U:\TRAVIS_AFB\381355_2012ANNUALGSAP\MAPFILES\TECH_MEMO\PLATE1_GWM_NETWORK.MXD MSCHROCK 12/16/2012 6:02:37 PM

Attachment 1

Locations Sampled and Chemicals Detected during the 2012 GSAP

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
NORTH IRA									
SITES FT004/SD031/LF007									
Site: Site FT004									
EW576X04									
	EW576x04-111	5/3/2012	N	SW8260	TCE	0.43	J	µg/L	5
EW577X04									
	EW577x04-111	5/2/2012	N	SW8260	TCE	0.34	J	µg/L	5
EW578X04									
	EW578x04-111	5/2/2012	N	SW8260	cis-1,2-DCE	3.2		µg/L	6
		5/2/2012	N	SW8260	TCE	0.46	J	µg/L	5
		5/2/2012	N	SW8260	**Vinyl chloride**	**3.6**		**µg/L**	**0.5**
EW579X04									
	EW579x04-111	5/2/2012	N	SW8260	No Analytes Detected				
EW580X04									
	EW580x04-111	5/3/2012	N	SW8260	1,1-DCE	0.26	J	µg/L	6
		5/3/2012	N	SW8260	cis-1,2-DCE	1.2		µg/L	6
		5/3/2012	N	SW8260	**TCE**	**11**		**µg/L**	**5**
		5/3/2012	N	SW8260	**Vinyl chloride**	**1.6**		**µg/L**	**0.5**
EW621X04									
	EW621x04-111	5/3/2012	N	SW8260	TCE	3.5		µg/L	5
EW622X04									
	EW622x04-111	5/2/2012	N	SW8260	No Analytes Detected				
EW623X04									
	EW623x04-111	5/2/2012	N	SW8260	No Analytes Detected				
MW131X04									
	MW131x04-PDB111	4/19/2012	N	SW8260	1,1,2-Trichloroethane	5	J+	µg/L	5
		4/19/2012	N	SW8260	1,1-DCE	0.21	J+	µg/L	6
		4/19/2012	N	SW8260	1,2-DCA	0.28	J+	µg/L	0.5
		4/19/2012	N	SW8260	1,2-Dichloropropane	0.94	J+	µg/L	5
		4/19/2012	N	SW8260	Bromoform	0.81	J	µg/L	
		4/19/2012	N	SW8260	Chloromethane	0.35	J+	µg/L	1.5
		4/19/2012	N	SW8260	cis-1,2-DCE	5.6	J+	µg/L	6
		4/19/2012	N	SW8260	**TCE**	**291**		**µg/L**	**5**
MW134X04									
	MW134x04-PDB111	4/19/2012	N	SW8260	TCE	2.4	J+	µg/L	5
		4/19/2012	N	SW8260	Trichlorofluoromethane	42.1	J+	µg/L	
MW202X04									
	MW202x04-PDB111	4/19/2012	N	SW8260	Acetone	32.3	J-	µg/L	5110
		4/19/2012	N	SW8260	cis-1,2-DCE	0.34	J+	µg/L	6
		4/19/2012	N	SW8260	Methyl ethyl ketone	3.8	J-	µg/L	
		4/19/2012	N	SW8260	**TCE**	**15.6**	**J+**	**µg/L**	**5**

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
NORTH IRA									
SITES FT004/SD031/LF007									
Site: Site FT004									
MW266X04									
	MW266x04-PDB111	4/19/2012	N	SW8260	1,1-DCE	0.22	J	µg/L	6
		4/19/2012	N	SW8260	cis-1,2-DCE	0.59	J	µg/L	6
		4/19/2012	N	SW8260	**TCE**	**131**		**µg/L**	**5**
MW581X04									
	MW581x04-PDB111	4/19/2012	N	SW8260	**cis-1,2-DCE**	**10.8**		**µg/L**	**6**
		4/19/2012	N	SW8260	**TCE**	**16.4**		**µg/L**	**5**
MW584X04									
	MW584x04-PDB111	4/19/2012	N	SW8260	cis-1,2-DCE	0.68	J	µg/L	6
		4/19/2012	N	SW8260	**TCE**	**47.8**		**µg/L**	**5**
MW585X04									
	MW585x04-PDB111	4/19/2012	N	SW8260	1,1-DCE	0.32	J	µg/L	6
		4/19/2012	N	SW8260	Chloroform	2.7		µg/L	100
		4/19/2012	N	SW8260	cis-1,2-DCE	1.1		µg/L	6
		4/19/2012	N	SW8260	**TCE**	**174**		**µg/L**	**5**
MW587X04									
	MW587x04-PDB111	4/19/2012	N	SW8260	cis-1,2-DCE	2		µg/L	6
		4/19/2012	N	SW8260	**TCE**	**7.7**		**µg/L**	**5**
MW591X04									
	MW591x04-PDB111	4/19/2012	N	SW8260	1,1,1-Trichloroethane	1.2		µg/L	200
		4/19/2012	N	SW8260	1,1-DCE	1.7		µg/L	6
		4/19/2012	N	SW8260	Bromodichloromethane	1.7		µg/L	100
		4/19/2012	N	SW8260	Chloroform	5.6		µg/L	100
		4/19/2012	N	SW8260	cis-1,2-DCE	0.37	J	µg/L	6
		4/19/2012	N	SW8260	Dibromochloromethane	0.66		µg/L	
		4/19/2012	N	SW8260	**TCE**	**26.9**		**µg/L**	**5**
MW757X04									
	MW757x04-PDB111	4/19/2012	N	SW8260	cis-1,2-DCE	0.32	J	µg/L	6
		4/19/2012	N	SW8260	PCE	0.46	J	µg/L	5
		4/19/2012	N	SW8260	TCE	3.6		µg/L	5
Site: Site LF007									
EW614X07									
	EW614x07-111	5/23/2012	N	SW8260	cis-1,2-DCE	0.65	J	µg/L	6
		5/23/2012	N	SW8260	TCE	4.5		µg/L	5
EW615X07									
	EW615x07-111	5/23/2012	N	SW8260	No Analytes Detected				
MW125X07									
	MW125x07-PDB111	4/23/2012	N	SW8260	1,1-DCE	0.27	J+	µg/L	6

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
NORTH IRA									
SITES FT004/SD031/LF007									
Site: Site LF007									
MW125X07									
	MW125x07-PDB111	4/23/2012	N	SW8260	Acetone	30.4	J+	µg/L	5110
		4/23/2012	N	SW8260	cis-1,2-DCE	1.1	J+	µg/L	6
		4/23/2012	N	SW8260	**TCE**	**22.7**	**J+**	**µg/L**	**5**
MW129X07									
	MW129x07-PDB111	4/23/2012	N	SW8260	No Analytes Detected				
MW261X07									
	MW261x07-111	4/25/2012	N	SW8260	1,2-DCB	3.5		µg/L	
		4/25/2012	N	SW8260	1,3-DCB	0.41	J	µg/L	
		4/25/2012	N	SW8260	**1,4-DCB**	**15.4**		**µg/L**	**5**
		4/25/2012	N	SW8260	**Benzene**	**2.4**		**µg/L**	**1**
		4/25/2012	N	SW6010	Cadmium	0.00087	J	mg/L	
		4/25/2012	N	SW8260	Chlorobenzene	30		µg/L	70
		4/25/2012	N	SW6010	Chromium	0.004	J	mg/L	
		4/25/2012	N	SW8260	m,p-Xylene	0.76		µg/L	1750
		4/25/2012	N	SW8260	Toluene	0.55	J-	µg/L	150
MW601X07									
	MW601x07-PDB111	4/23/2012	N	SW8260	Acetone	12.8		µg/L	5110
MW612X07									
	MW612x07-PDB111	4/23/2012	N	SW8260	Acetone	10.4		µg/L	5110
MW613X07									
	MW613x07-PDB111	4/23/2012	N	SW8260	Acetone	4	J	µg/L	5110
MW616X07									
	MW616x07-PDB111	4/23/2012	N	SW8260	Acetone	20.5		µg/L	5110
MW617X07									
	MW617x07-PDB111	4/23/2012	N	SW8260	Acetone	4	J	µg/L	5110
		4/23/2012	N	SW8260	cis-1,2-DCE	0.36	J	µg/L	6
		4/23/2012	N	SW8260	**TCE**	**8.6**		**µg/L**	**5**
MW619X07									
	MW619x07-PDB111	4/30/2012	N	SW8260	Acetone	10.2		µg/L	5110
MW620X07									
	MW620x07-PDB111	4/30/2012	N	SW8260	Acetone	10.4		µg/L	5110
		4/30/2012	N	SW8260	cis-1,2-DCE	0.42	J	µg/L	6
		4/30/2012	N	SW8260	TCE	5		µg/L	5
MWBX07									
	MWBx07-PDB111	4/25/2012	N	SW8260	No Analytes Detected				
MWCX07									
	MWCx07-PDB111	4/25/2012	N	SW8260	No Analytes Detected				

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
NORTH IRA									
SITES FT004/SD031/LF007									
Site: Site SD031									
EW565X31									
	EW565x31-111	4/18/2012	N	SW8260	No Analytes Detected				
EW566X31									
	EW566x31-111	4/18/2012	N	SW8260	1,1,1-Trichloroethane	1.2		µg/L	200
		4/18/2012	N	SW8260	1,1-DCE	3.7		µg/L	6
		4/18/2012	N	SW8260	Trichlorofluoromethane	2.8		µg/L	
EW567X31									
	EW567x31-111	4/19/2012	N	SW8260	1,1,1-Trichloroethane	8.9	J+	µg/L	200
		4/19/2012	N	SW8260	**1,1-DCE**	**34.4**	**J+**	**µg/L**	**6**
		4/19/2012	N	SW8260	TCE	0.44	J+	µg/L	5
		4/19/2012	N	SW8260	Trichlorofluoromethane	45.6	J+	µg/L	
MW571X31									
	MW571x31-PDB111	4/6/2012	N	SW8260	1,1-DCE	1.2		µg/L	6
		4/6/2012	N	SW8260	Dichlorodifluoromethane	0.63	J	µg/L	
		4/6/2012	N	SW8260	PCE	0.43	J	µg/L	5
MW574X31									
	MW574x31-PDB111	4/6/2012	N	SW8260	1,1-DCE	0.9		µg/L	6
		4/6/2012	N	SW8260	TCE	1.9		µg/L	5
MW1729X31									
	MW1729x31-111	4/11/2012	N	SW8260	cis-1,2-DCE	0.52	J	µg/L	6
		4/11/2012	N	SW8015-E	No Analytes Detected				
		4/11/2012	N	SW8015-P	No Analytes Detected				
		4/11/2012	N	SW8260	TCE	4.2		µg/L	5
MW1730X31									
	MW1730x31-111	4/11/2012	N	SW8015-E	No Analytes Detected				
		4/11/2012	N	SW8015-P	No Analytes Detected				
		4/11/2012	N	SW8260	No Analytes Detected				
MW1731X31									
	MW1731x31-111	4/11/2012	N	SW8260	cis-1,2-DCE	0.27	J	µg/L	6
		4/11/2012	N	SW8015-E	No Analytes Detected				
		4/11/2012	N	SW8015-P	No Analytes Detected				
		4/11/2012	N	SW8260	TCE	1		µg/L	5

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
NORTH IRA									
SITE LF006									
Site: Site LF006									
MW208DX06									
	MW208Dx06-111	4/18/2012	N	SW8260	cis-1,2-DCE	1		µg/L	6
		4/18/2012	N	SW8015-E	No Analytes Detected				
		4/18/2012	N	SW8015-P	No Analytes Detected				
		4/18/2012	N	SW8260	TCE	4.8		µg/L	5
MW208X06									
	MW208x06-111	4/18/2012	N	SW8015-E	No Analytes Detected				
		4/18/2012	N	SW8015-P	No Analytes Detected				
		4/18/2012	N	SW8260	TCE	0.22	J	µg/L	5
MW259X06									
	MW259x06-111	4/18/2012	N	SW8260	cis-1,2-DCE	0.84	J	µg/L	6
		4/18/2012	N	SW8015-E	No Analytes Detected				
		4/18/2012	N	SW8015-P	No Analytes Detected				
		4/18/2012	N	SW8260	**TCE**	**6.2**		**µg/L**	**5**
Site: Site SD031									
MW1729X31									
	MW1729x31-111	4/11/2012	N	SW8260	cis-1,2-DCE	0.52	J	µg/L	6
		4/11/2012	N	SW8015-E	No Analytes Detected				
		4/11/2012	N	SW8015-P	No Analytes Detected				
		4/11/2012	N	SW8260	TCE	4.2		µg/L	5
MW1730X31									
	MW1730x31-111	4/11/2012	N	SW8015-E	No Analytes Detected				
		4/11/2012	N	SW8015-P	No Analytes Detected				
		4/11/2012	N	SW8260	No Analytes Detected				
MW1731X31									
	MW1731x31-111	4/11/2012	N	SW8260	cis-1,2-DCE	0.27	J	µg/L	6
		4/11/2012	N	SW8015-E	No Analytes Detected				
		4/11/2012	N	SW8015-P	No Analytes Detected				
		4/11/2012	N	SW8260	TCE	1		µg/L	5

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
SOUTH IRA									
SITES FT005/SS029/SS030									
Site: Site FT005									
EW01X05									
	EW01x05-111	4/18/2012	N	SW8260	**1,2-DCA**	**2.2**		**µg/L**	**0.5**
	EW01x05-111B	4/18/2012	FD	SW8260	cis-1,2-DCE	0.4	J	µg/L	6
		4/18/2012	FD	SW8260	TCE	3.9		µg/L	5
EW02X05									
	EW02x05-111	4/18/2012	N	SW8260	**1,2-DCA**	**2**		**µg/L**	**0.5**
EW03X05									
	EW03x05-111	4/18/2012	N	SW8260	No Analytes Detected				
EW731X05									
	EW731x05-111	5/7/2012	N	SW8260	No Analytes Detected				
EW732X05									
	EW732x05-111	5/7/2012	N	SW8260	No Analytes Detected				
EW733X05									
	EW733x05-111	5/7/2012	N	SW8260	No Analytes Detected				
EW734X05									
	EW734x05-111	4/23/2012	N	SW8260	No Analytes Detected				
EW735X05									
	EW735x05-111	4/23/2012	N	SW8260	No Analytes Detected				
EW736X05									
	EW736x05-111	4/23/2012	N	SW8260	No Analytes Detected				
EW737X05									
	EW737x05-111	4/23/2012	N	SW8260	No Analytes Detected				
EW742X05									
	EW742x05-111	4/23/2012	N	SW8260	No Analytes Detected				
EW743X05									
	EW743x05-111	4/23/2012	N	SW8260	No Analytes Detected				
EW744X05									
	EW744x05-111	4/23/2012	N	SW8260	No Analytes Detected				
EW745X05									
	EW745x05-111	4/23/2012	N	SW8260	1,2-DCA	0.34	J	µg/L	0.5
EW746X05									
	EW746x05-111	4/23/2012	N	SW8260	No Analytes Detected				
MW119X05									
	MW119x05-PDB111	4/6/2012	N	SW8260	**1,2-DCA**	**1.5**		**µg/L**	**0.5**
		4/6/2012	N	SW8260	Chloroform	0.26	J	µg/L	100
		4/6/2012	N	SW8260	cis-1,2-DCE	0.37	J	µg/L	6
		4/6/2012	N	SW8260	Methyl ethyl ketone	1.3	J	µg/L	
		4/6/2012	N	SW8260	**TCE**	**5.3**		**µg/L**	**5**

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
SOUTH IRA									
SITES FT005/SS029/SS030									
Site: Site FT005									
MW747X05									
	MW747x05-PDB111	4/23/2012	N	SW8260	Acetone	4.5	J	µg/L	5110
MW765X05									
	MW765x05-PDB111	4/23/2012	N	SW8260	Acetone	4.4	J	µg/L	5110
MW766X05									
	MW766x05-PDB111	4/23/2012	N	SW8260	Acetone	5.4		µg/L	5110
MW767X05									
	MW767x05-PDB111	4/23/2012	N	SW8260	No Analytes Detected				
MW769X05									
	MW769x05-PDB111	4/23/2012	N	SW8260	No Analytes Detected				
MW770X05									
	MW770x05-PDB111	4/23/2012	N	SW8260	No Analytes Detected				
MW771X05									
	MW771x05-PDB111	4/23/2012	N	SW8260	No Analytes Detected				
MW772X05									
	MW772x05-PDB111	4/23/2012	N	SW8260	No Analytes Detected				
MW774X05									
	MW774x05-PDB111	4/23/2012	N	SW8260	No Analytes Detected				
MW775X05									
	MW775x05-PDB111	4/23/2012	N	SW8260	No Analytes Detected				
Site: Site SS029									
EW01X29									
	EW01x29-111	4/19/2012	N	SW8260	1,1-DCE	0.41	J+	µg/L	6
		4/19/2012	N	SW8260	1,2-Dichloropropane	0.23	J	µg/L	5
		4/19/2012	N	SW8260	Bromoform	0.71	J	µg/L	
		4/19/2012	N	SW8260	cis-1,2-DCE	4.8	J+	µg/L	6
		4/19/2012	N	SW8260	**TCE**	**71.8**	**J+**	**µg/L**	**5**
		4/19/2012	N	SW8260	trans-1,2-DCE	0.39	J+	µg/L	
EW02X29									
	EW02x29-111	4/19/2012	N	SW8260	**cis-1,2-DCE**	**41.9**	**J+**	**µg/L**	**6**
		4/19/2012	N	SW8260	**TCE**	**529**		**µg/L**	**5**
EW03X29									
	EW03x29-111	4/19/2012	N	SW8260	cis-1,2-DCE	1.4		µg/L	6
		4/19/2012	N	SW8260	**TCE**	**27.7**		**µg/L**	**5**
EW04X29									
	EW04x29-111	5/3/2012	N	SW8260	**cis-1,2-DCE**	**11.7**		**µg/L**	**6**
		5/3/2012	N	SW8260	**TCE**	**238**		**µg/L**	**5**
EW05X29									
	EW05x29-111	4/19/2012	N	SW8260	1,1-DCE	0.27	J+	µg/L	6

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
SOUTH IRA									
SITES FT005/SS029/SS030									
Site: Site SS029									
EW05X29									
	EW05x29-111	4/19/2012	N	SW8260	**cis-1,2-DCE**	**13.8**	**J+**	**µg/L**	**6**
		4/19/2012	N	SW8260	**TCE**	**178**		**µg/L**	**5**
		4/19/2012	N	SW8260	trans-1,2-DCE	0.48	J+	µg/L	
EW06X29									
	EW06x29-111	5/3/2012	N	SW8260	**cis-1,2-DCE**	**10.3**		**µg/L**	**6**
		5/3/2012	N	SW8260	**TCE**	**174**		**µg/L**	**5**
EW07X29									
	EW07x29-111	5/7/2012	N	SW8260	cis-1,2-DCE	0.25	J	µg/L	6
		5/7/2012	N	SW8260	TCE	2.7		µg/L	5
MW01X29									
	MW01x29-PDB111	4/19/2012	N	SW8260	Acetone	33.7	J-	µg/L	5110
MW02X29									
	MW02x29-PDB1091	4/19/2012	N	SW8260	No Analytes Detected				
MW04X29									
	MW04x29-PDB111	5/7/2012	N	SW8260	**cis-1,2-DCE**	**7.6**	**J+**	**µg/L**	**6**
		5/7/2012	N	SW8260	**TCE**	**78.9**		**µg/L**	**5**
MW06X29									
	MW06x29-PDB111	5/7/2012	N	SW8260	No Analytes Detected				
MW07X29									
	MW07x29-PDB111	5/7/2012	N	SW8260	No Analytes Detected				
MW329X29									
	MW329x29-PDB111	4/19/2012	N	SW8260	Acetone	10.6		µg/L	5110
		4/19/2012	N	SW8260	**cis-1,2-DCE**	**8.5**		**µg/L**	**6**
		4/19/2012	N	SW8260	**TCE**	**88.8**		**µg/L**	**5**
MW1031X29									
	MW1031x29-PDB11	4/19/2012	N	SW8260	1,1-DCE	0.39	J+	µg/L	6
		4/19/2012	N	SW8260	**cis-1,2-DCE**	**12.6**	**J+**	**µg/L**	**6**
		4/19/2012	N	SW8260	**TCE**	**269**		**µg/L**	**5**
		4/19/2012	N	SW8260	trans-1,2-DCE	0.41	J+	µg/L	
MW1032X29									
	MW1032x29-PDB11	4/19/2012	N	SW8260	1,1-DCE	0.34	J+	µg/L	6
		4/19/2012	N	SW8260	**cis-1,2-DCE**	**22.1**	**J+**	**µg/L**	**6**
		4/19/2012	N	SW8260	**TCE**	**462**		**µg/L**	**5**
		4/19/2012	N	SW8260	trans-1,2-DCE	0.81	J+	µg/L	
MW1042X29									
	MW1042x29-PDB11	4/19/2012	N	SW8260	MTBE	1.2	J+	µg/L	13
		4/19/2012	N	SW8260	TCE	3.1	J+	µg/L	5

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
SOUTH IRA									
SITES FT005/SS029/SS030									
Site: Site SS029									
MW1043X29									
	MW1043x29-PDB11	4/19/2012	N	SW8260	1,1-DCE	0.31	J+	µg/L	6
		4/19/2012	N	SW8260	1,2-Dichloropropane	0.48	J	µg/L	5
		4/19/2012	N	SW8260	Bromoform	0.77	J	µg/L	
		4/19/2012	N	SW8260	**cis-1,2-DCE**	**9.5**	**J+**	**µg/L**	**6**
		4/19/2012	N	SW8260	Methyl isobutyl ketone	10.2		µg/L	
		4/19/2012	N	SW8260	**TCE**	**124**		**µg/L**	**5**
MW1044X29									
	MW1044x29-PDB11	4/19/2012	N	SW8260	cis-1,2-DCE	0.27	J+	µg/L	6
		4/19/2012	N	SW8260	TCE	4.6	J+	µg/L	5
PZ01DX29									
	PZ01Dx29-PDB111	4/19/2012	N	SW8260	Acetone	17.8	J	µg/L	5110
		4/19/2012	N	SW8260	Carbon disulfide	1.2	J	µg/L	
		4/19/2012	N	SW8260	**cis-1,2-DCE**	**47.2**		**µg/L**	**6**
		4/19/2012	N	SW8260	**TCE**	**1040**		**µg/L**	**5**
PZ01SX29									
	PZ01Sx29-PDB111	4/19/2012	N	SW8260	Acetone	18.1	J	µg/L	5110
		4/19/2012	N	SW8260	Carbon disulfide	1.3	J	µg/L	
		4/19/2012	N	SW8260	**cis-1,2-DCE**	**28.9**		**µg/L**	**6**
		4/19/2012	N	SW8260	**TCE**	**534**		**µg/L**	**5**
SWPZ01X29									
	SWPZ01x29-111	4/19/2012	N	SW8260	cis-1,2-DCE	0.2	J	µg/L	6
		4/19/2012	N	SW8260	TCE	0.99		µg/L	5
Site: Site SS030									
DWSET1X30									
	DWSETx30-111	4/30/2012	N	SW8260	No Analytes Detected				
EW01X30									
	EW01x30-111	4/30/2012	N	SW8260	Chloroform	1.5		µg/L	100
		4/30/2012	N	SW8260	**TCE**	**8.1**		**µg/L**	**5**
EW02X30									
	EW02x30-111	4/30/2012	N	SW8260	TCE	2.2		µg/L	5
EW03X30									
	EW03x30-111	4/30/2012	N	SW8260	No Analytes Detected				
EW04X30									
	EW04x30-111	4/30/2012	N	SW8260	TCE	4.2		µg/L	5
EW05X30									
	EW05x30-111	4/30/2012	N	SW8260	**TCE**	**17.5**		**µg/L**	**5**

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
SOUTH IRA									
SITES FT005/SS029/SS030									
Site: Site SS030									
EW06X30									
	EW06x30-111	5/10/2012	N	SW8260	Methyl ethyl ketone	8.6		µg/L	
		5/10/2012	N	SW8260	TCE	1.4		µg/L	5
EW711X30									
	EW711x30-111	5/10/2012	N	SW8260	No Analytes Detected				
MW03X30									
	MW03x30-PDB111	4/30/2012	N	SW8260	**TCE**	**5.2**		**µg/L**	**5**
MW04X30									
	MW04x30-PDB111	4/30/2012	N	SW8260	TCE	0.8		µg/L	5
MW05X30									
	MW05x30-PDB111	4/30/2012	N	SW8260	Acetone	128	J	µg/L	5110
		4/30/2012	N	SW8260	**TCE**	**27**		**µg/L**	**5**
MW10X30									
	MW10x30-PDB111	4/30/2012	N	SW8260	No Analytes Detected				
MW269X30									
	MW269x30-PDB111	4/19/2012	N	SW8260	Acetone	5.3		µg/L	5110
		4/19/2012	N	SW8260	Chloroform	4.4		µg/L	100
		4/19/2012	N	SW8260	**TCE**	**13.4**		**µg/L**	**5**
MW280X30									
	MW280x30-PDB111	4/23/2012	N	SW8260	No Analytes Detected				
MW709X30									
	MW709x30-PDB111	4/30/2012	N	SW8260	Acetone	17.2		µg/L	5110
MW2001AX30									
	MW2001Ax30-PDB	4/30/2012	N	SW8260	TCE	3.4		µg/L	5
MW2001BX30									
	MW2001Bx30-PDB	4/30/2012	N	SW8260	TCE	4.6		µg/L	5

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
CENTRAL IRA									
SITE SS016									
Site: Site SS016									
EW001X16									
	EW001x16-111	4/18/2012	N	SW8260	1,1-DCE	1.1		µg/L	6
		4/18/2012	N	SW8260	1,2-DCB	0.33	J	µg/L	
		4/18/2012	N	SW8260	**cis-1,2-DCE**	**117**		**µg/L**	**6**
		4/18/2012	N	SW8260	MTBE	0.8	J	µg/L	13
		4/18/2012	N	SW8260	PCE	0.58		µg/L	5
		4/18/2012	N	SW8260	**TCE**	**394**		**µg/L**	**5**
		4/18/2012	N	SW8260	trans-1,2-DCE	5.8		µg/L	
EW002X16									
	EW002x16-111	4/18/2012	N	SW8260	1,1-DCE	0.48	J+	µg/L	6
		4/18/2012	N	SW8260	1,2-DCB	0.71	J+	µg/L	
		4/18/2012	N	SW8260	**cis-1,2-DCE**	**26.4**	**J+**	**µg/L**	**6**
		4/18/2012	N	SW8260	PCE	0.68		µg/L	5
		4/18/2012	N	SW8260	**TCE**	**78.6**	**J+**	**µg/L**	**5**
		4/18/2012	N	SW8260	trans-1,2-DCE	2.4	J+	µg/L	
EW605X16									
	EW605x16-111	4/30/2012	N	SW8260	1,1-DCE	0.9		µg/L	6
		4/30/2012	N	SW8260	**cis-1,2-DCE**	**27.9**		**µg/L**	**6**
		4/30/2012	N	SW8260	PCE	0.38	J	µg/L	5
		4/30/2012	N	SW8260	**TCE**	**346**		**µg/L**	**5**
		4/30/2012	N	SW8260	trans-1,2-DCE	0.88		µg/L	
EW610X16									
	EW610x16-111	4/30/2012	N	SW8260	1,1-DCE	0.53		µg/L	6
		4/30/2012	N	SW8260	Chloroform	0.17	J	µg/L	100
		4/30/2012	N	SW8260	**cis-1,2-DCE**	**58.7**		**µg/L**	**6**
		4/30/2012	N	SW8260	PCE	1		µg/L	5
		4/30/2012	N	SW8260	**TCE**	**596**		**µg/L**	**5**
		4/30/2012	N	SW8260	trans-1,2-DCE	1.7		µg/L	
MW102X16									
	MW102x16-PDB111	4/6/2012	N	SW8260	1,1-DCE	0.74		µg/L	6
		4/6/2012	N	SW8260	**cis-1,2-DCE**	**14**		**µg/L**	**6**
		4/6/2012	N	SW8260	**TCE**	**66**		**µg/L**	**5**
		4/6/2012	N	SW8260	trans-1,2-DCE	0.64		µg/L	
		4/6/2012	N	SW8260	Vinyl chloride	0.28	J	µg/L	0.5
MW103X16									
	MW103x16-111	4/18/2012	N	SW8260	1,1-DCE	0.33	J	µg/L	6
		4/18/2012	N	SW8260	1,2-DCB	3.3		µg/L	

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
CENTRAL IRA									
SITE SS016									
Site: Site SS016									
MW103X16									
	MW103x16-111	4/18/2012	N	SW8260	1,3-DCB	0.46	J	µg/L	
		4/18/2012	N	SW8260	1,4-DCB	0.99		µg/L	5
		4/18/2012	N	SW8260	**cis-1,2-DCE**	**112**		**µg/L**	**6**
		4/18/2012	N	SW8260	PCE	0.34	J	µg/L	5
		4/18/2012	N	SW8260	**TCE**	**280**		**µg/L**	**5**
		4/18/2012	N	SW8260	trans-1,2-DCE	2.8		µg/L	
MW214X16									
	MW214x16-PDB111	4/30/2012	N	SW8260	Acetone	8.6		µg/L	5110
		4/30/2012	N	SW8260	cis-1,2-DCE	1.6		µg/L	6
		4/30/2012	N	SW8260	**TCE**	**22.6**		**µg/L**	**5**
MW241X16									
	MW241x16-PDB111	4/30/2012	N	SW8260	1,1-DCE	0.47	J	µg/L	6
		4/30/2012	N	SW8260	Acetone	21.7		µg/L	5110
		4/30/2012	N	SW8260	**cis-1,2-DCE**	**9.6**		**µg/L**	**6**
		4/30/2012	N	SW8260	**TCE**	**44.6**		**µg/L**	**5**
MW244X16									
	MW244x16-PDB111	4/30/2012	N	SW8260	Acetone	12.3		µg/L	5110
		4/30/2012	N	SW8260	TCE	0.23	J	µg/L	5
MW245X16									
	MW245x16-PDB111	5/3/2012	N	SW8260	cis-1,2-DCE	4		µg/L	6
		5/3/2012	N	SW8260	**TCE**	**27.5**		**µg/L**	**5**
MW316X16									
	MW316x16-PDB111	5/3/2012	N	SW8260	1,1-DCE	0.26	J	µg/L	6
		5/3/2012	N	SW8260	**cis-1,2-DCE**	**6.4**		**µg/L**	**6**
		5/3/2012	N	SW8260	MTBE	0.7	J	µg/L	13
		5/3/2012	N	SW8260	**TCE**	**38.5**		**µg/L**	**5**
		5/3/2012	N	SW8260	trans-1,2-DCE	0.65		µg/L	
MW603X16									
	MW603x16-PDB111	5/3/2012	N	SW8260	1,1-DCE	0.69		µg/L	6
		5/3/2012	N	SW8260	**cis-1,2-DCE**	**15.1**		**µg/L**	**6**
		5/3/2012	N	SW8260	**TCE**	**258**		**µg/L**	**5**
		5/3/2012	N	SW8260	Vinyl chloride	0.3	J	µg/L	0.5
MW604X16									
	MW604x16-PDB111	4/30/2012	N	SW8260	1,1-DCE	5.8		µg/L	6
		4/30/2012	N	SW8260	Acetone	39.7		µg/L	5110
		4/30/2012	N	SW8260	**cis-1,2-DCE**	**6.8**		**µg/L**	**6**

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
CENTRAL IRA									
SITE SS016									
Site: Site SS016									
MW604X16									
	MW604x16-PDB111	4/30/2012	N	SW8260	**TCE**	**85.9**		**µg/L**	**5**
MW606X16									
	MW606x16-PDB111	4/30/2012	N	SW8260	1,1-DCE	0.98		µg/L	6
		4/30/2012	N	SW8260	Acetone	9.3		µg/L	5110
		4/30/2012	N	SW8260	**cis-1,2-DCE**	**18.6**		**µg/L**	**6**
		4/30/2012	N	SW8260	PCE	0.48	J	µg/L	5
		4/30/2012	N	SW8260	**TCE**	**209**		**µg/L**	**5**
		4/30/2012	N	SW8260	Vinyl chloride	0.33	J	µg/L	0.5
MW607X16									
	MW607x16-PDB111	4/30/2012	N	SW8260	1,1-DCE	1		µg/L	6
		4/30/2012	N	SW8260	Acetone	6		µg/L	5110
		4/30/2012	N	SW8260	cis-1,2-DCE	0.56	J	µg/L	6
		4/30/2012	N	SW8260	TCE	1.4		µg/L	5
MW608X16									
	MW608x16-PDB111	4/30/2012	N	SW8260	**1,1-DCE**	**11.5**		**µg/L**	**6**
		4/30/2012	N	SW8260	1,2-DCB	0.48	J	µg/L	
		4/30/2012	N	SW8260	1,4-DCB	0.37	J	µg/L	5
		4/30/2012	N	SW8260	Acetone	43.9		µg/L	5110
		4/30/2012	N	SW8260	**cis-1,2-DCE**	**40.5**		**µg/L**	**6**
		4/30/2012	N	SW8260	Methyl ethyl ketone	6		µg/L	
		4/30/2012	N	SW8260	**TCE**	**825**		**µg/L**	**5**
		4/30/2012	N	SW8260	**Vinyl chloride**	**0.66**		**µg/L**	**0.5**
MW609X16									
	MW609x16-PDB111	4/30/2012	N	SW8260	1,1-DCE	1.3		µg/L	6
		4/30/2012	N	SW8260	Acetone	53.5		µg/L	5110
		4/30/2012	N	SW8260	**cis-1,2-DCE**	**24.4**		**µg/L**	**6**
		4/30/2012	N	SW8260	Methyl ethyl ketone	8.4		µg/L	
		4/30/2012	N	SW8260	PCE	0.42	J	µg/L	5
		4/30/2012	N	SW8260	**TCE**	**346**		**µg/L**	**5**
		4/30/2012	N	SW8260	trans-1,2-DCE	0.81		µg/L	
		4/30/2012	N	SW8260	Vinyl chloride	0.28	J	µg/L	0.5
MW611X16									
	MW611x16-PDB111	5/7/2012	N	SW8260	cis-1,2-DCE	0.46	J	µg/L	6
		5/7/2012	N	SW8260	**TCE**	**19.4**		**µg/L**	**5**
MW1022X16									
	MW1022x16-PDB11	5/7/2012	N	SW8260	cis-1,2-DCE	5.2		µg/L	6

ATTACHMENT 1

Locations Sampled and Chemicals Detected at Site SS016 during the 2012 GSAP

Travis AFB 2012 GSAP Technical Memorandum

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
CENTRAL IRA									
SITE SS016									
Site: Site SS016									
MW1022X16									
	MW1022x16-PDB11	5/7/2012	N	SW8260	**TCE**	**18.6**		**µg/L**	**5**
		5/7/2012	N	SW8260	trans-1,2-DCE	0.36	J	µg/L	
MW1023X16									
	MW1023x16-111	4/25/2012	N	SW8015-E	No Analytes Detected				
		4/25/2012	N	SW8015-P	No Analytes Detected				
		4/25/2012	N	SW8260	No Analytes Detected				
MW1206X16									
	MW1206x16-PDB11	5/1/2012	N	SW8260	Acetone	2.2	J	µg/L	5110
MW1706X16									
	MW1706x16-PDB11	4/6/2012	N	SW8260	No Analytes Detected				
MW1708X16									
	MW1708x16-PDB11	5/1/2012	N	SW8260	Acetone	31.2		µg/L	5110
		5/1/2012	N	SW8260	Chloroform	0.21	J	µg/L	100
		5/1/2012	N	SW8260	**TCE**	**8.2**		**µg/L**	**5**
MW1710X16									
	MW1710x16-PDB11	5/1/2012	N	SW8260	Acetone	34.2		µg/L	5110
		5/1/2012	N	SW8260	cis-1,2-DCE	0.91	J	µg/L	6
		5/1/2012	N	SW8260	TCE	2.5		µg/L	5
MW1712X16									
	MW1712x16-PDB11	4/6/2012	N	SW8260	cis-1,2-DCE	0.44	J	µg/L	6
		4/6/2012	N	SW8260	TCE	0.79		µg/L	5
MW1714X16									
	MW1714x16-PDB11	4/6/2012	N	SW8260	cis-1,2-DCE	5		µg/L	6
		4/6/2012	N	SW8260	**TCE**	**6.2**		**µg/L**	**5**
MW1739X16									
	MW1739x16-PDB11	4/6/2012	N	SW8260	cis-1,2-DCE	0.68	J	µg/L	6
		4/6/2012	N	SW8260	TCE	1.5		µg/L	5
MW2023X16									
	MW2023x16-111	4/18/2012	N	SW8260	**cis-1,2-DCE**	**137**	**J-**	**µg/L**	**6**
		4/18/2012	N	SW8260	**TCE**	**138**	**J-**	**µg/L**	**5**
		4/18/2012	N	SW8260	trans-1,2-DCE	2.1	J+	µg/L	
MW2028X16									
	MW2028x16-111	4/18/2012	N	SW8260	**cis-1,2-DCE**	**140**		**µg/L**	**6**
		4/18/2012	N	SW8260	**PCE**	**14.7**		**µg/L**	**5**
		4/18/2012	N	SW8260	**TCE**	**1140**		**µg/L**	**5**
		4/18/2012	N	SW8260	trans-1,2-DCE	1.9	J	µg/L	

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
CENTRAL IRA									
SITE SS016									
Site: Site SS016									
MW2030X16									
	MW2030x16-PDB11	4/18/2012	N	SW8260	Bromoform	0.62	J	µg/L	
		4/18/2012	N	SW8260	cis-1,2-DCE	3.2		µg/L	6
		4/18/2012	N	SW8260	PCE	0.45	J	µg/L	5
		4/18/2012	N	SW8260	**TCE**	**22**		**µg/L**	**5**
MW2111BX16									
	MW2111Bx16-PDB	4/6/2012	N	SW8260	cis-1,2-DCE	1.1		µg/L	6
		4/6/2012	N	SW8260	**TCE**	**6.3**		**µg/L**	**5**
Site: Site ST027									
MW792X27									
	MW792x27-PBD111	4/25/2012	N	SW8260	**TCE**	**6.5**		**µg/L**	**5**

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
CENTRAL IRA									
SITE ST027									
Site: Site SS016									
MW1023X16									
	MW1023x16-111	4/25/2012	N	SW8015-E	No Analytes Detected				
		4/25/2012	N	SW8015-P	No Analytes Detected				
		4/25/2012	N	SW8260	No Analytes Detected				
Site: Site ST027									
MW278X27									
	MW278x27-111	4/24/2012	N	SW8015-E	No Analytes Detected				
		4/24/2012	N	SW8015-P	No Analytes Detected				
		4/24/2012	N	SW8260	No Analytes Detected				
MW791X27									
	MW791x27-111	4/25/2012	N	SW8260	1,1-DCE	1.5	J	µg/L	6
		4/25/2012	N	SW8260	**Benzene**	**1.2**	**J**	**µg/L**	**1**
		4/25/2012	N	SW8015-E	No Analytes Detected				
		4/25/2012	N	SW8015-P	TPH-G	100		µg/L	100
	MW791x27-111B	4/25/2012	FD	SW8260	**cis-1,2-DCE**	**62.4**		**µg/L**	**6**
		4/25/2012	FD	SW8260	**TCE**	**498**		**µg/L**	**5**
		4/25/2012	FD	SW8260	trans-1,2-DCE	2.5	J	µg/L	
MW792X27									
	MW792x27-PBD111	4/25/2012	N	SW8260	**TCE**	**6.5**		**µg/L**	**5**
MW794X27									
	MW794x27-111	4/24/2012	N	SW8260	**cis-1,2-DCE**	**11.6**		**µg/L**	**6**
		4/24/2012	N	SW8015-E	No Analytes Detected				
		4/24/2012	N	SW8015-P	No Analytes Detected				
		4/24/2012	N	SW8260	TCE	2		µg/L	5
		4/24/2012	N	SW8260	**Vinyl chloride**	**0.94**		**µg/L**	**0.5**
MW795X27									
	MW795x27-111	4/24/2012	N	SW8260	No Analytes Detected				
		4/24/2012	N	SW8015-E	TPH-D	78	J	µg/L	100
		4/24/2012	N	SW8015-P	TPH-G	91	J+	µg/L	100
MW2009X27									
	MW2009x27-111	4/24/2012	N	SW8260	1,1-DCE	0.23	J	µg/L	6
		4/24/2012	N	SW8260	cis-1,2-DCE	1.1		µg/L	6
		4/24/2012	N	SW8015-E	No Analytes Detected				
		4/24/2012	N	SW8260	**TCE**	**28.4**		**µg/L**	**5**
		4/24/2012	N	SW8015-P	**TPH-G**	**190**	**J+**	**µg/L**	**100**
MW2010X27									
	MW2010x27-111	4/24/2012	N	SW8015-E	No Analytes Detected				

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
CENTRAL IRA									
SITE ST027									
Site: Site ST027									
MW2010X27									
	MW2010x27-111	4/24/2012	N	SW8015-P	No Analytes Detected				
		4/24/2012	N	SW8260	No Analytes Detected				
MW2048X27									
	MW2048x27-111	4/24/2012	N	SW8260	cis-1,2-DCE	0.73	J	µg/L	6
		4/24/2012	N	SW8015-E	No Analytes Detected				
		4/24/2012	N	SW8015-P	No Analytes Detected				
		4/24/2012	N	SW8260	TCE	0.52		µg/L	5

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
WIOU									
Site: Site SS014									
MW05X14									
	MW05x14-111	4/24/2012	N	SW8260	Ethylbenzene	2.9		µg/L	300
		4/24/2012	N	SW8260	m,p-Xylene	2.7		µg/L	1750
		4/24/2012	N	SW8260	MTBE	3		µg/L	13
		4/24/2012	N	SW8015-E	**TPH-D**	**590**		**µg/L**	**100**
		4/24/2012	N	SW8015-P	**TPH-G**	**730**	**J+**	**µg/L**	**5**
Site: Site SD033									
EW501X33									
	EW501x33-111	4/17/2012	N	SW8015-E	No Analytes Detected				
		4/17/2012	N	SW8015-P	No Analytes Detected				
		4/17/2012	N	SW8260	TCE	1.5		µg/L	5
EW503X33									
	EW503x33-111	4/17/2012	N	SW8015-E	No Analytes Detected				
		4/17/2012	N	SW8015-P	No Analytes Detected				
		4/17/2012	N	SW8260	TCE	1.5		µg/L	5
MW502X33									
	MW502x33-111	4/17/2012	N	SW8260	Chloroform	0.27	J-	µg/L	100
		4/17/2012	N	SW8260	cis-1,2-DCE	1.9	J-	µg/L	6
		4/17/2012	N	SW8015-E	No Analytes Detected				
		4/17/2012	N	SW8015-P	No Analytes Detected				
		4/17/2012	N	SW8260	PCE	0.62	J-	µg/L	5
		4/17/2012	N	SW8260	**TCE**	**84.8**		**µg/L**	**5**
MW504X33									
	MW504x33-111	4/18/2012	N	SW8015-E	No Analytes Detected				
		4/18/2012	N	SW8015-P	No Analytes Detected				
		4/18/2012	N	SW8260	TCE	1.3		µg/L	5
MW509X33									
	MW509x33-111	4/18/2012	N	SW8015-E	No Analytes Detected				
		4/18/2012	N	SW8015-P	No Analytes Detected				
		4/18/2012	N	SW8260	TCE	0.58		µg/L	5
MW530X33									
	MW530x33-111	4/18/2012	N	SW8015-E	No Analytes Detected				
		4/18/2012	N	SW8015-P	No Analytes Detected				
		4/18/2012	N	SW8260	No Analytes Detected				
MW1S3X33									
	MW1S3x33-111	4/25/2012	N	SW8260	MTBE	0.88	J	µg/L	13
		4/25/2012	N	SW8015-E	No Analytes Detected				

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
WIOU									
Site: Site SD033									
MW1S3X33									
	MW1S3x33-111	4/25/2012	N	SW8015-P	**TPH-G**	**97**		**µg/L**	**5**
WBUC-3									
	WBUC-3-111	4/18/2012	N	SW8260	cis-1,2-DCE	0.56	J	µg/L	6
		4/18/2012	N	SW8015-E	No Analytes Detected				
		4/18/2012	N	SW8015-P	No Analytes Detected				
		4/18/2012	N	SW8260	PCE	0.39	J	µg/L	5
		4/18/2012	N	SW8260	TCE	1.7		µg/L	5
WBUC-4									
	WBUC-4-111	4/18/2012	N	SW8260	cis-1,2-DCE	0.86	J	µg/L	6
		4/18/2012	N	SW8015-E	No Analytes Detected				
		4/18/2012	N	SW8015-P	No Analytes Detected				
		4/18/2012	N	SW8260	PCE	0.38	J	µg/L	5
		4/18/2012	N	SW8260	TCE	1.9		µg/L	5
Site: Site SD034									
EW01X34									
	EW01x34-111	4/17/2012	N	SW8015-P	No Analytes Detected				
		4/17/2012	N	SW8260	Toluene	1.1		µg/L	150
		4/17/2012	N	SW8015-E	**TPH-D**	**300**		**µg/L**	**100**
EW03X34									
	EW03x34-111	4/17/2012	N	SW8015-P	No Analytes Detected				
		4/17/2012	N	SW8260	No Analytes Detected				
		4/17/2012	N	SW8015-E	**TPH-D**	**180**		**µg/L**	**100**
MW02X34									
	MW02x34-111	4/17/2012	N	SW8015-P	No Analytes Detected				
		4/17/2012	N	SW8260	TCE	0.32	J	µg/L	5
		4/17/2012	N	SW8015-E	**TPH-D**	**1400**		**µg/L**	**100**
MW04X34									
	MW04x34-111	4/25/2012	N	SW8260	No Analytes Detected				
		4/25/2012	N	SW8015-E	TPH-D	62	J	µg/L	100
		4/25/2012	N	SW8015-P	**TPH-G**	**120**		**µg/L**	**5**
Site: Site SD036									
EW593X36									
	EW593x36-111	4/17/2012	N	SW8015-E	No Analytes Detected				
		4/17/2012	N	SW8015-P	No Analytes Detected				
		4/17/2012	N	SW8260	TCE	0.3	J	µg/L	5
EW594X36									
	EW594x36-111	4/9/2012	N	SW8260	1,1-DCE	4		µg/L	6

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
WIOU									
Site: Site SD036									
EW594X36									
	EW594x36-111	4/9/2012	N	SW8260	**cis-1,2-DCE**	**751**		**µg/L**	**6**
		4/9/2012	N	SW8015-E	No Analytes Detected				
		4/9/2012	N	SW8260	**TCE**	**98.3**		**µg/L**	**5**
		4/9/2012	N	SW8015-P	**TPH-G**	**460**		**µg/L**	**5**
		4/9/2012	N	SW8260	trans-1,2-DCE	13		µg/L	
		4/9/2012	N	SW8260	**Vinyl chloride**	**1680**		**µg/L**	**0.5**
MW873M2X36									
	MW873M2x36-111	4/17/2012	N	SW8260	1,1-DCE	0.24	J	µg/L	6
		4/17/2012	N	SW8260	**cis-1,2-DCE**	**12.4**		**µg/L**	**6**
		4/17/2012	N	SW8015-E	No Analytes Detected				
		4/17/2012	N	SW8015-P	No Analytes Detected				
		4/17/2012	N	SW8260	**TCE**	**72.8**		**µg/L**	**5**
		4/17/2012	N	SW8260	trans-1,2-DCE	6.5		µg/L	
MW2108AX36									
	MW2108Ax36-111	4/9/2012	N	SW8260	1,1-DCE	0.36	J	µg/L	6
		4/9/2012	N	SW8260	cis-1,2-DCE	0.77	J	µg/L	6
		4/9/2012	N	SW8015-E	No Analytes Detected				
		4/9/2012	N	SW8260	**TCE**	**62.3**		**µg/L**	**5**
		4/9/2012	N	SW8015-P	**TPH-G**	**26**	**J**	**µg/L**	**5**
MW2108BX36									
	MW2108Bx36-111	4/9/2012	N	SW8015-E	No Analytes Detected				
		4/9/2012	N	SW8015-P	No Analytes Detected				
		4/9/2012	N	SW8260	TCE	1.3		µg/L	5
MW2108CX36									
	MW2108Cx36-111	4/9/2012	N	SW8260	cis-1,2-DCE	1.3		µg/L	6
		4/9/2012	N	SW8015-E	No Analytes Detected				
		4/9/2012	N	SW8015-P	No Analytes Detected				
		4/9/2012	N	SW8260	TCE	4.3		µg/L	5
PZ12DX36									
	PZ12Dx36-111	5/14/2012	N	SW8015-P	No Analytes Detected				
		5/14/2012	N	SW8260	No Analytes Detected				
		5/14/2012	N	SW8015-E	TPH-D	66	J	µg/L	100
PZ12SX36									
	PZ12Sx36-111	5/14/2012	N	SW8260	1,1-DCE	0.85		µg/L	6
		5/14/2012	N	SW8260	**1,2-DCA**	**2.5**		**µg/L**	**0.5**
		5/14/2012	N	SW8260	1,2-DCB	0.37	J	µg/L	

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
WIOU									
Site: Site SD036									
PZ12SX36									
	PZ12Sx36-111	5/14/2012	N	SW8260	Benzene	0.32	J	µg/L	1
		5/14/2012	N	SW8260	Chloroform	2.3		µg/L	100
		5/14/2012	N	SW8260	**cis-1,2-DCE**	**222**		**µg/L**	**6**
		5/14/2012	N	SW8260	**PCE**	**7.7**		**µg/L**	**5**
		5/14/2012	N	SW8260	**TCE**	**177**		**µg/L**	**5**
		5/14/2012	N	SW8015-E	TPH-D	100		µg/L	100
		5/14/2012	N	SW8015-P	**TPH-G**	**140**		**µg/L**	**5**
		5/14/2012	N	SW8260	trans-1,2-DCE	9.6		µg/L	
		5/14/2012	N	SW8260	**Vinyl chloride**	**2**		**µg/L**	**0.5**
Site: Site SD037									
EW510X37									
	EW510x37-111	4/5/2012	N	SW8260	**cis-1,2-DCE**	**10.3**		**µg/L**	**6**
		4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	PCE	0.44	J	µg/L	5
		4/5/2012	N	SW8260	**TCE**	**20.6**		**µg/L**	**5**
		4/5/2012	N	SW8260	Toluene	0.19	J	µg/L	150
EW511X37									
	EW511x37-111	4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	TCE	0.5		µg/L	5
EW700X37									
	EW700x37-111	4/4/2012	N	SW8260	cis-1,2-DCE	2		µg/L	6
		4/4/2012	N	SW8015-E	No Analytes Detected				
		4/4/2012	N	SW8015-P	No Analytes Detected				
		4/4/2012	N	SW8260	TCE	1		µg/L	5
		4/4/2012	N	SW8260	Vinyl chloride	0.27	J	µg/L	0.5
EW702X37									
	EW702x37-111	4/4/2012	N	SW8260	cis-1,2-DCE	1.1		µg/L	6
		4/4/2012	N	SW8015-E	No Analytes Detected				
		4/4/2012	N	SW8015-P	No Analytes Detected				
		4/4/2012	N	SW8260	TCE	0.99		µg/L	5
		4/4/2012	N	SW8260	Vinyl chloride	0.3	J	µg/L	0.5
EW703X37									
	EW703x37-111	4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
WIOU									
Site: Site SD037									
EW703X37									
	EW703x37-111	4/5/2012	N	SW8260	TCE	1.1		µg/L	5
EW704X37									
	EW704x37-111	4/5/2012	N	SW8260	Chloroform	0.28	J	µg/L	100
		4/5/2012	N	SW8260	cis-1,2-DCE	0.35	J	µg/L	6
		4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	PCE	0.28	J	µg/L	5
		4/5/2012	N	SW8260	**TCE**	**19.5**		**µg/L**	**5**
EW705X37									
	EW705x37-111	4/4/2012	N	SW8260	cis-1,2-DCE	0.47	J	µg/L	6
		4/4/2012	N	SW8015-E	No Analytes Detected				
		4/4/2012	N	SW8015-P	No Analytes Detected				
		4/4/2012	N	SW8260	**TCE**	**47.2**		**µg/L**	**5**
EW706X37									
	EW706x37-111	4/5/2012	N	SW8260	Chloroform	1.2		µg/L	100
		4/5/2012	N	SW8260	cis-1,2-DCE	3.4		µg/L	6
		4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	PCE	2.6		µg/L	5
		4/5/2012	N	SW8260	**TCE**	**87**		**µg/L**	**5**
		4/5/2012	N	SW8260	**Vinyl chloride**	**4.1**		**µg/L**	**0.5**
EW707X37									
	EW707x37-111	4/5/2012	N	SW8260	**Carbon tetrachloride**	**7.5**		**µg/L**	**0.5**
		4/5/2012	N	SW8260	Chloroform	7.3		µg/L	100
		4/5/2012	N	SW8260	cis-1,2-DCE	2.1		µg/L	6
		4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	PCE	1.4		µg/L	5
		4/5/2012	N	SW8260	**TCE**	**401**		**µg/L**	**5**
MW116X37									
	MW116x37-111	4/4/2012	N	SW8260	MTBE	9.4		µg/L	13
		4/4/2012	N	SW8015-E	No Analytes Detected				
		4/4/2012	N	SW8015-P	No Analytes Detected				
MW223X37									
	MW223x37-111	4/4/2012	N	SW8260	**Benzene**	**1.2**		**µg/L**	**1**
		4/4/2012	N	SW8015-E	No Analytes Detected				

Location Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA								
WIOU								
Site: Site SD037								
MW223X37								
MW223x37-111	4/4/2012	N	SW8015-P	No Analytes Detected				
MW224X37								
MW224x37-111	4/5/2012	N	SW8260	Benzene	0.8		µg/L	1
	4/5/2012	N	SW8260	Ethylbenzene	0.3	J	µg/L	300
	4/5/2012	N	SW8015-E	No Analytes Detected				
	4/5/2012	N	SW8015-P	**TPH-G**	**190**		**µg/L**	**5**
MW500X37								
MW500x37-111	4/4/2012	N	SW8260	**Carbon tetrachloride**	**1.3**		**µg/L**	**0.5**
	4/4/2012	N	SW8260	Chloroform	1.4		µg/L	100
	4/4/2012	N	SW8260	cis-1,2-DCE	4.4		µg/L	6
	4/4/2012	N	SW8015-E	No Analytes Detected				
	4/4/2012	N	SW8015-P	No Analytes Detected				
	4/4/2012	N	SW8260	**PCE**	**22.6**		**µg/L**	**5**
	4/4/2012	N	SW8260	**TCE**	**79.7**		**µg/L**	**5**
MW513X37								
MW513x37-111	4/3/2012	N	SW8015-E	No Analytes Detected				
	4/3/2012	N	SW8015-P	No Analytes Detected				
	4/3/2012	N	SW8260	**TCE**	**6.8**		**µg/L**	**5**
	4/3/2012	N	SW8260	Vinyl chloride	0.26	J	µg/L	0.5
MW514X37								
MW514x37-111	4/4/2012	N	SW8260	Chloroform	0.42	J	µg/L	100
	4/4/2012	N	SW8260	cis-1,2-DCE	1.1		µg/L	6
	4/4/2012	N	SW8015-E	No Analytes Detected				
	4/4/2012	N	SW8015-P	No Analytes Detected				
	4/4/2012	N	SW8260	**TCE**	**108**		**µg/L**	**5**
MW518X37								
MW518x37-111	4/3/2012	N	SW8260	cis-1,2-DCE	1.3		µg/L	6
	4/3/2012	N	SW8260	MTBE	11.4		µg/L	13
	4/3/2012	N	SW8015-E	No Analytes Detected				
	4/3/2012	N	SW8015-P	No Analytes Detected				
	4/3/2012	N	SW8260	PCE	1.1		µg/L	5
	4/3/2012	N	SW8260	**TCE**	**18.2**		**µg/L**	**5**
	4/3/2012	N	SW8260	Vinyl chloride	0.4	J	µg/L	0.5
MW519X37								
MW519x37-111	4/5/2012	N	SW8260	**cis-1,2-DCE**	**7**		**µg/L**	**6**
	4/5/2012	N	SW8260	MTBE	0.82	J	µg/L	13

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
WIOU									
Site: Site SD037									
MW519X37									
	MW519x37-111	4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	**TCE**	**5.3**		**µg/L**	**5**
		4/5/2012	N	SW8260	**Vinyl chloride**	**0.54**		**µg/L**	**0.5**
MW520X37									
	MW520x37-111	4/3/2012	N	SW8260	cis-1,2-DCE	4.7		µg/L	6
		4/3/2012	N	SW8015-E	No Analytes Detected				
		4/3/2012	N	SW8015-P	No Analytes Detected				
		4/3/2012	N	SW8260	PCE	0.24	J	µg/L	5
		4/3/2012	N	SW8260	**TCE**	**21.1**		**µg/L**	**5**
		4/3/2012	N	SW8260	**Vinyl chloride**	**1**		**µg/L**	**0.5**
MW525X37									
	MW525x37-111	4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	TCE	3.4		µg/L	5
MW526X37									
	MW526x37-111	4/4/2012	N	SW8260	Chloroform	0.5	J	µg/L	100
		4/4/2012	N	SW8260	**cis-1,2-DCE**	**8.9**		**µg/L**	**6**
		4/4/2012	N	SW8015-E	No Analytes Detected				
		4/4/2012	N	SW8015-P	No Analytes Detected				
		4/4/2012	N	SW8260	PCE	0.82		µg/L	5
		4/4/2012	N	SW8260	**TCE**	**157**		**µg/L**	**5**
MW528X37									
	MW528x37-111	4/3/2012	N	SW8260	cis-1,2-DCE	1.1		µg/L	6
		4/3/2012	N	SW8015-E	No Analytes Detected				
		4/3/2012	N	SW8015-P	No Analytes Detected				
		4/3/2012	N	SW8260	PCE	0.23	J	µg/L	5
		4/3/2012	N	SW8260	**TCE**	**13.4**		**µg/L**	**5**
		4/3/2012	N	SW8260	Vinyl chloride	0.26	J	µg/L	0.5
MW529X37									
	MW529x37-111	4/3/2012	N	SW8260	cis-1,2-DCE	1.3		µg/L	6
		4/3/2012	N	SW8260	MTBE	2.4		µg/L	13
		4/3/2012	N	SW8015-E	No Analytes Detected				
		4/3/2012	N	SW8015-P	No Analytes Detected				
		4/3/2012	N	SW8260	PCE	0.23	J	µg/L	5
		4/3/2012	N	SW8260	TCE	3.3		µg/L	5

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
WIOU									
Site: Site SD037									
MW531X37									
	MW531x37-111	4/3/2012	N	SW8260	Chloroform	0.39	J	µg/L	100
		4/3/2012	N	SW8260	**cis-1,2-DCE**	**10**		**µg/L**	**6**
		4/3/2012	N	SW8015-E	No Analytes Detected				
		4/3/2012	N	SW8015-P	No Analytes Detected				
		4/3/2012	N	SW8260	PCE	0.81		µg/L	5
		4/3/2012	N	SW8260	**TCE**	**420**		**µg/L**	**5**
		4/3/2012	N	SW8260	Vinyl chloride	0.48	J	µg/L	0.5
MW532X37									
	MW532x37-111	4/5/2012	N	SW8260	**cis-1,2-DCE**	**74.5**		**µg/L**	**6**
		4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	**TCE**	**839**		**µg/L**	**5**
		4/5/2012	N	SW8260	trans-1,2-DCE	28.4		µg/L	
MW535X37									
	MW535x37-111	4/3/2012	N	SW8260	Carbon tetrachloride	0.3	J	µg/L	0.5
		4/3/2012	N	SW8260	Chloroform	0.59	J	µg/L	100
		4/3/2012	N	SW8260	cis-1,2-DCE	3.3		µg/L	6
		4/3/2012	N	SW8015-E	No Analytes Detected				
		4/3/2012	N	SW8015-P	No Analytes Detected				
		4/3/2012	N	SW8260	PCE	0.3	J	µg/L	5
		4/3/2012	N	SW8260	**TCE**	**403**		**µg/L**	**5**
MW537X37									
	MW537x37-111	4/3/2012	N	SW8015-E	No Analytes Detected				
		4/3/2012	N	SW8015-P	No Analytes Detected				
		4/3/2012	N	SW8260	No Analytes Detected				
MW539X37									
	MW539x37-111	4/3/2012	N	SW8260	**cis-1,2-DCE**	**70.2**		**µg/L**	**6**
		4/3/2012	N	SW8015-E	No Analytes Detected				
		4/3/2012	N	SW8015-P	No Analytes Detected				
		4/3/2012	N	SW8260	PCE	1.3		µg/L	5
		4/3/2012	N	SW8260	**TCE**	**74.9**		**µg/L**	**5**
		4/3/2012	N	SW8260	trans-1,2-DCE	2		µg/L	
MW541X37									
	MW541x37-111	4/3/2012	N	SW8260	cis-1,2-DCE	0.23	J	µg/L	6
		4/3/2012	N	SW8015-E	No Analytes Detected				
		4/3/2012	N	SW8015-P	No Analytes Detected				

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
WIOU									
Site: Site SD037									
MW541X37									
	MW541x37-111	4/3/2012	N	SW8260	TCE	2		µg/L	5
MW722X37									
	MW722x37-111	4/4/2012	N	SW8260	1,1-DCA	0.51	J	µg/L	
		4/4/2012	N	SW8260	cis-1,2-DCE	0.6	J	µg/L	6
		4/4/2012	N	SW8015-E	No Analytes Detected				
		4/4/2012	N	SW8015-P	No Analytes Detected				
		4/4/2012	N	SW8260	PCE	0.78		µg/L	5
		4/4/2012	N	SW8260	**TCE**	**10.2**		**µg/L**	**5**
MW723X37									
	MW723x37-111	4/5/2012	N	SW8260	cis-1,2-DCE	0.28	J	µg/L	6
		4/5/2012	N	SW8260	MTBE	0.42	J	µg/L	13
		4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	TCE	2.4		µg/L	5
MW724X37									
	MW724x37-111	5/8/2012	N	SW8015-P	No Analytes Detected				
		5/8/2012	N	SW8260	No Analytes Detected				
		5/8/2012	N	SW8015-E	TPH-D	74	J	µg/L	100
MW1205X37									
	MW1205x37-111	4/3/2012	N	SW8260	cis-1,2-DCE	1.2		µg/L	6
		4/3/2012	N	SW8015-E	No Analytes Detected				
		4/3/2012	N	SW8015-P	No Analytes Detected				
		4/3/2012	N	SW8260	**PCE**	**5.8**		**µg/L**	**5**
		4/3/2012	N	SW8260	**TCE**	**17.7**		**µg/L**	**5**
		4/3/2012	N	SW8260	Vinyl chloride	0.38	J	µg/L	0.5
MW1208X37									
	MW1208x37-111	4/26/2012	N	SW8015-E	No Analytes Detected				
		4/26/2012	N	SW8015-P	No Analytes Detected				
		4/26/2012	N	SW8260	TCE	3.7		µg/L	5
MW1209X37									
	MW1209x37-111	4/26/2012	N	SW8015-E	No Analytes Detected				
		4/26/2012	N	SW8015-P	No Analytes Detected				
		4/26/2012	N	SW8260	TCE	1.2		µg/L	5
MW2101CX37									
	MW2101Cx37-111	4/4/2012	N	SW8015-E	No Analytes Detected				
		4/4/2012	N	SW8015-P	No Analytes Detected				

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
WIOU									
Site: Site SD037									
MW2101CX37									
	MW2101Cx37-111	4/4/2012	N	SW8260	TCE	2.6		µg/L	5
MW2117X37									
	MW2117x37-111	4/3/2012	N	SW8260	Chloroform	0.32	J	µg/L	100
		4/3/2012	N	SW8260	cis-1,2-DCE	1.3		µg/L	6
		4/3/2012	N	SW8015-E	No Analytes Detected				
		4/3/2012	N	SW8015-P	No Analytes Detected				
		4/3/2012	N	SW8260	PCE	0.25	J	µg/L	5
		4/3/2012	N	SW8260	**TCE**	**28**		**µg/L**	**5**
		4/3/2012	N	SW8260	Vinyl chloride	0.34	J	µg/L	0.5
MW2121X37									
	MW2121x37-111	4/17/2012	N	SW8260	cis-1,2-DCE	5.1		µg/L	6
		4/17/2012	N	SW8015-E	No Analytes Detected				
		4/17/2012	N	SW8260	**TCE**	**936**		**µg/L**	**5**
		4/17/2012	N	SW8015-P	**TPH-G**	**330**	**J-**	**µg/L**	**5**
MW2122X37									
	MW2122x37-111	4/3/2012	N	SW8015-E	No Analytes Detected				
		4/3/2012	N	SW8015-P	No Analytes Detected				
		4/3/2012	N	SW8260	TCE	0.73		µg/L	5
		4/3/2012	N	SW8260	Vinyl chloride	0.36	J	µg/L	0.5
MWS3M3X37									
	MWS3M3x37-111	4/25/2012	N	SW8260	Ethylbenzene	0.34	J	µg/L	300
		4/25/2012	N	SW8015-E	**TPH-D**	**1100**		**µg/L**	**100**
		4/25/2012	N	SW8015-P	**TPH-G**	**460**		**µg/L**	**5**
MWSNSM1X37									
	MWSNSM1x37-111	4/5/2012	N	SW8260	Chloroform	1.1		µg/L	100
		4/5/2012	N	SW8260	**cis-1,2-DCE**	**16.5**		**µg/L**	**6**
		4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	**PCE**	**218**		**µg/L**	**5**
		4/5/2012	N	SW8260	**TCE**	**464**		**µg/L**	**5**
MWSNSM3X37									
	MWSNSM3x37-111	4/4/2012	N	SW8015-E	No Analytes Detected				
		4/4/2012	N	SW8015-P	No Analytes Detected				
		4/4/2012	N	SW8260	No Analytes Detected				
MWSNSM4X37									
	MWSNSM4x37-111	4/5/2012	N	SW8015-E	No Analytes Detected				

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
WIOU									
Site: Site SD037									
MWSNSM4X37									
	MWSNSM4x37-111	4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	Toluene	1.3		µg/L	150
MWSNSM5X37									
	MWSNSM5x37-111	4/4/2012	N	SW8260	**cis-1,2-DCE**	**36.4**		**µg/L**	**6**
		4/4/2012	N	SW8015-E	No Analytes Detected				
		4/4/2012	N	SW8015-P	No Analytes Detected				
		4/4/2012	N	SW8260	PCE	0.23	J	µg/L	5
		4/4/2012	N	SW8260	**TCE**	**42.5**		**µg/L**	**5**
MWSSBM1X37									
	MWSSBM1x37-111	4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	**TCE**	**11.8**		**µg/L**	**5**
Site: Site SD043									
EW555X43									
	EW555x43-111	4/5/2012	N	SW8260	Chloroform	0.7	J	µg/L	100
		4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	TCE	0.8		µg/L	5

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
SITE SS015									
Site: Site SS015									
MW104X15									
	MW104x15-111	4/16/2012	N	SW8015-E	No Analytes Detected				
		4/16/2012	N	SW8015-P	No Analytes Detected				
		4/16/2012	N	SW8260	No Analytes Detected				
MW105X15									
	MW105x15-111	4/12/2012	N	SW8260	MTBE	8.4		µg/L	13
		4/12/2012	N	SW8015-E	No Analytes Detected				
		4/12/2012	N	SW8015-P	No Analytes Detected				
		4/12/2012	N	SW8260	TCE	0.31	J	µg/L	5
MW306X15									
	MW306x15-111	4/16/2012	N	SW8015-E	No Analytes Detected				
		4/16/2012	N	SW8015-P	No Analytes Detected				
		4/16/2012	N	SW8260	No Analytes Detected				
MW625X15									
	MW625x15-111	4/16/2012	N	SW8260	1,1-DCE	0.28	J	µg/L	6
		4/16/2012	N	SW8260	Chlorobenzene	0.28	J	µg/L	70
		4/16/2012	N	SW8260	**cis-1,2-DCE**	**121**		**µg/L**	**6**
		4/16/2012	N	SW8260	MTBE	4.7		µg/L	13
		4/16/2012	N	SW8260	PCE	0.86		µg/L	5
		4/16/2012	N	SW8260	**TCE**	**20.5**		**µg/L**	**5**
		4/16/2012	N	SW9060	TOC	5.69		mg/L	
		4/16/2012	N	SW8260	trans-1,2-DCE	6		µg/L	
		4/16/2012	N	SW8260	**Vinyl chloride**	**2.1**		**µg/L**	**0.5**
MW2104X15									
	MW2104x15-111	4/16/2012	N	SW8260	**MTBE**	**13.4**		**µg/L**	**13**
		4/16/2012	N	SW8015-E	No Analytes Detected				
		4/16/2012	N	SW8015-P	No Analytes Detected				
MW2105X15									
	MW2105x15-111	4/16/2012	N	SW8015-E	No Analytes Detected				
		4/16/2012	N	SW8015-P	No Analytes Detected				
		4/16/2012	N	SW8260	**TCE**	**7.3**		**µg/L**	**5**
MW2118X15									
	MW2118x15-111	4/12/2012	N	SW8260	**cis-1,2-DCE**	**45**		**µg/L**	**6**
		4/12/2012	N	SW8015-E	No Analytes Detected				
		4/12/2012	N	SW8260	PCE	3		µg/L	5
		4/12/2012	N	SW8260	**TCE**	**29**		**µg/L**	**5**
		4/12/2012	N	SW8015-P	**TPH-G**	**77**		**µg/L**	**5**

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
SITE SS015									
Site: Site SS015									
MW2118X15									
	MW2118x15-111	4/12/2012	N	SW8260	trans-1,2-DCE	1.7		µg/L	
		4/12/2012	N	SW8260	**Vinyl chloride**	**3.5**		**µg/L**	**0.5**
MW2119X15									
	MW2119x15-111	4/12/2012	N	SW8015-E	No Analytes Detected				
		4/12/2012	N	SW8015-P	No Analytes Detected				
		4/12/2012	N	SW8260	No Analytes Detected				
MW2120X15									
	MW2120x15-111	4/12/2012	N	SW8015-P	No Analytes Detected				
		4/12/2012	N	SW8260	No Analytes Detected				
		4/12/2012	N	SW8015-E	**TPH-D**	**440**		**µg/L**	**100**
MW2124X15									
	MW2124x15-111	5/9/2012	N	SW8260	1,1-DCA	1.4	J+	µg/L	
		5/9/2012	N	SW8260	**1,1-DCE**	**19.9**	**J+**	**µg/L**	**6**
		5/9/2012	N	SW8260	**Benzene**	**1.3**	**J+**	**µg/L**	**1**
		5/9/2012	N	SW8260	**cis-1,2-DCE**	**40.3**	**J+**	**µg/L**	**6**
		5/9/2012	N	SW8260	**TCE**	**196**		**µg/L**	**5**
		5/9/2012	N	SW9060	TOC	7.45		mg/L	
		5/9/2012	N	SW8260	trans-1,2-DCE	0.83	J+	µg/L	
		5/9/2012	N	SW8260	**Vinyl chloride**	**2.5**	**J+**	**µg/L**	**0.5**
MW2125X15									
	MW2125x15-111	4/12/2012	N	SW8015-E	No Analytes Detected				
		4/12/2012	N	SW8015-P	No Analytes Detected				
		4/12/2012	N	SW8260	No Analytes Detected				
MW2130X15									
	MW2130x15-111	4/12/2012	N	SW8015-E	No Analytes Detected				
		4/12/2012	N	SW8015-P	No Analytes Detected				
		4/12/2012	N	SW8260	No Analytes Detected				

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
SITE DP039									
Site: Site DP039									
MW03X39									
	MW03x39-PDB111	4/6/2012	N	SW8260	No Analytes Detected				
MW04X39									
	MW04x39-PDB111	4/6/2012	N	SW8260	1,1-DCE	0.43	J	µg/L	6
		4/6/2012	N	SW8260	MTBE	0.58	J	µg/L	13
		4/6/2012	N	SW8260	**TCE**	**29.9**		**µg/L**	**5**
MW750X39									
	MW750x39-111	4/10/2012	N	SW8260	**1,1-DCE**	**271**		**µg/L**	**6**
		4/10/2012	N	SW8260	**cis-1,2-DCE**	**20.1**		**µg/L**	**6**
		4/10/2012	N	SW8260	**TCE**	**1310**		**µg/L**	**5**
MW751X39									
	MW751x39-111	4/10/2012	N	SW8260	**1,1-DCE**	**221**		**µg/L**	**6**
		4/10/2012	N	SW8260	**1,2-DCA**	**1.3**	**J**	**µg/L**	**0.5**
		4/10/2012	N	SW8260	Chloroform	0.99	J	µg/L	100
		4/10/2012	N	SW8260	**cis-1,2-DCE**	**84.8**		**µg/L**	**6**
		4/10/2012	N	SW8260	**TCE**	**881**		**µg/L**	**5**
MW758X39									
	MW758x39-PDB111	4/6/2012	N	SW8260	TCE	2.3		µg/L	5
MW759X39									
	MW759x39-PDB111	4/6/2012	N	SW8260	TCE	2.4		µg/L	5
MW760X39									
	MW760x39-PDB111	4/6/2012	N	SW8260	Chloroform	0.26	J	µg/L	100
		4/6/2012	N	SW8260	**TCE**	**12**		**µg/L**	**5**
MW761X39									
	MW761x39-PDB111	4/6/2012	N	SW8260	Methyl ethyl ketone	0.96	J	µg/L	
MW762X39									
	MW762x39-PDB111	4/6/2012	N	SW8260	No Analytes Detected				
MW777X39									
	MW777x39-111	4/10/2012	N	SW8260	**1,1-DCE**	**63.1**		**µg/L**	**6**
		4/10/2012	N	SW8260	cis-1,2-DCE	3.7		µg/L	6
		4/10/2012	N	SW8260	**TCE**	**376**		**µg/L**	**5**
MW778X39									
	MW778x39-111	4/10/2012	N	SW8260	**1,1-DCE**	**558**		**µg/L**	**6**
		4/10/2012	N	SW8260	**cis-1,2-DCE**	**1830**		**µg/L**	**6**
		4/10/2012	N	SW8260	**TCE**	**732**		**µg/L**	**5**
		4/10/2012	N	SW8260	**Vinyl chloride**	**8.6**		**µg/L**	**0.5**
MW779X39									
	MW779x39-111	4/10/2012	N	SW8260	**1,1-DCE**	**10.2**		**µg/L**	**6**

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
SITE DP039									
Site: Site DP039									
MW779X39									
	MW779x39-111	4/10/2012	N	SW8260	cis-1,2-DCE	1.2		µg/L	6
		4/10/2012	N	SW8260	**TCE**	**47.5**		**µg/L**	**5**
MW780X39									
	MW780x39-PDB111	4/6/2012	N	SW8260	No Analytes Detected				
MW781X39									
	MW781x39-PDB111	4/6/2012	N	SW8260	Chloroform	1.1		µg/L	100
		4/6/2012	N	SW8260	**TCE**	**63**		**µg/L**	**5**
MW783SX39									
	MW783Sx39-111	4/10/2012	N	SW8260	**1,1-DCE**	**212**		**µg/L**	**6**
		4/10/2012	N	SW8260	**cis-1,2-DCE**	**21.8**		**µg/L**	**6**
		4/10/2012	N	SW8260	**TCE**	**1200**		**µg/L**	**5**
MW783DX39									
	MW783Dx39-111	4/10/2012	N	SW8260	**1,1-DCE**	**14.4**		**µg/L**	**6**
		4/10/2012	N	SW8260	cis-1,2-DCE	2		µg/L	6
		4/10/2012	N	SW8260	**TCE**	**75.9**		**µg/L**	**5**
MW784SX39									
	MW784Sx39-111	4/10/2012	N	SW8260	1,1-DCE	3.9		µg/L	6
		4/10/2012	N	SW8260	cis-1,2-DCE	0.7	J	µg/L	6
		4/10/2012	N	SW8260	**TCE**	**12.2**		**µg/L**	**5**
MW784DX39									
	MW784Dx39-111	4/10/2012	N	SW8260	1,1-DCA	0.53	J	µg/L	
		4/10/2012	N	SW8260	**1,1-DCE**	**57.8**		**µg/L**	**6**
		4/10/2012	N	SW8260	Chloroform	0.22	J	µg/L	100
		4/10/2012	N	SW8260	cis-1,2-DCE	5		µg/L	6
		4/10/2012	N	SW8260	**TCE**	**304**		**µg/L**	**5**
MW785X39									
	MW785x39-PDB111	4/6/2012	N	SW8260	1,1-DCE	5.9		µg/L	6
		4/6/2012	N	SW8260	Chloroform	0.58	J	µg/L	100
		4/6/2012	N	SW8260	cis-1,2-DCE	1.3		µg/L	6
		4/6/2012	N	SW8260	**TCE**	**117**		**µg/L**	**5**
MW2042BX39									
	MW2042Bx39-111	4/17/2012	N	SW8260	1,1-DCE	2.8	J	µg/L	6
		4/17/2012	N	SW8260	**cis-1,2-DCE**	**16.8**		**µg/L**	**6**
		4/17/2012	N	SW8260	**TCE**	**1970**		**µg/L**	**5**

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
SITE LF008									
Site: Site LF008									
EW719X08									
	EW719x08-111	4/24/2012	N	SW8081	No Analytes Detected				
	EW719x08-111F	4/24/2012	N	SW8081	No Analytes Detected				
EW720X08									
	EW720x08-111	5/15/2012	N	SW8081	**alpha-Chlordane**	**0.28**		**µg/L**	**0.1**
		5/15/2012	N	SW8081	Endrin	0.041	J	µg/L	
		5/15/2012	N	SW8081	gamma-Chlordane	0.19		µg/L	
	EW720x08-111F	5/15/2012	N	SW8081	**alpha-Chlordane**	**0.28**		**µg/L**	**0.1**
		5/15/2012	N	SW8081	Endrin	0.041	J	µg/L	
		5/15/2012	N	SW8081	gamma-Chlordane	0.19		µg/L	
EW721X08									
	EW721x08-111	5/15/2012	N	SW8081	**alpha-Chlordane**	**0.2**		**µg/L**	**0.1**
		5/15/2012	N	SW8081	Endrin	0.038	J	µg/L	
		5/15/2012	N	SW8081	gamma-Chlordane	0.042	J+	µg/L	
		5/15/2012	N	SW8081	gamma-Chlordane	0.13	J+	µg/L	
	EW721x08-111F	5/15/2012	N	SW8081	**alpha-Chlordane**	**0.2**		**µg/L**	**0.1**
		5/15/2012	N	SW8081	Endrin	0.038	J	µg/L	
		5/15/2012	N	SW8081	gamma-Chlordane	0.13	J+	µg/L	
		5/15/2012	N	SW8081	gamma-Chlordane	0.042	J+	µg/L	
MW114X08									
	MW114x08-111	5/15/2012	N	SW8081	alpha-Chlordane	0.049		µg/L	0.1
		5/15/2012	N	SW8081	gamma-Chlordane	0.042	J+	µg/L	
	MW114x08-111F	5/15/2012	N	SW8081	alpha-Chlordane	0.049		µg/L	0.1
		5/15/2012	N	SW8081	gamma-Chlordane	0.042	J+	µg/L	
MW115X08									
	MW115x08-111	5/15/2012	N	SW8081	No Analytes Detected				
	MW115x08-111B	5/15/2012	FD	SW8081	alpha-Chlordane	0.058		µg/L	0.1
		5/15/2012	FD	SW8081	gamma-Chlordane	0.027	J+	µg/L	
	MW115x08-111F	5/15/2012	N	SW8081	No Analytes Detected				
MW311X08									
	MW311x08-111	5/15/2012	N	SW8081	No Analytes Detected				
	MW311x08-111F	5/15/2012	N	SW8081	No Analytes Detected				
MW712X08									
	MW712x08-111	5/1/2012	N	SW8081	4,4'-Dichlorodiphenyldichloroethylene	0.038	J	µg/L	
	MW712x08-111F	5/1/2012	N	SW8081	4,4'-Dichlorodiphenyldichloroethylene	0.038	J	µg/L	
MW714X08									
	MW714x08-111	5/14/2012	N	SW8081	No Analytes Detected				

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
WEST IRA									
SITE LF008									
Site: Site LF008									
MW714X08									
	MW714x08-111F	5/14/2012	N	SW8081	No Analytes Detected				
MW717X08									
	MW717x08-111	5/1/2012	N	SW8081	alpha-Chlordane	0.0041	J	µg/L	0.1
		5/1/2012	N	SW8081	alpha-Chlordane	0.057		µg/L	0.1
		5/1/2012	N	SW8081	gamma-Chlordane	0.048	J-	µg/L	
	MW717x08-111F	5/1/2012	N	SW8081	alpha-Chlordane	0.057		µg/L	0.1
		5/1/2012	N	SW8081	alpha-Chlordane	0.0041	J	µg/L	0.1
		5/1/2012	N	SW8081	gamma-Chlordane	0.048	J-	µg/L	

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
SURFACE WATER									
SITE SD001									
Site: Site SD001									
OUTFALL1									
	Outfall 1-111	4/18/2012	N	SW8260	No Analytes Detected				
OUTFALL2									
	Outfall 2-111	4/18/2012	N	SW8260	No Analytes Detected				
	Outfall 2-111B	4/18/2012	FD	SW8260	TCE	0.36	J	µg/L	5
Site: Site SS029									
SWPZ01X29									
	SWPZ01x29-111	4/19/2012	N	SW8260	cis-1,2-DCE	0.2	J	µg/L	6
		4/19/2012	N	SW8260	TCE	0.99		µg/L	5
Site: Site SD033									
WBUC-3									
	WBUC-3-111	4/18/2012	N	SW8260	cis-1,2-DCE	0.56	J	µg/L	6
		4/18/2012	N	SW8015-E	No Analytes Detected				
		4/18/2012	N	SW8015-P	No Analytes Detected				
		4/18/2012	N	SW8260	PCE	0.39	J	µg/L	5
		4/18/2012	N	SW8260	TCE	1.7		µg/L	5
WBUC-4									
	WBUC-4-111	4/18/2012	N	SW8260	cis-1,2-DCE	0.86	J	µg/L	6
		4/18/2012	N	SW8015-E	No Analytes Detected				
		4/18/2012	N	SW8015-P	No Analytes Detected				
		4/18/2012	N	SW8260	PCE	0.38	J	µg/L	5
		4/18/2012	N	SW8260	TCE	1.9		µg/L	5

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
POCO SITES									
SITE SS014									
Site: Site SS014									
MW01X14									
	MW01x14-111	4/25/2012	N	SW8260	**Benzene**	**182**		**µg/L**	**1**
		4/25/2012	N	SW8260	Ethylbenzene	4		µg/L	30
		4/25/2012	N	SW8260	m,p-Xylene	11		µg/L	20
		4/25/2012	N	SW8260	**MTBE**	**45.6**		**µg/L**	**13**
		4/25/2012	N	SW8260	o-Xylene	0.84		µg/L	20
		4/25/2012	N	SW8015-E	**TPH-D**	**200**		**µg/L**	**100**
		4/25/2012	N	SW8015-P	**TPH-G**	**640**		**µg/L**	**100**
MW02X14									
	MW02x14-111	4/25/2012	N	SW8260	**Benzene**	**1940**		**µg/L**	**1**
		4/25/2012	N	SW8260	**Ethylbenzene**	**292**		**µg/L**	**30**
		4/25/2012	N	SW8260	**m,p-Xylene**	**736**		**µg/L**	**20**
		4/25/2012	N	SW8260	**MTBE**	**14.1**	**J**	**µg/L**	**13**
		4/25/2012	N	SW8260	**o-Xylene**	**70.6**		**µg/L**	**20**
		4/25/2012	N	SW8015-E	**TPH-D**	**1600**		**µg/L**	**100**
		4/25/2012	N	SW8015-P	**TPH-G**	**7100**		**µg/L**	**100**
MW05X14									
	MW05x14-111	4/24/2012	N	SW8260	Ethylbenzene	2.9		µg/L	30
		4/24/2012	N	SW8260	m,p-Xylene	2.7		µg/L	20
		4/24/2012	N	SW8260	MTBE	3		µg/L	13
		4/24/2012	N	SW8015-E	**TPH-D**	**590**		**µg/L**	**100**
		4/24/2012	N	SW8015-P	**TPH-G**	**730**	**J+**	**µg/L**	**100**
MW2011X14									
	MW2011x14-111	4/26/2012	N	SW8260	**MTBE**	**14.1**		**µg/L**	**13**
		4/26/2012	N	SW8015-E	No Analytes Detected				
		4/26/2012	N	SW8015-P	TPH-G	69	J+	µg/L	100
Site: Site SD033									
MW1S3X33									
	MW1S3x33-111	4/25/2012	N	SW8260	MTBE	0.88	J	µg/L	13
		4/25/2012	N	SW8015-E	No Analytes Detected				
		4/25/2012	N	SW8015-P	TPH-G	97		µg/L	100
Site: Site SD037									
MW04X37									
	MW04x37-111	4/4/2012	N	SW8260	MTBE	3.2		µg/L	13
		4/4/2012	N	SW8015-P	No Analytes Detected				
		4/4/2012	N	SW8015-E	**TPH-D**	**350**		**µg/L**	**100**

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
POCO SITES									
SITE SS014									
Site: Site SD037									
MW116X37									
	MW116x37-111	4/4/2012	N	SW8260	MTBE	9.4		µg/L	13
		4/4/2012	N	SW8015-E	No Analytes Detected				
		4/4/2012	N	SW8015-P	No Analytes Detected				
MW223X37									
	MW223x37-111	4/4/2012	N	SW8260	**Benzene**	**1.2**		**µg/L**	**1**
		4/4/2012	N	SW8015-E	No Analytes Detected				
		4/4/2012	N	SW8015-P	No Analytes Detected				
MW224X37									
	MW224x37-111	4/5/2012	N	SW8260	Benzene	0.8		µg/L	1
		4/5/2012	N	SW8260	Ethylbenzene	0.3	J	µg/L	30
		4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	**TPH-G**	**190**		**µg/L**	**100**
MWS3M2X37									
	MWS3M2x37-111	4/25/2012	N	SW8260	Benzene	0.29	J	µg/L	1
		4/25/2012	N	SW8260	Ethylbenzene	21		µg/L	30
		4/25/2012	N	SW8260	MTBE	1.6		µg/L	13
		4/25/2012	N	SW8015-E	**TPH-D**	**1600**		**µg/L**	**100**
		4/25/2012	N	SW8015-P	**TPH-G**	**1000**		**µg/L**	**100**
MWSSBM1X37									
	MWSSBM1x37-111	4/5/2012	N	SW8015-E	No Analytes Detected				
		4/5/2012	N	SW8015-P	No Analytes Detected				
		4/5/2012	N	SW8260	**TCE**	**11.8**		**µg/L**	**5**

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
POCO SITES									
SITE ST018									
Site: Site ST018									
EW1NSX18									
	EW1NSx18-111	4/16/2012	N	SW8260	**MTBE**	**15.8**		**µg/L**	**13**
		4/16/2012	N	SW8015-P	TPH-G	39	J	µg/L	100
EW2014X18									
	EW2014x18-111	4/17/2012	N	SW8260	**Benzene**	**104**		**µg/L**	**1**
		4/17/2012	N	SW8260	**Ethylbenzene**	**159**		**µg/L**	**30**
		4/17/2012	N	SW8260	**m,p-Xylene**	**230**		**µg/L**	**20**
		4/17/2012	N	SW8260	**MTBE**	**324**		**µg/L**	**13**
		4/17/2012	N	SW8260	**o-Xylene**	**37.1**		**µg/L**	**20**
		4/17/2012	N	SW8260	Toluene	11.6		µg/L	40
		4/17/2012	N	SW8015-P	**TPH-G**	**3900**	**J**	**µg/L**	**100**
EW2016X18									
	EW2016x18-111	4/17/2012	N	SW8260	**MTBE**	**114**		**µg/L**	**13**
		4/17/2012	N	SW8015-P	No Analytes Detected				
		4/17/2012	N	SW8260	TCE	0.26	J	µg/L	5
EW2019X18									
	EW2019x18-111	4/17/2012	N	SW8260	**MTBE**	**30.2**		**µg/L**	**13**
		4/17/2012	N	SW8015-P	No Analytes Detected				
MW137X18									
	MW137x18-111	4/10/2012	N	SW8260	**1,2-DCA**	**3.7**		**µg/L**	**0.5**
		4/10/2012	N	SW8260	Benzene	0.65		µg/L	1
		4/10/2012	N	SW8260	**MTBE**	**178**		**µg/L**	**13**
		4/10/2012	N	SW8015-P	No Analytes Detected				
MW139X18									
	MW139x18-111	4/10/2012	N	SW8260	MTBE	2		µg/L	13
		4/10/2012	N	SW8015-P	No Analytes Detected				
MW206NSX18									
	MW206NSx18-111	4/16/2012	N	SW8260	**MTBE**	**42**		**µg/L**	**13**
		4/16/2012	N	SW8015-P	No Analytes Detected				
MW208NSX18									
	MW208NSx18-111	4/16/2012	N	SW8015-P	No Analytes Detected				
		4/16/2012	N	SW8260	No Analytes Detected				
MW210NSX18									
	MW210NSx18-111	4/17/2012	N	SW8260	MTBE	3.7		µg/L	13
		4/17/2012	N	SW8015-P	No Analytes Detected				
MW213NSX18									
	MW213NSx18-111	4/17/2012	N	SW8260	**MTBE**	**1140**		**µg/L**	**13**
		4/17/2012	N	SW8015-P	No Analytes Detected				

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
POCO SITES									
SITE ST018									
Site: Site ST018									
MW786X18									
	MW786x18-111	4/16/2012	N	SW8015-P	No Analytes Detected				
		4/16/2012	N	SW8260	No Analytes Detected				
MW787X18									
	MW787x18-111	4/16/2012	N	SW8015-P	No Analytes Detected				
		4/16/2012	N	SW8260	No Analytes Detected				
MW796X18									
	MW796x18-111	4/10/2012	N	SW8260	MTBE	3		µg/L	13
		4/10/2012	N	SW8015-P	No Analytes Detected				
MW797X18									
	MW797x18-111	4/10/2012	N	SW8015-P	No Analytes Detected				
		4/10/2012	N	SW8260	No Analytes Detected				
MW2021X18									
	MW2021x18-111	4/16/2012	N	SW8260	cis-1,2-DCE	0.24	J	µg/L	6
		4/16/2012	N	SW8015-P	No Analytes Detected				
		4/16/2012	N	SW8260	TCE	4.1		µg/L	5
MW2044X18									
	MW2044x18-111	4/16/2012	N	SW8260	**MTBE**	**212**		**µg/L**	**13**
		4/16/2012	N	SW8015-P	No Analytes Detected				

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
POCO SITES									
SITE ST028									
Site: Site ST028									
MW365M1X28									
	MW365M1x28-111	4/9/2012	N	SW8015-E	No Analytes Detected				
		4/9/2012	N	SW8015-P	No Analytes Detected				
		4/9/2012	N	SW8260	No Analytes Detected				
MW365M3X28									
	MW365M3x28-111	4/9/2012	N	SW8260	No Analytes Detected				
		4/9/2012	N	SW8015-E	**TPH-D**	**420**		**µg/L**	**100**
		4/9/2012	N	SW8015-P	**TPH-G**	**690**		**µg/L**	**100**
MW788X28									
	MW788x28-111	4/11/2012	N	SW8015-E	No Analytes Detected				
		4/11/2012	N	SW8015-P	No Analytes Detected				
		4/11/2012	N	SW8260	No Analytes Detected				
MW789X28									
	MW789x28-111	4/11/2012	N	SW8260	MTBE	5		µg/L	13
		4/11/2012	N	SW8015-E	No Analytes Detected				
		4/11/2012	N	SW8015-P	No Analytes Detected				
MW790X28									
	MW790x28-111	4/9/2012	N	SW8015-E	No Analytes Detected				
		4/9/2012	N	SW8015-P	No Analytes Detected				
		4/9/2012	N	SW8260	No Analytes Detected				
MW798X28									
	MW798x28-111	4/9/2012	N	SW8015-E	No Analytes Detected				
		4/9/2012	N	SW8015-P	No Analytes Detected				
		4/9/2012	N	SW8260	No Analytes Detected				
MW1744X28									
	MW1744x28-111	4/9/2012	N	SW8260	No Analytes Detected				
		4/9/2012	N	SW8015-E	TPH-D	70	J	µg/L	100
		4/9/2012	N	SW8015-P	TPH-G	96		µg/L	100
MW1771M1X28									
	MW1771M1x28-111	4/9/2012	N	SW8260	**Benzene**	**14.2**		**µg/L**	**1**
		4/9/2012	N	SW8260	Ethylbenzene	0.48	J	µg/L	30
		4/9/2012	N	SW8260	m,p-Xylene	2.4		µg/L	20
		4/9/2012	N	SW8015-E	No Analytes Detected				
		4/9/2012	N	SW8260	o-Xylene	0.77		µg/L	20
		4/9/2012	N	SW8015-P	TPH-G	53		µg/L	100

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG
POCO SITES									
SITE ST032									
Site: Site ST032									
MW246X32									
	MW246x32-111	5/9/2012	N	SW8260	**Benzene**	**5**		**µg/L**	**1**
		5/9/2012	N	SW8260	Ethylbenzene	1.6	J+	µg/L	30
		5/9/2012	N	SW8015-E	**TPH-D**	**740**		**µg/L**	**100**
		5/9/2012	N	SW8015-P	**TPH-G**	**740**		**µg/L**	**100**
MW1020X32									
	MW1020x32-111	5/9/2012	N	SW8015-P	No Analytes Detected				
		5/9/2012	N	SW8260	No Analytes Detected				
		5/9/2012	N	SW8015-E	TPH-D	100		µg/L	100
MW1024X32									
	MW1024x32-111	5/9/2012	N	SW8015-P	No Analytes Detected				
		5/9/2012	N	SW8260	No Analytes Detected				
		5/9/2012	N	SW8015-E	TPH-D	62	J	µg/L	100
MW1027X32									
	MW1027x32-111	4/26/2012	N	SW8260	MTBE	1.3		µg/L	13
		4/26/2012	N	SW8015-E	No Analytes Detected				
		4/26/2012	N	SW8015-P	No Analytes Detected				
MW1028X32									
	MW1028x32-111	4/26/2012	N	SW8260	MTBE	0.85	J	µg/L	13
		4/26/2012	N	SW8015-E	No Analytes Detected				
		4/26/2012	N	SW8015-P	No Analytes Detected				

Location	Field ID	Sample Date	QA/QC Type	Method	Analyte	Result *	Flag	Units	IRG

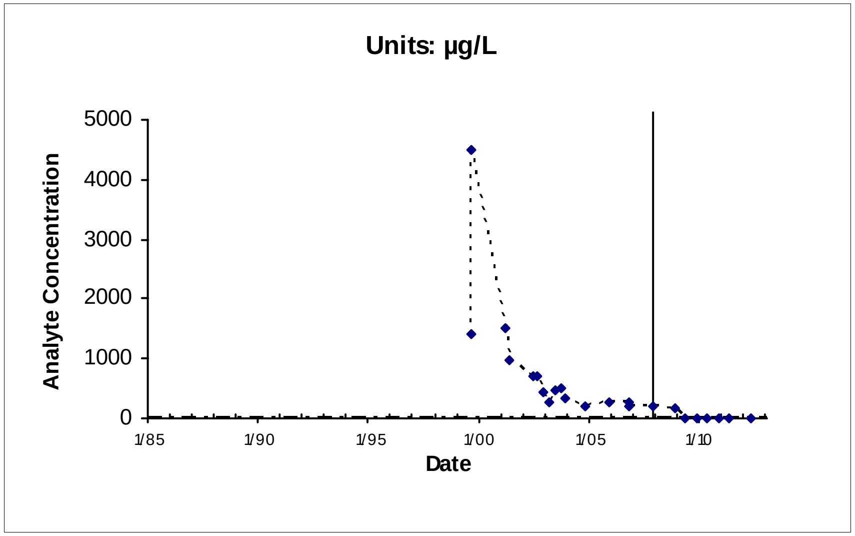
* Bold values indicate result greater than IRGs

Note: Grouped by Site and Location, sorted by Field ID and Analyte

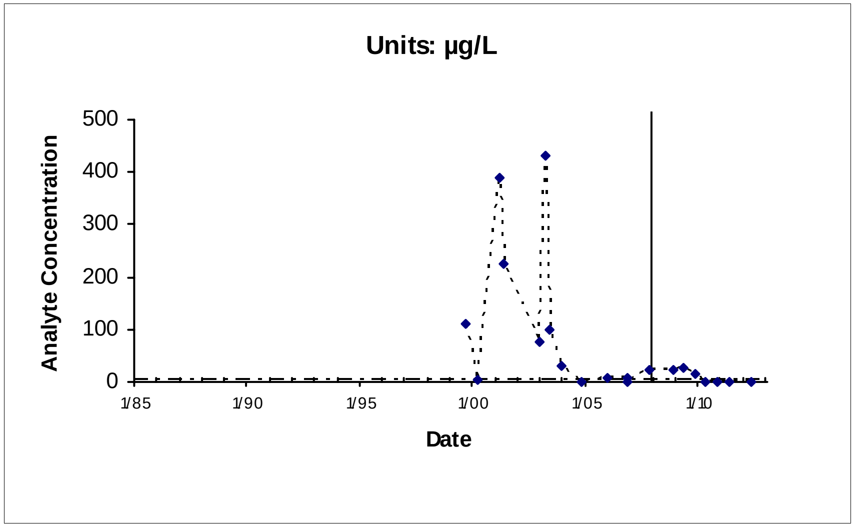
Qualifier Description
J = The analyte was present but reported value may not be accurate or precise.
J+ = The Analyte was present but reported value may not be accurate or precise and there may be a high bias in the value reported (actual concentration may be lower than the reported result).
J- = The Analyte was present but reported value may not be accurate or precise and there may be a low bias in the value reported (actual concentration may be higher than the reported result).
FD = The field duplicate precision exceeds the expected sampling and analytical provision—analyte reproducability may be due to site-specific variability of contaminant.

DCA = dichloroethane
DCB = dichlorobenzene
DCE = dichloroethene
FD = field duplicate
IRG = Interim Remediation Goal
mg/L = milligram(s) per liter
MTBE = methyl tertiary butyl ether
N = normal
PCE = tetrachloroethene
QA/QC = quality assurance/quality control
TCE = trichloroethene
TPH-D = total petroleum hydrocarbon as diesel
TPH-G = total petroleum hydrocarbon as gasoline
μg/L = microgram(s) per liter

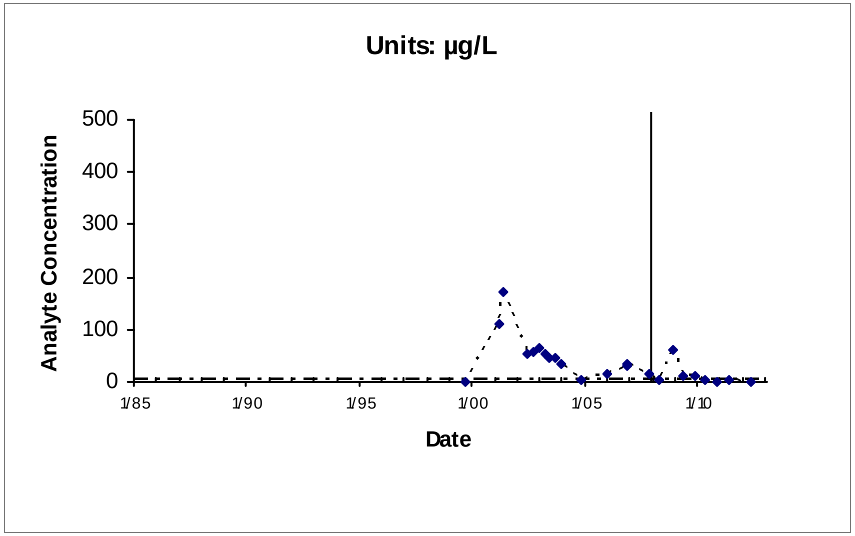
Attachment 2
Chemical Time-series Plots



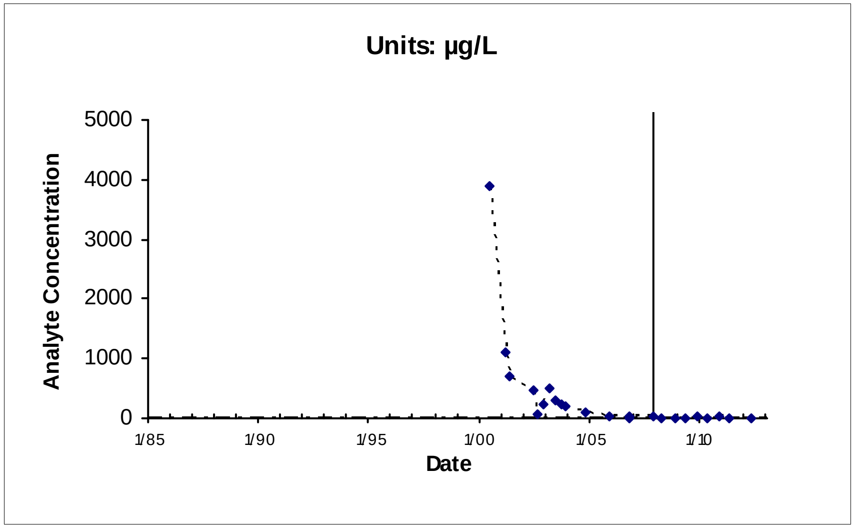
Location: EW576X04 Maximum: 4500



Location: EW577X04 Maximum: 430



Location: EW578X04 Maximum: 170



Location: EW579X04 Maximum: 3900

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

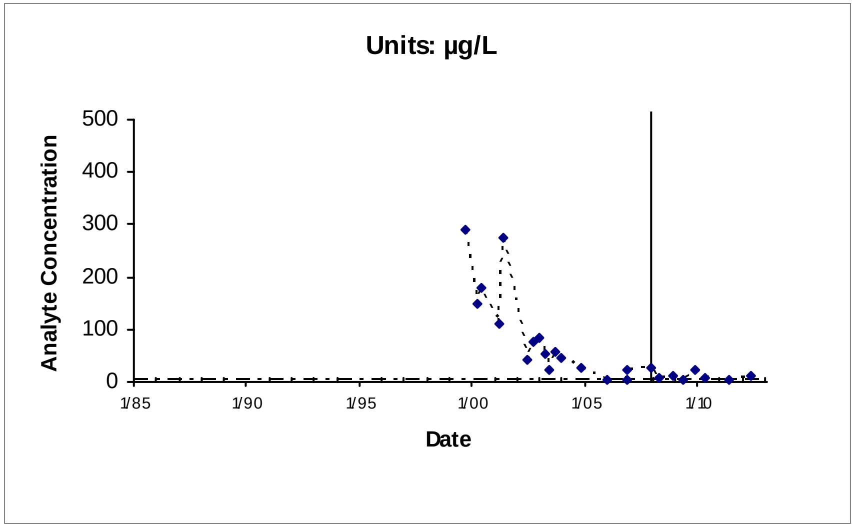
North IRA

FIGURE 2-1

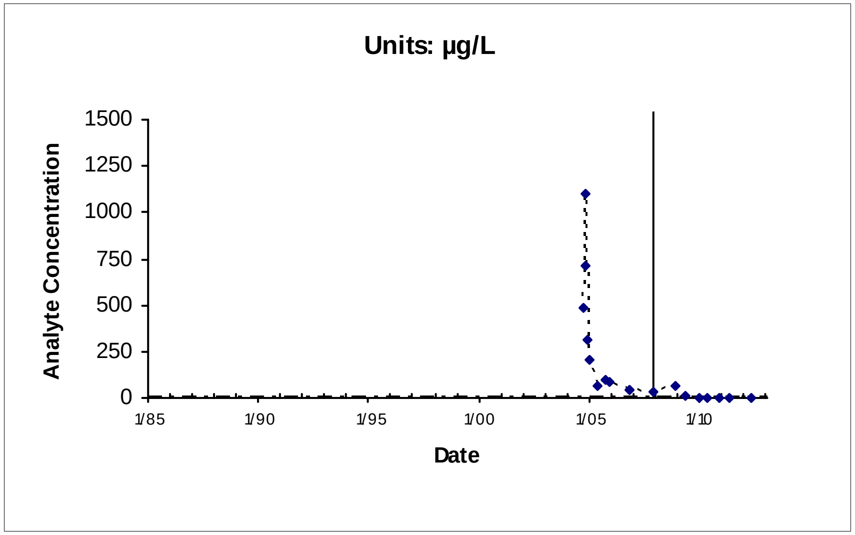
Sites FT004/SD031/LF007

TCE

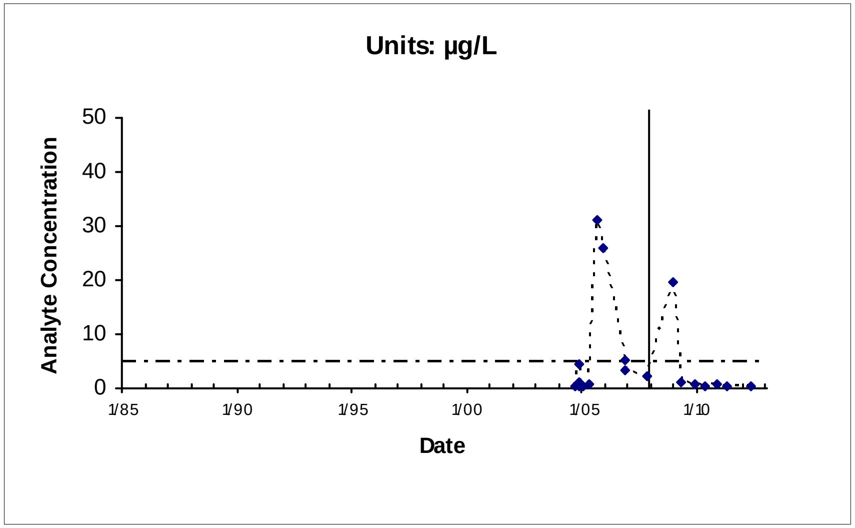
Chemical Time-series Plots



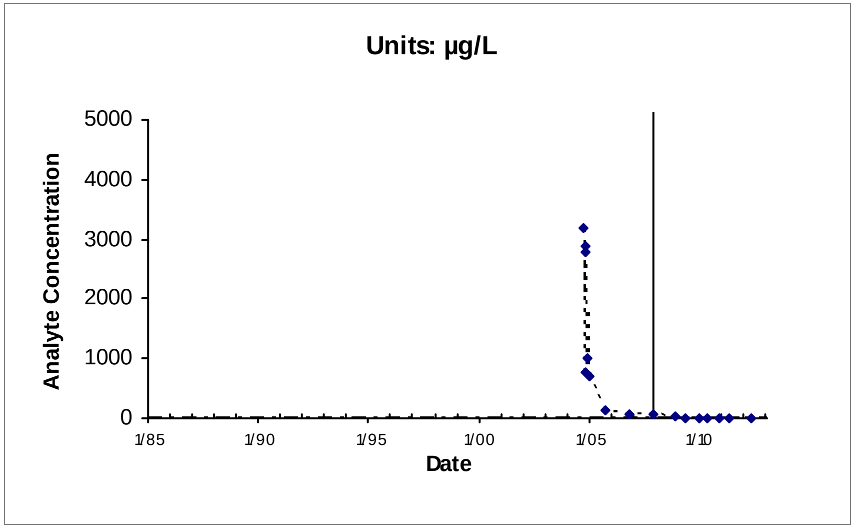
Location: EW580X04 Maximum: 290



Location: EW621X04 Maximum: 1100



Location: EW622X04 Maximum: 31



Location: EW623X04 Maximum: 3200

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

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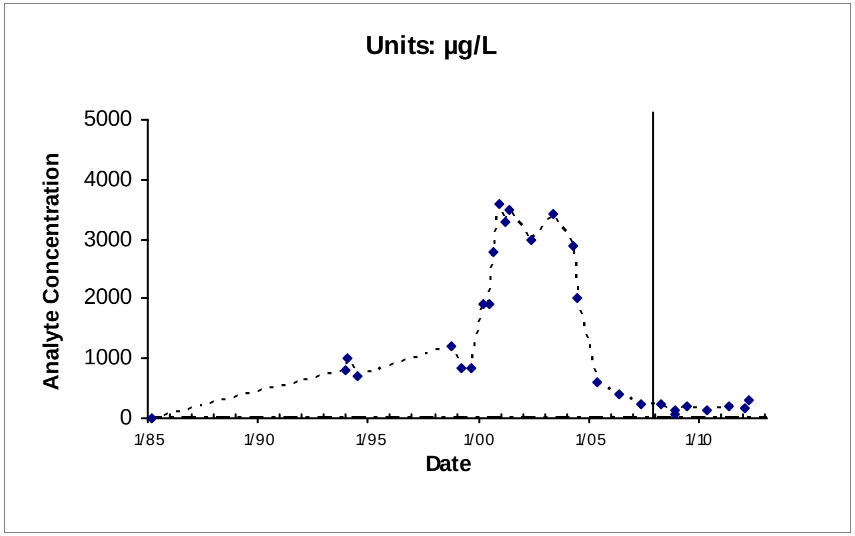
North IRA

FIGURE 2-1

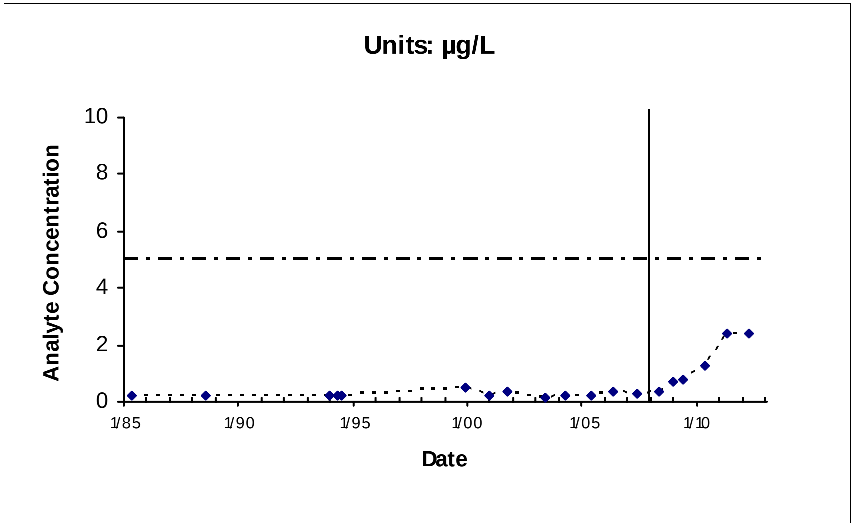
Sites FT004/SD031/LF007

TCE

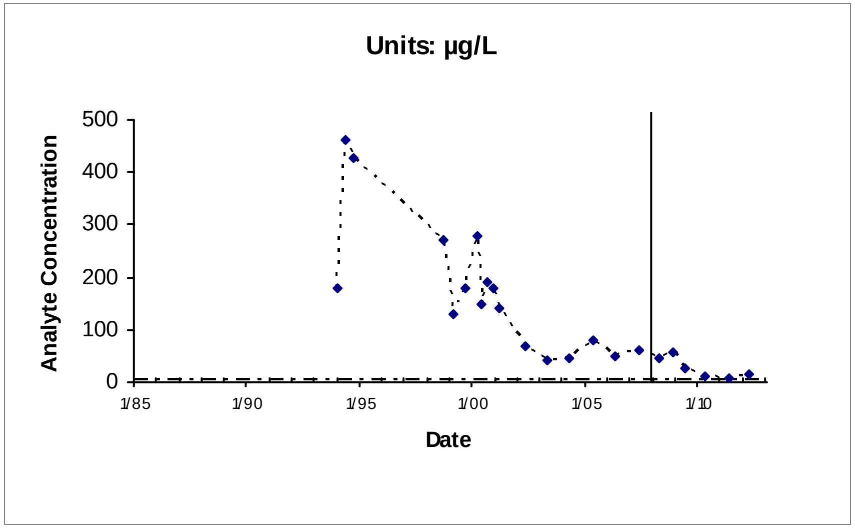
Chemical Time-series Plots



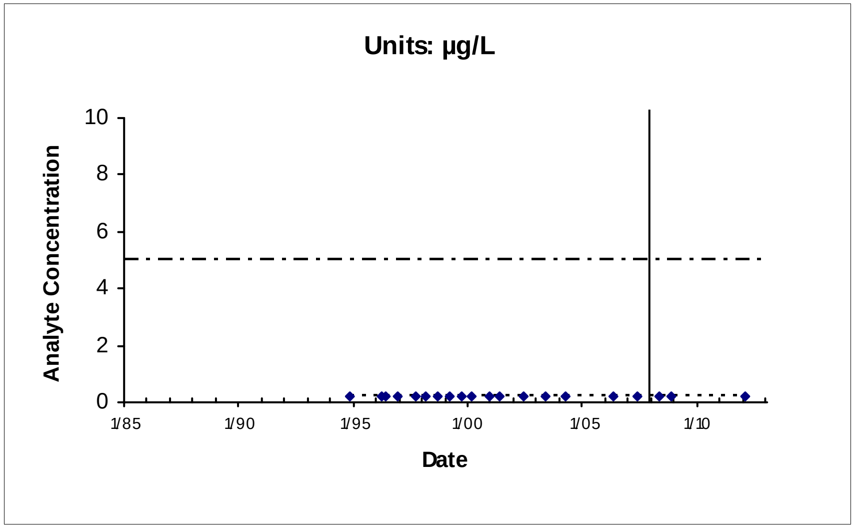
Location: MW131X04 Maximum: 3600



Location: MW134X04 Maximum: 2.4



Location: MW202X04 Maximum: 460



Location: MW264X04 Maximum: 0.19

North IRA

FIGURE 2-1

Sites FT004/SD031/LF007

TCE

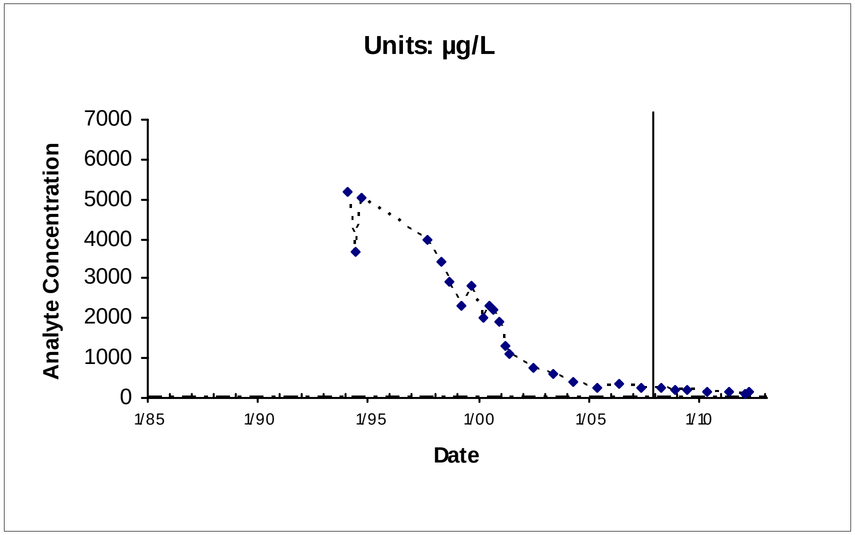
Chemical Time-series Plots

——— Rebound Study Initiated

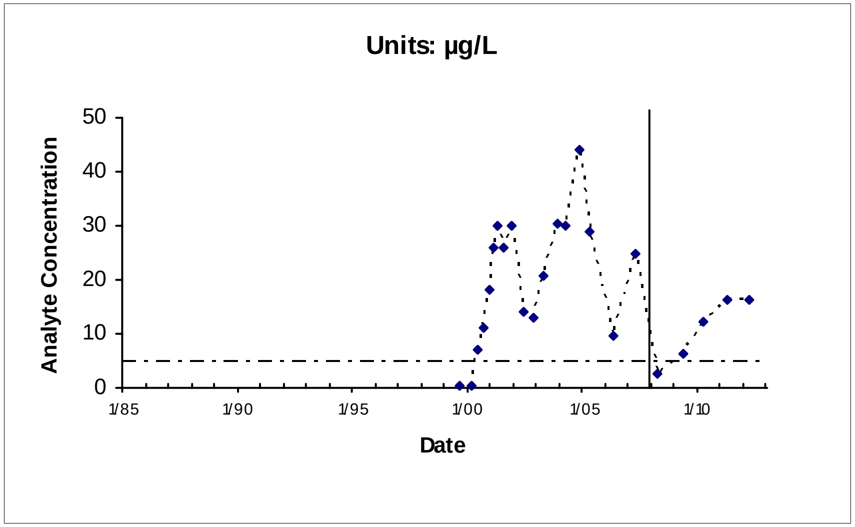
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

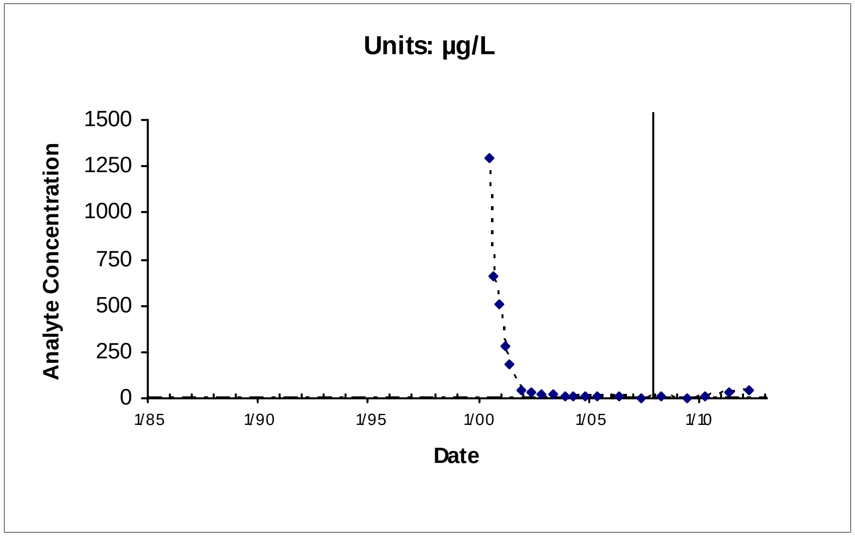
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



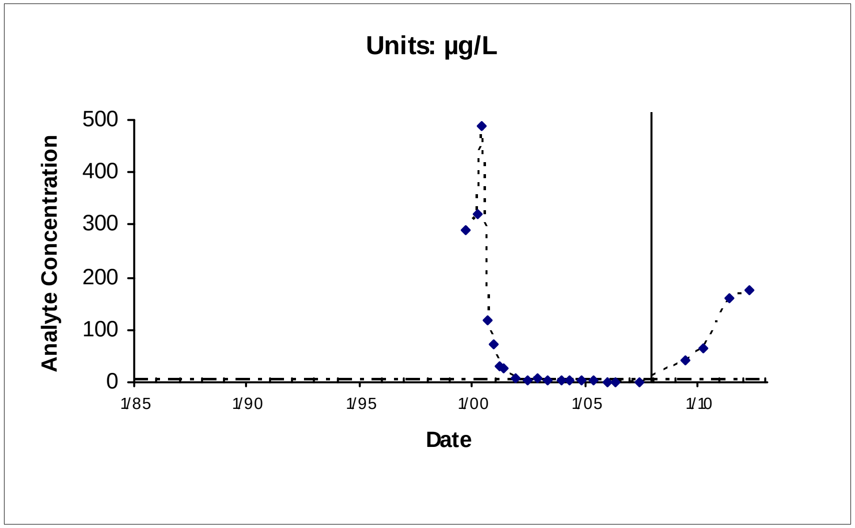
Location: MW266X04 Maximum: 5200



Location: MW581X04 Maximum: 44



Location: MW584X04 Maximum: 1300



Location: MW585X04 Maximum: 490

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

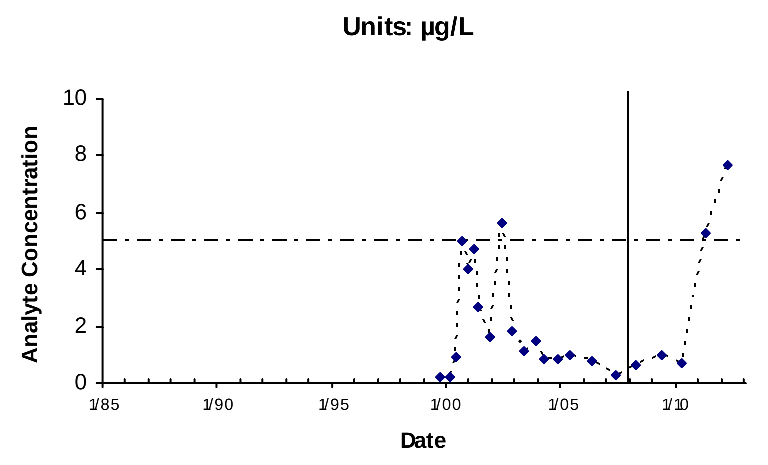
North IRA

FIGURE 2-1

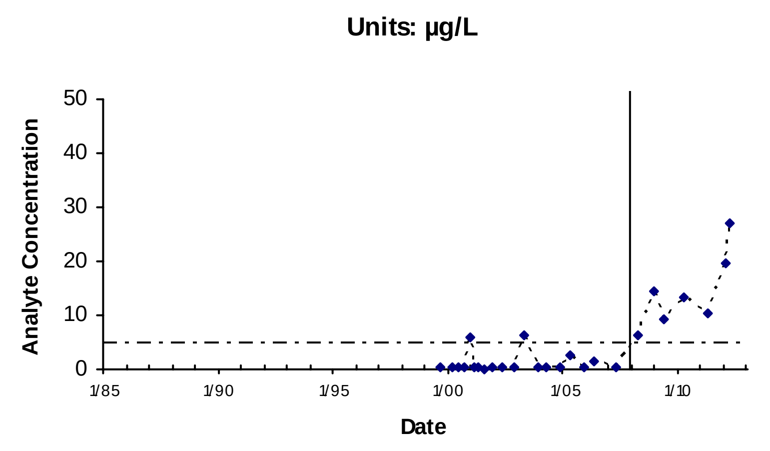
Sites FT004/SD031/LF007

TCE

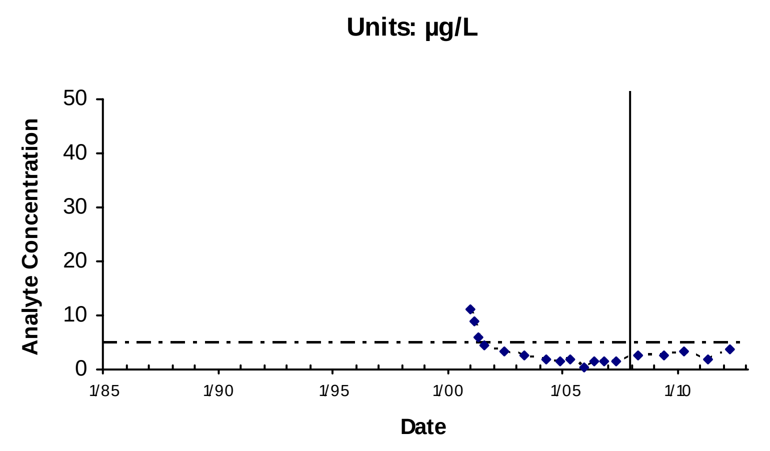
Chemical Time-series Plots



Location: MW587X04 Maximum: 7.7



Location: MW591X04 Maximum: 26.9



Location: MW757X04 Maximum: 11

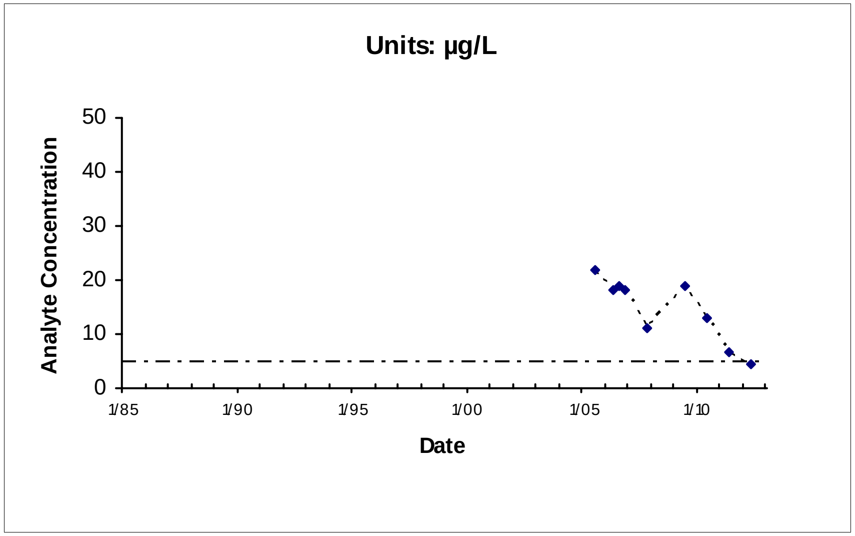
———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

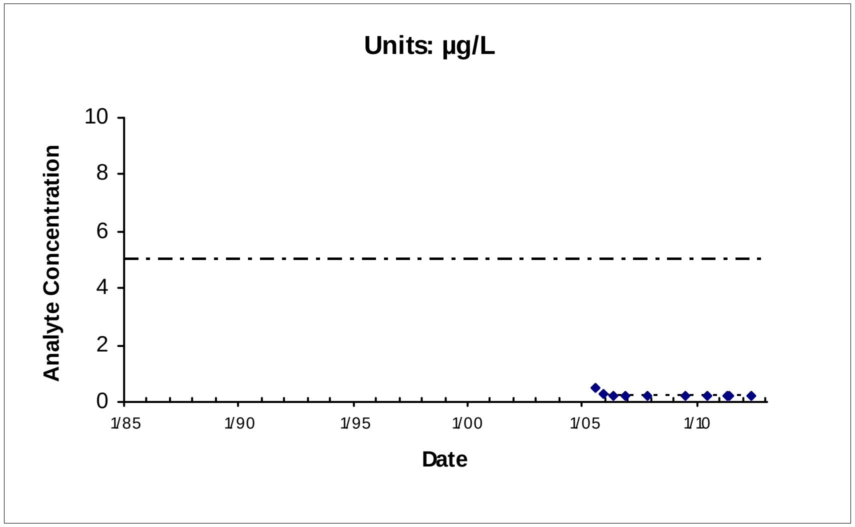
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

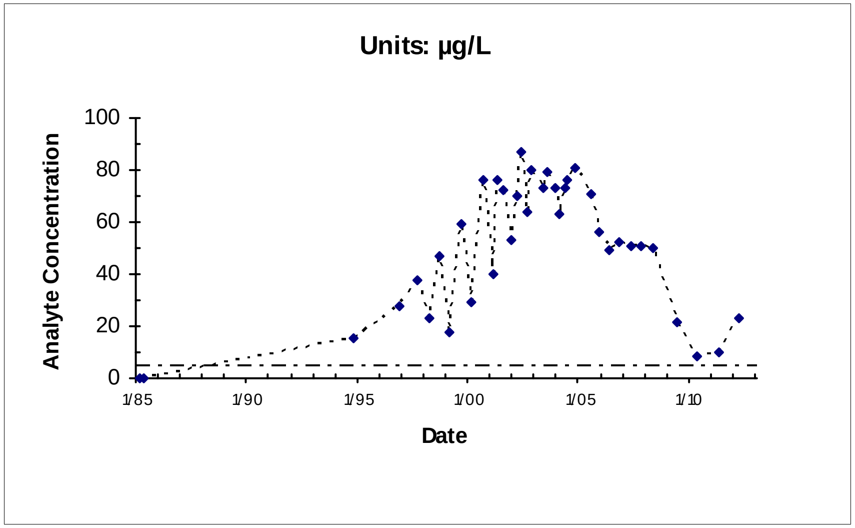
North IRA
FIGURE 2-1
Sites FT004/SD031/LF007
TCE
Chemical Time-series Plots



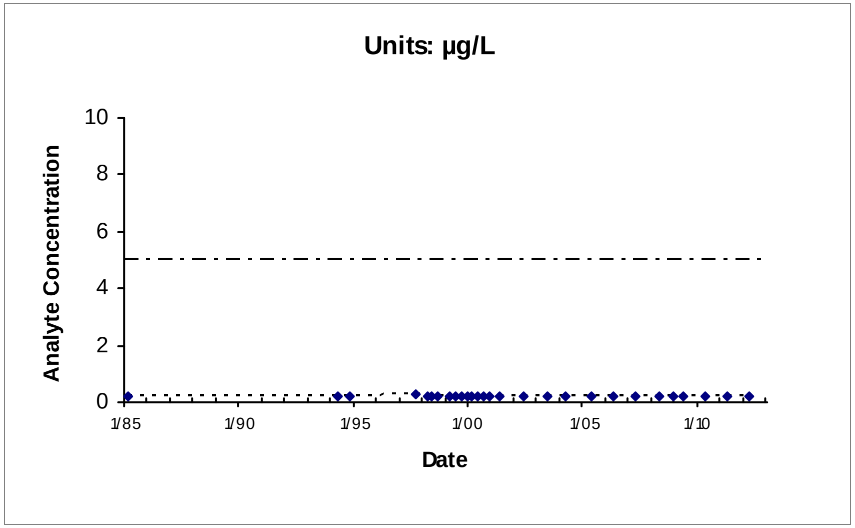
Location: EW614X07 Maximum: 22



Location: EW615X07 Maximum: 0.48



Location: MW125X07 Maximum: 87



Location: MW129X07 Maximum: 0.3

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

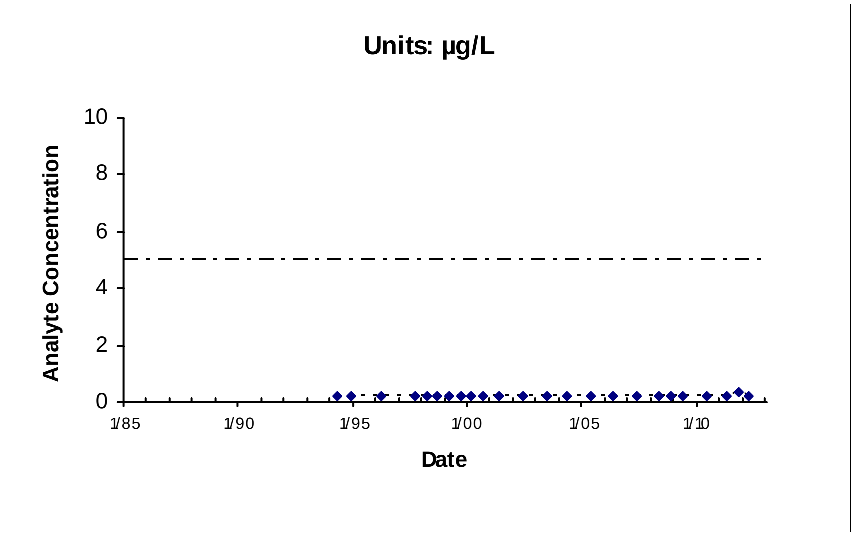
North IRA

FIGURE 2-1

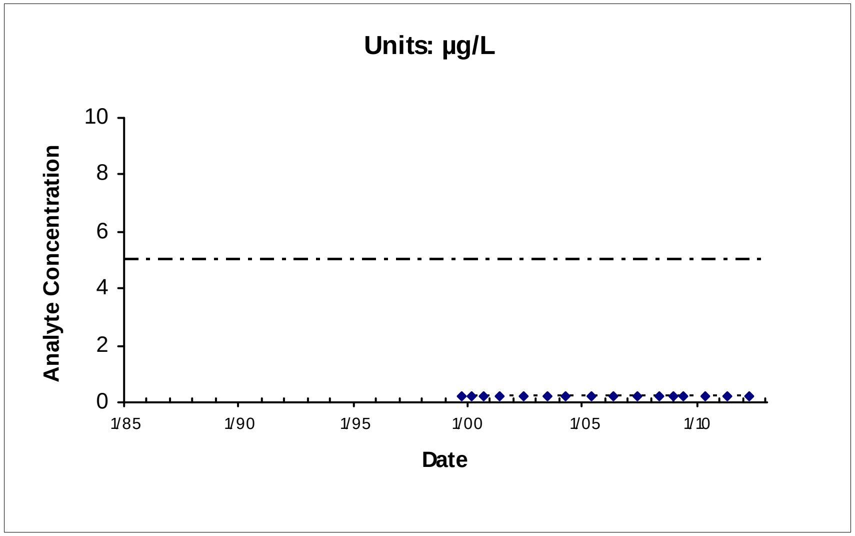
Sites FT004/SD031/LF007

TCE

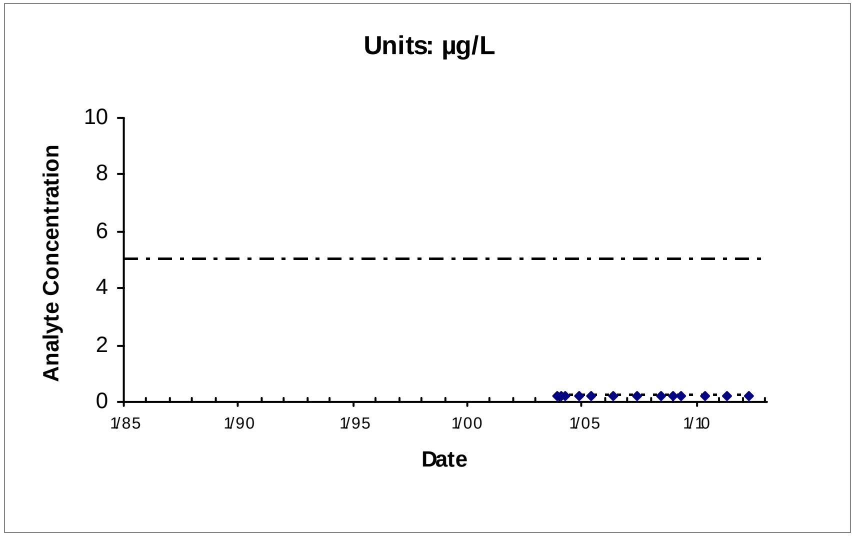
Chemical Time-series Plots



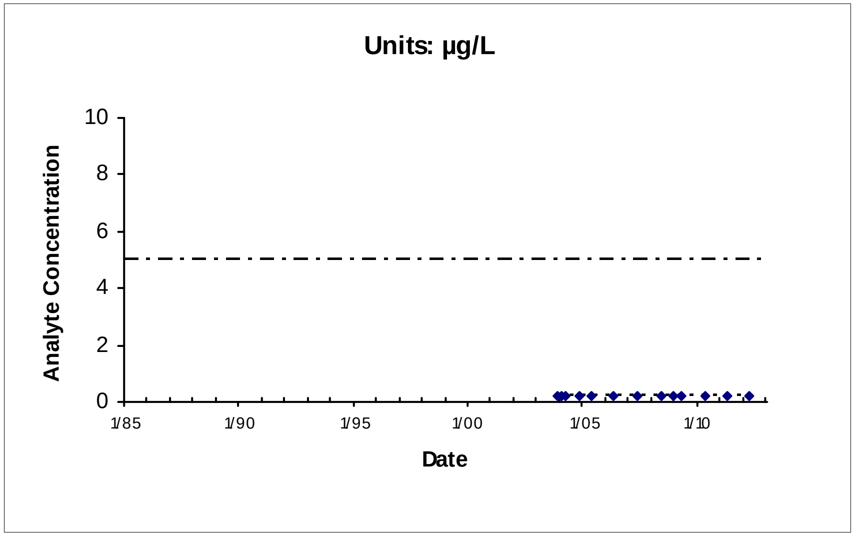
Location: MW261X07 Maximum: 0.36



Location: MW601X07 Maximum: 0.19



Location: MW612X07 Maximum: 0.19



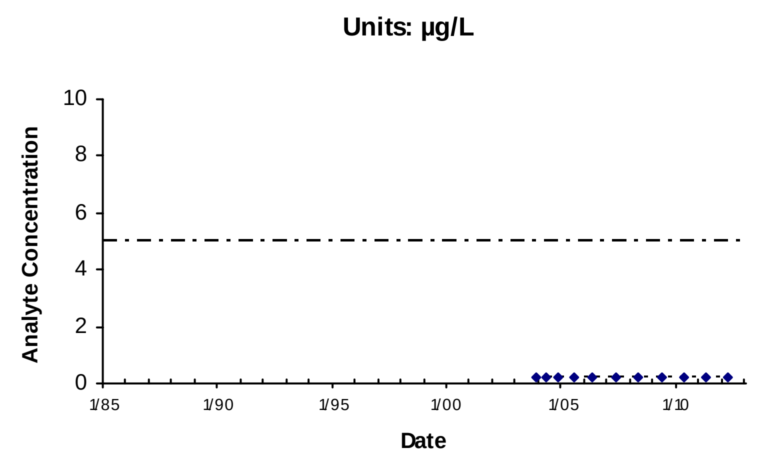
Location: MW613X07 Maximum: 0.19

— - — - — IRG (5 µg/L)

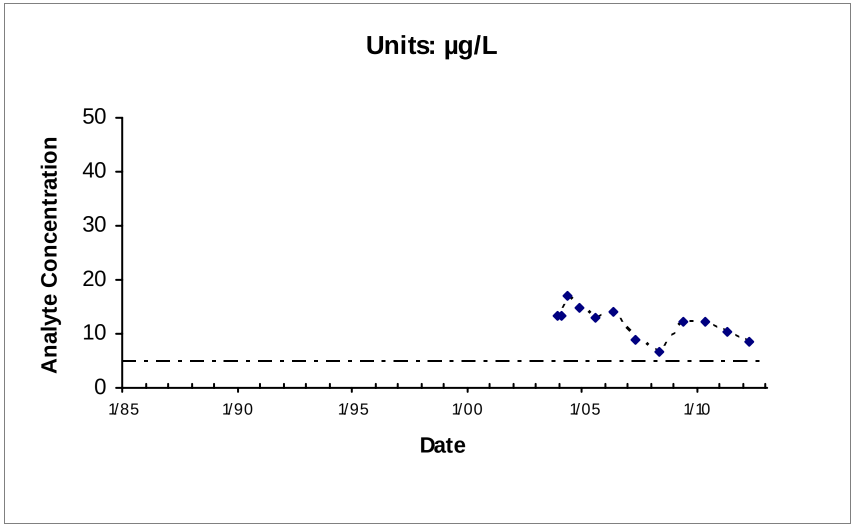
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

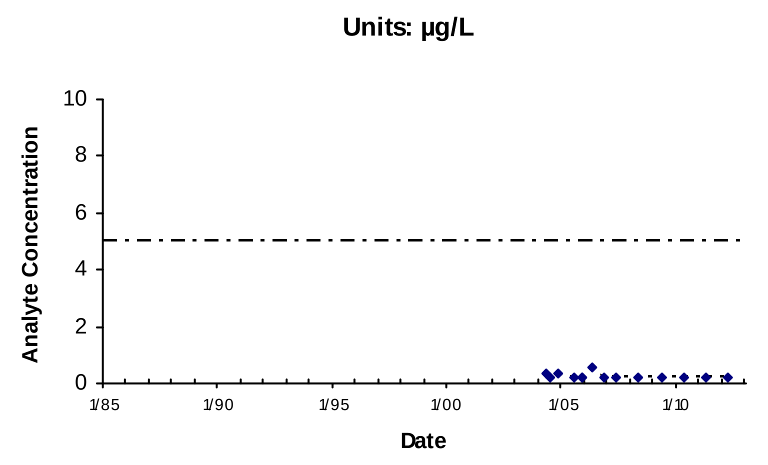
North IRA
FIGURE 2-1
Sites FT004/SD031/LF007
TCE
Chemical Time-series Plots



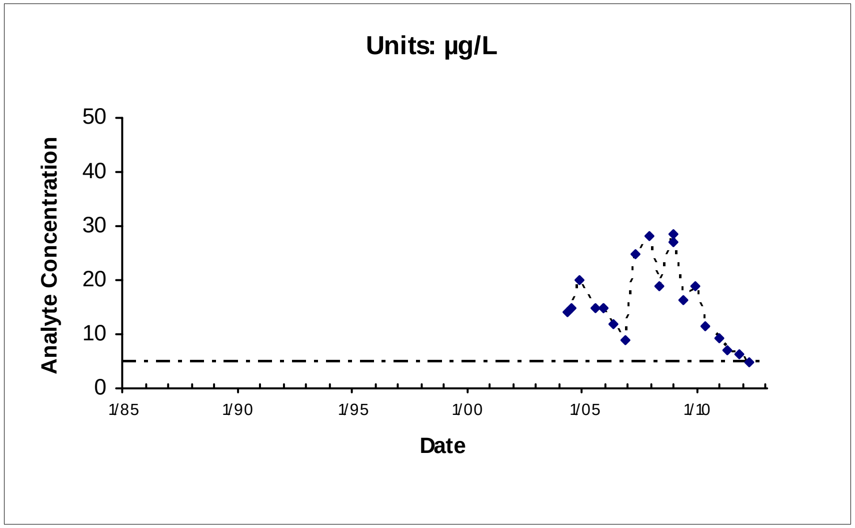
Location: MW616X07 Maximum: 0.19



Location: MW617X07 Maximum: 17



Location: MW619X07 Maximum: 0.56



Location: MW620X07 Maximum: 28.5

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

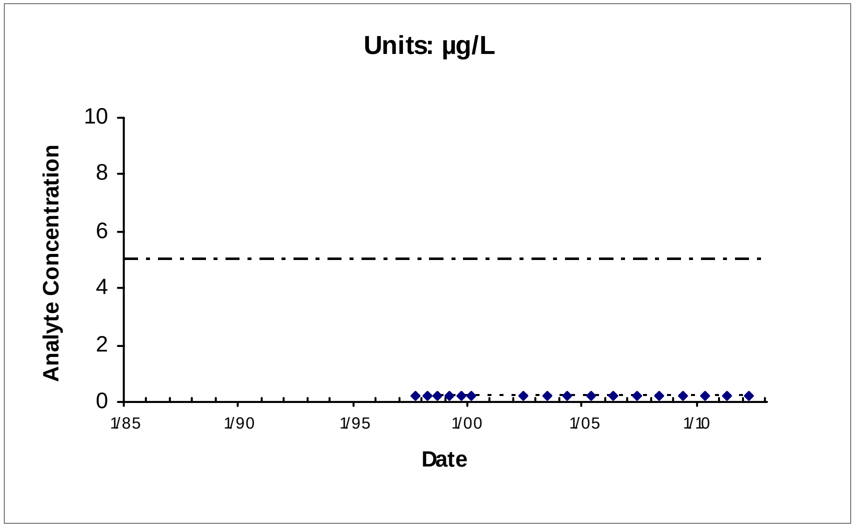
North IRA

FIGURE 2-1

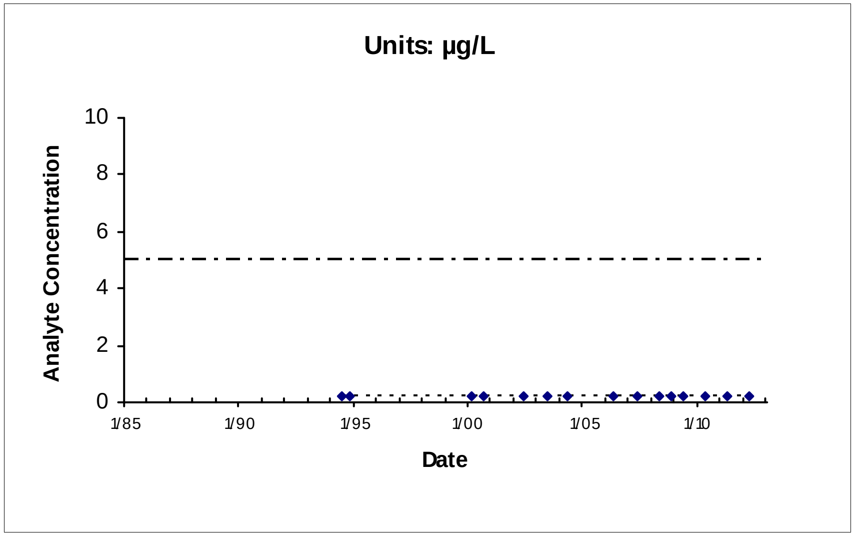
Sites FT004/SD031/LF007

TCE

Chemical Time-series Plots



Location: MWBX07 Maximum: 0.19



Location: MWCX07 Maximum: 0.19

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

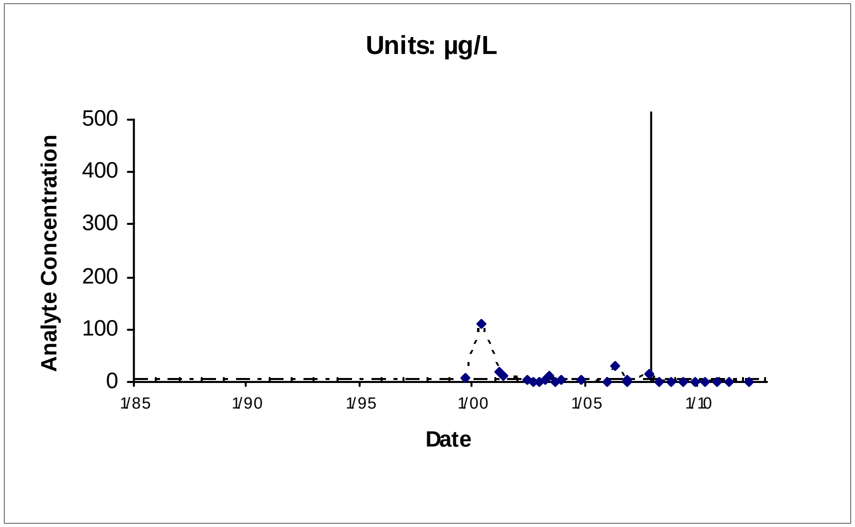
North IRA

FIGURE 2-1

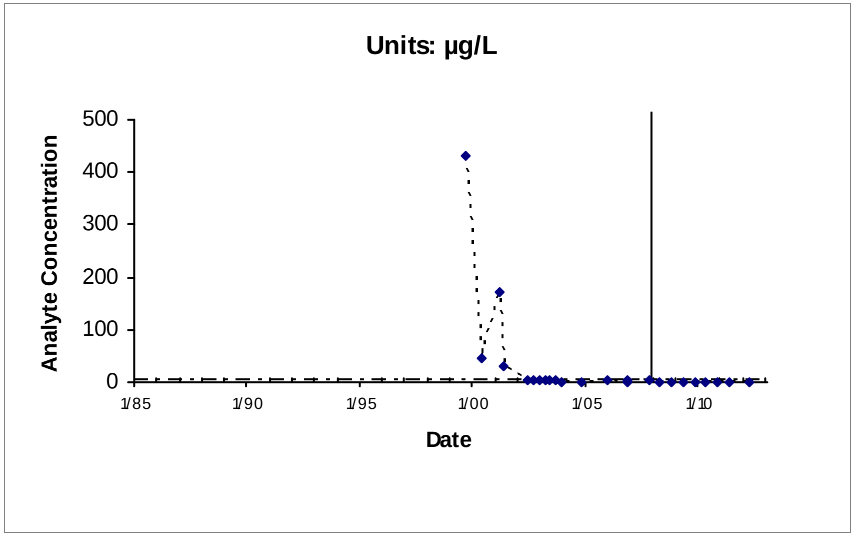
Sites FT004/SD031/LF007

TCE

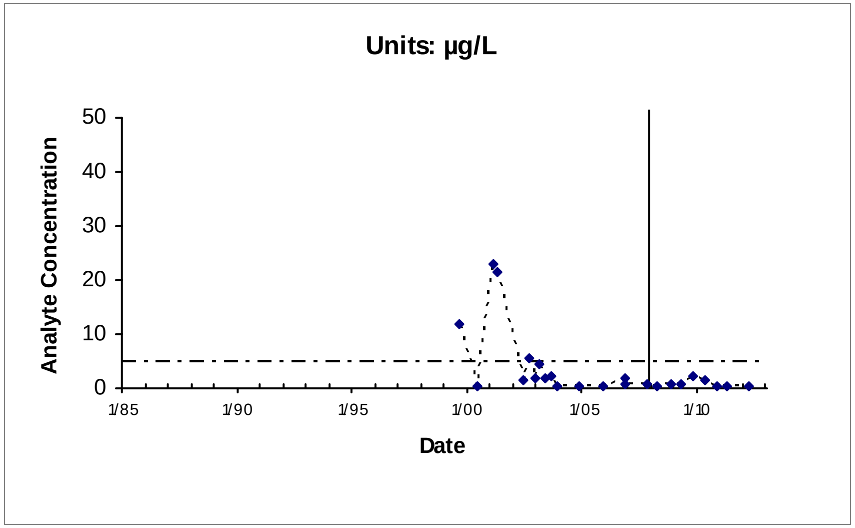
Chemical Time-series Plots



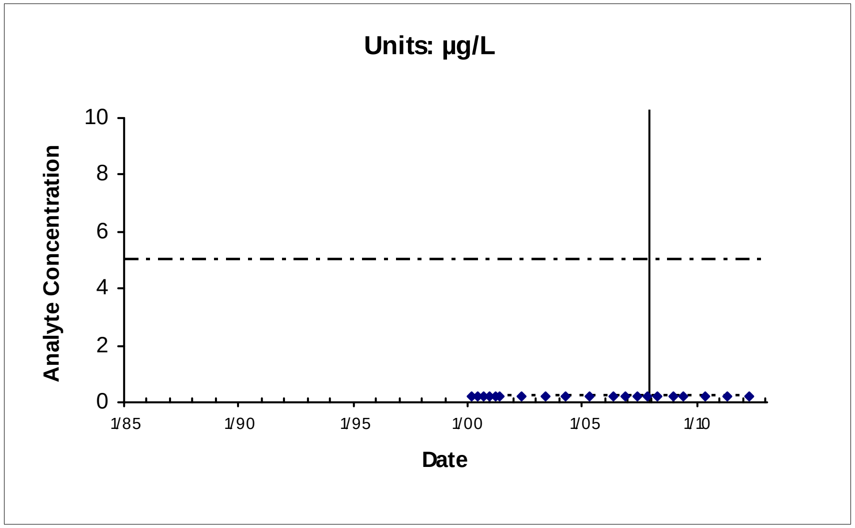
Location: EW565X31 Maximum: 110



Location: EW566X31 Maximum: 430



Location: EW567X31 Maximum: 23



Location: MW571X31 Maximum: 0.19

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

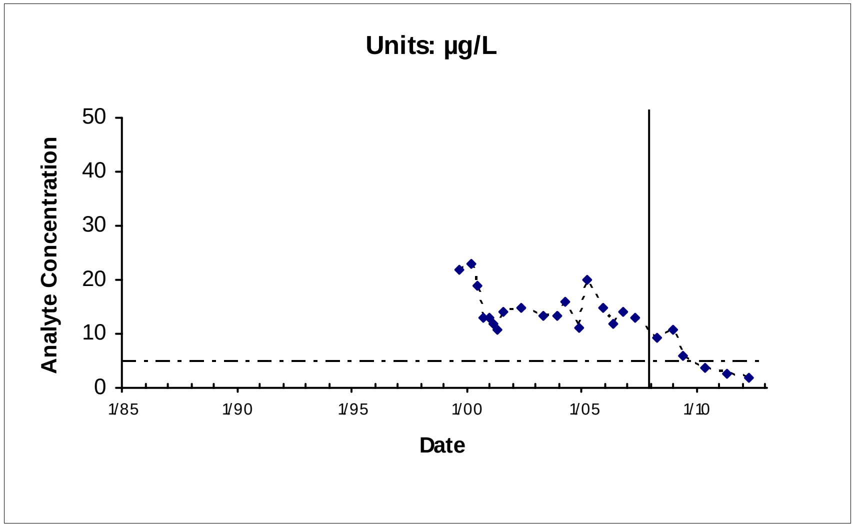
North IRA

FIGURE 2-1

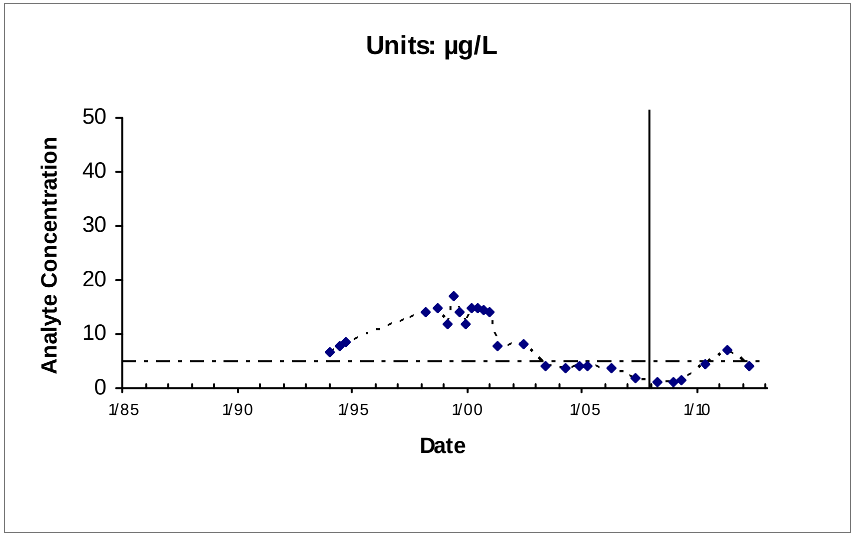
Sites FT004/SD031/LF007

TCE

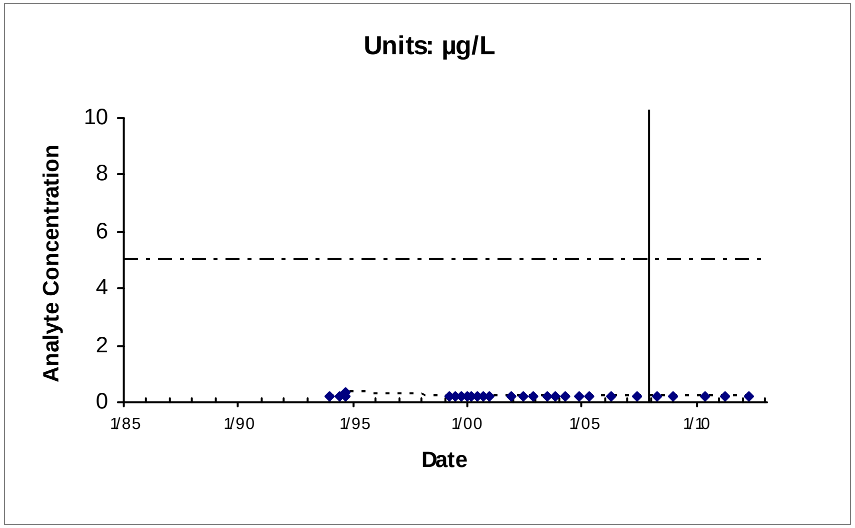
Chemical Time-series Plots



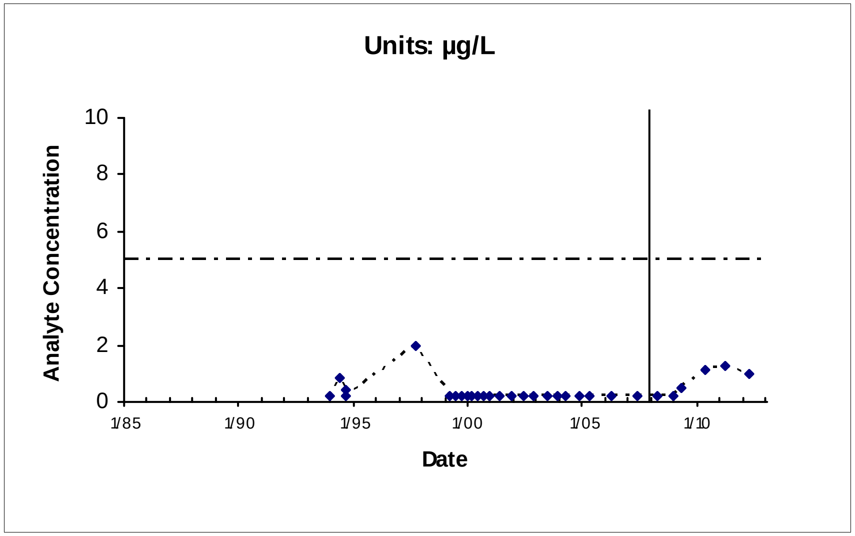
Location: MW574X31 Maximum: 23



Location: MW1729X31 Maximum: 17



Location: MW1730X31 Maximum: 0.35



Location: MW1731X31 Maximum: 2

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

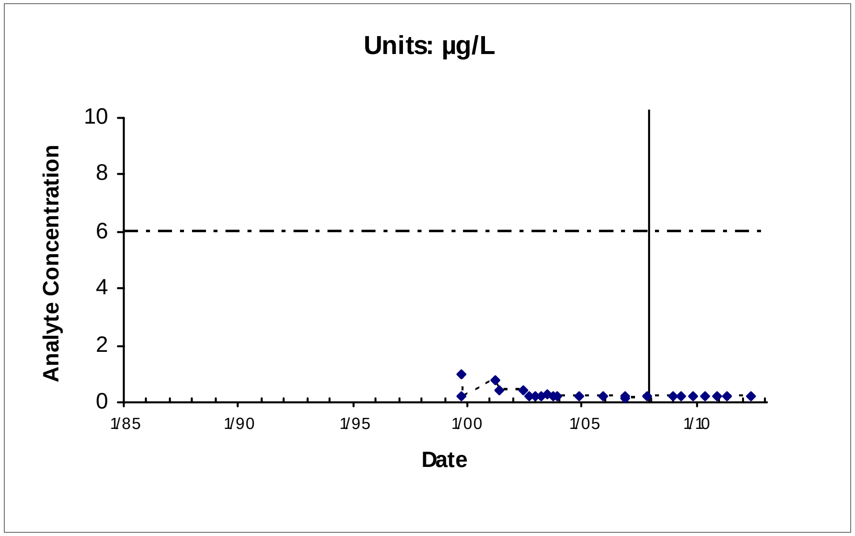
North IRA

FIGURE 2-1

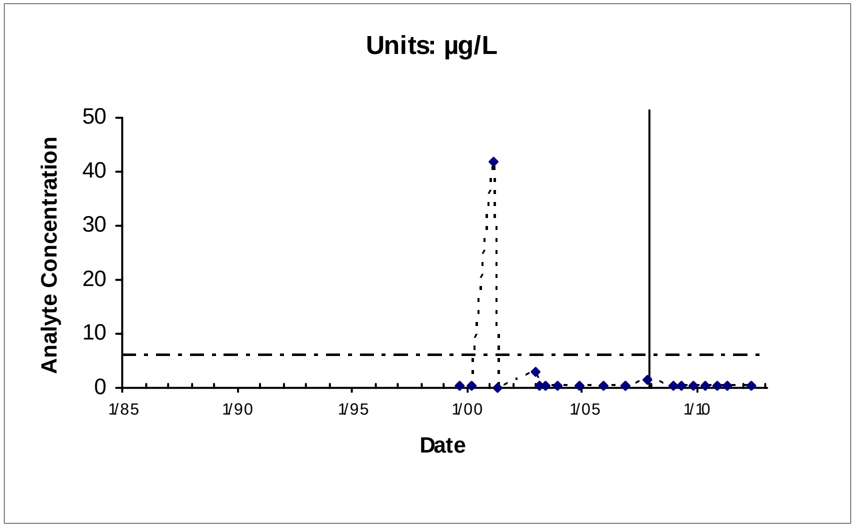
Sites FT004/SD031/LF007

TCE

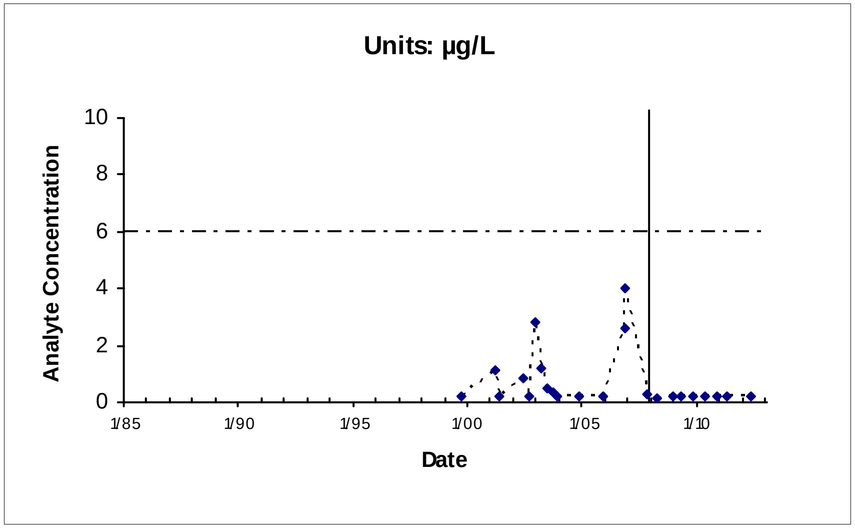
Chemical Time-series Plots



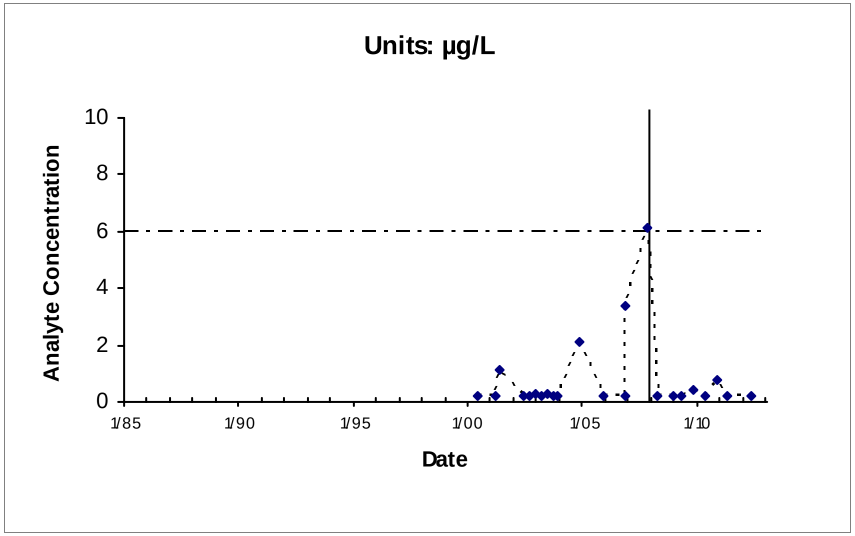
Location: EW576X04 Maximum: 1



Location: EW577X04 Maximum: 42



Location: EW578X04 Maximum: 4



Location: EW579X04 Maximum: 6.1

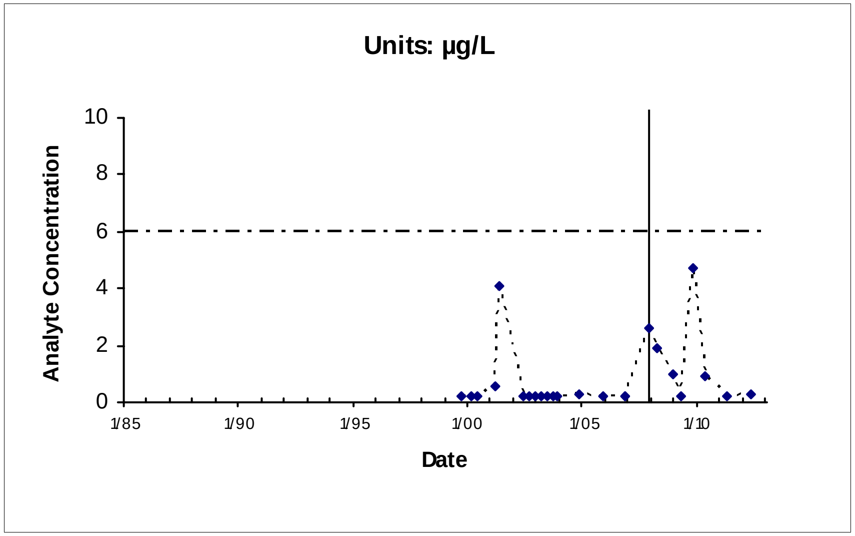
—— Rebound Study Initiated

— - — - — IRG (6 µg/L)

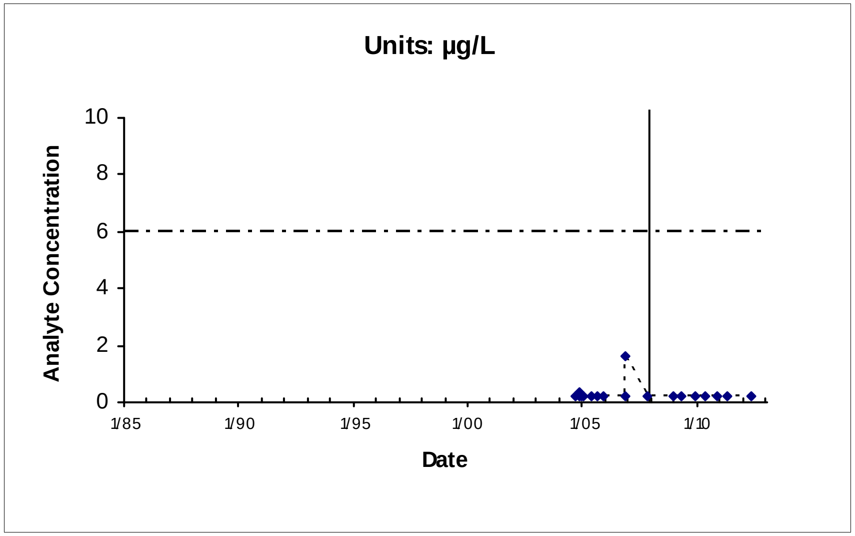
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

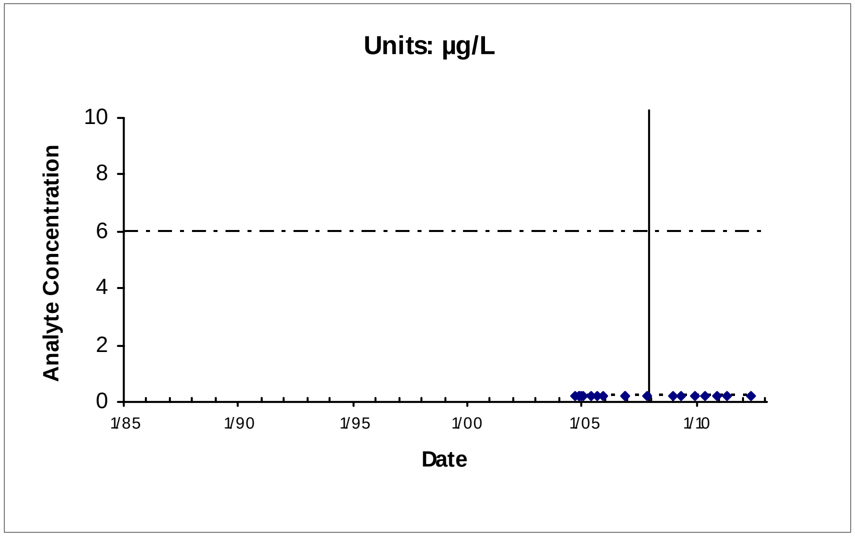
North IRA
FIGURE 2-2
Sites FT004/SD031
1,1-DCE
Chemical Time-series Plots



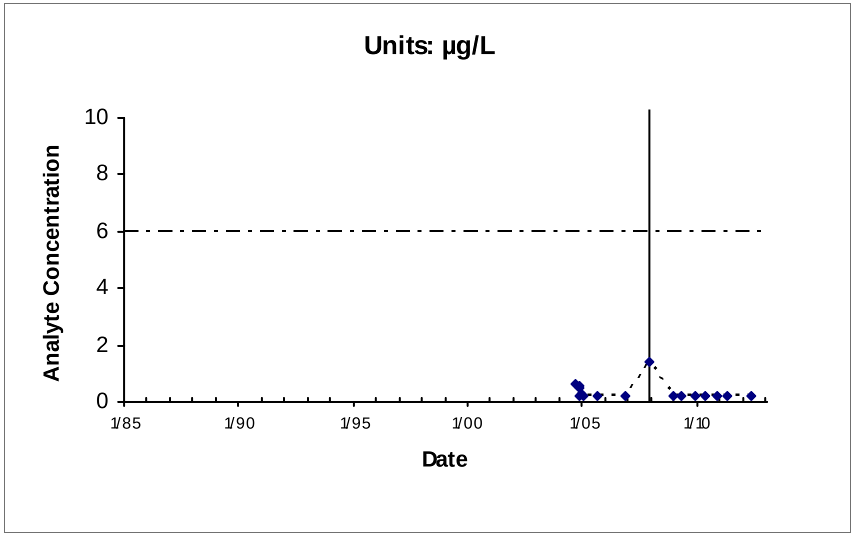
Location: EW580X04 Maximum: 4.7



Location: EW621X04 Maximum: 1.6



Location: EW622X04 Maximum: 0.19



Location: EW623X04 Maximum: 1.4

———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

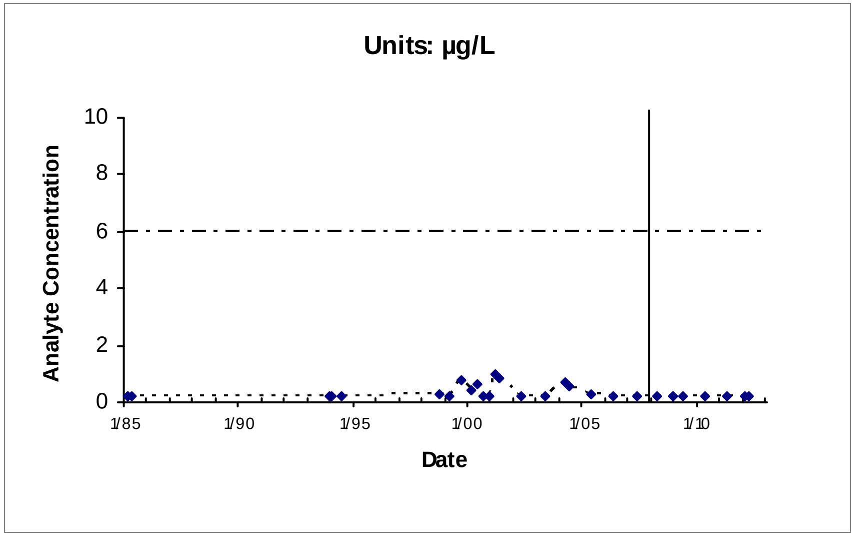
North IRA

FIGURE 2-2

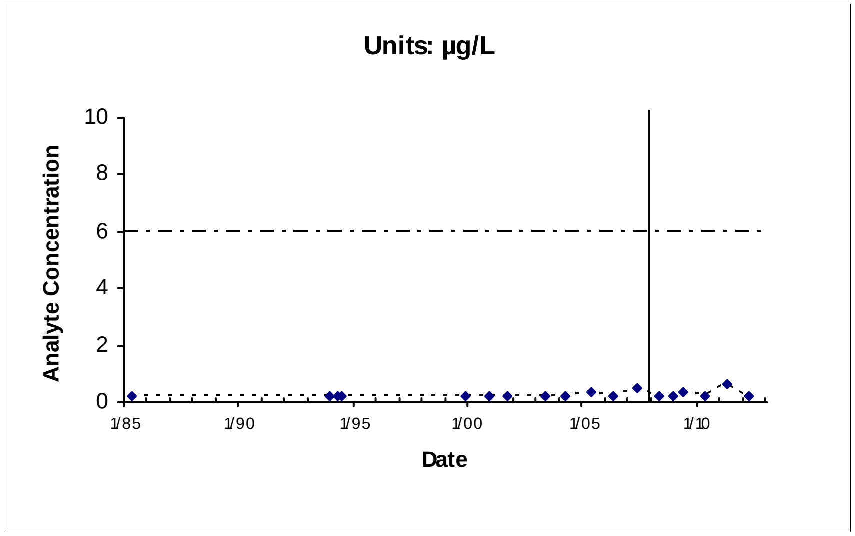
Sites FT004/SD031

1,1-DCE

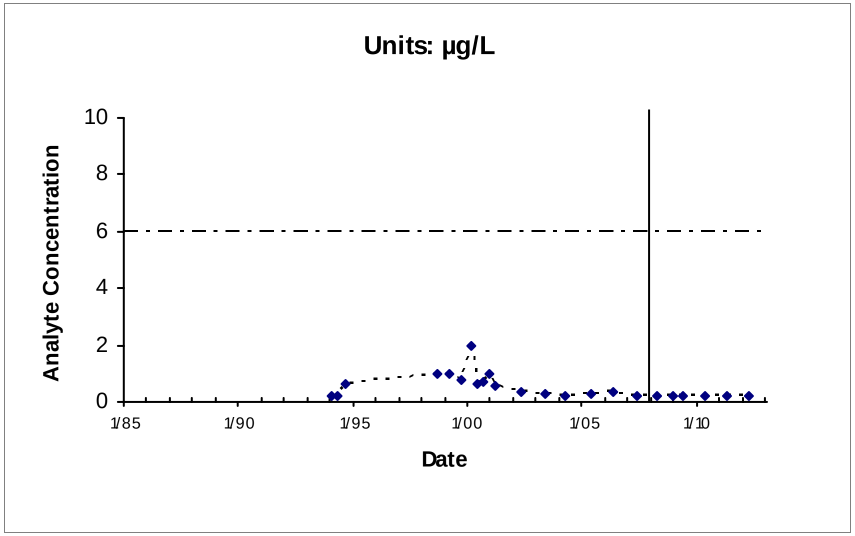
Chemical Time-series Plots



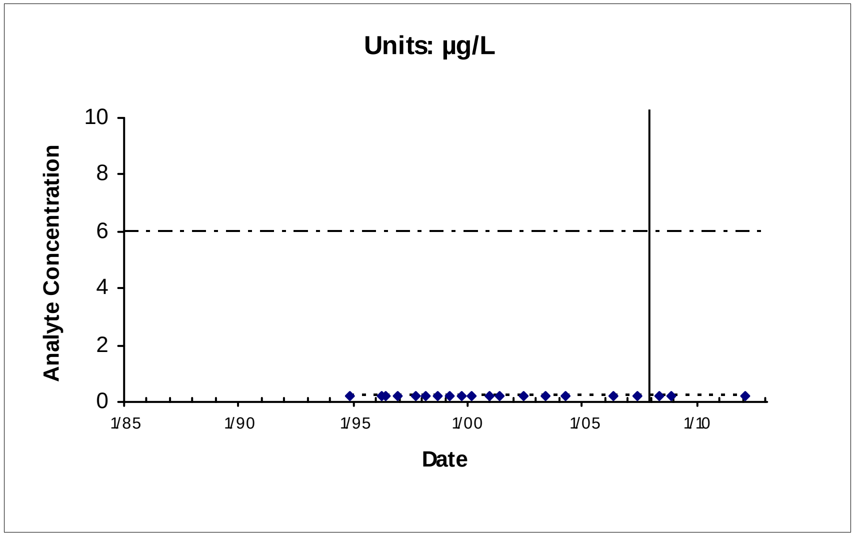
Location: MW131X04 Maximum: 0.98



Location: MW134X04 Maximum: 0.63



Location: MW202X04 Maximum: 2



Location: MW264X04 Maximum: 0.19

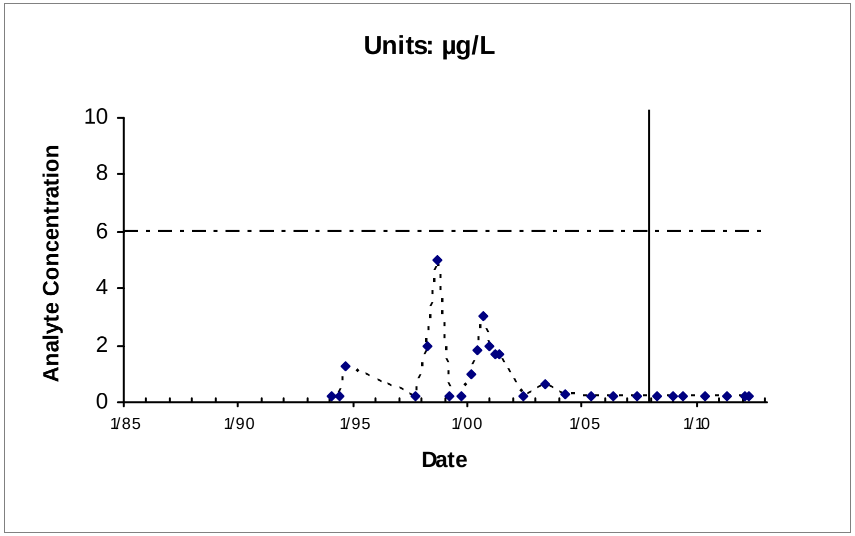
———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

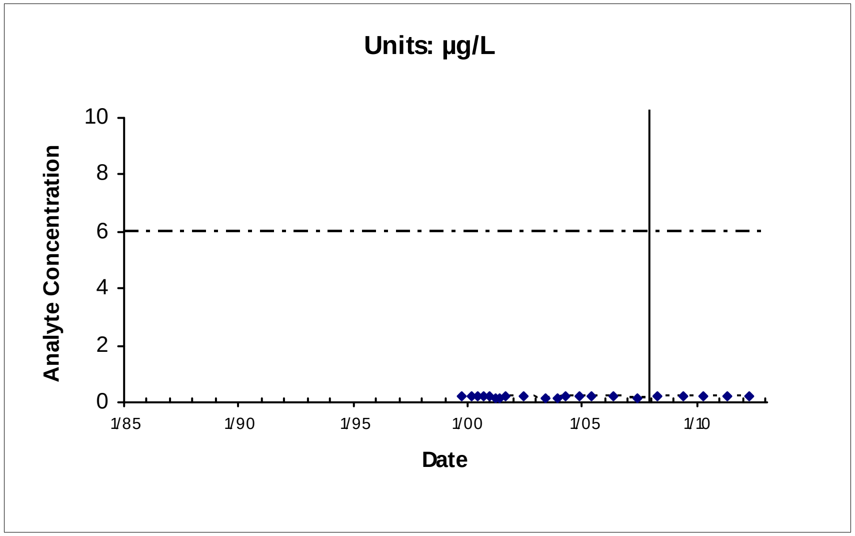
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

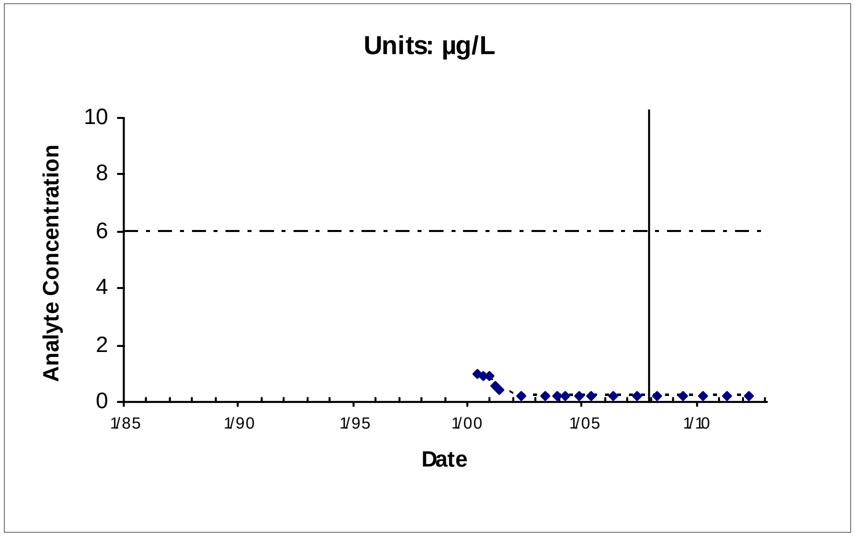
North IRA
FIGURE 2-2
Sites FT004/SD031
1,1-DCE
Chemical Time-series Plots



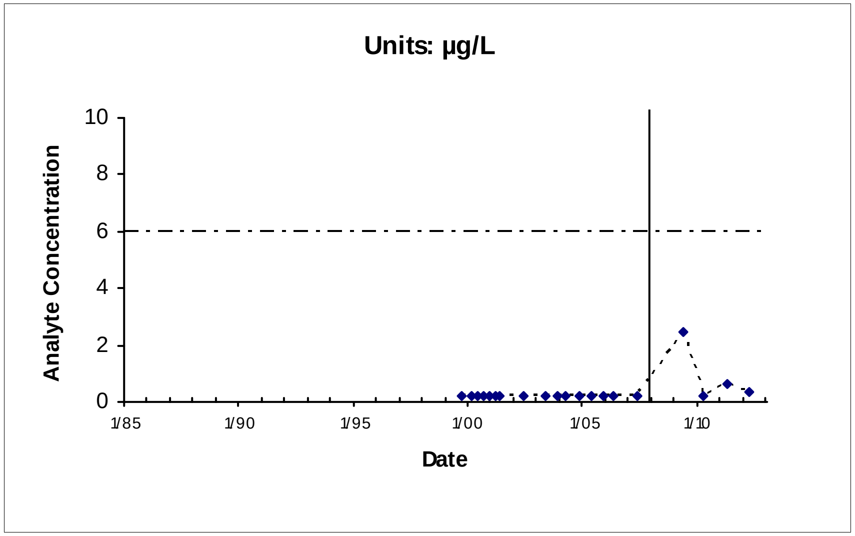
Location: MW266X04 Maximum: 5



Location: MW581X04 Maximum: 0.23



Location: MW584X04 Maximum: 1



Location: MW585X04 Maximum: 2.5

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

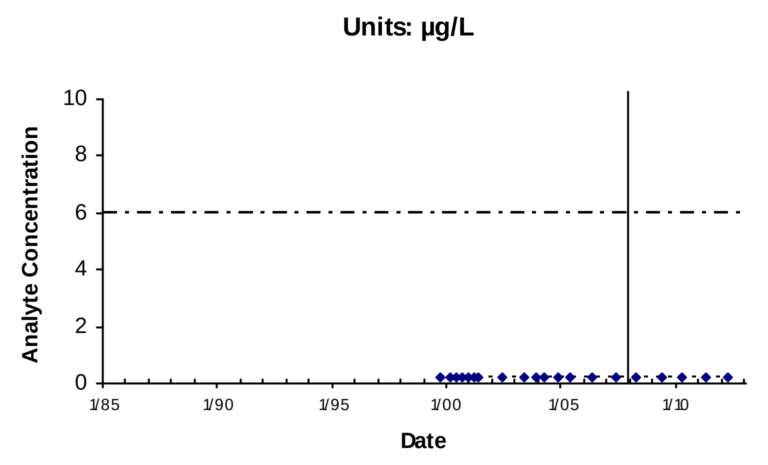
North IRA

FIGURE 2-2

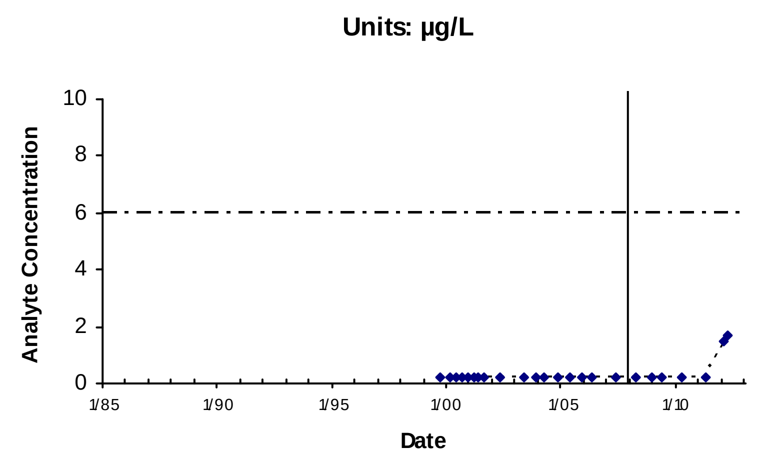
Sites FT004/SD031

1,1-DCE

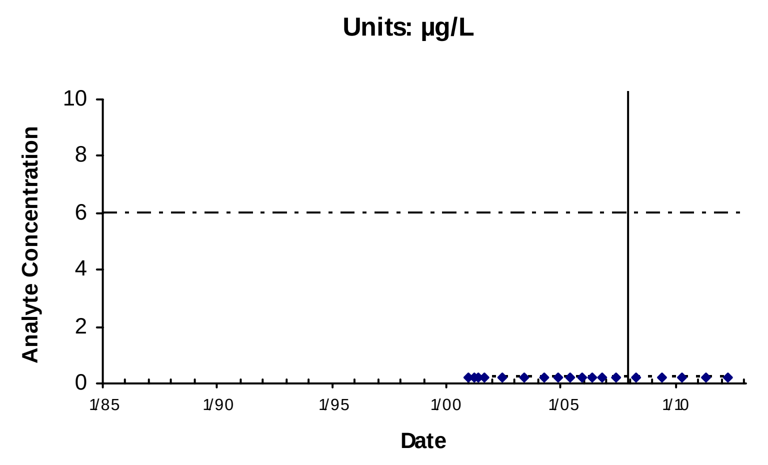
Chemical Time-series Plots



Location: MW587X04 Maximum: 0.19



Location: MW591X04 Maximum: 1.7



Location: MW757X04 Maximum: 0.19

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

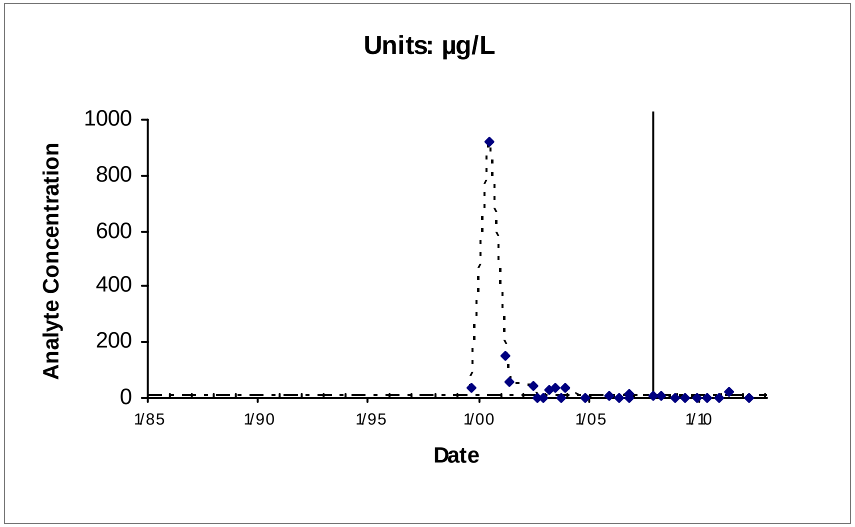
North IRA

FIGURE 2-2

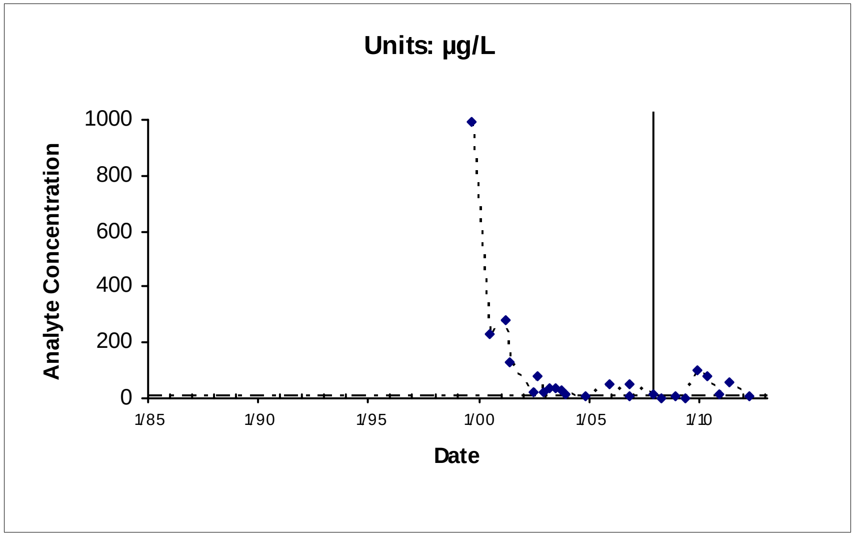
Sites FT004/SD031

1,1-DCE

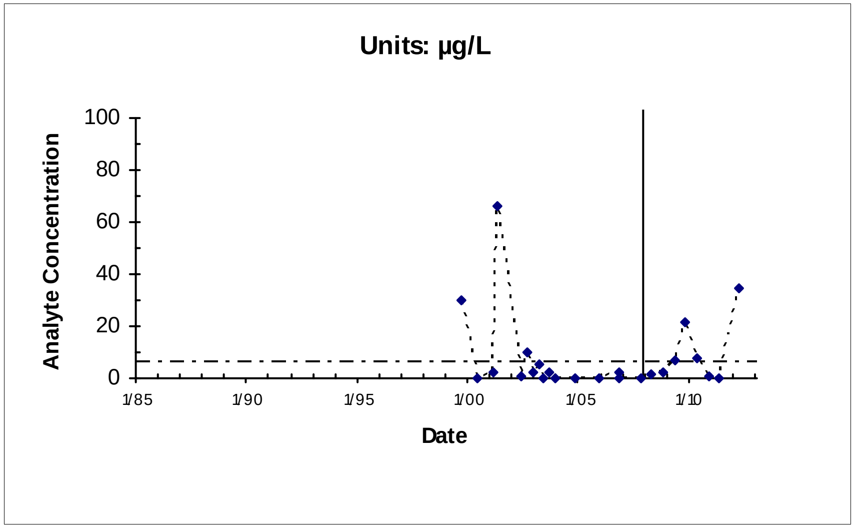
Chemical Time-series Plots



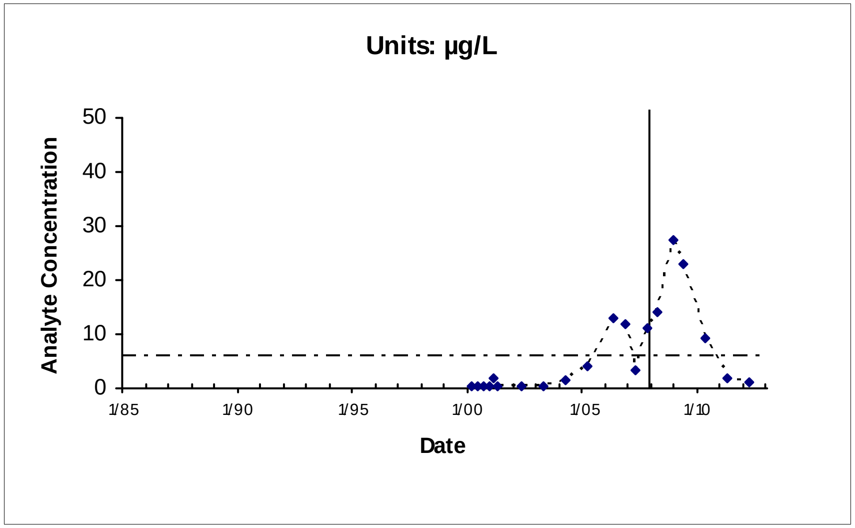
Location: EW565X31 Maximum: 920



Location: EW566X31 Maximum: 990



Location: EW567X31 Maximum: 66.2



Location: MW571X31 Maximum: 27.4

——————— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

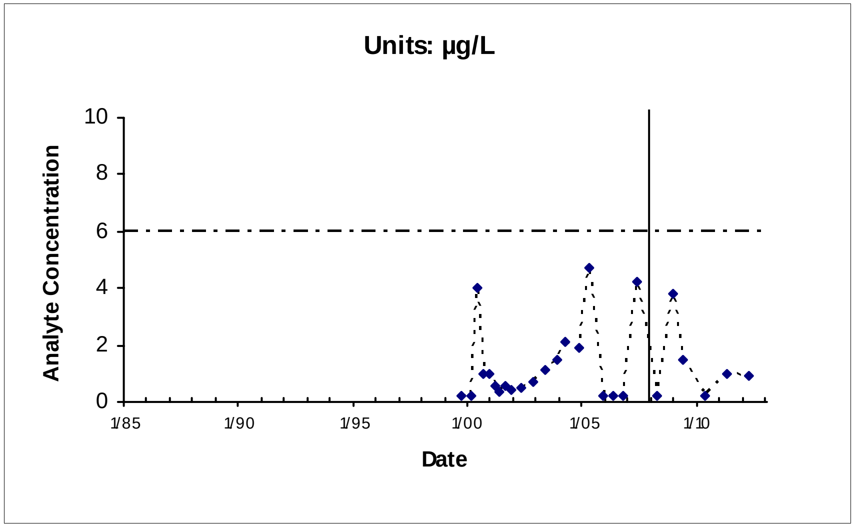
North IRA

FIGURE 2-2

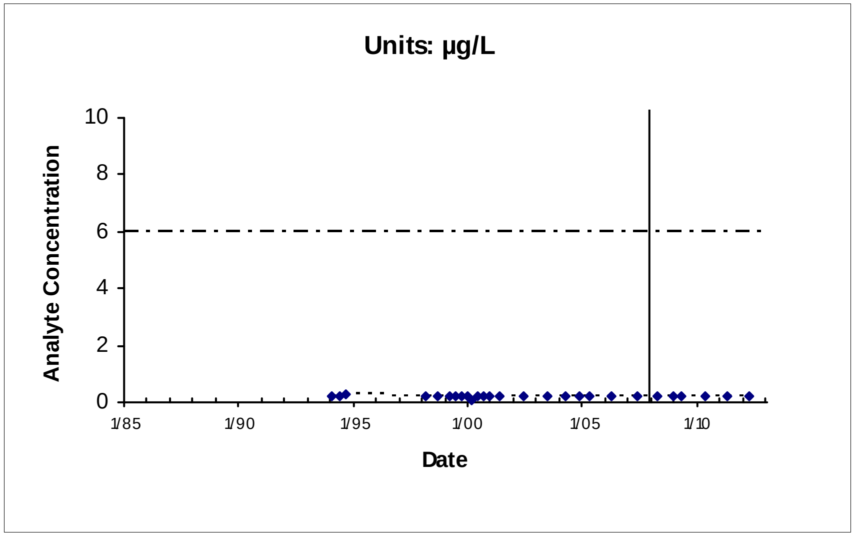
Sites FT004/SD031

1,1-DCE

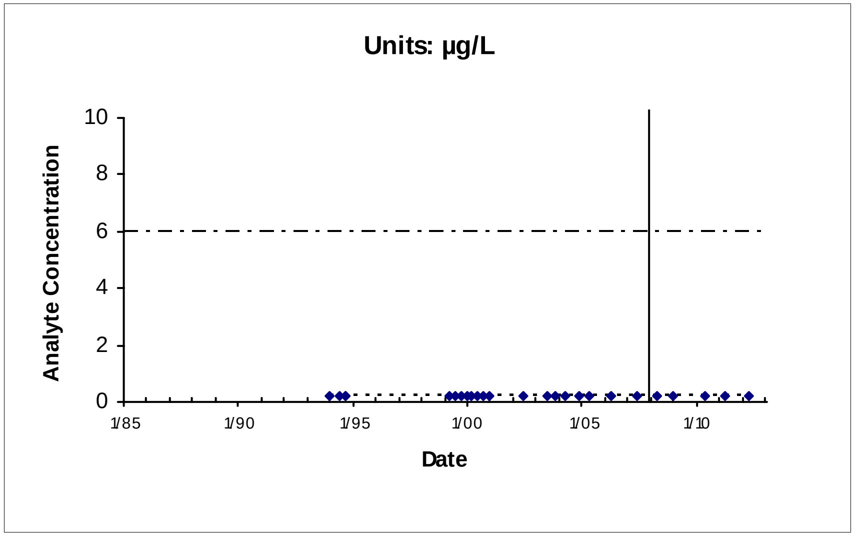
Chemical Time-series Plots



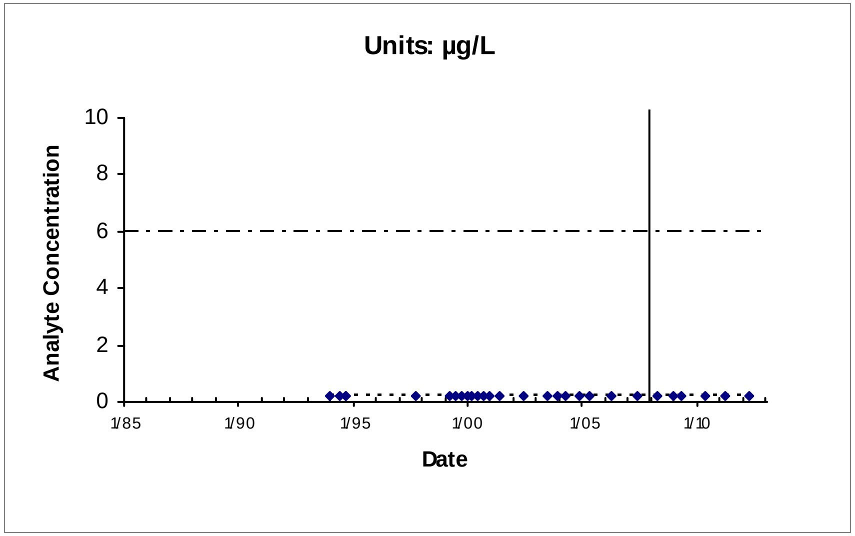
Location: MW574X31 Maximum: 4.7



Location: MW1729X31 Maximum: 0.26



Location: MW1730X31 Maximum: 0.19



Location: MW1731X31 Maximum: 0.19

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

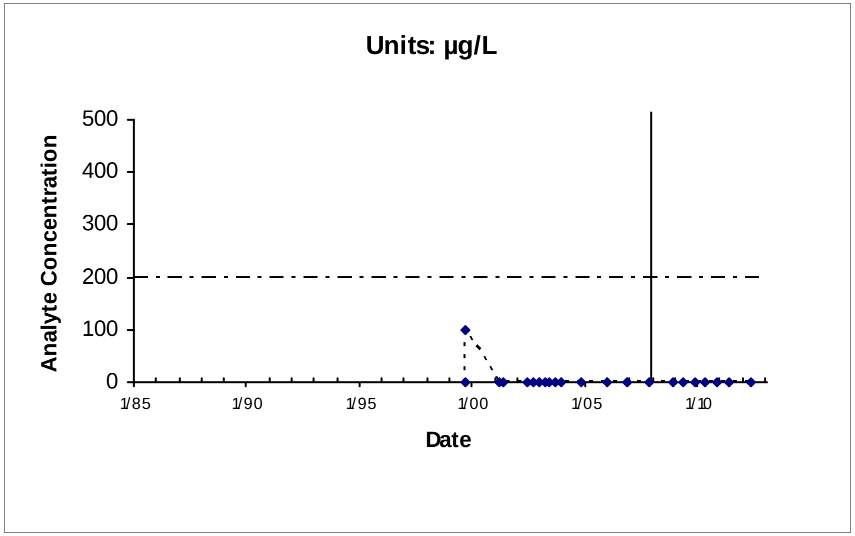
North IRA

FIGURE 2-2

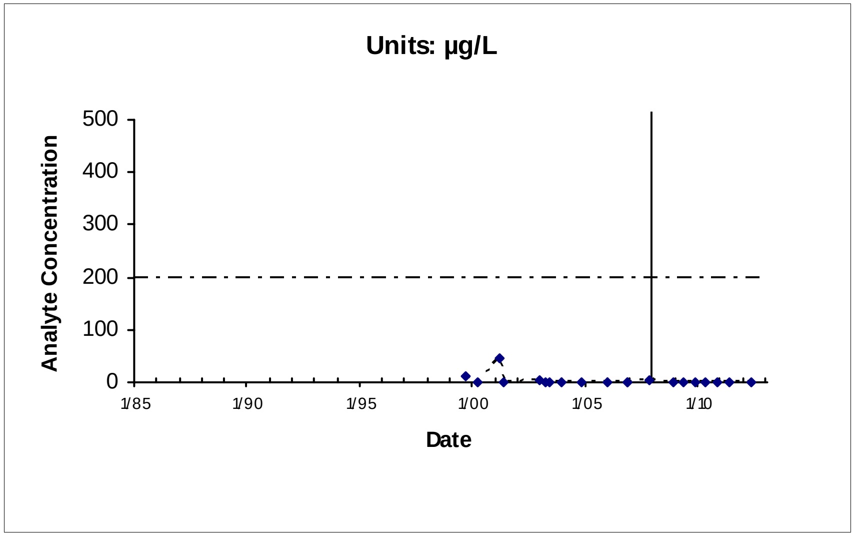
Sites FT004/SD031

1,1-DCE

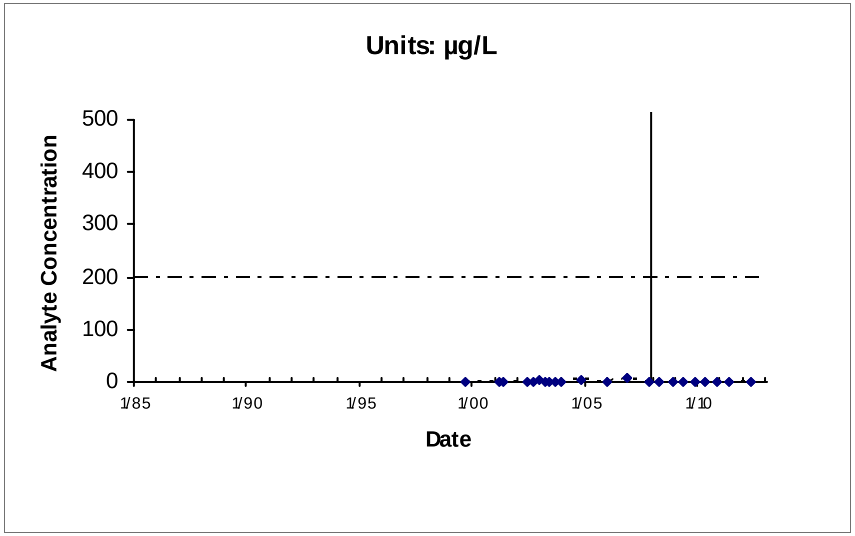
Chemical Time-series Plots



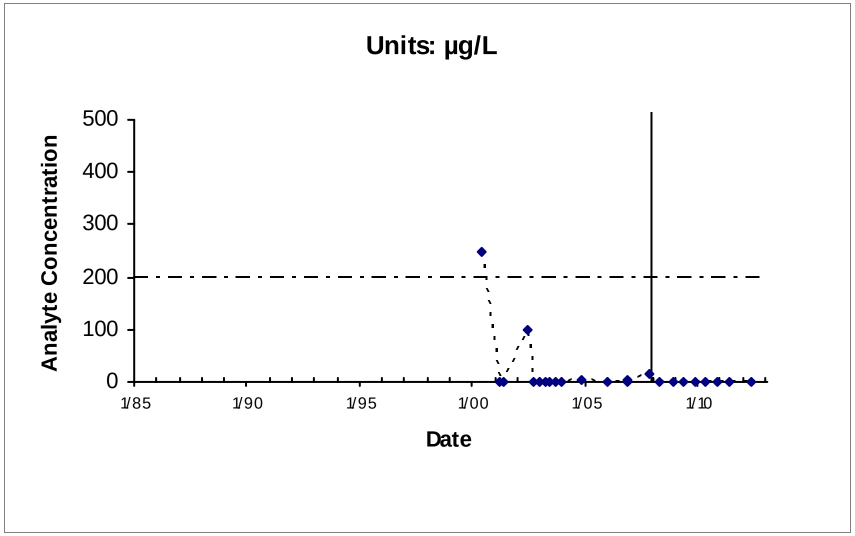
Location: EW576X04 Maximum: 100



Location: EW577X04 Maximum: 44



Location: EW578X04 Maximum: 7.2



Location: EW579X04 Maximum: 250

——— Rebound Study Initiated

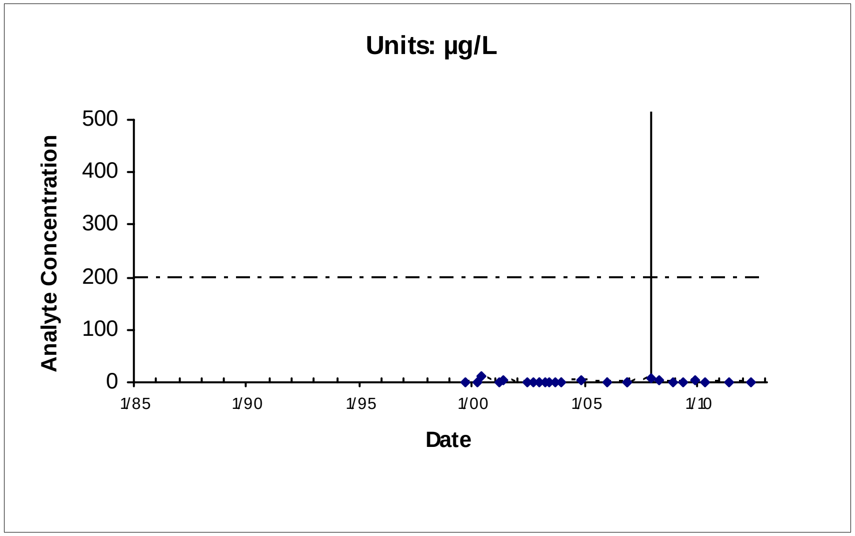
— - — - — IRG (200 µg/L)

*Nondetects shown as the Method Detection Limit (µg/L)

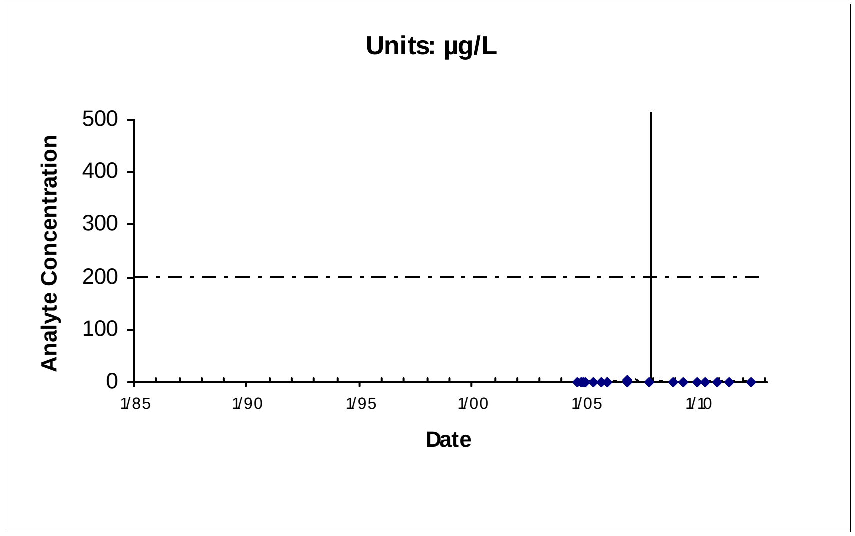
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

North IRA

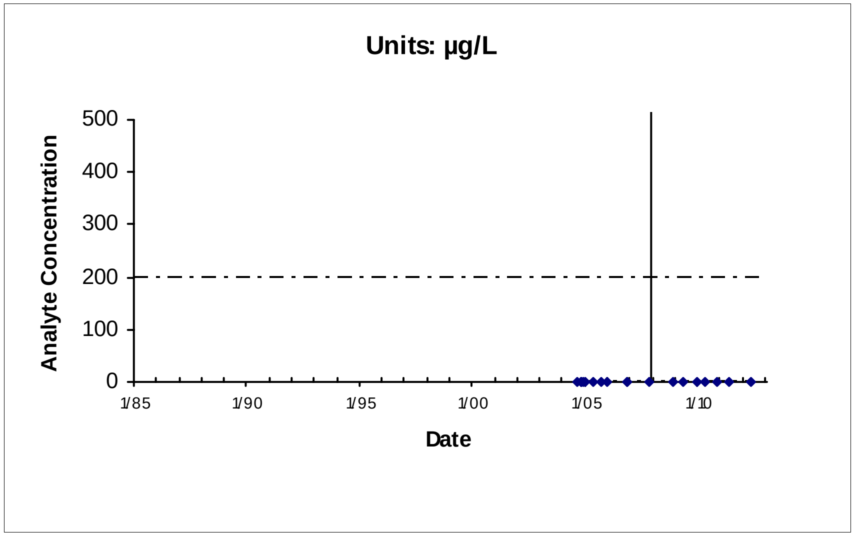
FIGURE 2-3
Sites FT004/SD031
1,1,1-TCA
Chemical Time-series Plots



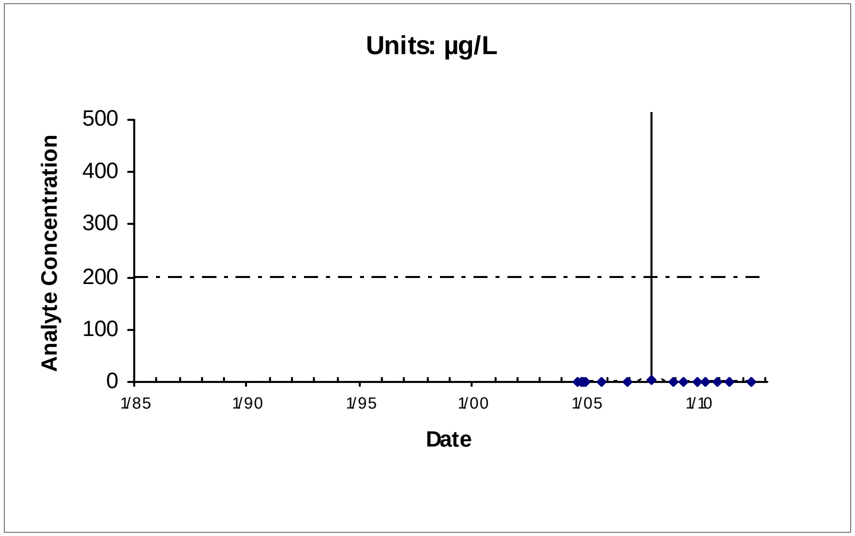
Location: EW580X04 Maximum: 12



Location: EW621X04 Maximum: 2.6



Location: EW622X04 Maximum: 1



Location: EW623X04 Maximum: 3.9

——— Rebound Study Initiated

— - — - — IRG (200 µg/L)

*Nondetects shown as the Method Detection Limit (µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

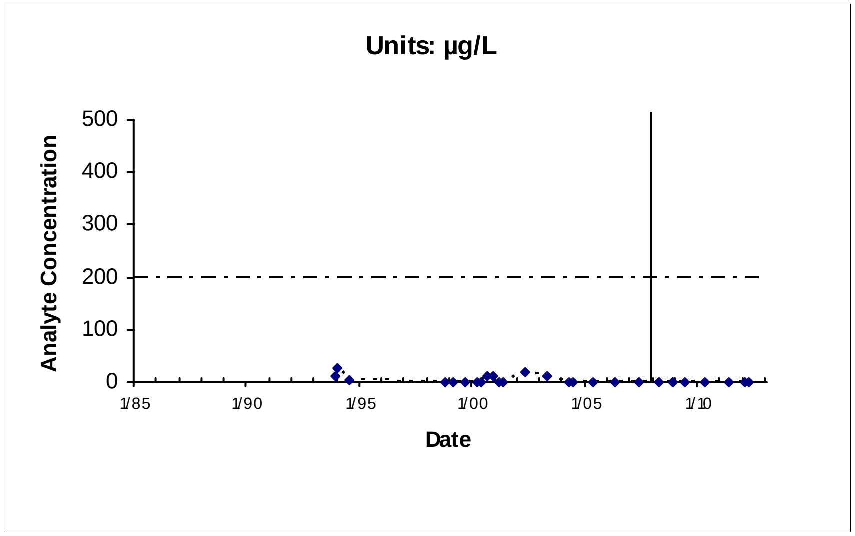
North IRA

FIGURE 2-3

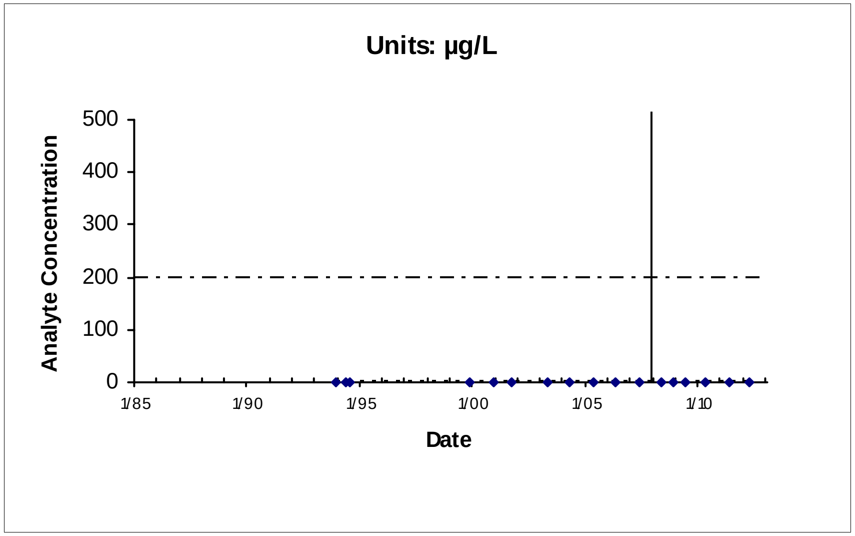
Sites FT004/SD031

1,1,1-TCA

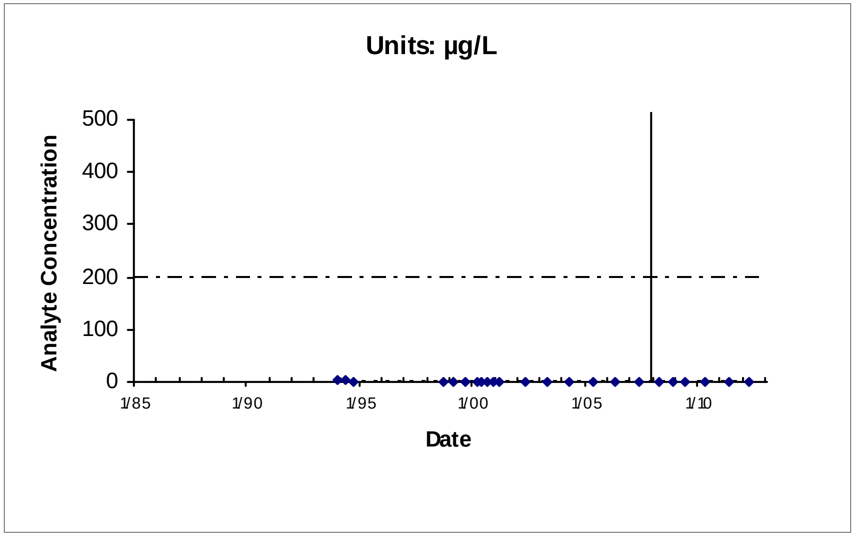
Chemical Time-series Plots



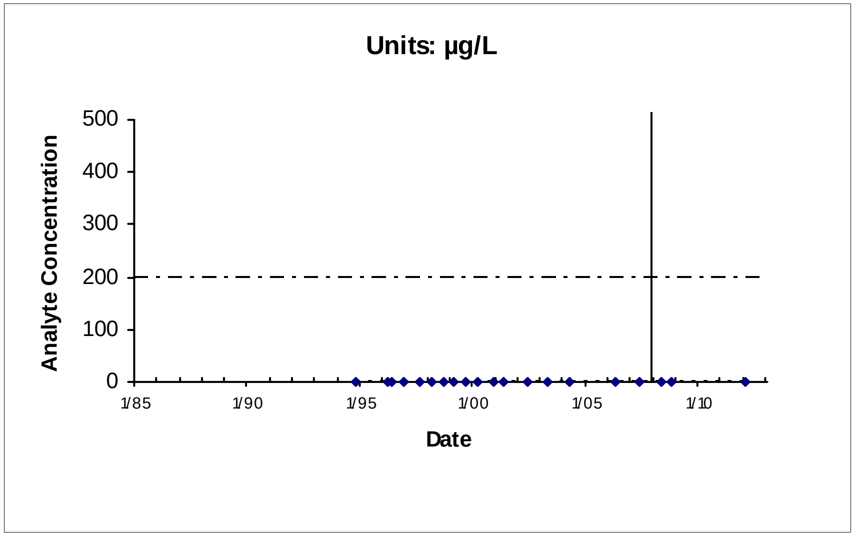
Location: MW131X04 Maximum: 25



Location: MW134X04 Maximum: 1



Location: MW202X04 Maximum: 5



Location: MW264X04 Maximum: 1

——— Rebound Study Initiated

— - — - — IRG (200 µg/L)

*Nondetects shown as the Method Detection Limit (µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

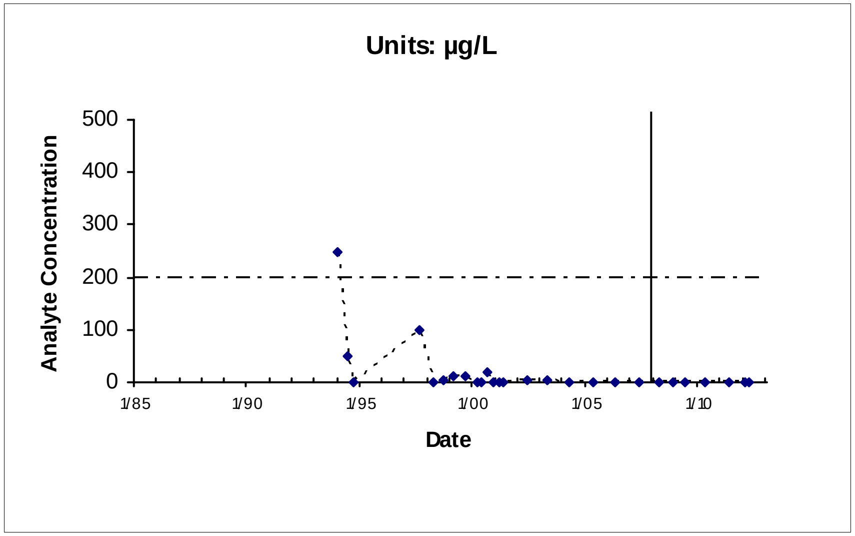
North IRA

FIGURE 2-3

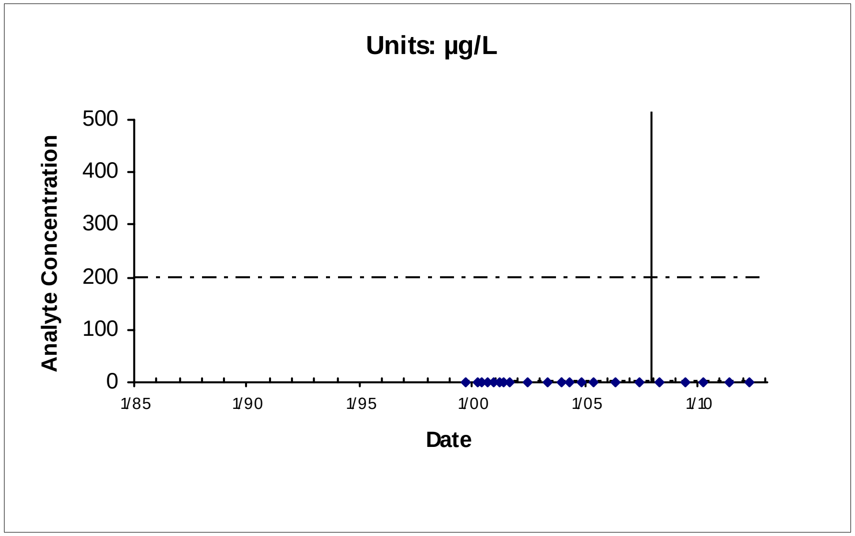
Sites FT004/SD031

1,1,1-TCA

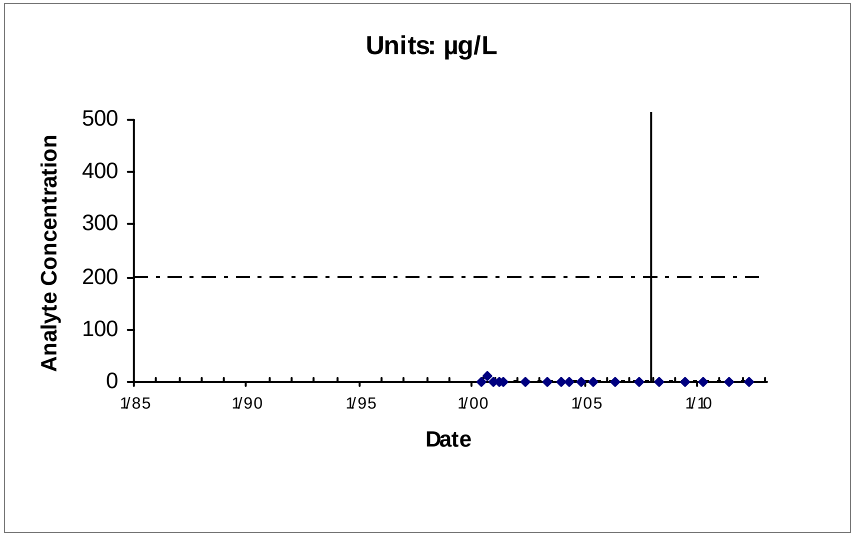
Chemical Time-series Plots



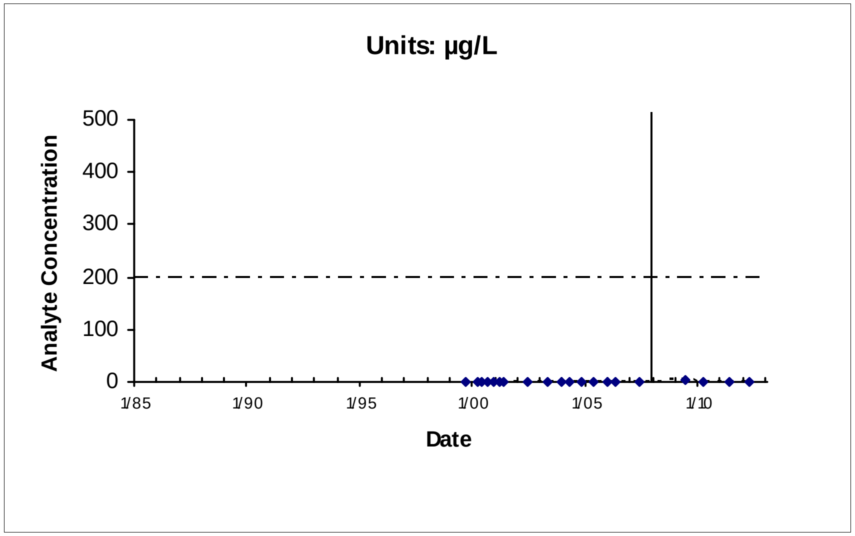
Location: MW266X04 Maximum: 250



Location: MW581X04 Maximum: 1



Location: MW584X04 Maximum: 10



Location: MW585X04 Maximum: 3

——— Rebound Study Initiated

— - — - — IRG (200 µg/L)

*Nondetects shown as the Method Detection Limit (µg/L)

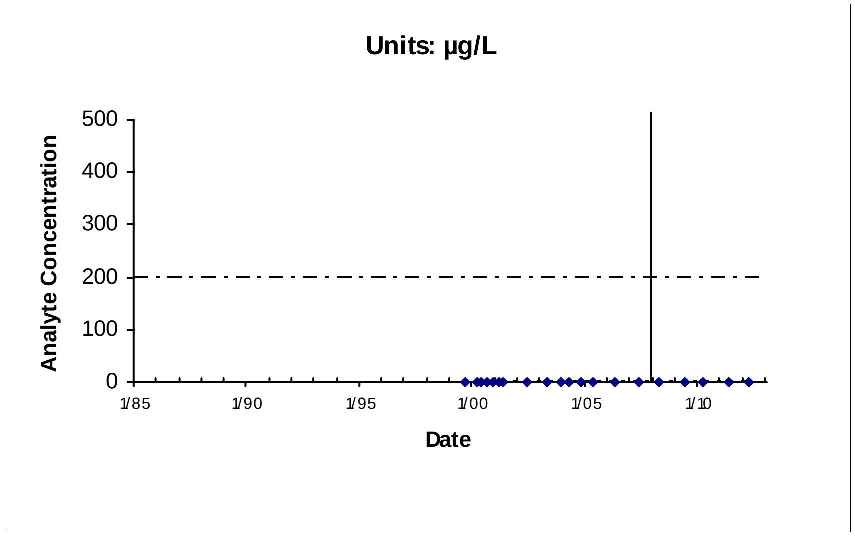
North IRA

FIGURE 2-3

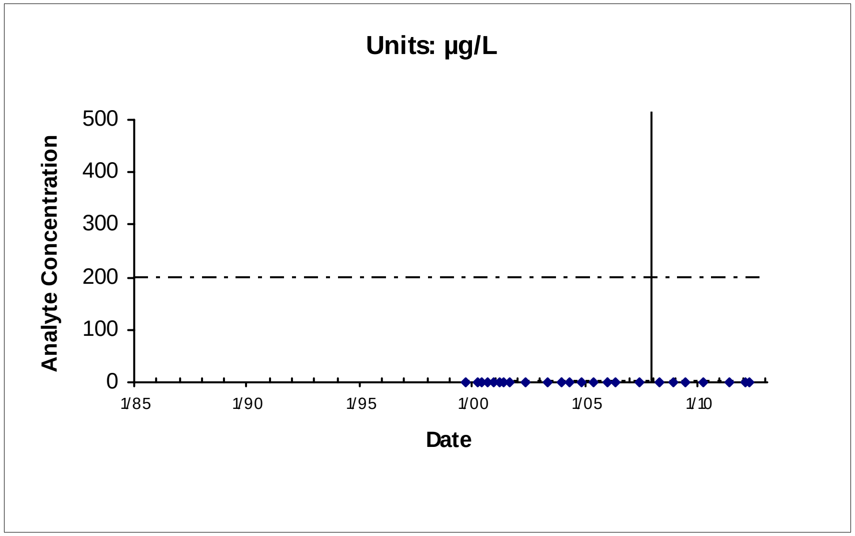
Sites FT004/SD031

1,1,1-TCA

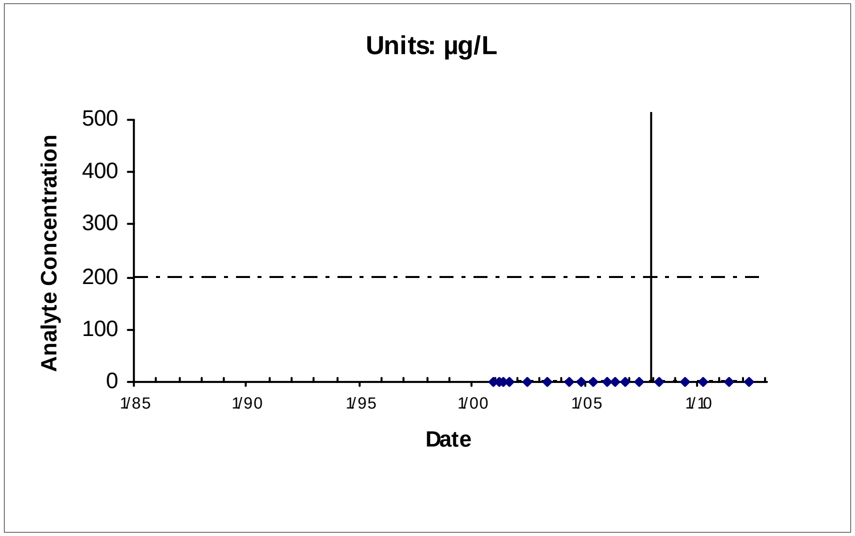
Chemical Time-series Plots



Location: MW587X04 Maximum: 1



Location: MW591X04 Maximum: 1.2



Location: MW757X04 Maximum: 1

——— Rebound Study Initiated

— - — - — IRG (200 µg/L)

*Nondetects shown as the Method Detection Limit (µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

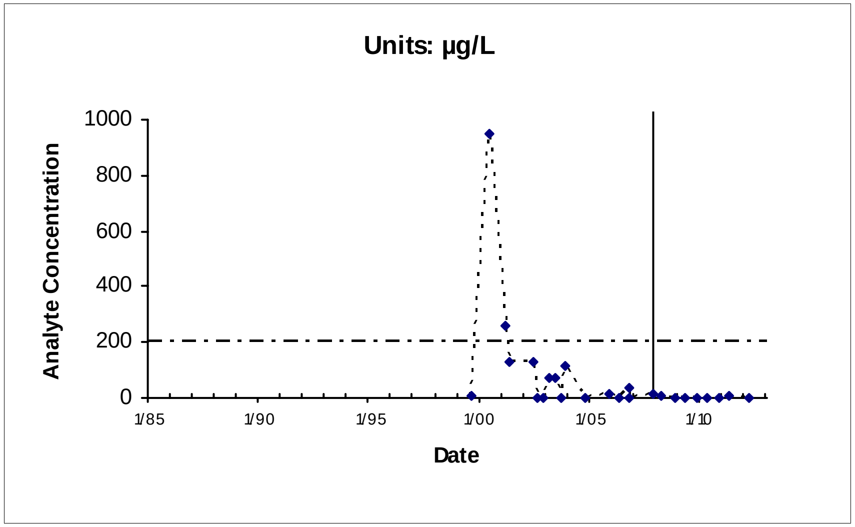
North IRA

FIGURE 2-3

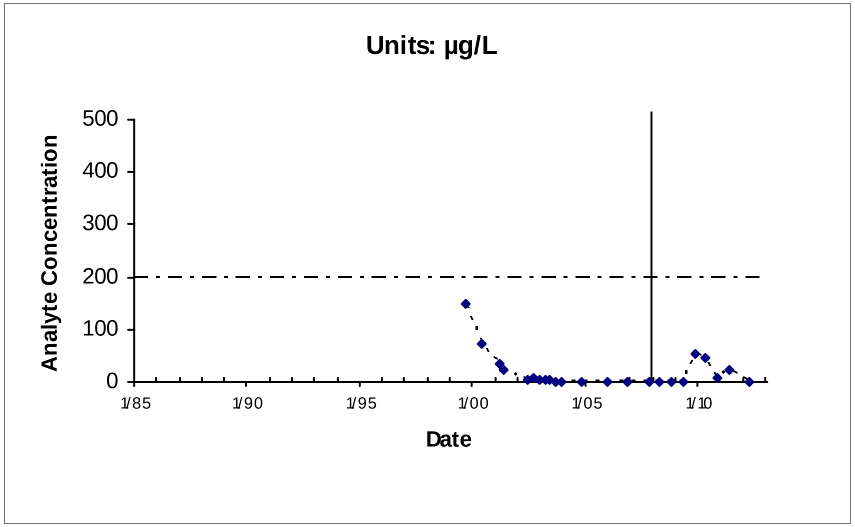
Sites FT004/SD031

1,1,1-TCA

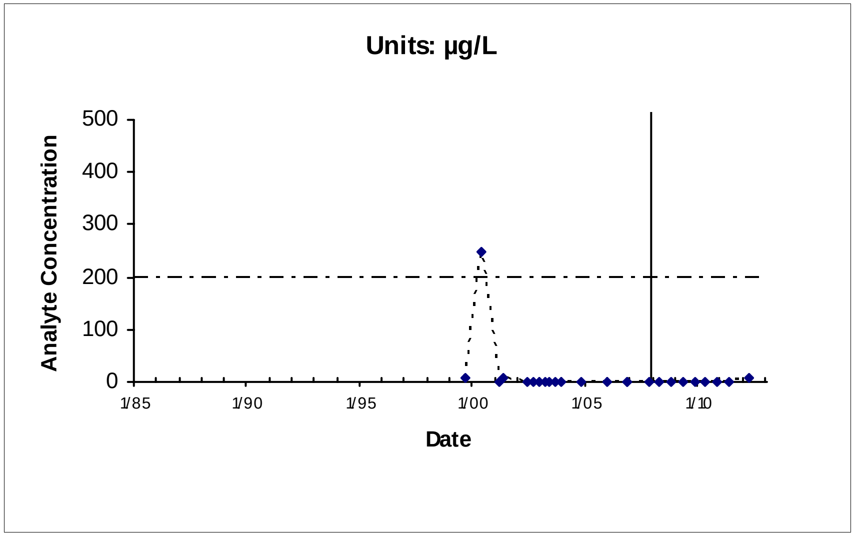
Chemical Time-series Plots



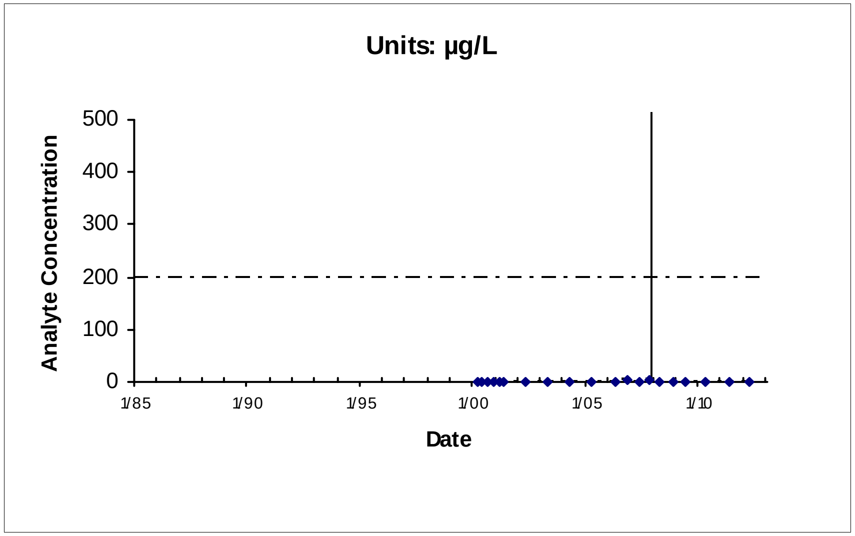
Location: EW565X31 Maximum: 950



Location: EW566X31 Maximum: 150



Location: EW567X31 Maximum: 250



Location: MW571X31 Maximum: 2

——— Rebound Study Initiated

— - — - — IRG (200 µg/L)

*Nondetects shown as the Method Detection Limit (µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

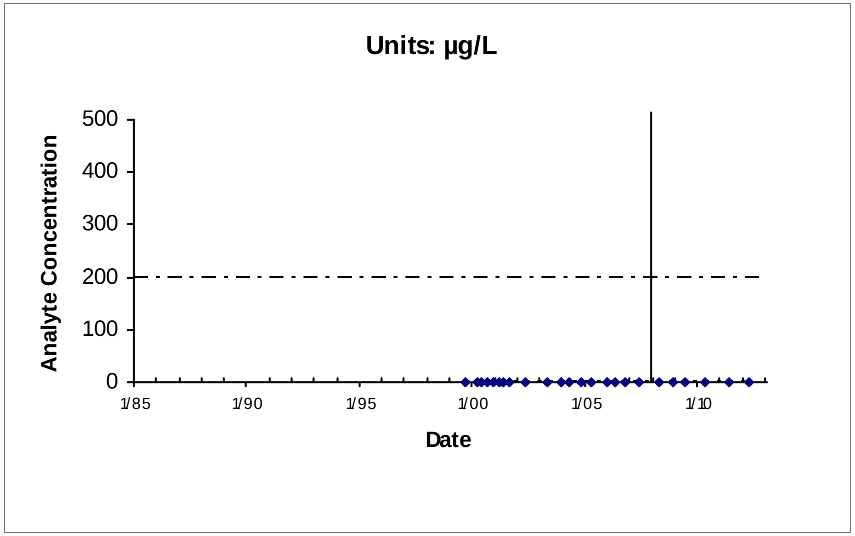
North IRA

FIGURE 2-3

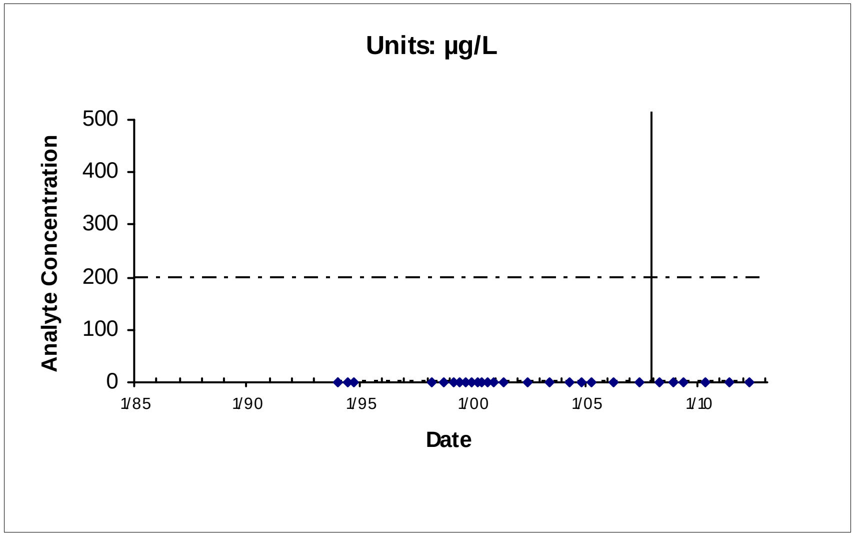
Sites FT004/SD031

1,1,1-TCA

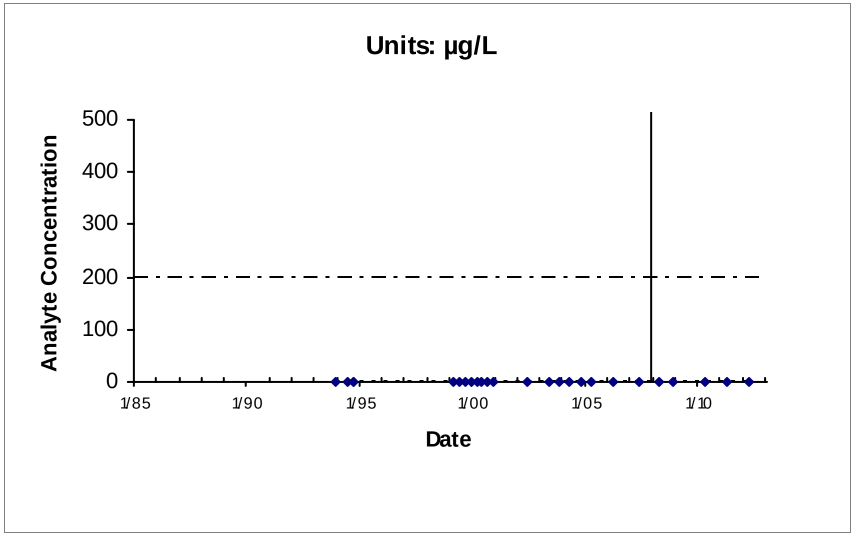
Chemical Time-series Plots



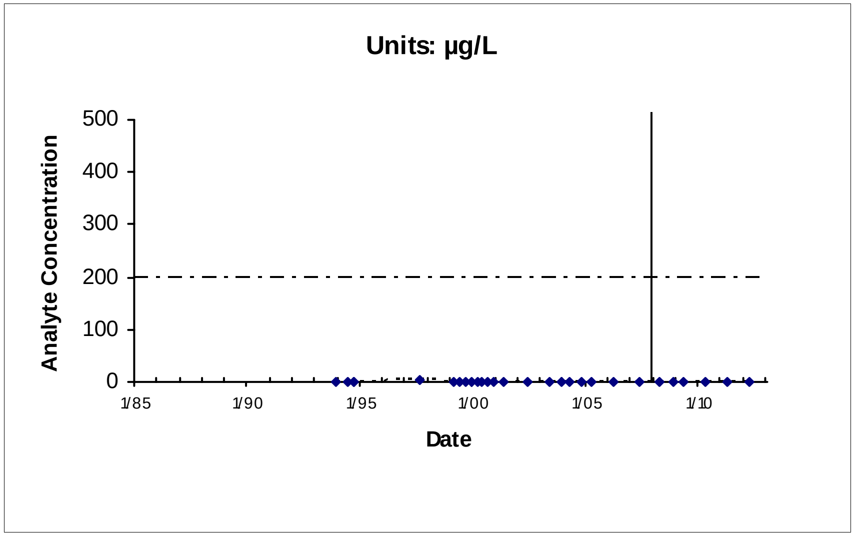
Location: MW574X31 Maximum: 1



Location: MW1729X31 Maximum: 1



Location: MW1730X31 Maximum: 1



Location: MW1731X31 Maximum: 2

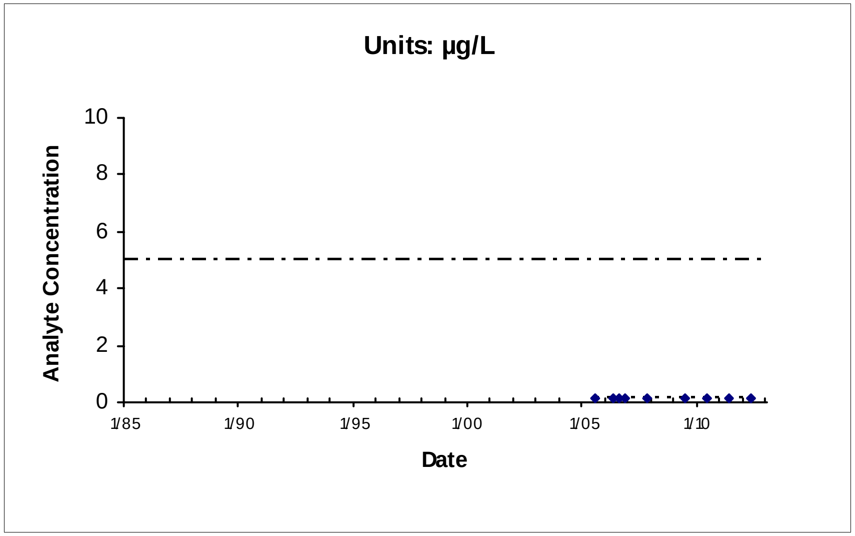
——— Rebound Study Initiated

— - — - — IRG (200 µg/L)

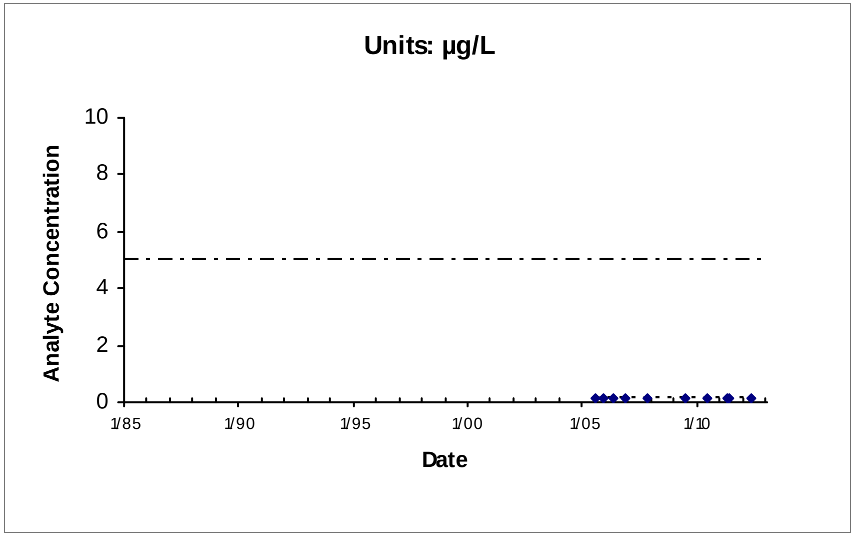
*Nondetects shown as the Method Detection Limit (µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

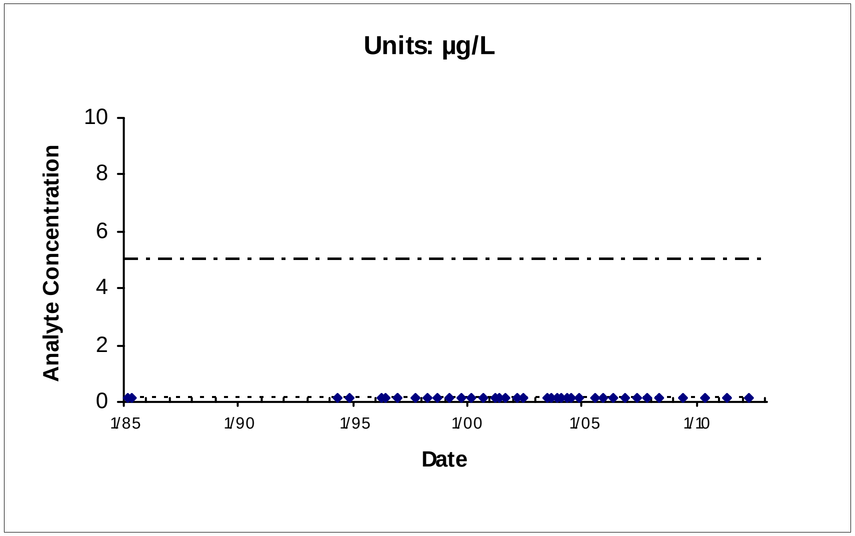
North IRA
FIGURE 2-3
Sites FT004/SD031
1,1,1-TCA
Chemical Time-series Plots



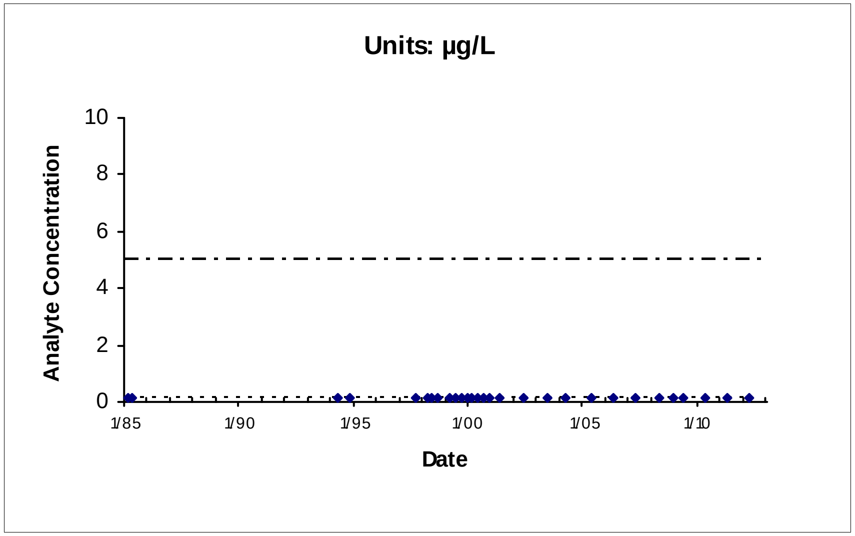
Location: EW614X07 Maximum: 0.15



Location: EW615X07 Maximum: 0.15



Location: MW125X07 Maximum: 0.15



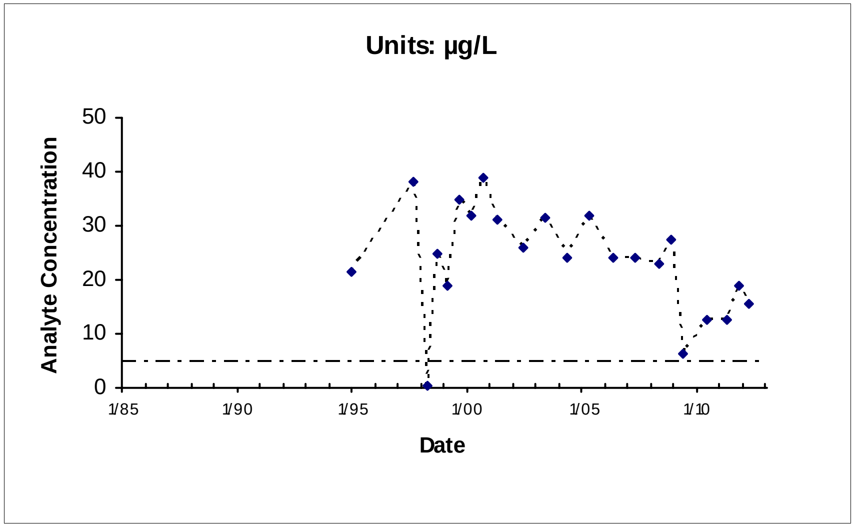
Location: MW129X07 Maximum: 0.15

— - — - — IRG (5 µg/L)

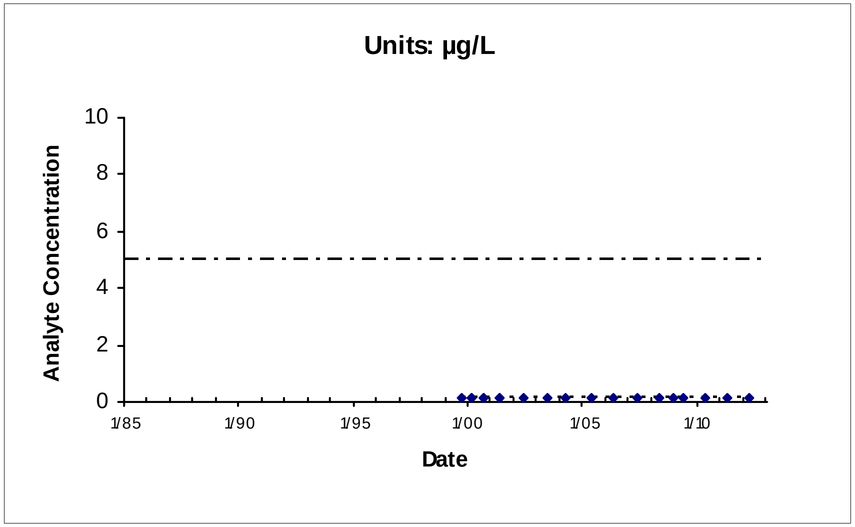
*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

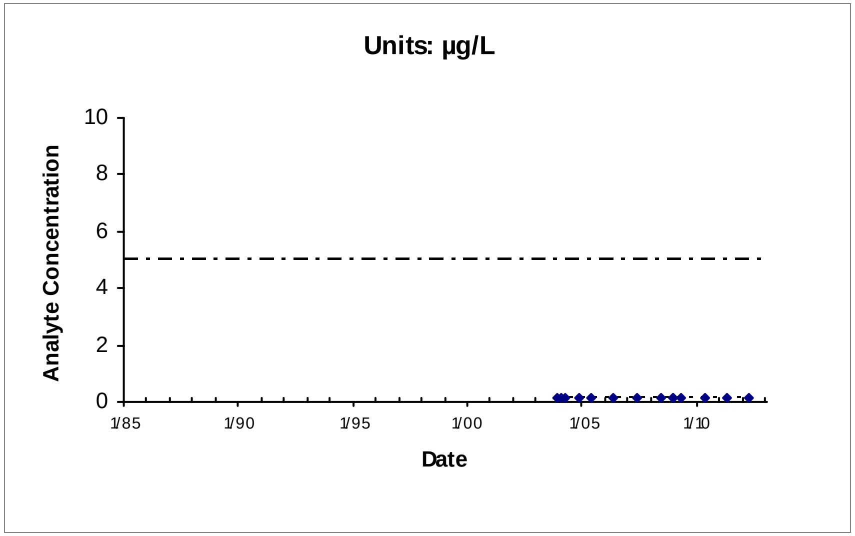
North IRA
FIGURE 2-4
Site LF007
1,4-DCB
Chemical Time-series Plots



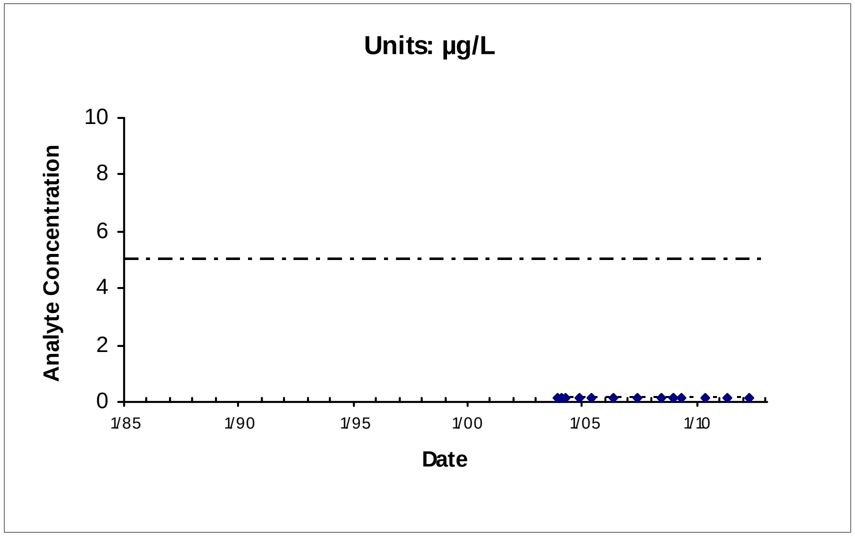
Location: MW261X07 Maximum: 39



Location: MW601X07 Maximum: 0.15



Location: MW612X07 Maximum: 0.15



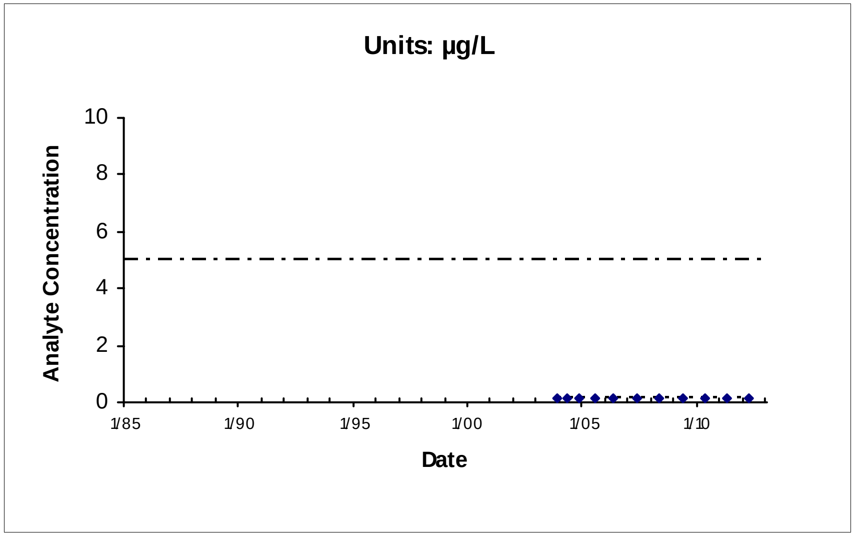
Location: MW613X07 Maximum: 0.15

— - — - — IRG (5 µg/L)

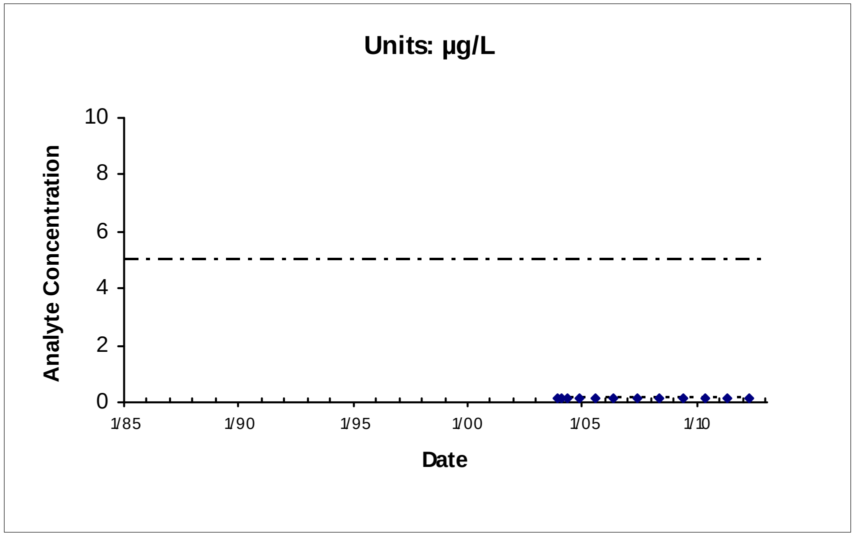
*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

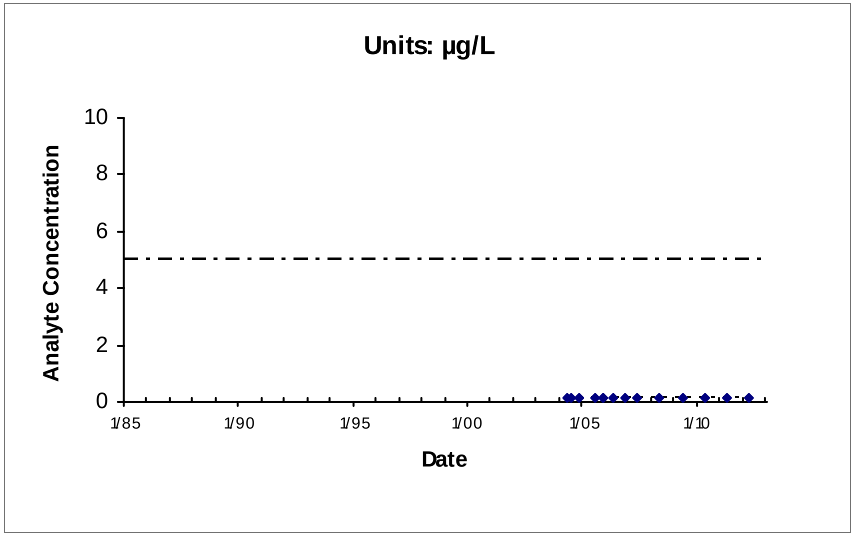
North IRA
FIGURE 2-4
Site LF007
1,4-DCB
Chemical Time-series Plots



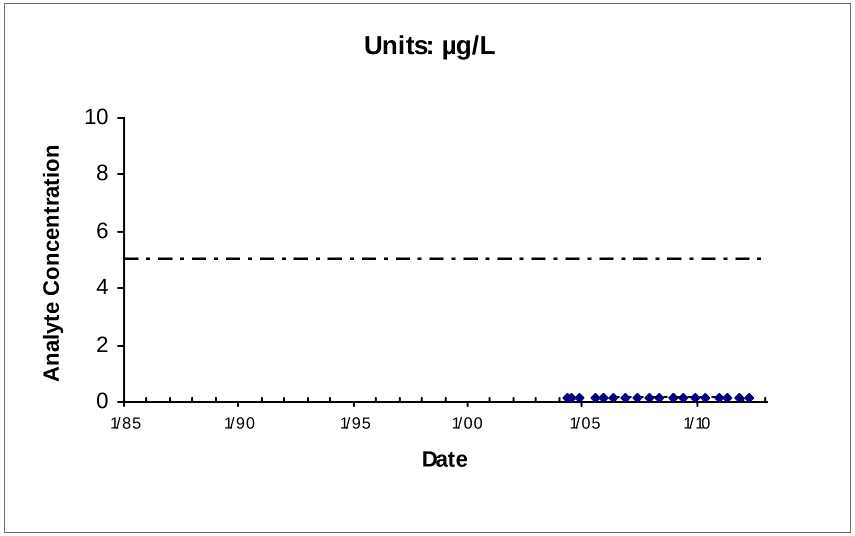
Location: MW616X07 Maximum: 0.15



Location: MW617X07 Maximum: 0.15



Location: MW619X07 Maximum: 0.15



Location: MW620X07 Maximum: 0.15

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

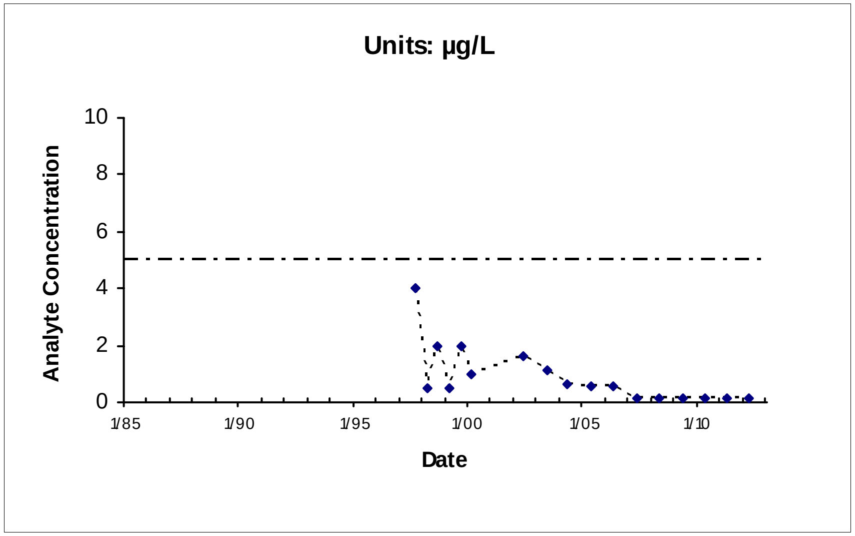
North IRA

FIGURE 2-4

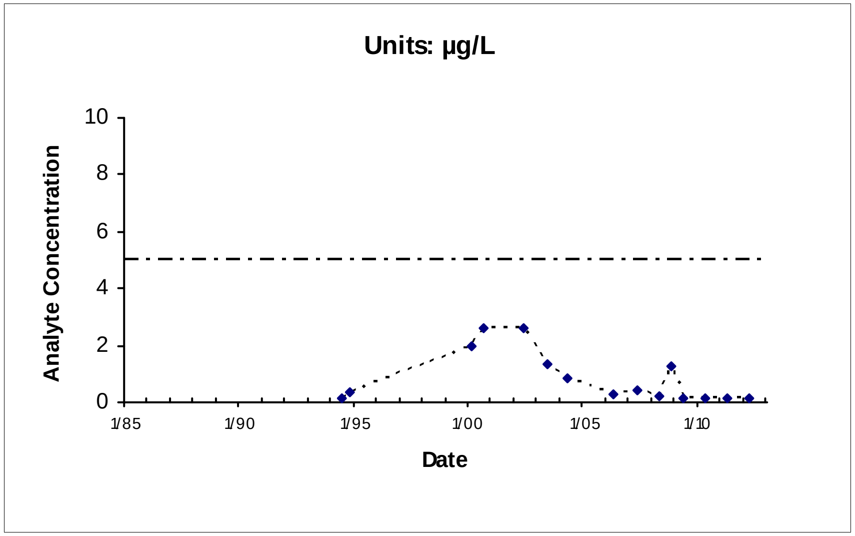
Site LF007

1,4-DCB

Chemical Time-series Plots



Location: MWBX07 Maximum: 4



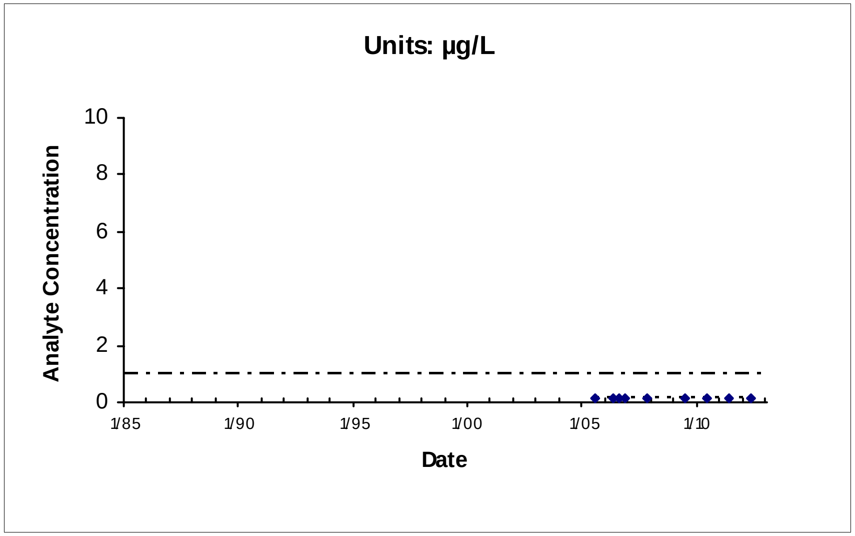
Location: MWCX07 Maximum: 2.6

— - — - — IRG (5 µg/L)

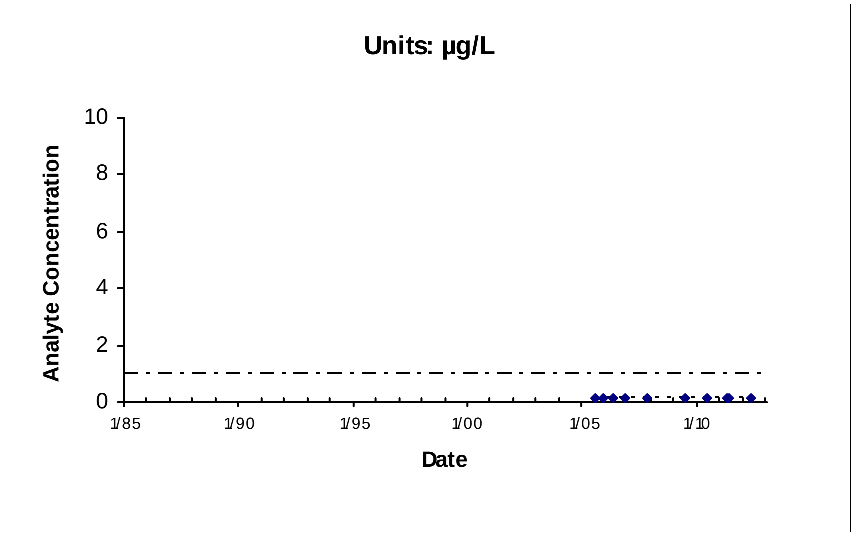
*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

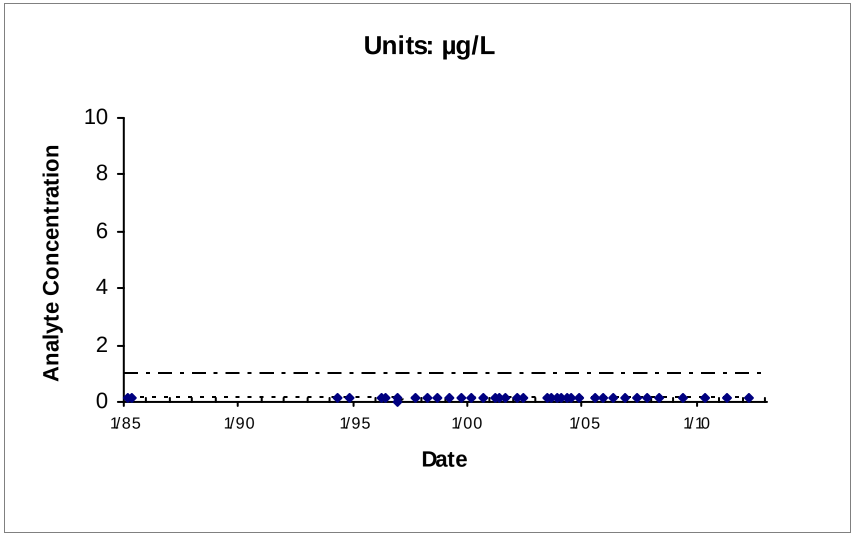
North IRA
FIGURE 2-4
Site LF007
1,4-DCB
Chemical Time-series Plots



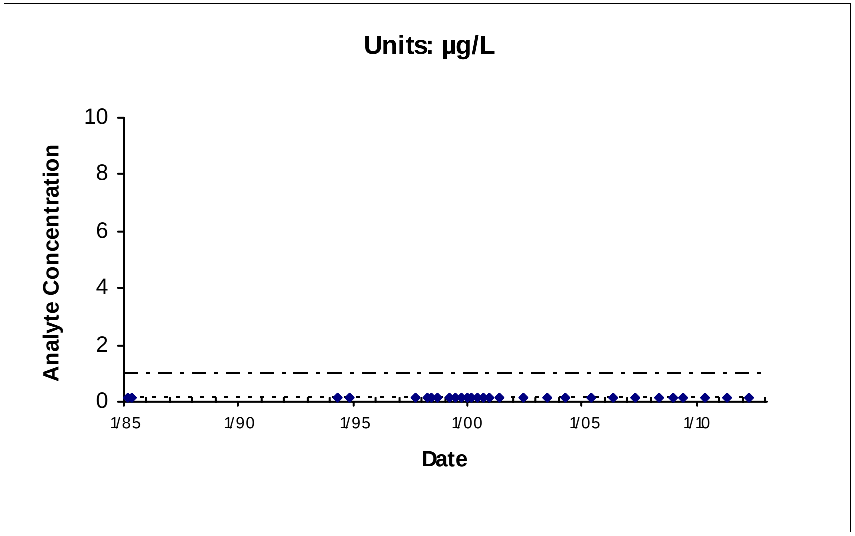
Location: EW614X07 Maximum: 0.17



Location: EW615X07 Maximum: 0.17



Location: MW125X07 Maximum: 0.17



Location: MW129X07 Maximum: 0.17

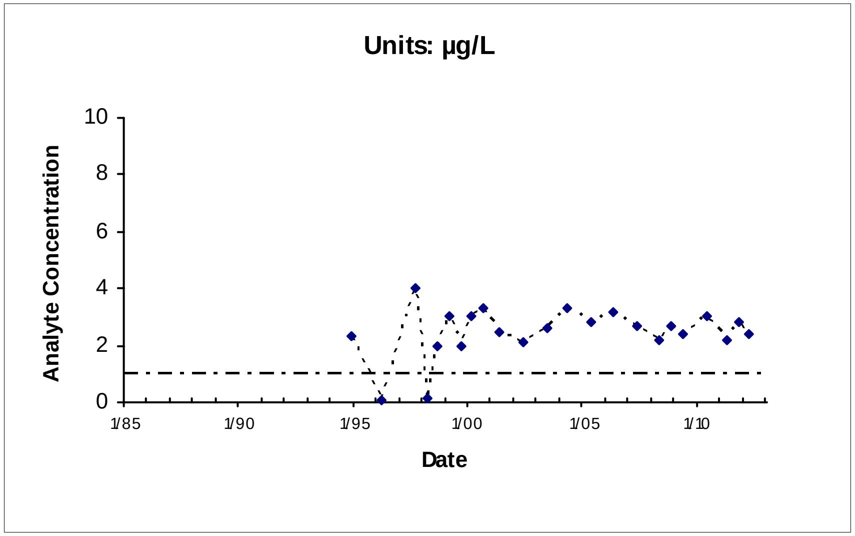
— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

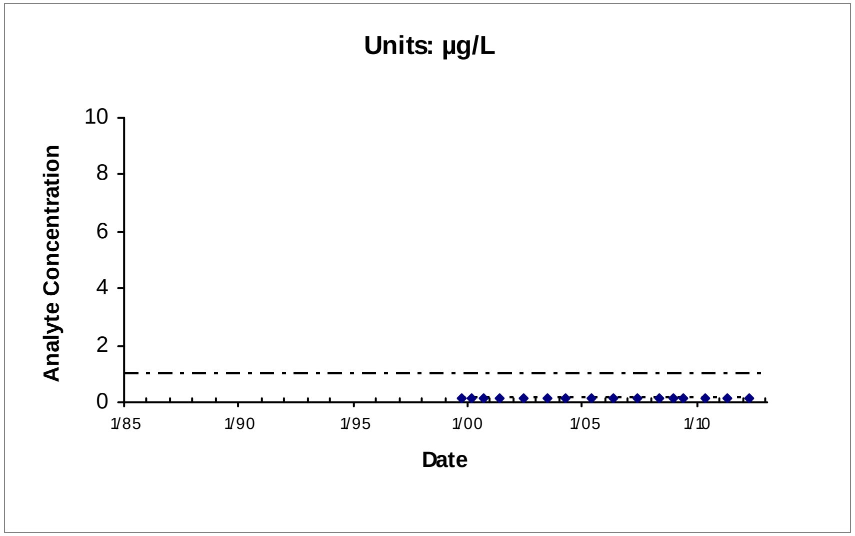
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

North IRA

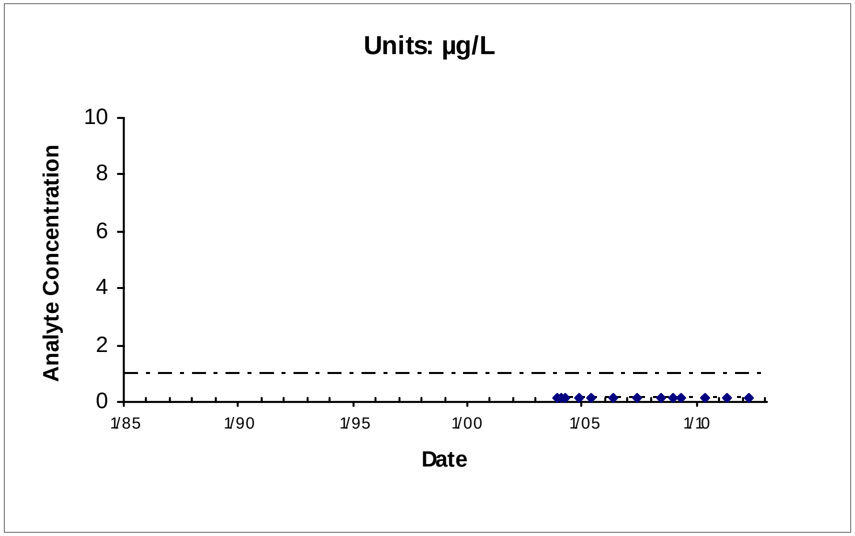
FIGURE 2-5
Site LF007
Benzene
Chemical Time-series Plots



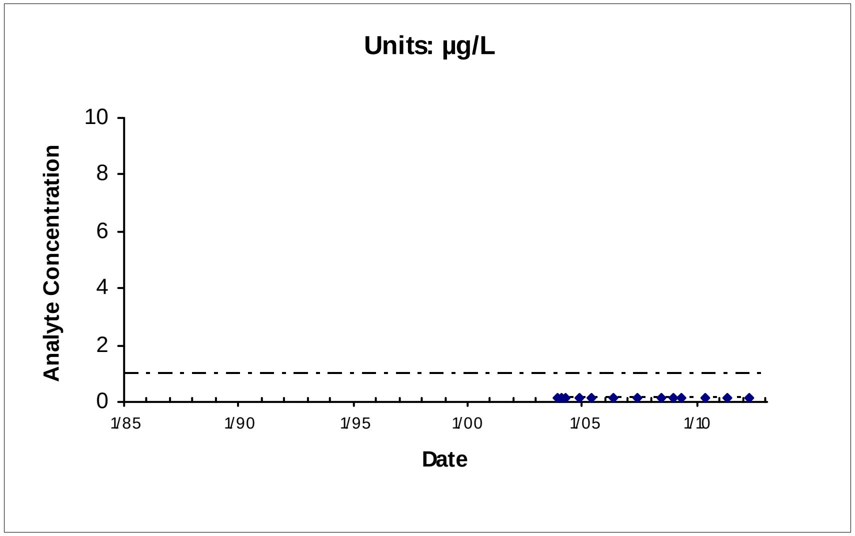
Location: MW261X07 Maximum: 4



Location: MW601X07 Maximum: 0.17



Location: MW612X07 Maximum: 0.17



Location: MW613X07 Maximum: 0.17

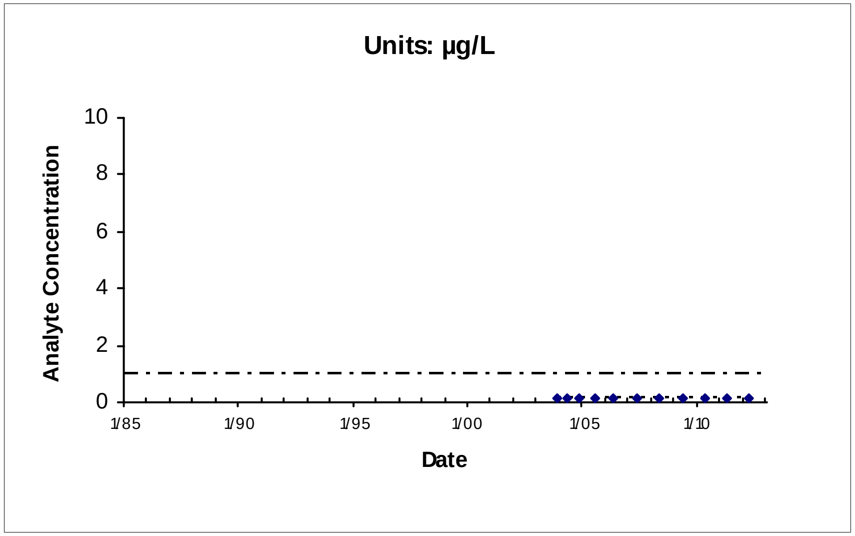
— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

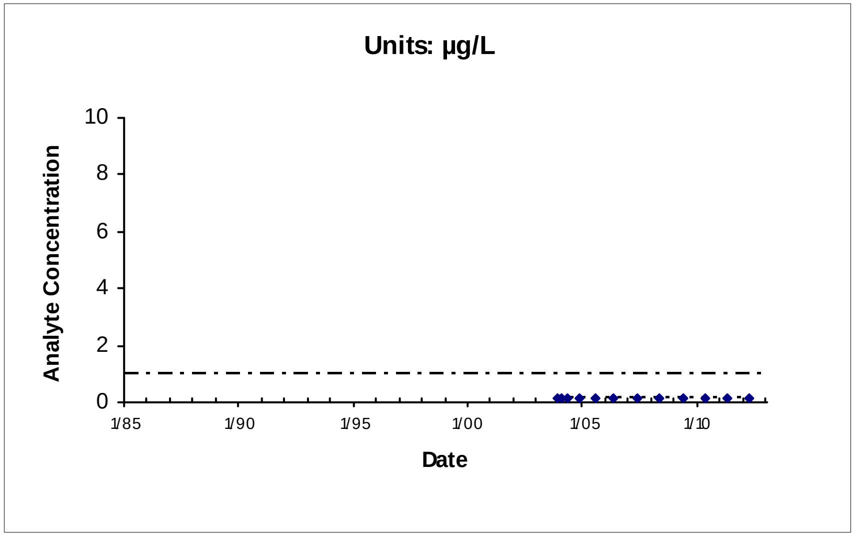
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

North IRA

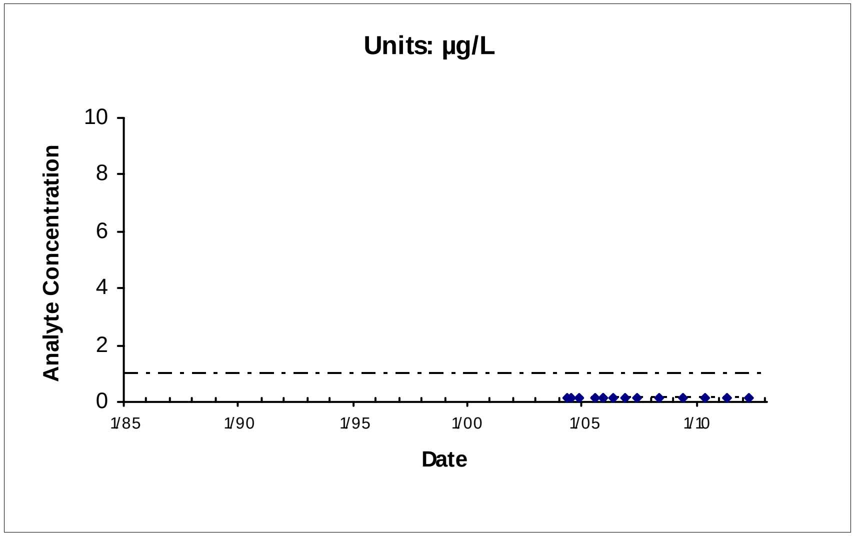
FIGURE 2-5
Site LF007
Benzene
Chemical Time-series Plots



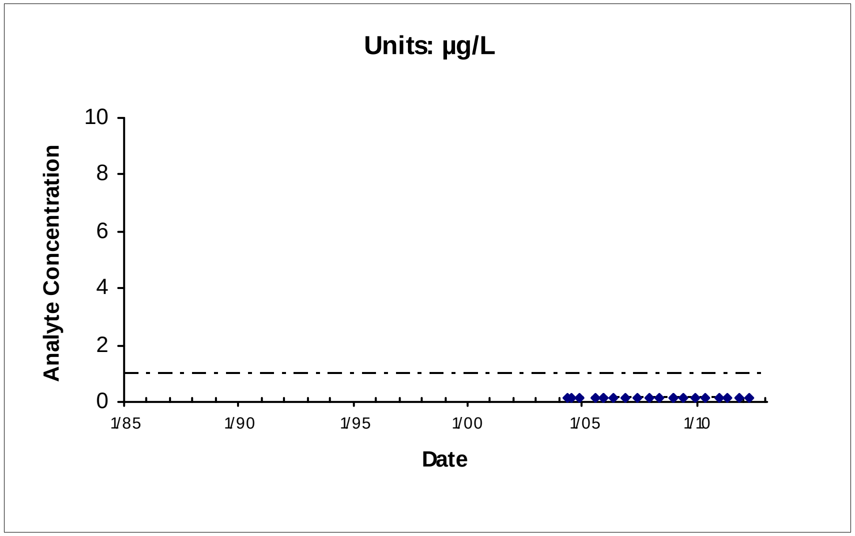
Location: MW616X07 Maximum: 0.17



Location: MW617X07 Maximum: 0.17



Location: MW619X07 Maximum: 0.17



Location: MW620X07 Maximum: 0.17

— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

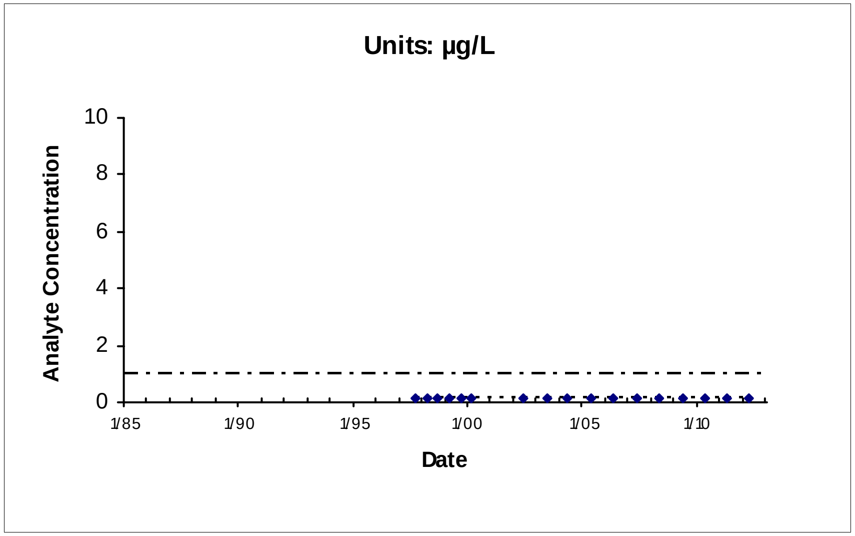
North IRA

FIGURE 2-5

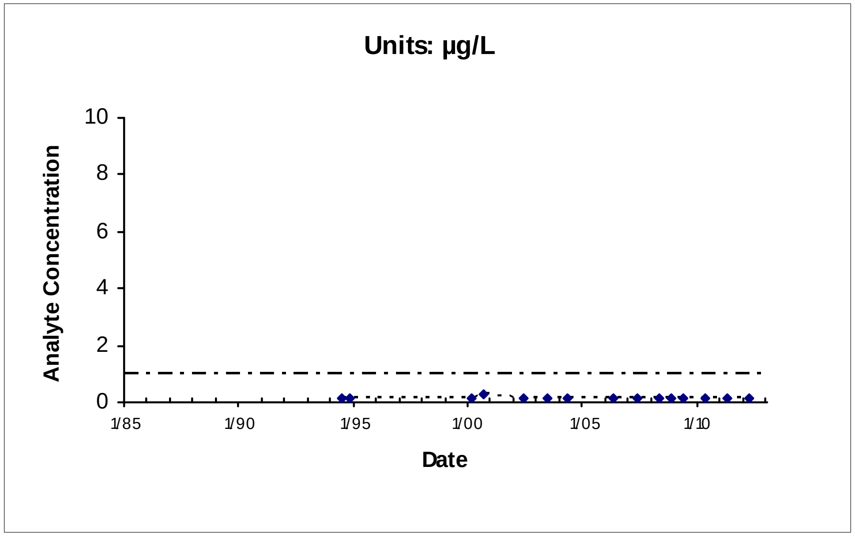
Site LF007

Benzene

Chemical Time-series Plots



Location: MWBX07 Maximum: 0.17



Location: MWCX07 Maximum: 0.3

— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

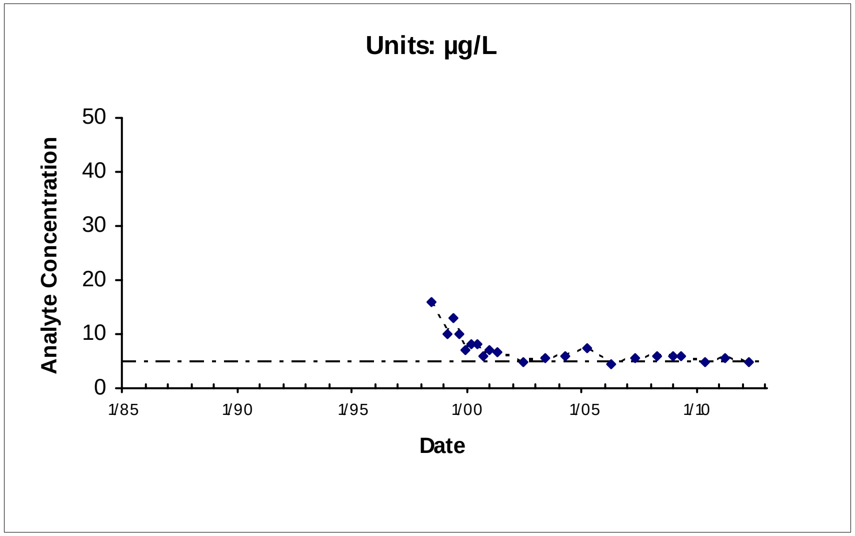
North IRA

FIGURE 2-5

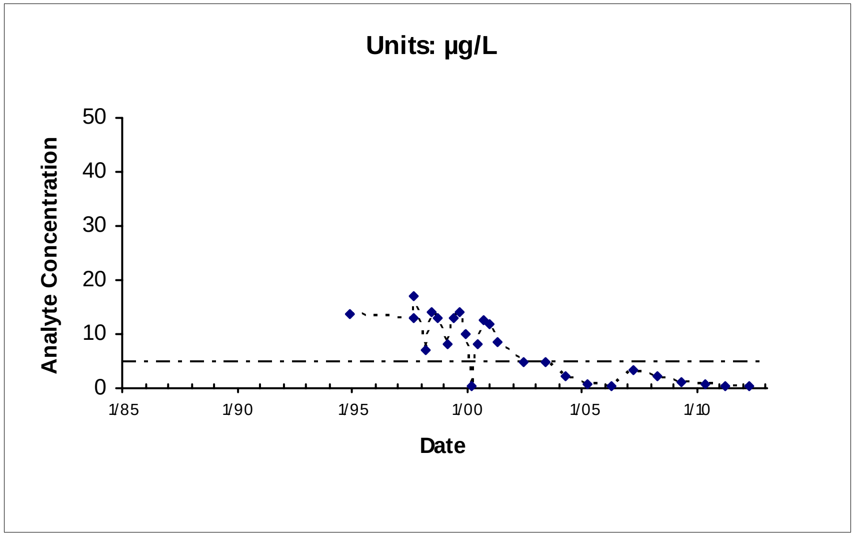
Site LF007

Benzene

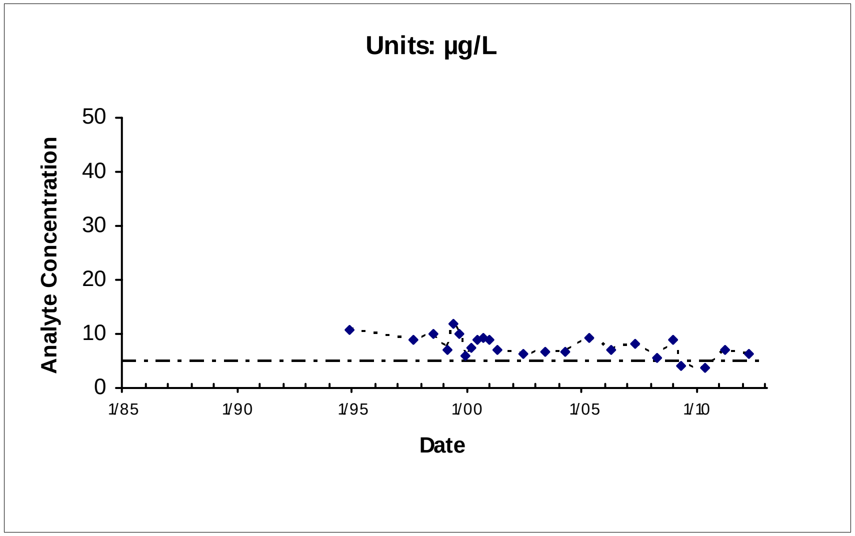
Chemical Time-series Plots



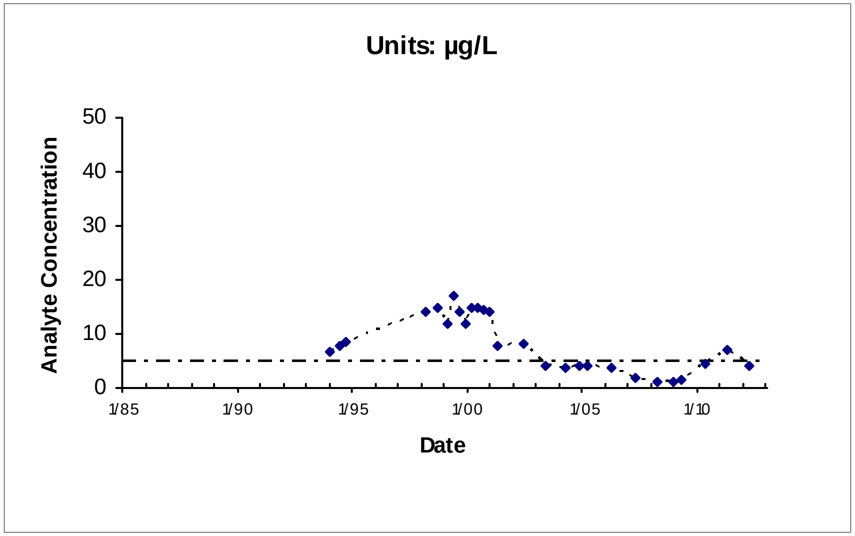
Location: MW208DX06 Maximum: 16



Location: MW208X06 Maximum: 17



Location: MW259X06 Maximum: 12



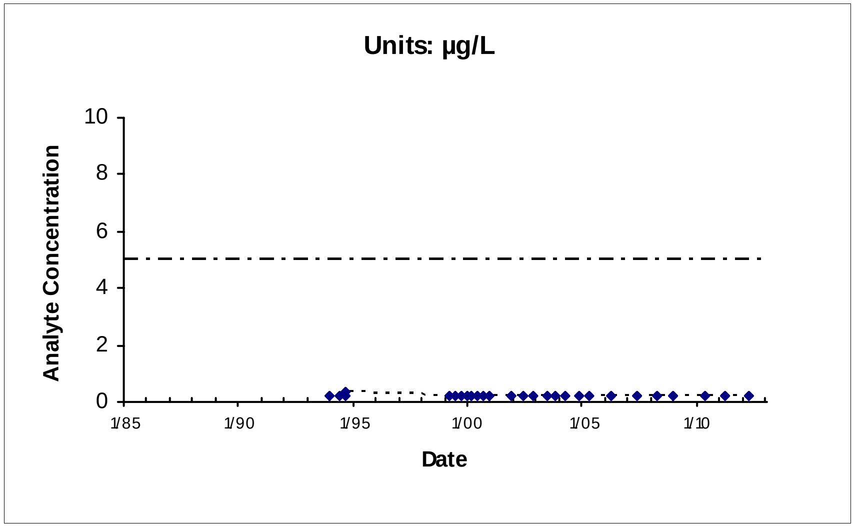
Location: MW1729X31 Maximum: 17

— - — - — IRG (5 µg/L)

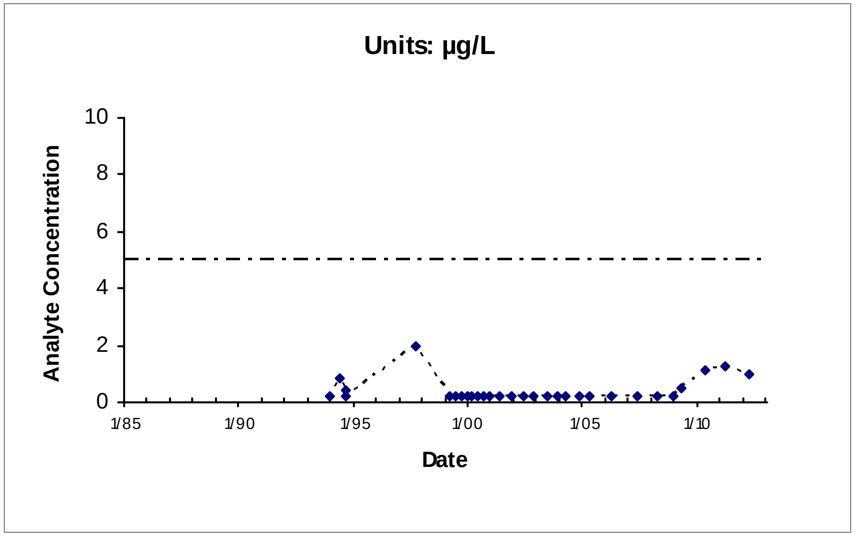
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

North IRA
FIGURE 2-6
Site LF006
TCE
Chemical Time-series Plots
Page 1 of 2



Location: MW1730X31 Maximum: 0.35



Location: MW1731X31 Maximum: 2

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

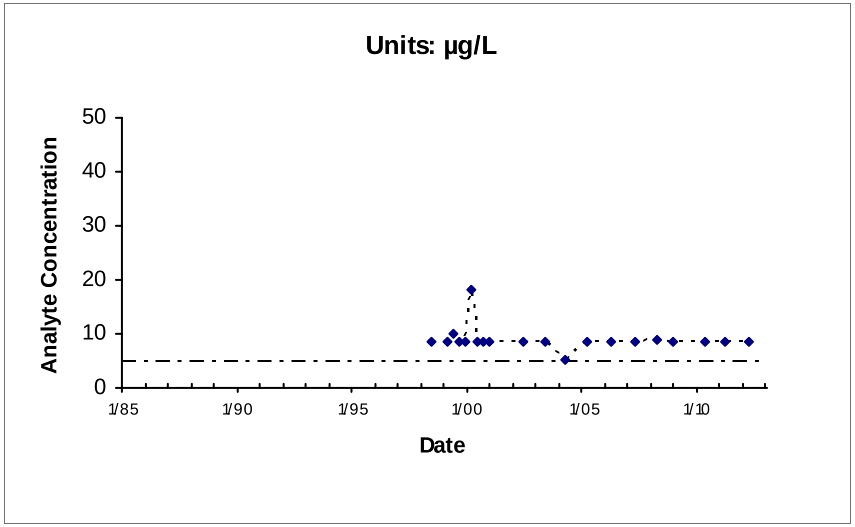
North IRA

FIGURE 2-6

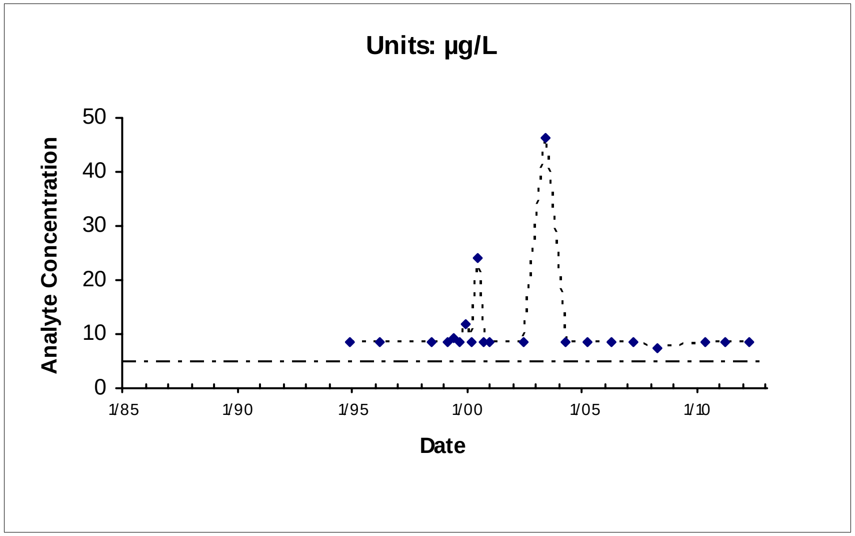
Site LF006

TCE

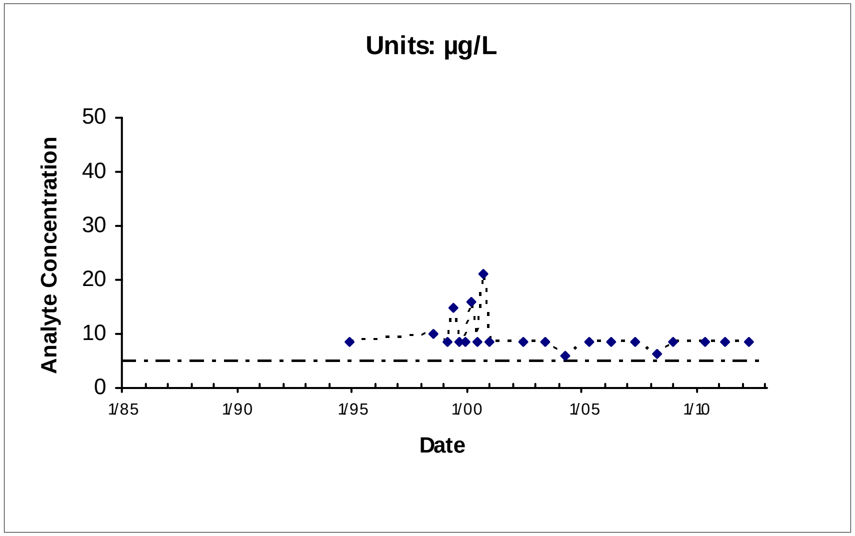
Chemical Time-series Plots



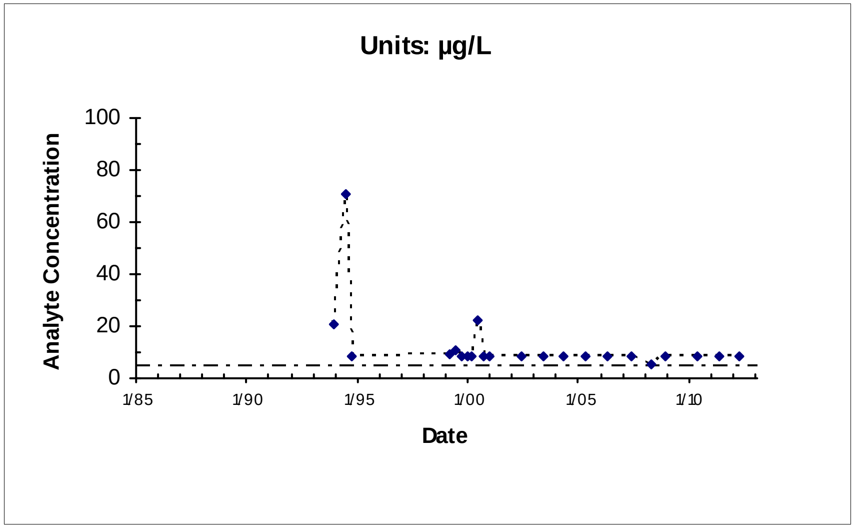
Location: MW208DX06 Maximum: 18



Location: MW208X06 Maximum: 46.2



Location: MW259X06 Maximum: 21



Location: MW1729X31 Maximum: 71

North IRA

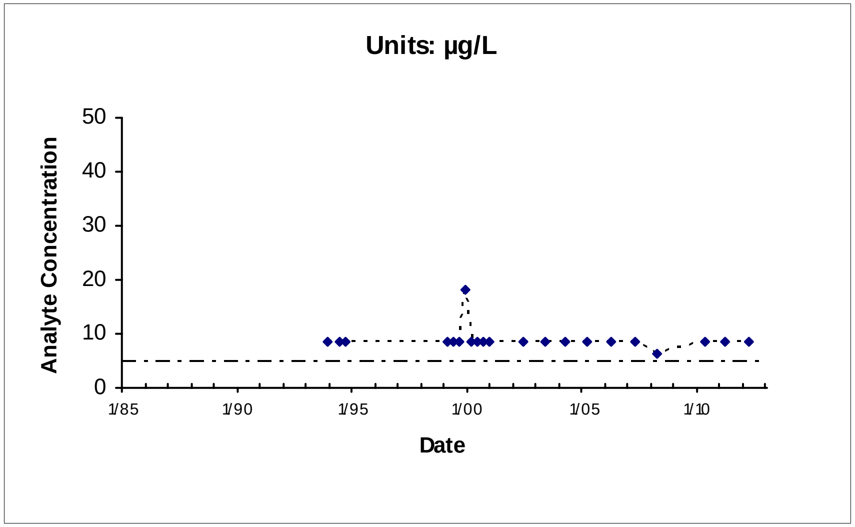
FIGURE 2-7
Site LF006
TPH-G
Chemical Time-series Plots

Page 1 of 2

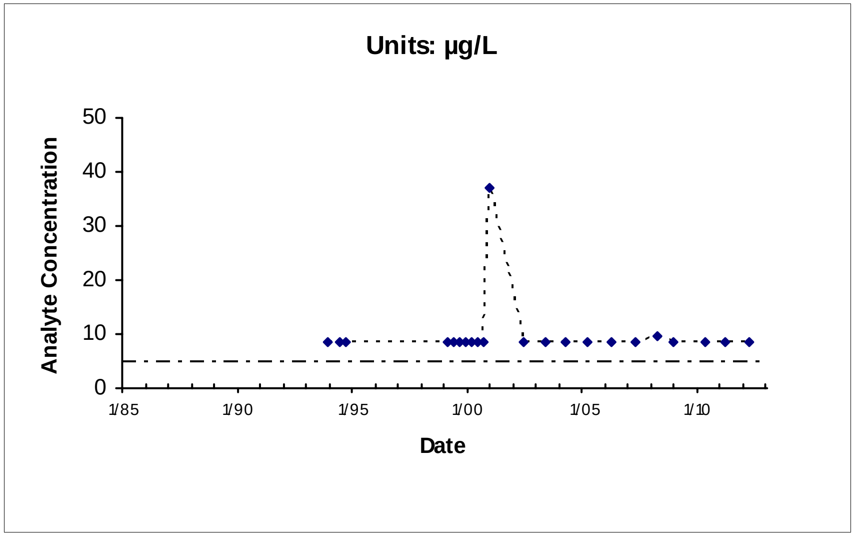
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (8.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



Location: MW1730X31 Maximum: 18



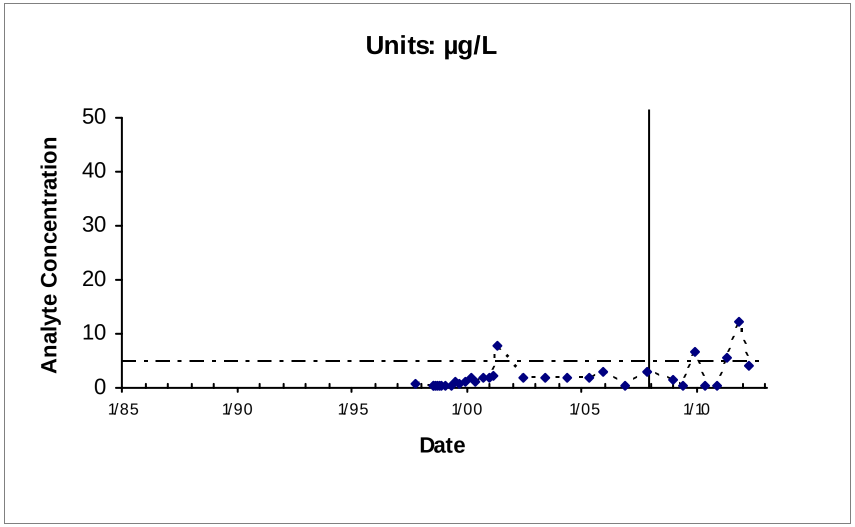
Location: MW1731X31 Maximum: 37

— - — - — IRG (5 µg/L)

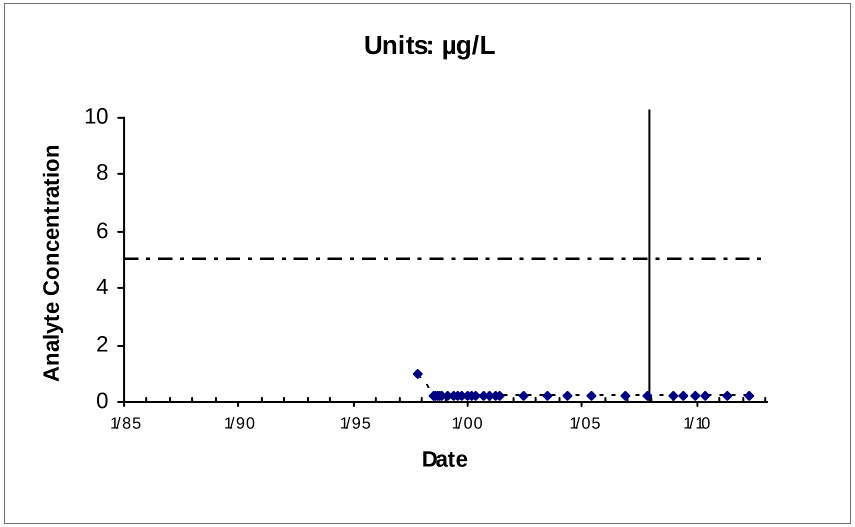
*Nondetects shown as the Method Detection Limit (8.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

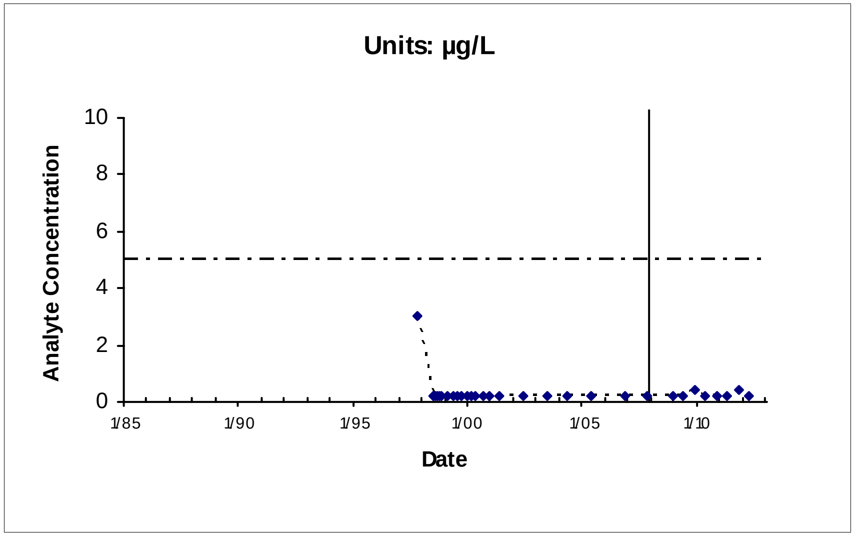
North IRA
FIGURE 2-7
Site LF006
TPH-G
Chemical Time-series Plots



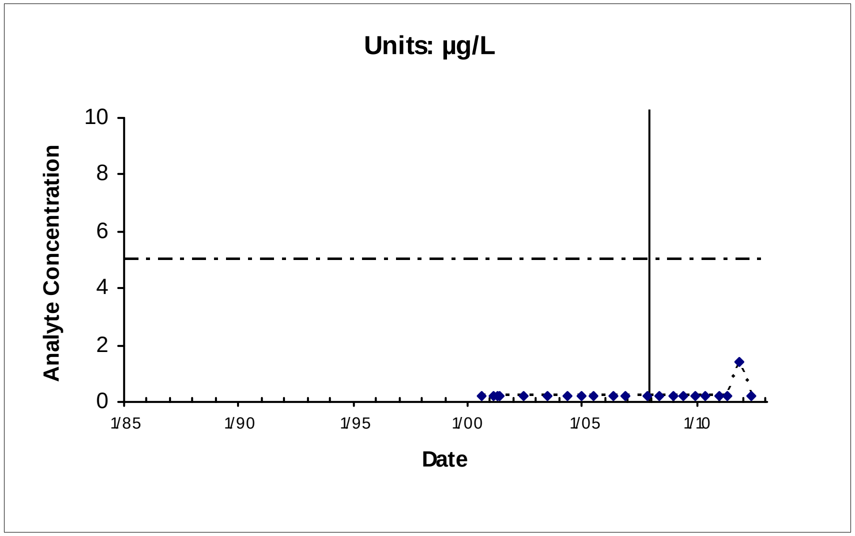
Location: EW01X05 Maximum: 12.2



Location: EW02X05 Maximum: 1



Location: EW03X05 Maximum: 3



Location: EW731X05 Maximum: 1.4

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

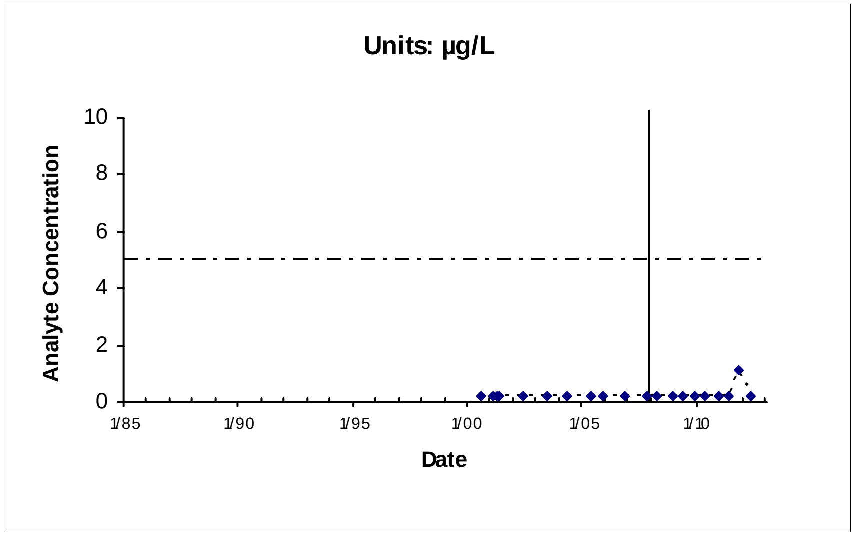
North IRA

FIGURE 2-8

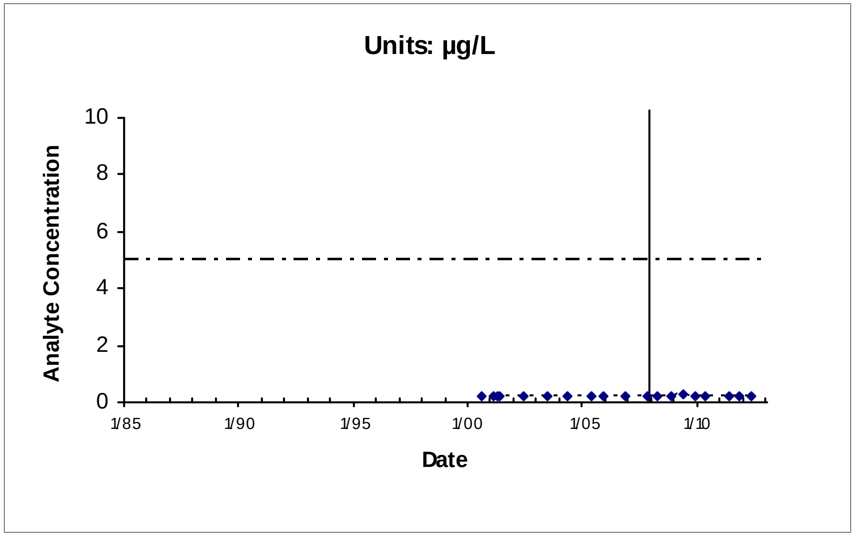
Sites FT005/SS029/SS030

TCE

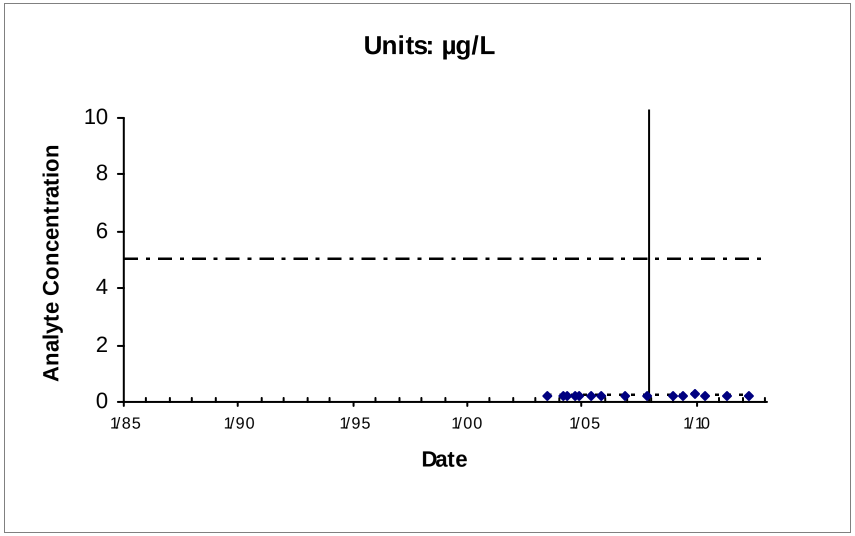
Chemical Time-series Plots



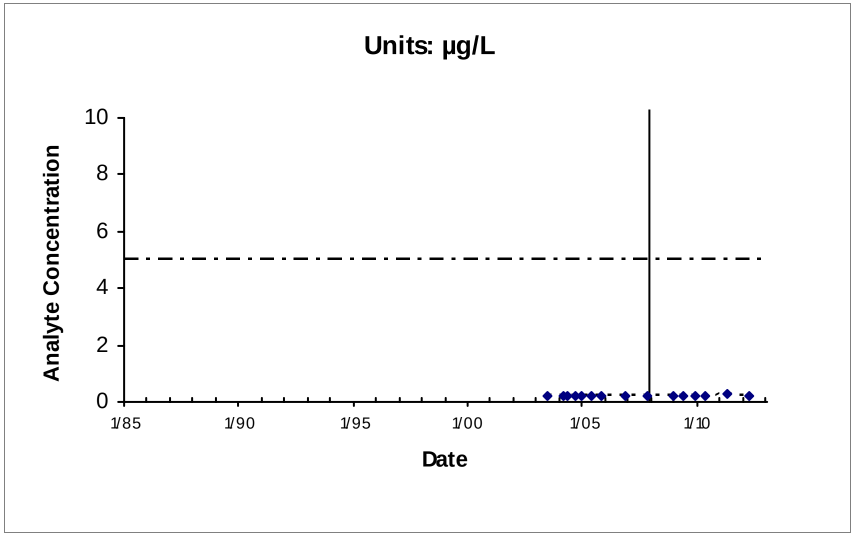
Location: EW732X05 Maximum: 1.1



Location: EW733X05 Maximum: 0.26



Location: EW734X05 Maximum: 0.26



Location: EW735X05 Maximum: 0.28

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

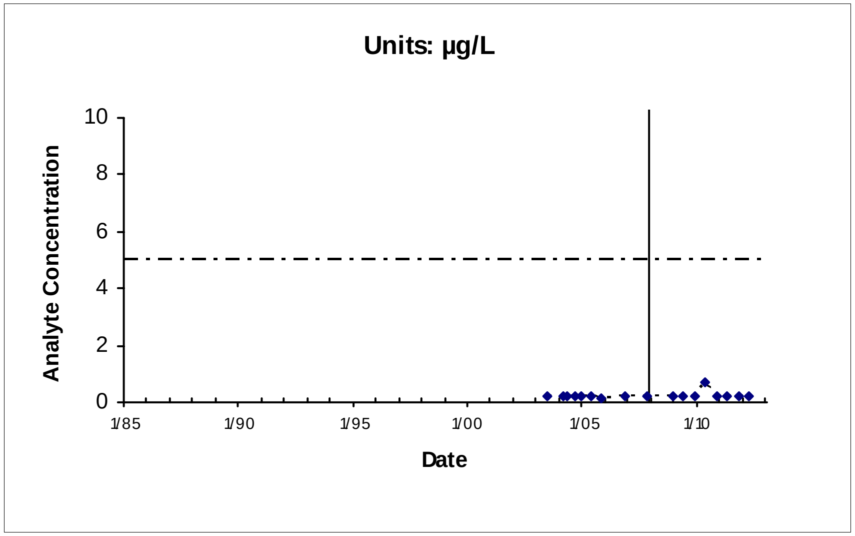
North IRA

FIGURE 2-8

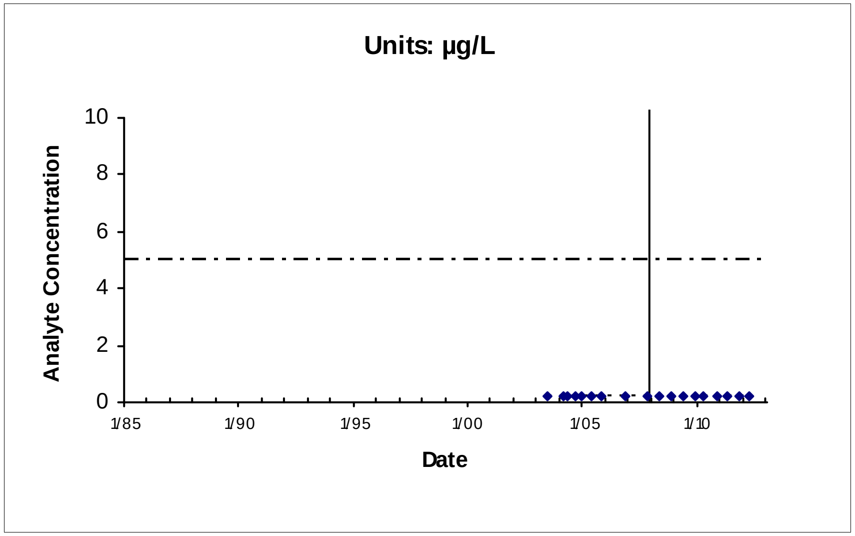
Sites FT005/SS029/SS030

TCE

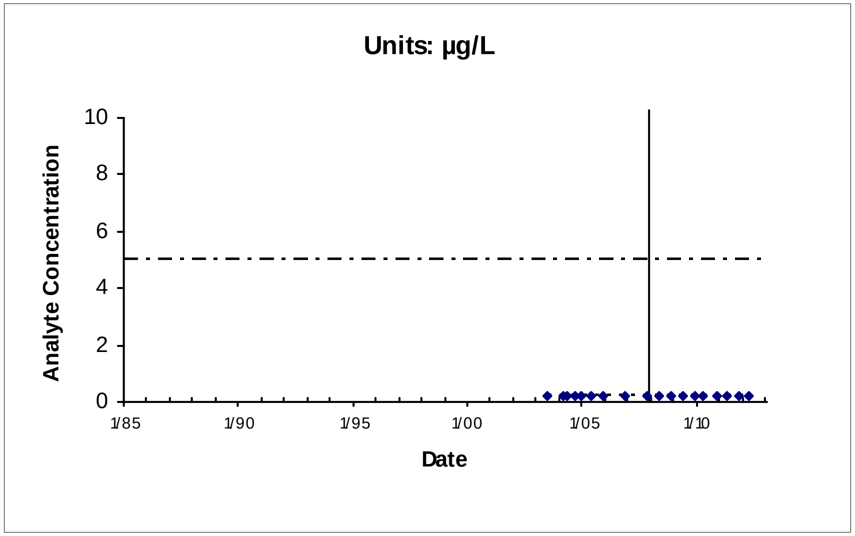
Chemical Time-series Plots



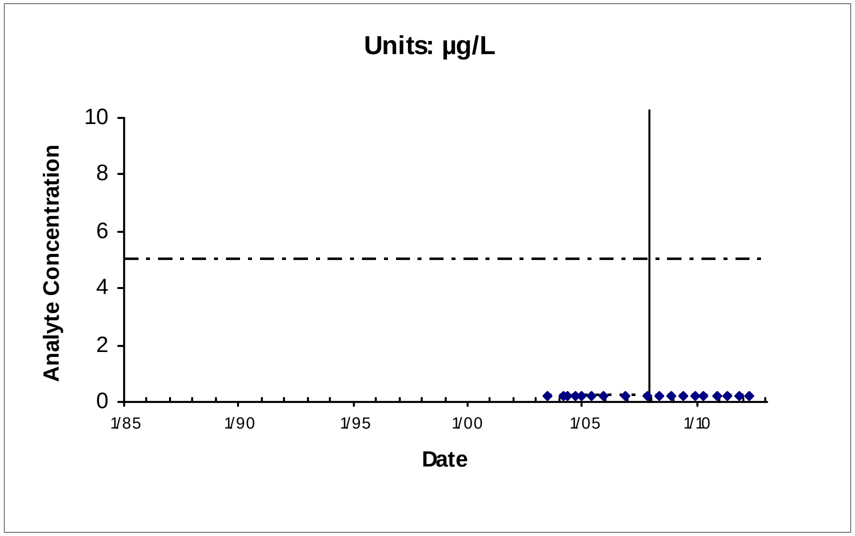
Location: EW736X05 Maximum: 0.69



Location: EW737X05 Maximum: 0.19



Location: EW742X05 Maximum: 0.19



Location: EW743X05 Maximum: 0.19

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

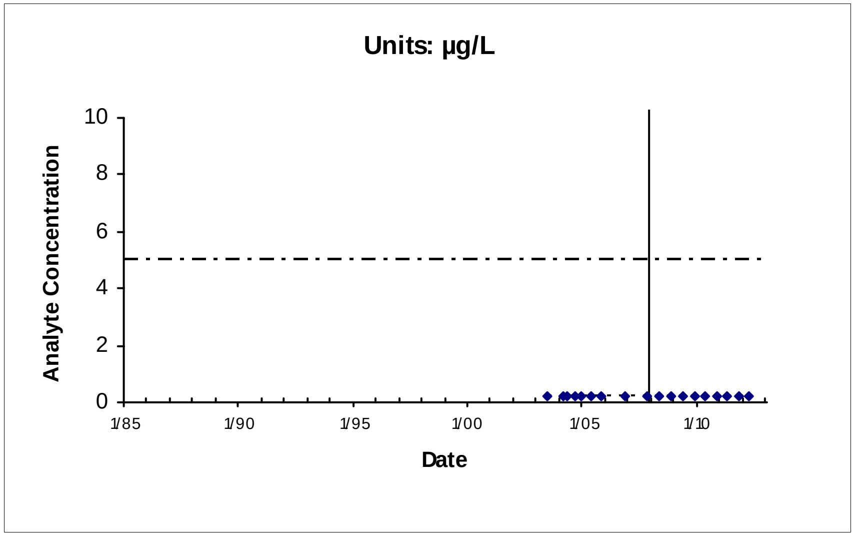
North IRA

FIGURE 2-8

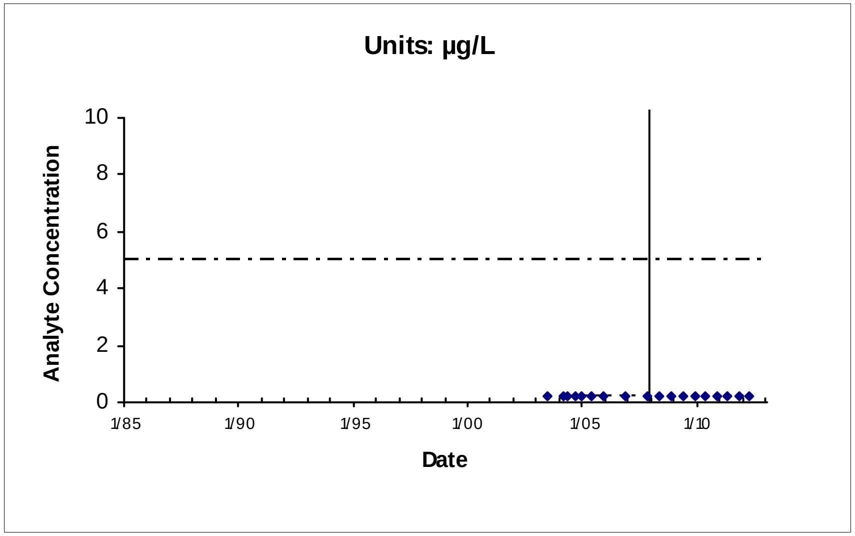
Sites FT005/SS029/SS030

TCE

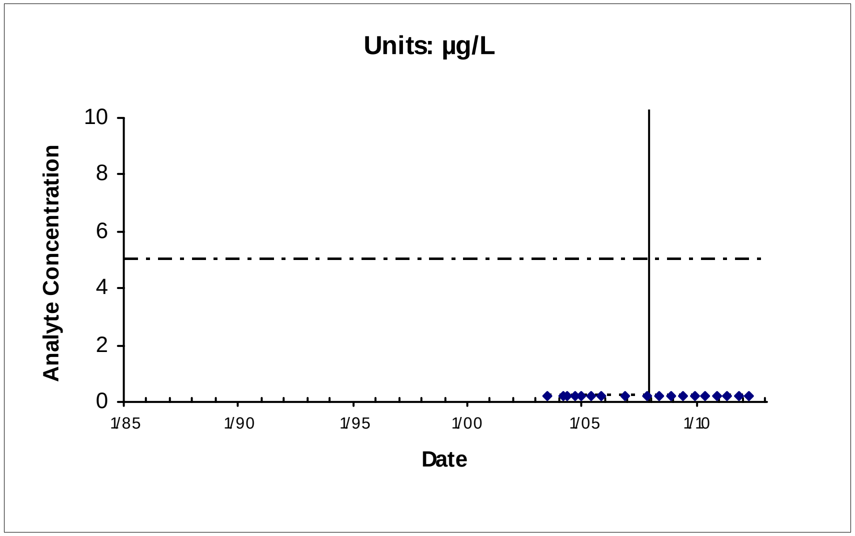
Chemical Time-series Plots



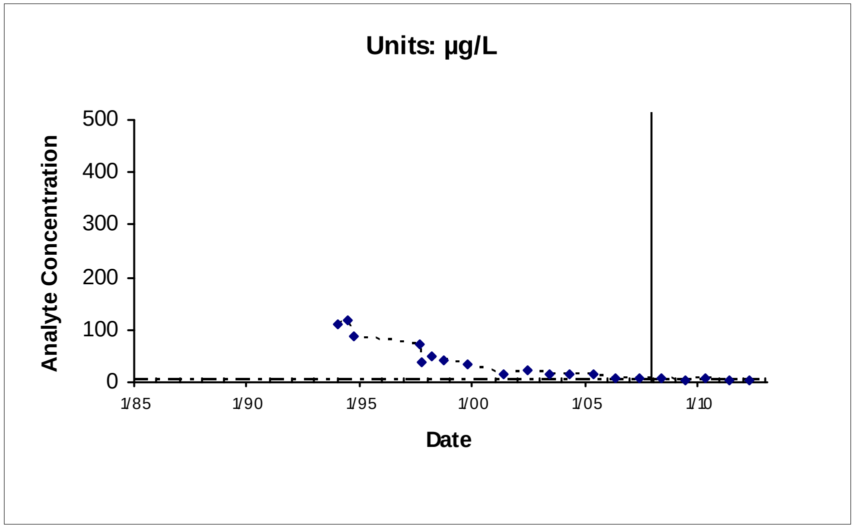
Location: EW744X05 Maximum: 0.19



Location: EW745X05 Maximum: 0.19



Location: EW746X05 Maximum: 0.19



Location: MW119X05 Maximum: 120

——————— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

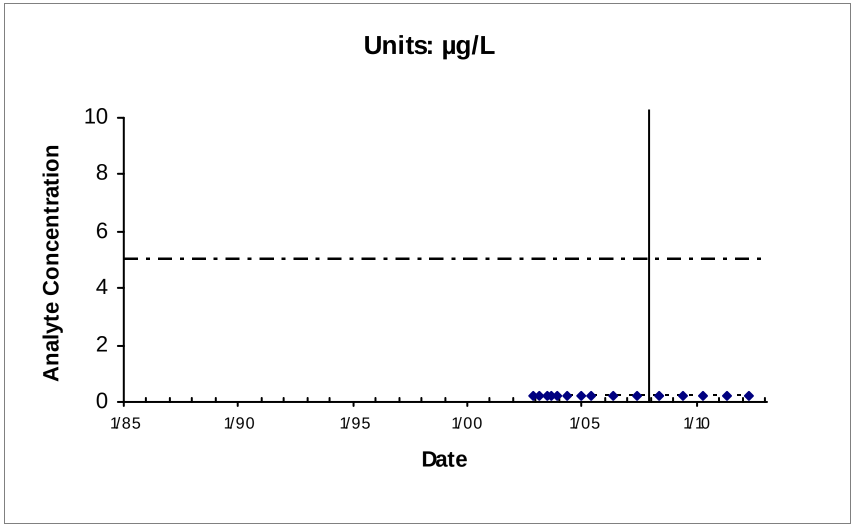
North IRA

FIGURE 2-8

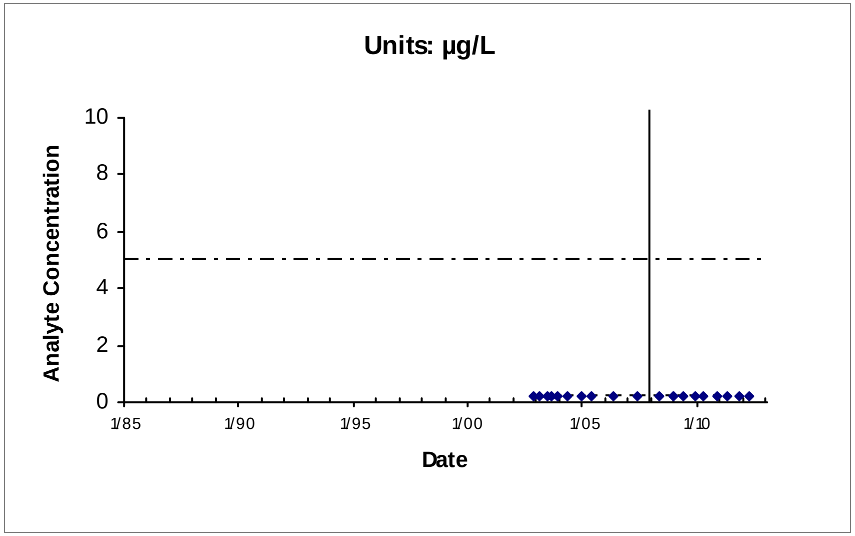
Sites FT005/SS029/SS030

TCE

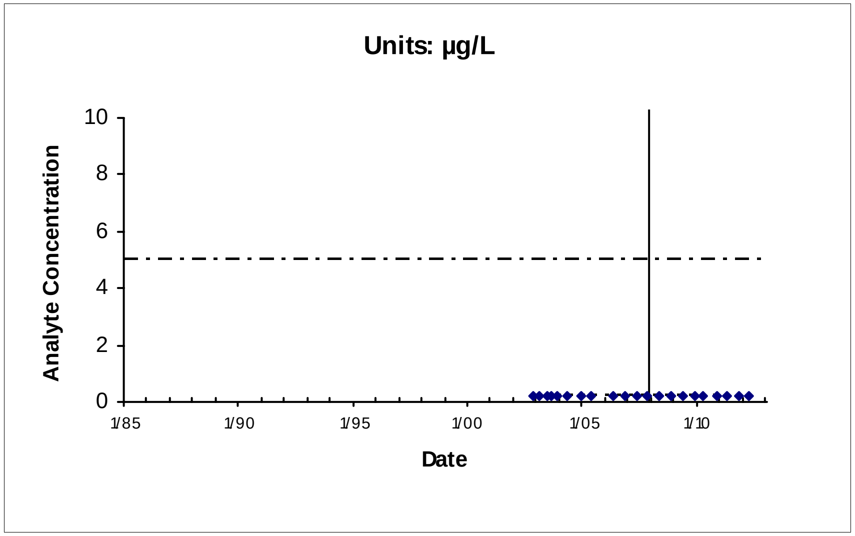
Chemical Time-series Plots



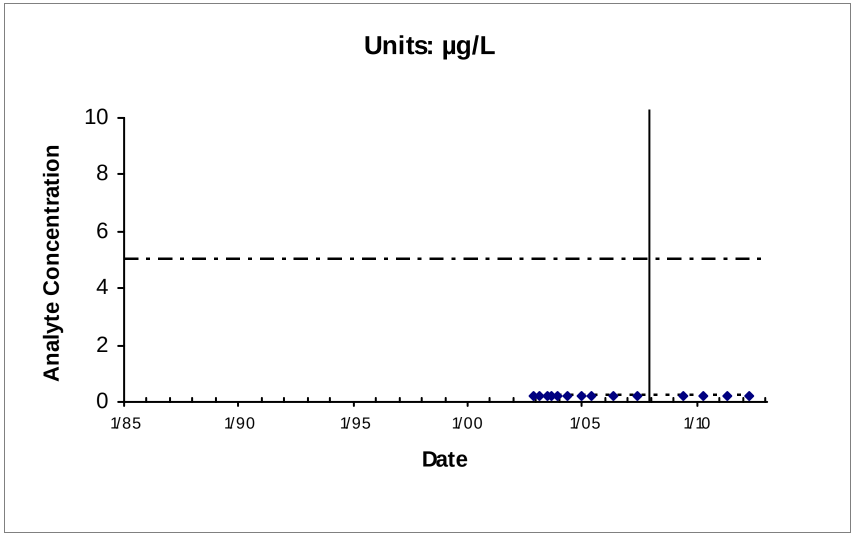
Location: MW747X05 Maximum: 0.19



Location: MW765X05 Maximum: 0.19



Location: MW766X05 Maximum: 0.19



Location: MW767X05 Maximum: 0.19

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

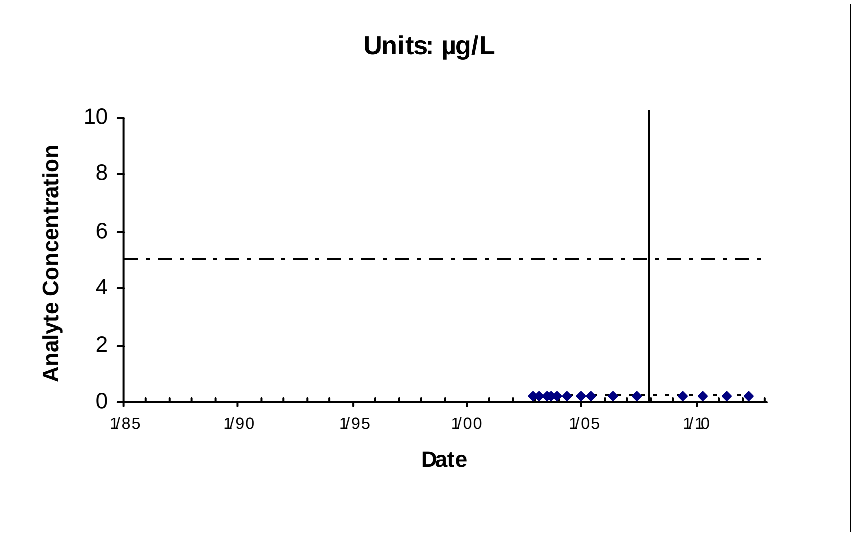
North IRA

FIGURE 2-8

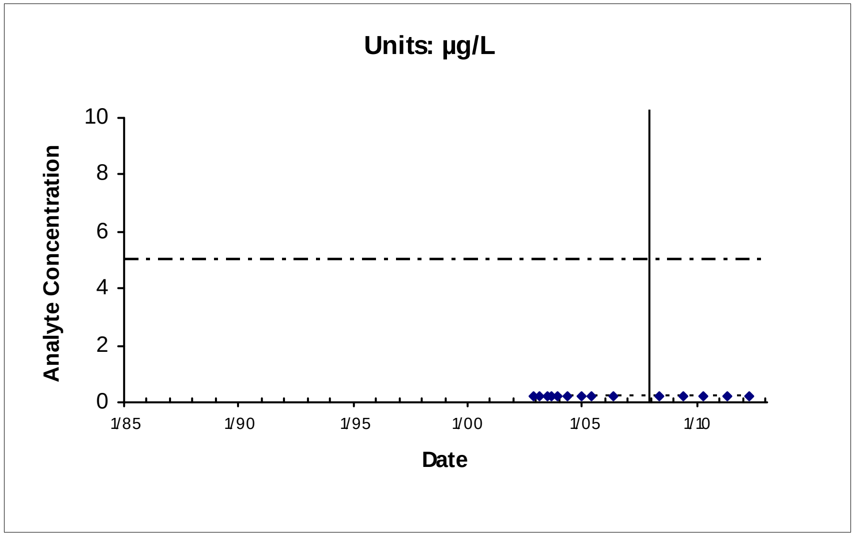
Sites FT005/SS029/SS030

TCE

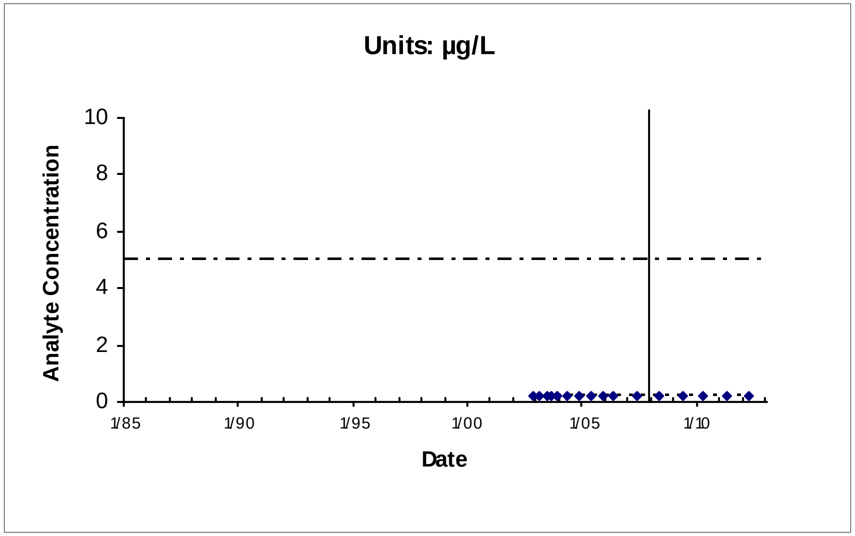
Chemical Time-series Plots



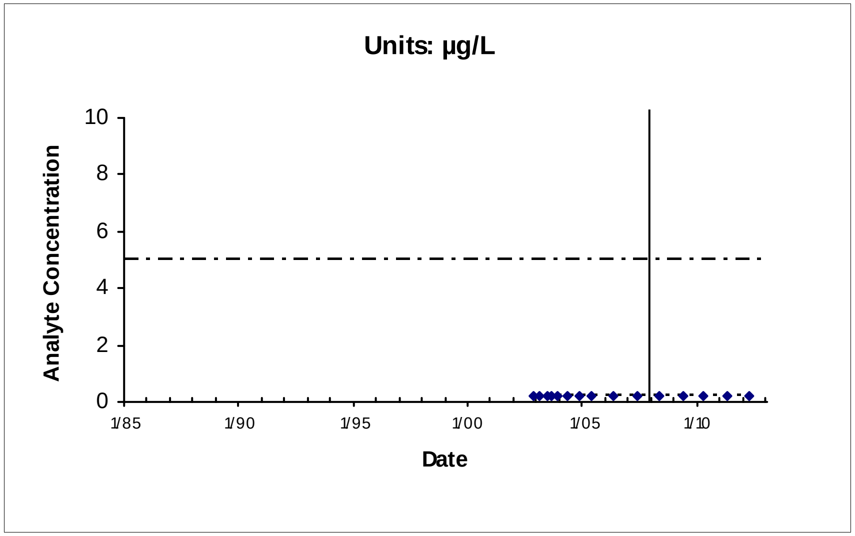
Location: MW769X05 Maximum: 0.19



Location: MW770X05 Maximum: 0.19



Location: MW771X05 Maximum: 0.19



Location: MW772X05 Maximum: 0.19

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

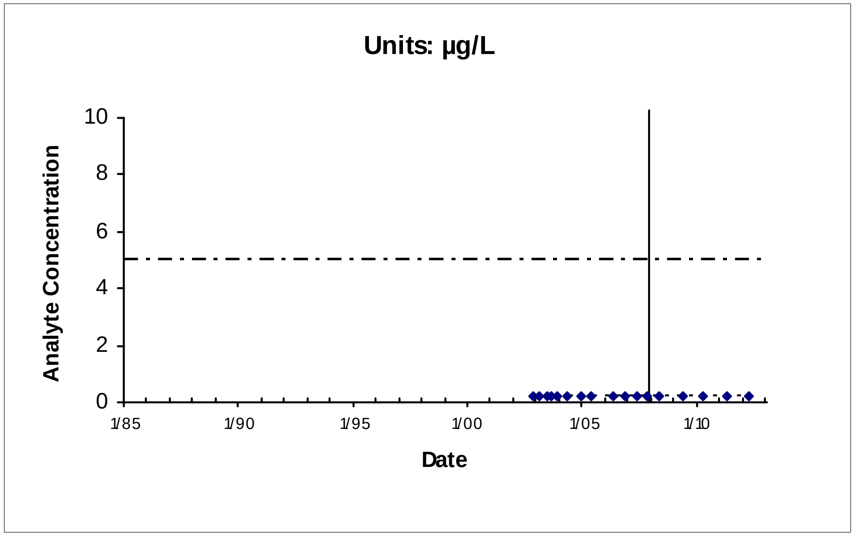
North IRA

FIGURE 2-8

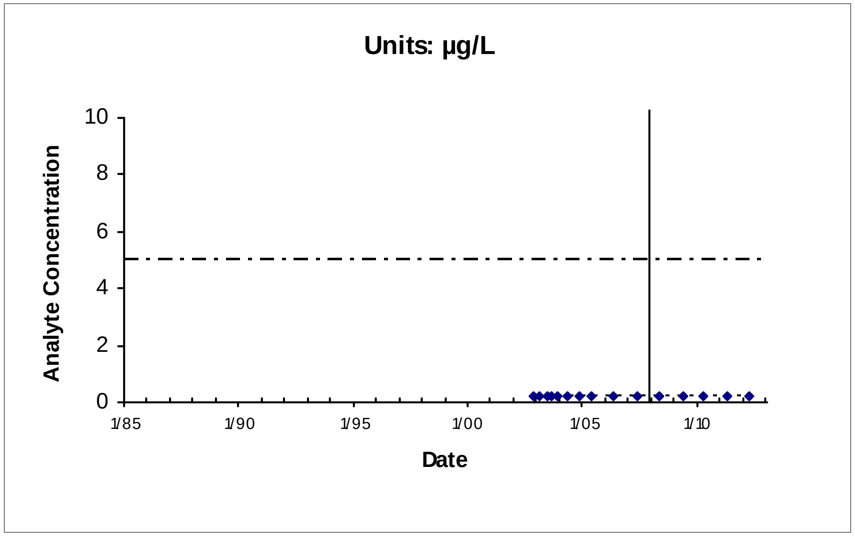
Sites FT005/SS029/SS030

TCE

Chemical Time-series Plots



Location: MW774X05 Maximum: 0.19



Location: MW775X05 Maximum: 0.19

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

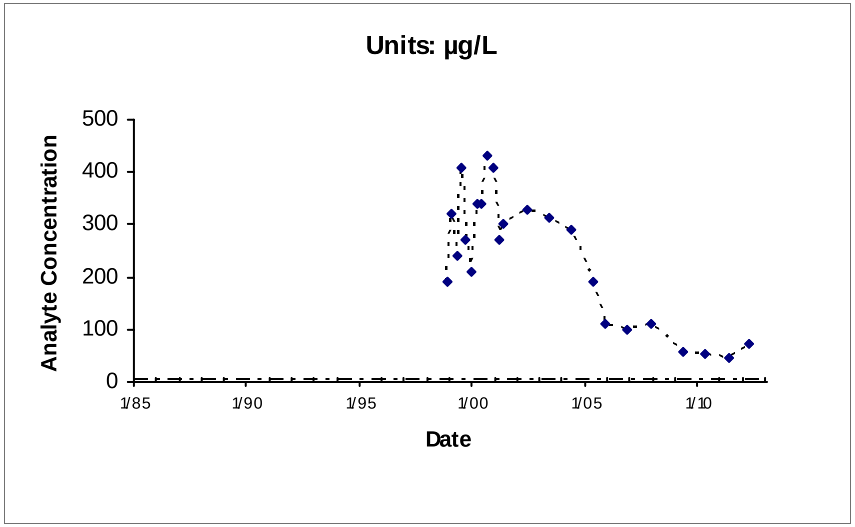
North IRA

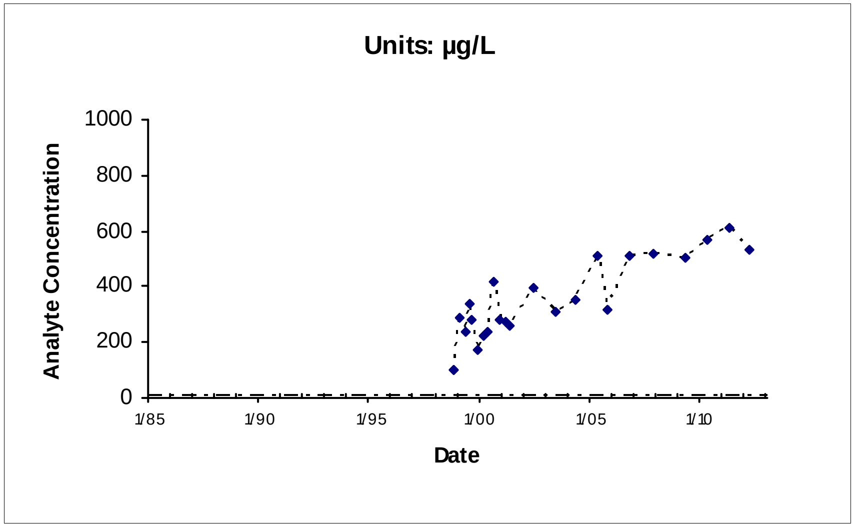
FIGURE 2-8

Sites FT005/SS029/SS030

TCE

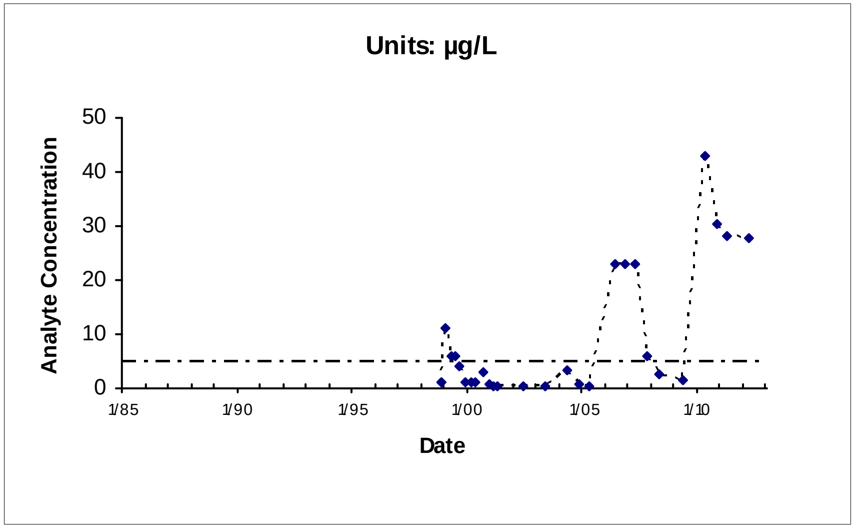
Chemical Time-series Plots

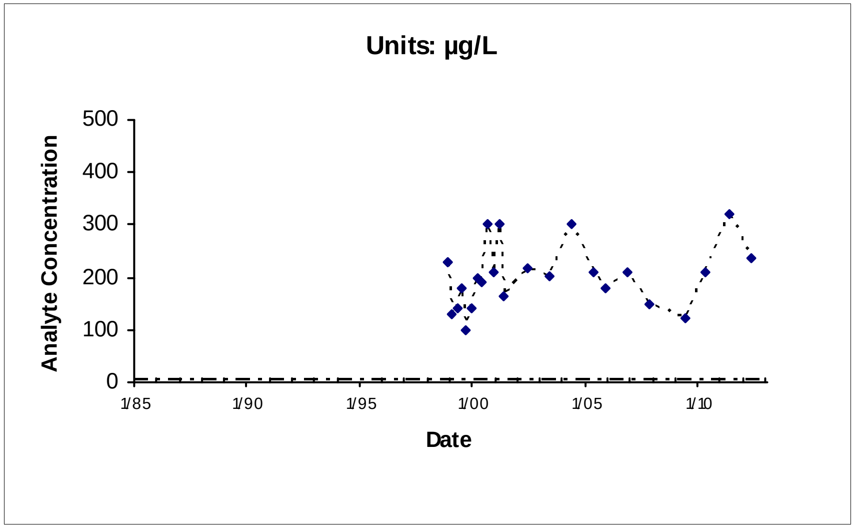




Location: EW01X29 Maximum: 430

Location: EW02X29 Maximum: 610





Location: EW03X29 Maximum: 43

Location: EW04X29 Maximum: 321

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

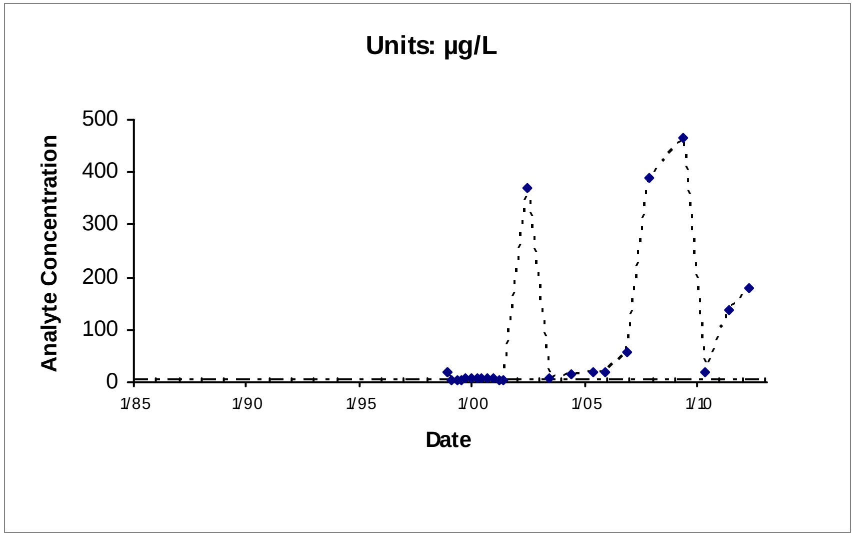
North IRA

FIGURE 2-8

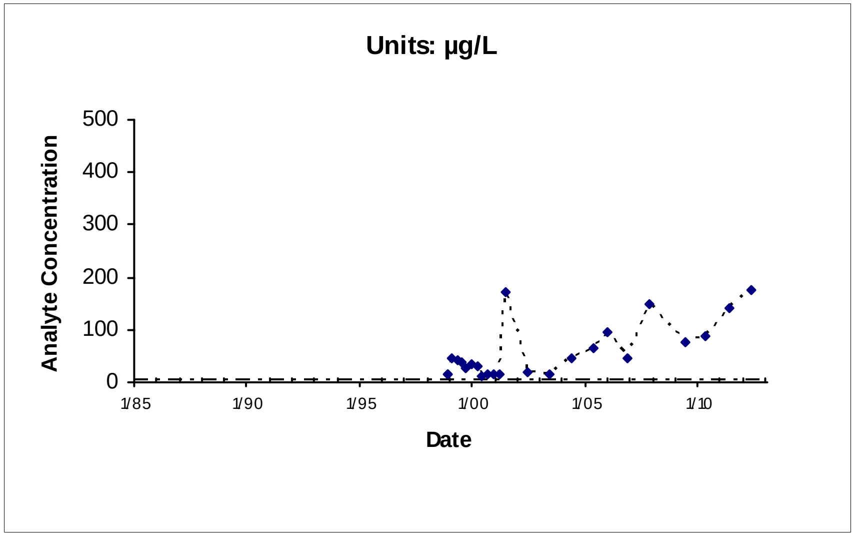
Sites FT005/SS029/SS030

TCE

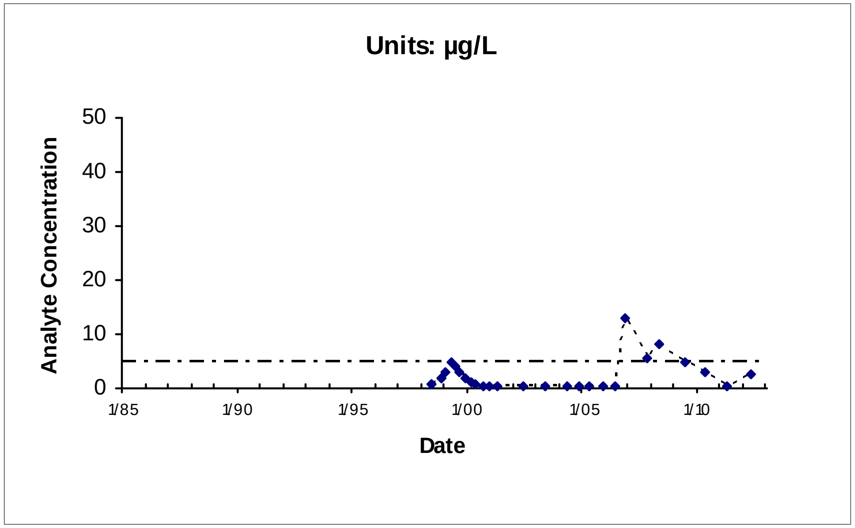
Chemical Time-series Plots



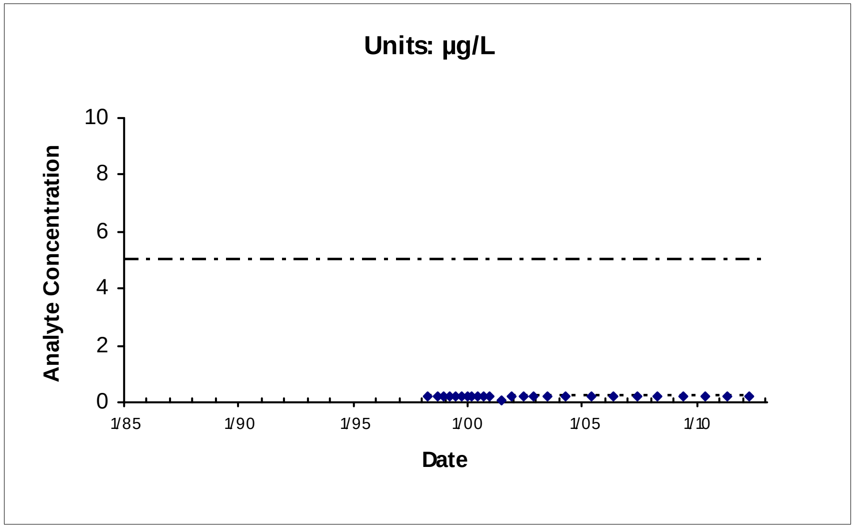
Location: EW05X29 Maximum: 465



Location: EW06X29 Maximum: 174



Location: EW07X29 Maximum: 13



Location: MW01X29 Maximum: 0.19

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

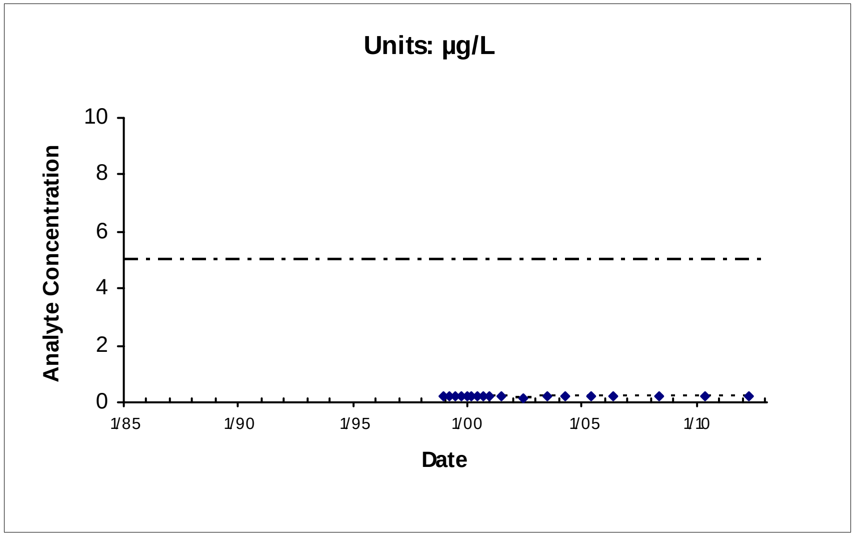
North IRA

FIGURE 2-8

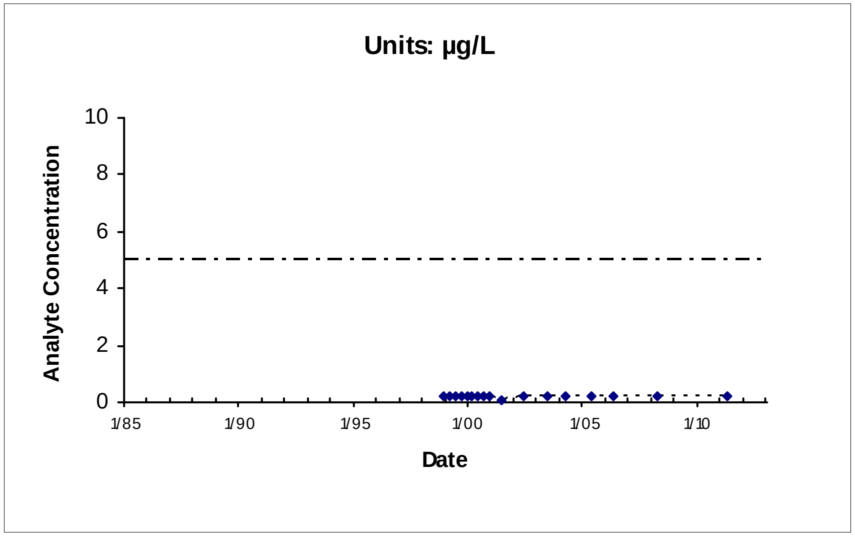
Sites FT005/SS029/SS030

TCE

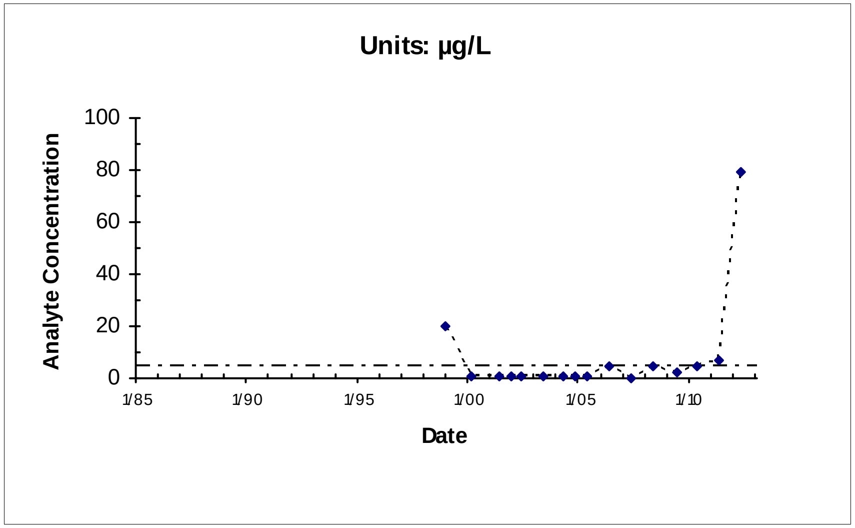
Chemical Time-series Plots



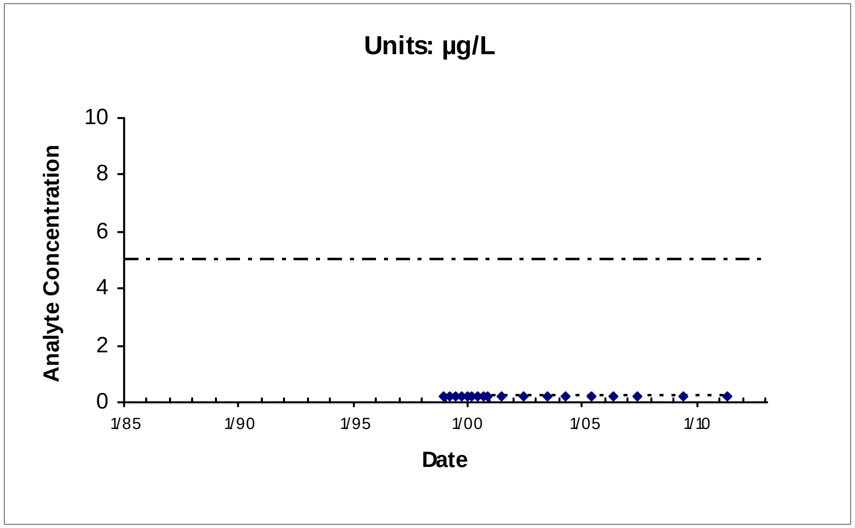
Location: MW02X29 Maximum: 0.19



Location: MW03X29 Maximum: 0.19



Location: MW04X29 Maximum: 78.9



Location: MW05X29 Maximum: 0.19

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

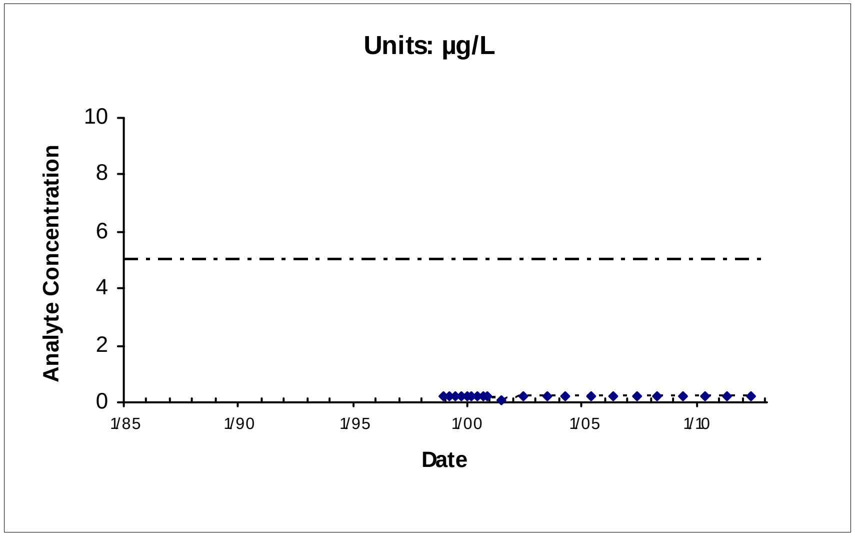
North IRA

FIGURE 2-8

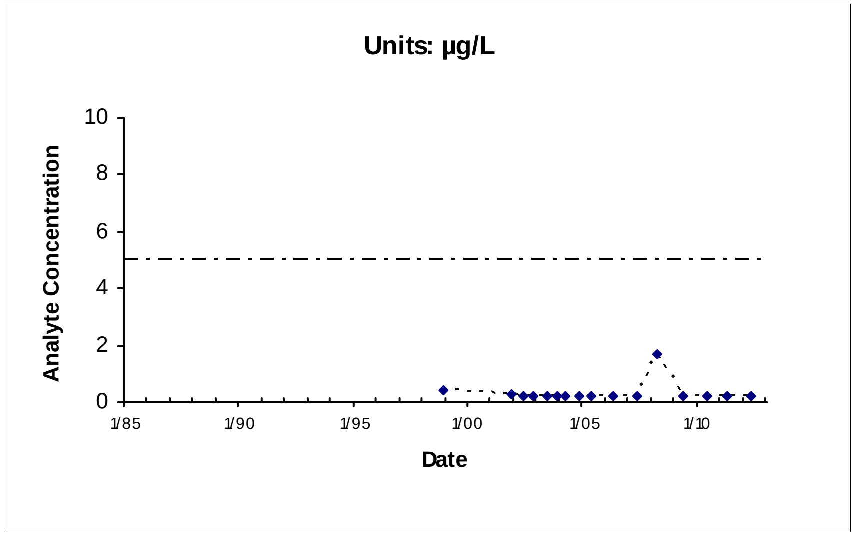
Sites FT005/SS029/SS030

TCE

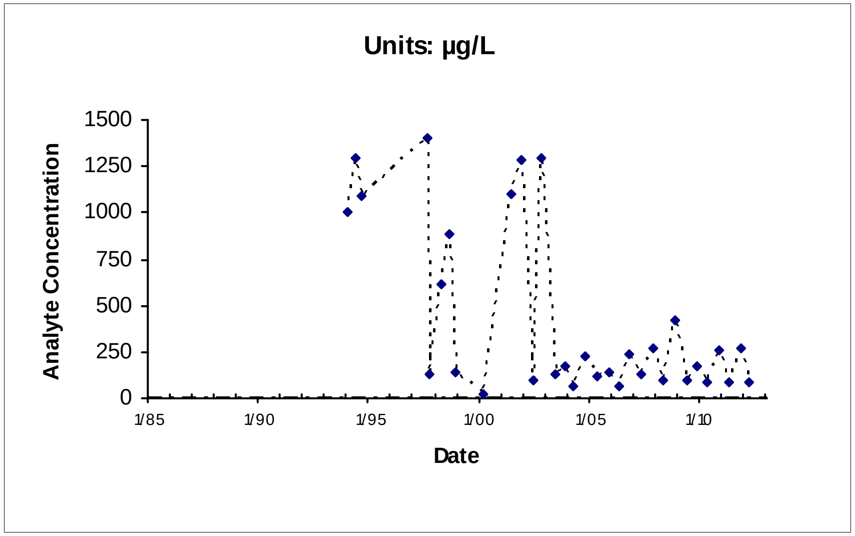
Chemical Time-series Plots



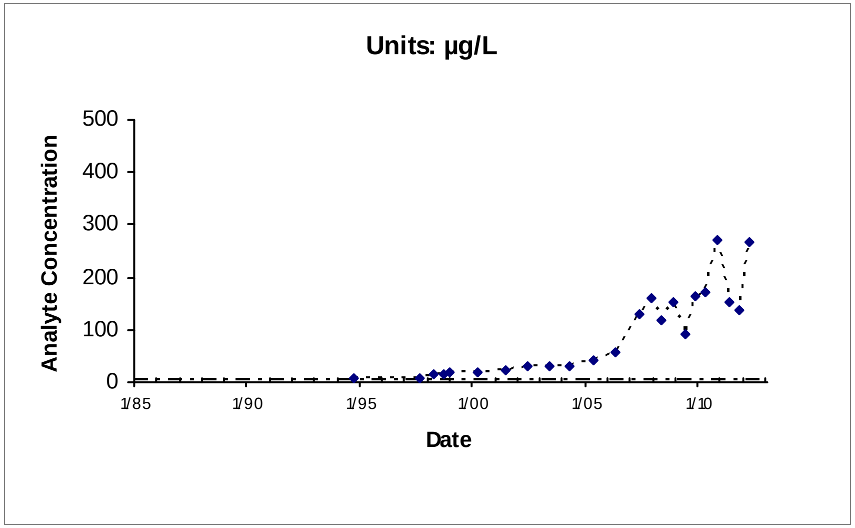
Location: MW06X29 Maximum: 0.19



Location: MW07X29 Maximum: 1.7



Location: MW329X29 Maximum: 1400



Location: MW1031X29 Maximum: 271

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

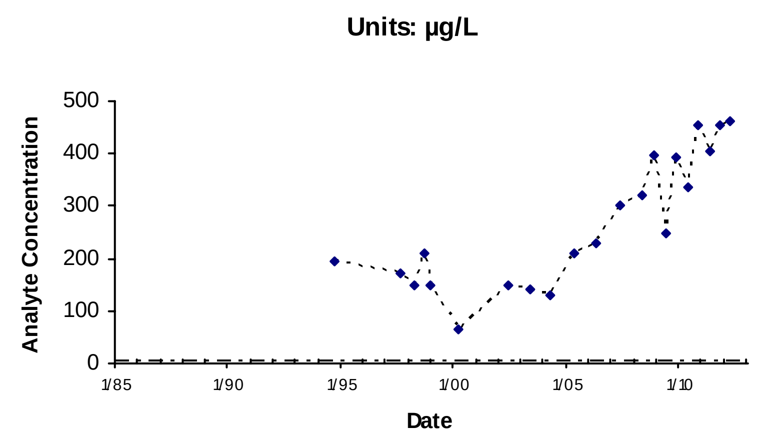
North IRA

FIGURE 2-8

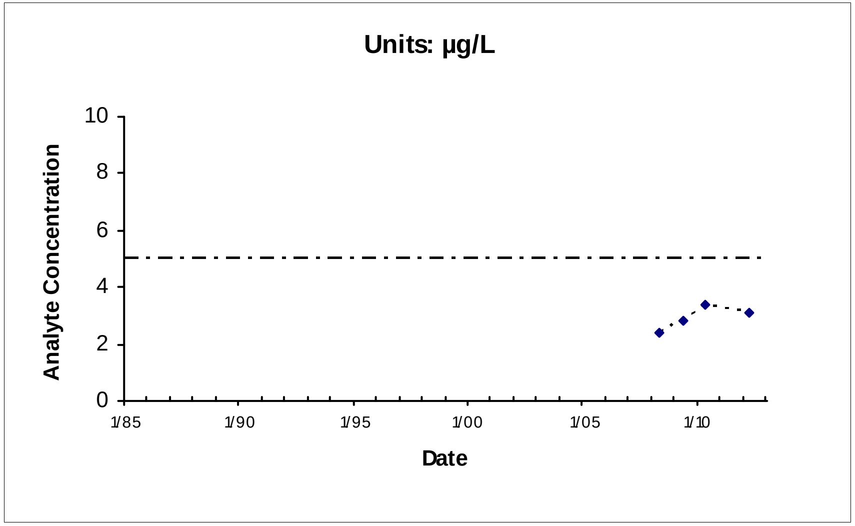
Sites FT005/SS029/SS030

TCE

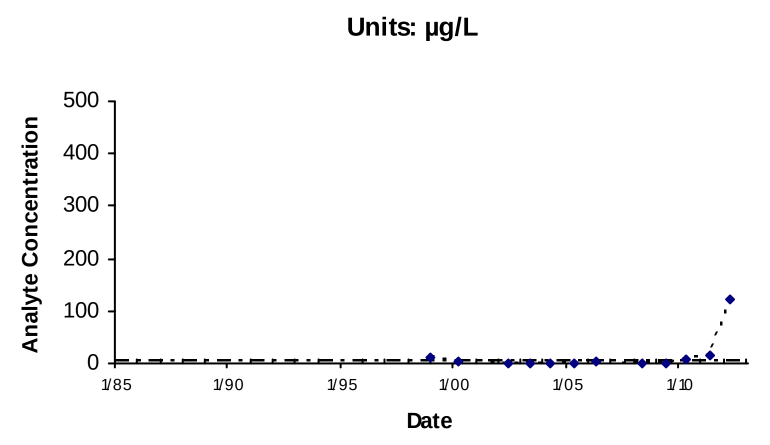
Chemical Time-series Plots



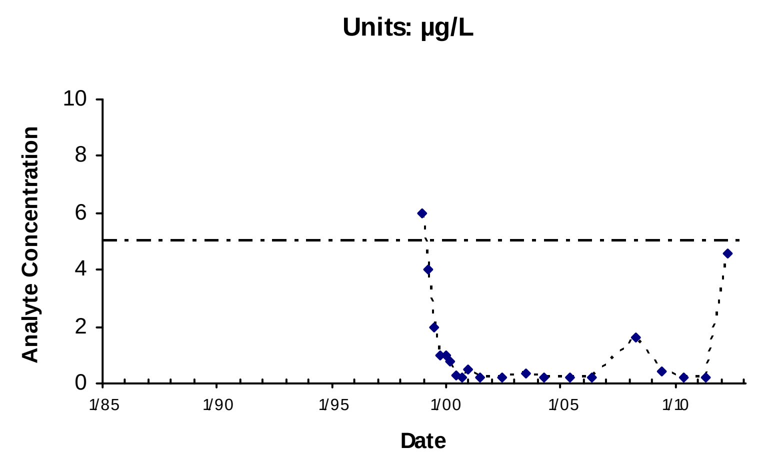
Location: MW1032X29 Maximum: 462



Location: MW1042x29 Maximum: 3.4



Location: MW1043X29 Maximum: 124



Location: MW1044X29 Maximum: 6

North IRA

FIGURE 2-8

Sites FT005/SS029/SS030

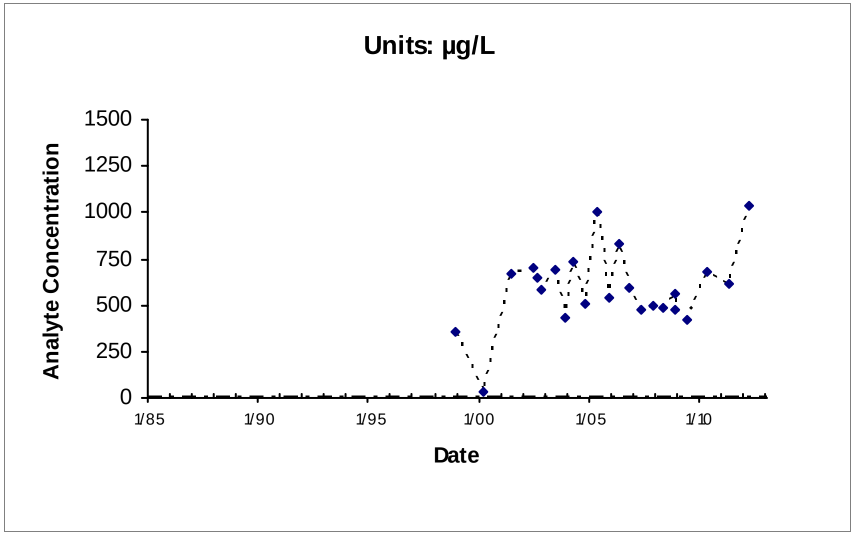
TCE

Chemical Time-series Plots

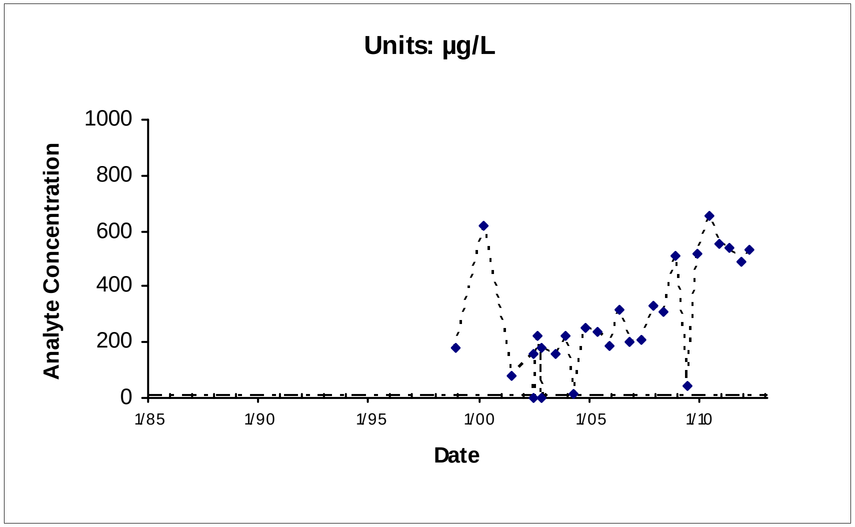
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

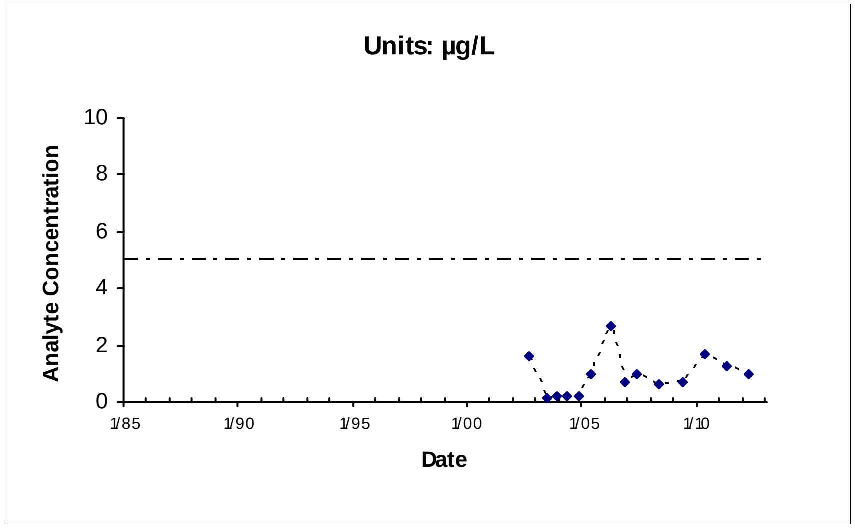
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



Location: PZ01DX29 Maximum: 1040



Location: PZ01SX29 Maximum: 655



Location: SWPZ01X29 Maximum: 2.7

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

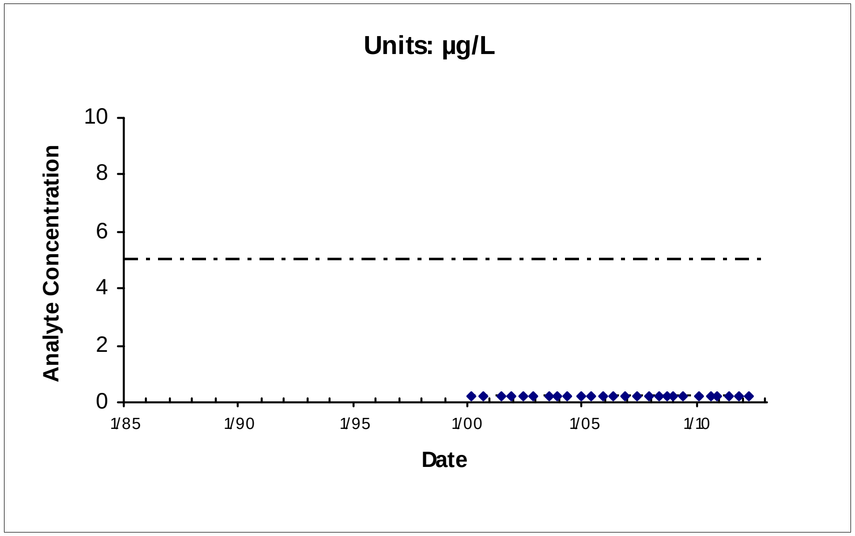
North IRA

FIGURE 2-8

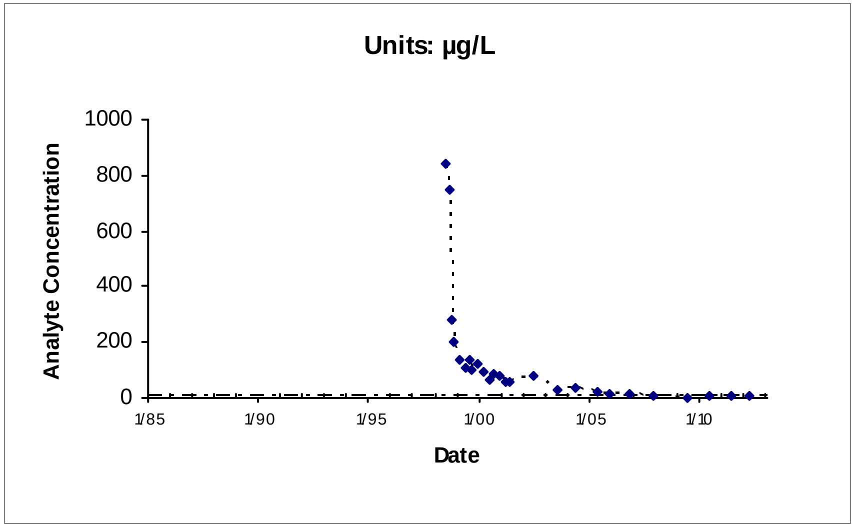
Sites FT005/SS029/SS030

TCE

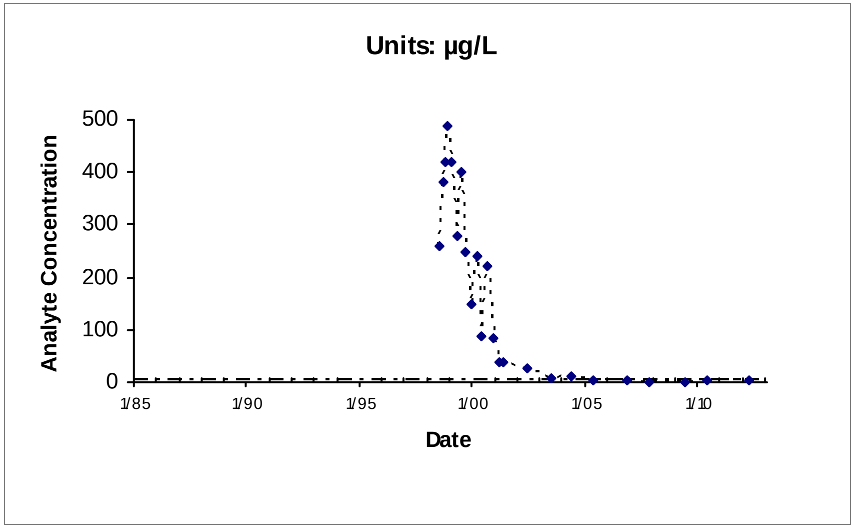
Chemical Time-series Plots



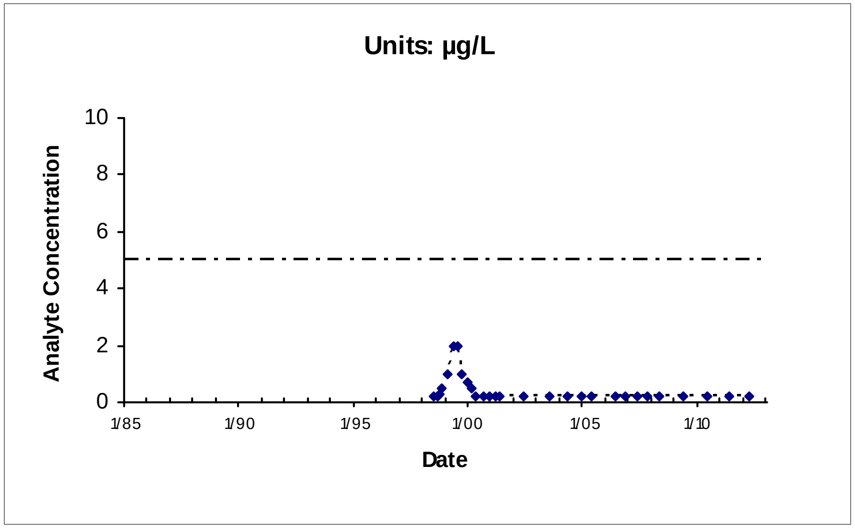
Location: DWSET1X30 Maximum: 0.19



Location: EW01X30 Maximum: 840



Location: EW02X30 Maximum: 490



Location: EW03X30 Maximum: 2

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

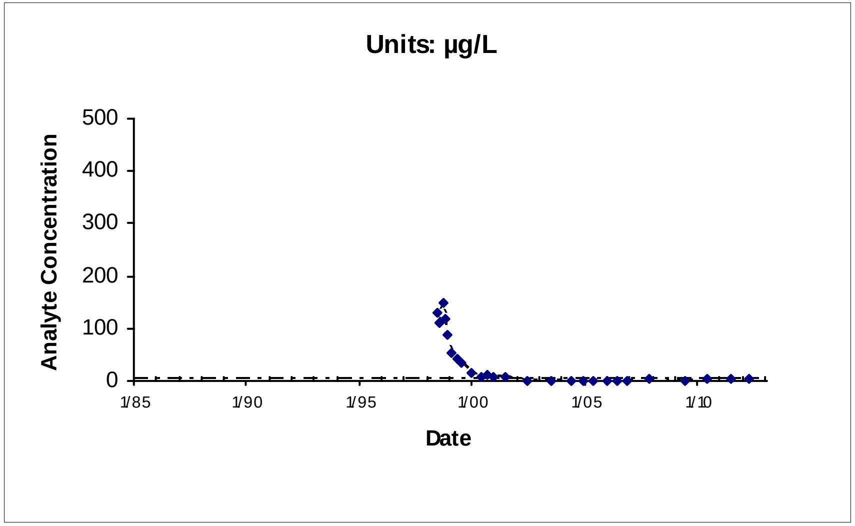
North IRA

FIGURE 2-8

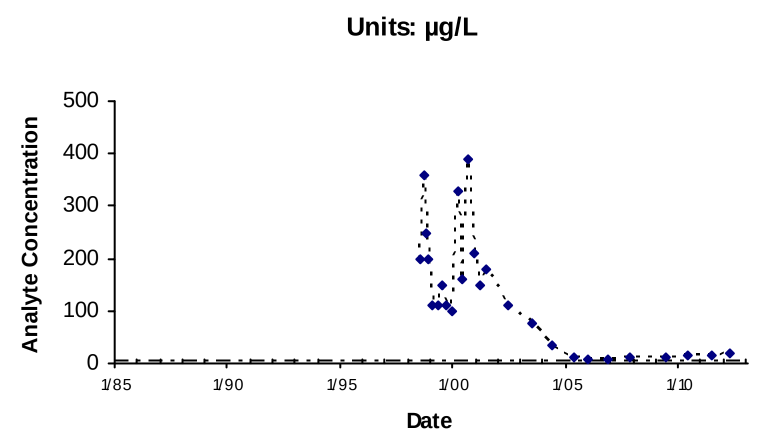
Sites FT005/SS029/SS030

TCE

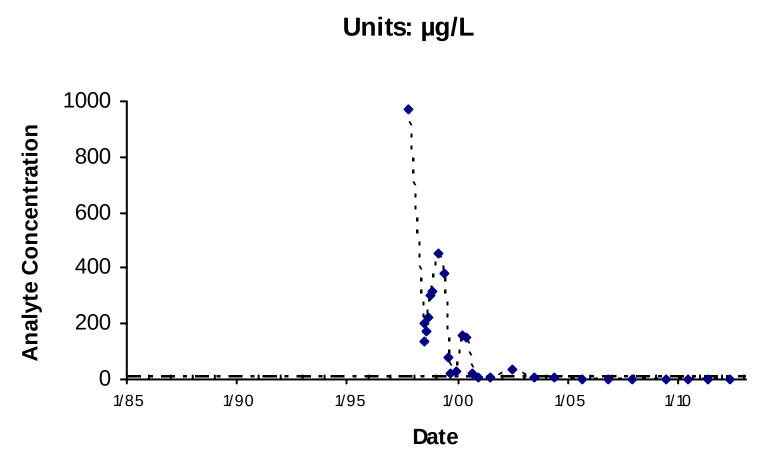
Chemical Time-series Plots



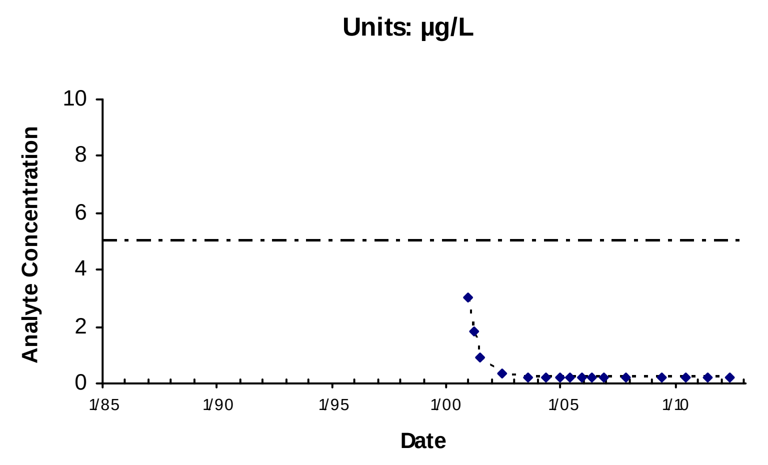
Location: EW04X30 Maximum: 150



Location: EW05X30 Maximum: 390



Location: EW06X30 Maximum: 970



Location: EW711X30 Maximum: 3

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

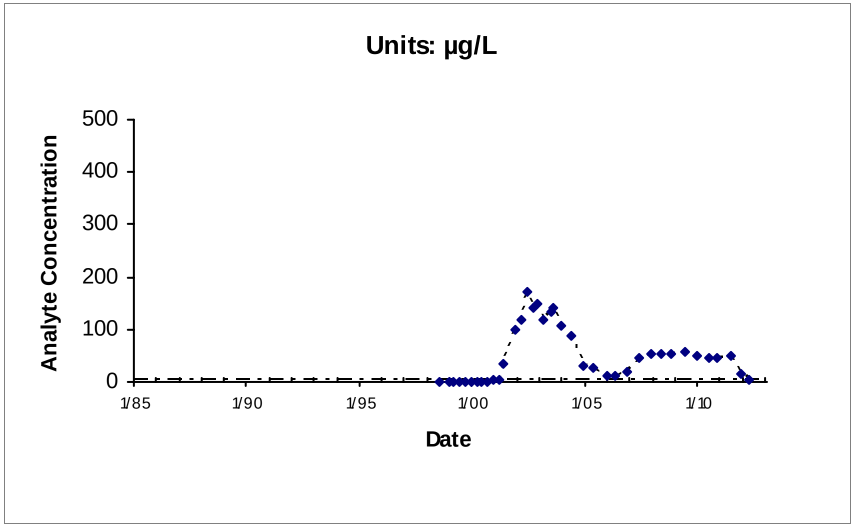
North IRA

FIGURE 2-8

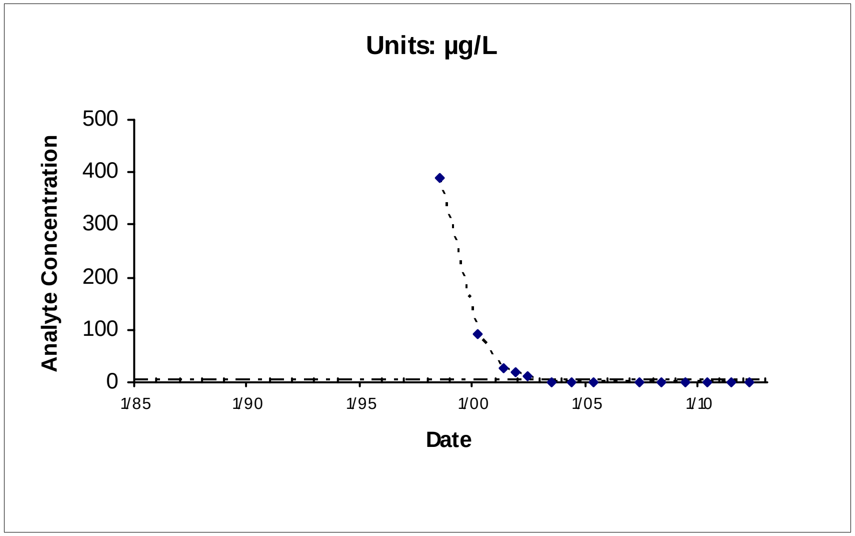
Sites FT005/SS029/SS030

TCE

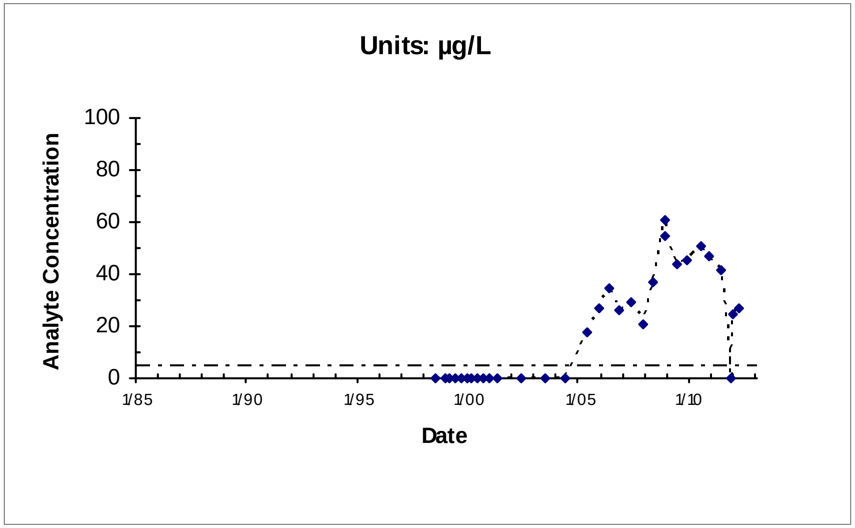
Chemical Time-series Plots



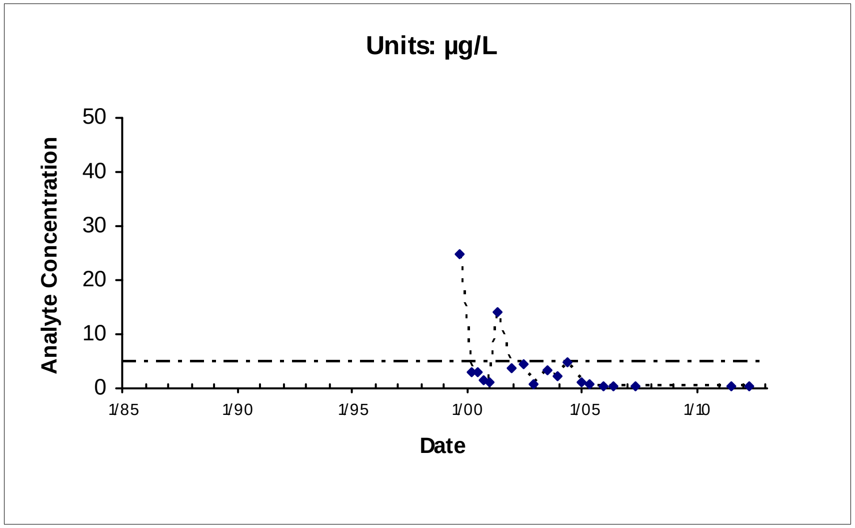
Location: MW03X30 Maximum: 170



Location: MW04X30 Maximum: 390



Location: MW05X30 Maximum: 60.4



Location: MW10X30 Maximum: 25

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

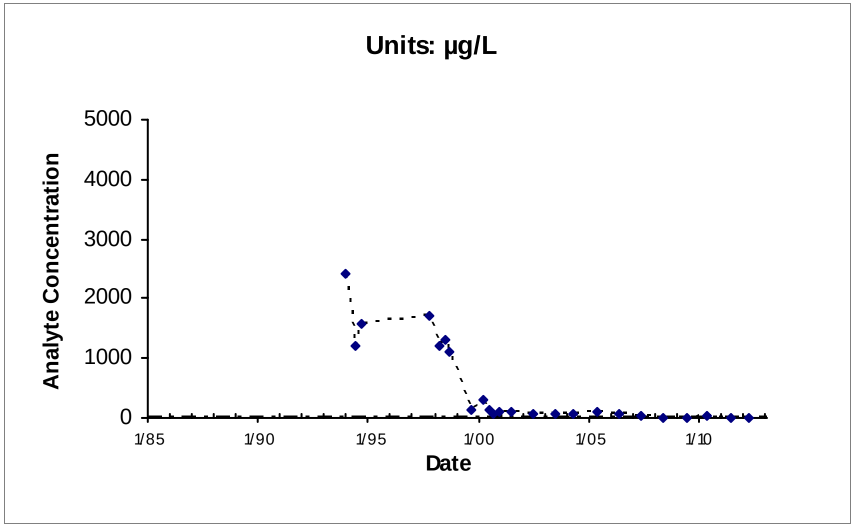
North IRA

FIGURE 2-8

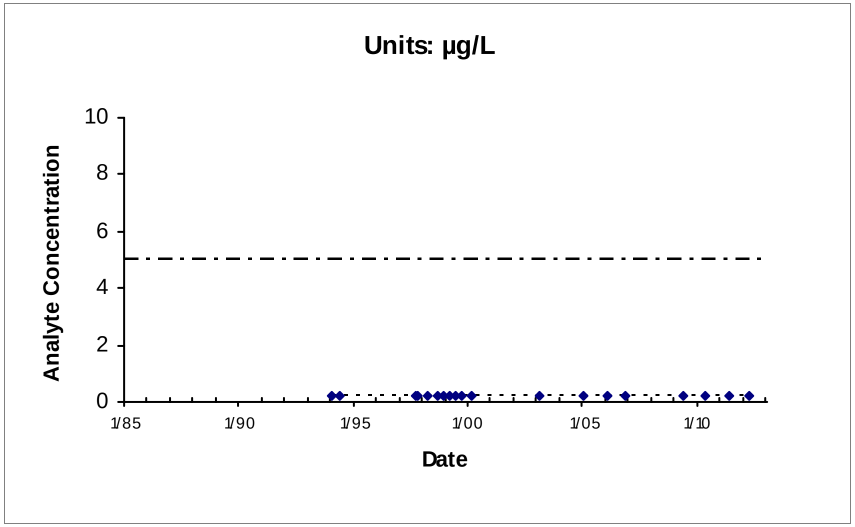
Sites FT005/SS029/SS030

TCE

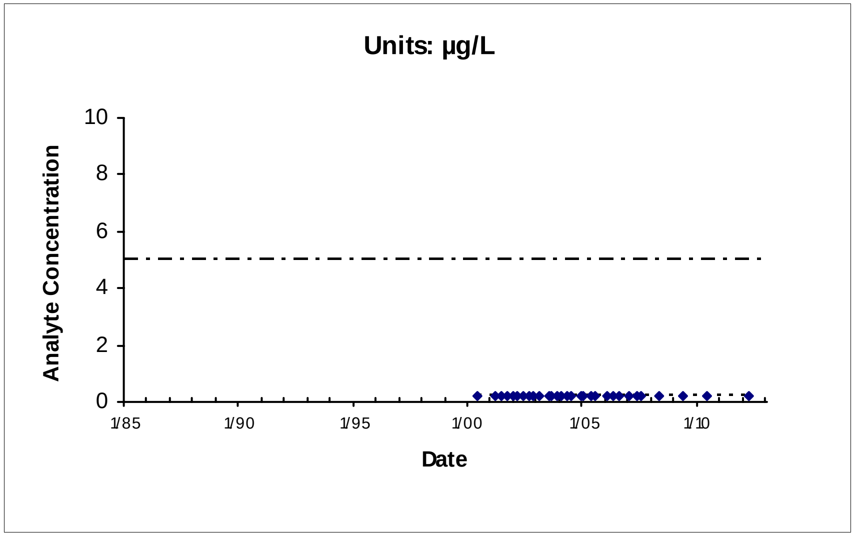
Chemical Time-series Plots



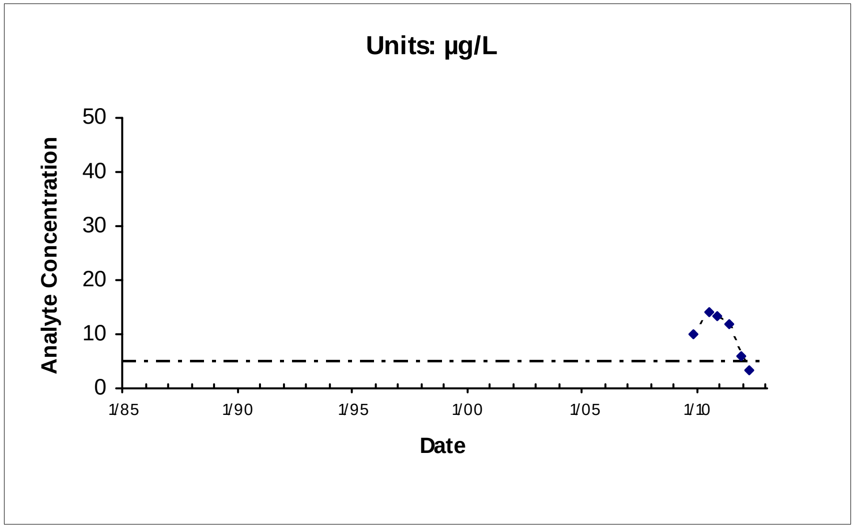
Location: MW269X30 Maximum: 2400



Location: MW280X30 Maximum: 0.19



Location: MW709X30 Maximum: 0.19



Location: MW2001Ax30 Maximum: 14.1

North IRA

FIGURE 2-8

Sites FT005/SS029/SS030

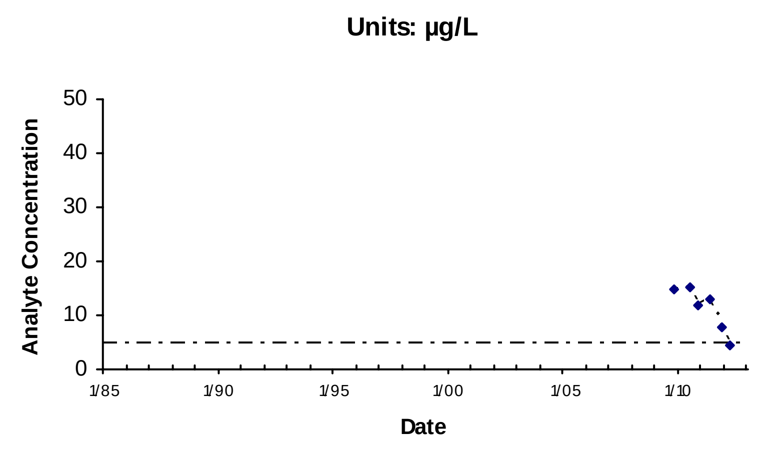
TCE

Chemical Time-series Plots

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



Location: MW2001Bx30 Maximum: 15.1

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

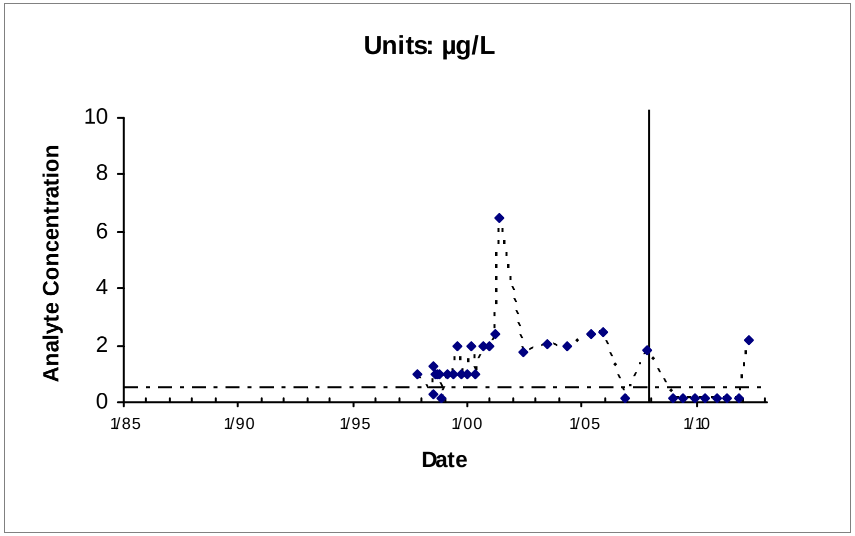
North IRA

FIGURE 2-8

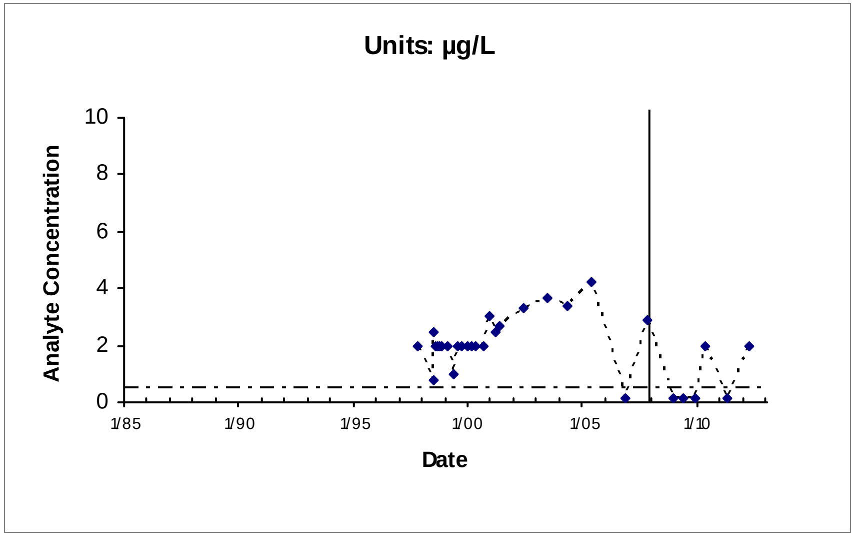
Sites FT005/SS029/SS030

TCE

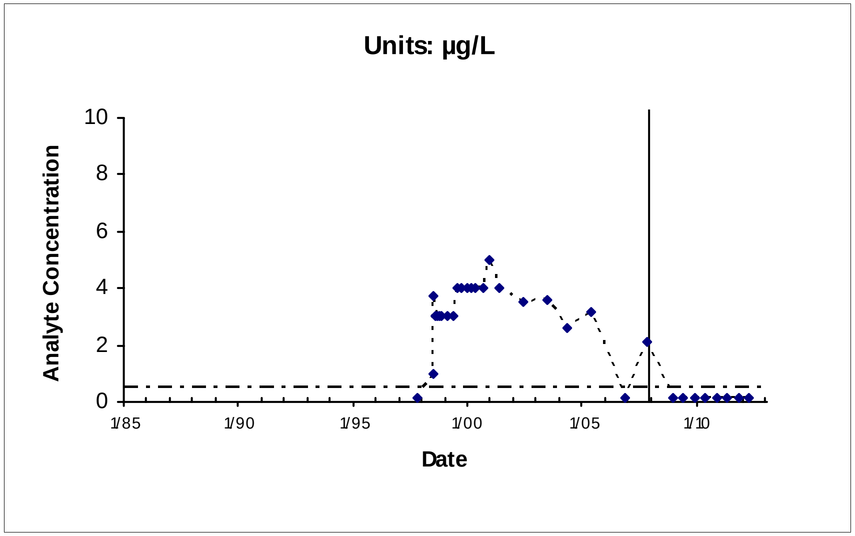
Chemical Time-series Plots



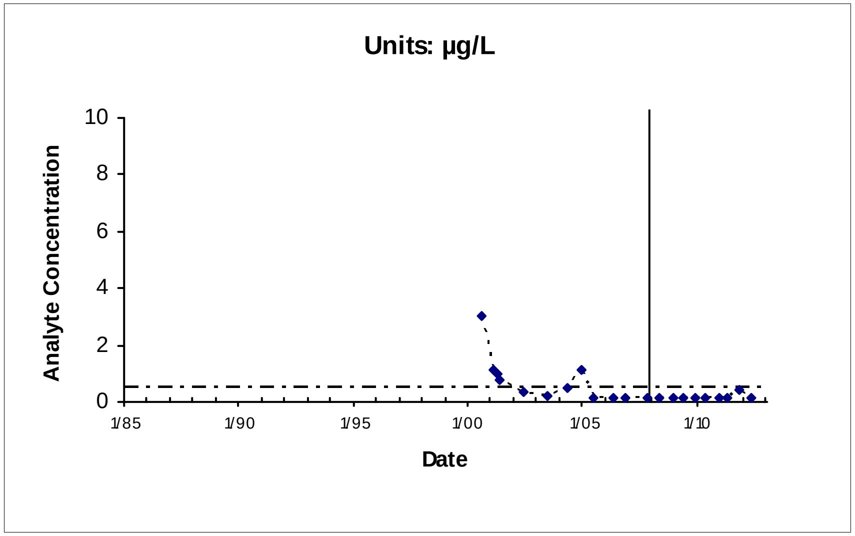
Location: EW01X05 Maximum: 6.5



Location: EW02X05 Maximum: 4.2



Location: EW03X05 Maximum: 5



Location: EW731X05 Maximum: 3

———— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

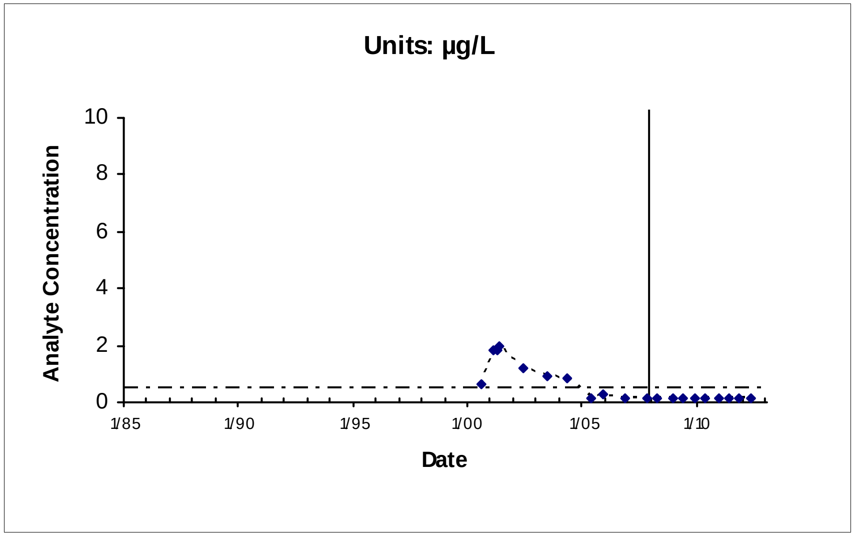
South IRA

FIGURE 2-9

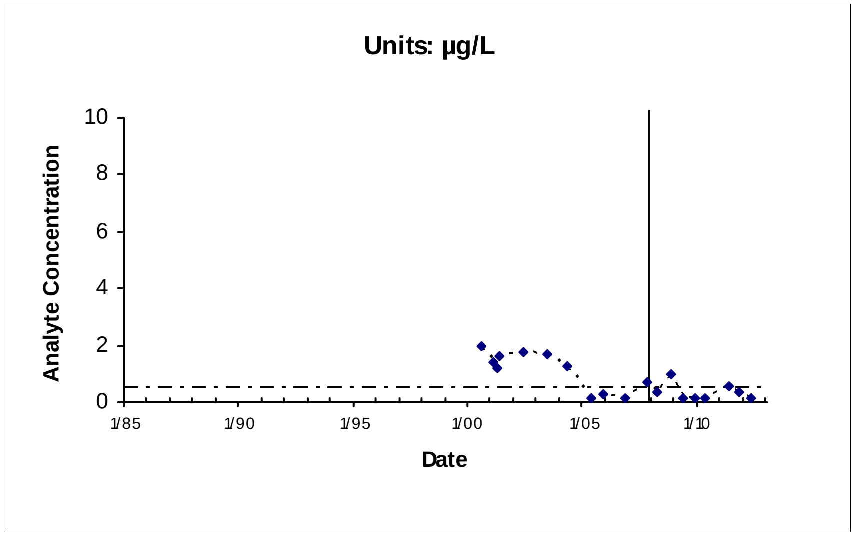
Sites FT005/SS029/SS030

1,2-DCA

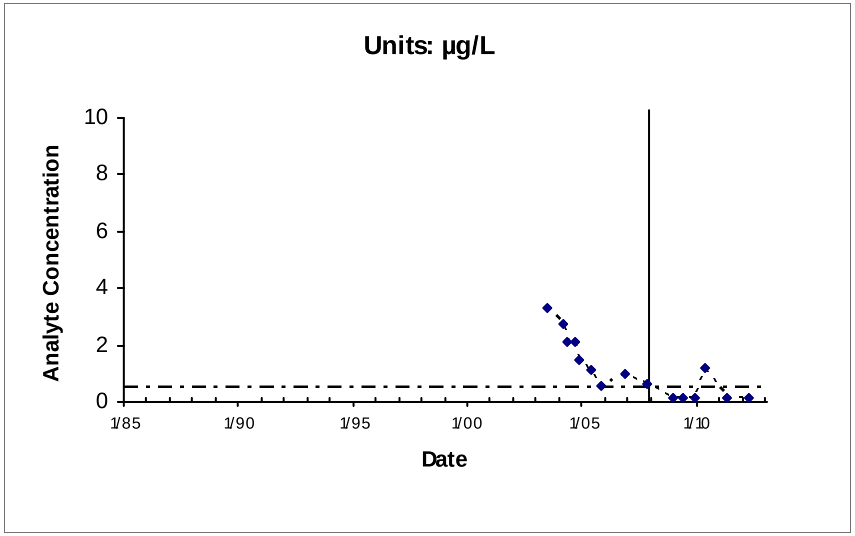
Chemical Time-series Plots



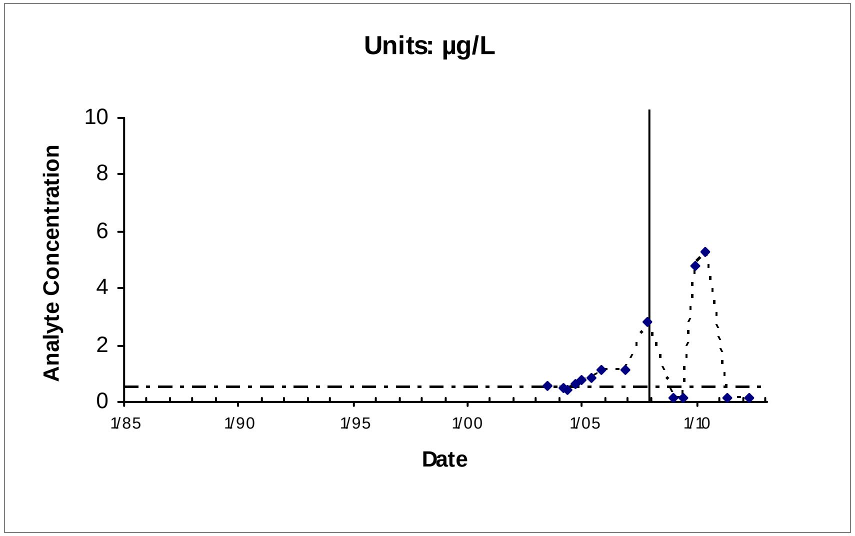
Location: EW732X05 Maximum: 2



Location: EW733X05 Maximum: 2



Location: EW734X05 Maximum: 3.28



Location: EW735X05 Maximum: 5.3

———— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

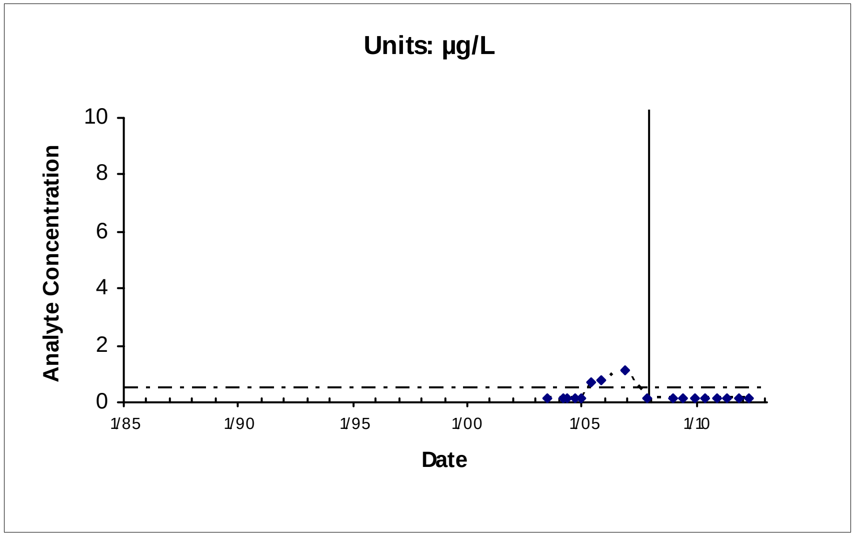
South IRA

FIGURE 2-9

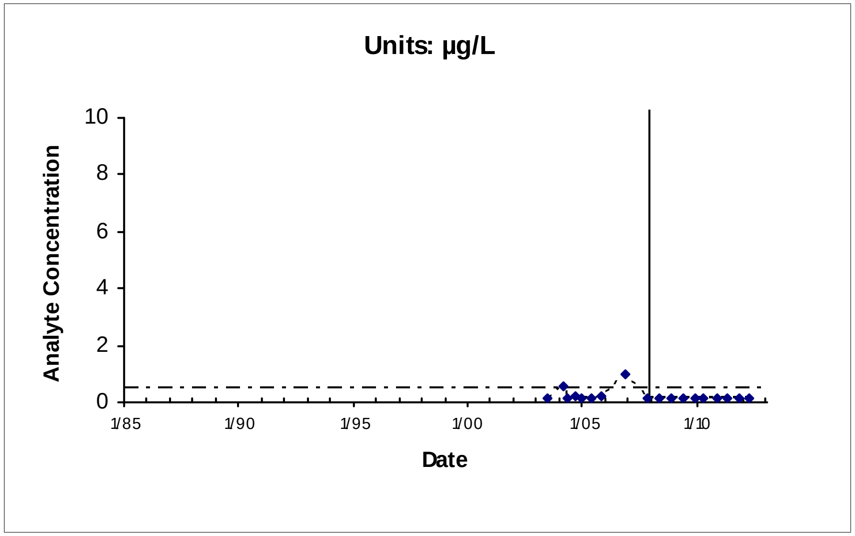
Sites FT005/SS029/SS030

1,2-DCA

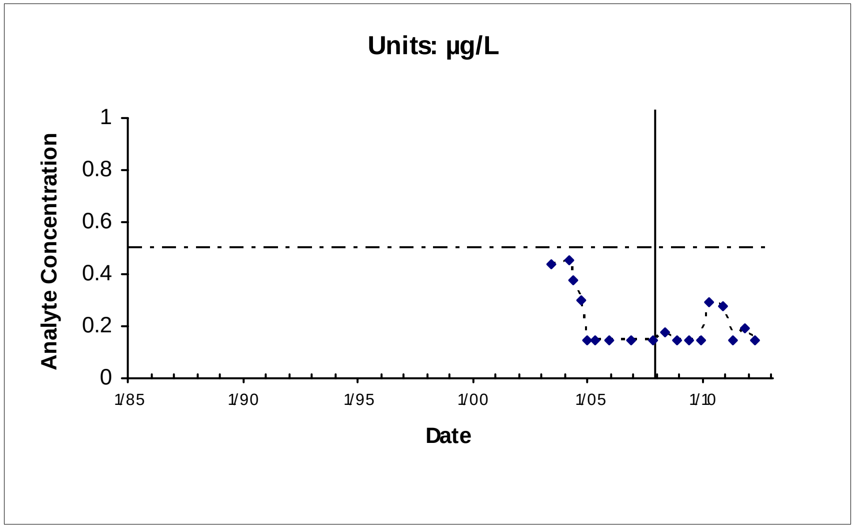
Chemical Time-series Plots



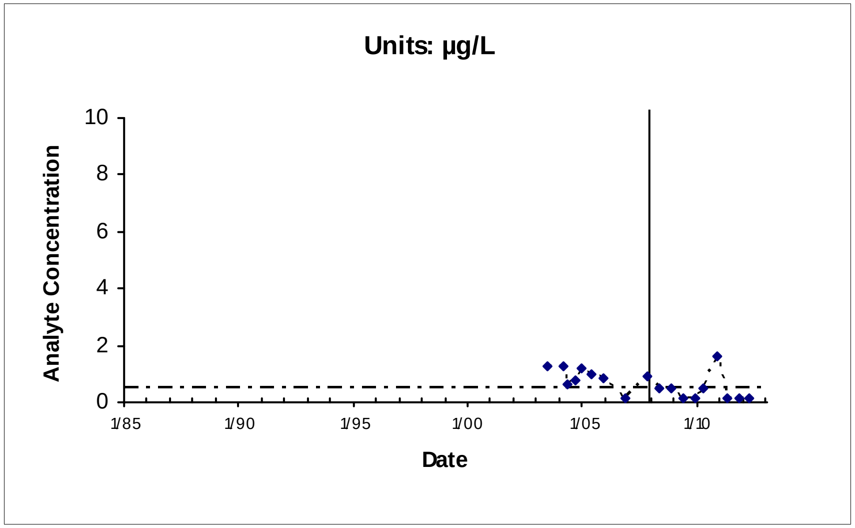
Location: EW736X05 Maximum: 1.1



Location: EW737X05 Maximum: 1



Location: EW742X05 Maximum: 0.452



Location: EW743X05 Maximum: 1.6

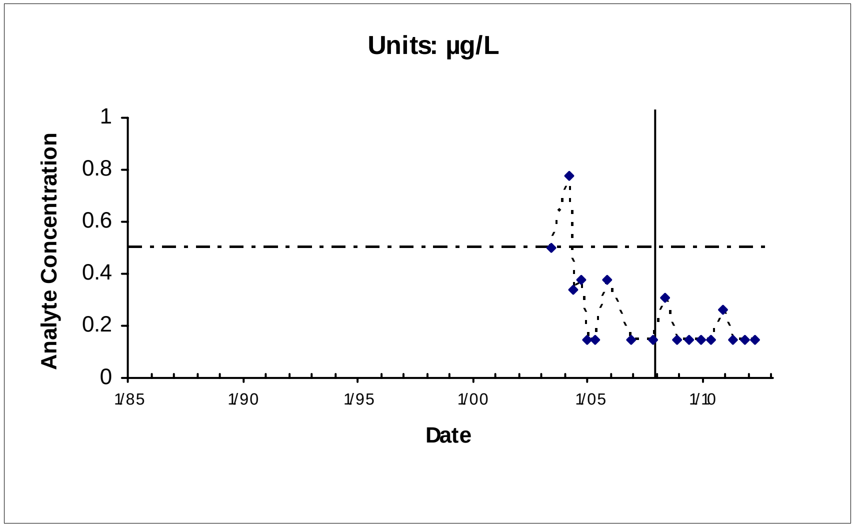
——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

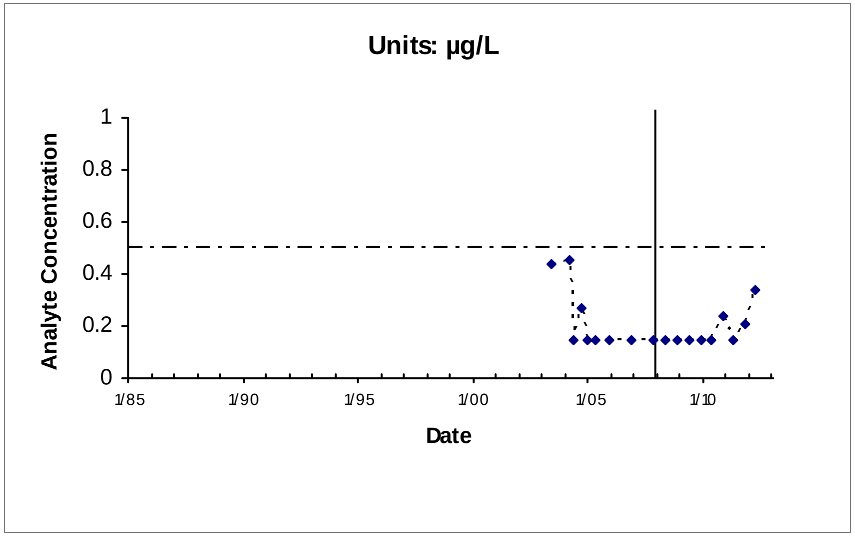
*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

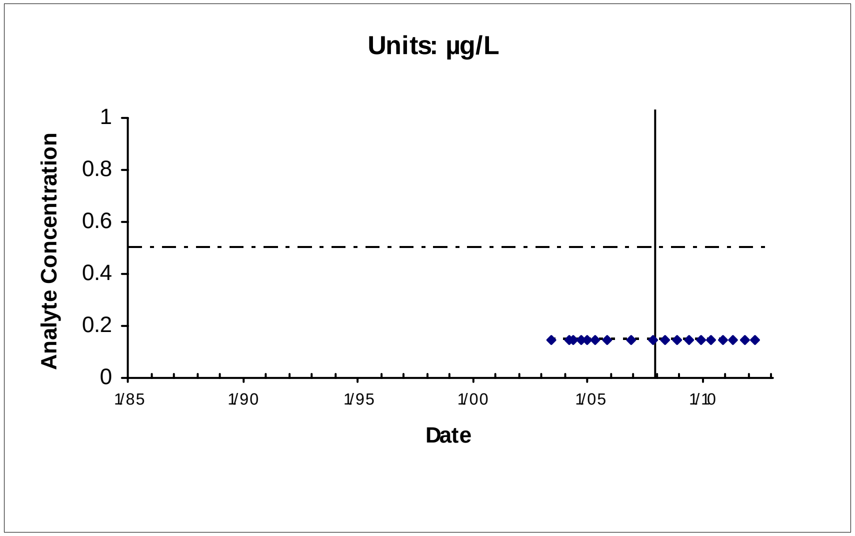
South IRA
FIGURE 2-9
Sites FT005/SS029/SS030
1,2-DCA
Chemical Time-series Plots



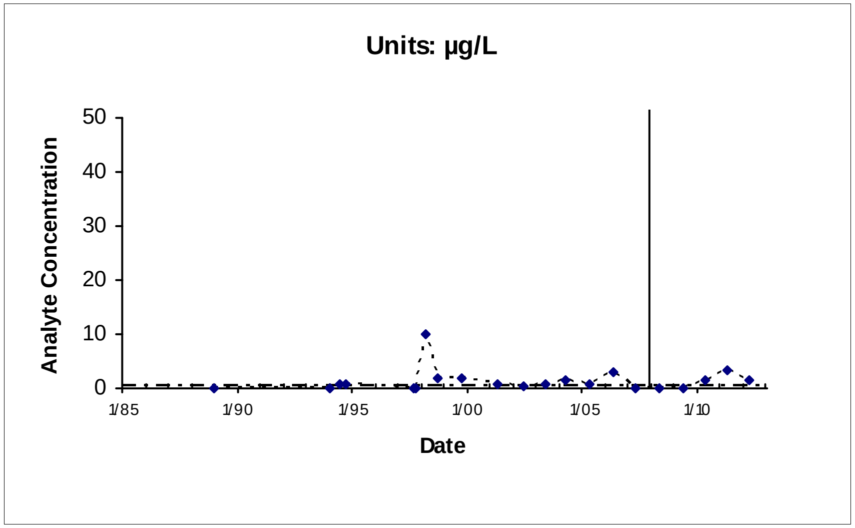
Location: EW744X05 Maximum: 0.779



Location: EW745X05 Maximum: 0.456



Location: EW746X05 Maximum: 0.15



Location: MW119X05 Maximum: 10

———— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

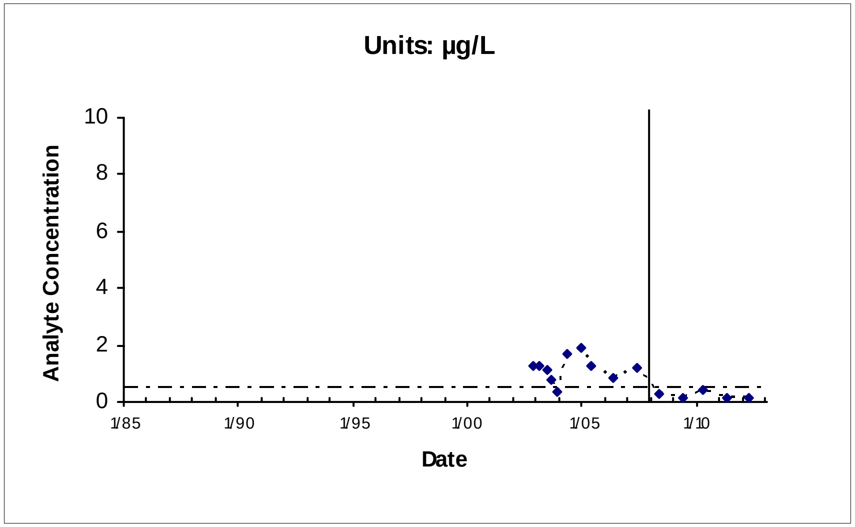
South IRA

FIGURE 2-9

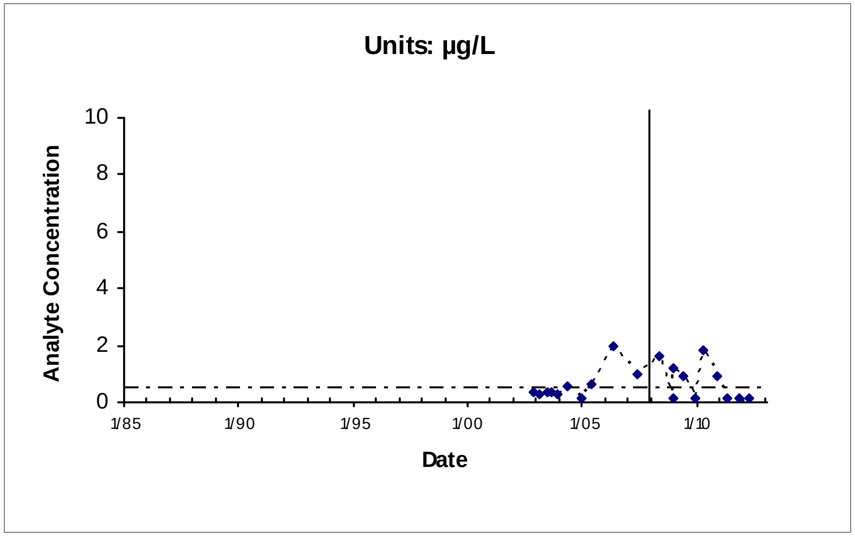
Sites FT005/SS029/SS030

1,2-DCA

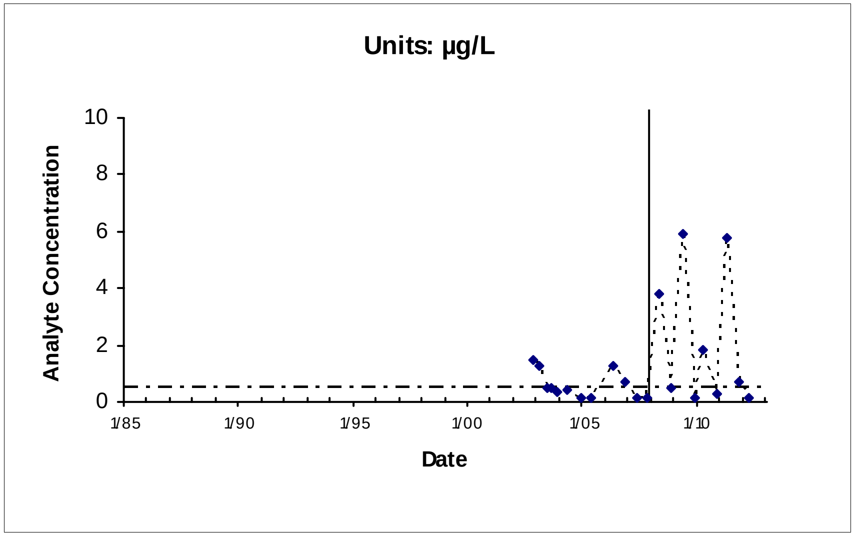
Chemical Time-series Plots



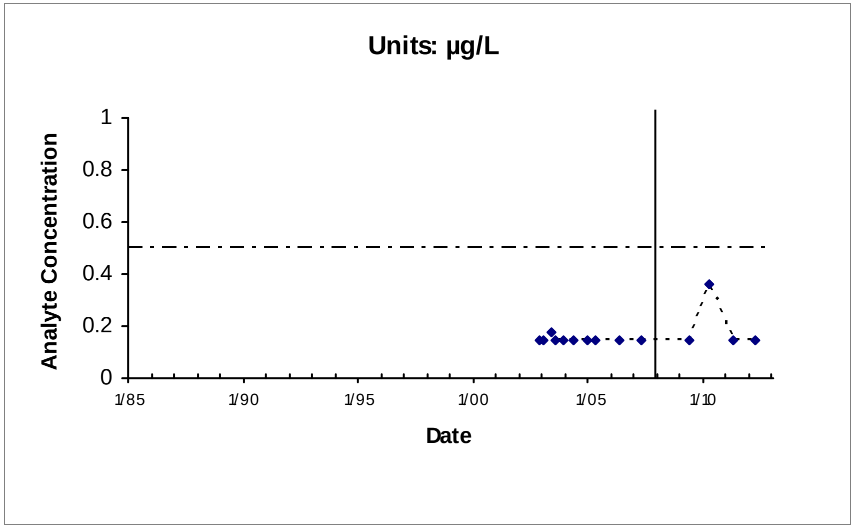
Location: MW747X05 Maximum: 1.9



Location: MW765X05 Maximum: 2



Location: MW766X05 Maximum: 5.9



Location: MW767X05 Maximum: 0.36

——— Rebound Study Initiated

— · — · — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

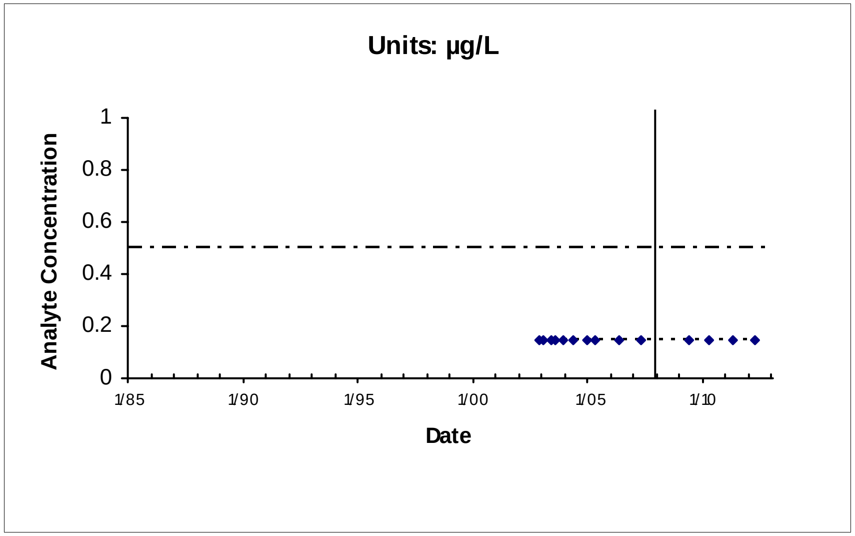
South IRA

FIGURE 2-9

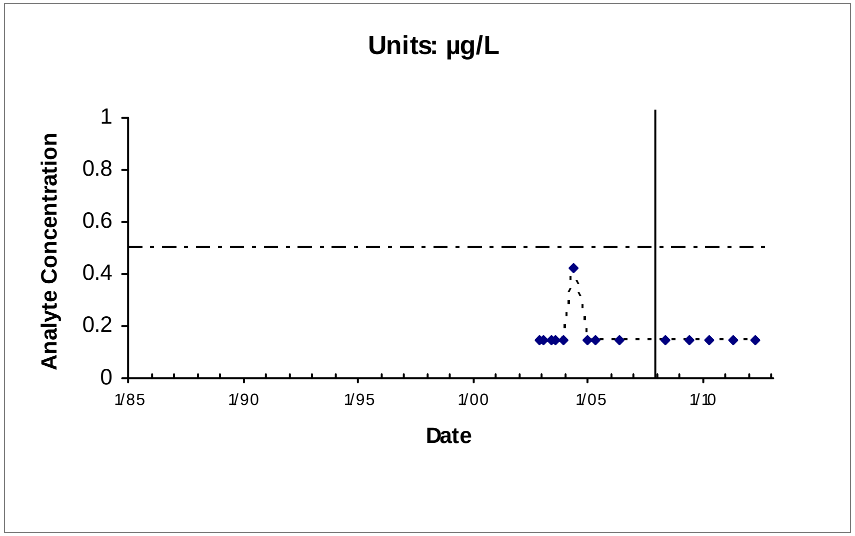
Sites FT005/SS029/SS030

1,2-DCA

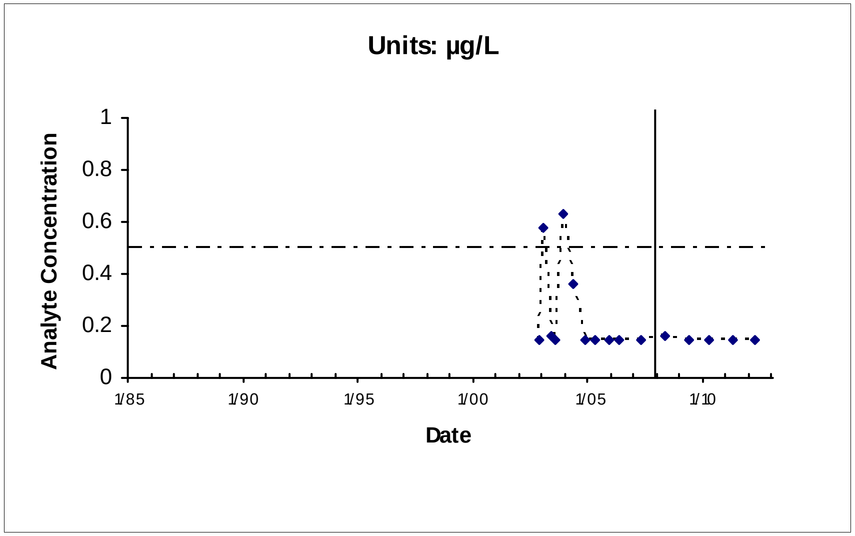
Chemical Time-series Plots



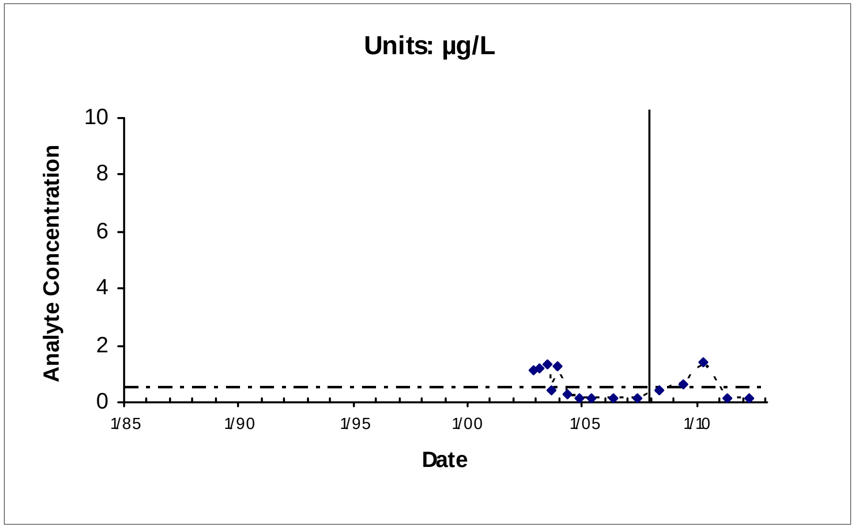
Location: MW769X05 Maximum: 0.15



Location: MW770X05 Maximum: 0.42



Location: MW771X05 Maximum: 0.627



Location: MW772X05 Maximum: 1.4

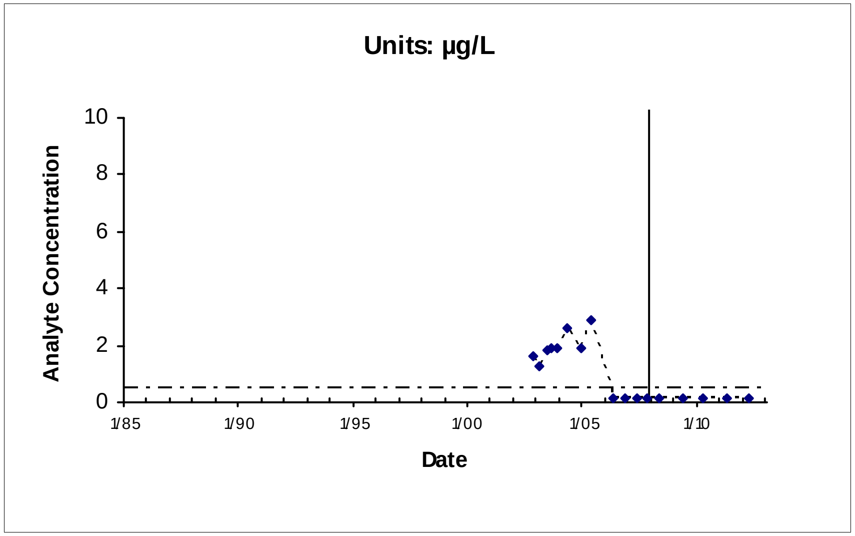
——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

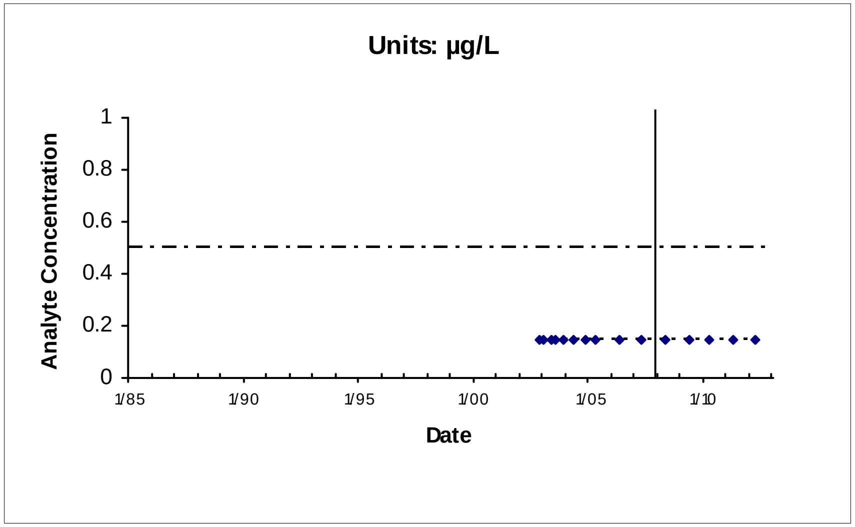
*Nondetects shown as the Method Detection Limit (0.15 µg/L)

South IRA

FIGURE 2-9
Sites FT005/SS029/SS030
1,2-DCA
Chemical Time-series Plots



Location: MW774X05 Maximum: 2.9



Location: MW775X05 Maximum: 0.15

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

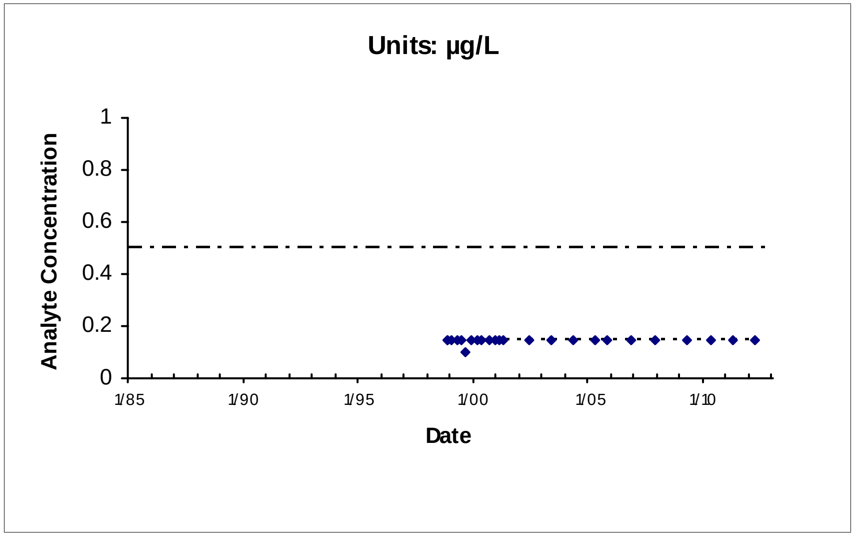
South IRA

FIGURE 2-9

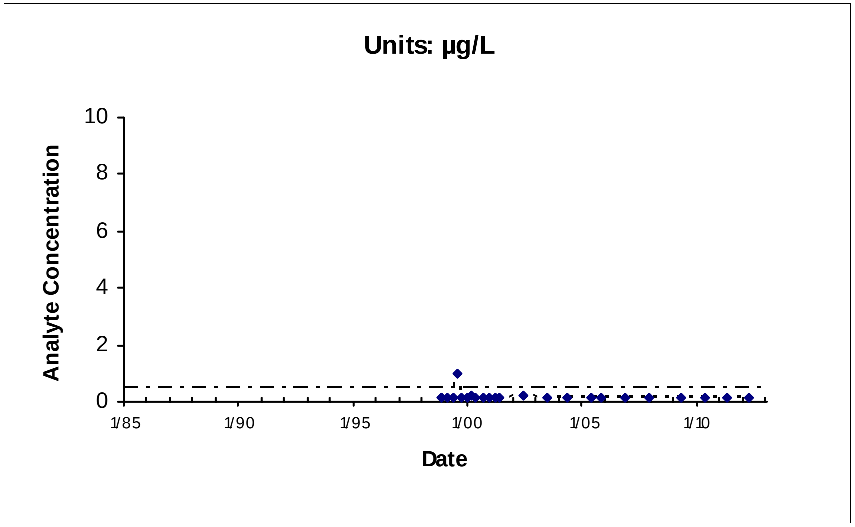
Sites FT005/SS029/SS030

1,2-DCA

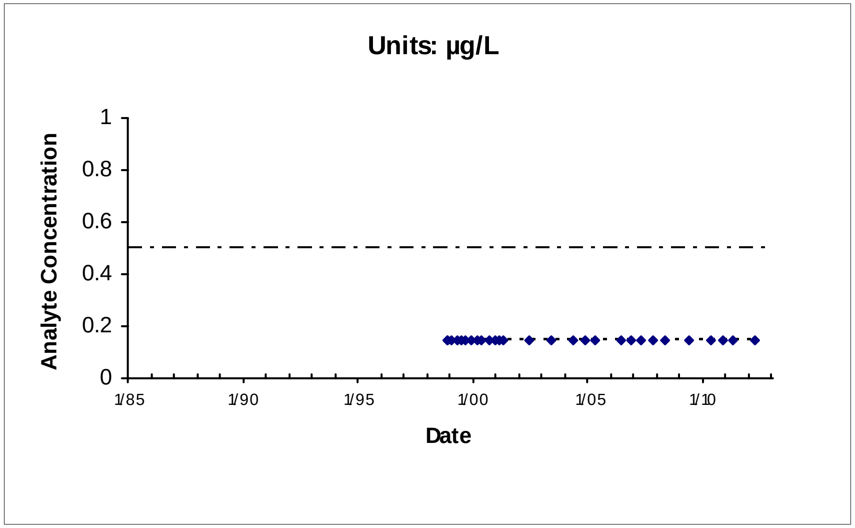
Chemical Time-series Plots



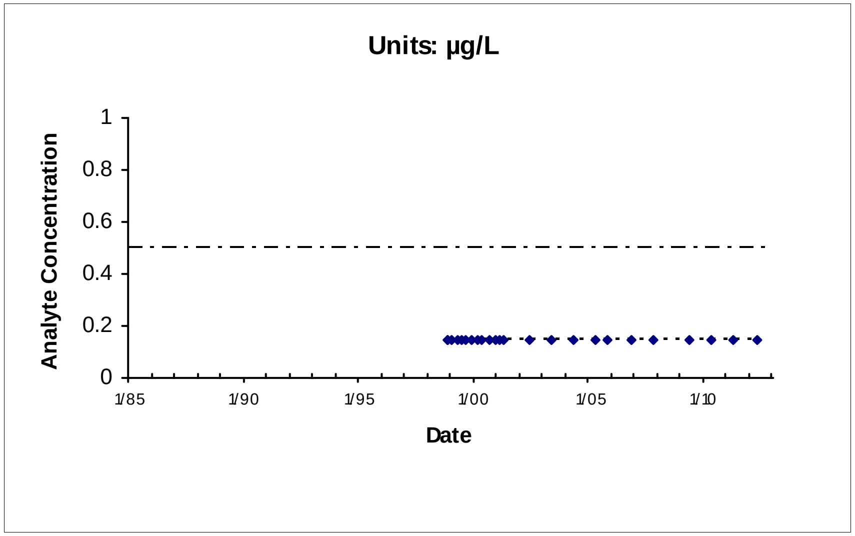
Location: EW01X29 Maximum: 0.15



Location: EW02X29 Maximum: 1



Location: EW03X29 Maximum: 0.15



Location: EW04X29 Maximum: 0.15

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

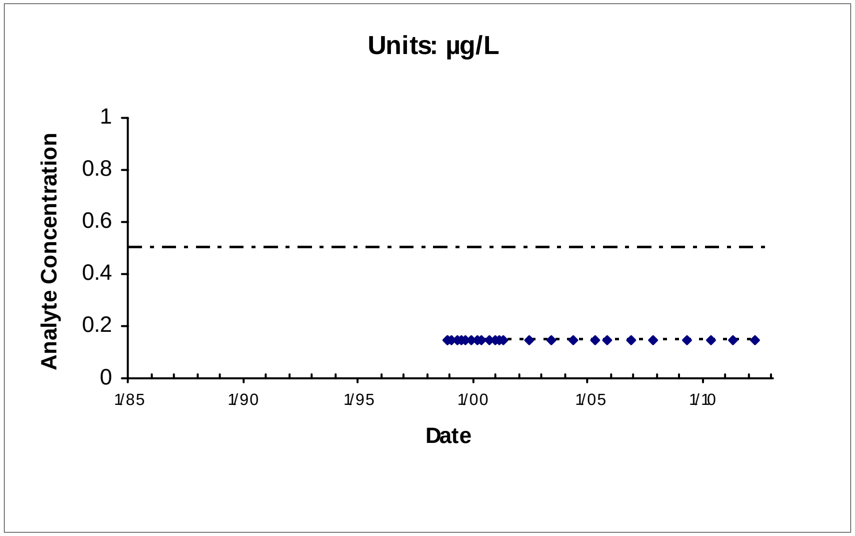
South IRA

FIGURE 2-9

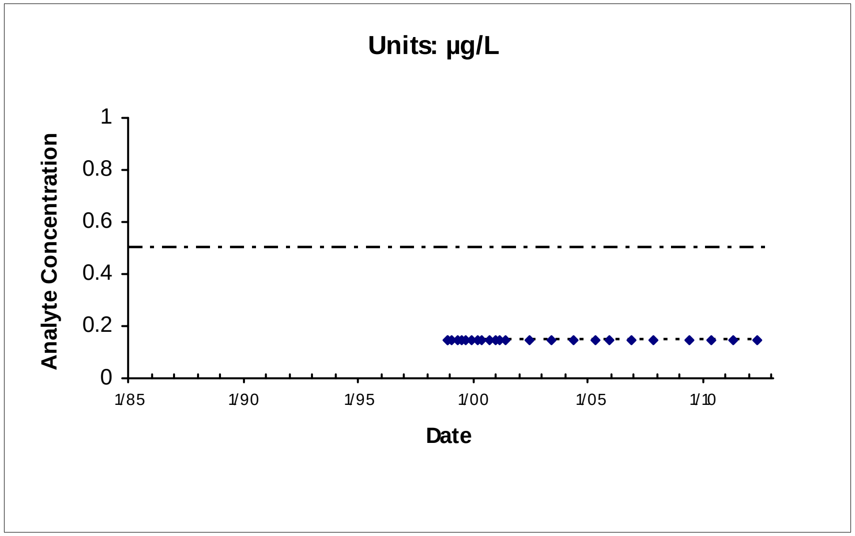
Sites FT005/SS029/SS030

1,2-DCA

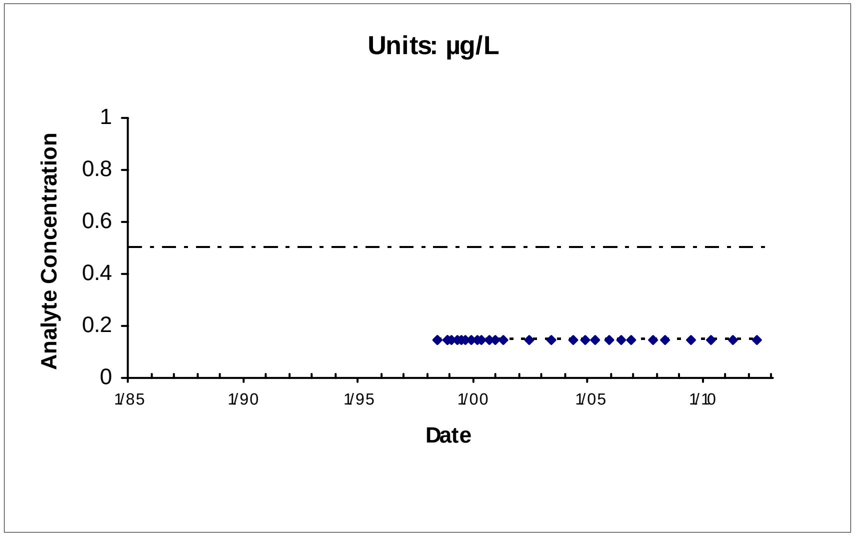
Chemical Time-series Plots



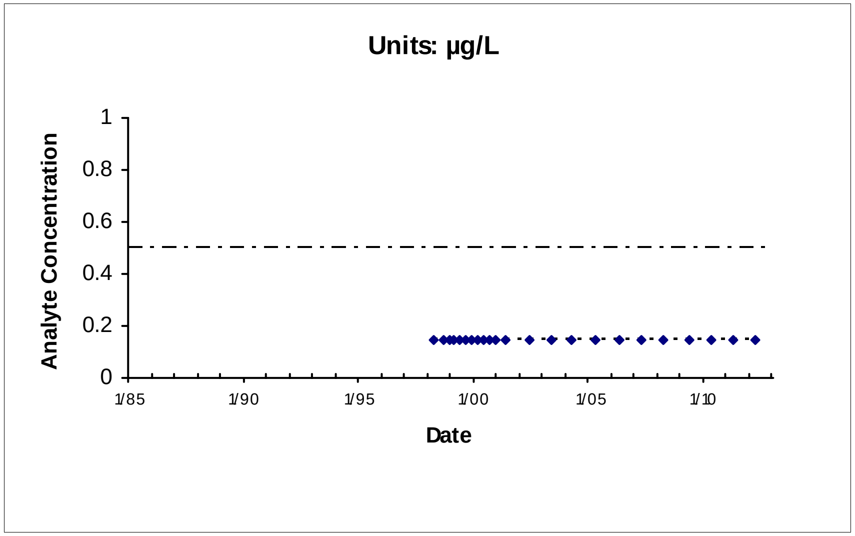
Location: EW05X29 Maximum: 0.15



Location: EW06X29 Maximum: 0.15



Location: EW07X29 Maximum: 0.15



Location: MW01X29 Maximum: 0.15

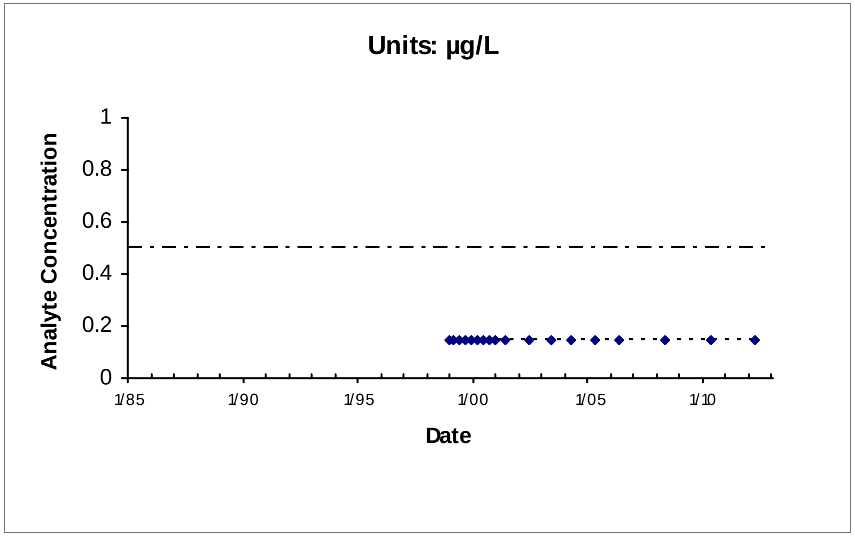
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

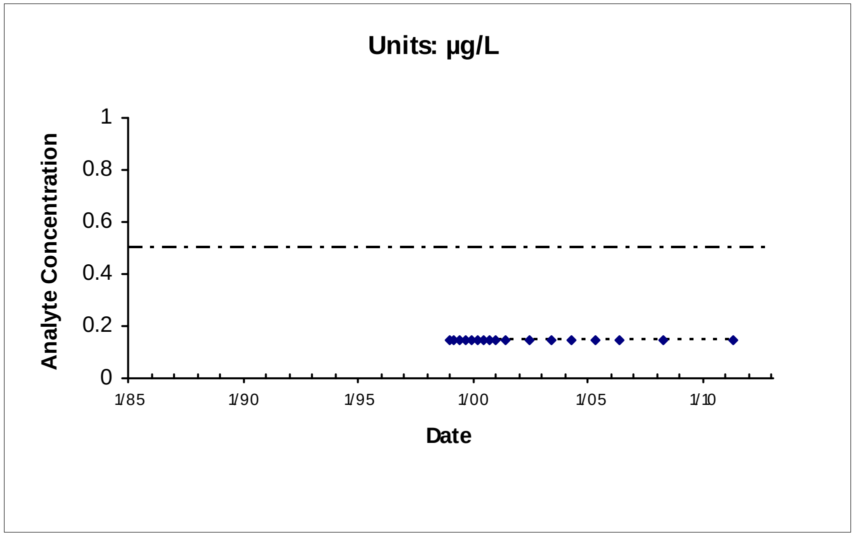
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

South IRA

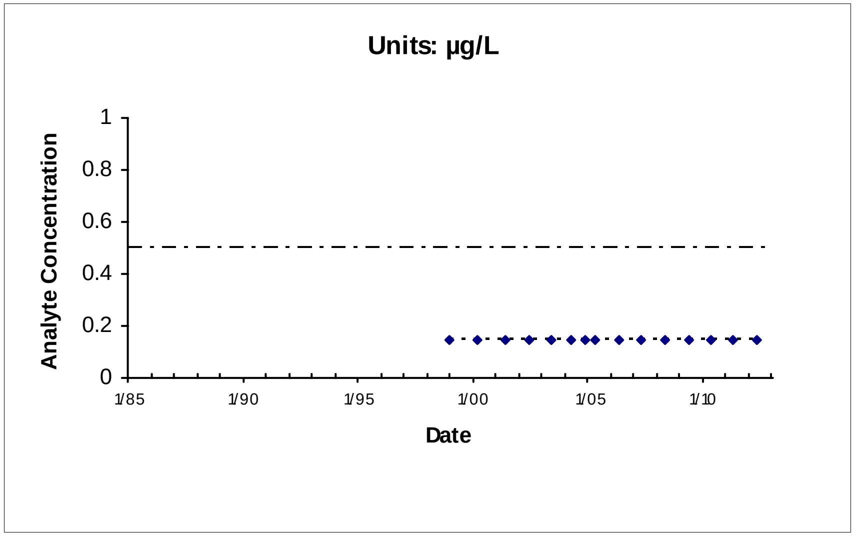
FIGURE 2-9
Sites FT005/SS029/SS030
1,2-DCA
Chemical Time-series Plots



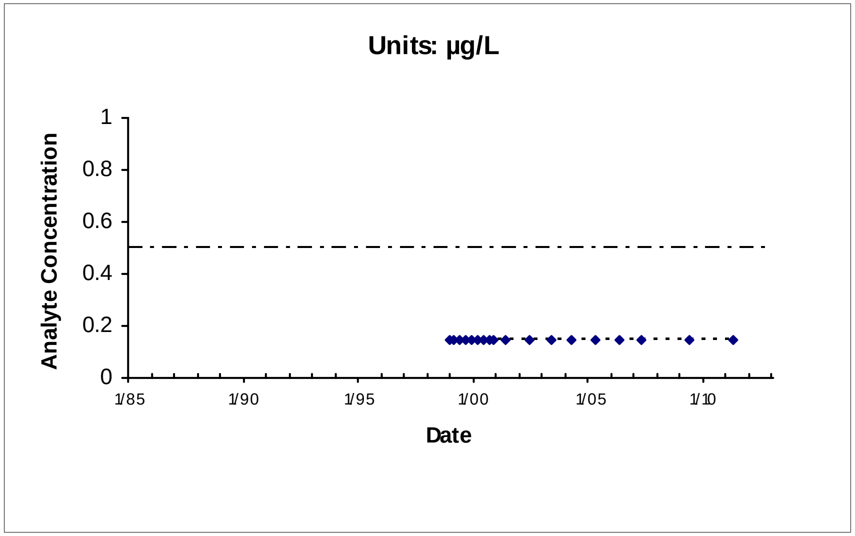
Location: MW02X29 Maximum: 0.15



Location: MW03X29 Maximum: 0.15



Location: MW04X29 Maximum: 0.15



Location: MW05X29 Maximum: 0.15

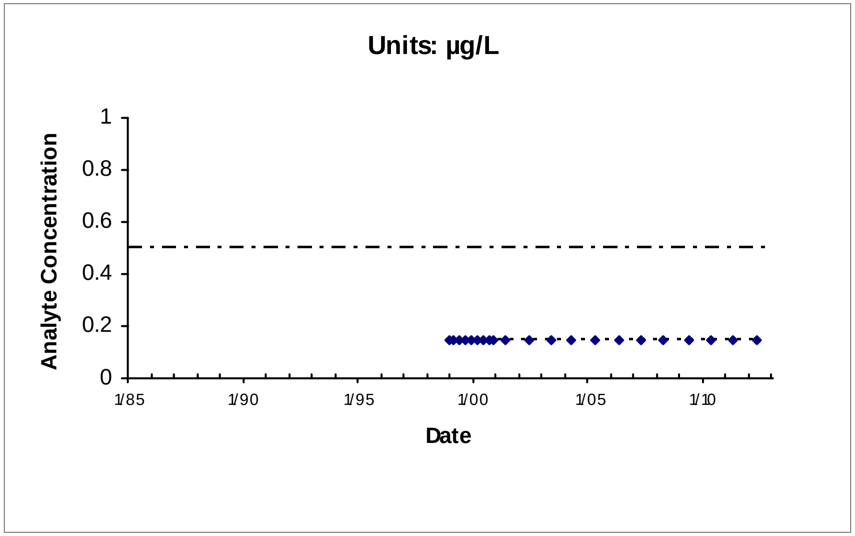
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

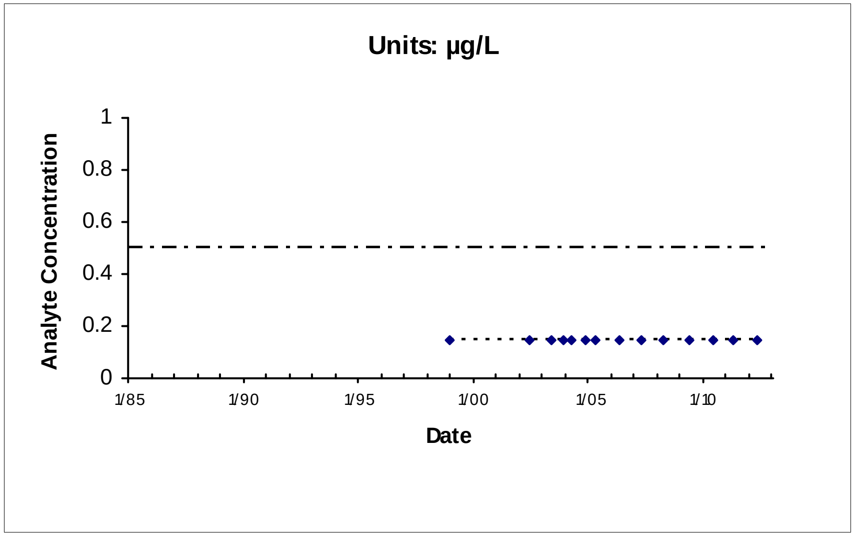
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

South IRA

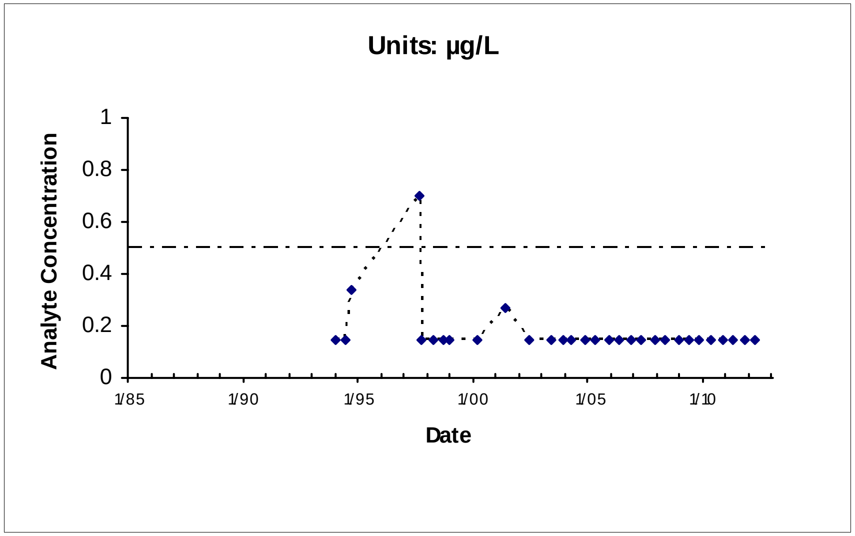
FIGURE 2-9
Sites FT005/SS029/SS030
1,2-DCA
Chemical Time-series Plots



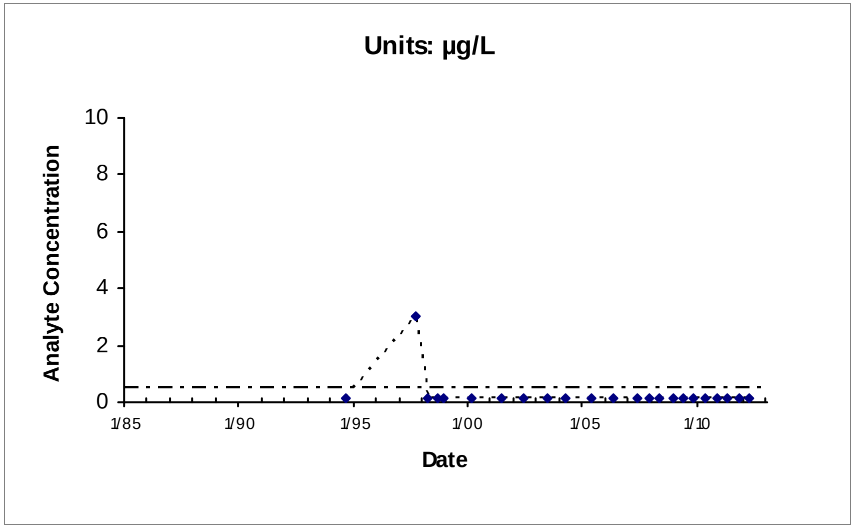
Location: MW06X29 Maximum: 0.15



Location: MW07X29 Maximum: 0.15



Location: MW329X29 Maximum: 0.7



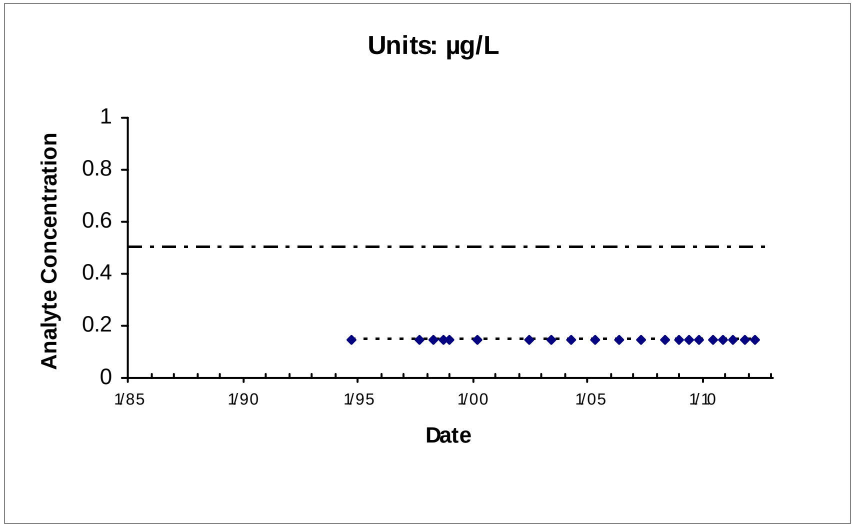
Location: MW1031X29 Maximum: 3

— - — - — IRG (0.5 µg/L)

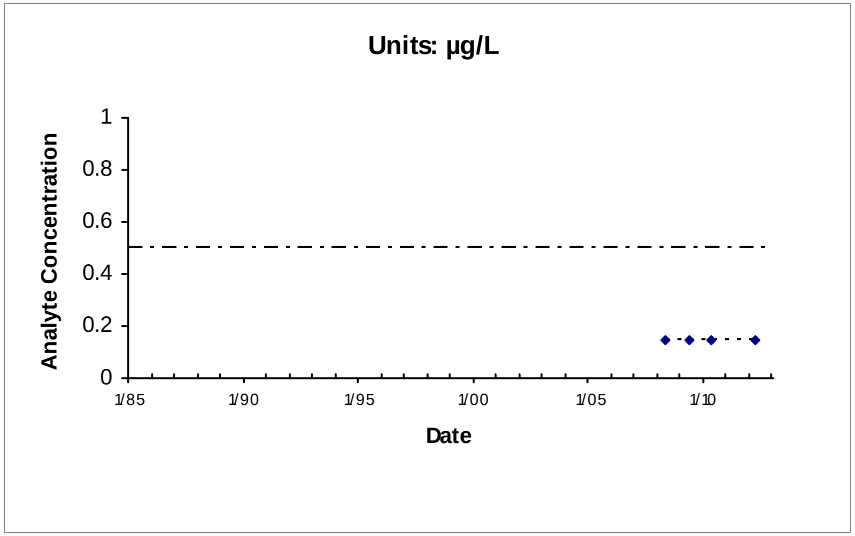
*Nondetects shown as the Method Detection Limit (0.15 µg/L)

South IRA

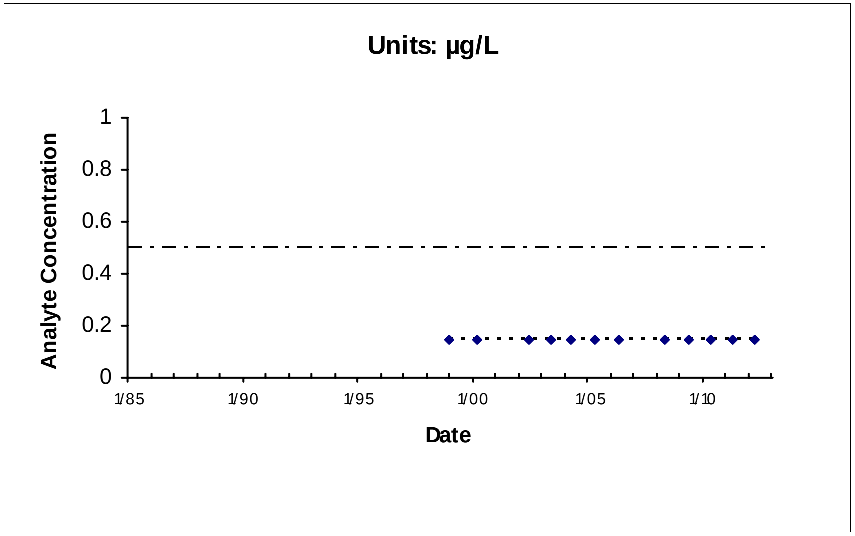
FIGURE 2-9
Sites FT005/SS029/SS030
1,2-DCA
Chemical Time-series Plots



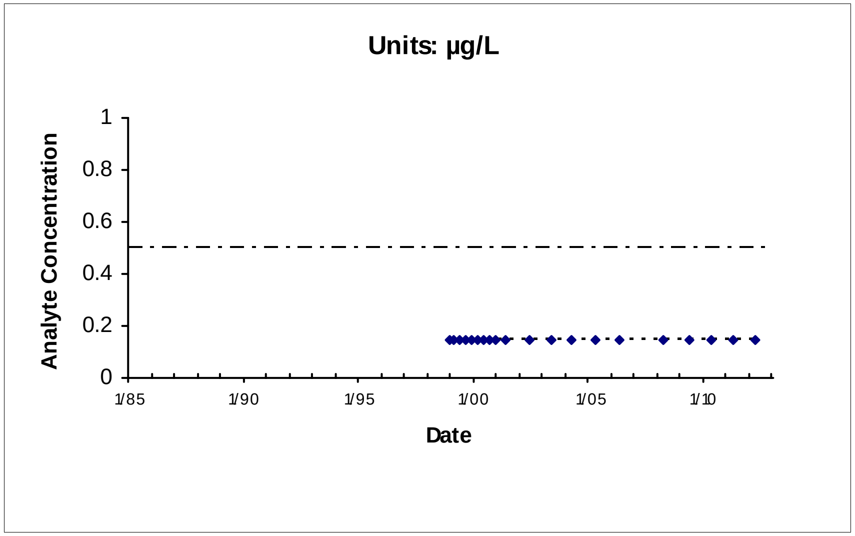
Location: MW1032X29 Maximum: 0.15



Location: MW1042x29 Maximum: 0.15



Location: MW1043X29 Maximum: 0.15



Location: MW1044X29 Maximum: 0.15

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

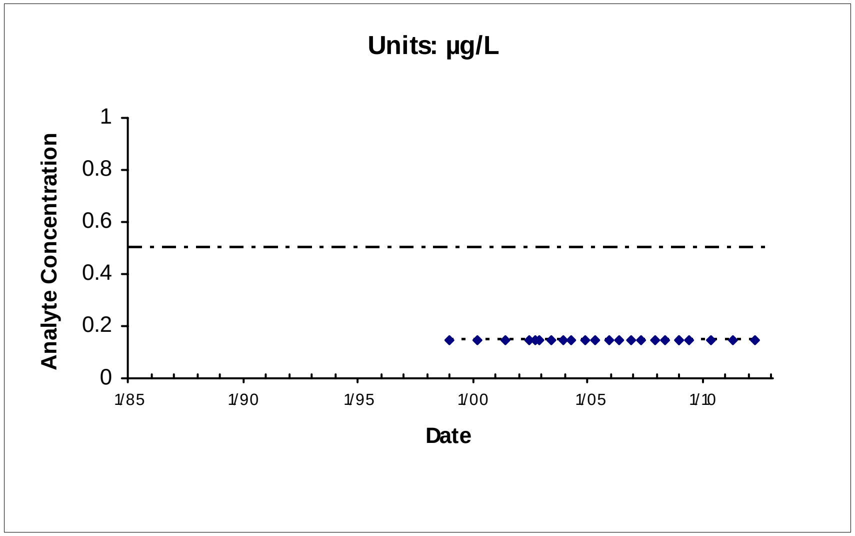
South IRA

FIGURE 2-9

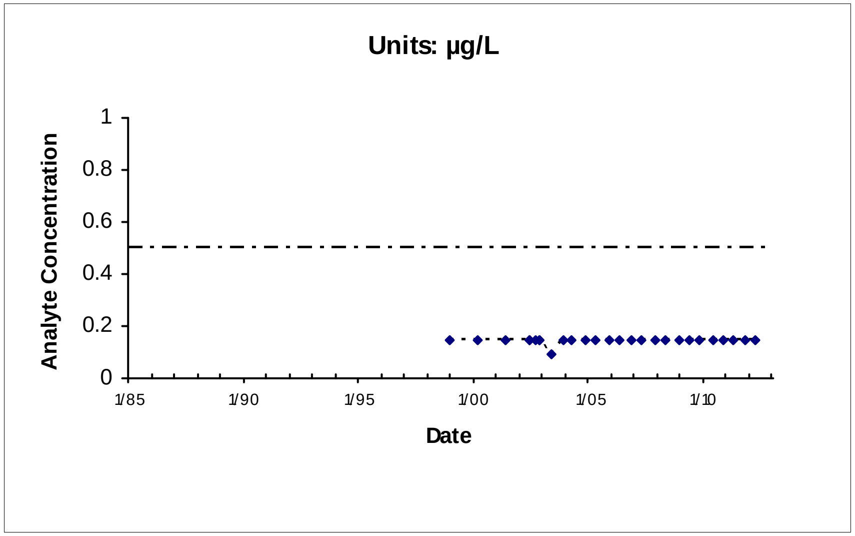
Sites FT005/SS029/SS030

1,2-DCA

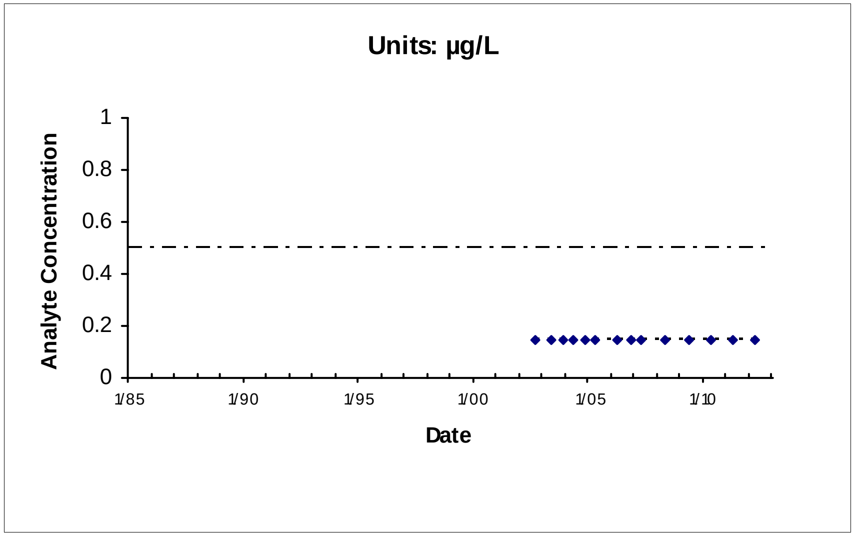
Chemical Time-series Plots



Location: PZ01DX29 Maximum: 0.15



Location: PZ01SX29 Maximum: 0.15



Location: SWPZ01X29 Maximum: 0.15

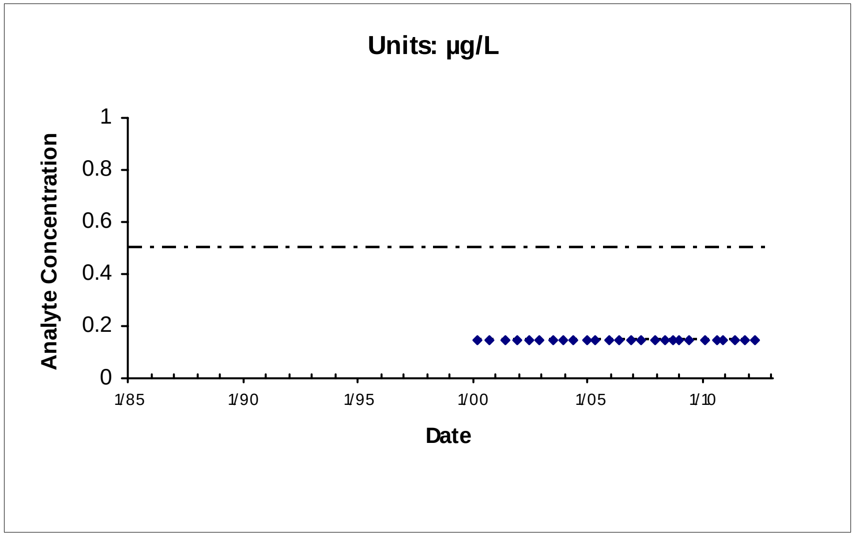
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

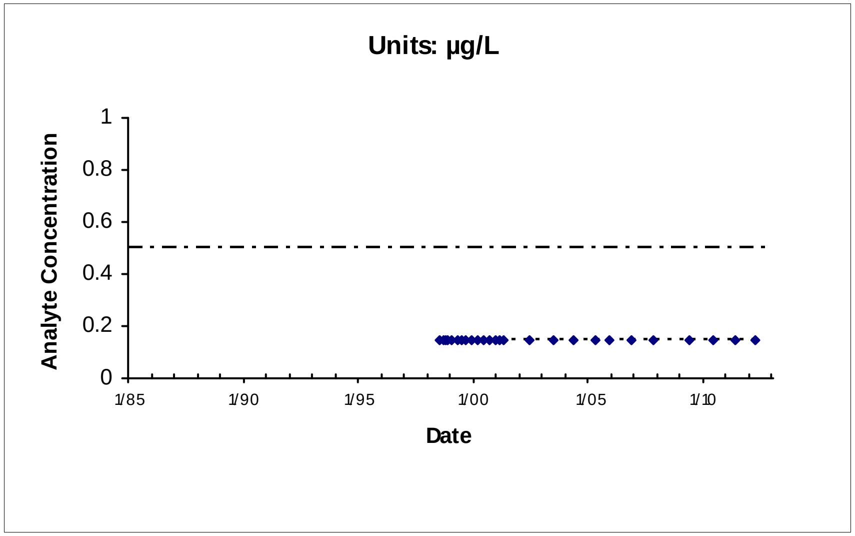
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

South IRA

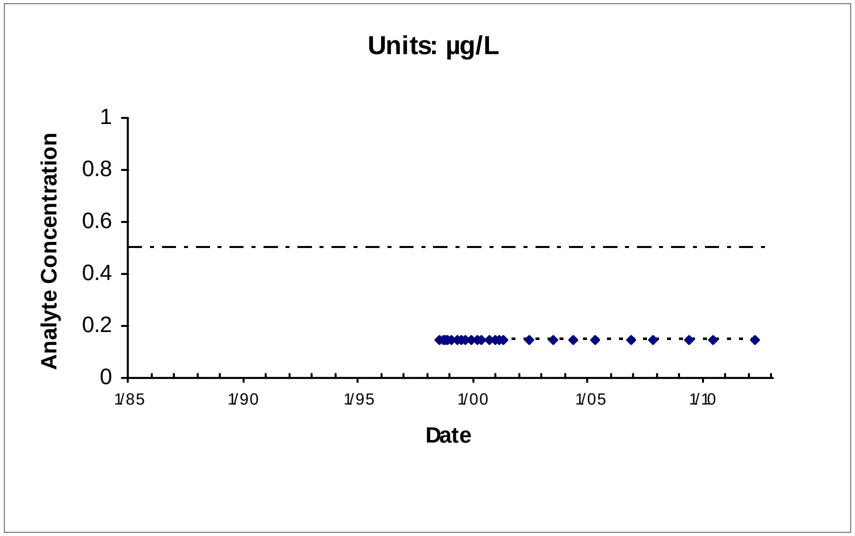
FIGURE 2-9
Sites FT005/SS029/SS030
1,2-DCA
Chemical Time-series Plots



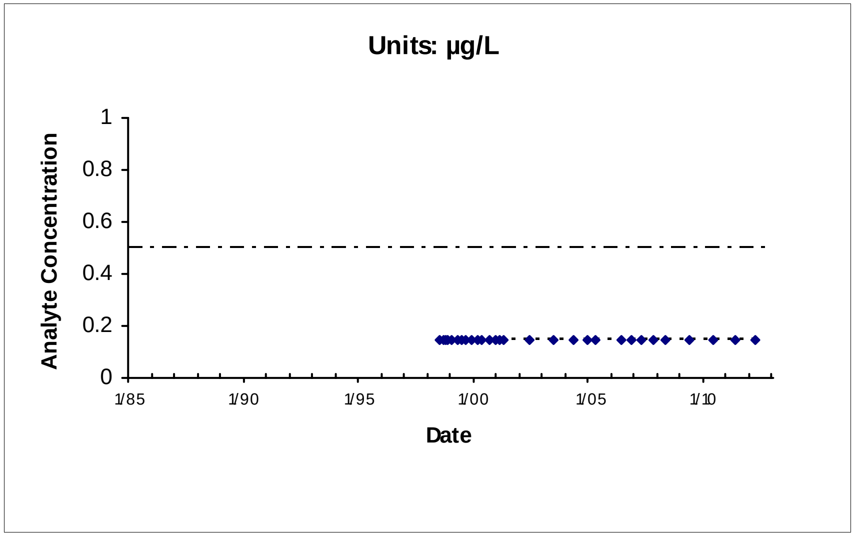
Location: DWSET1X30 Maximum: 0.15



Location: EW01X30 Maximum: 0.15



Location: EW02X30 Maximum: 0.15



Location: EW03X30 Maximum: 0.15

South IRA

FIGURE 2-9

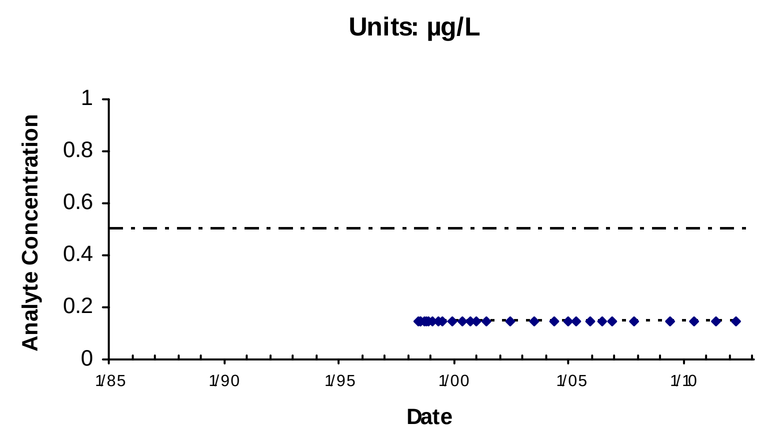
Sites FT005/SS029/SS030

1,2-DCA

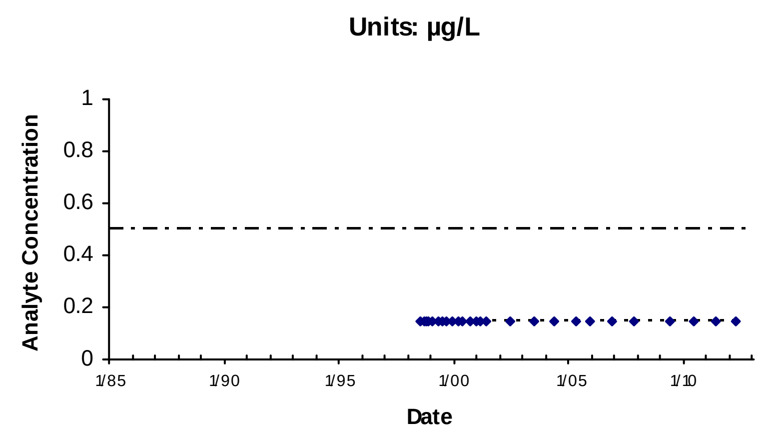
Chemical Time-series Plots

— - — - — IRG (0.5 µg/L)

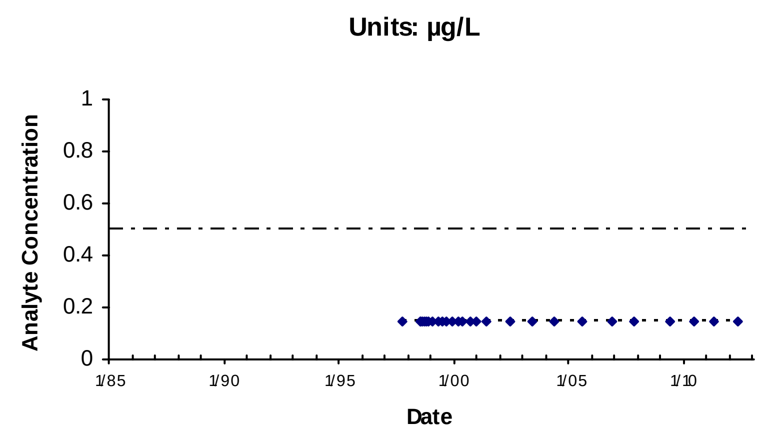
*Nondetects shown as the Method Detection Limit (0.15 µg/L)



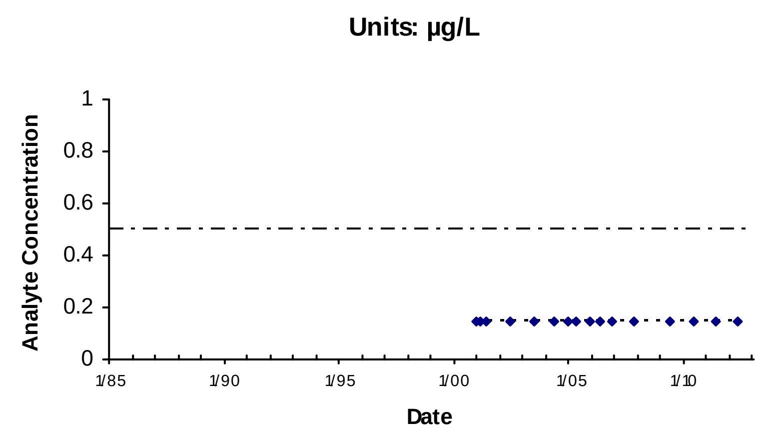
Location: EW04X30 Maximum: 0.15



Location: EW05X30 Maximum: 0.15



Location: EW06X30 Maximum: 0.15



Location: EW711X30 Maximum: 0.15

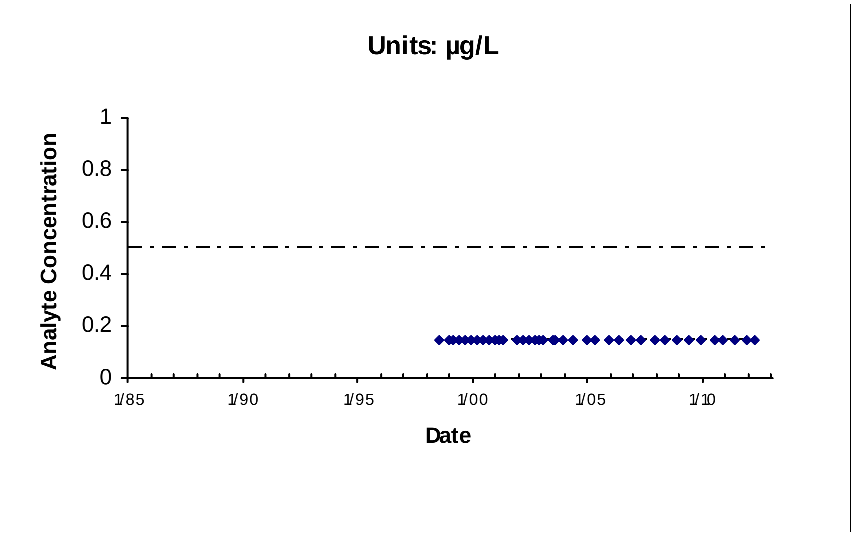
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

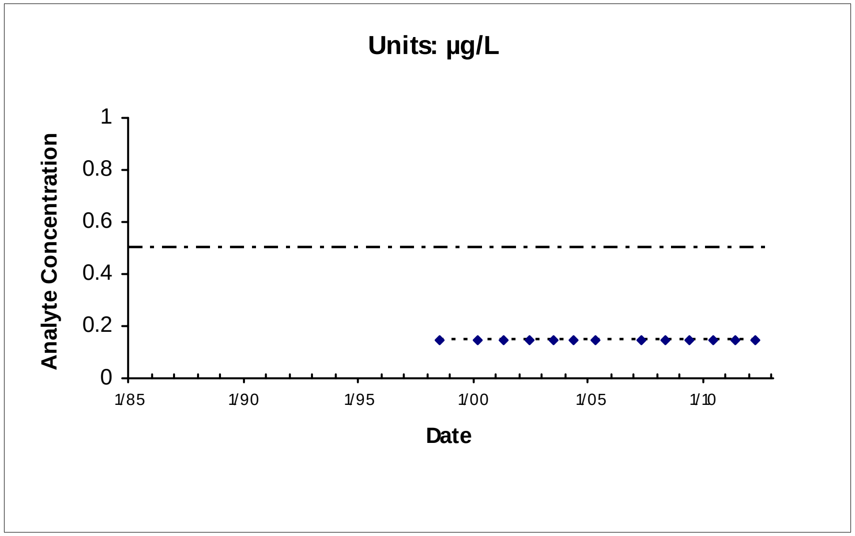
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

South IRA

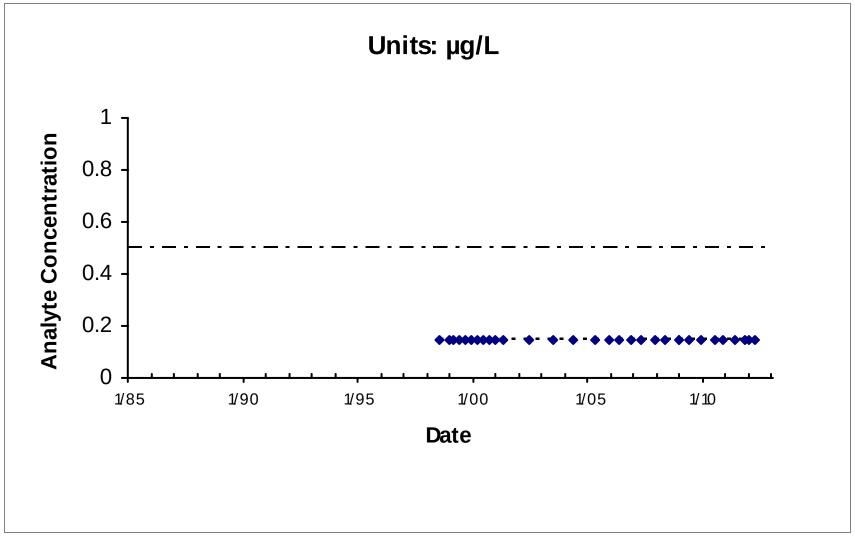
FIGURE 2-9
Sites FT005/SS029/SS030
1,2-DCA
Chemical Time-series Plots



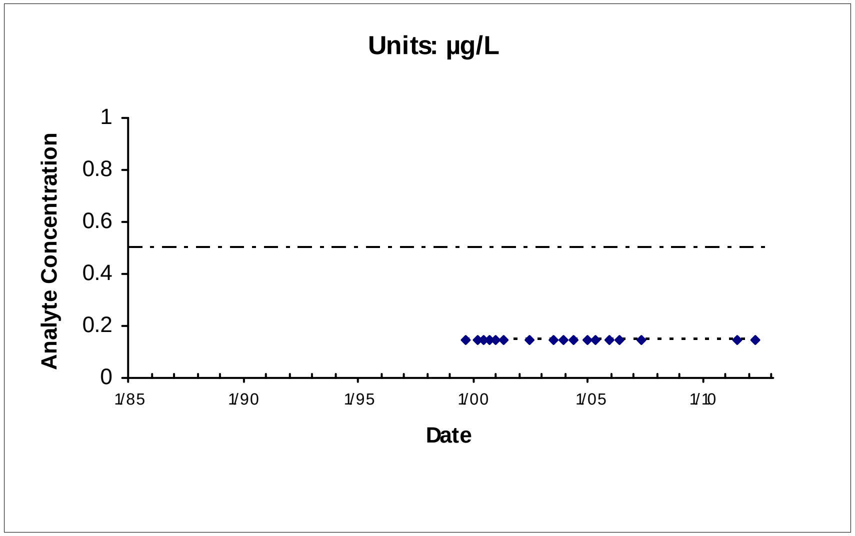
Location: MW03X30 Maximum: 0.15



Location: MW04X30 Maximum: 0.15



Location: MW05X30 Maximum: 0.15



Location: MW10X30 Maximum: 0.15

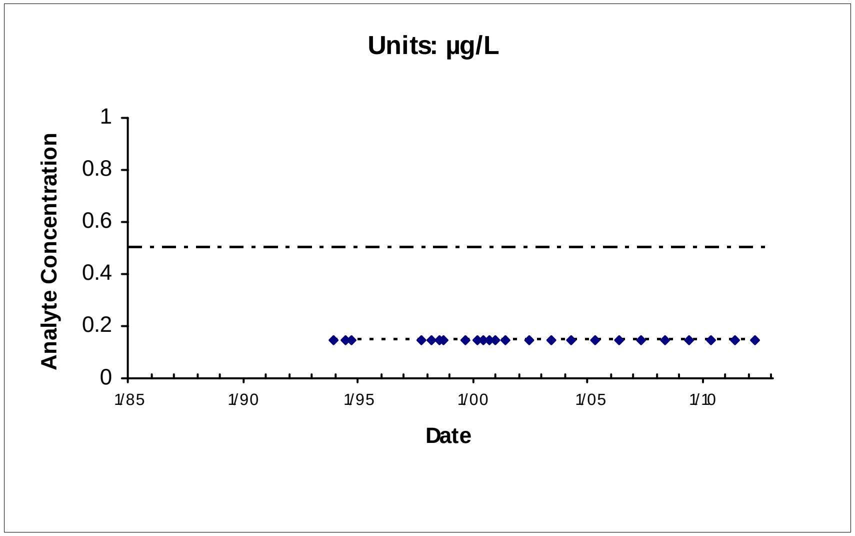
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

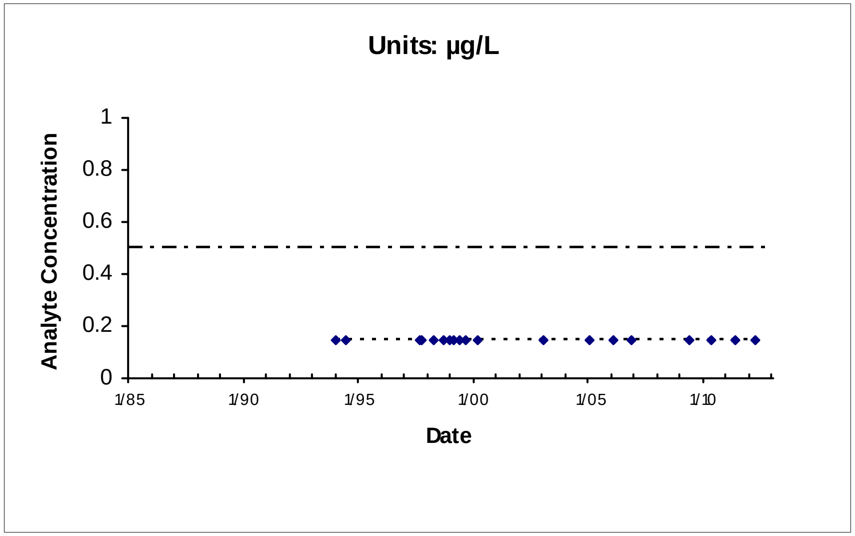
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

South IRA

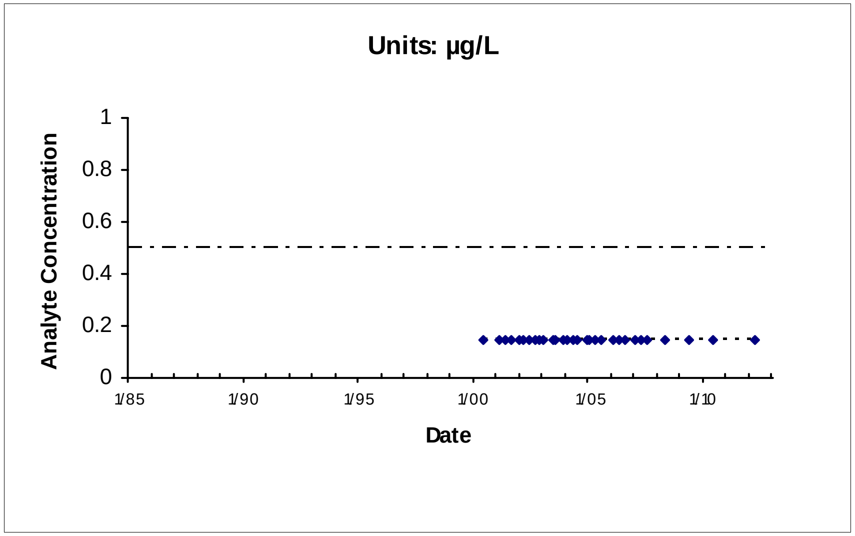
FIGURE 2-9
Sites FT005/SS029/SS030
1,2-DCA
Chemical Time-series Plots



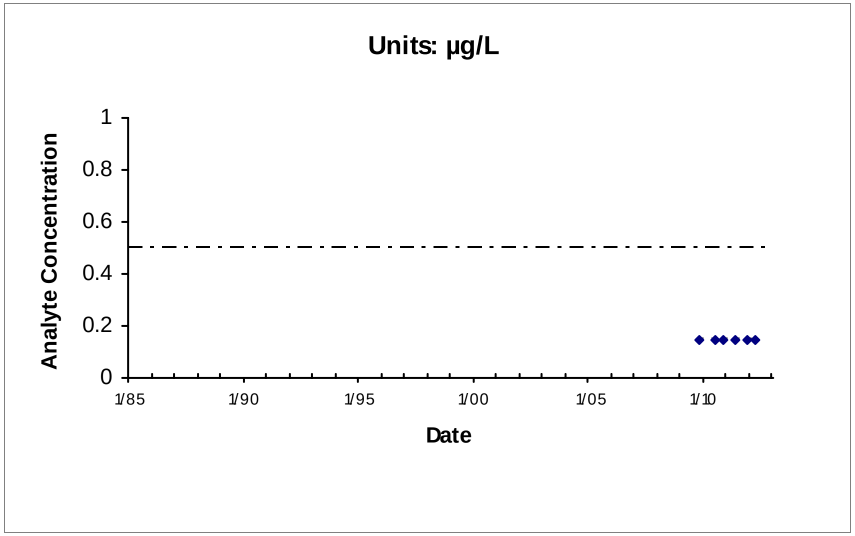
Location: MW269X30 Maximum: 0.15



Location: MW280X30 Maximum: 0.15



Location: MW709X30 Maximum: 0.15



Location: MW2001Ax30 Maximum: 0.15

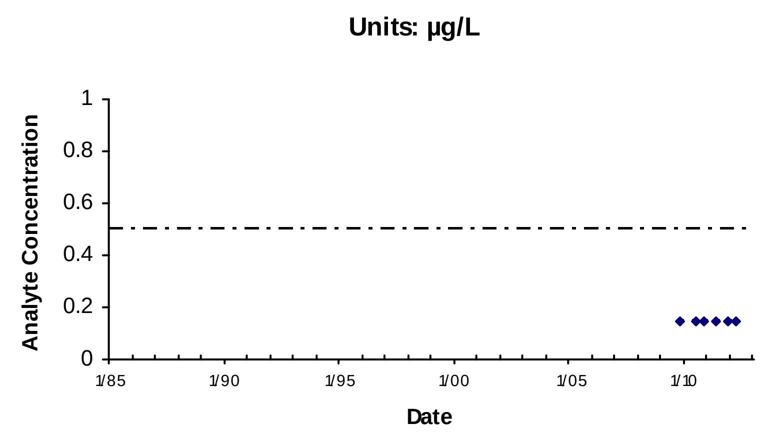
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

South IRA

FIGURE 2-9
Sites FT005/SS029/SS030
1,2-DCA
Chemical Time-series Plots



Location: MW2001Bx30 Maximum: 0.15

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.15 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

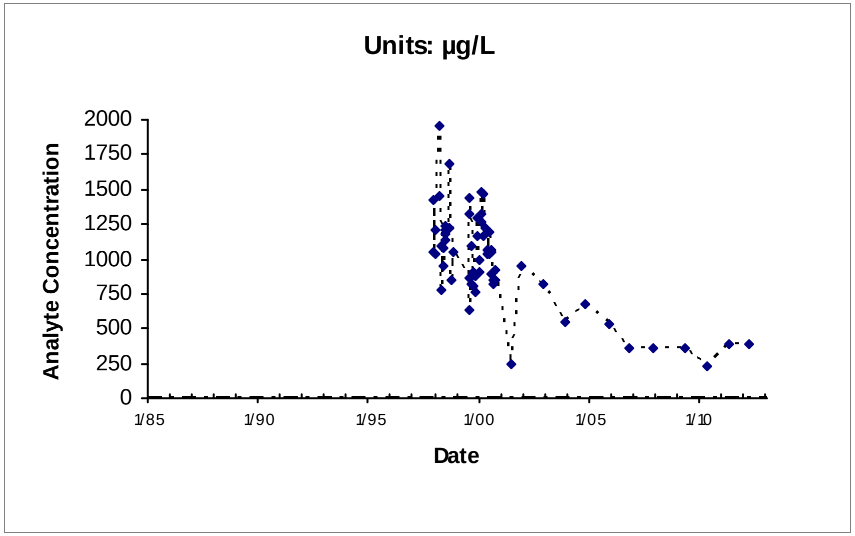
South IRA

FIGURE 2-9

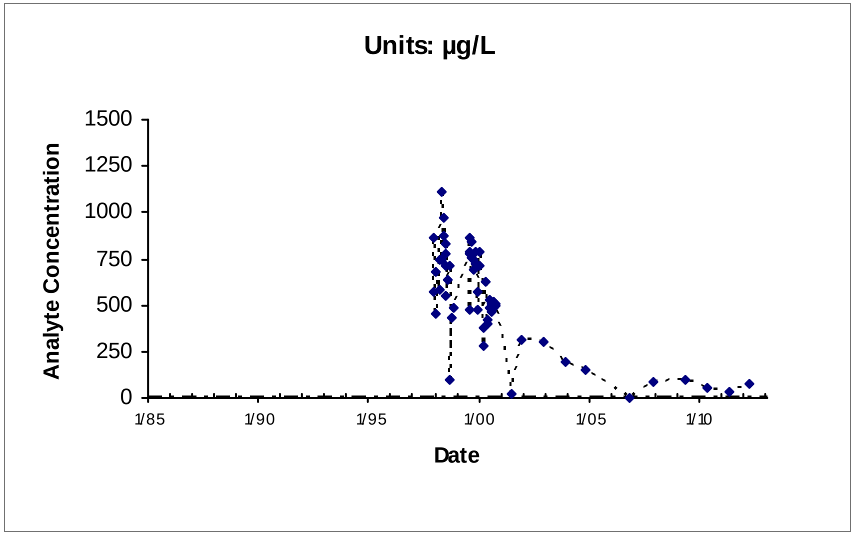
Sites FT005/SS029/SS030

1,2-DCA

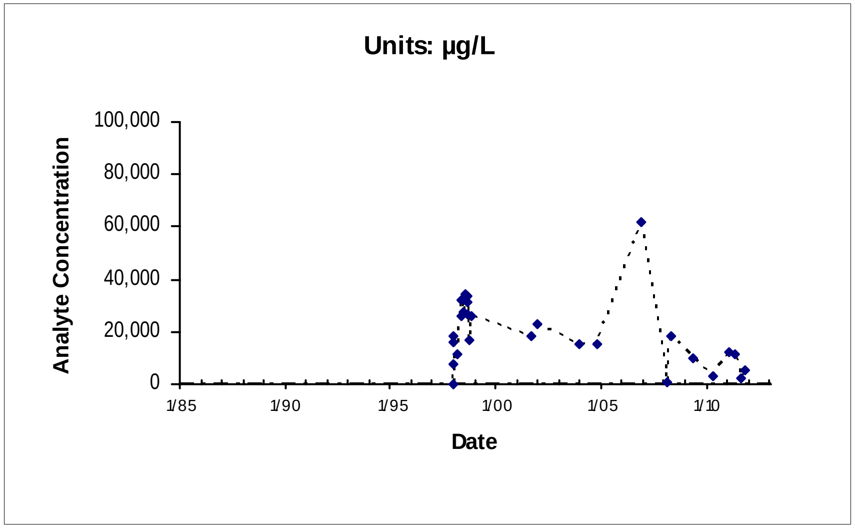
Chemical Time-series Plots



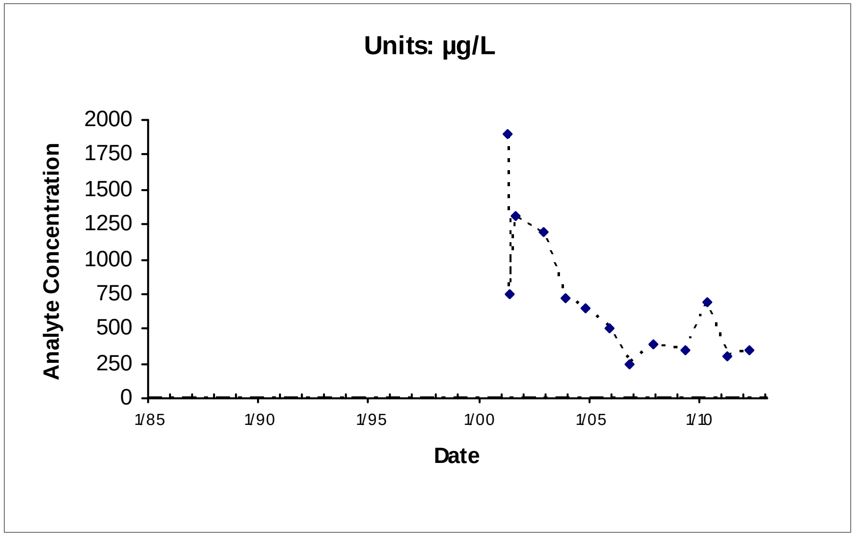
Location: EW001X16 Maximum: 1960



Location: EW002X16 Maximum: 1110



Location: EW003X16 Maximum: 62000



Location: EW605X16 Maximum: 1900

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

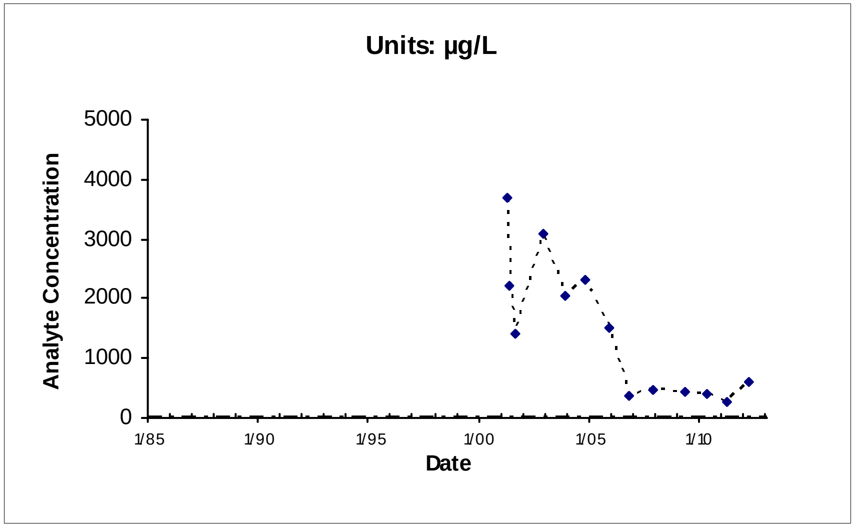
Central IRA

FIGURE 2-10

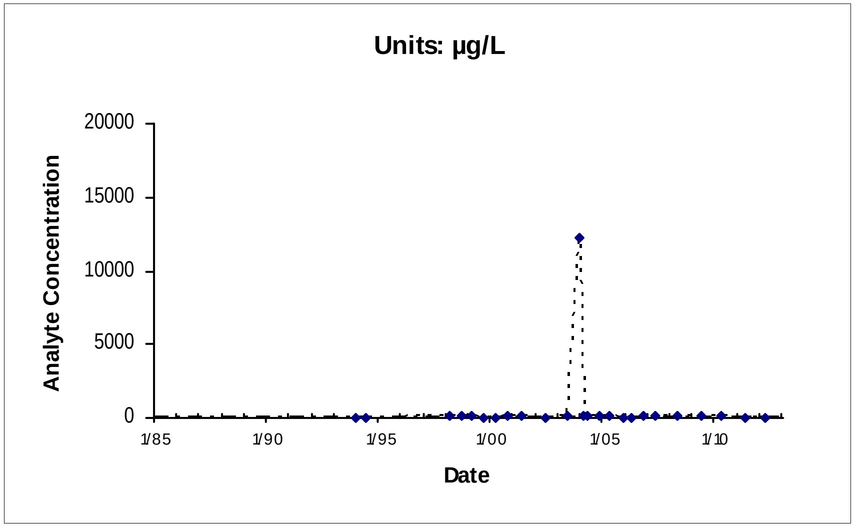
Site SS016

TCE

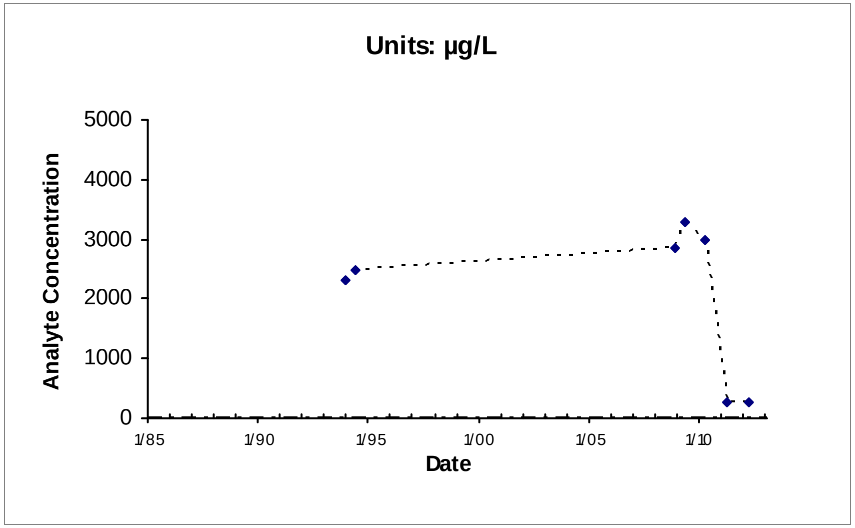
Chemical Time-series Plots



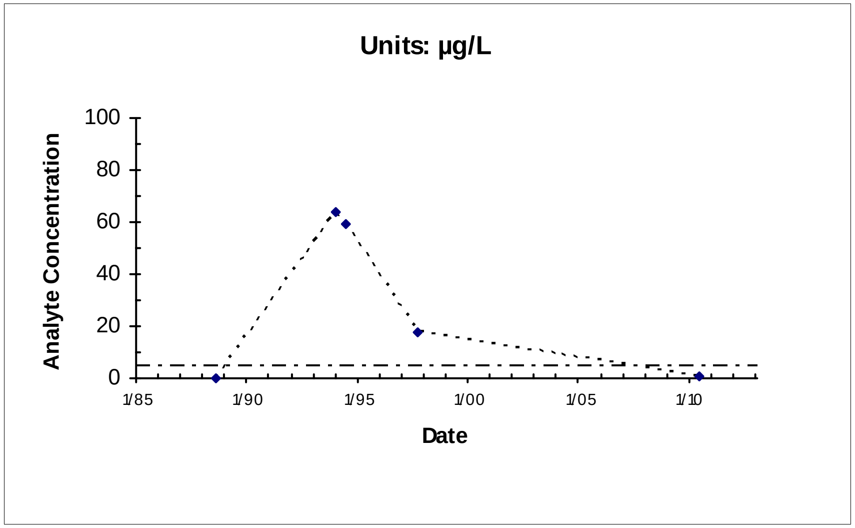
Location: EW610X16 Maximum: 3700



Location: MW102X16 Maximum: 12200



Location: MW103X16 Maximum: 3280



Location: MW108X16 Maximum: 64

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

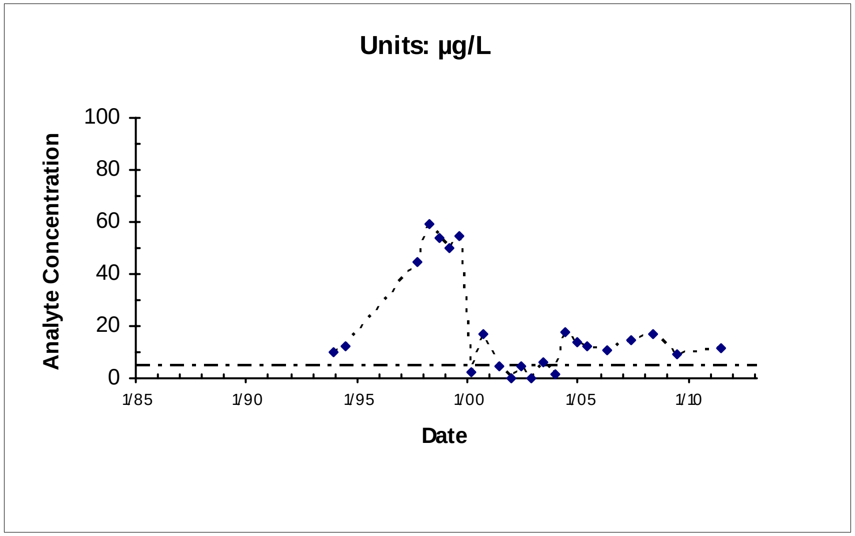
Central IRA

FIGURE 2-10

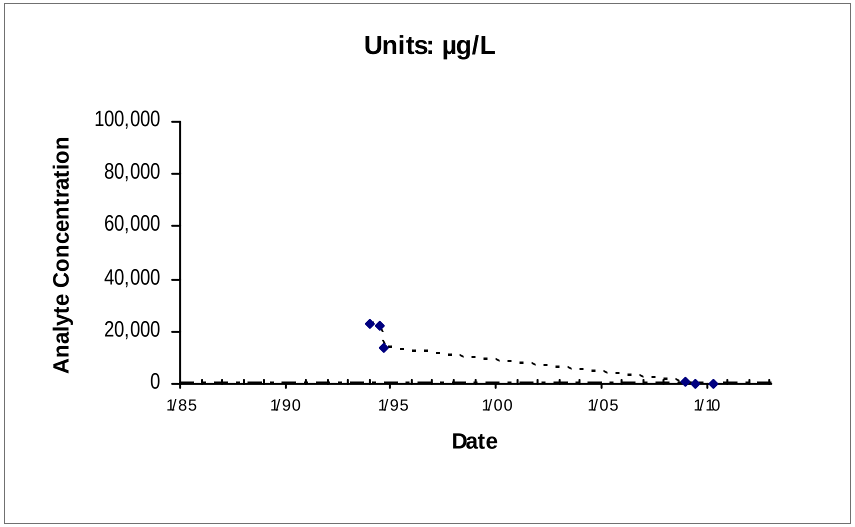
Site SS016

TCE

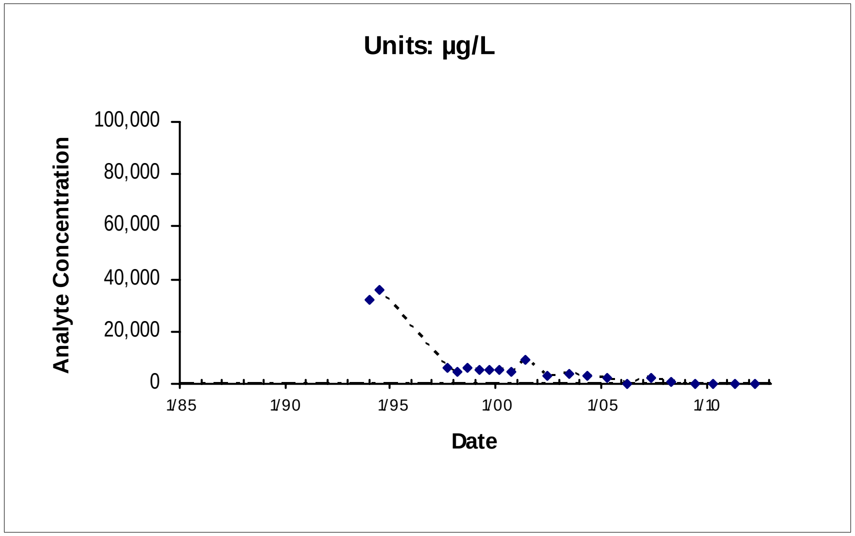
Chemical Time-series Plots



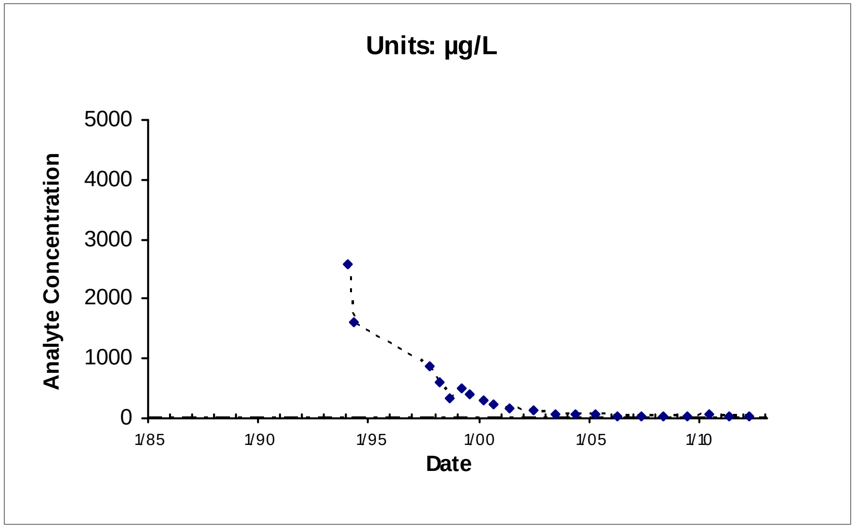
Location: MW109X16 Maximum: 59



Location: MW213X16 Maximum: 23000



Location: MW214X16 Maximum: 36000



Location: MW241X16 Maximum: 2600

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

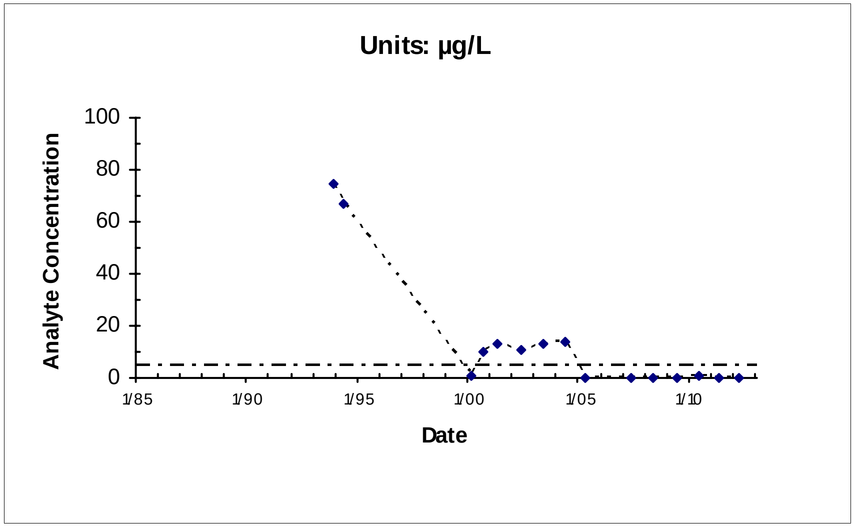
Central IRA

FIGURE 2-10

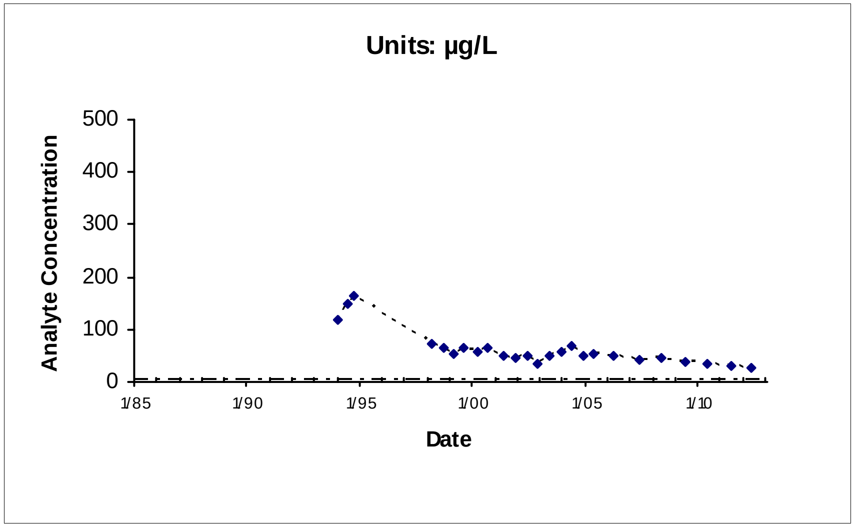
Site SS016

TCE

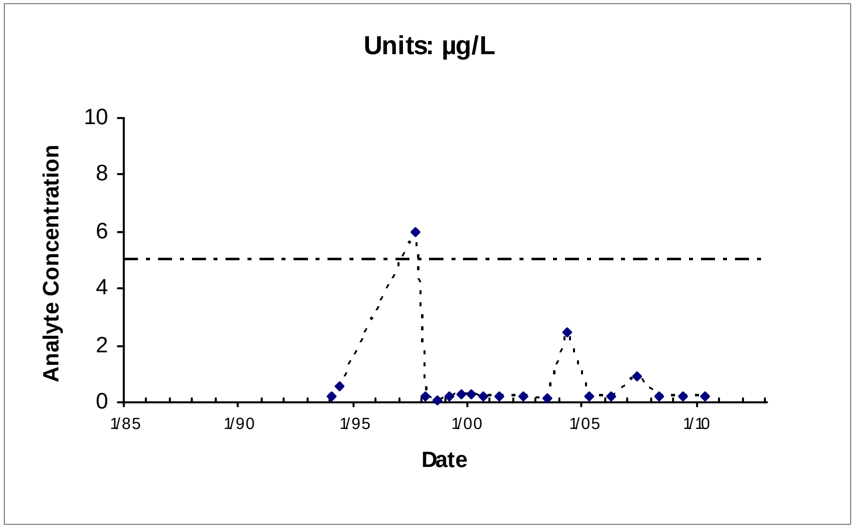
Chemical Time-series Plots



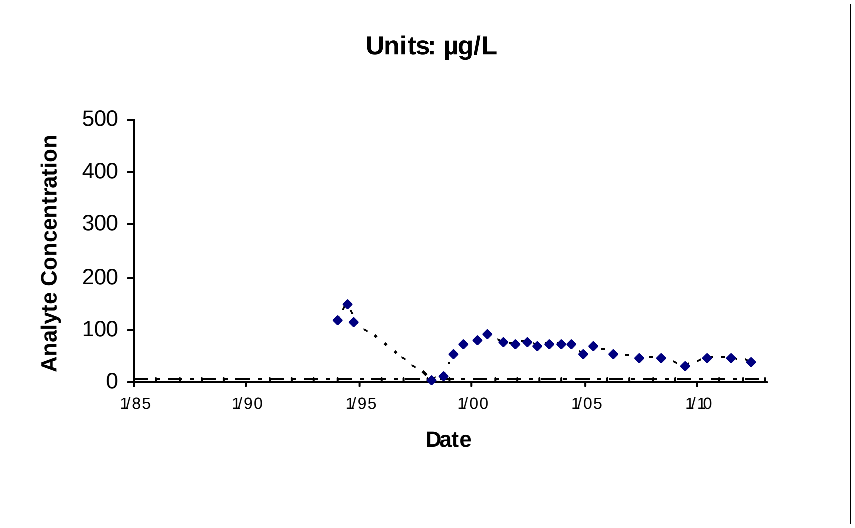
Location: MW244X16 Maximum: 75



Location: MW245X16 Maximum: 166



Location: MW305X16 Maximum: 6



Location: MW316X16 Maximum: 150

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

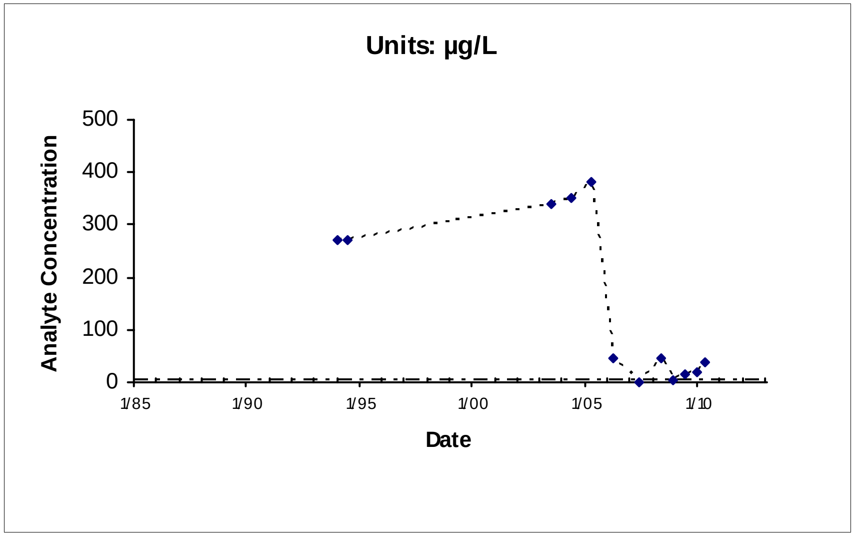
Central IRA

FIGURE 2-10

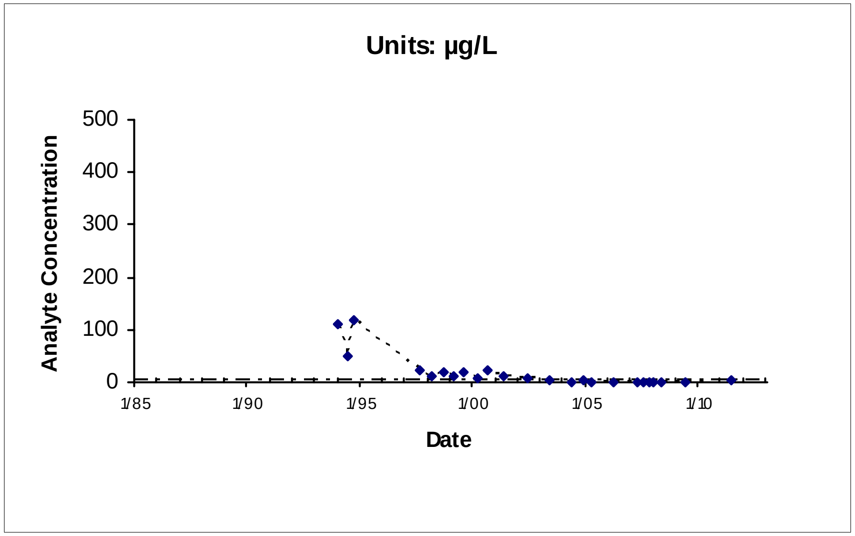
Site SS016

TCE

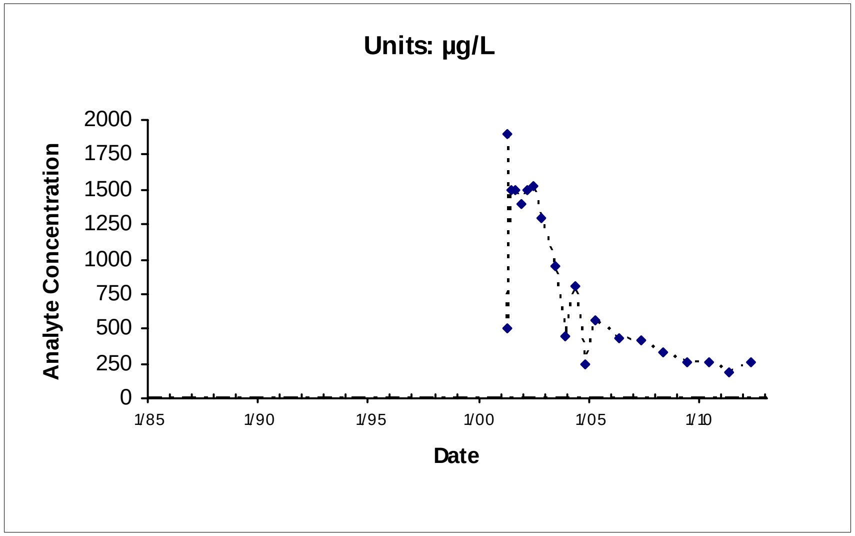
Chemical Time-series Plots



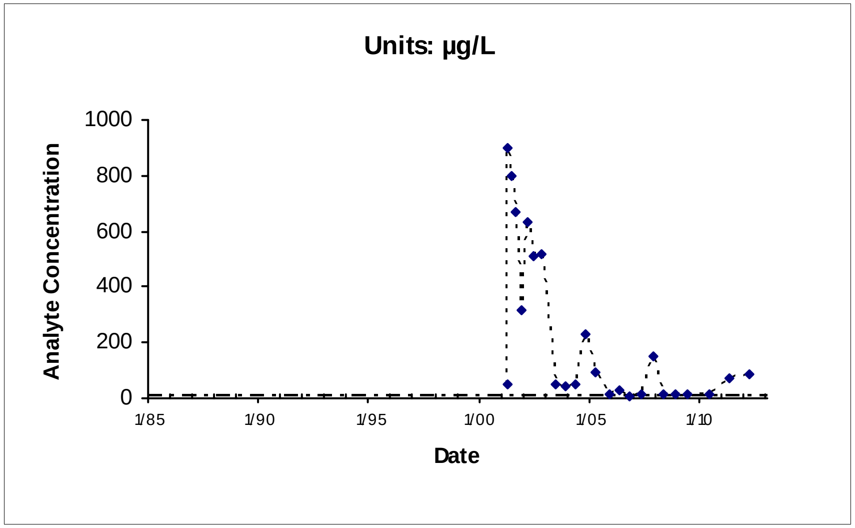
Location: MW327X16 Maximum: 380



Location: MW328X16 Maximum: 120



Location: MW603X16 Maximum: 1900



Location: MW604X16 Maximum: 900

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

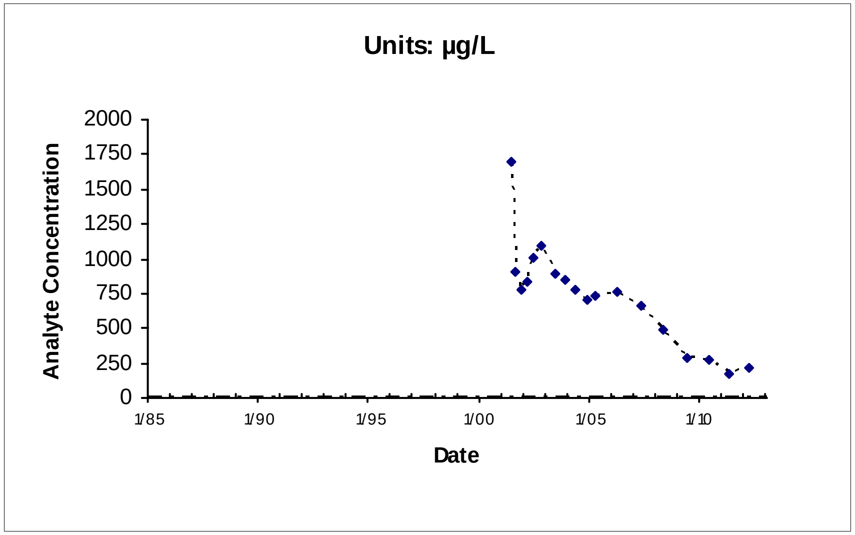
Central IRA

FIGURE 2-10

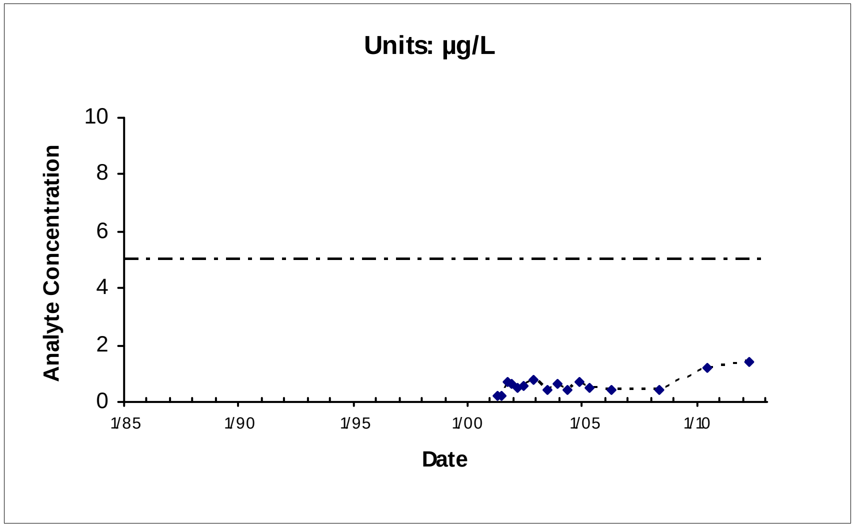
Site SS016

TCE

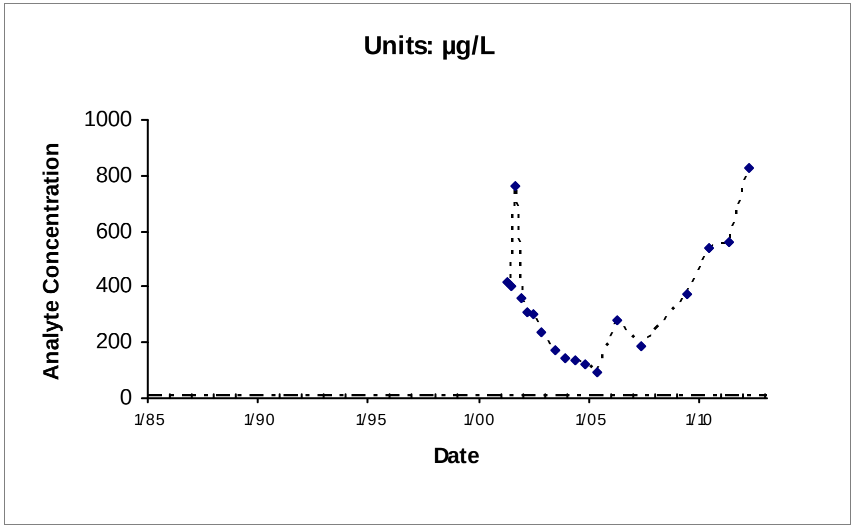
Chemical Time-series Plots



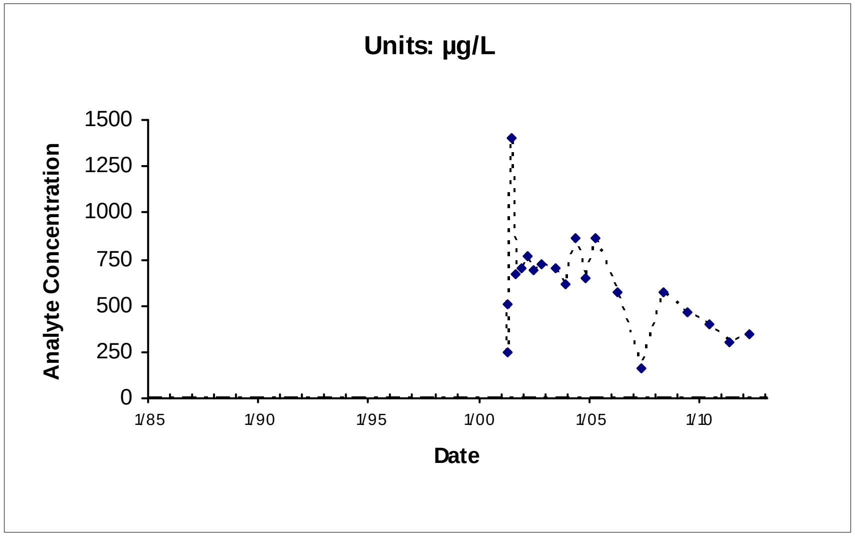
Location: MW606X16 Maximum: 1700



Location: MW607X16 Maximum: 1.4



Location: MW608X16 Maximum: 825



Location: MW609X16 Maximum: 1400

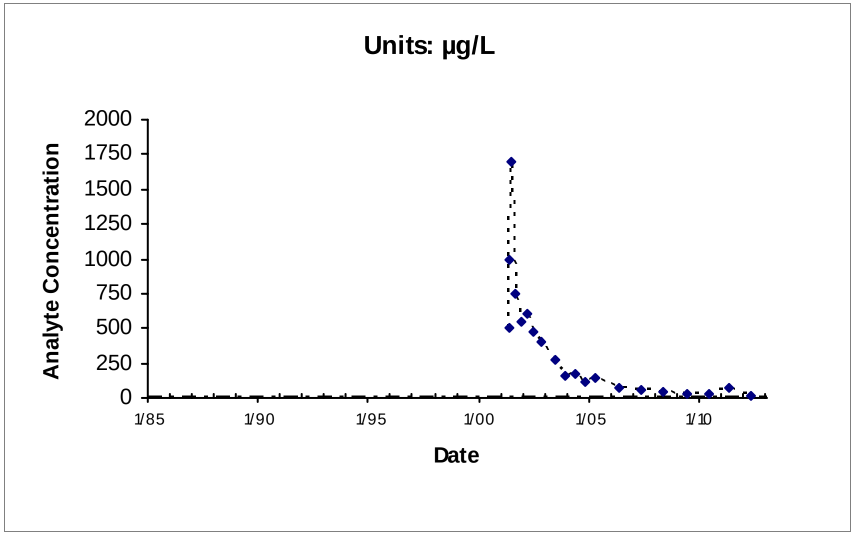
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

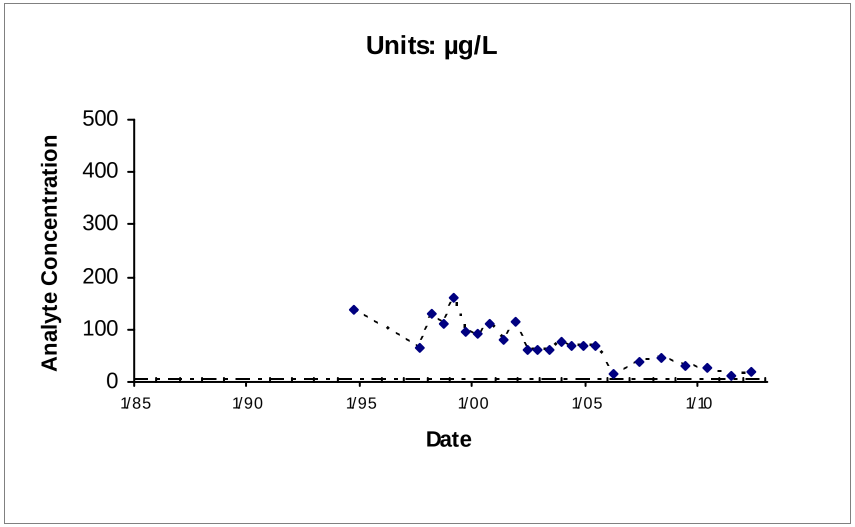
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

Central IRA

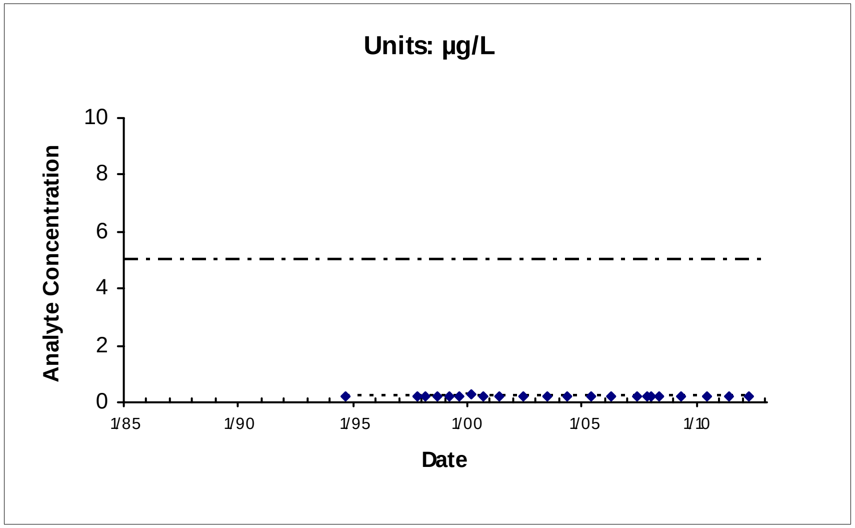
FIGURE 2-10
Site SS016
TCE
Chemical Time-series Plots



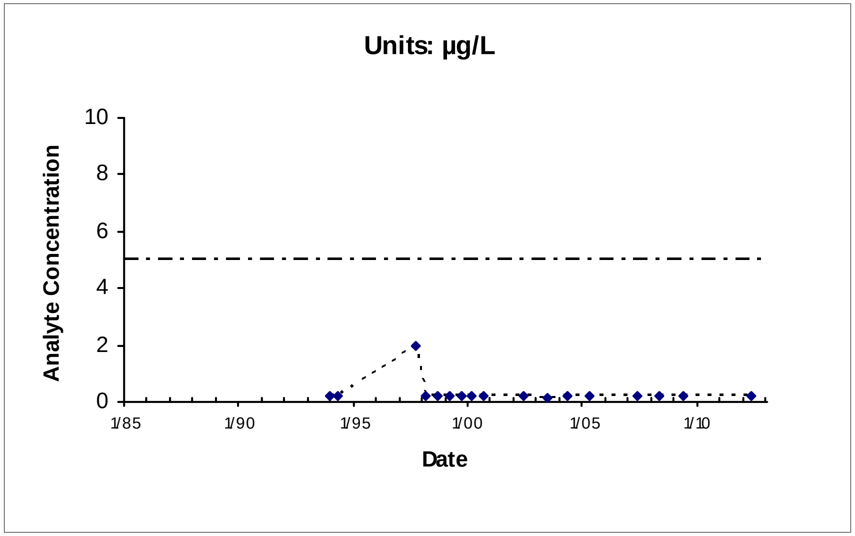
Location: MW611X16 Maximum: 1700



Location: MW1022X16 Maximum: 160



Location: MW1023X16 Maximum: 0.3



Location: MW1206X16 Maximum: 2

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

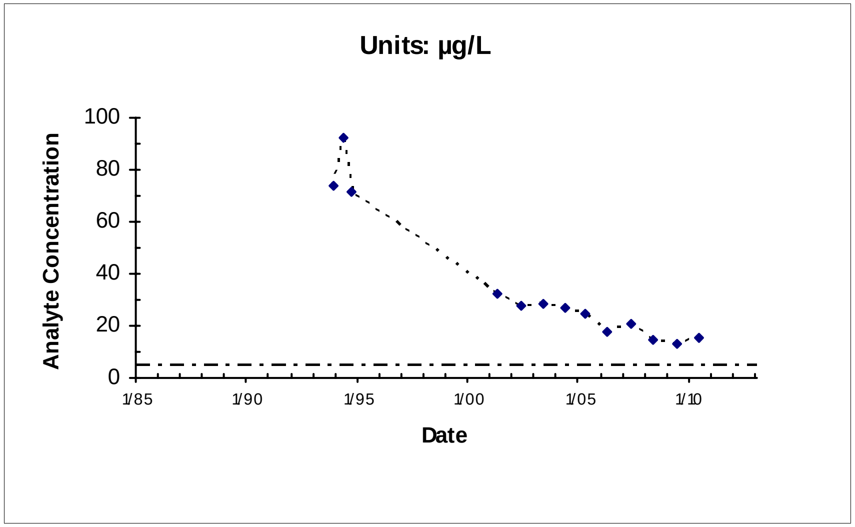
Central IRA

FIGURE 2-10

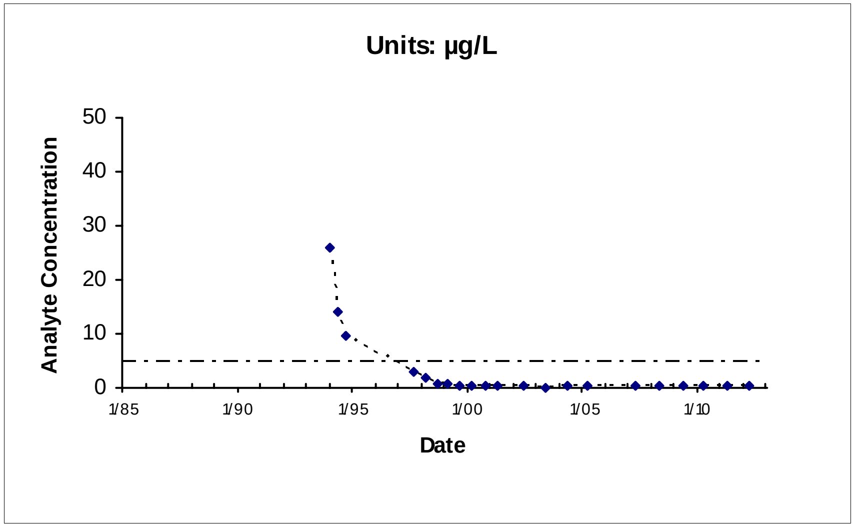
Site SS016

TCE

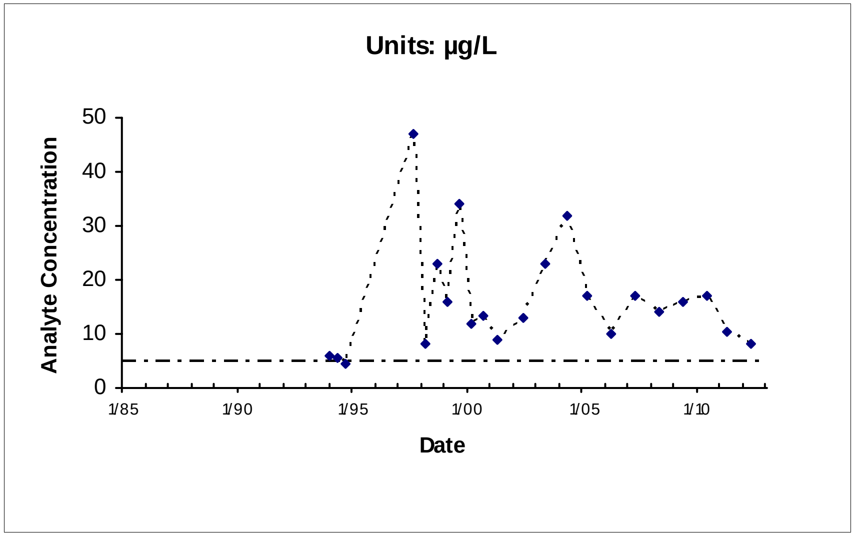
Chemical Time-series Plots



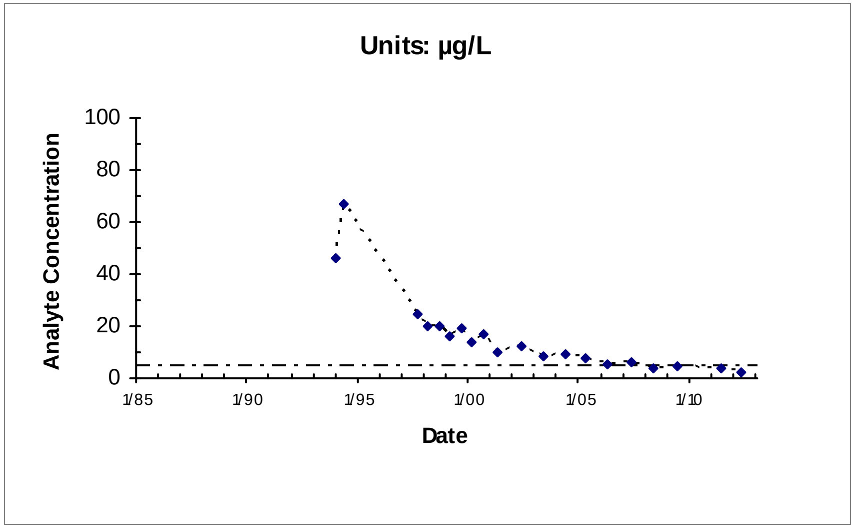
Location: MW1701X16 Maximum: 92



Location: MW1706X16 Maximum: 26



Location: MW1708X16 Maximum: 47



Location: MW1710X16 Maximum: 67

Central IRA

FIGURE 2-10

Site SS016

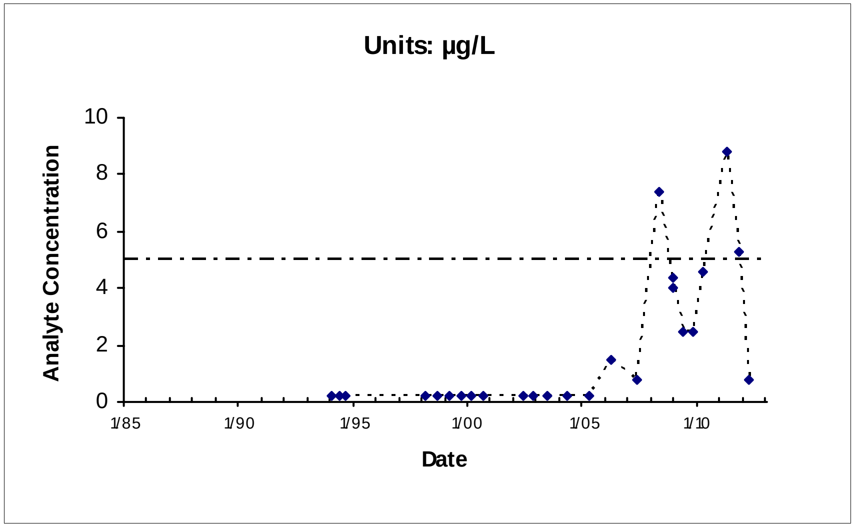
TCE

Chemical Time-series Plots

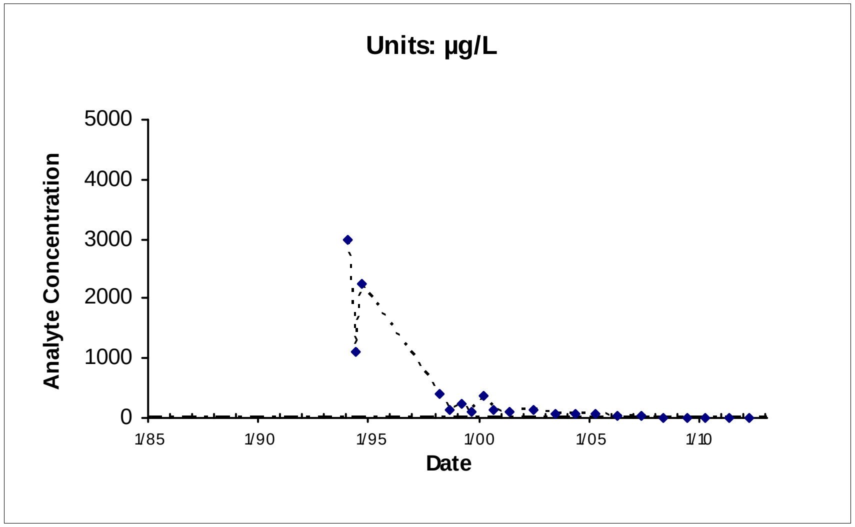
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

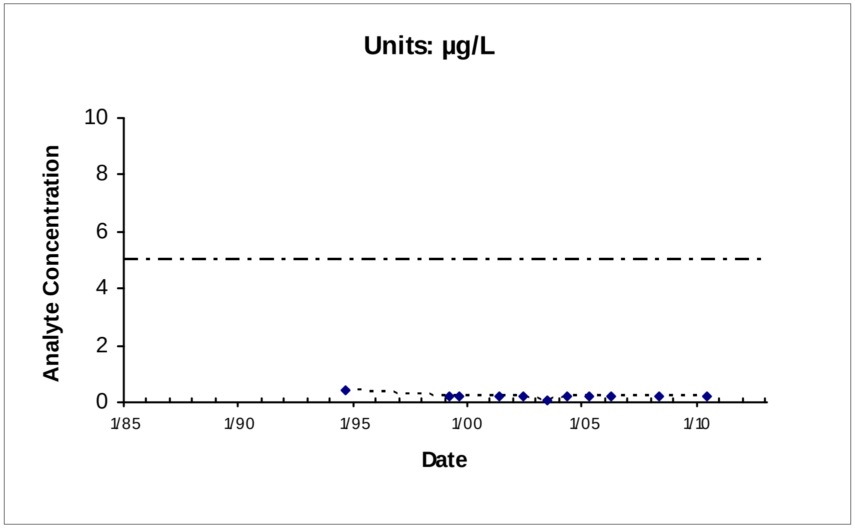
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



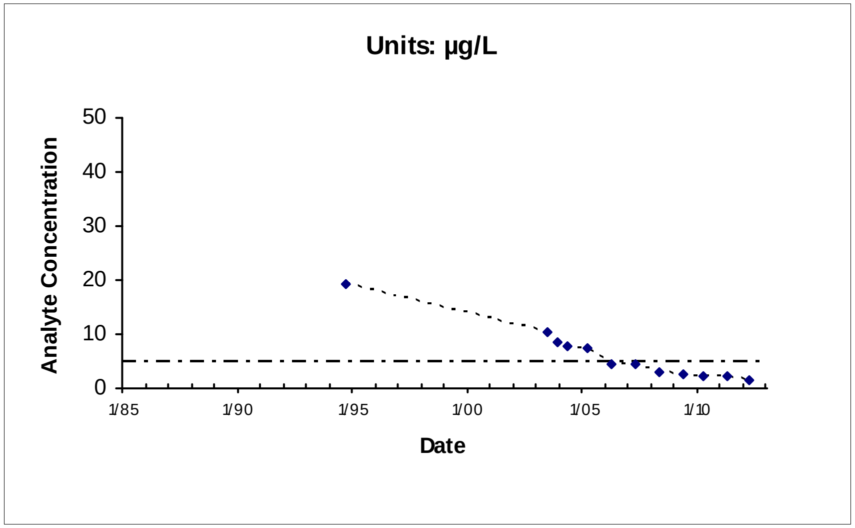
Location: MW1712X16 Maximum: 8.8



Location: MW1714X16 Maximum: 3000



Location: MW1734X16 Maximum: 0.45



Location: MW1739X16 Maximum: 19.4

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

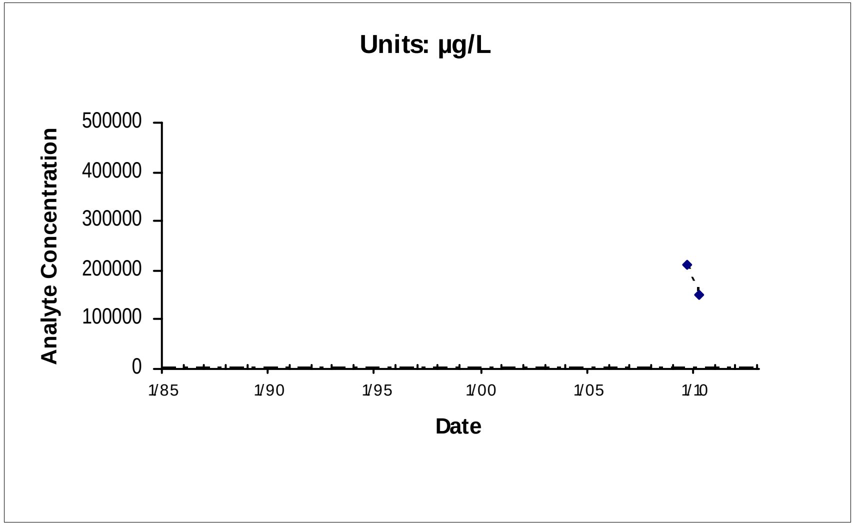
Central IRA

FIGURE 2-10

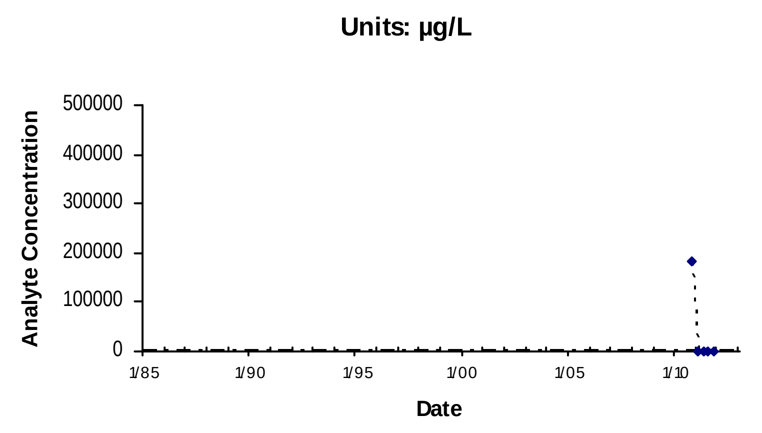
Site SS016

TCE

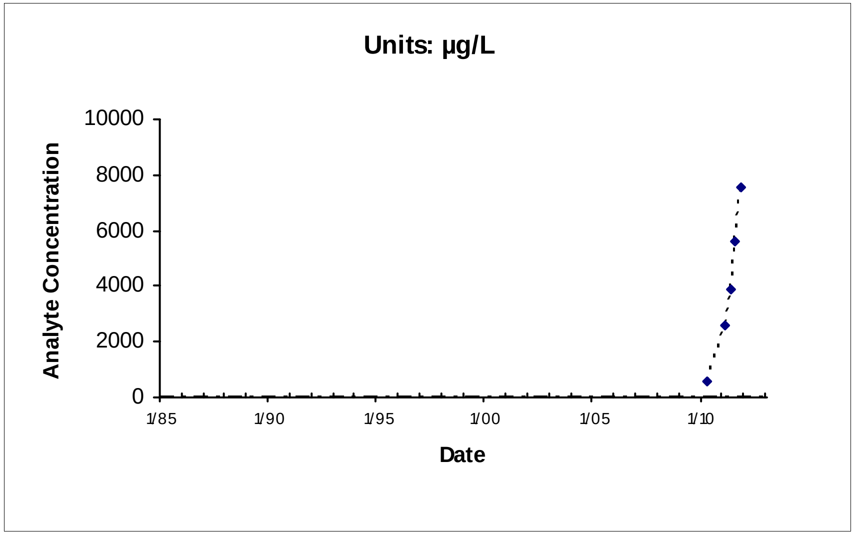
Chemical Time-series Plots



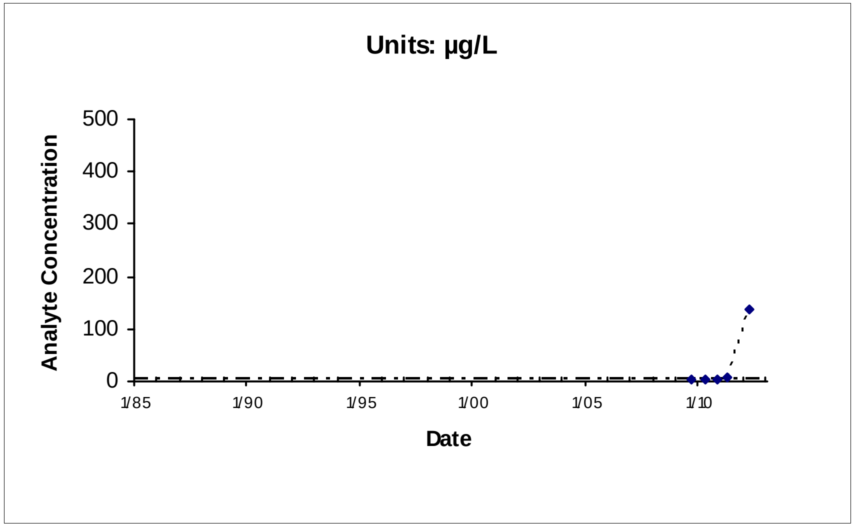
Location: MW2020x16 Maximum: 210000



Location: MW2020Ax16 Maximum: 182000



Location: MW2022x16 Maximum: 7570

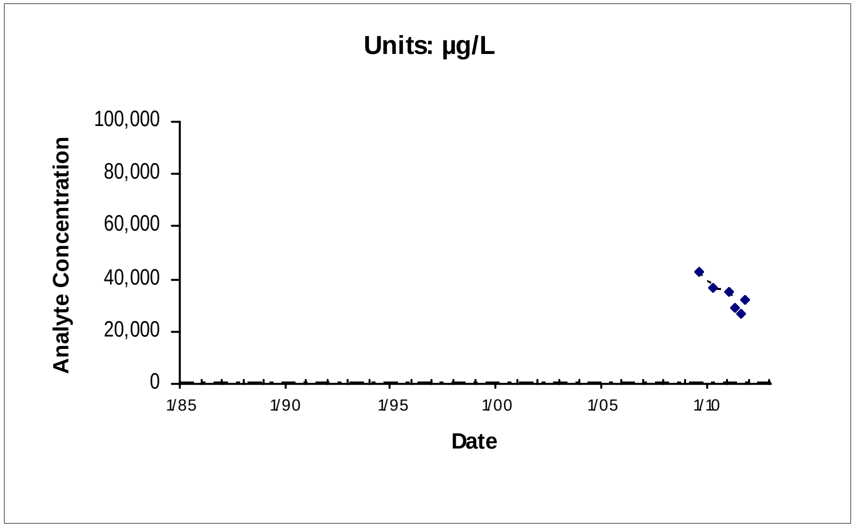


Location: MW2023x16 Maximum: 138

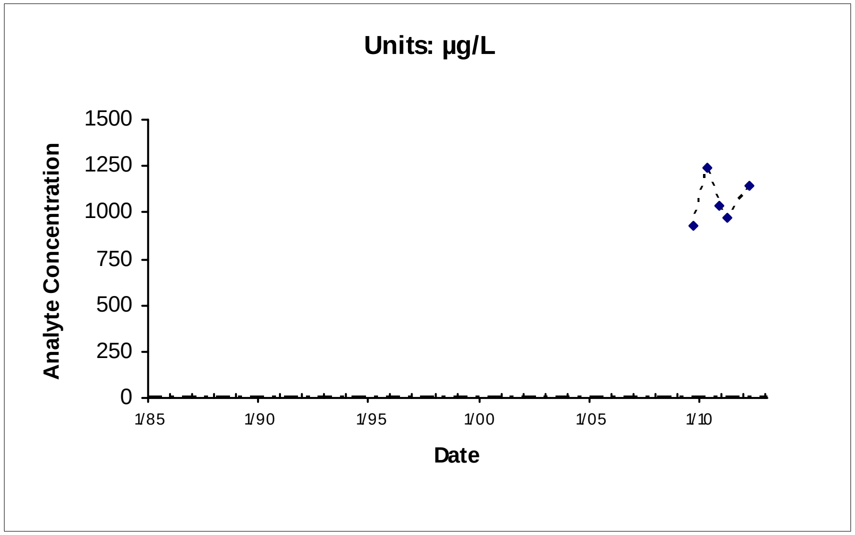
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

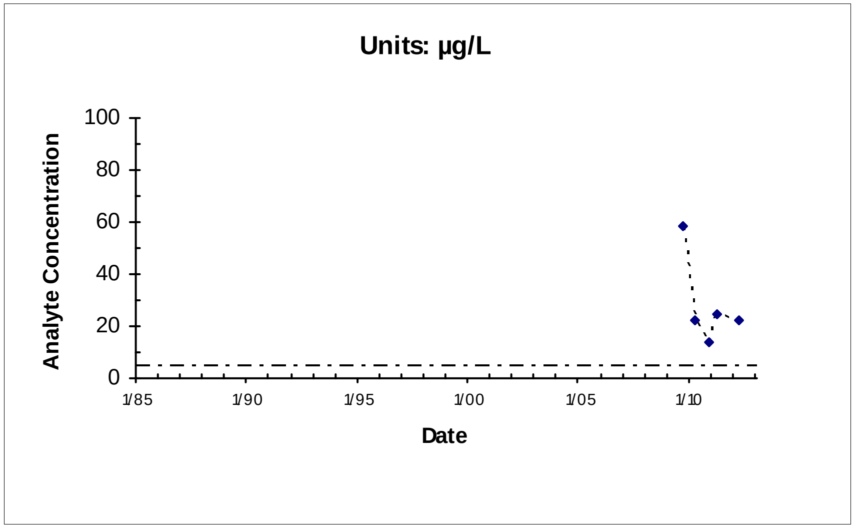
Central IRA
FIGURE 2-10
Site SS016
TCE
Chemical Time-series Plots



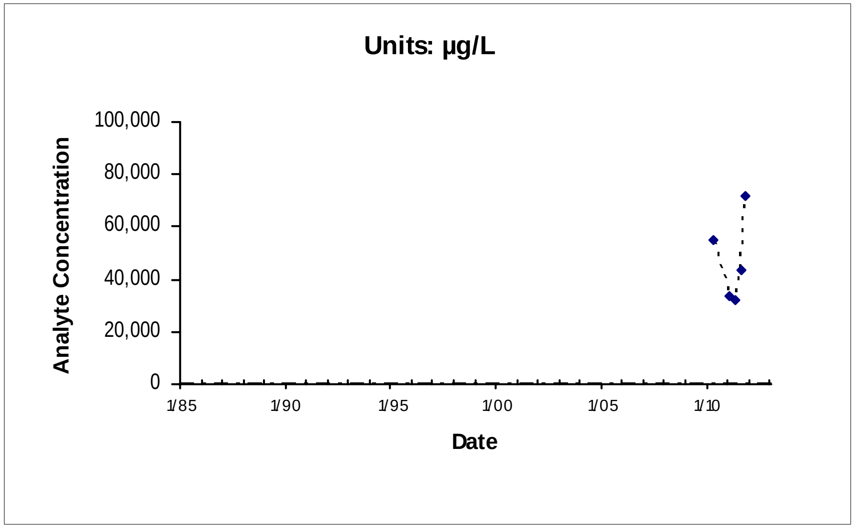
Location: MW2026x16 Maximum: 42400



Location: MW2028x16 Maximum: 1240



Location: MW2030x16 Maximum: 58.8

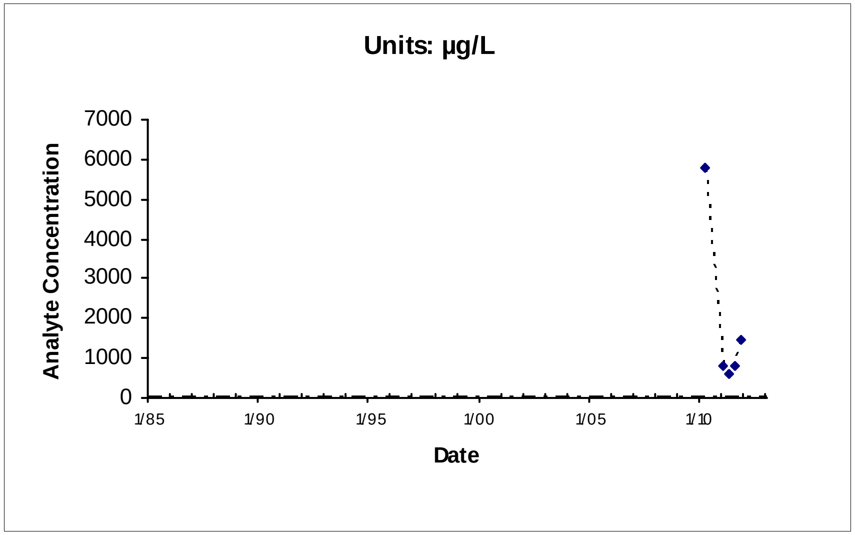


Location: MW2109x16 Maximum: 71900

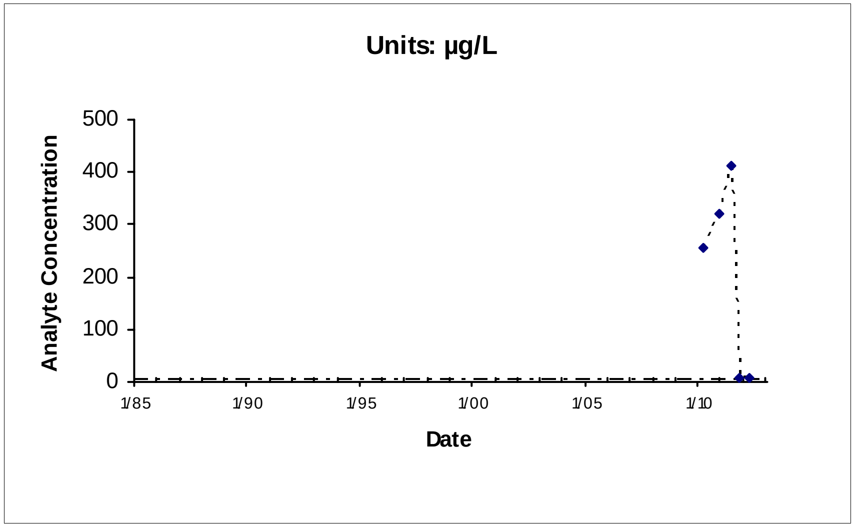
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

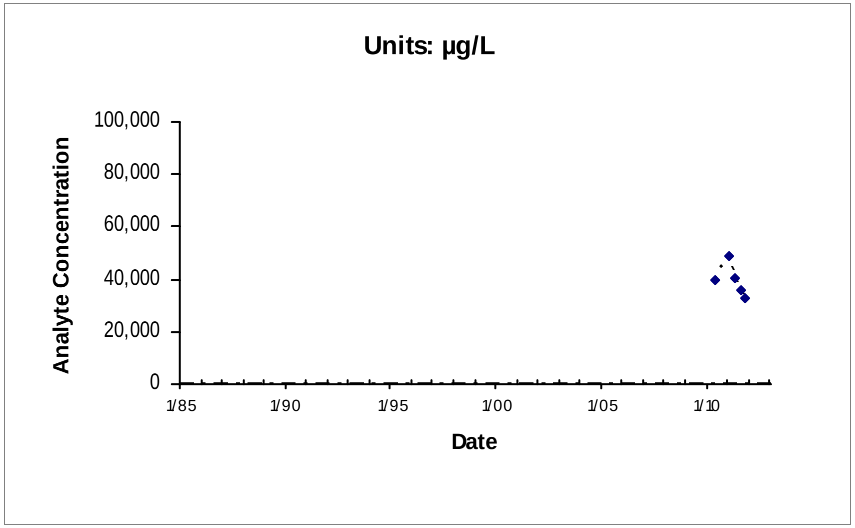
Central IRA
FIGURE 2-10
Site SS016
TCE
Chemical Time-series Plots



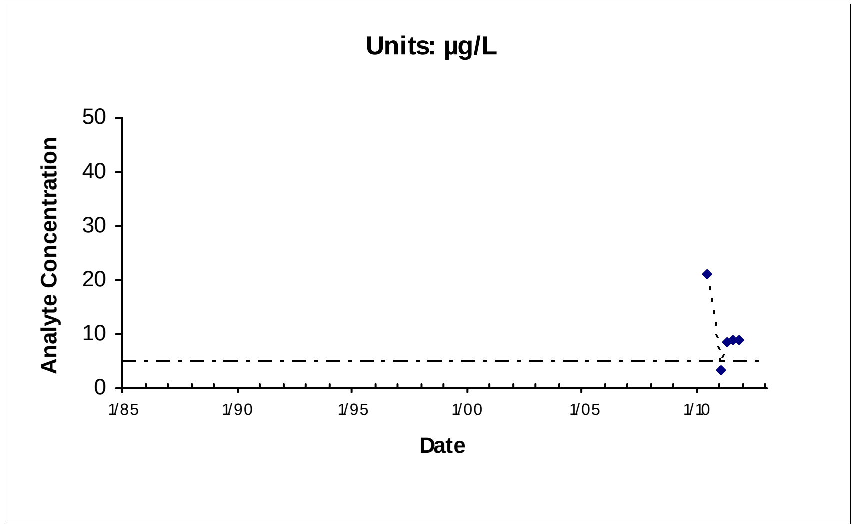
Location: MW2110x16 Maximum: 5770



Location: MW2111Bx16 Maximum: 411



Location: MW2112Ax16 Maximum: 48900



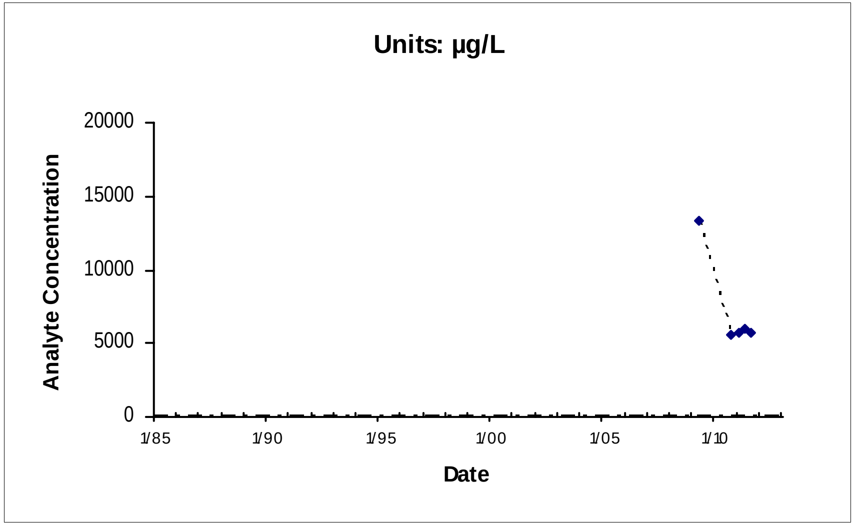
Location: MW2112Bx16 Maximum: 21

Central IRA

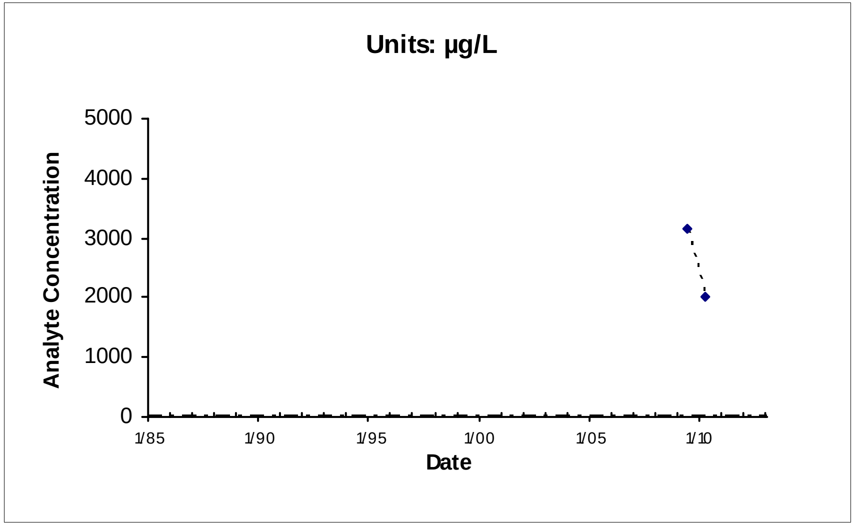
FIGURE 2-10
Site SS016
TCE
Chemical Time-series Plots

— - — - — IRG (5 µg/L)

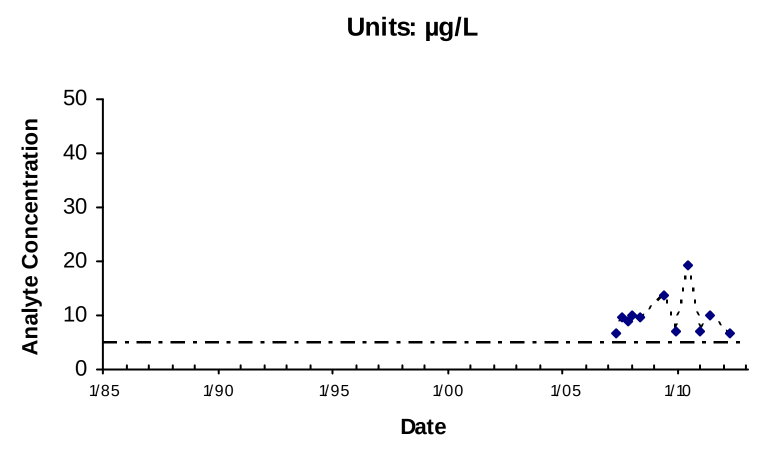
*Nondetects shown as the Method Detection Limit (0.19 µg/L)



Location: PZAx16 Maximum: 13300



Location: PZCx16 Maximum: 3160



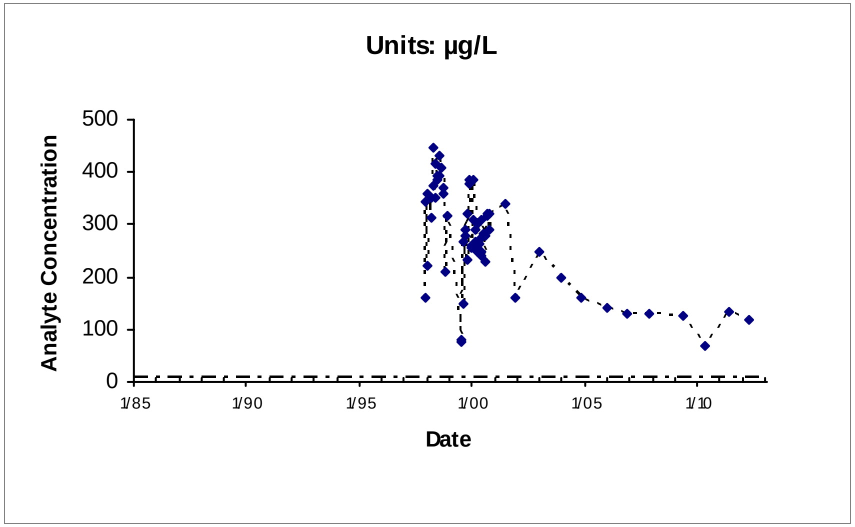
Location: MW792X27 Maximum: 19.1

— - — - — IRG (5 µg/L)

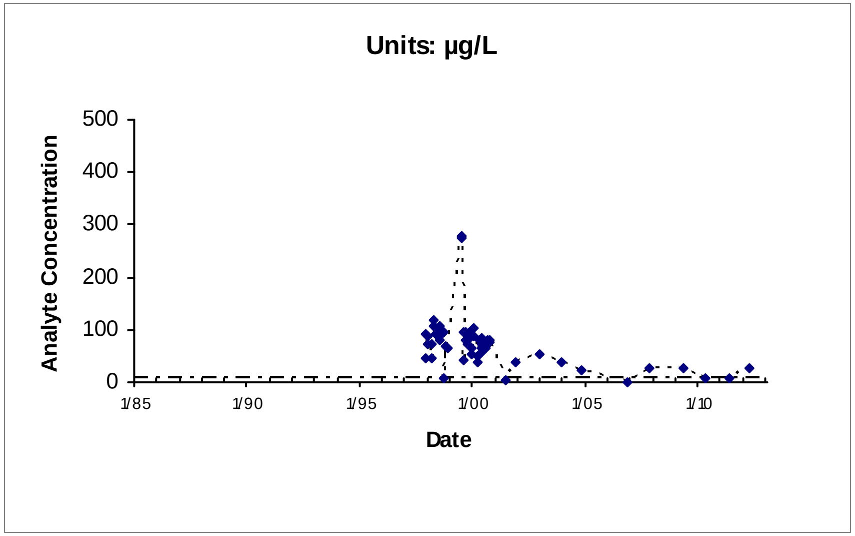
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

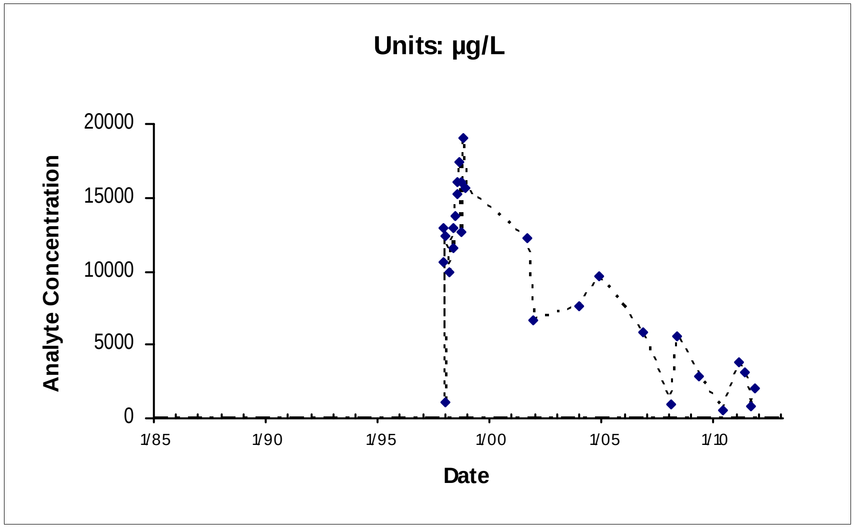
Central IRA
FIGURE 2-10
Site SS016
TCE
Chemical Time-series Plots



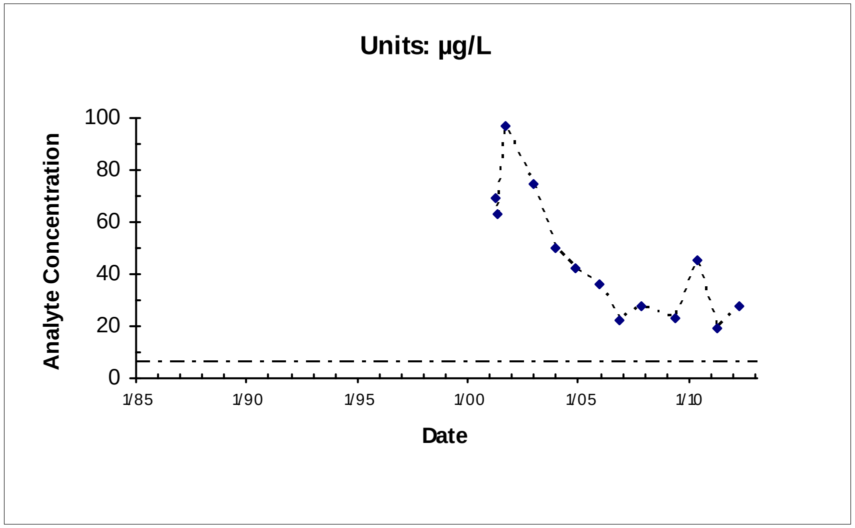
Location: EW001X16 Maximum: 447



Location: EW002X16 Maximum: 278



Location: EW003X16 Maximum: 19100



Location: EW605X16 Maximum: 97.2

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

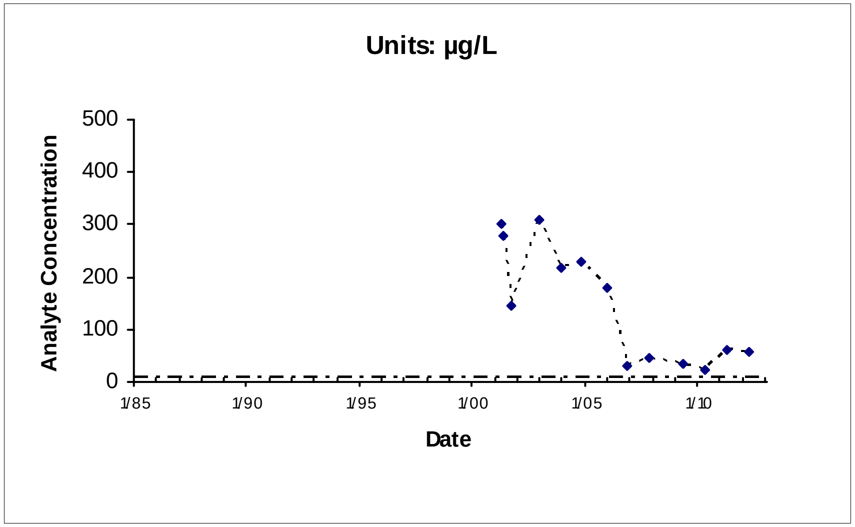
Central IRA

FIGURE 2-11

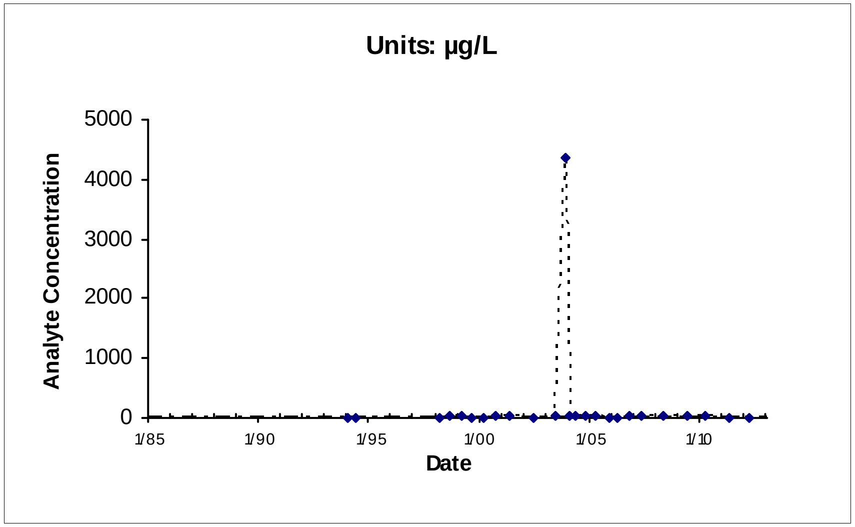
Site SS016

cis-1,2-DCE

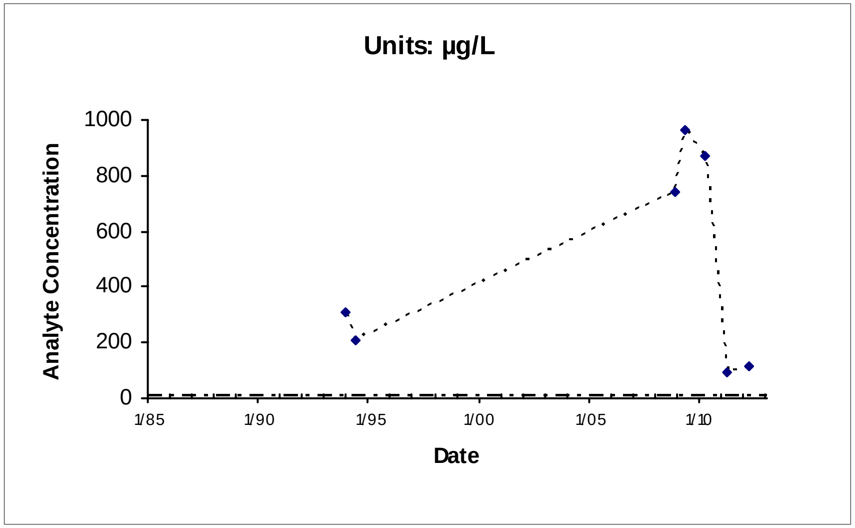
Chemical Time-series Plots



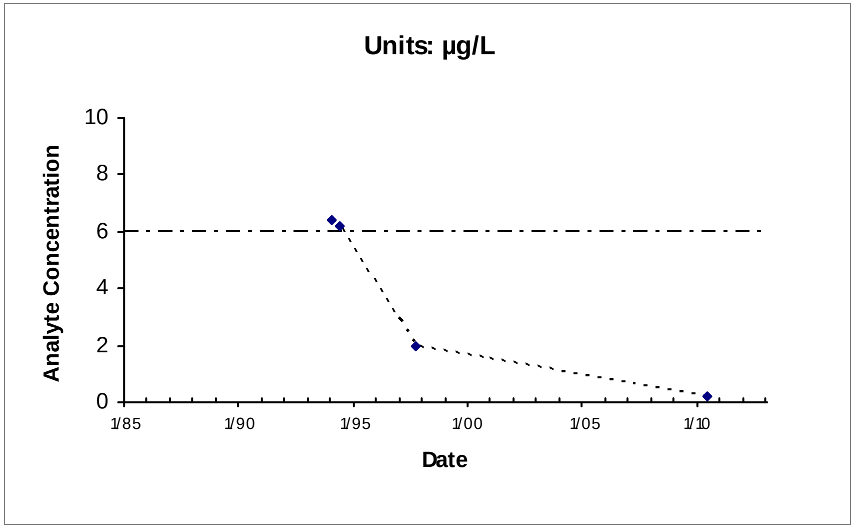
Location: EW610X16 Maximum: 310



Location: MW102X16 Maximum: 4370



Location: MW103X16 Maximum: 964



Location: MW108X16 Maximum: 6.4

Central IRA

FIGURE 2-11

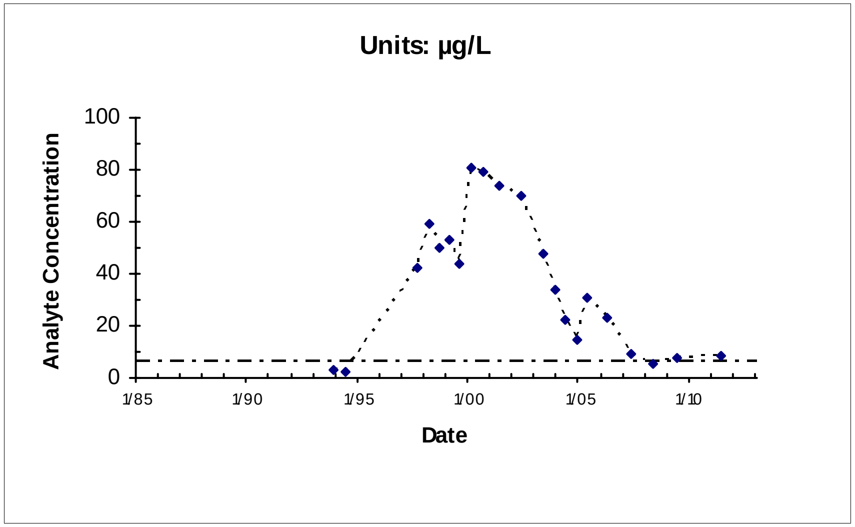
Site SS016

cis-1,2-DCE

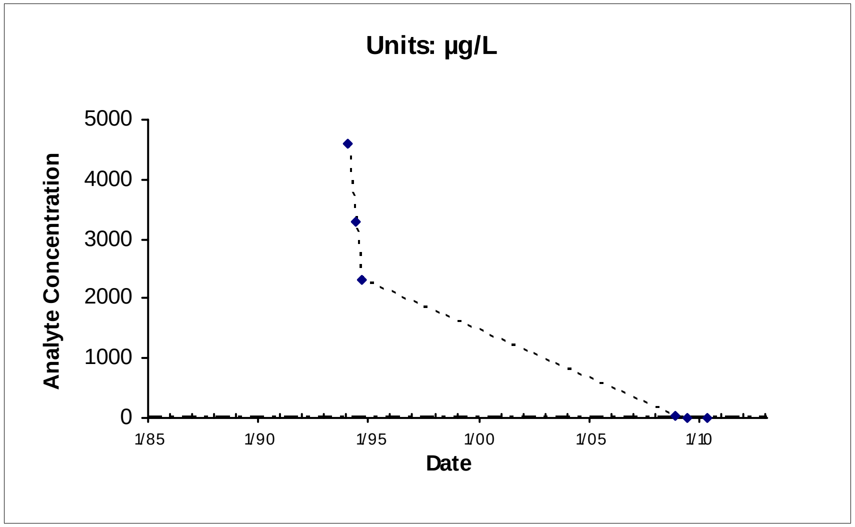
Chemical Time-series Plots

— - — - — IRG (6 µg/L)

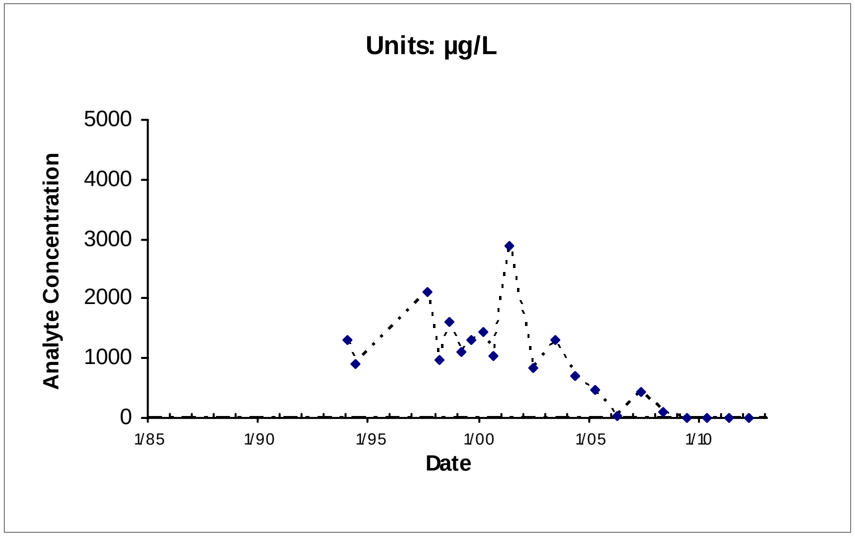
*Nondetects shown as the Method Detection Limit (0.19 µg/L)



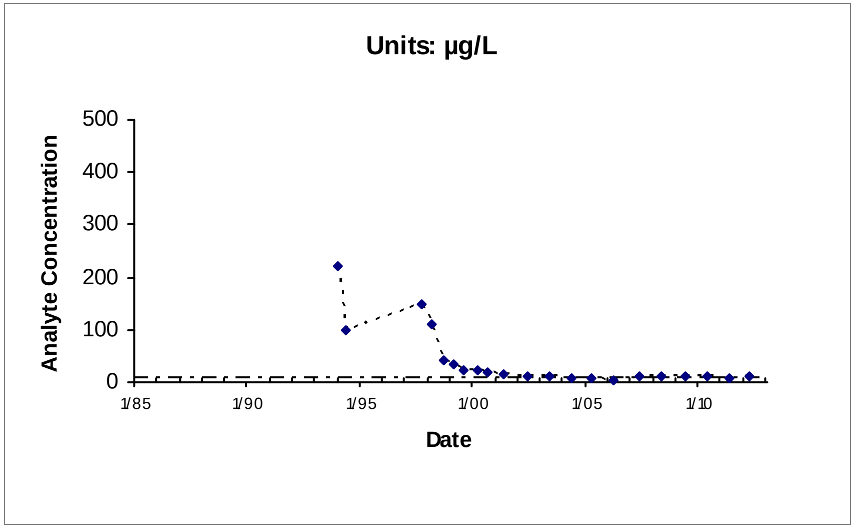
Location: MW109X16 Maximum: 81



Location: MW213X16 Maximum: 4600



Location: MW214X16 Maximum: 2900



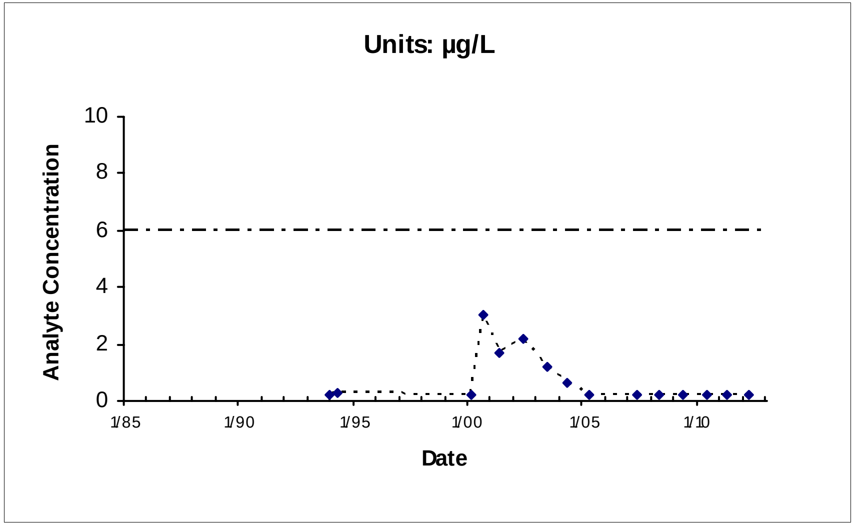
Location: MW241X16 Maximum: 220

Central IRA

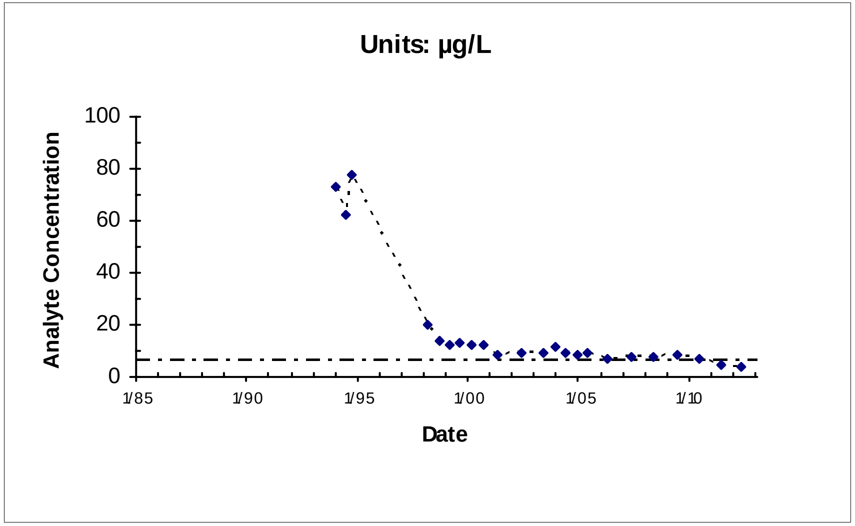
— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

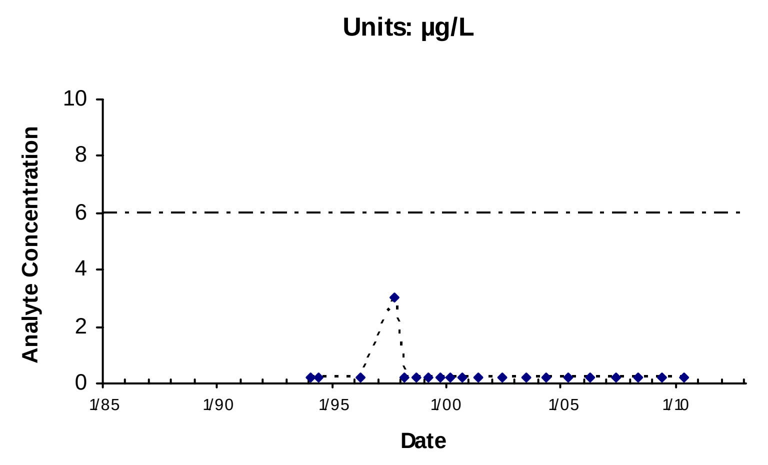
FIGURE 2-11
Site SS016
cis-1,2-DCE
Chemical Time-series Plots



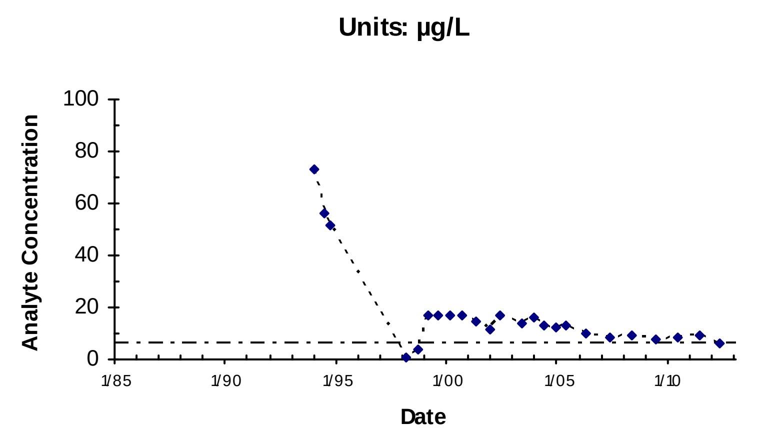
Location: MW244X16 Maximum: 3



Location: MW245X16 Maximum: 77.6



Location: MW305X16 Maximum: 3



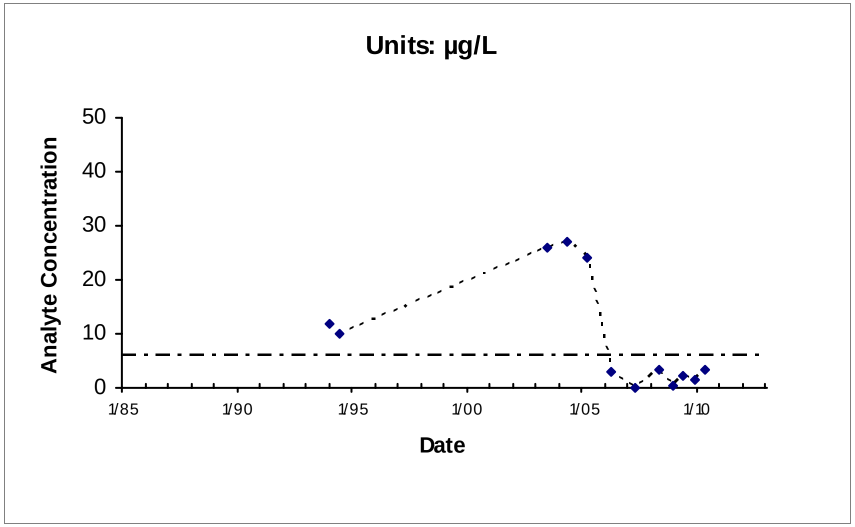
Location: MW316X16 Maximum: 73

— - — - — IRG (6 µg/L)

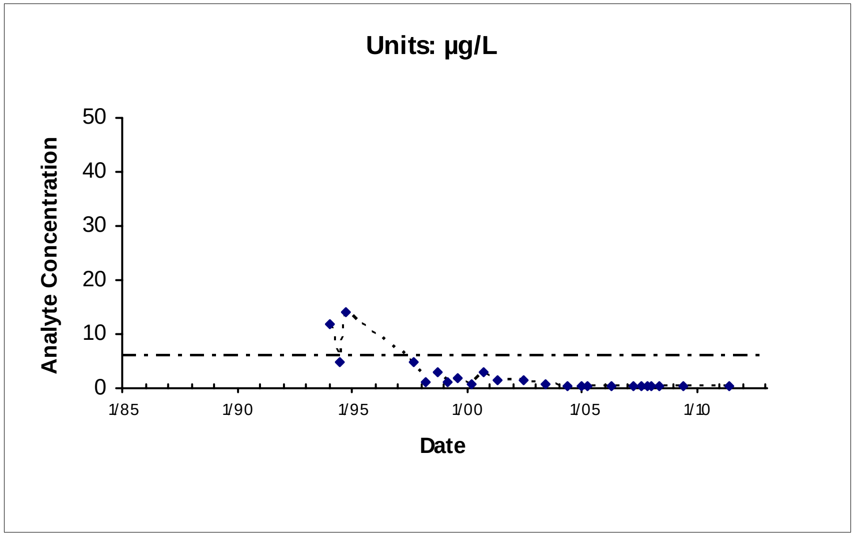
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

Central IRA

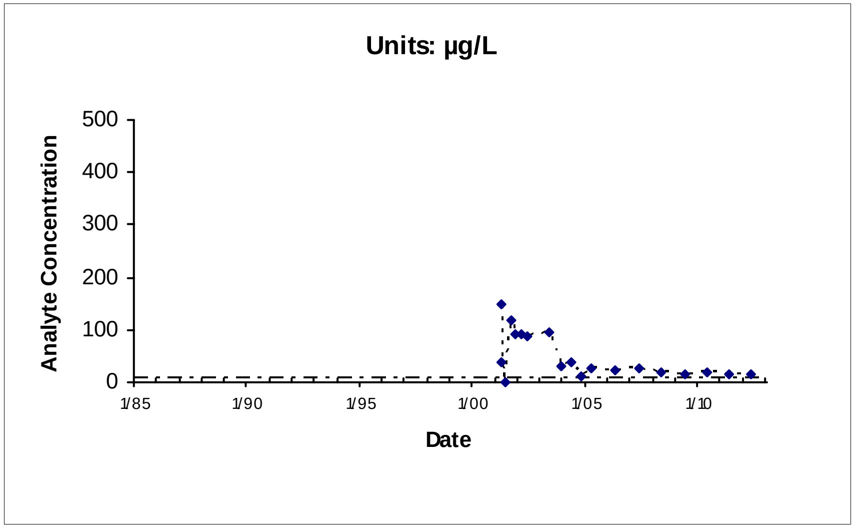
FIGURE 2-11
Site SS016
cis-1,2-DCE
Chemical Time-series Plots



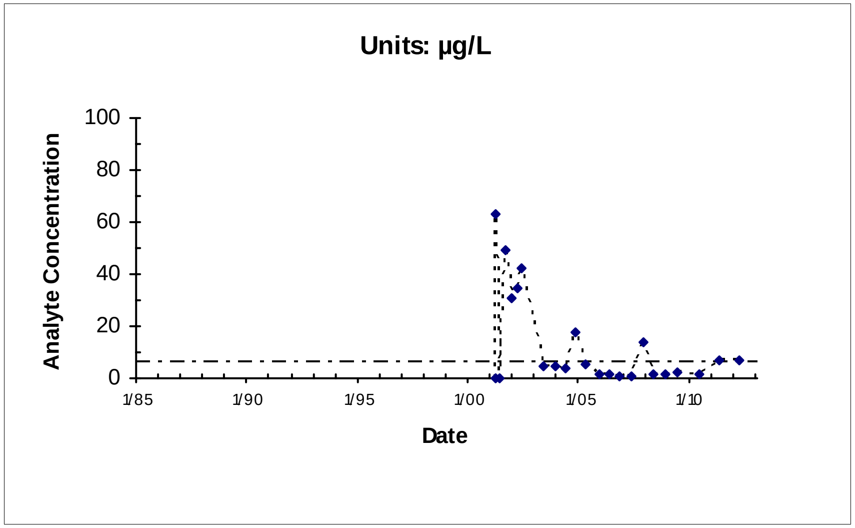
Location: MW327X16 Maximum: 27



Location: MW328X16 Maximum: 13.9



Location: MW603X16 Maximum: 150



Location: MW604X16 Maximum: 63

Central IRA

FIGURE 2-11

Site SS016

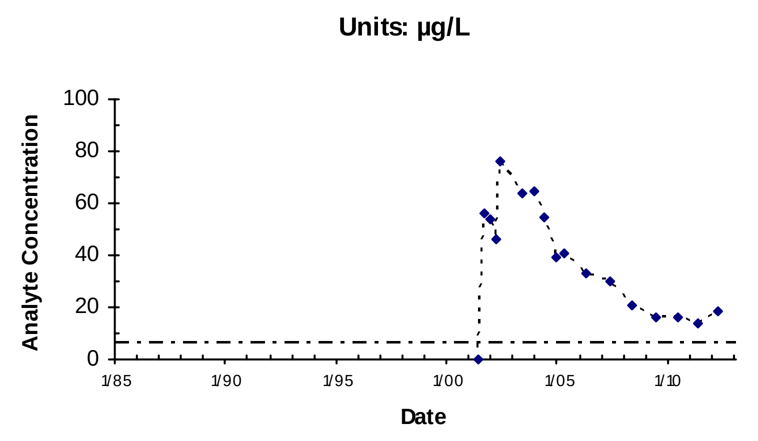
cis-1,2-DCE

Chemical Time-series Plots

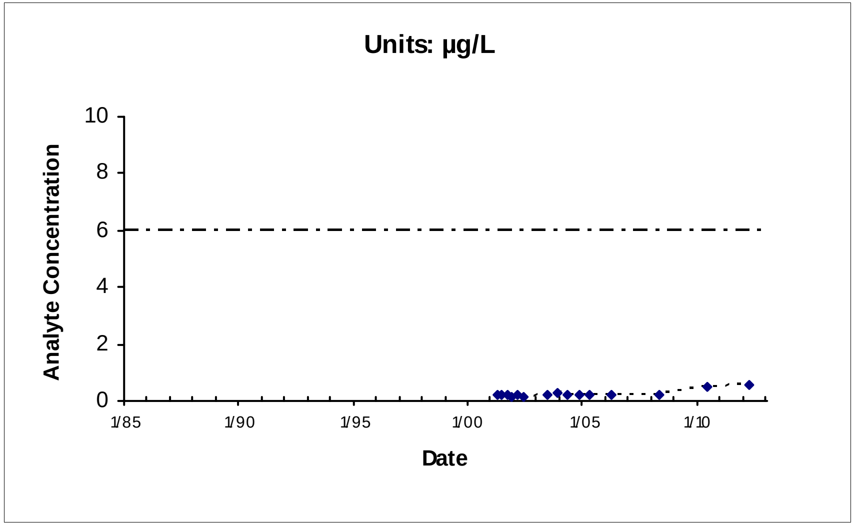
— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

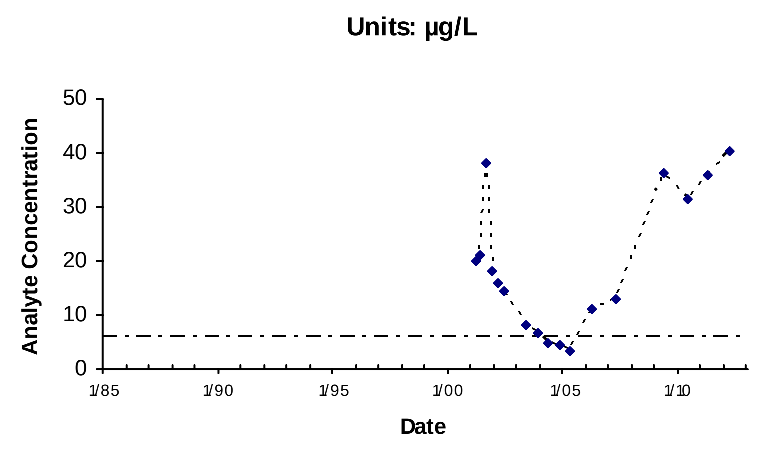
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



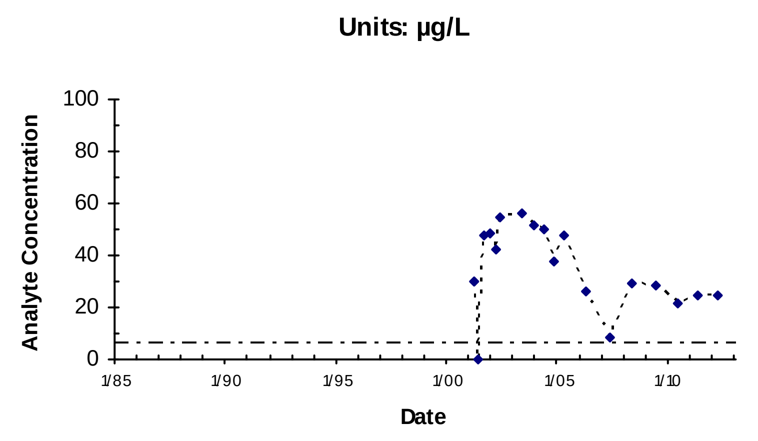
Location: MW606X16 Maximum: 75.8



Location: MW607X16 Maximum: 0.56



Location: MW608X16 Maximum: 40.5



Location: MW609X16 Maximum: 56.3

Central IRA

FIGURE 2-11

Site SS016

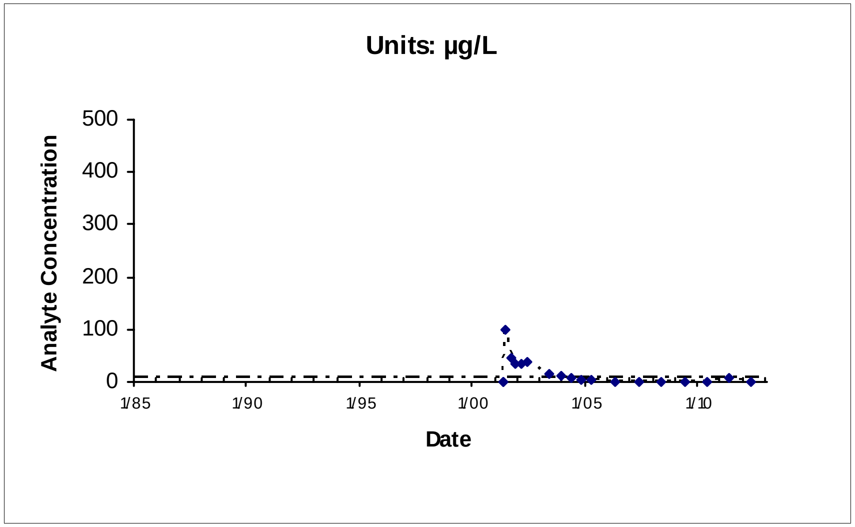
cis-1,2-DCE

Chemical Time-series Plots

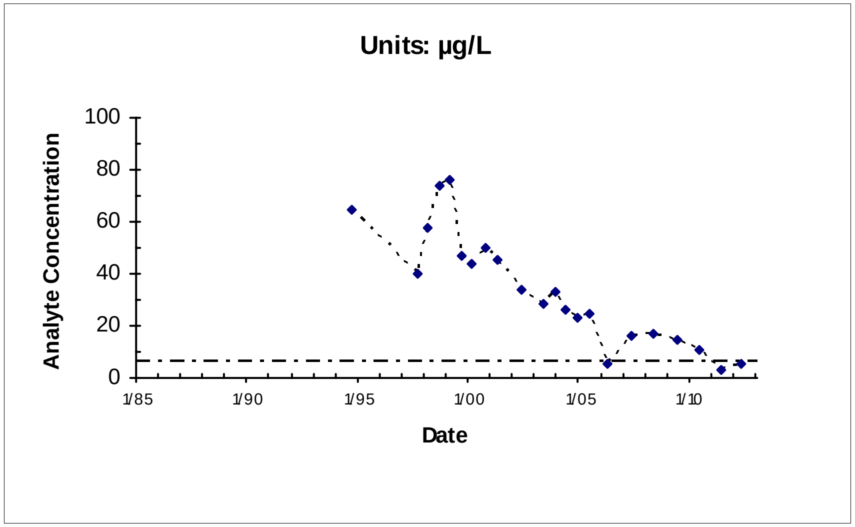
— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

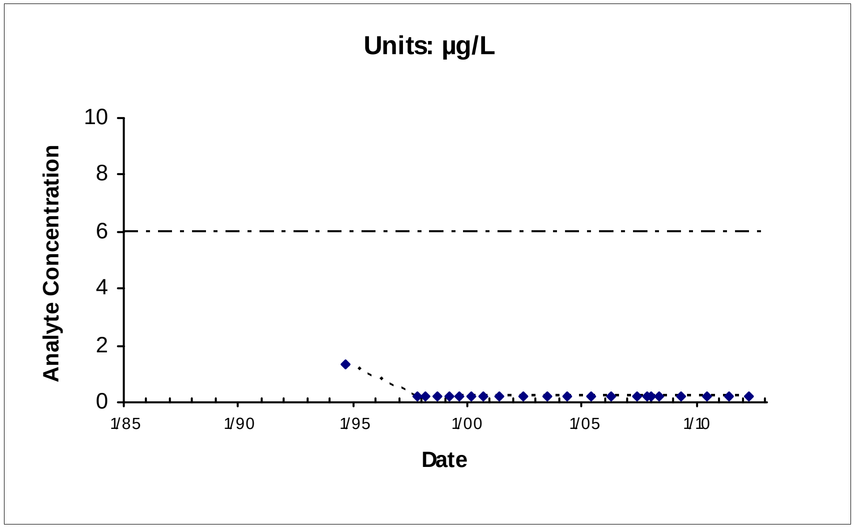
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



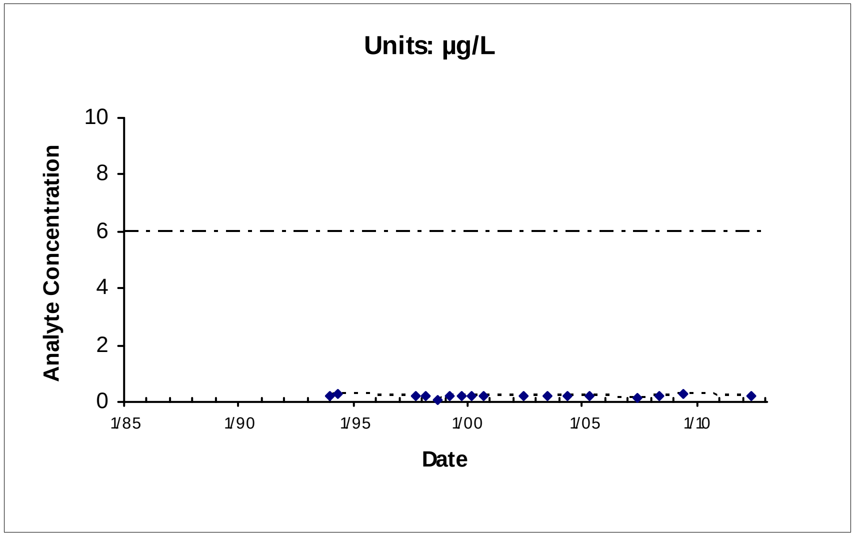
Location: MW611X16 Maximum: 100



Location: MW1022X16 Maximum: 76



Location: MW1023X16 Maximum: 1.37



Location: MW1206X16 Maximum: 0.27

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

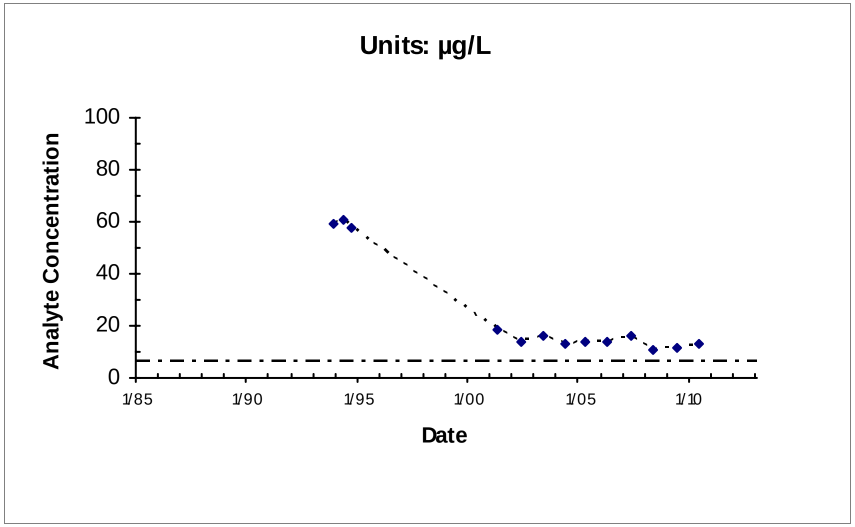
Central IRA

FIGURE 2-11

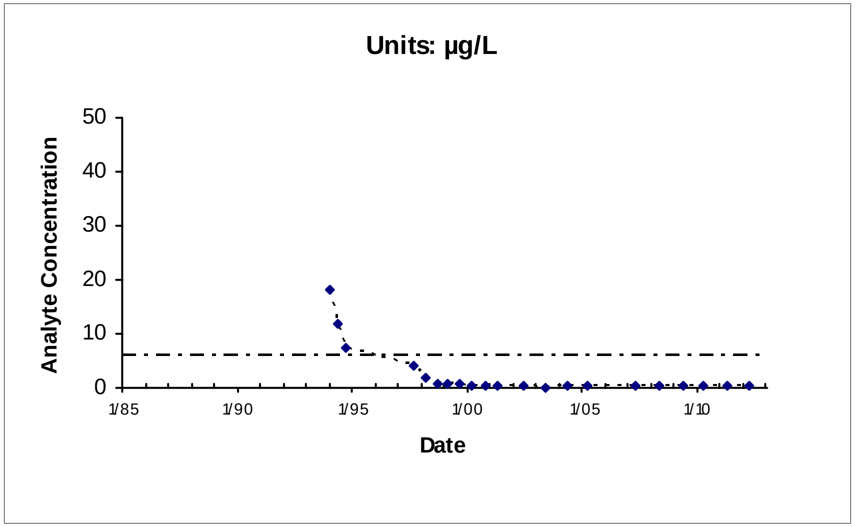
Site SS016

cis-1,2-DCE

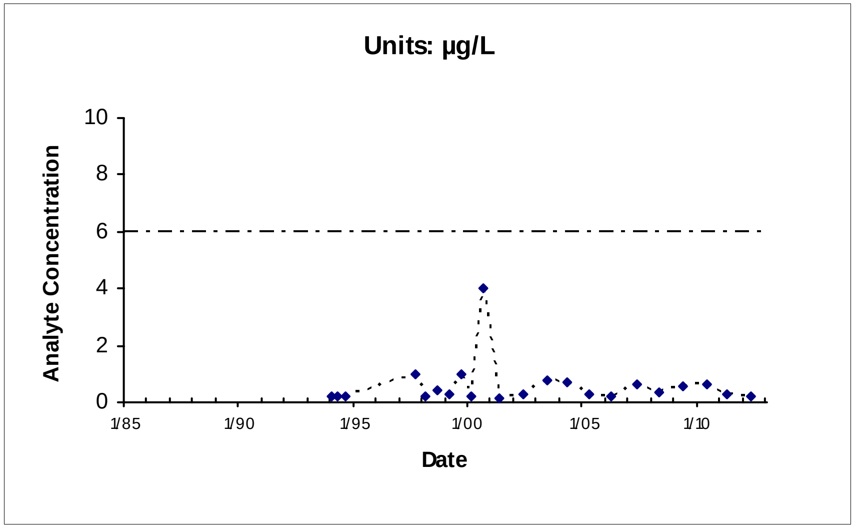
Chemical Time-series Plots



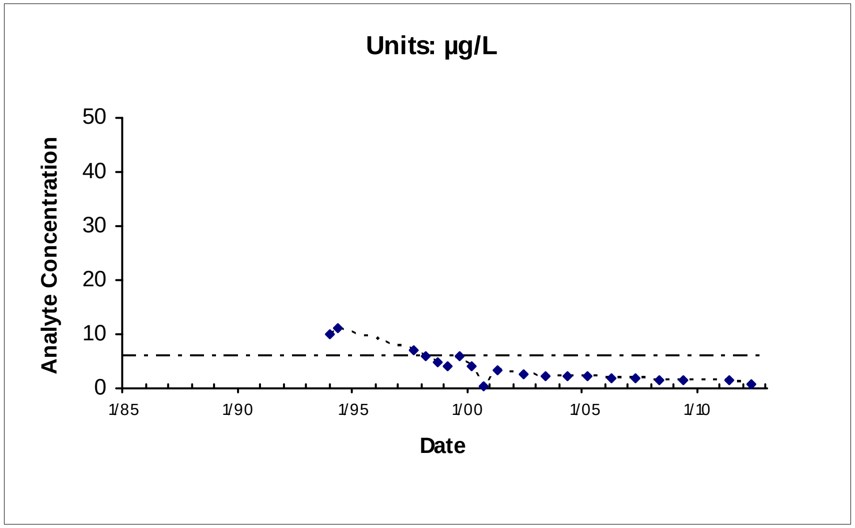
Location: MW1701X16 Maximum: 61



Location: MW1706X16 Maximum: 18



Location: MW1708X16 Maximum: 4



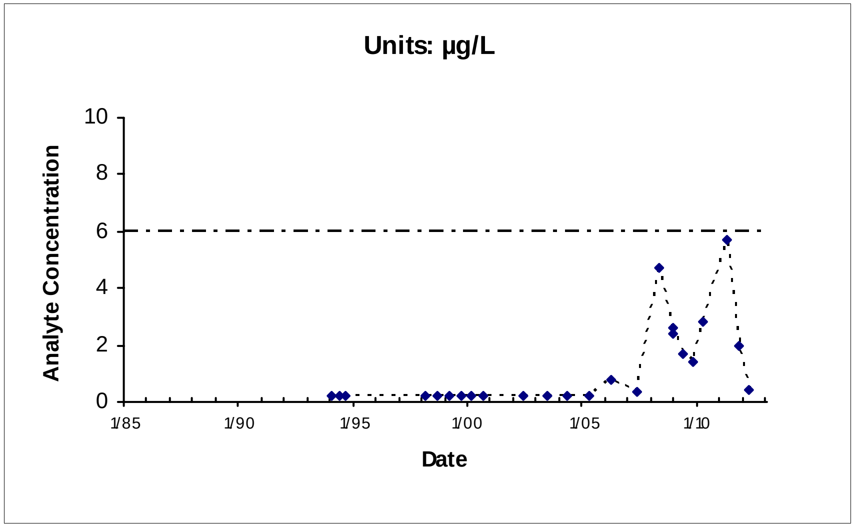
Location: MW1710X16 Maximum: 11

— - — - — IRG (6 µg/L)

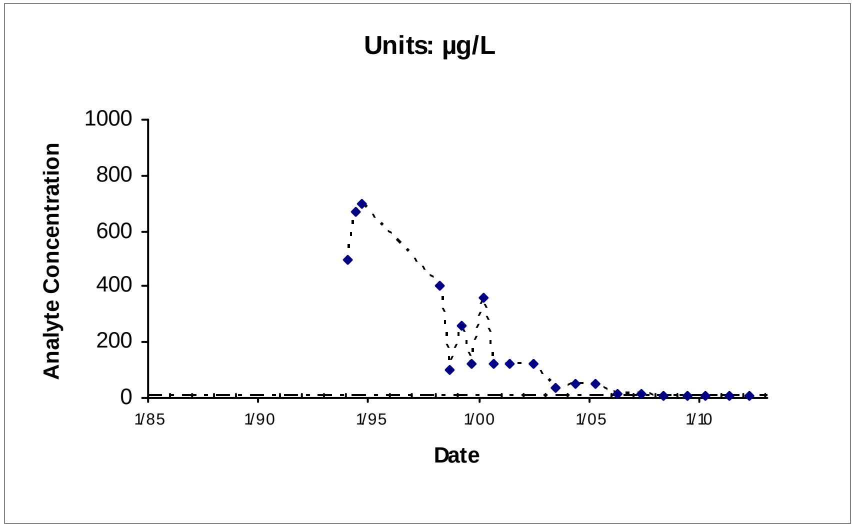
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

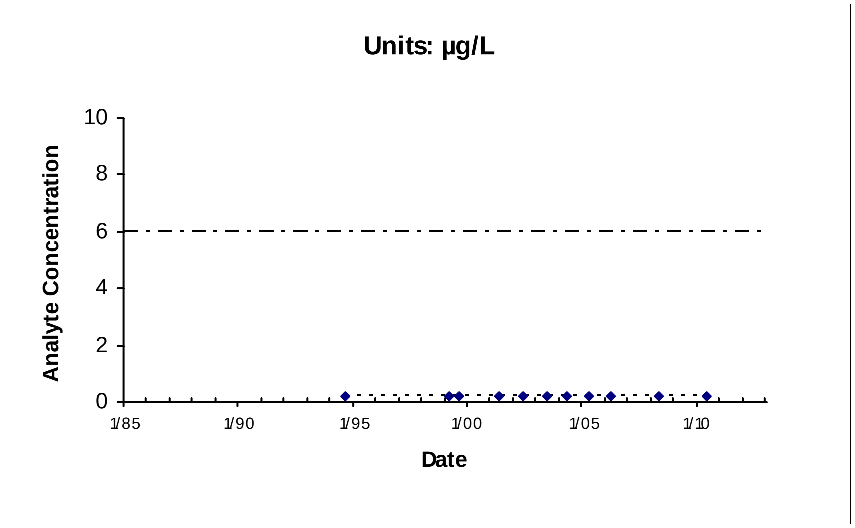
Central IRA
FIGURE 2-11
Site SS016
cis-1,2-DCE
Chemical Time-series Plots



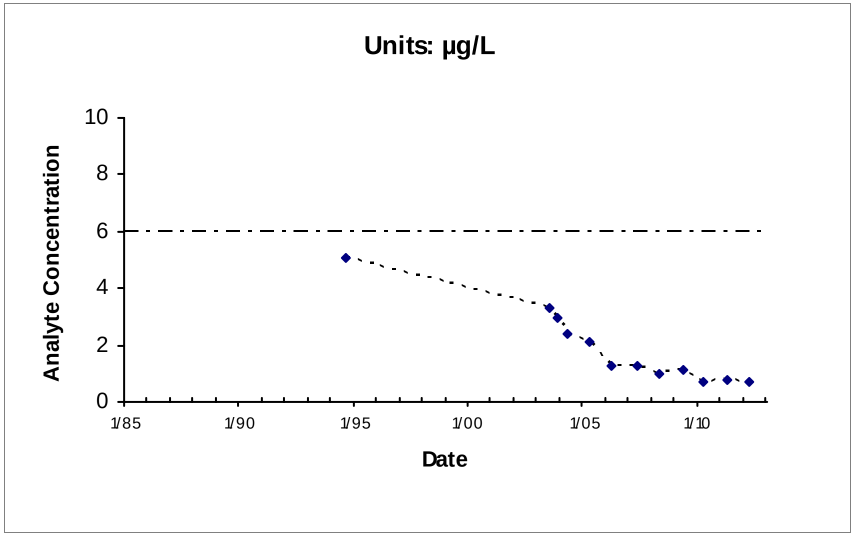
Location: MW1712X16 Maximum: 5.7



Location: MW1714X16 Maximum: 701



Location: MW1734X16 Maximum: 0.19



Location: MW1739X16 Maximum: 5.09

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

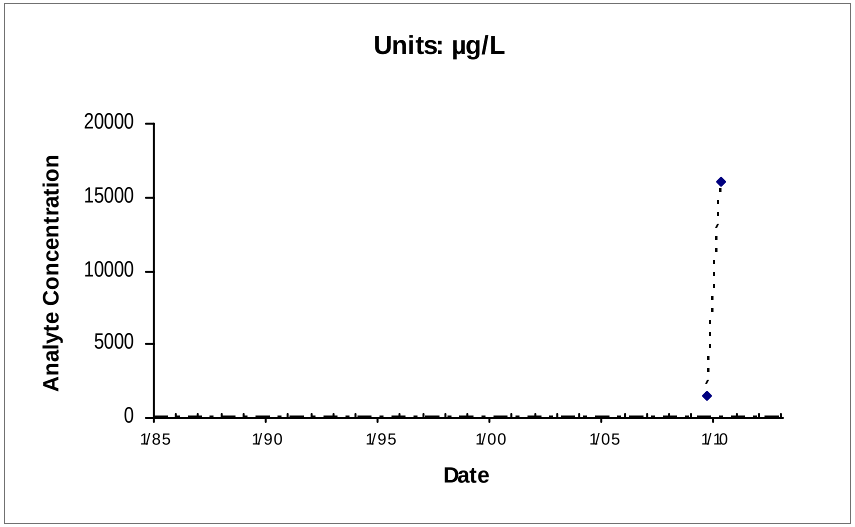
Central IRA

FIGURE 2-11

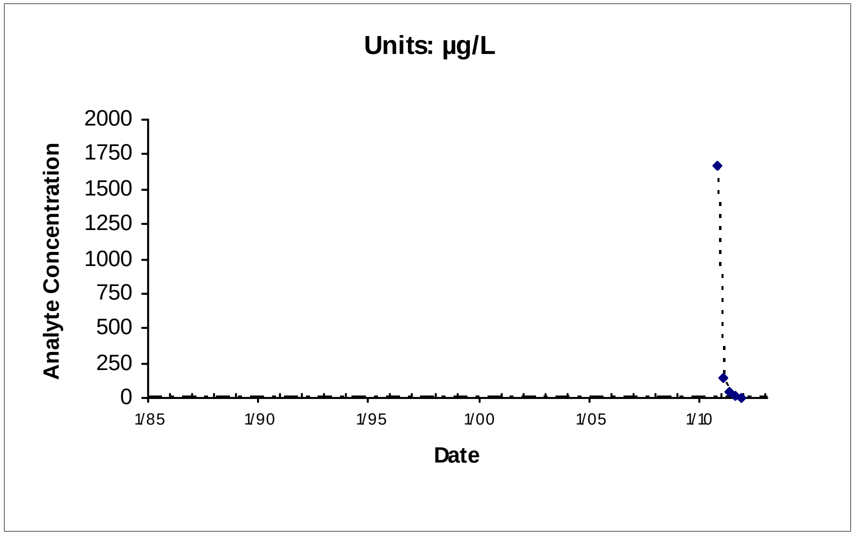
Site SS016

cis-1,2-DCE

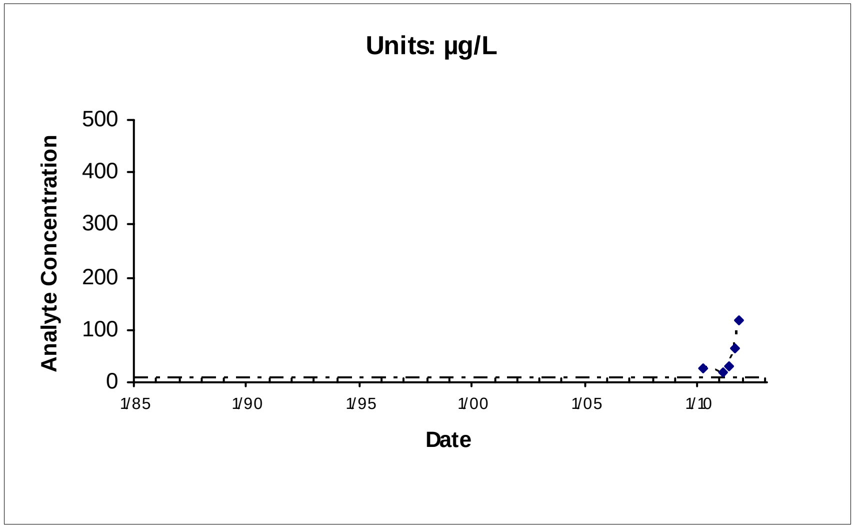
Chemical Time-series Plots



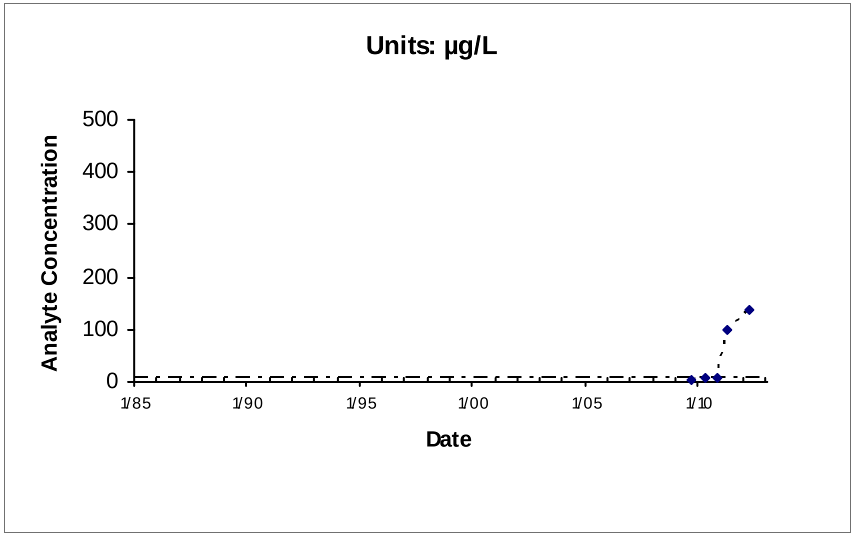
Location: MW2020x16 Maximum: 16000



Location: MW2020Ax16 Maximum: 1670



Location: MW2022x16 Maximum: 119



Location: MW2023x16 Maximum: 137

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

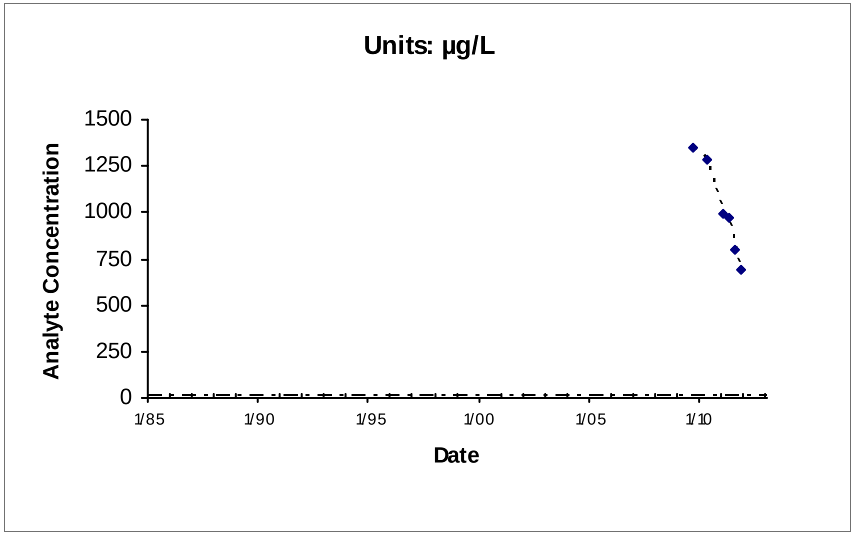
Central IRA

FIGURE 2-11

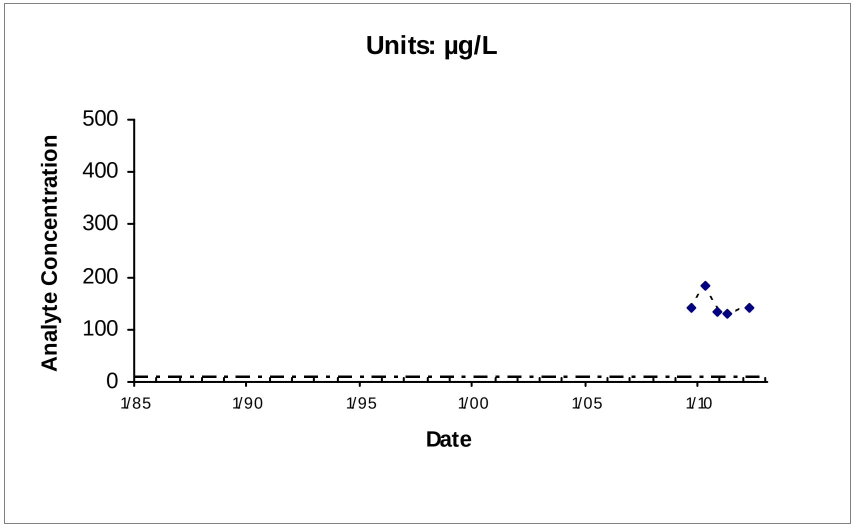
Site SS016

cis-1,2-DCE

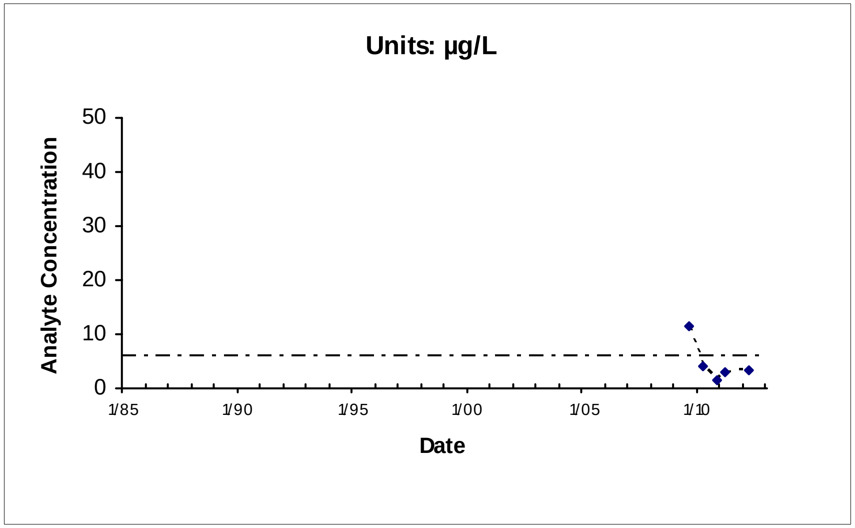
Chemical Time-series Plots



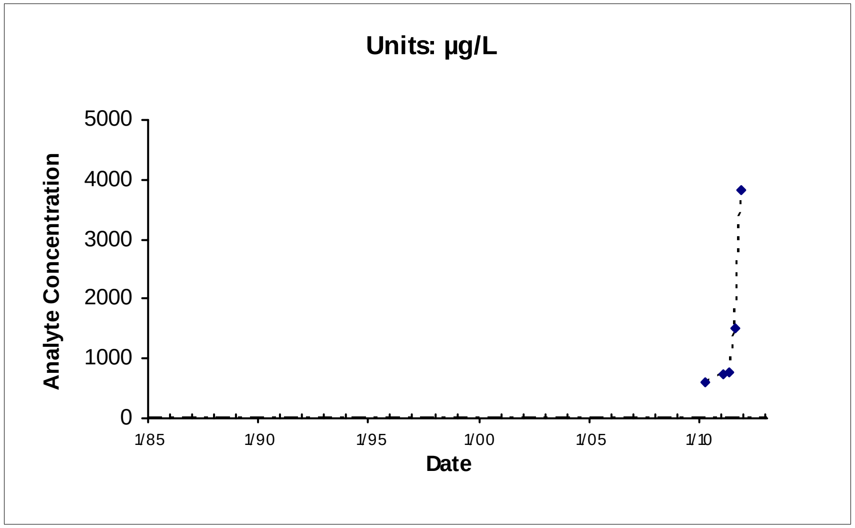
Location: MW2026x16 Maximum: 1350



Location: MW2028x16 Maximum: 185



Location: MW2030x16 Maximum: 11.4



Location: MW2109x16 Maximum: 3830

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

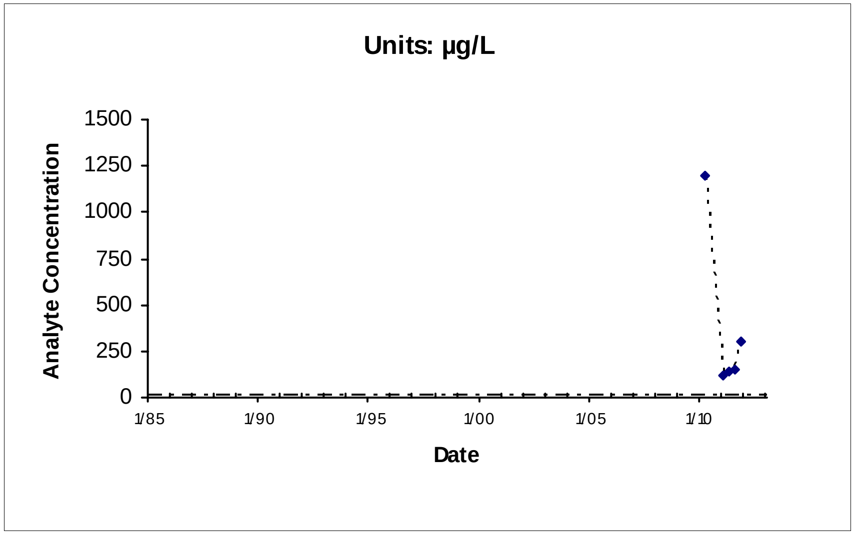
Central IRA

FIGURE 2-11

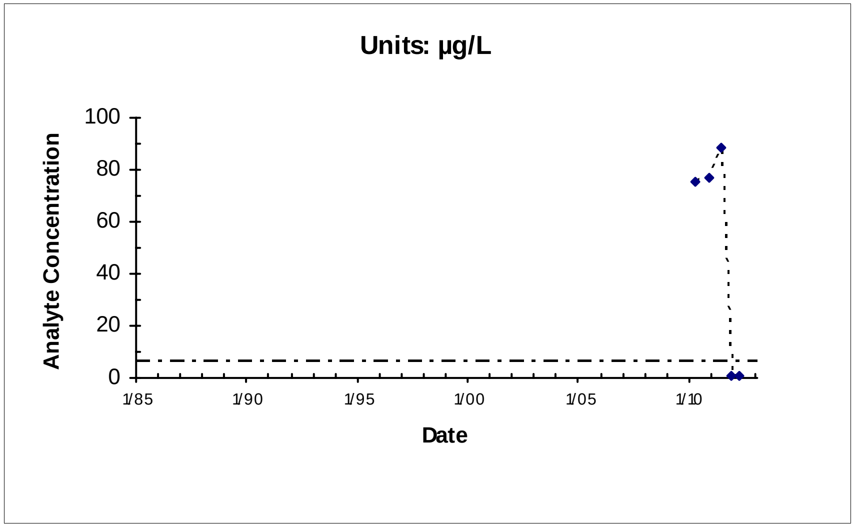
Site SS016

cis-1,2-DCE

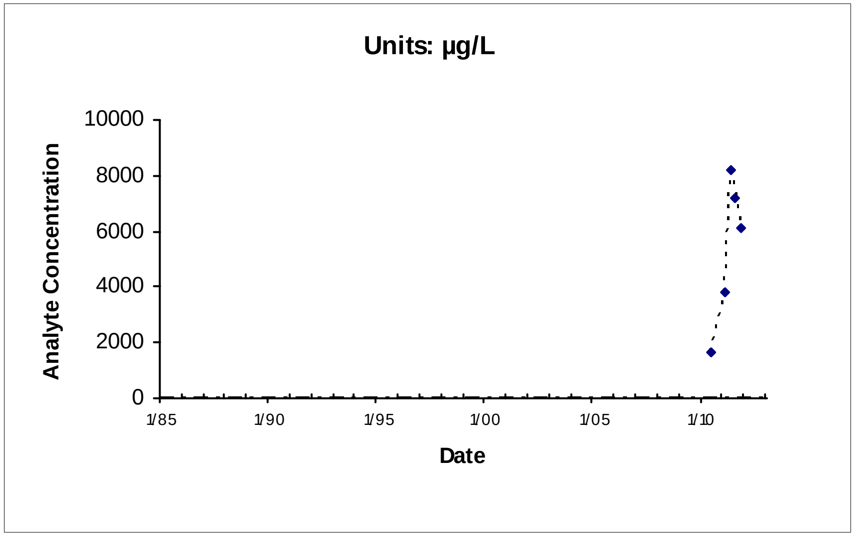
Chemical Time-series Plots



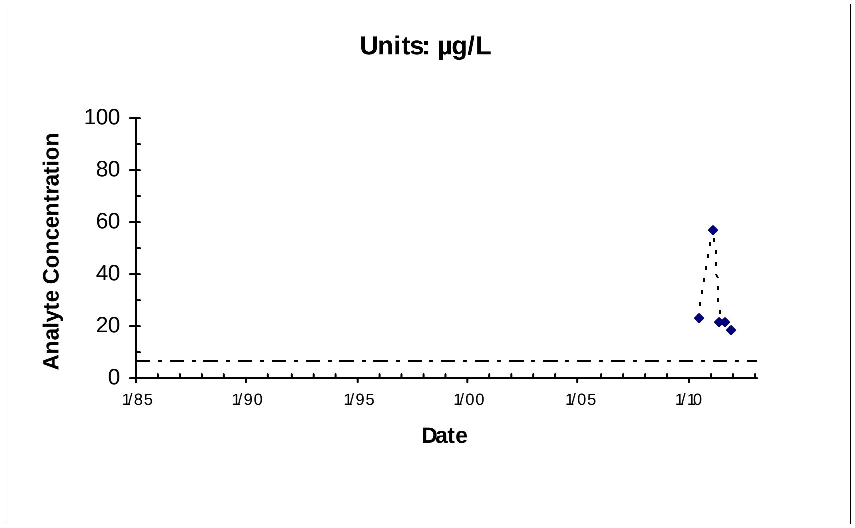
Location: MW2110x16 Maximum: 1200



Location: MW2111Bx16 Maximum: 88.3



Location: MW2112Ax16 Maximum: 8230



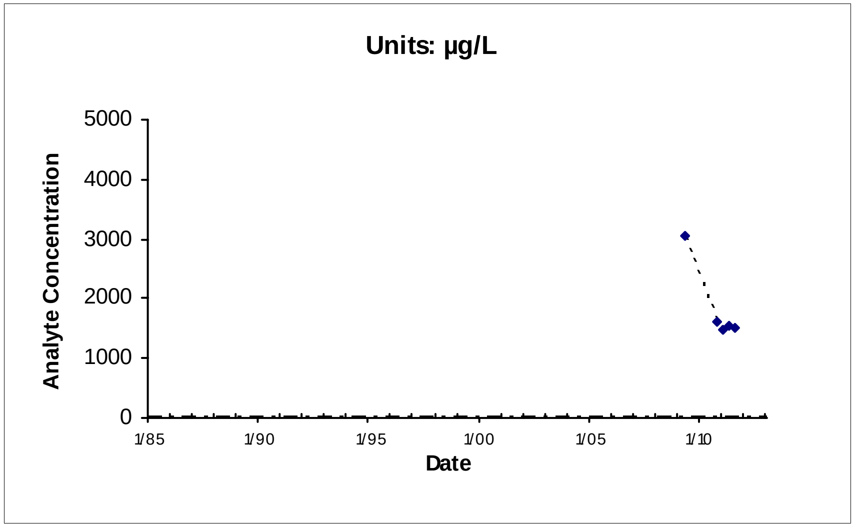
Location: MW2112Bx16 Maximum: 56.8

— - — - — IRG (6 µg/L)

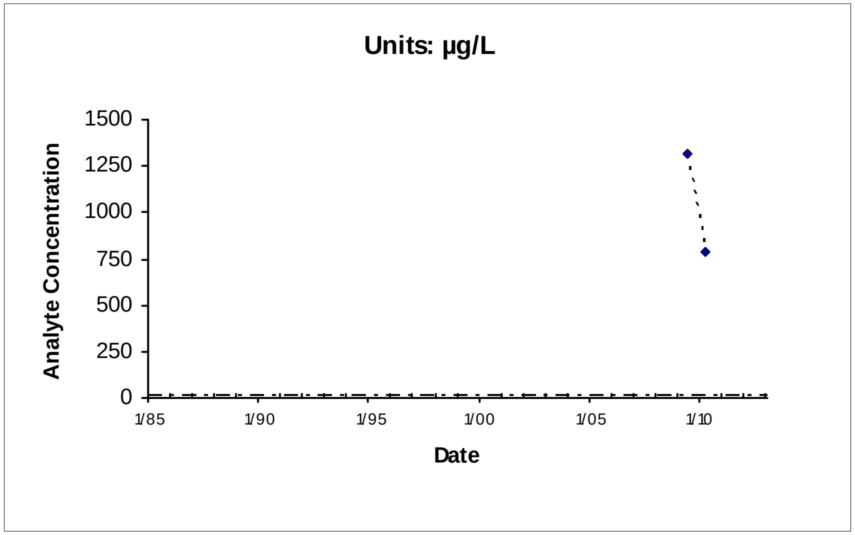
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

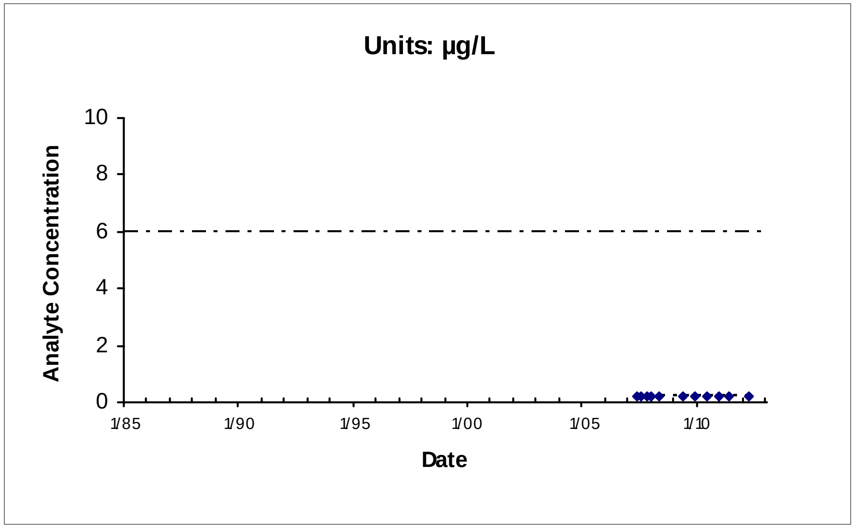
Central IRA
FIGURE 2-11
Site SS016
cis-1,2-DCE
Chemical Time-series Plots



Location: PZAx16 Maximum: 3060



Location: PZCx16 Maximum: 1320



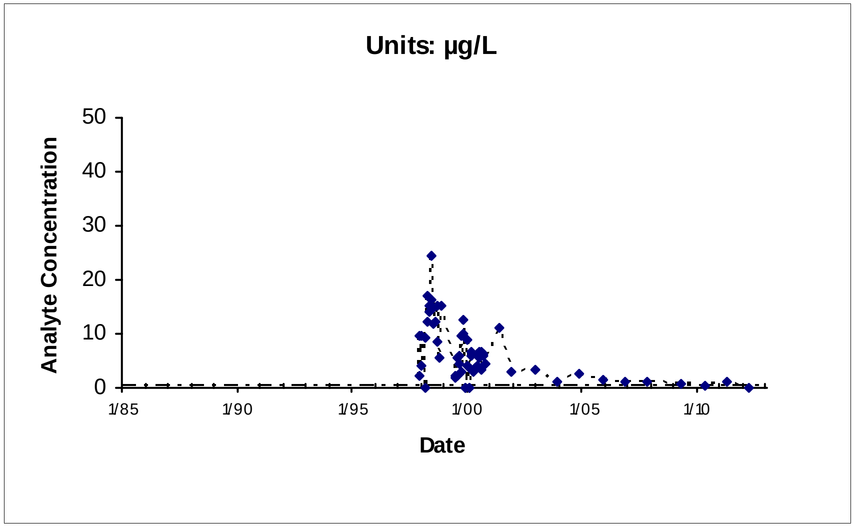
Location: MW792X27 Maximum: 0.19

— - — - — IRG (6 µg/L)

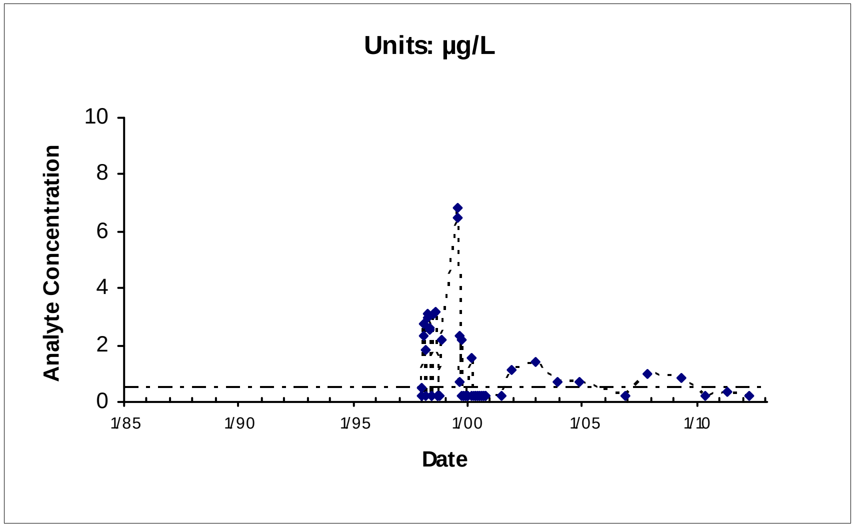
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

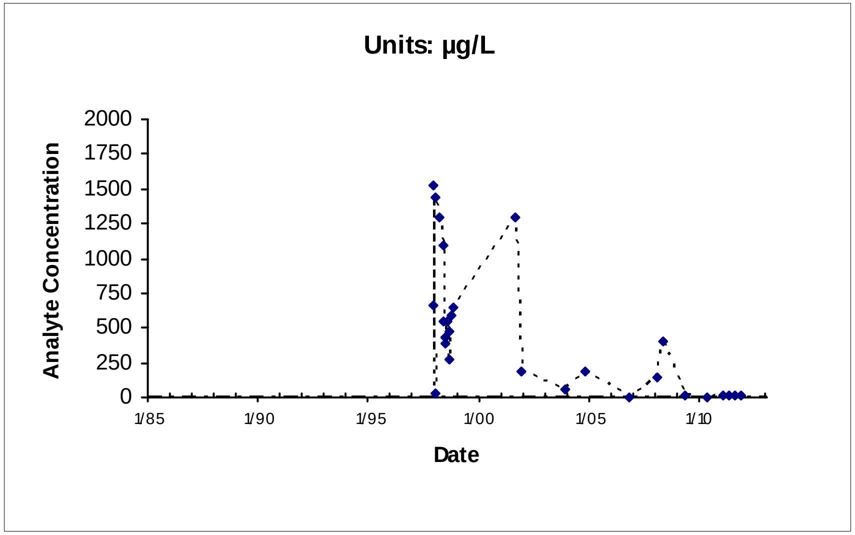
Central IRA
FIGURE 2-11
Site SS016
cis-1,2-DCE
Chemical Time-series Plots



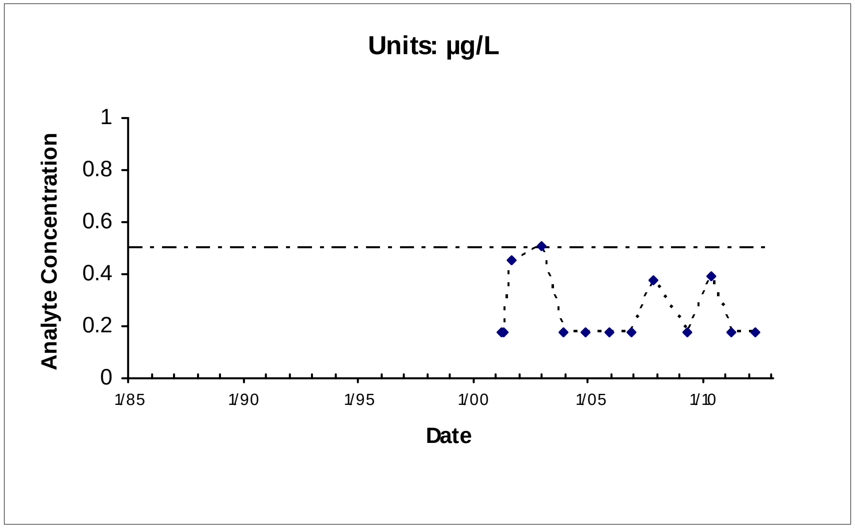
Location: EW001X16 Maximum: 24.4



Location: EW002X16 Maximum: 6.8



Location: EW003X16 Maximum: 1530



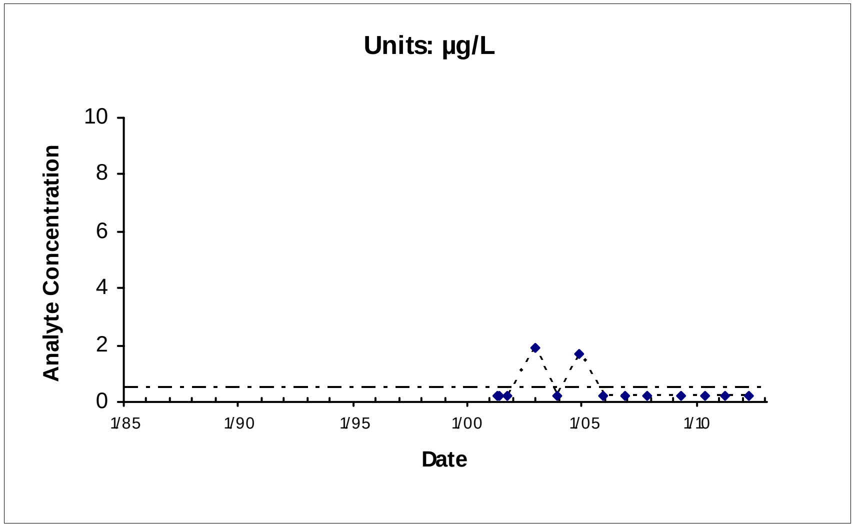
Location: EW605X16 Maximum: 0.51

— - — - — IRG (0.5 µg/L)

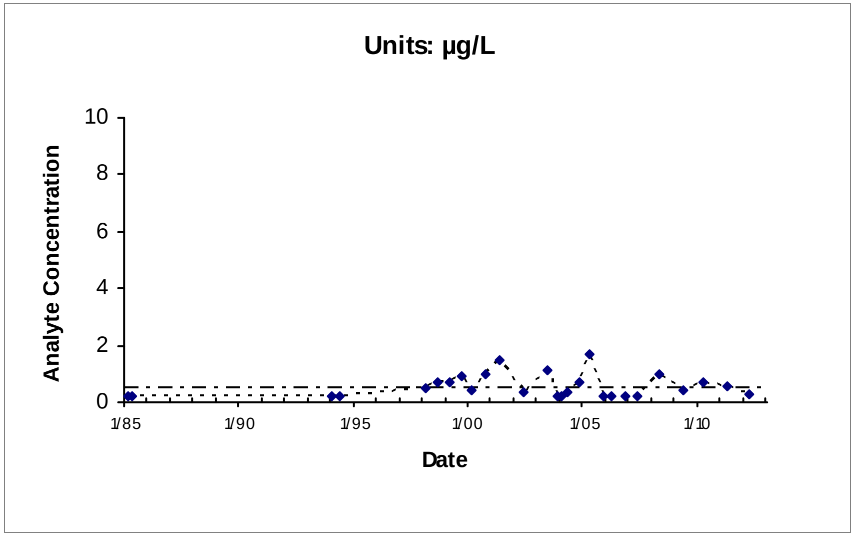
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

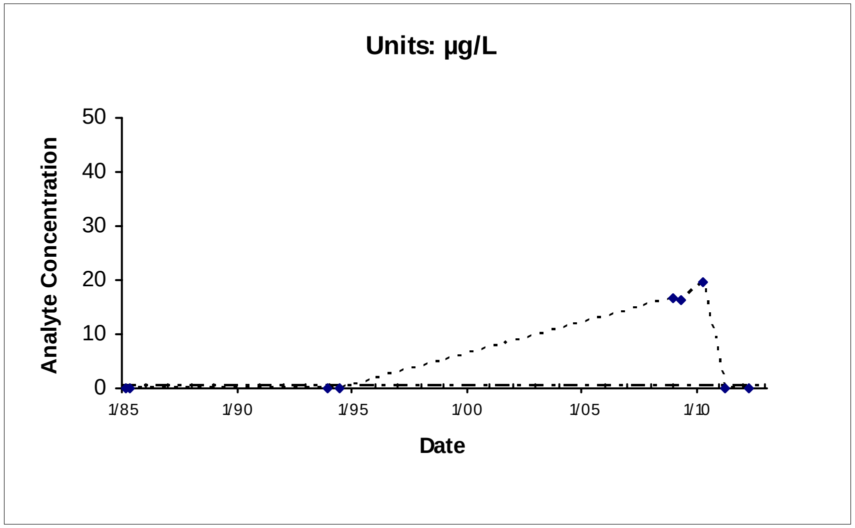
Central IRA
FIGURE 2-12
Site SS016
Vinyl Chloride
Chemical Time-series Plots



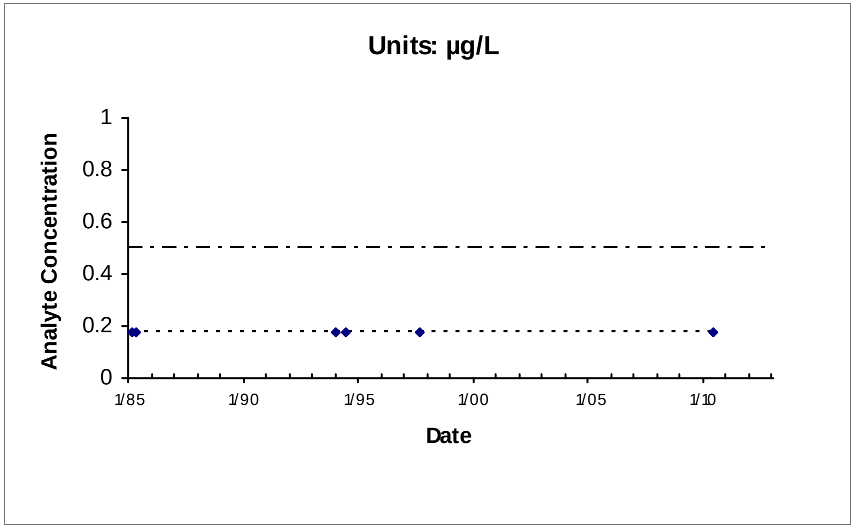
Location: EW610X16 Maximum: 1.9



Location: MW102X16 Maximum: 1.7



Location: MW103X16 Maximum: 19.5



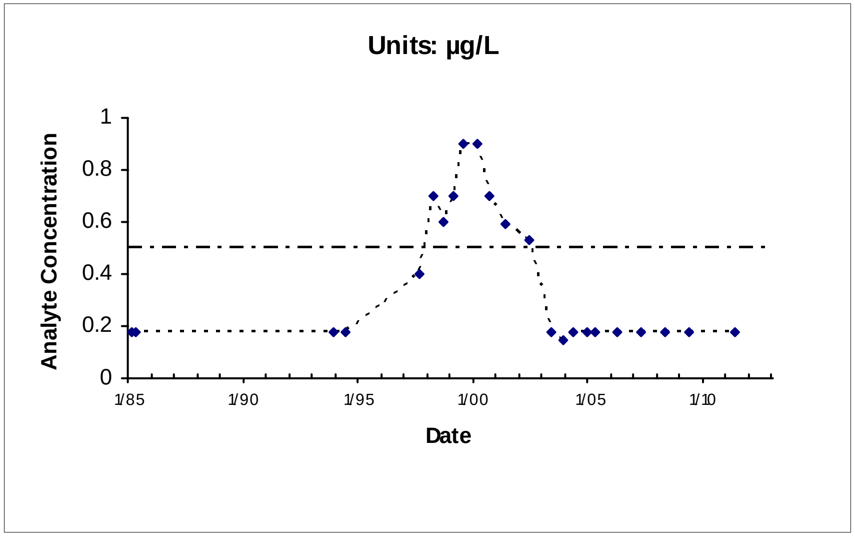
Location: MW108X16 Maximum: 0.18

— - — - — IRG (0.5 µg/L)

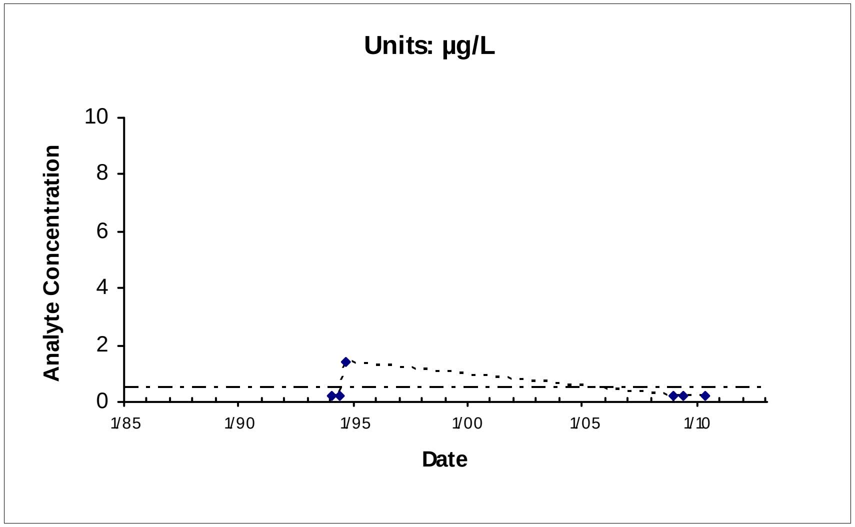
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

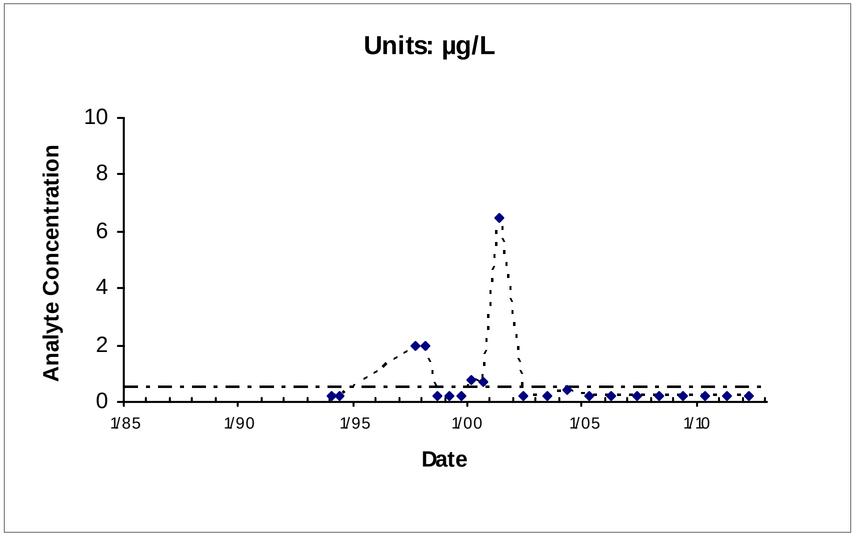
Central IRA
FIGURE 2-12
Site SS016
Vinyl Chloride
Chemical Time-series Plots



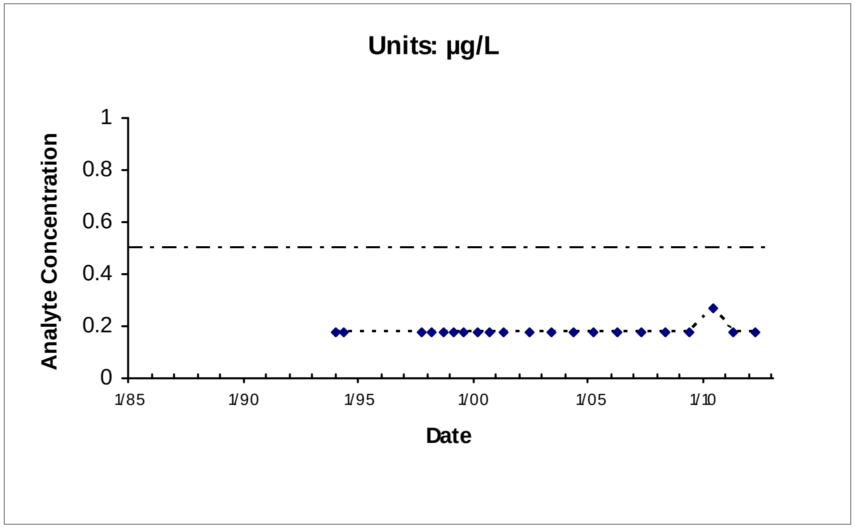
Location: MW109X16 Maximum: 0.9



Location: MW213X16 Maximum: 1.38



Location: MW214X16 Maximum: 6.5



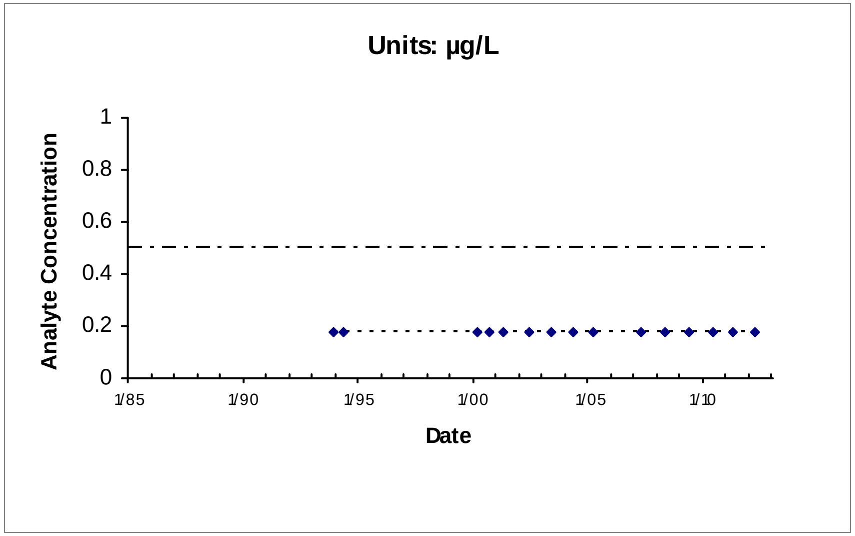
Location: MW241X16 Maximum: 0.27

— - — - — IRG (0.5 µg/L)

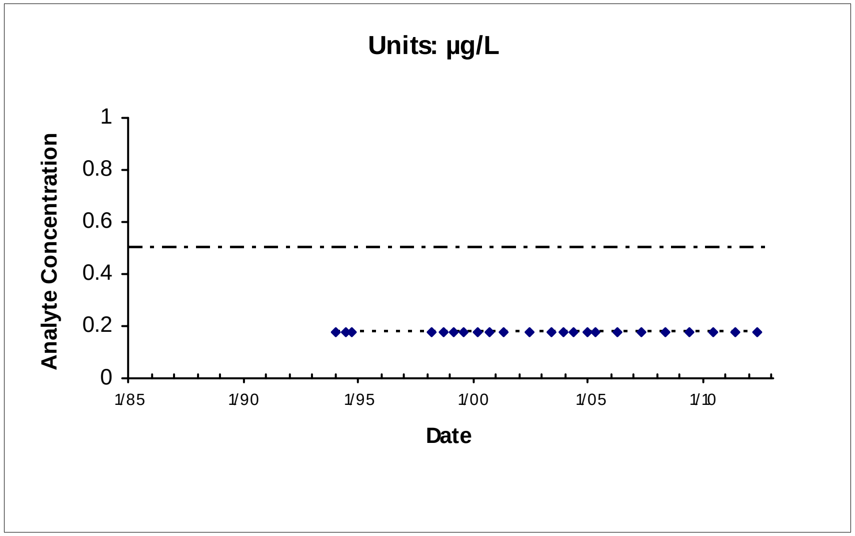
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

Central IRA

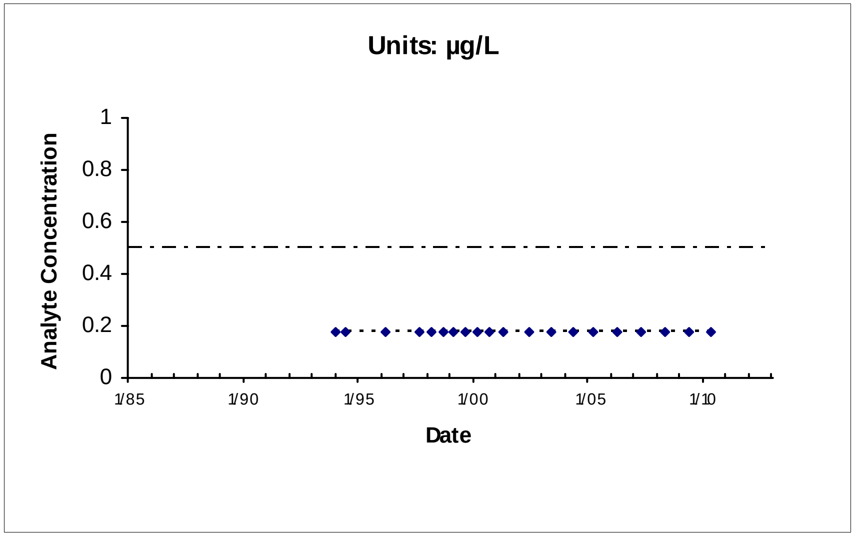
FIGURE 2-12
Site SS016
Vinyl Chloride
Chemical Time-series Plots



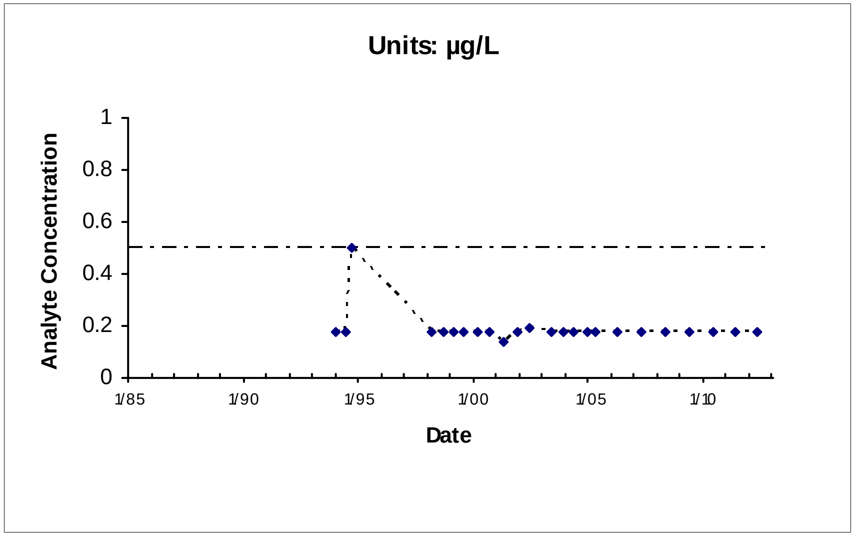
Location: MW244X16 Maximum: 0.18



Location: MW245X16 Maximum: 0.18



Location: MW305X16 Maximum: 0.18



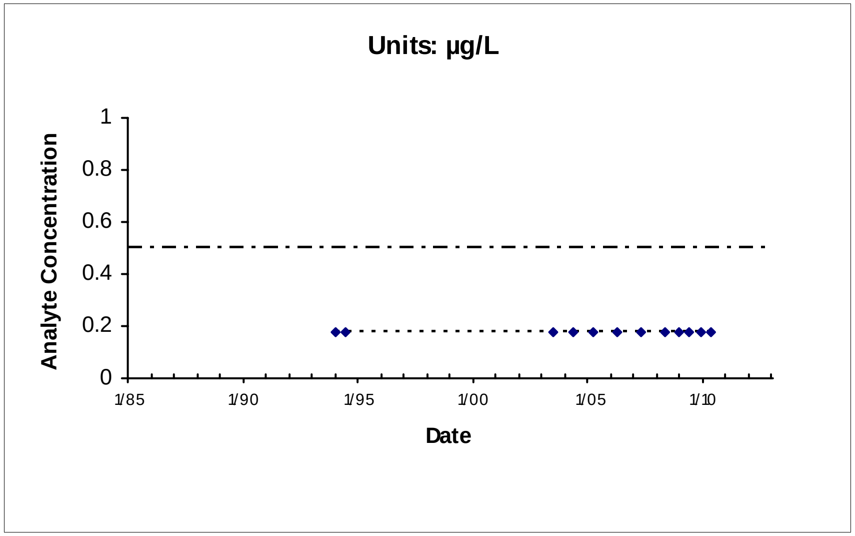
Location: MW316X16 Maximum: 0.5

— - — - — IRG (0.5 µg/L)

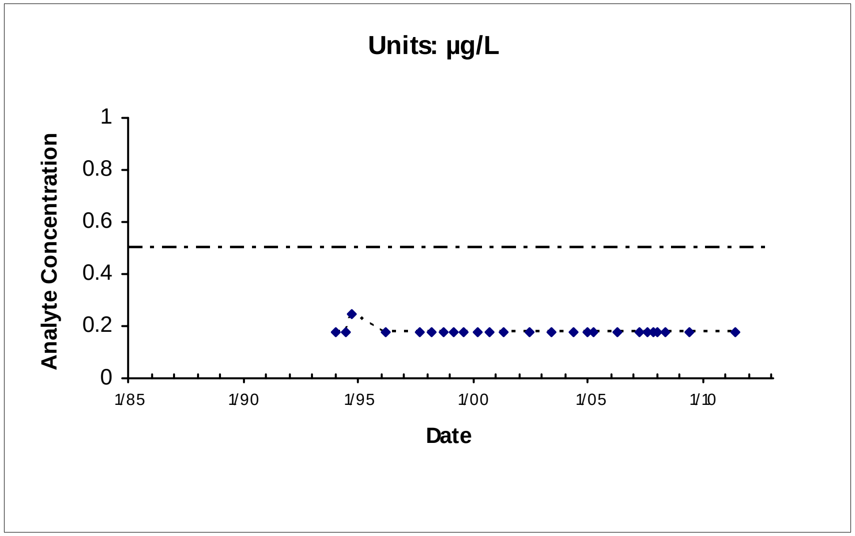
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

Central IRA

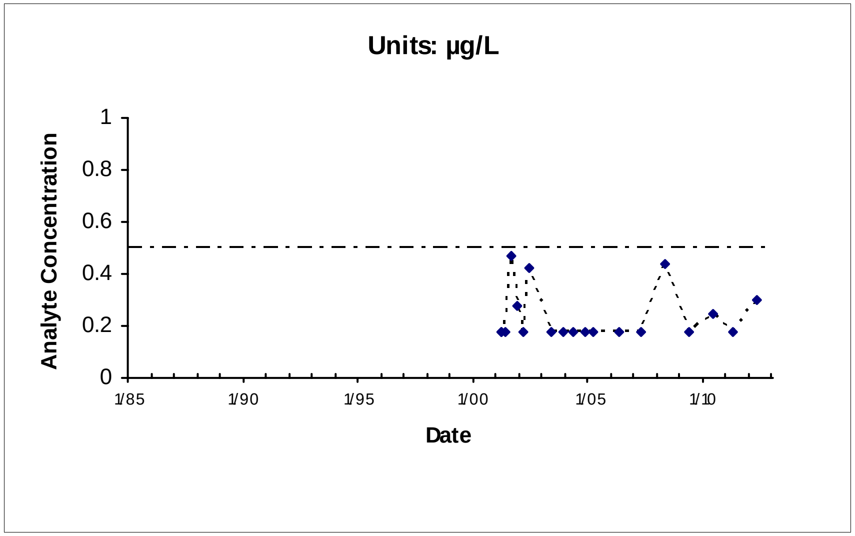
FIGURE 2-12
Site SS016
Vinyl Chloride
Chemical Time-series Plots



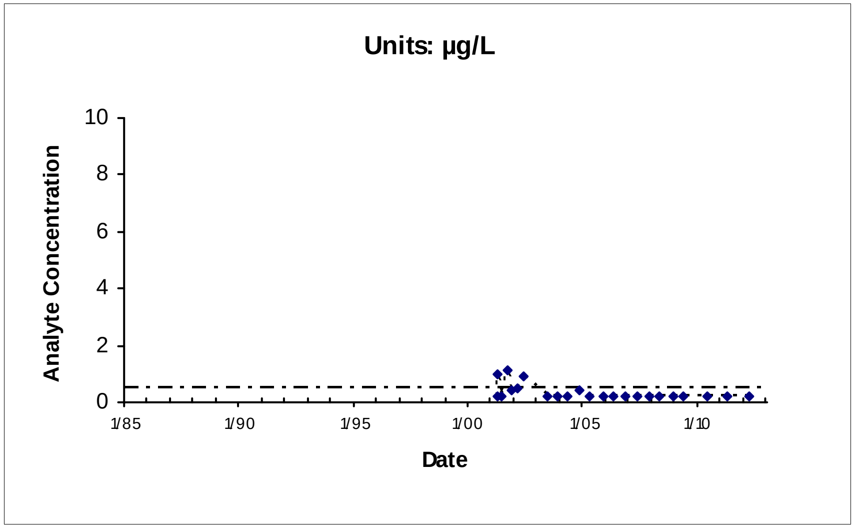
Location: MW327X16 Maximum: 0.18



Location: MW328X16 Maximum: 0.25



Location: MW603X16 Maximum: 0.47



Location: MW604X16 Maximum: 1.1

Central IRA

FIGURE 2-12

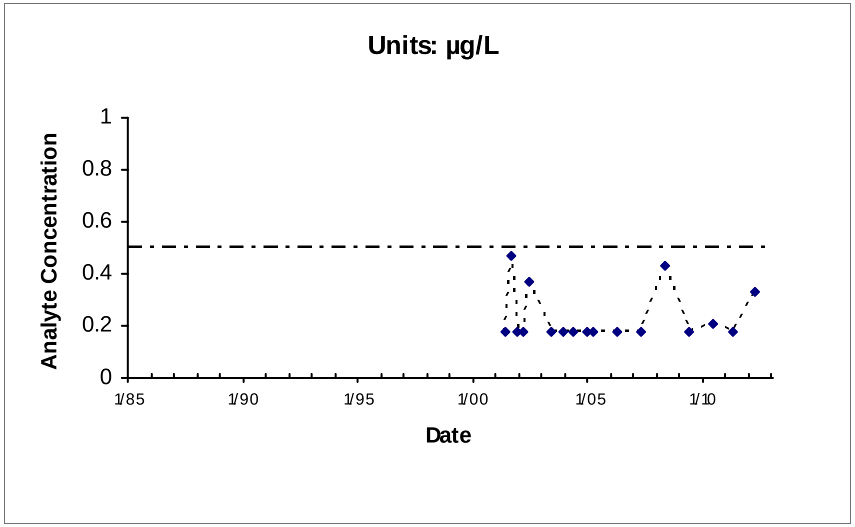
Site SS016

Vinyl Chloride

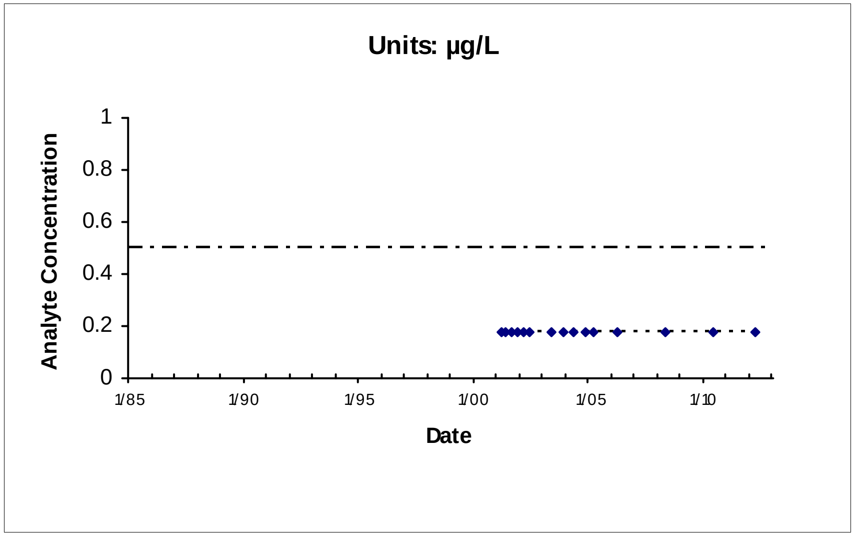
Chemical Time-series Plots

— - — - — IRG (0.5 µg/L)

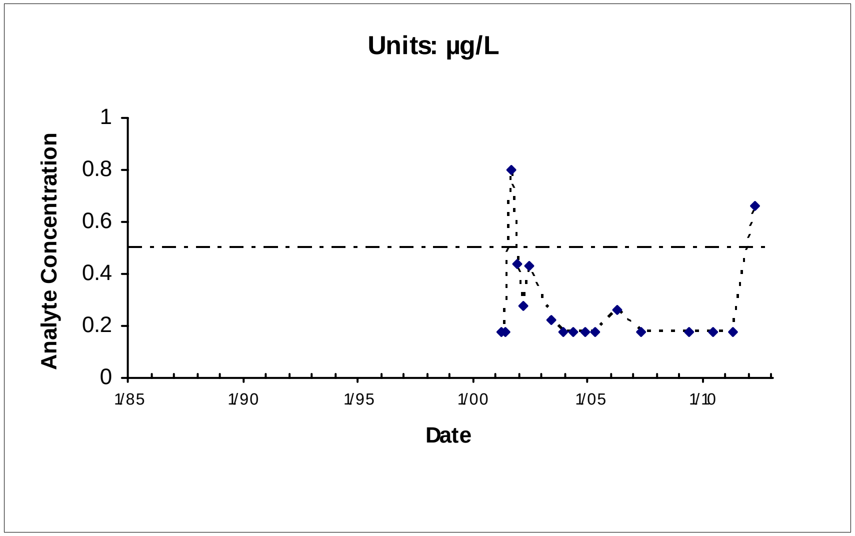
*Nondetects shown as the Method Detection Limit (0.18 µg/L)



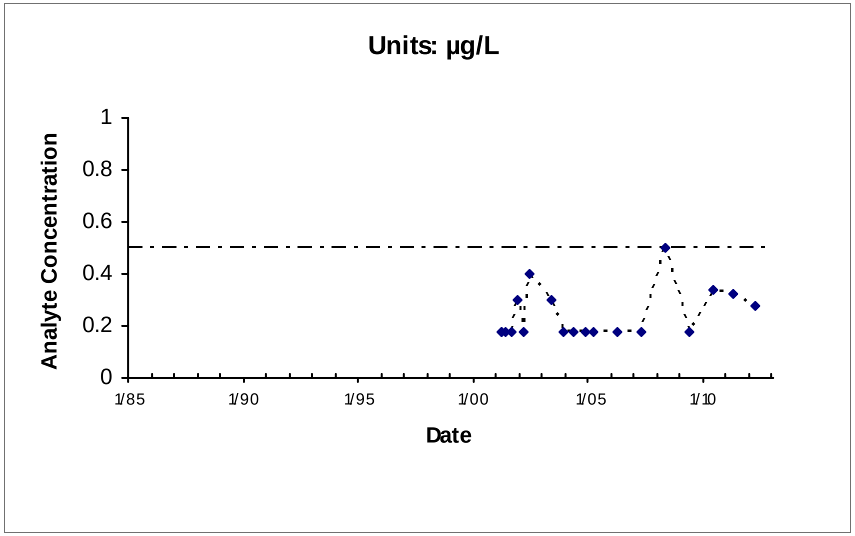
Location: MW606X16 Maximum: 0.47



Location: MW607X16 Maximum: 0.18



Location: MW608X16 Maximum: 0.8

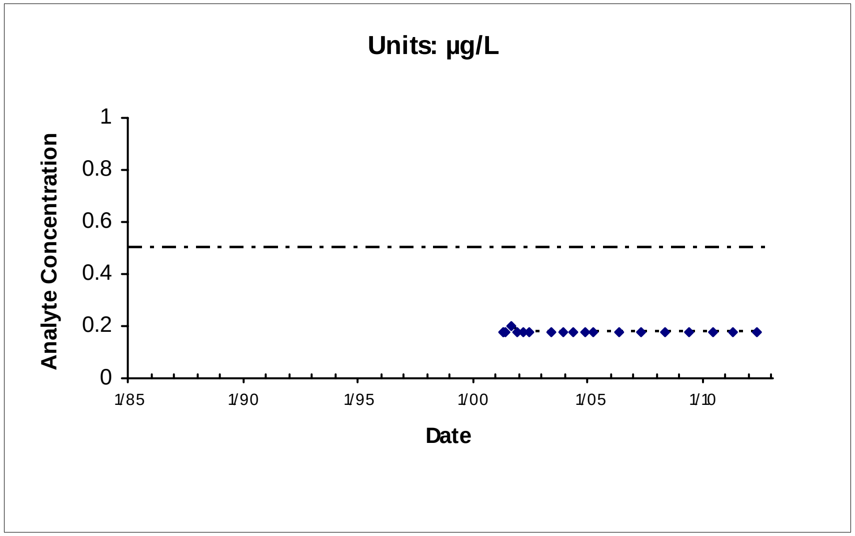


Location: MW609X16 Maximum: 0.5

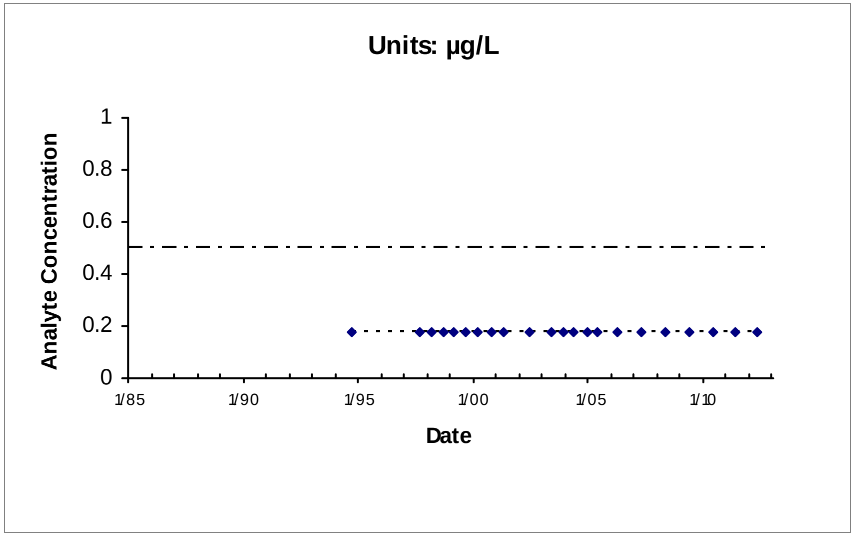
Central IRA
FIGURE 2-12
Site SS016
Vinyl Chloride
Chemical Time-series Plots

— - — - — IRG (0.5 µg/L)

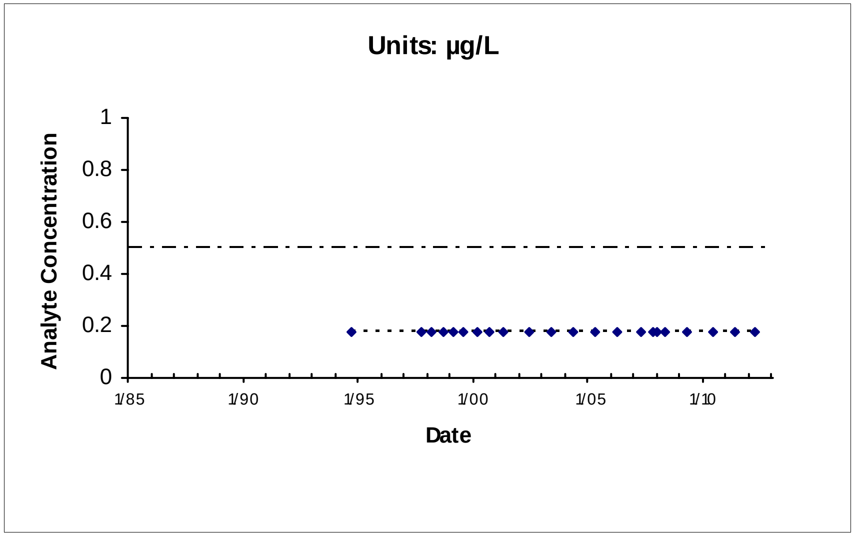
*Nondetects shown as the Method Detection Limit (0.18 µg/L)



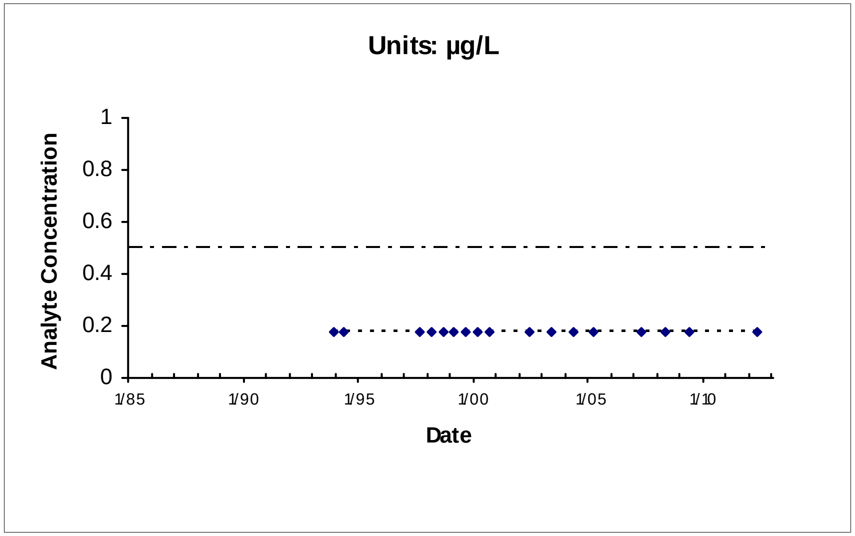
Location: MW611X16 Maximum: 0.2



Location: MW1022X16 Maximum: 0.18



Location: MW1023X16 Maximum: 0.18



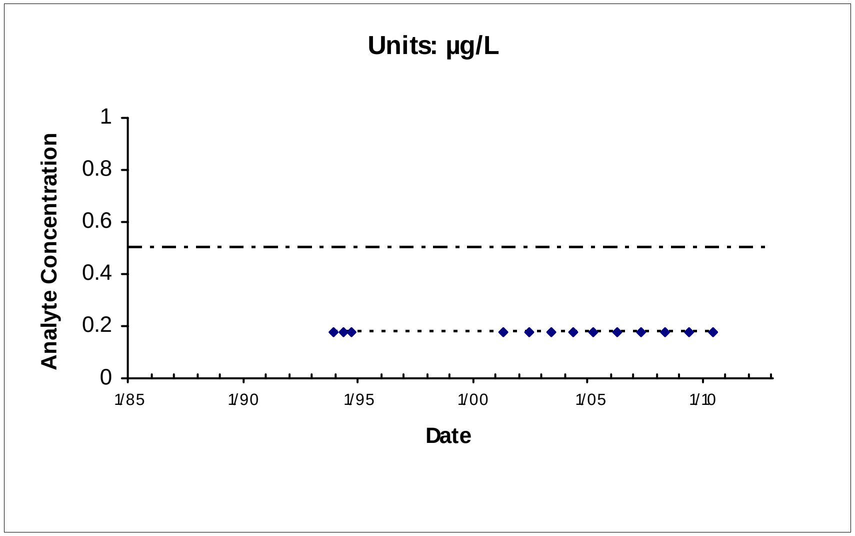
Location: MW1206X16 Maximum: 0.18

— - — - — IRG (0.5 µg/L)

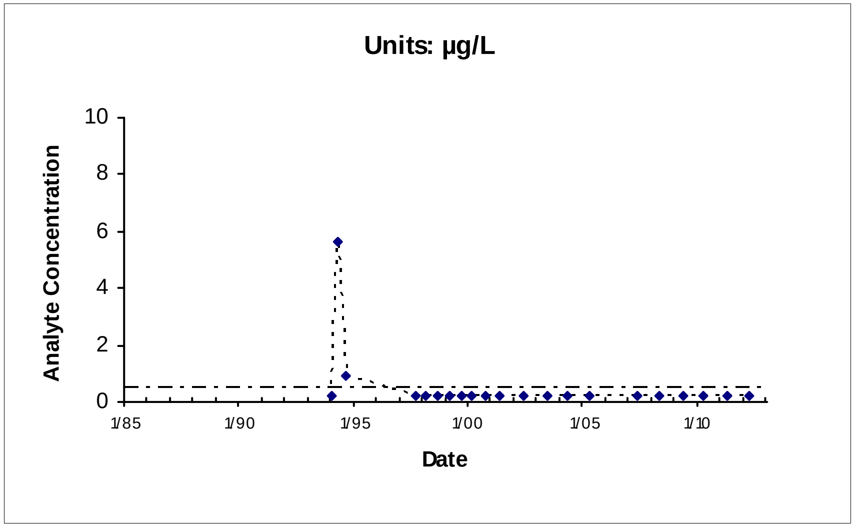
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

Central IRA

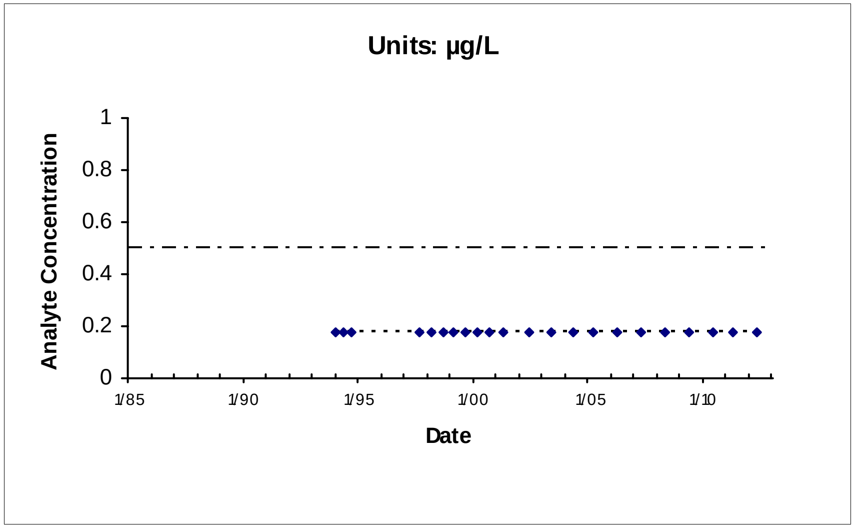
FIGURE 2-12
Site SS016
Vinyl Chloride
Chemical Time-series Plots



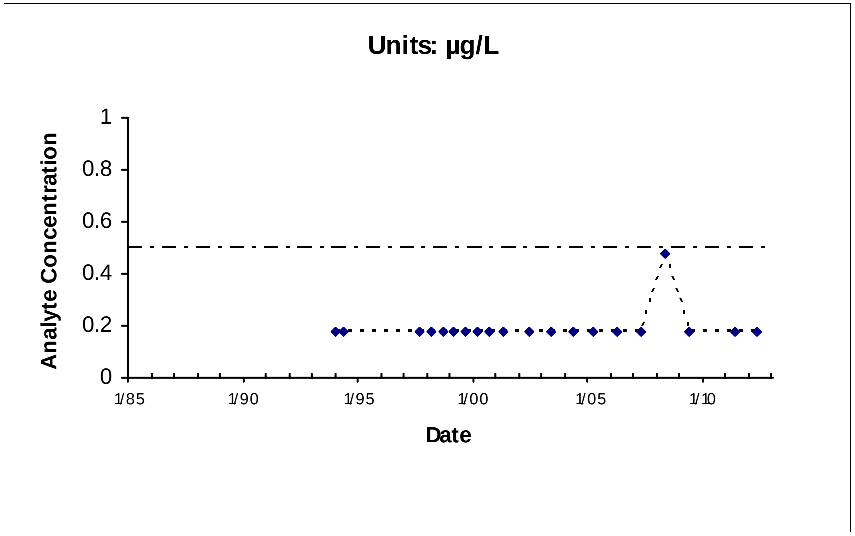
Location: MW1701X16 Maximum: 0.18



Location: MW1706X16 Maximum: 5.6



Location: MW1708X16 Maximum: 0.18



Location: MW1710X16 Maximum: 0.48

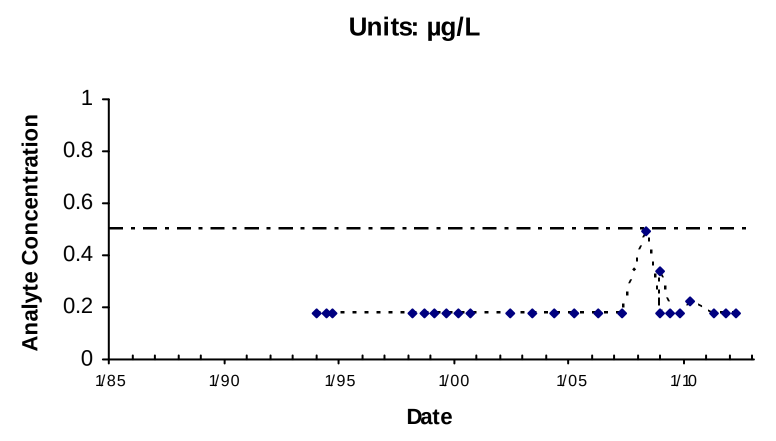
Central IRA

FIGURE 2-12
Site SS016
Vinyl Chloride
Chemical Time-series Plots

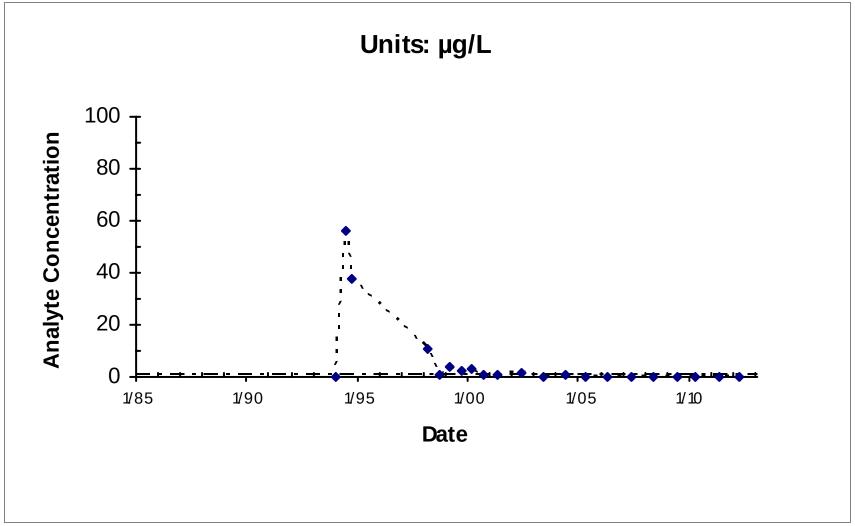
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

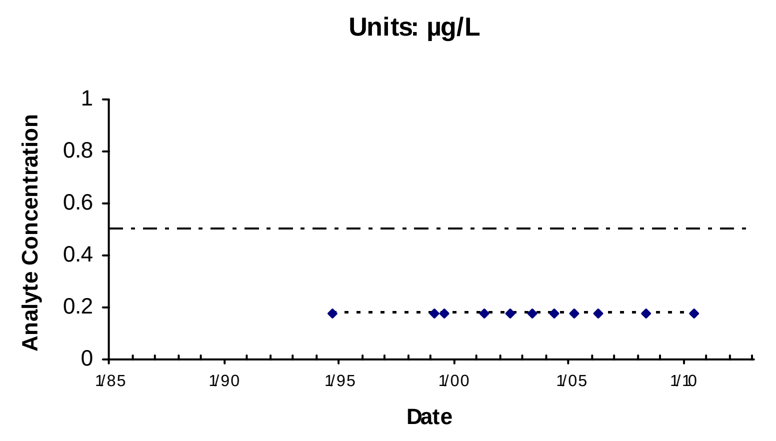
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



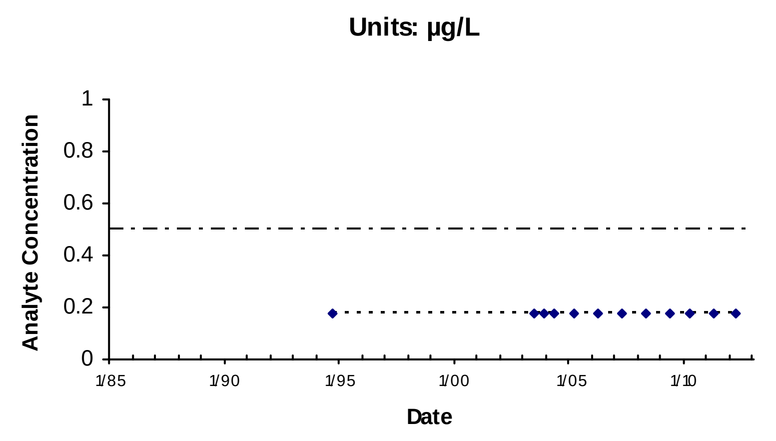
Location: MW1712X16 Maximum: 0.49



Location: MW1714X16 Maximum: 56



Location: MW1734X16 Maximum: 0.18



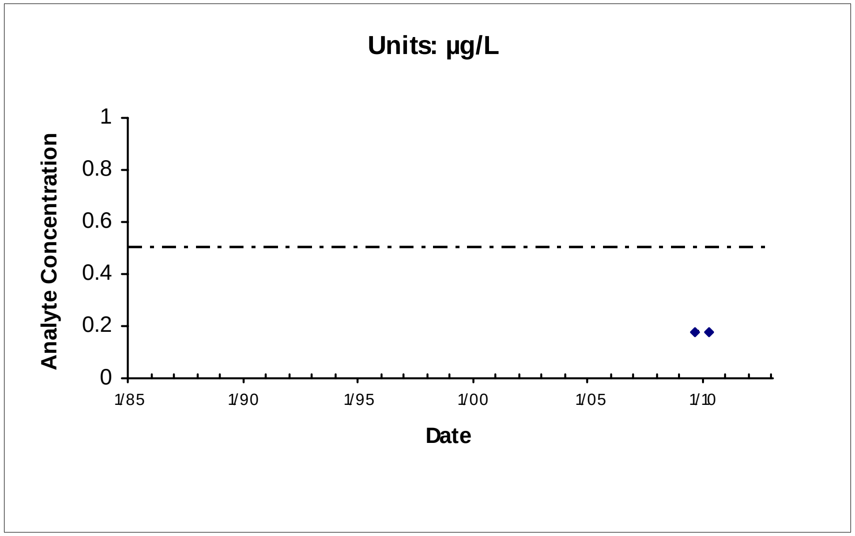
Location: MW1739X16 Maximum: 0.18

— - — - — IRG (0.5 µg/L)

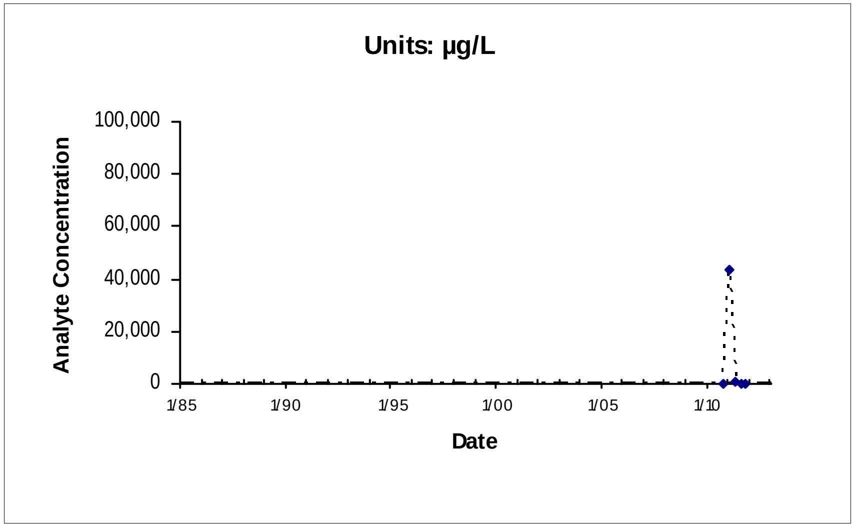
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

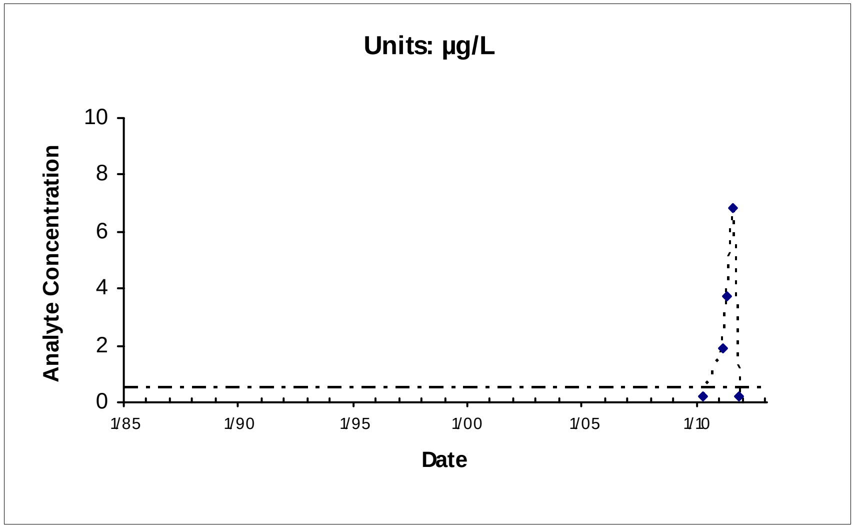
Central IRA
FIGURE 2-12
Site SS016
Vinyl Chloride
Chemical Time-series Plots



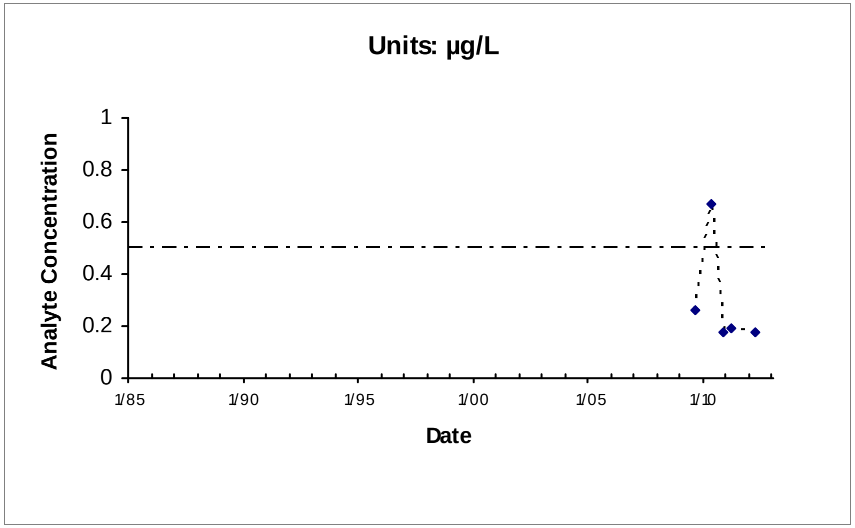
Location: MW2020x16 Maximum: 0.18



Location: MW2020Ax16 Maximum: 43200



Location: MW2022x16 Maximum: 6.8



Location: MW2023x16 Maximum: 0.67

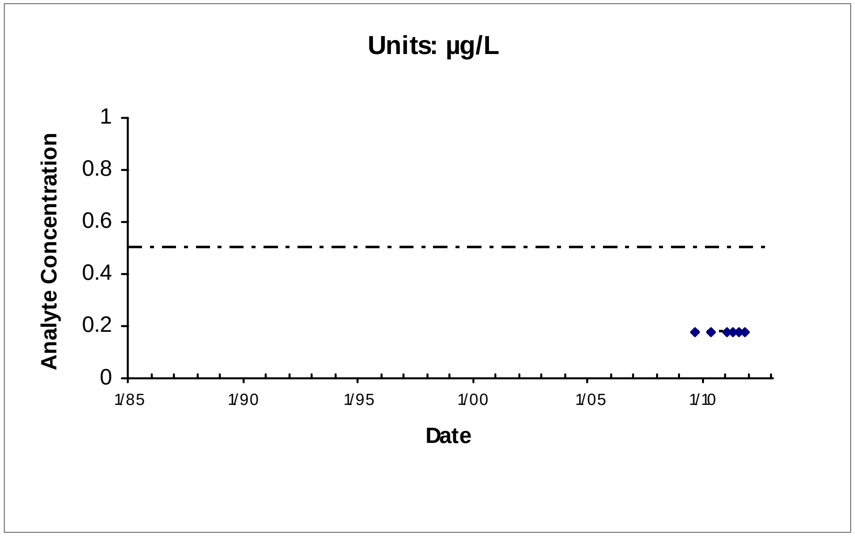
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

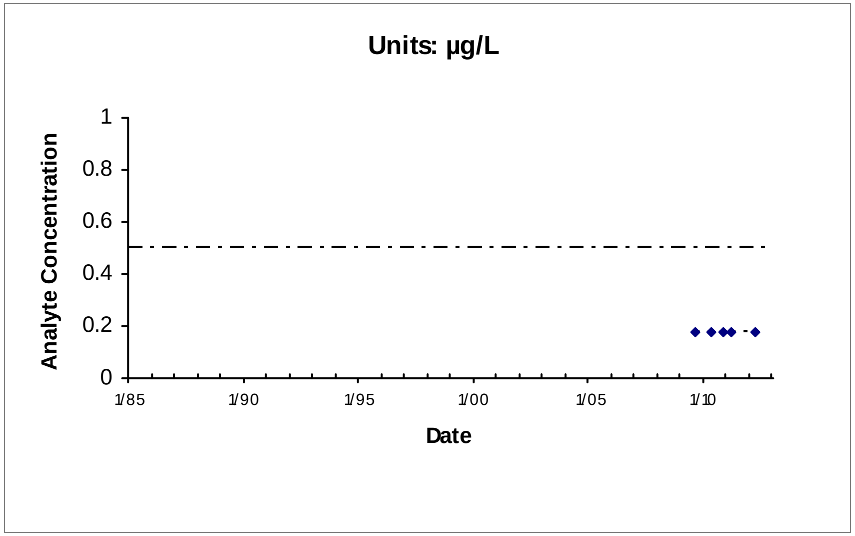
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

Central IRA

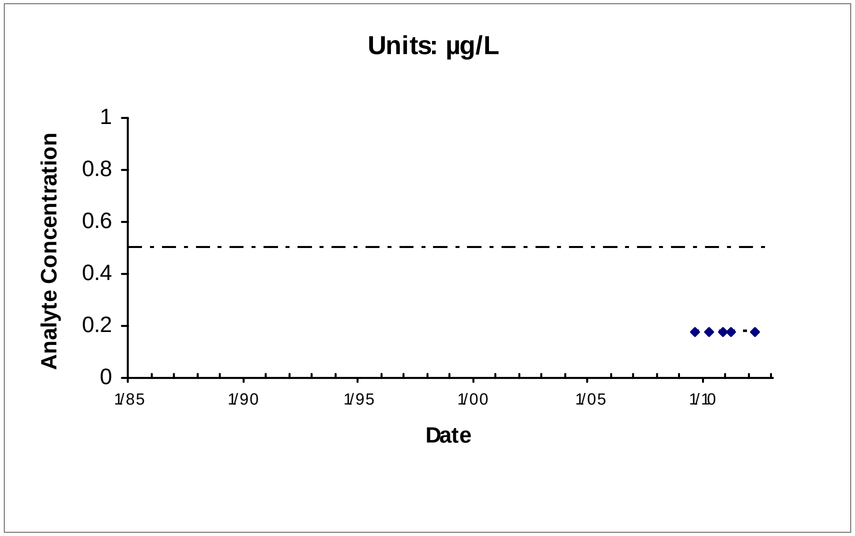
FIGURE 2-12
Site SS016
Vinyl Chloride
Chemical Time-series Plots



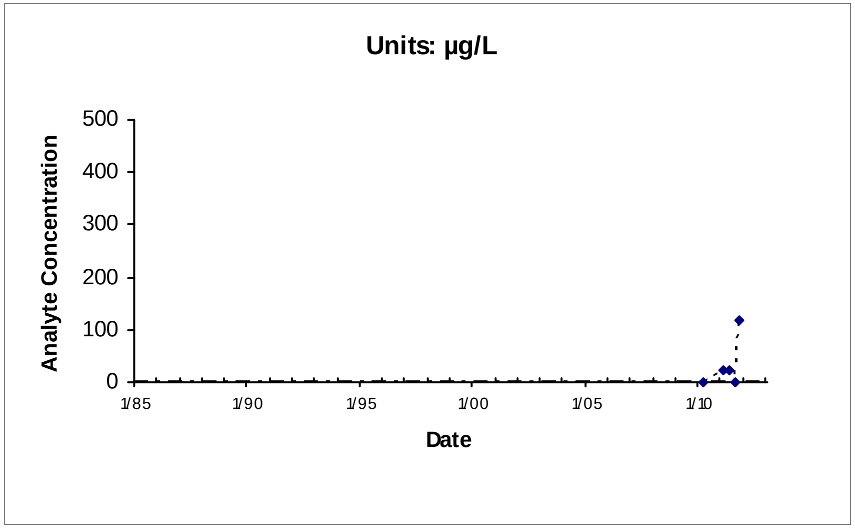
Location: MW2026x16 Maximum: 0.18



Location: MW2028x16 Maximum: 0.18



Location: MW2030x16 Maximum: 0.18



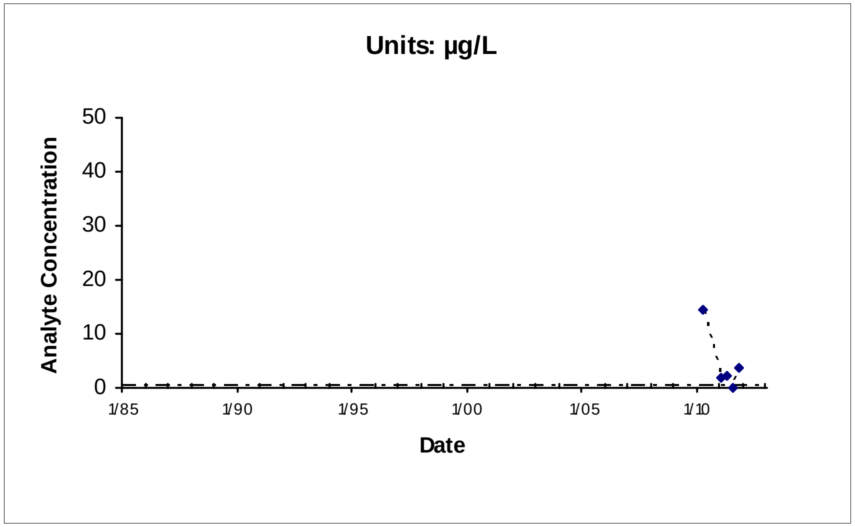
Location: MW2109x16 Maximum: 120

— - — - — IRG (0.5 µg/L)

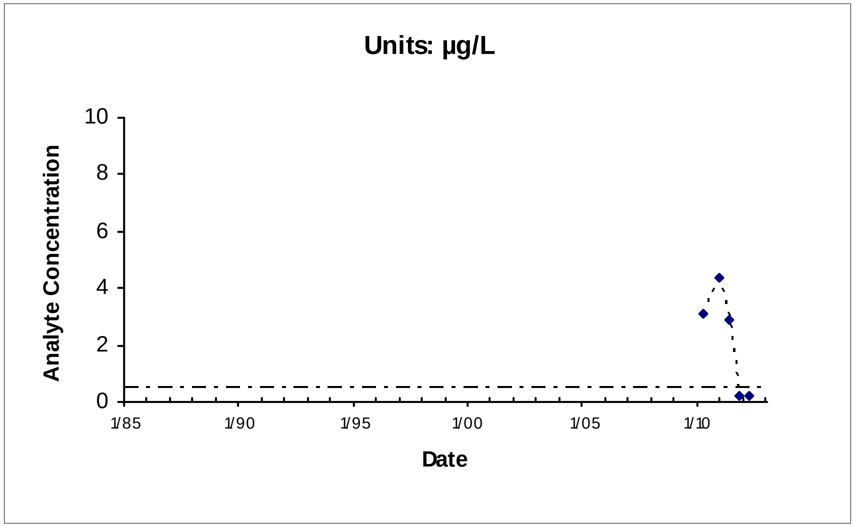
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

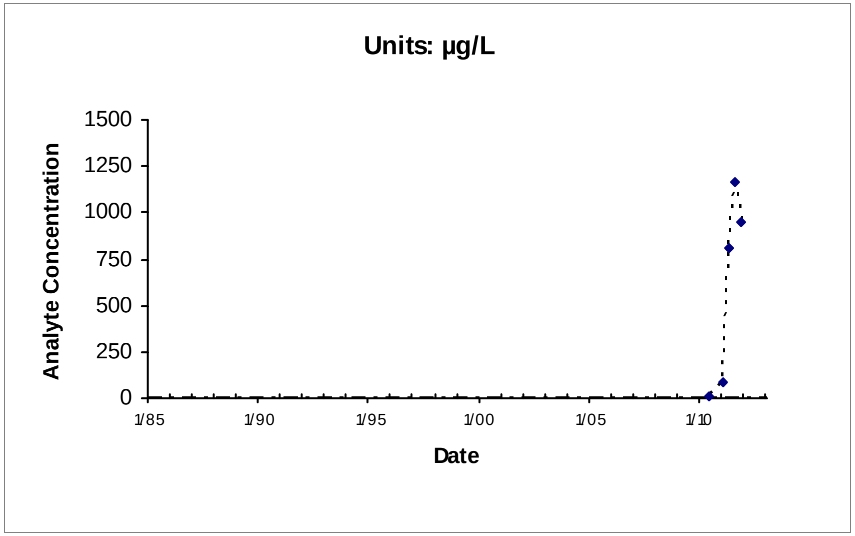
Central IRA
FIGURE 2-12
Site SS016
Vinyl Chloride
Chemical Time-series Plots



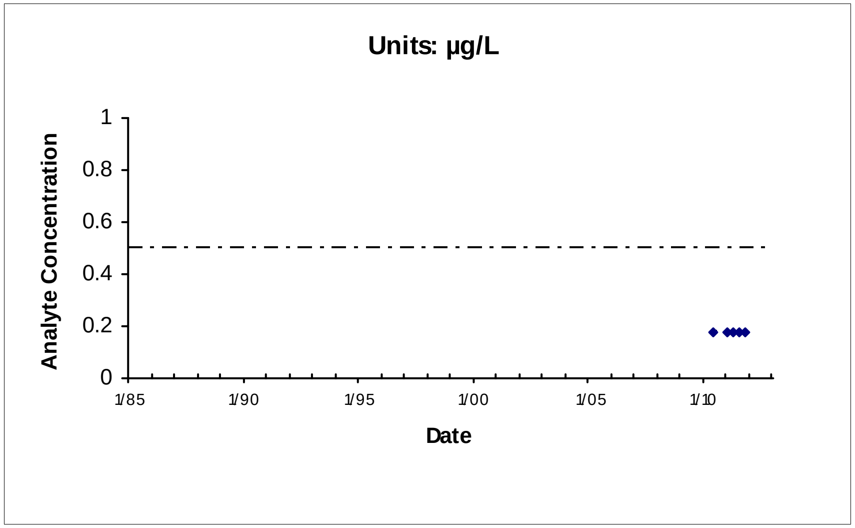
Location: MW2110x16 Maximum: 14.3



Location: MW2111Bx16 Maximum: 4.4



Location: MW2112Ax16 Maximum: 1170



Location: MW2112Bx16 Maximum: 0.18

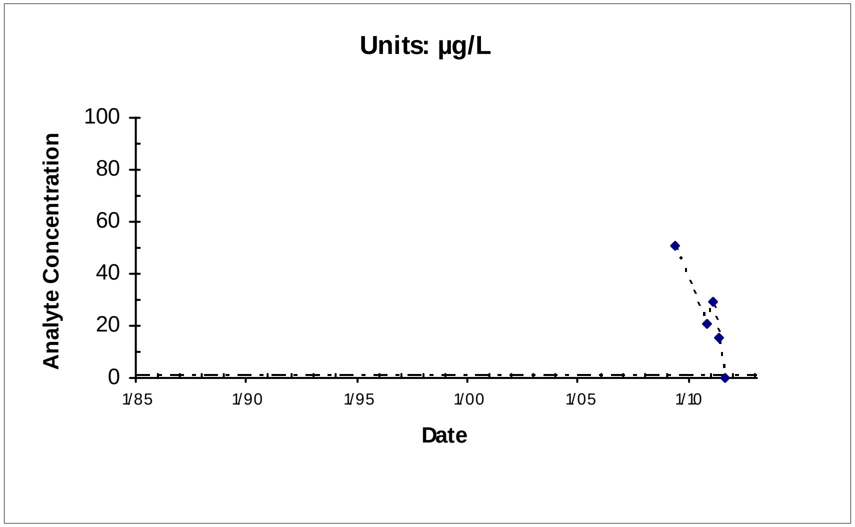
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

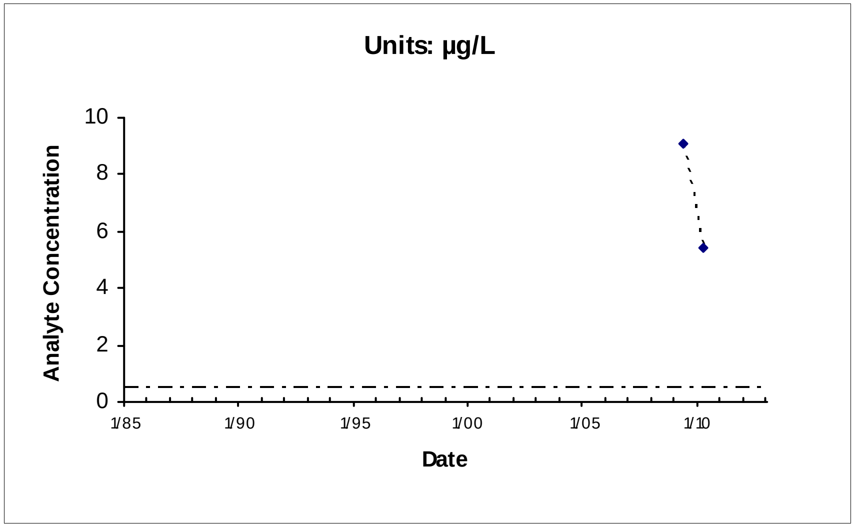
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

Central IRA

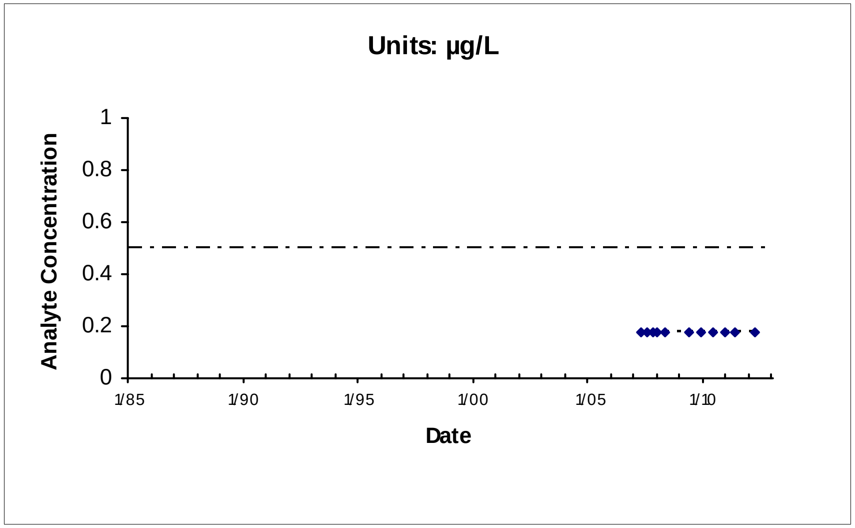
FIGURE 2-12
Site SS016
Vinyl Chloride
Chemical Time-series Plots



Location: PZAx16 Maximum: 50.5



Location: PZCx16 Maximum: 9.1



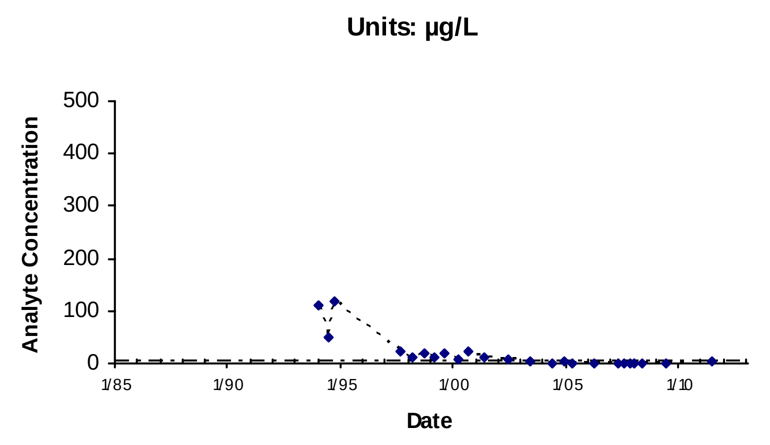
Location: MW792X27 Maximum: 0.18

— - — - — IRG (0.5 µg/L)

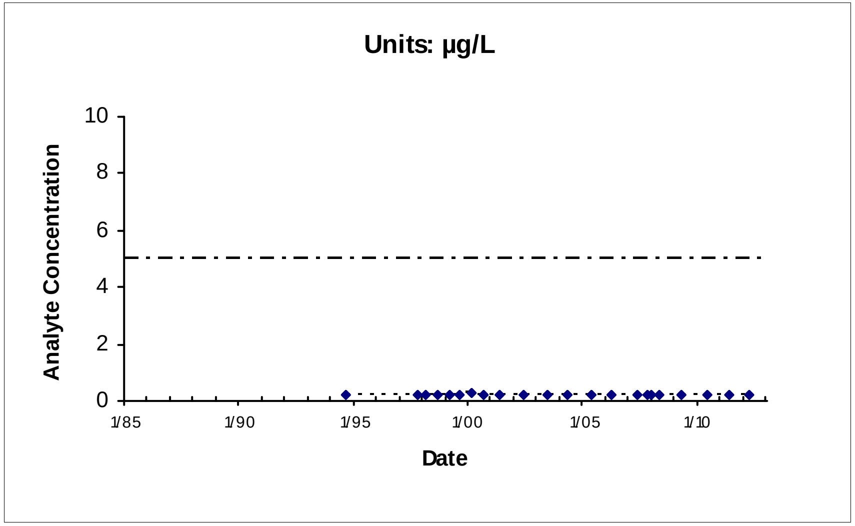
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

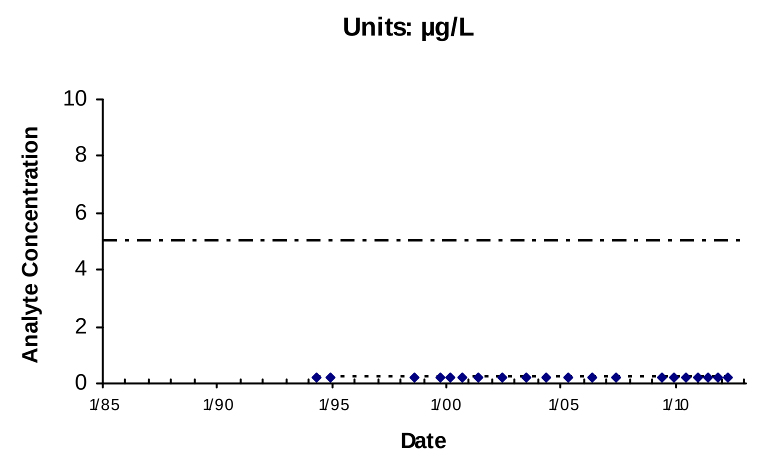
Central IRA
FIGURE 2-12
Site SS016
Vinyl Chloride
Chemical Time-series Plots



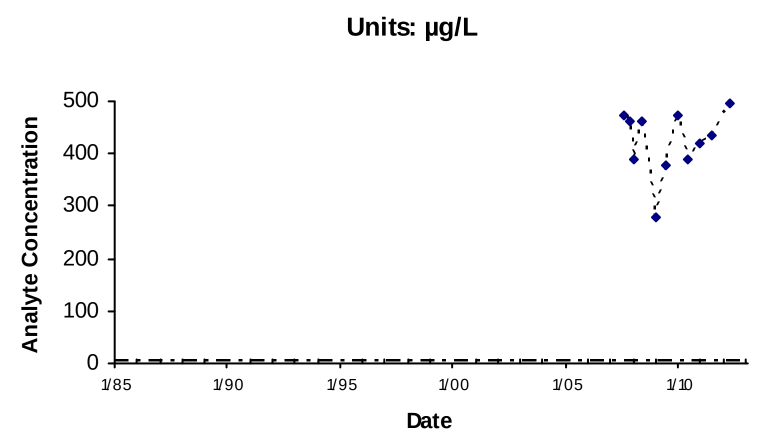
Location: MW328X16 Maximum: 120



Location: MW1023X16 Maximum: 0.3



Location: MW278X27 Maximum: 0.19



Location: MW791X27 Maximum: 498

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

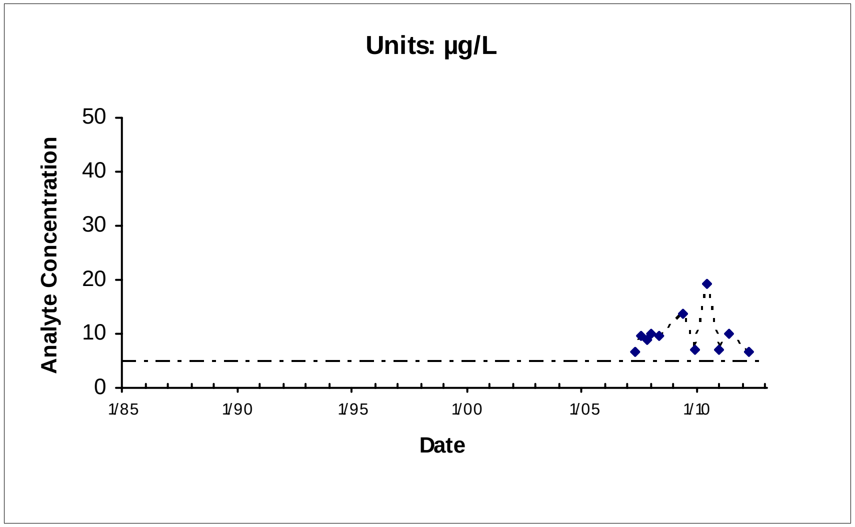
Central IRA

FIGURE 2-13

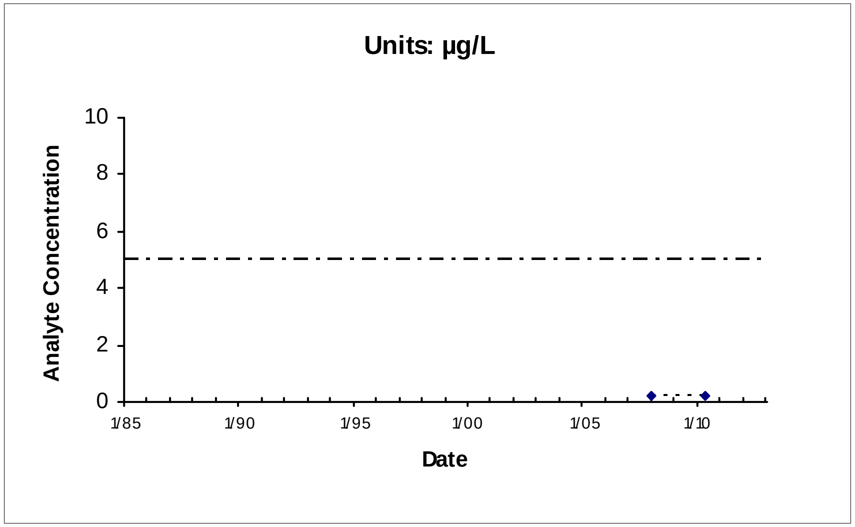
Site ST027

TCE

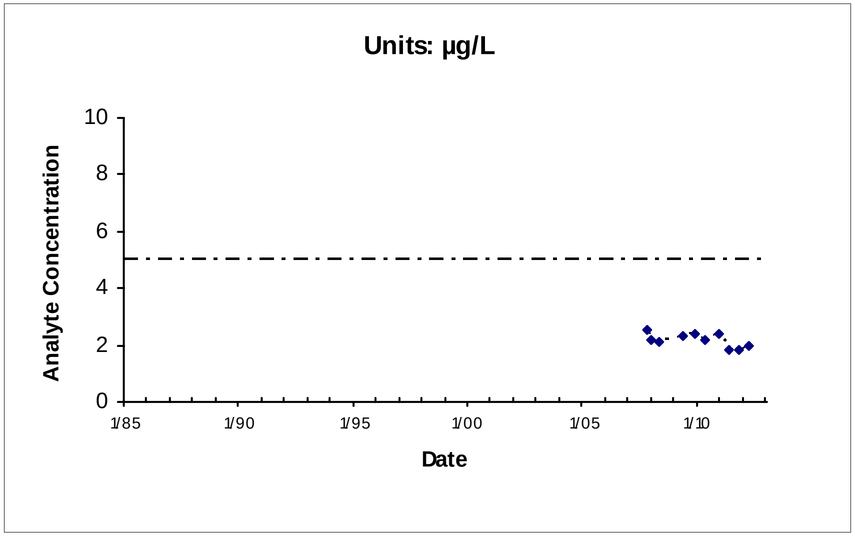
Chemical Time-series Plots



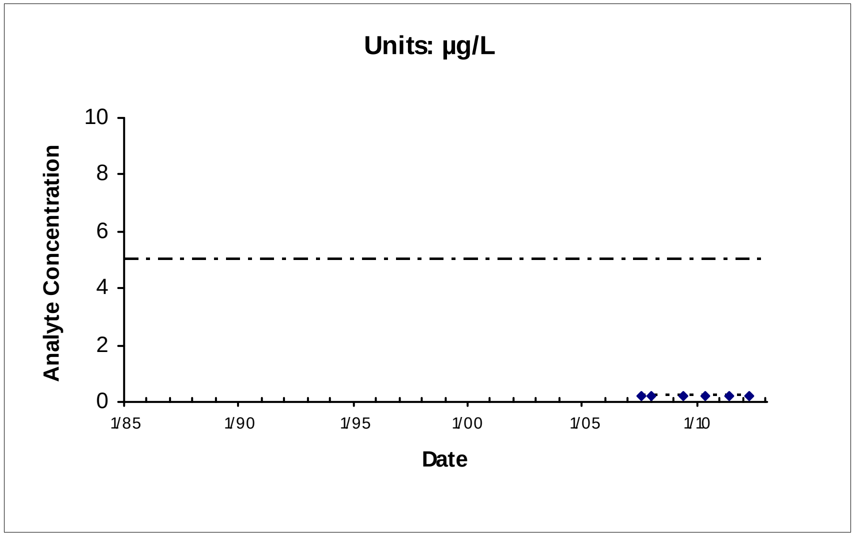
Location: MW792X27 Maximum: 19.1



Location: MW793X27 Maximum: 0.19



Location: MW794X27 Maximum: 2.52



Location: MW795X27 Maximum: 0.19

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

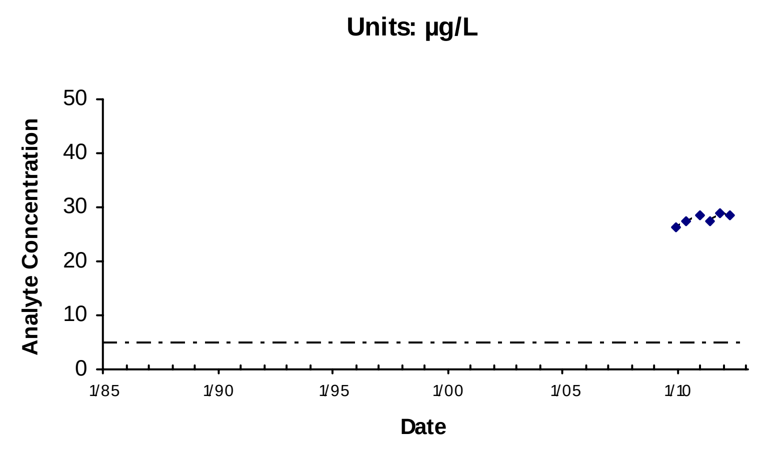
Central IRA

FIGURE 2-13

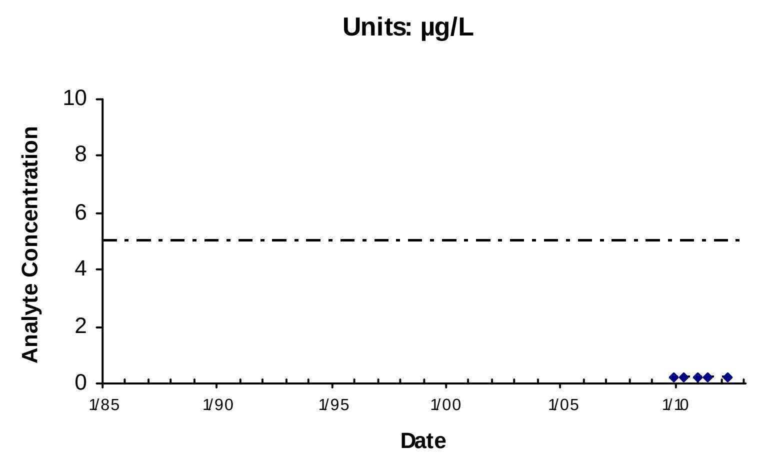
Site ST027

TCE

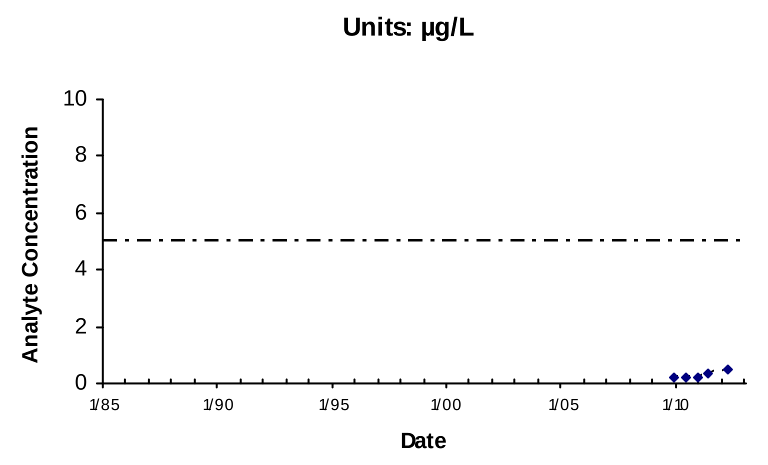
Chemical Time-series Plots



Location: MW2009x27 Maximum: 28.9



Location: MW2010x27 Maximum: 0.19



Location: MW2048x27 Maximum: 0.52

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

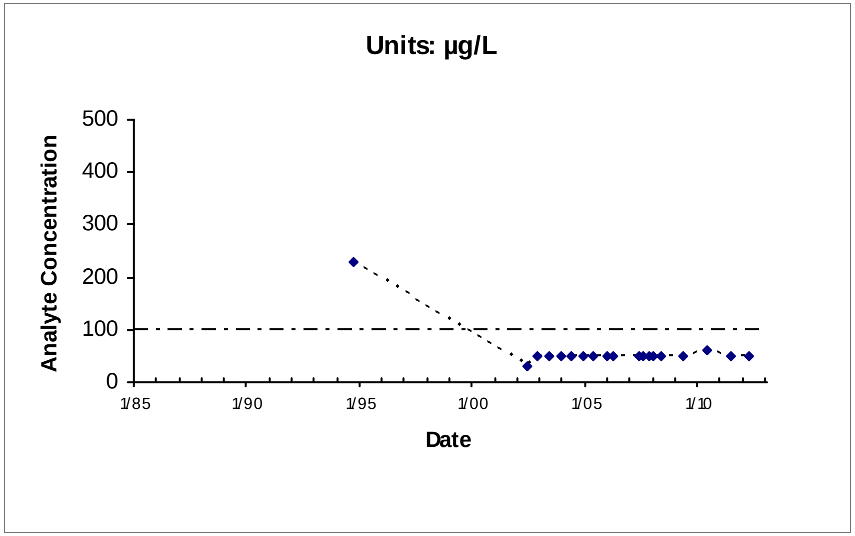
Central IRA

FIGURE 2-13

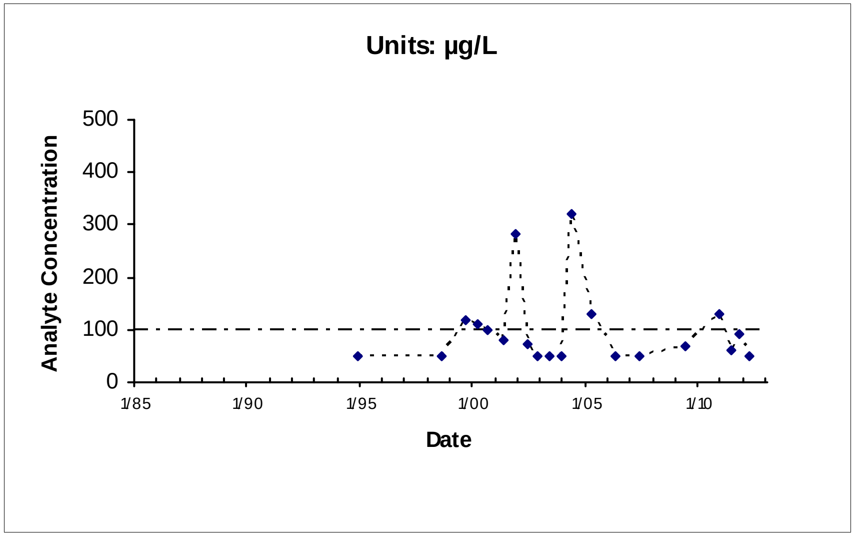
Site ST027

TCE

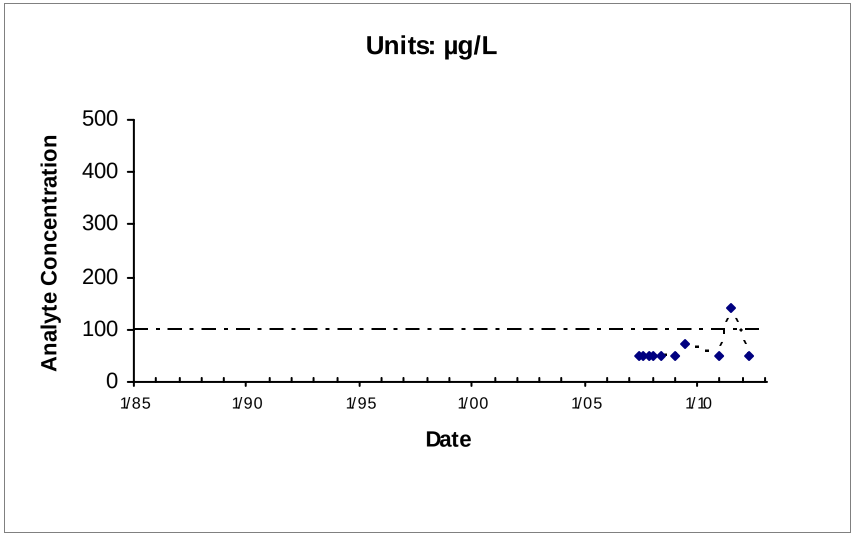
Chemical Time-series Plots



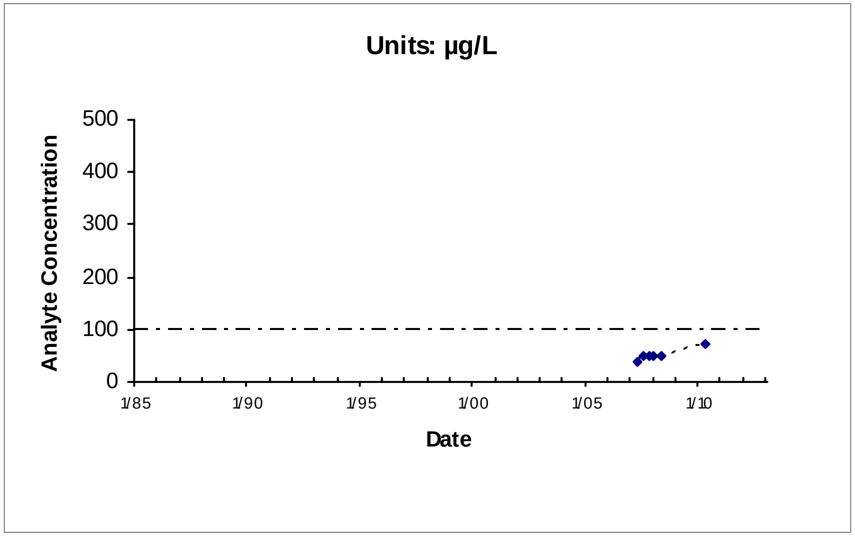
Location: MW1023X16 Maximum: 230



Location: MW278X27 Maximum: 320



Location: MW791X27 Maximum: 140



Location: MW793X27 Maximum: 72

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (50 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

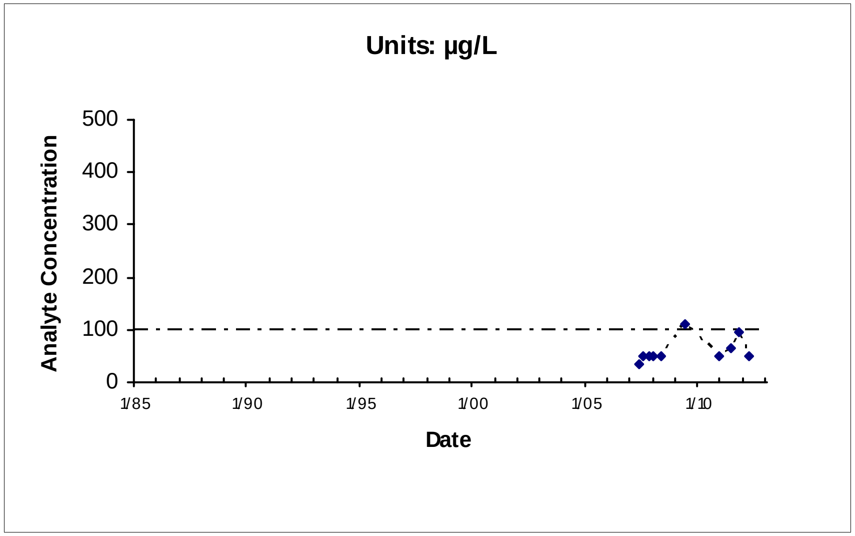
Central IRA

FIGURE 2-14

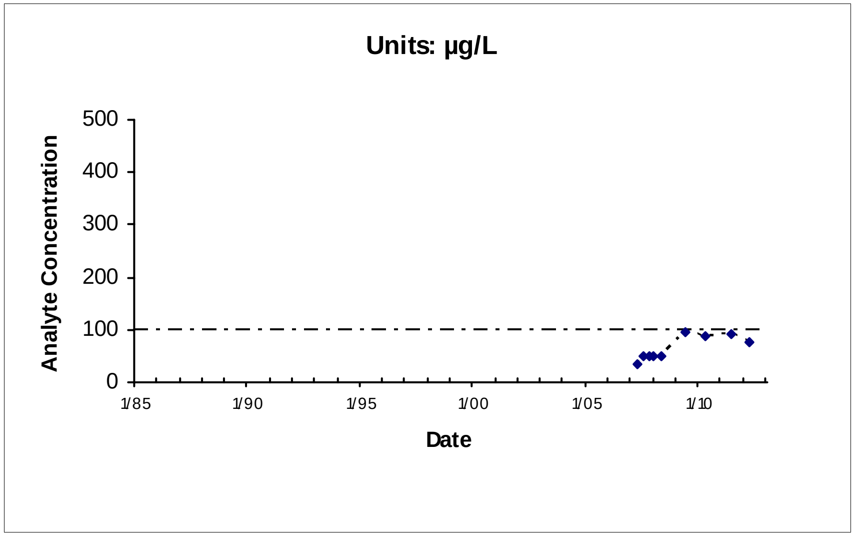
Site ST027

TPH-D

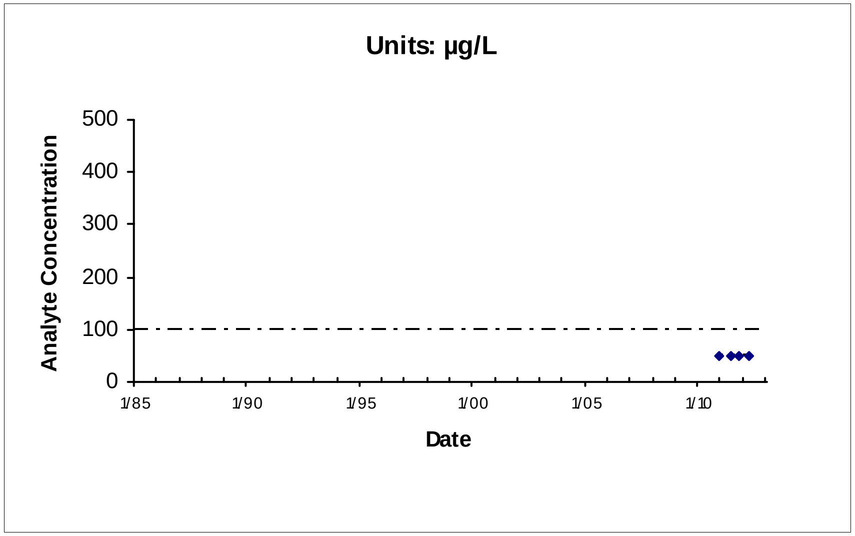
Chemical Time-series Plots



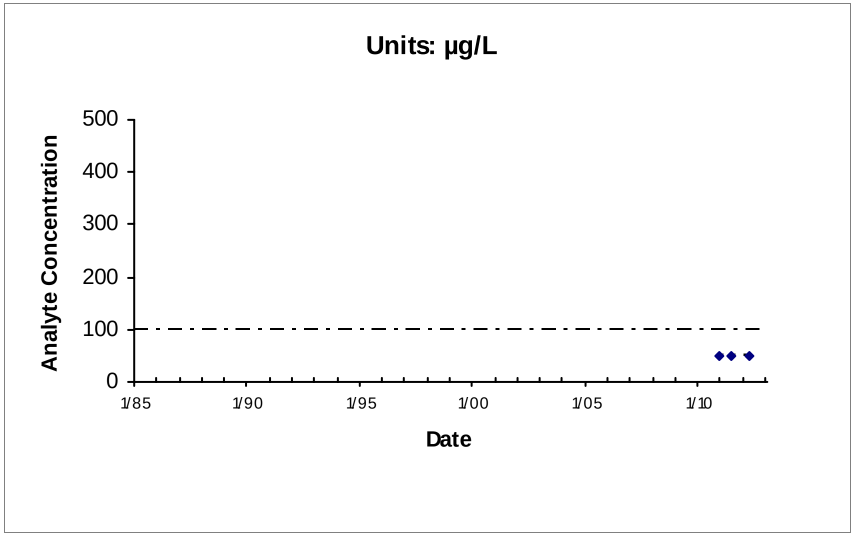
Location: MW794X27 Maximum: 110



Location: MW795X27 Maximum: 96



Location: MW2009x27 Maximum: 50



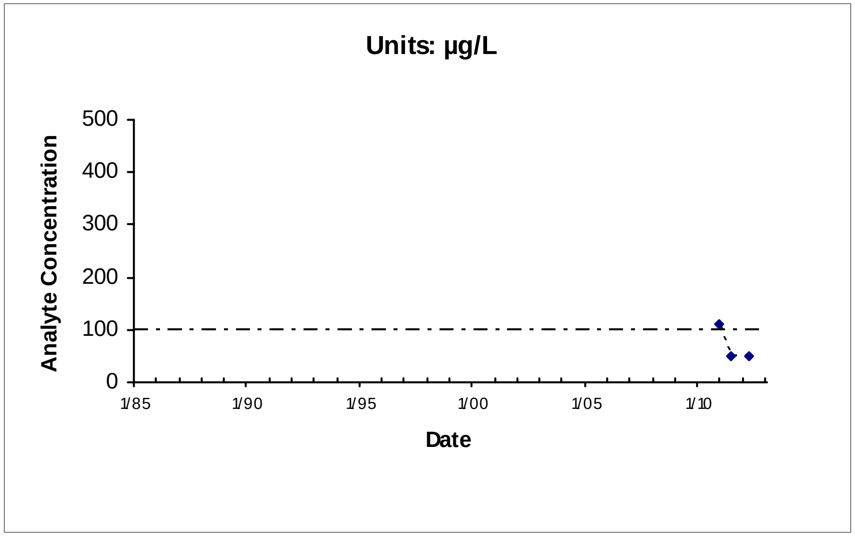
Location: MW2010x27 Maximum: 50

Central IRA
FIGURE 2-14
Site ST027
TPH-D
Chemical Time-series Plots

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (50 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



Location: MW2048x27 Maximum: 110

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (50 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

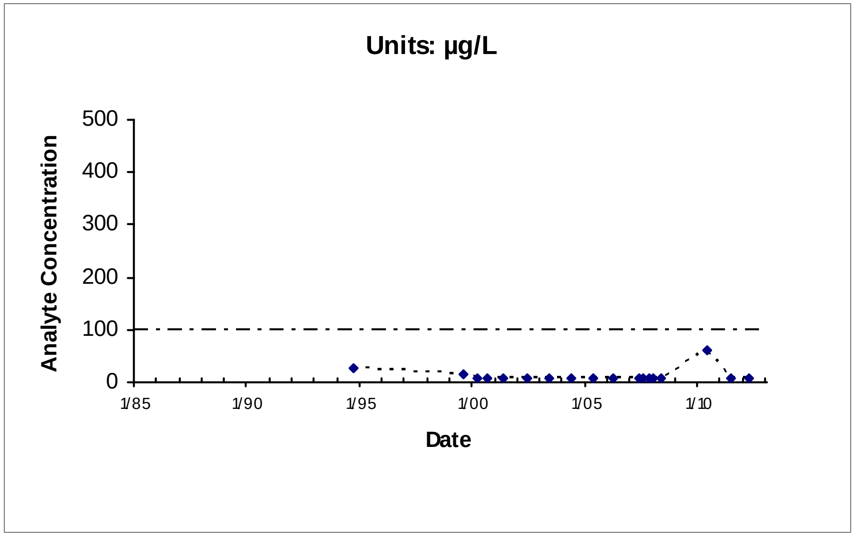
Central IRA

FIGURE 2-14

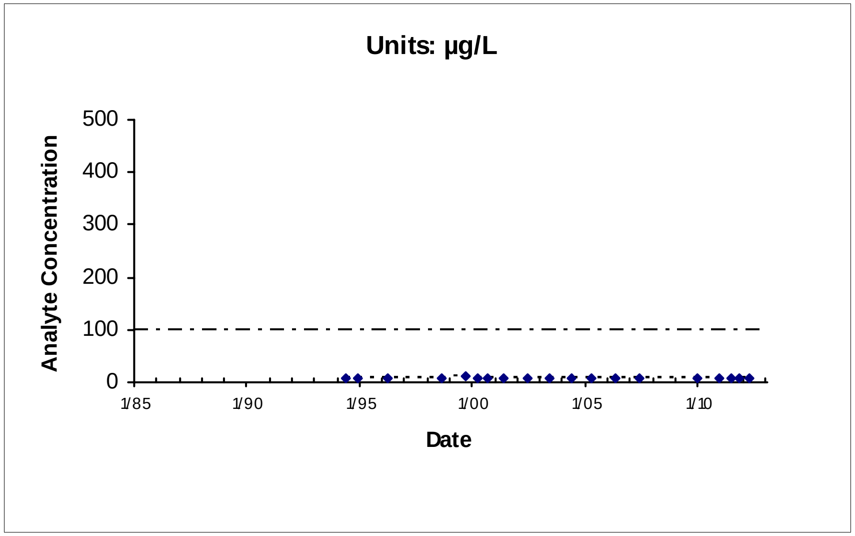
Site ST027

TPH-D

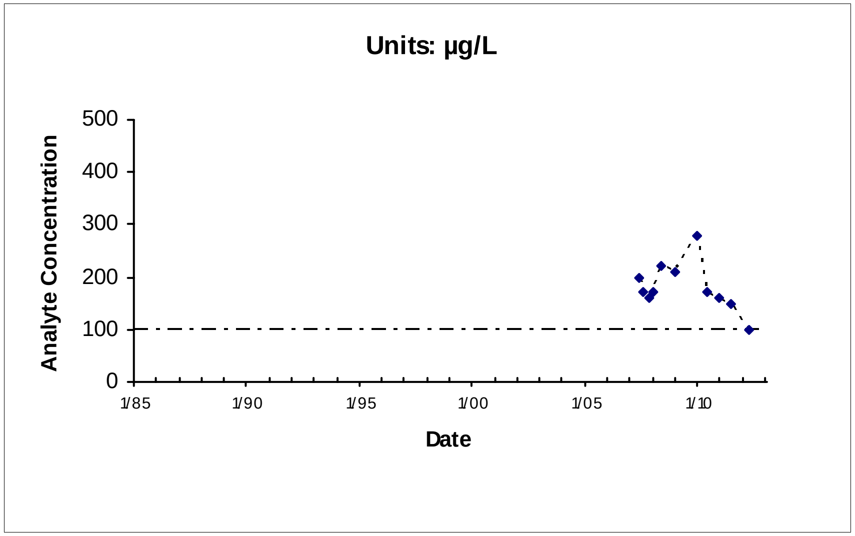
Chemical Time-series Plots



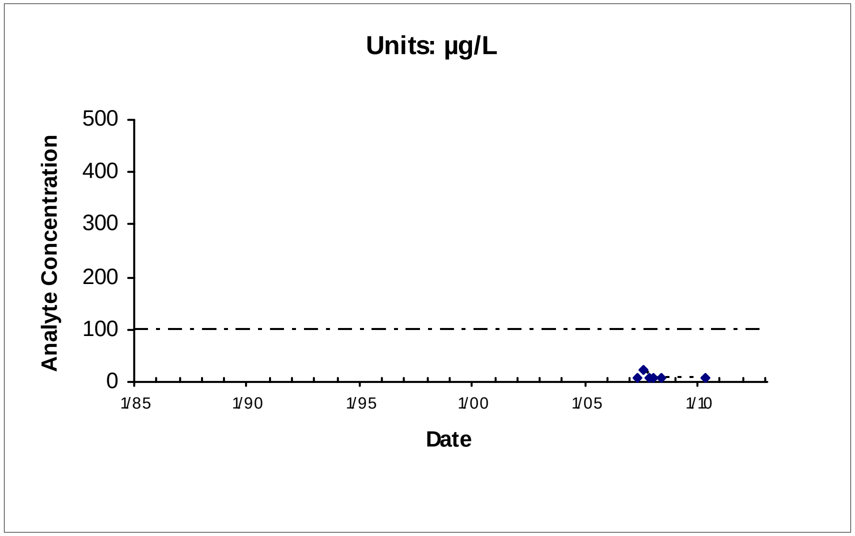
Location: MW1023X16 Maximum: 61



Location: MW278X27 Maximum: 11



Location: MW791X27 Maximum: 280



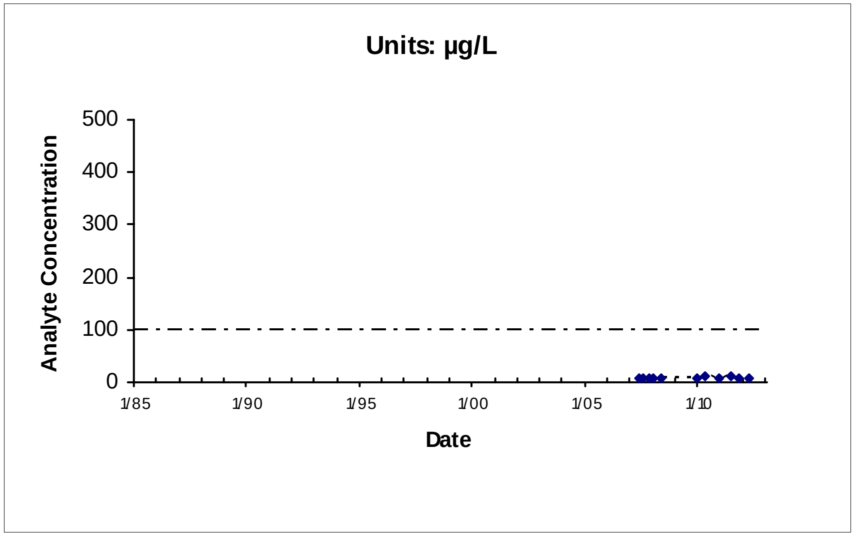
Location: MW793X27 Maximum: 21.5

— - — - — IRG (100 µg/L)

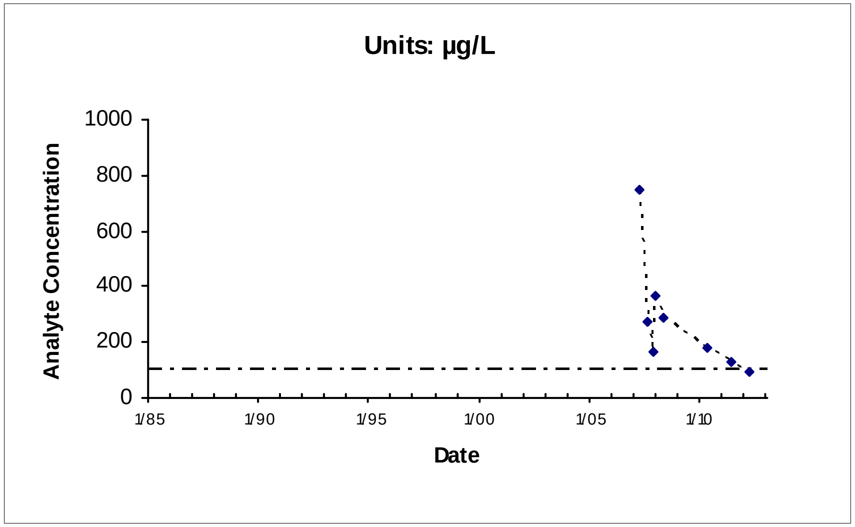
*Nondetects shown as the Method Detection Limit (8.5 µg/L)

Central IRA
FIGURE 2-15
Site ST027
TPH-G
Chemical Time-series Plots

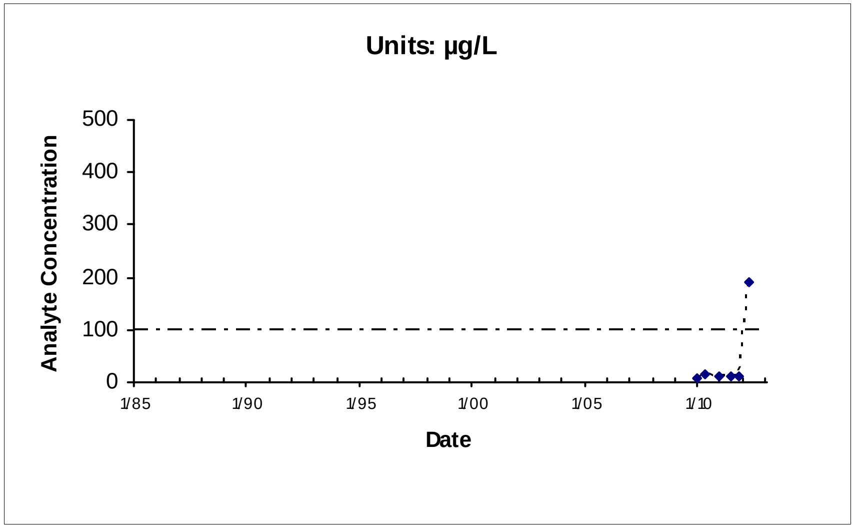
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



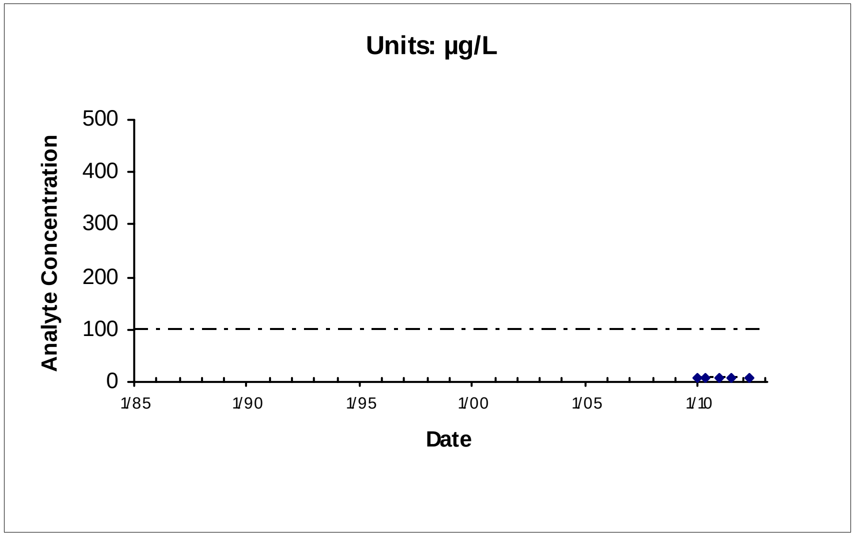
Location: MW794X27 Maximum: 10



Location: MW795X27 Maximum: 749



Location: MW2009x27 Maximum: 190



Location: MW2010x27 Maximum: 8.5

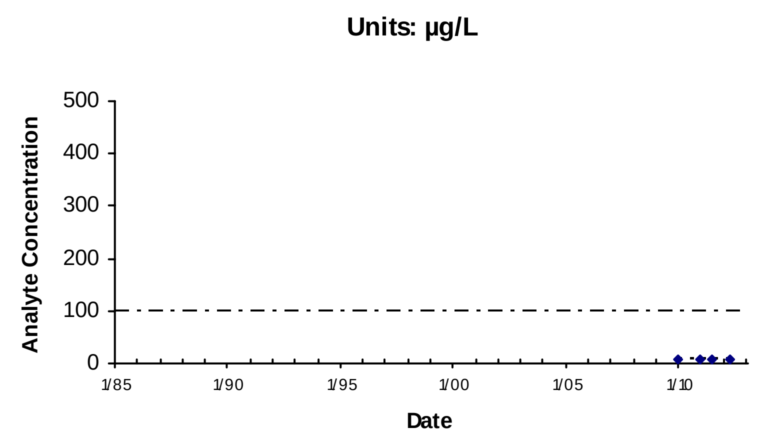
— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (8.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

Central IRA

FIGURE 2-15
Site ST027
TPH-G
Chemical Time-series Plots



Location: MW2048x27 Maximum: 8.5

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (8.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

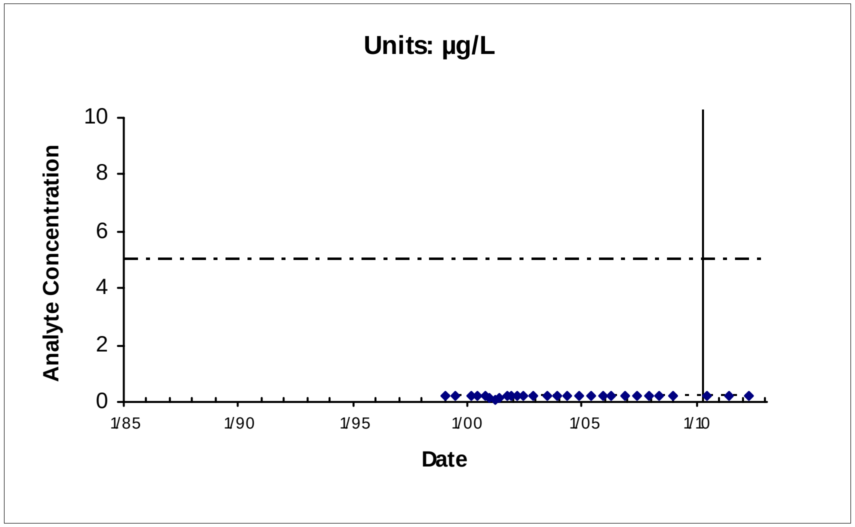
Central IRA

FIGURE 2-15

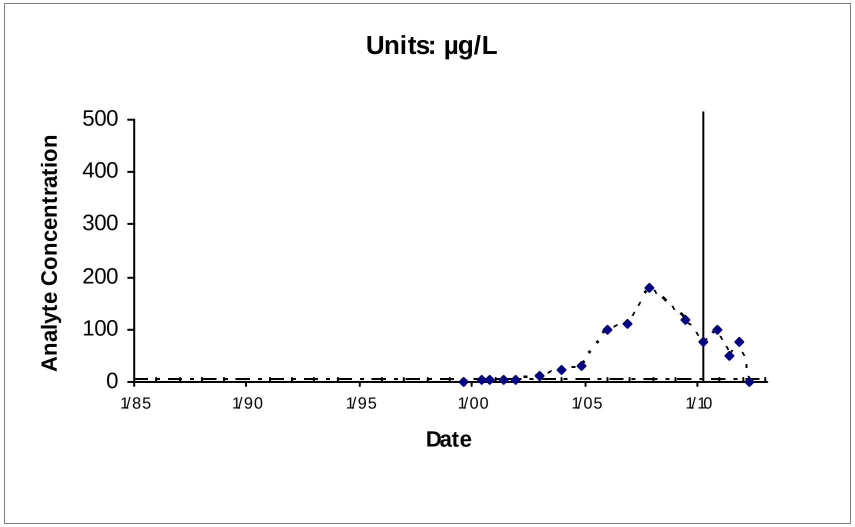
Site ST027

TPH-G

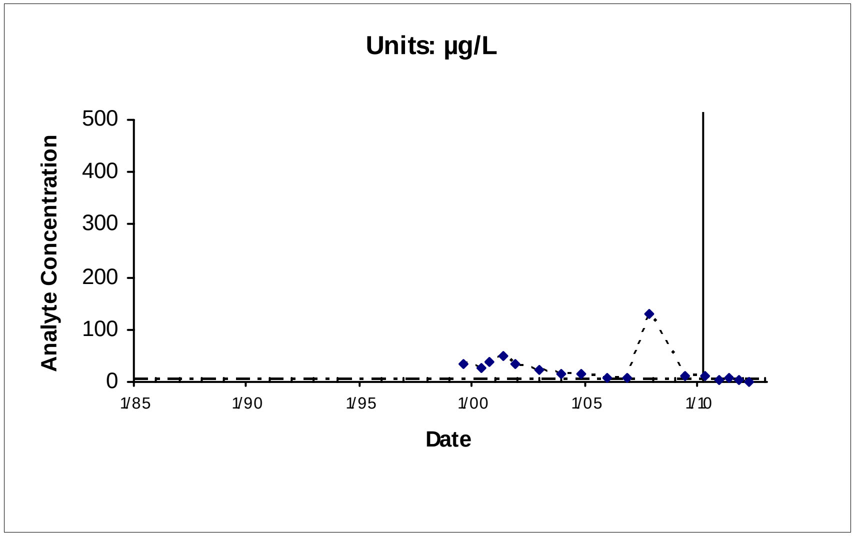
Chemical Time-series Plots



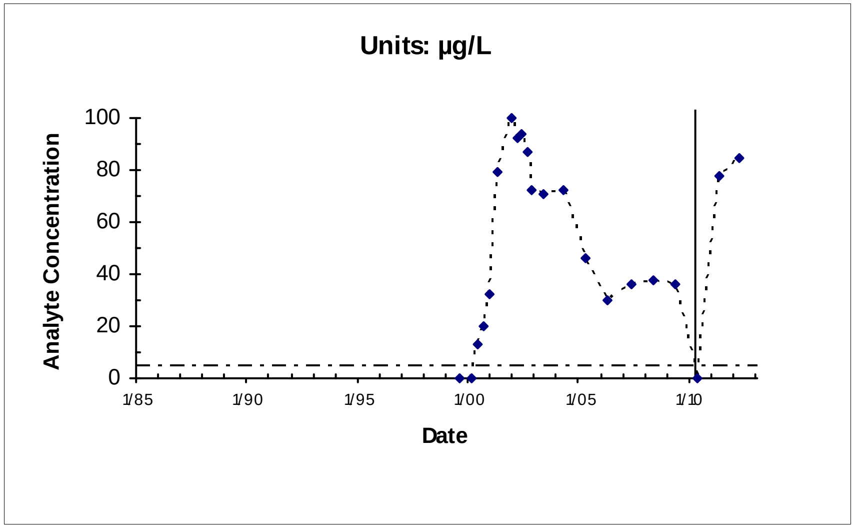
Location: MW05X14 Maximum: 0.22



Location: EW501X33 Maximum: 180



Location: EW503X33 Maximum: 130



Location: MW502X33 Maximum: 99.8

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

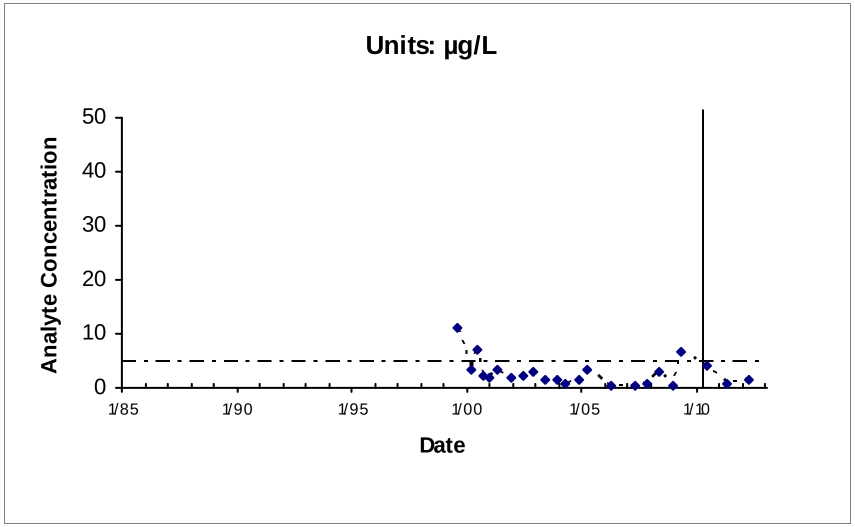
West IRA

FIGURE 2-16

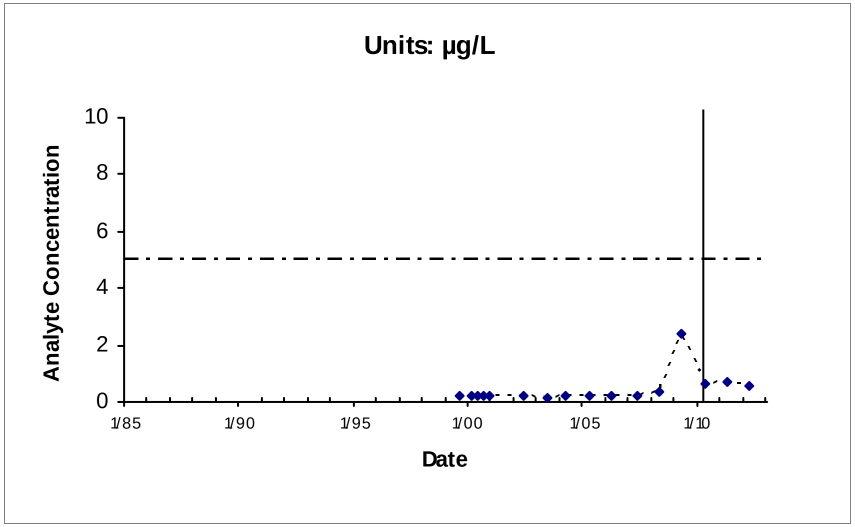
WIOU

TCE

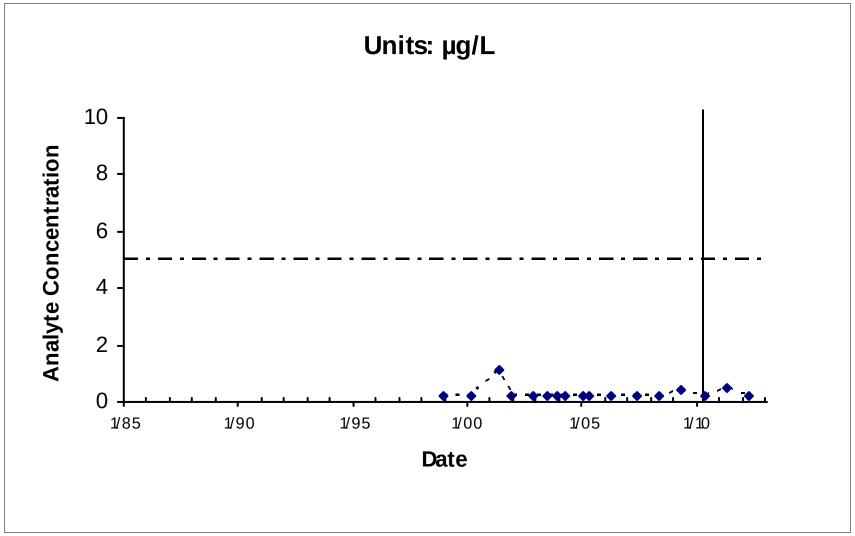
Chemical Time-series Plots



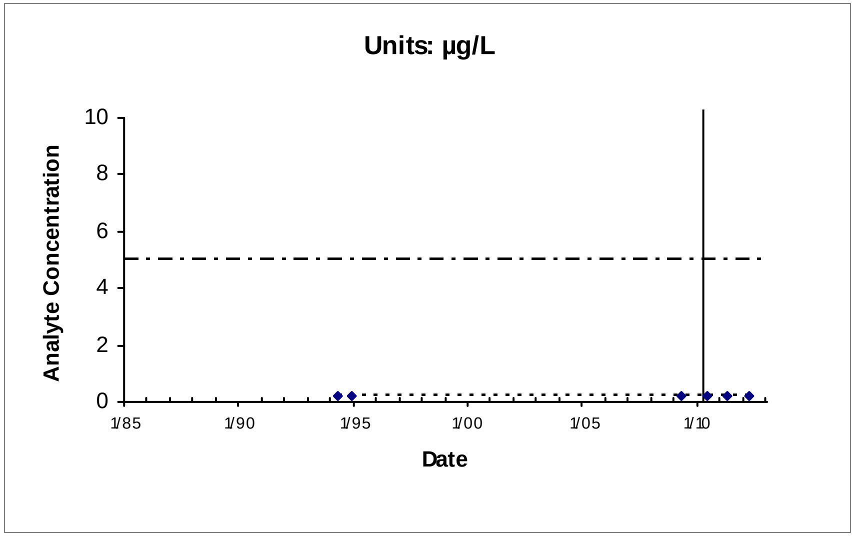
Location: MW504X33 Maximum: 11



Location: MW509X33 Maximum: 2.4



Location: MW530X33 Maximum: 1.1



Location: MW1S3X33 Maximum: 0.19

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

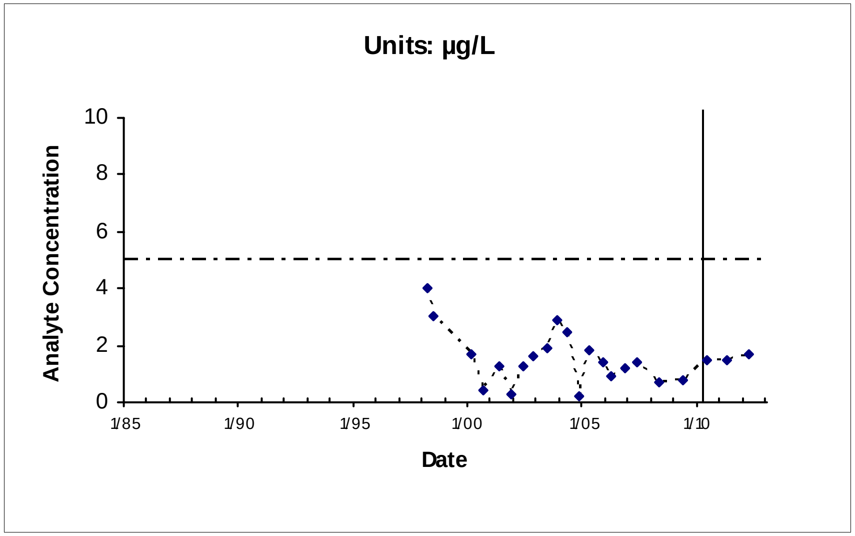
West IRA

FIGURE 2-16

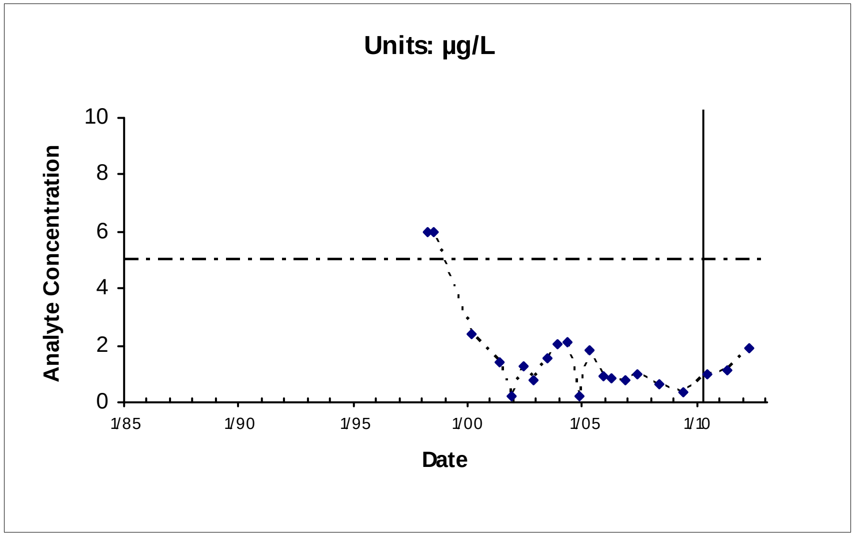
WIOU

TCE

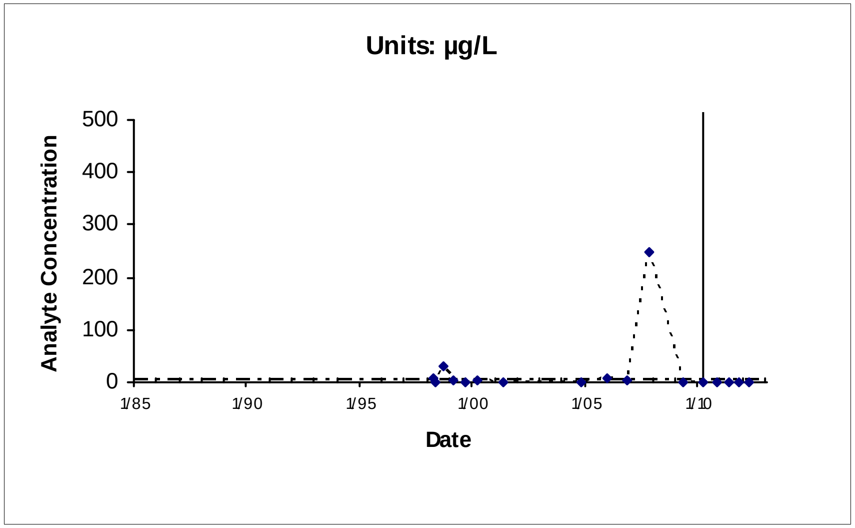
Chemical Time-series Plots



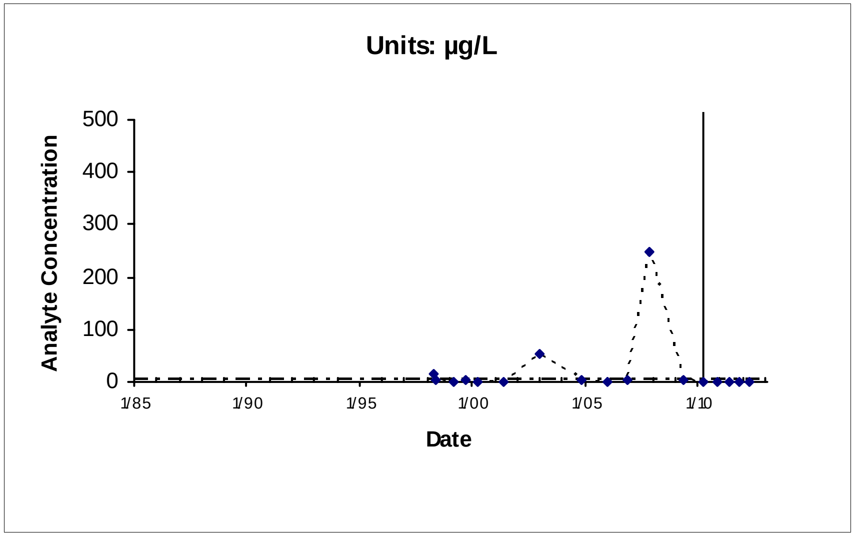
Location: WBUC-3 Maximum: 4



Location: WBUC-4 Maximum: 6



Location: EW01X34 Maximum: 250



Location: EW03X34 Maximum: 250

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

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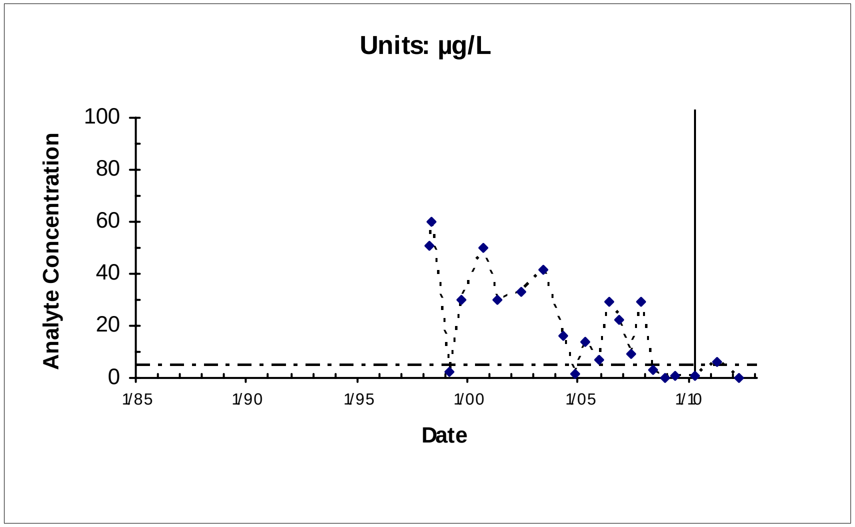
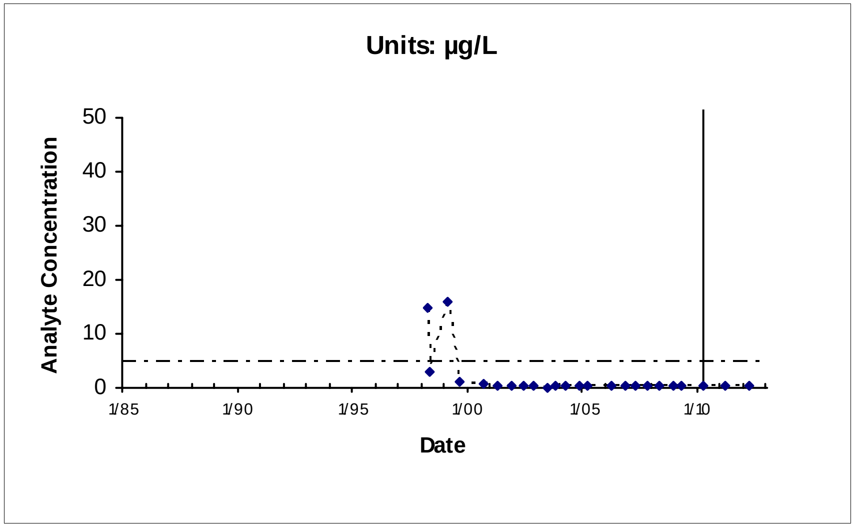
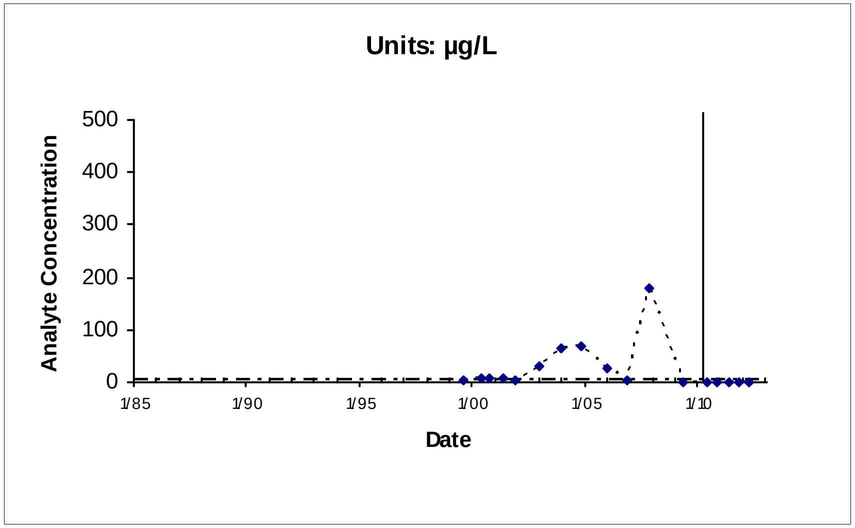
Chemical Time-series Plots



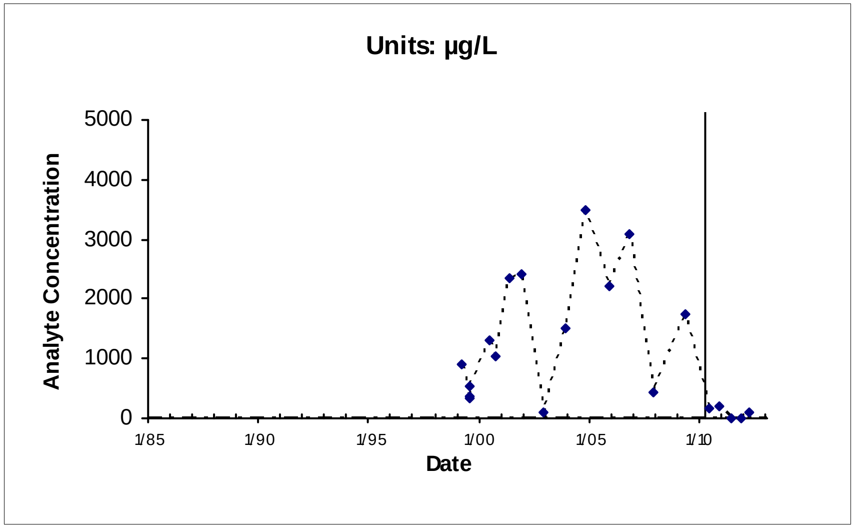
Location: MW02X34 Maximum: 60



Location: MW04X34 Maximum: 16



Location: EW593X36 Maximum: 180



Location: EW594X36 Maximum: 3500

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

WIOU

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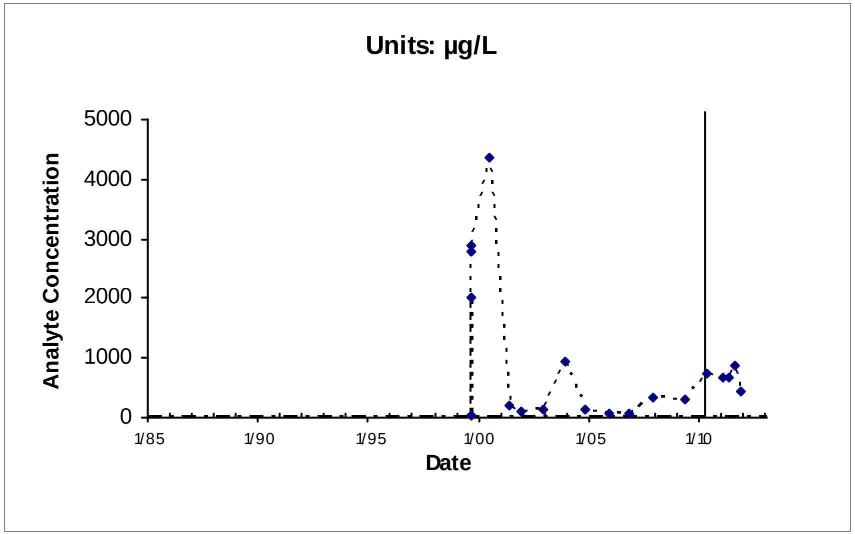
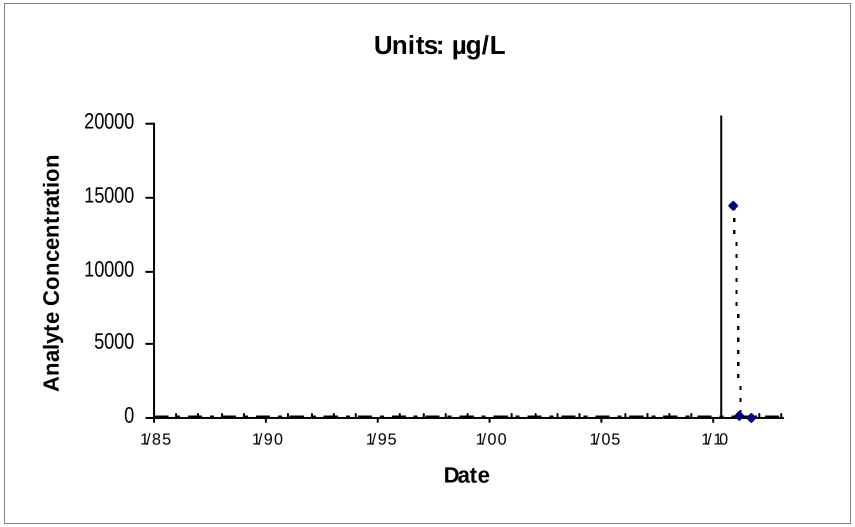
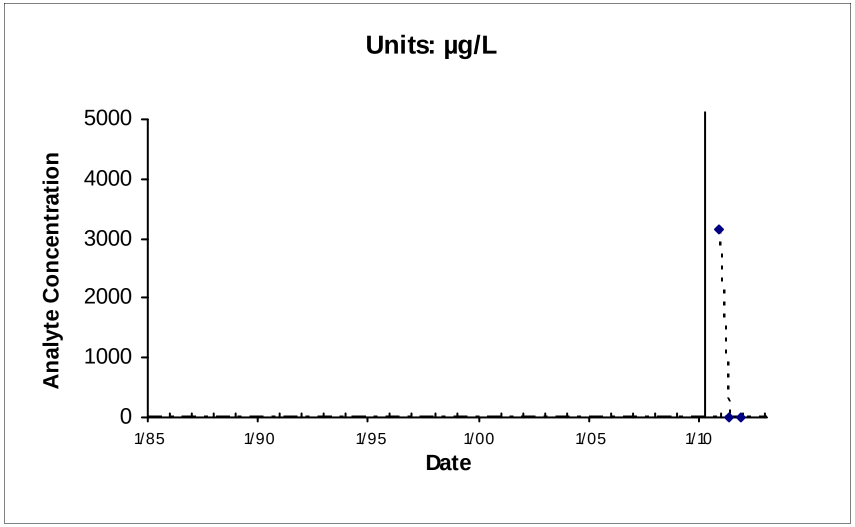
Chemical Time-series Plots



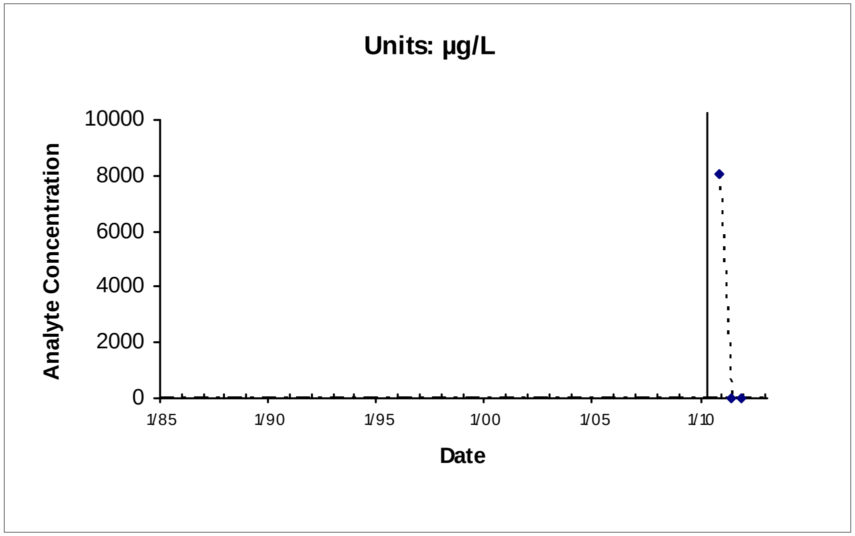
Location: EW595X36 Maximum: 4350



Location: IW2133X36 Maximum: 14400



Location: IW2134X36 Maximum: 3150



Location: IW2135X36 Maximum: 8090

——————— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

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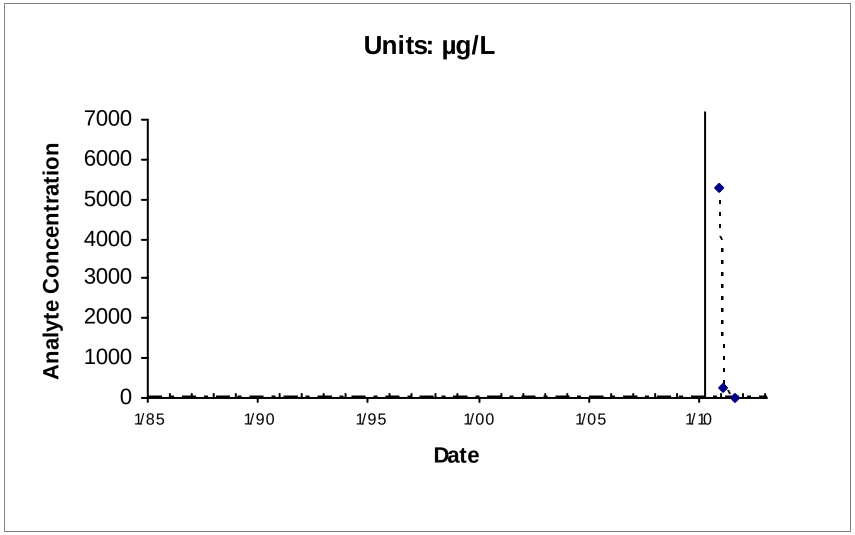
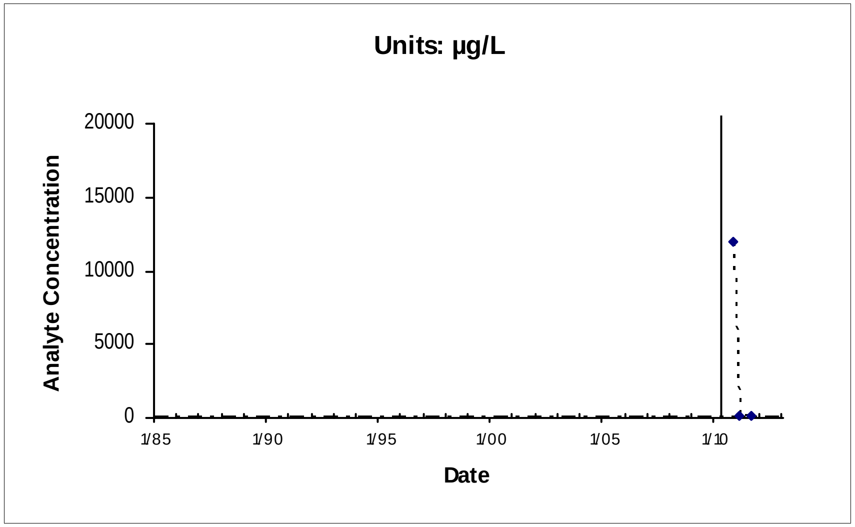
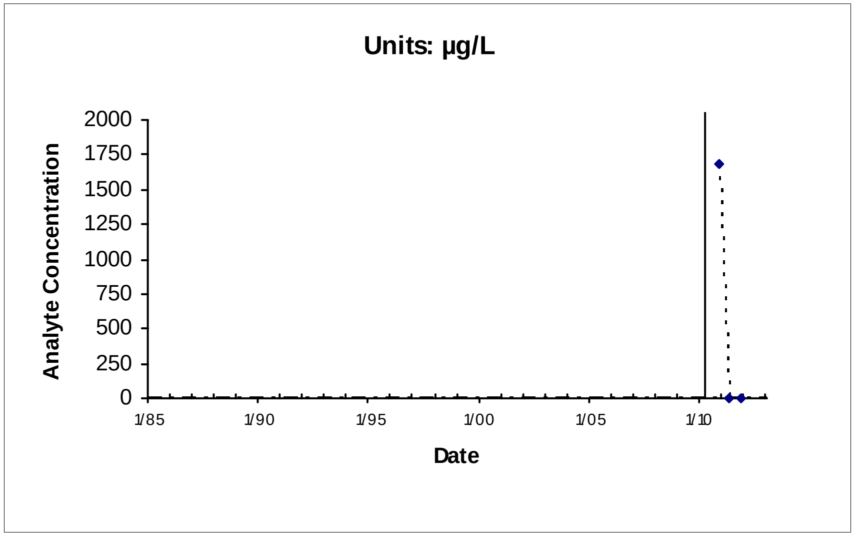
Chemical Time-series Plots



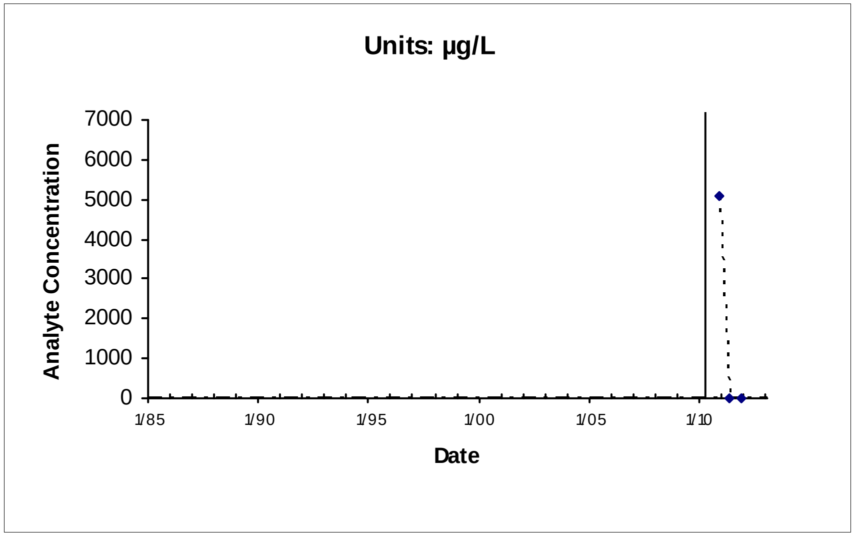
Location: IW2136x36 Maximum: 5290



Location: IW2137x36 Maximum: 12000



Location: IW2138X36 Maximum: 1680



Location: IW2139x36 Maximum: 5100

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

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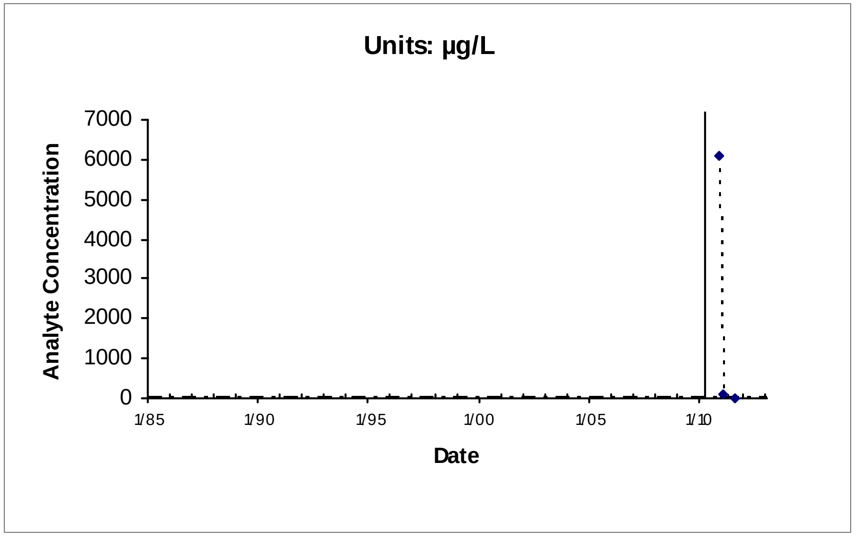
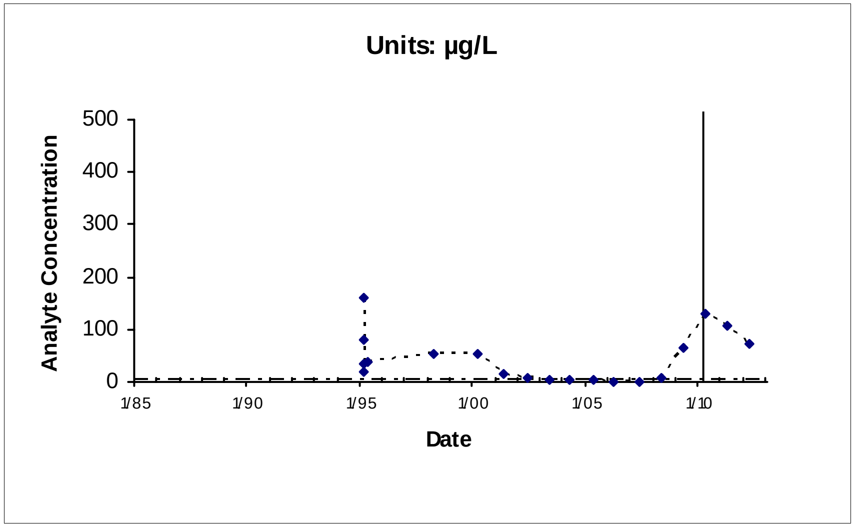
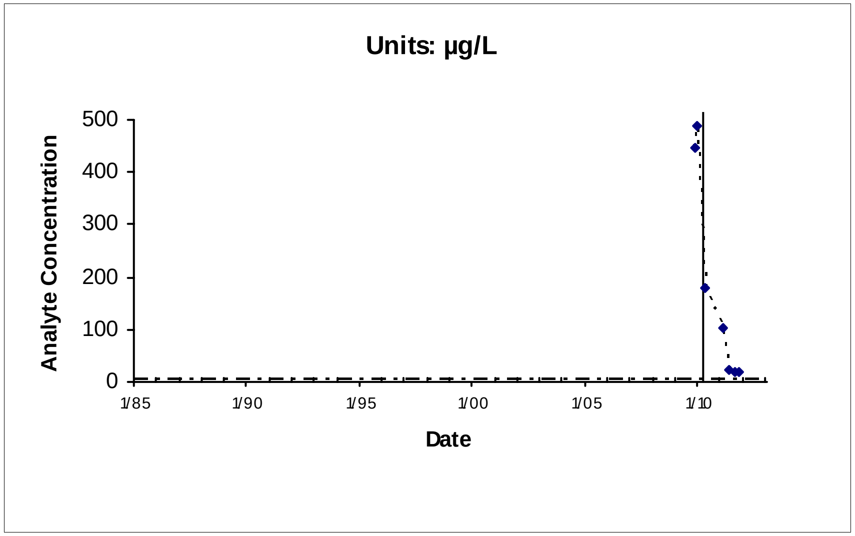
Chemical Time-series Plots



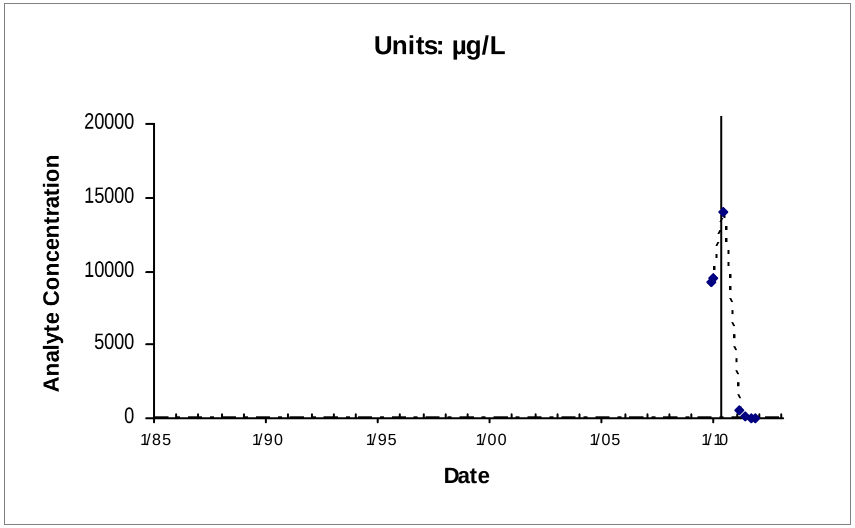
Location: IW2140X36 Maximum: 6080



Location: MW873M2X36 Maximum: 160



Location: MW2031Ax36 Maximum: 488



Location: MW2031Bx36 Maximum: 14000

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

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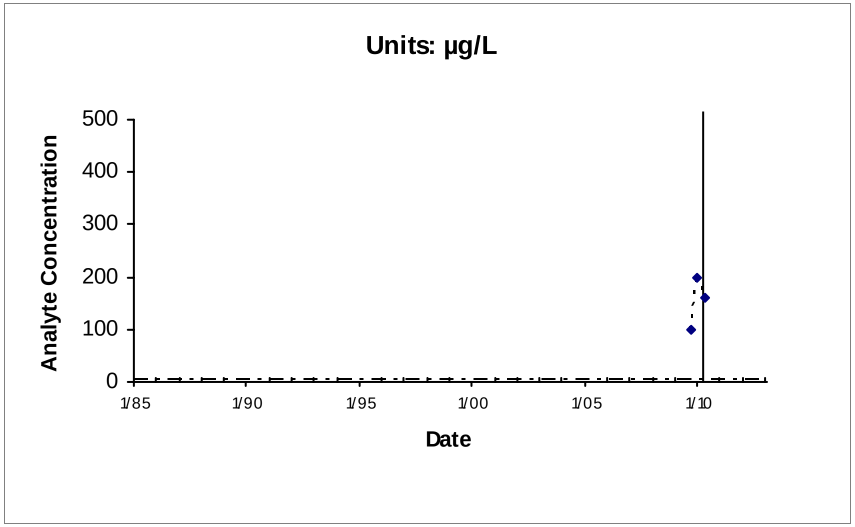
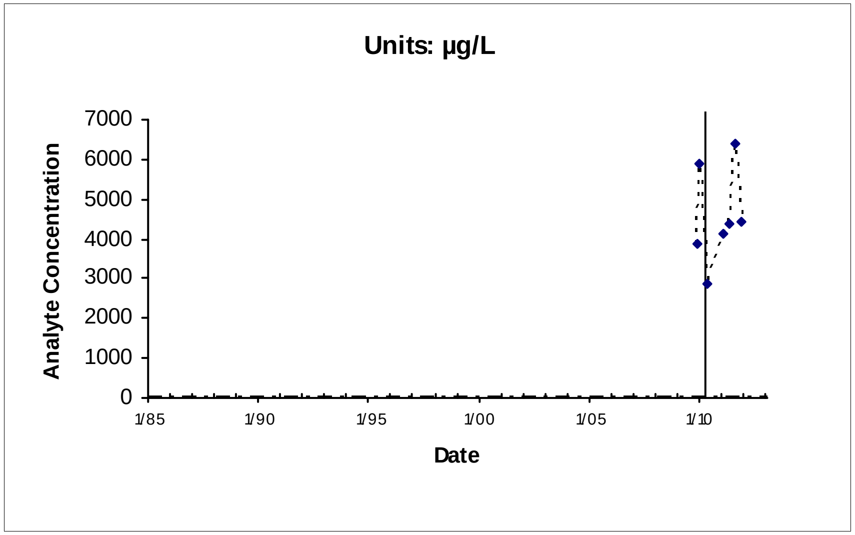
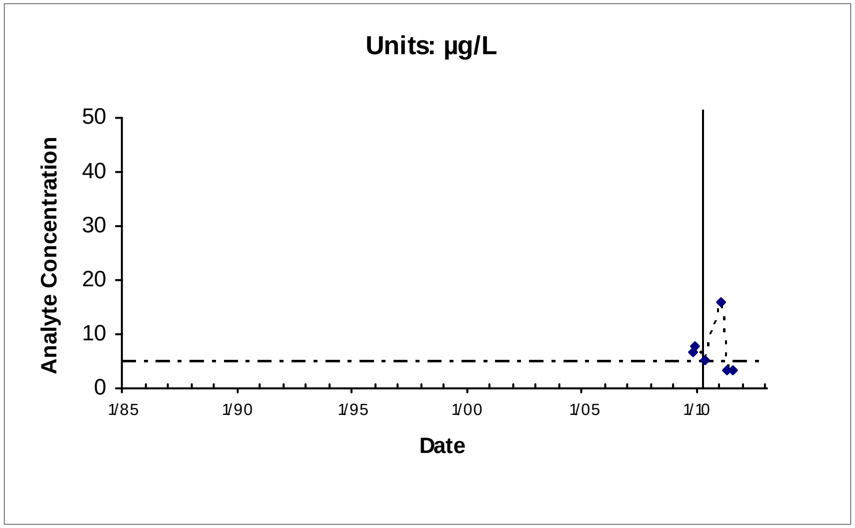
Chemical Time-series Plots



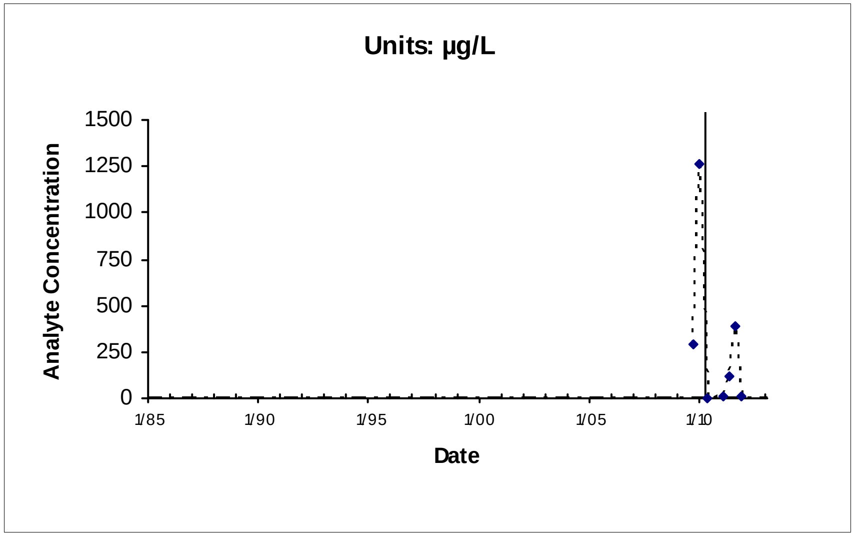
Location: MW2032x36 Maximum: 200



Location: MW2033Ax36 Maximum: 6420



Location: MW2033Bx36 Maximum: 16



Location: MW2034Ax36 Maximum: 1260

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

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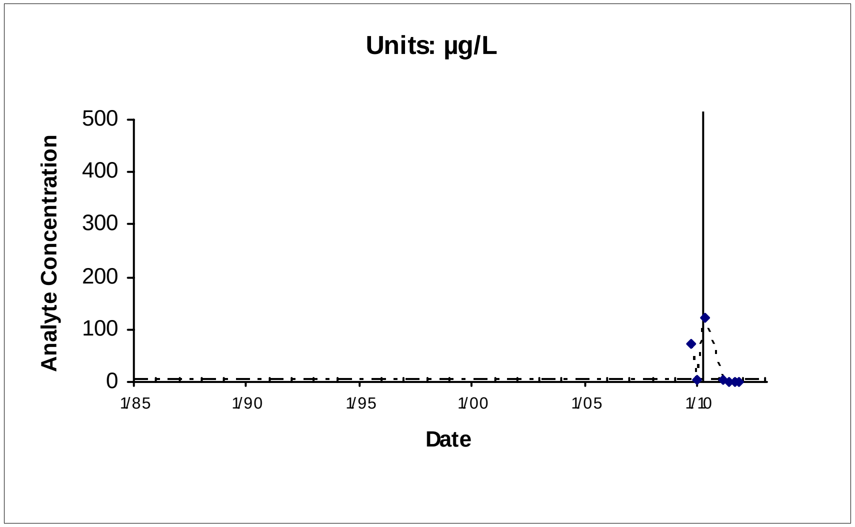
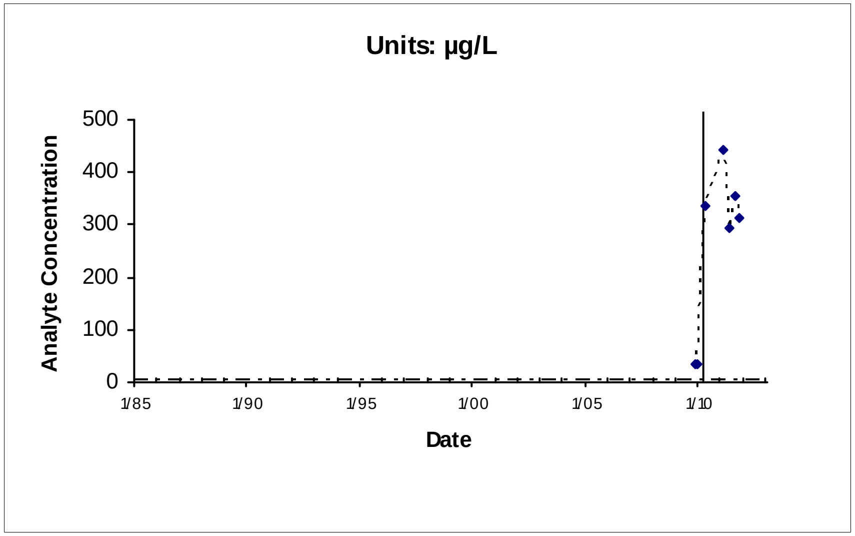
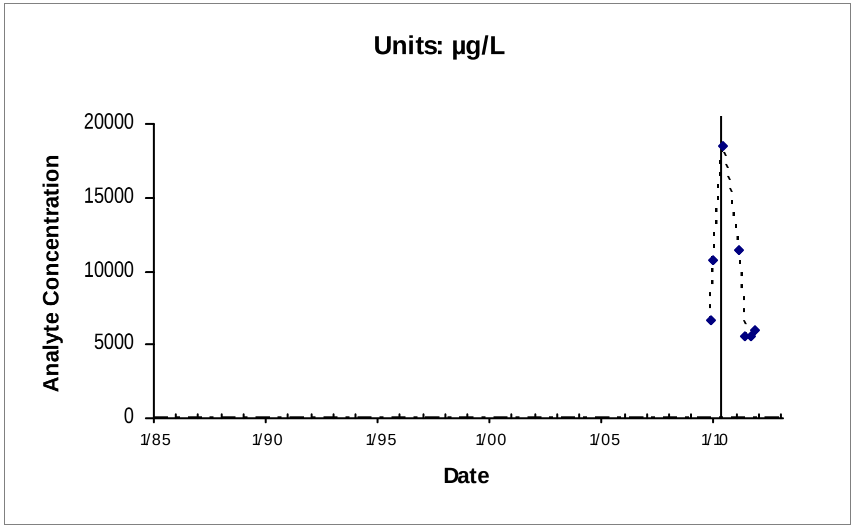
Chemical Time-series Plots



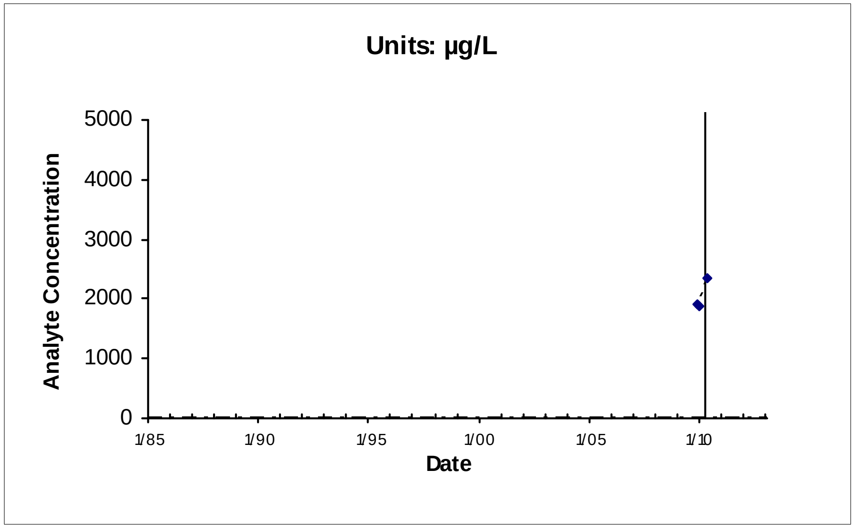
Location: MW2034Bx36 Maximum: 123



Location: MW2061Ax36 Maximum: 442



Location: MW2061Bx36 Maximum: 18500



Location: MW2063x36 Maximum: 2360

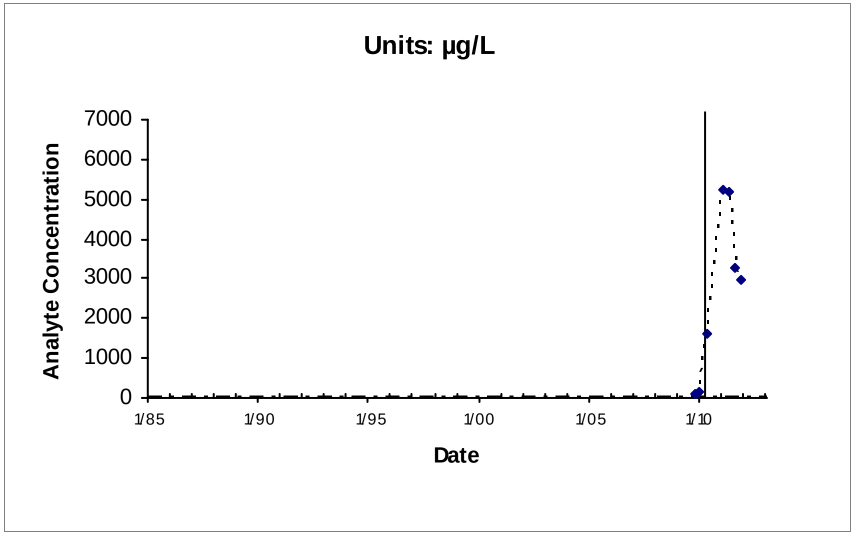
———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

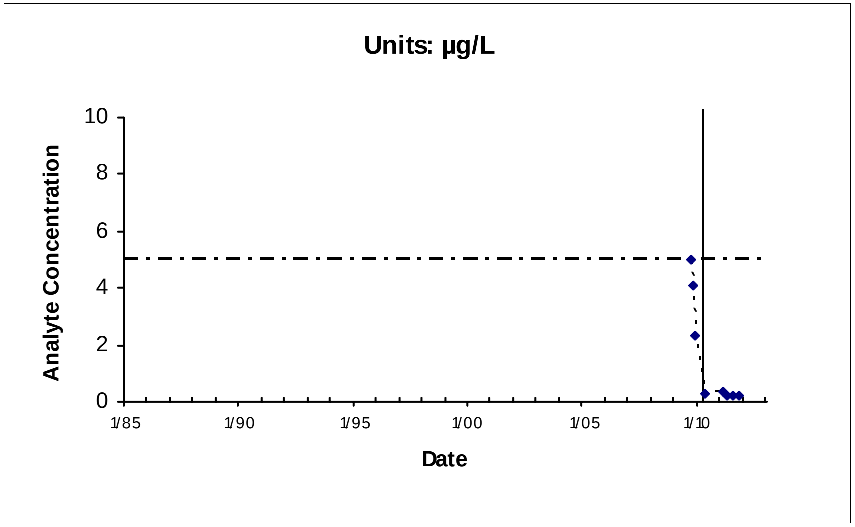
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

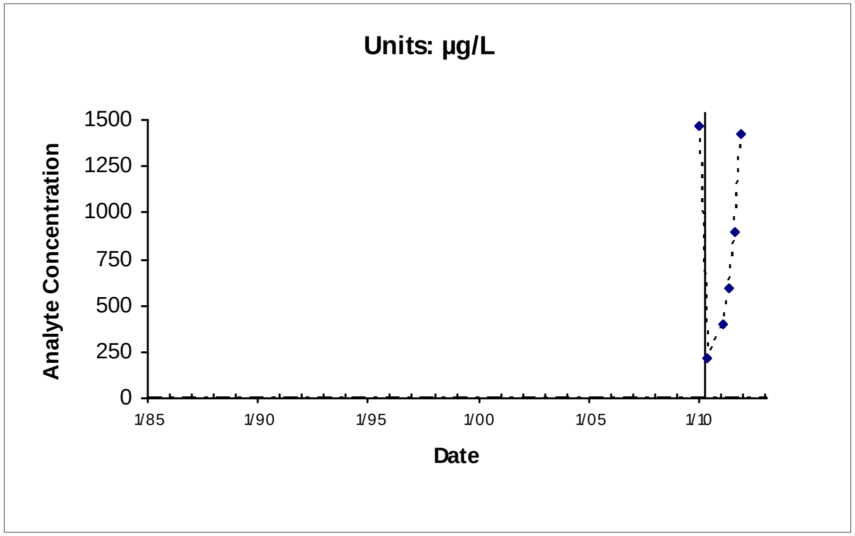
West IRA
FIGURE 2-16
WIOU
TCE
Chemical Time-series Plots



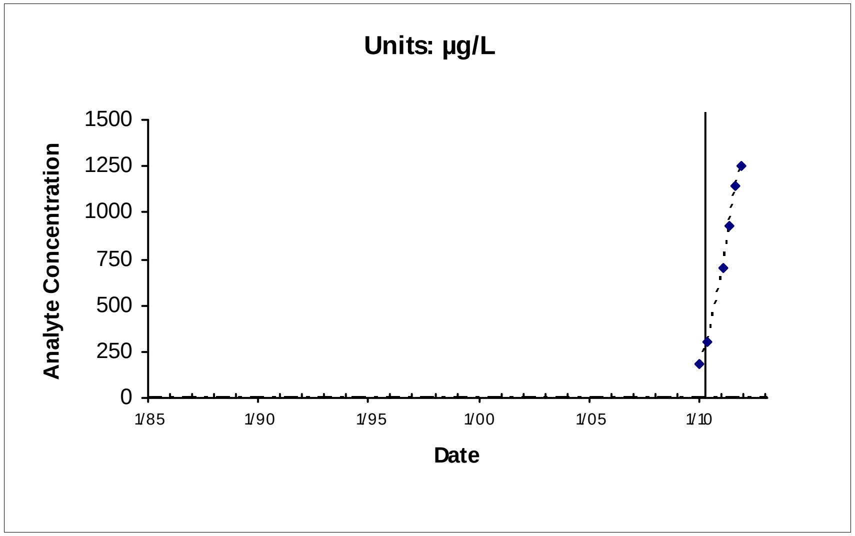
Location: MW2064Ax36 Maximum: 5220



Location: MW2064Bx36 Maximum: 5



Location: MW2065x36 Maximum: 1470



Location: MW2075Ax36 Maximum: 1250

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

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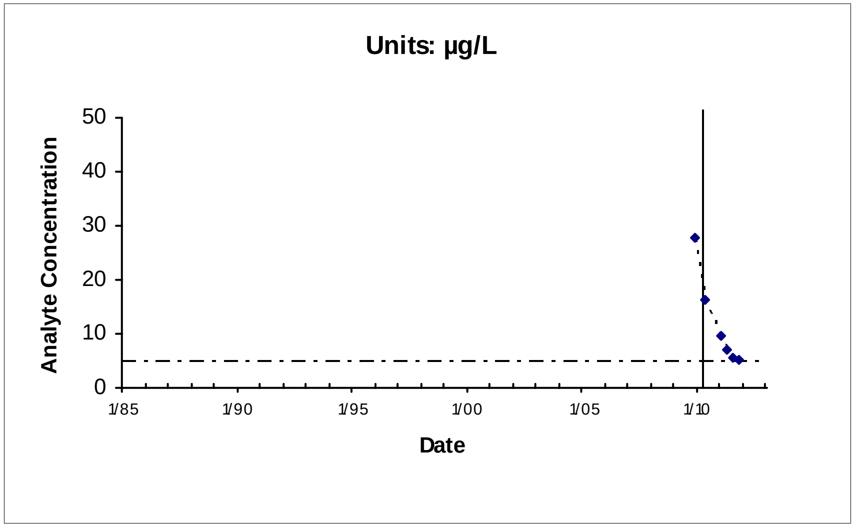
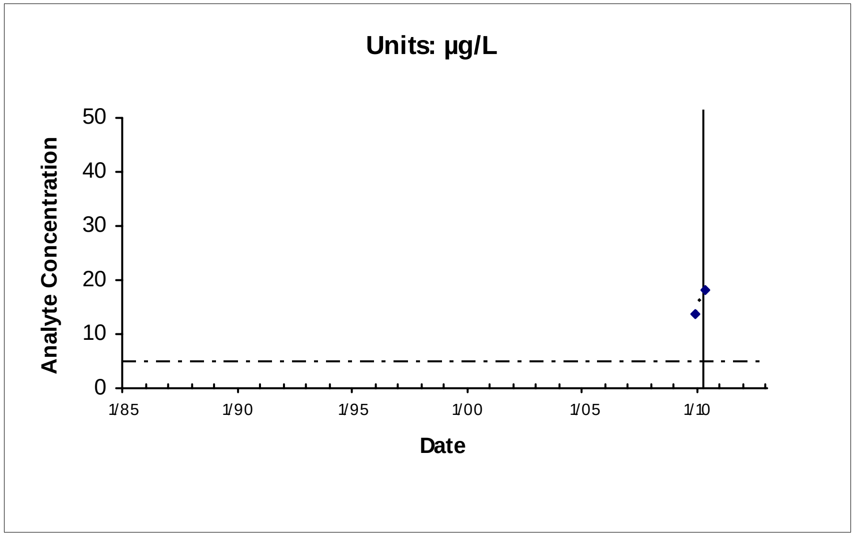
TCE

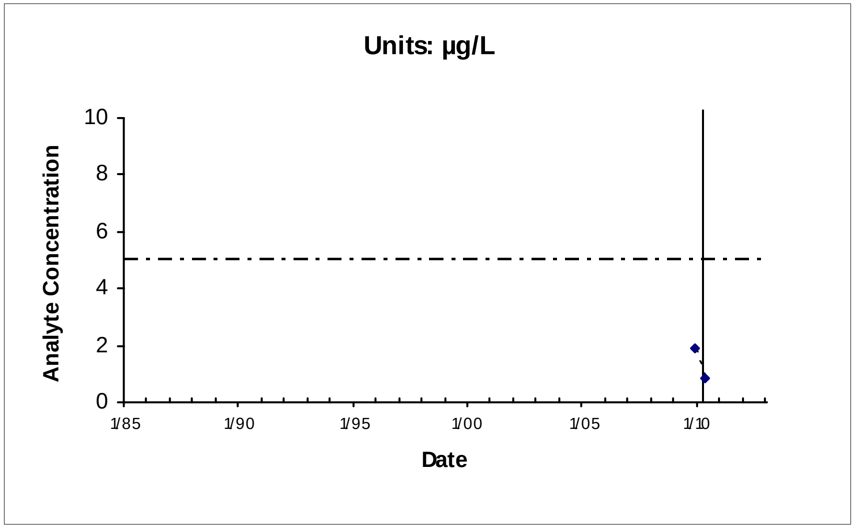
Chemical Time-series Plots



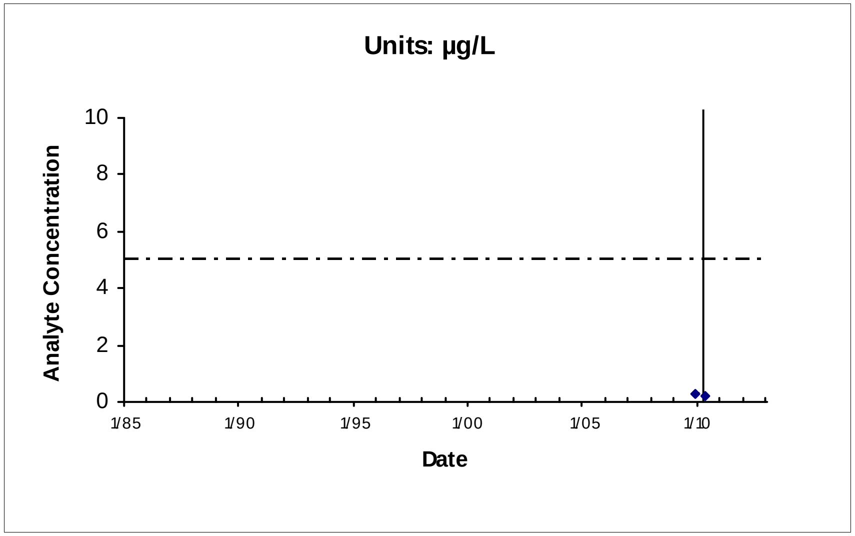
Location: MW2075Bx36 Maximum: 27.8



Location: MW2077Ax36 Maximum: 18.3



Location: MW2077Bx36 Maximum: 1.9



Location: MW2077Cx36 Maximum: 0.25

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

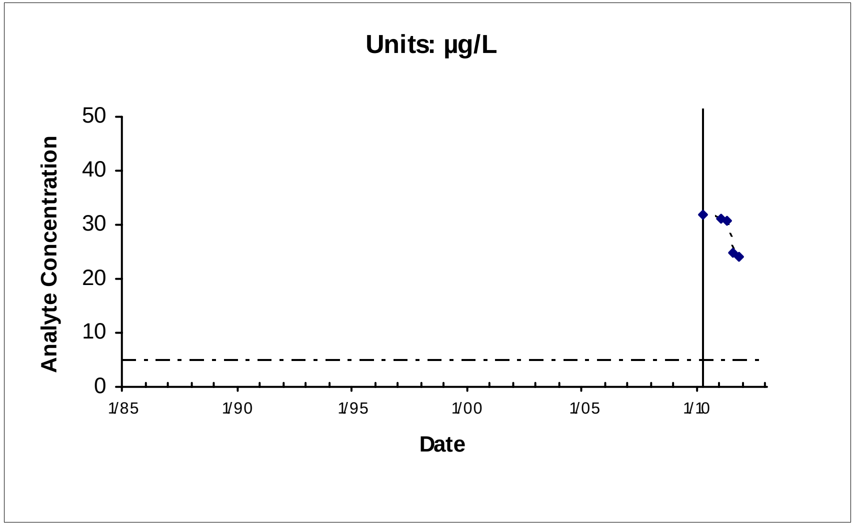
West IRA

FIGURE 2-16

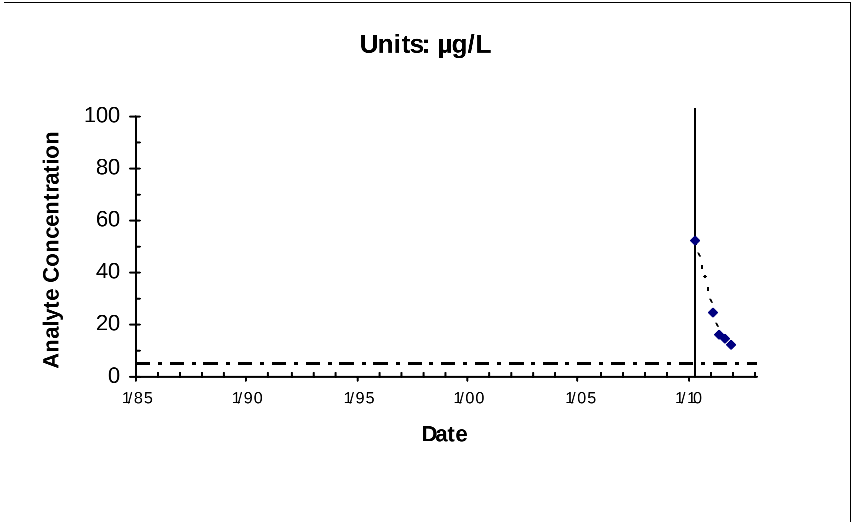
WIOU

TCE

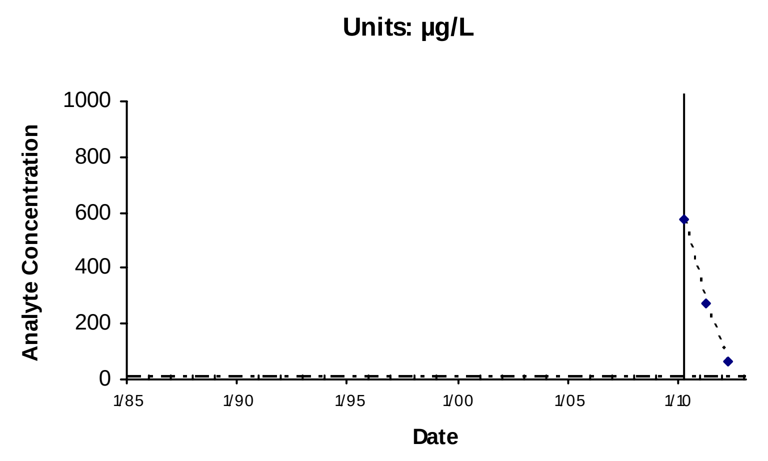
Chemical Time-series Plots



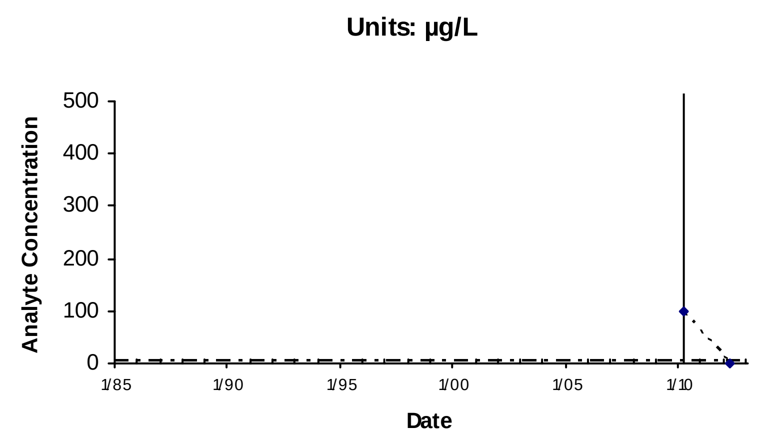
Location: MW2107Ax36 Maximum: 31.8



Location: MW2107Bx36 Maximum: 52.3



Location: MW2108Ax36 Maximum: 573



Location: MW2108Bx36 Maximum: 101

——————— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

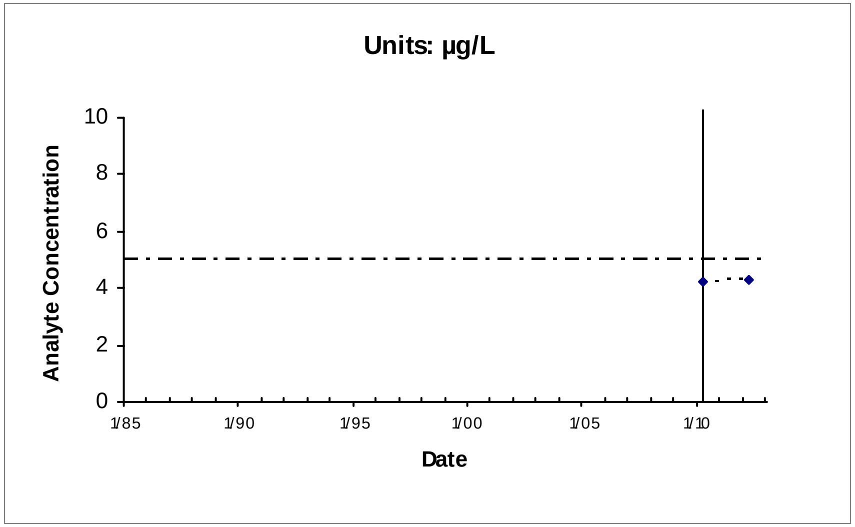
West IRA

FIGURE 2-16

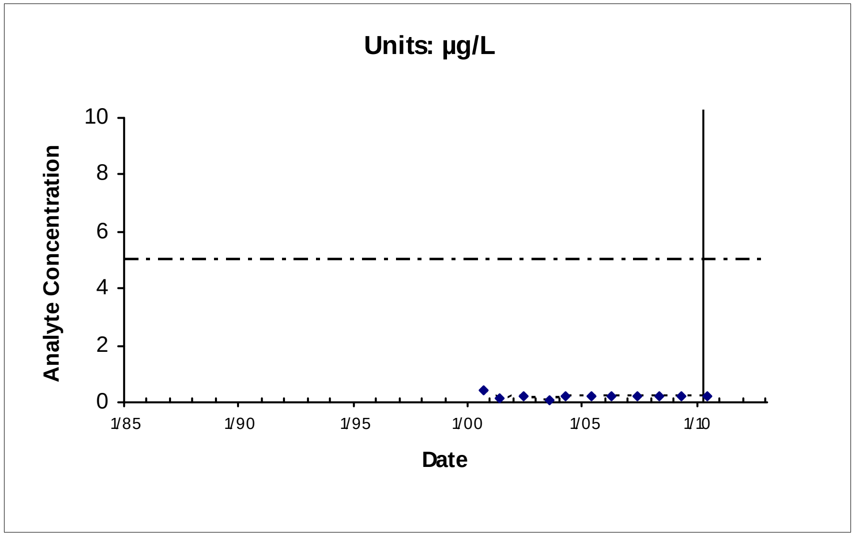
WIOU

TCE

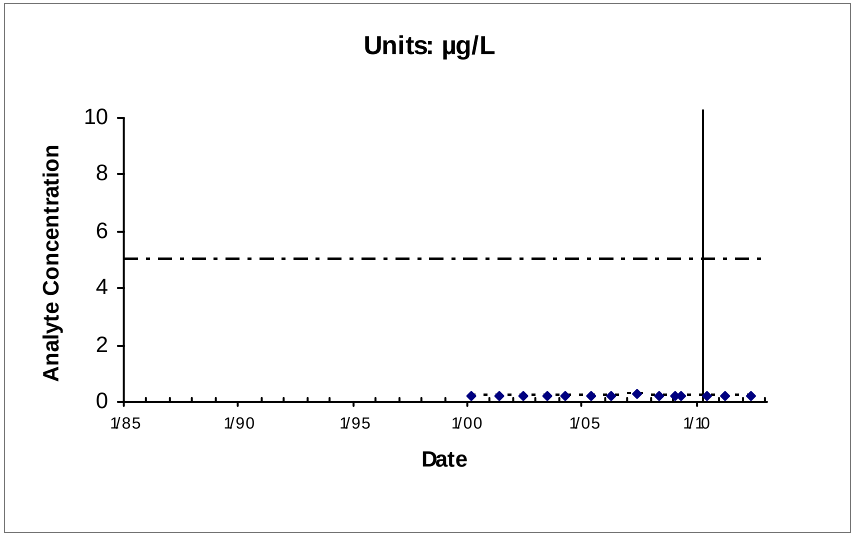
Chemical Time-series Plots



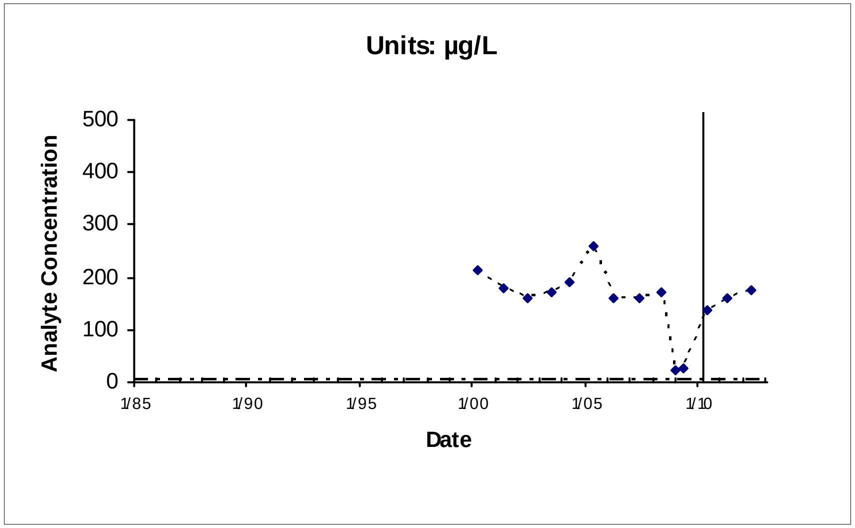
Location: MW2108Cx36 Maximum: 4.3



Location: PZ03X36 Maximum: 0.4



Location: PZ12DX36 Maximum: 0.25



Location: PZ12SX36 Maximum: 260

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

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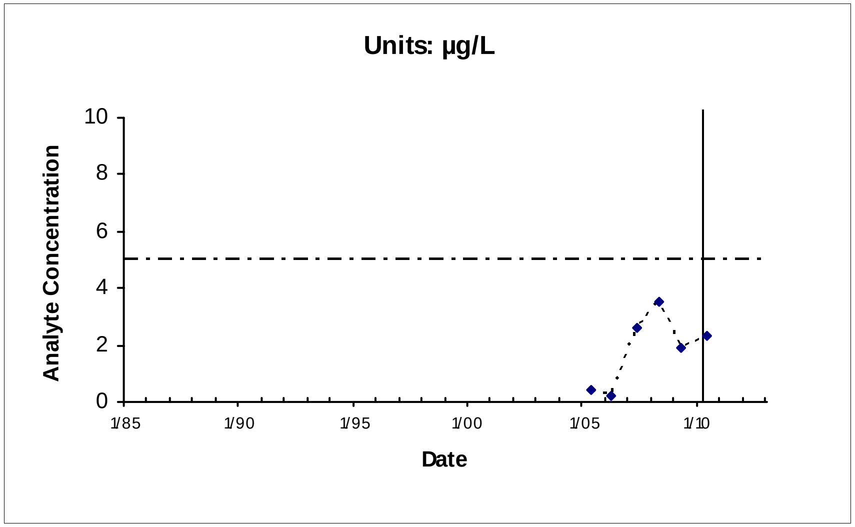
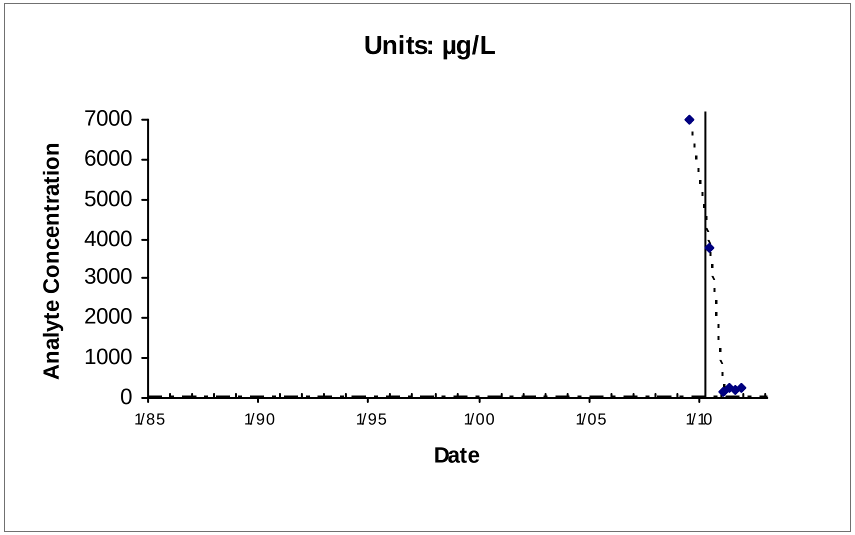
TCE

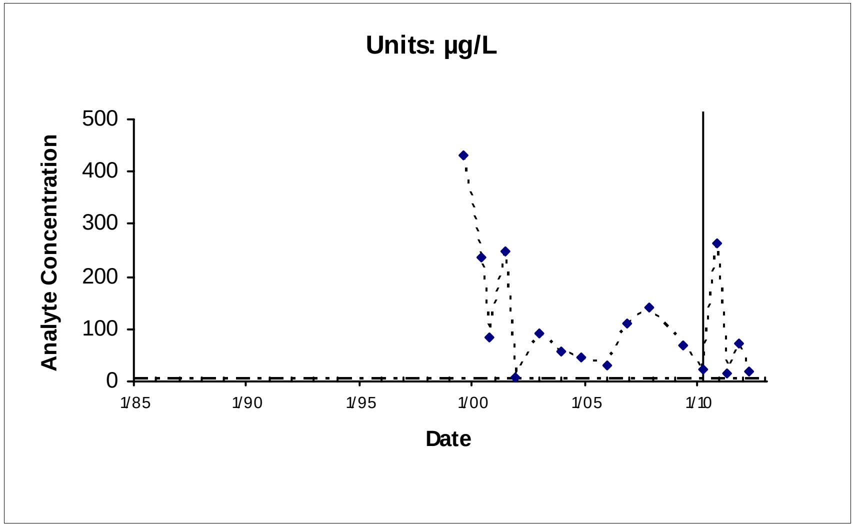
Chemical Time-series Plots



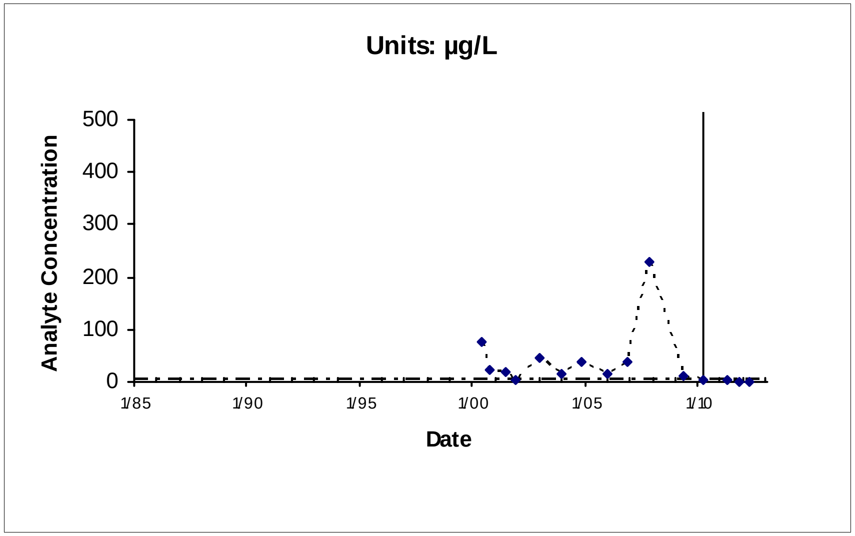
Location: PZ22x36 Maximum: 3.5



Location: PZ550Cx36 Maximum: 6980



Location: EW510X37 Maximum: 430



Location: EW511X37 Maximum: 230

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

West IRA

FIGURE 2-16

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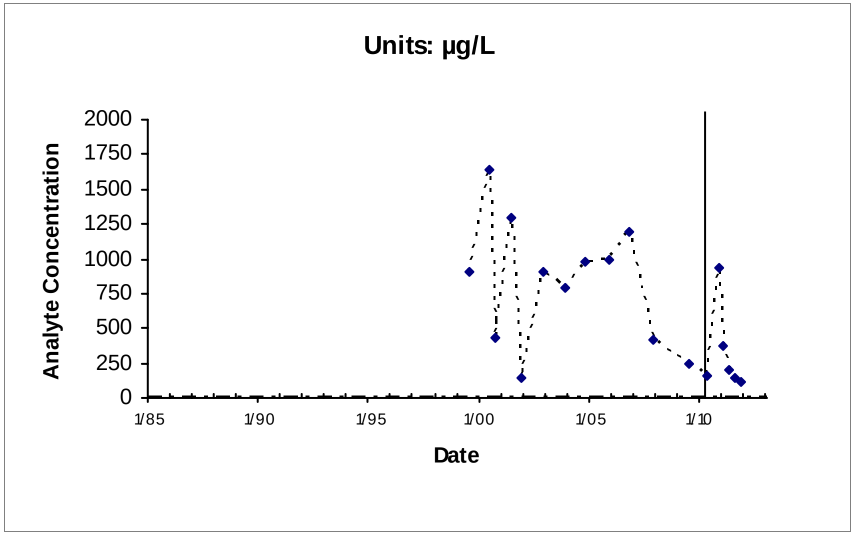
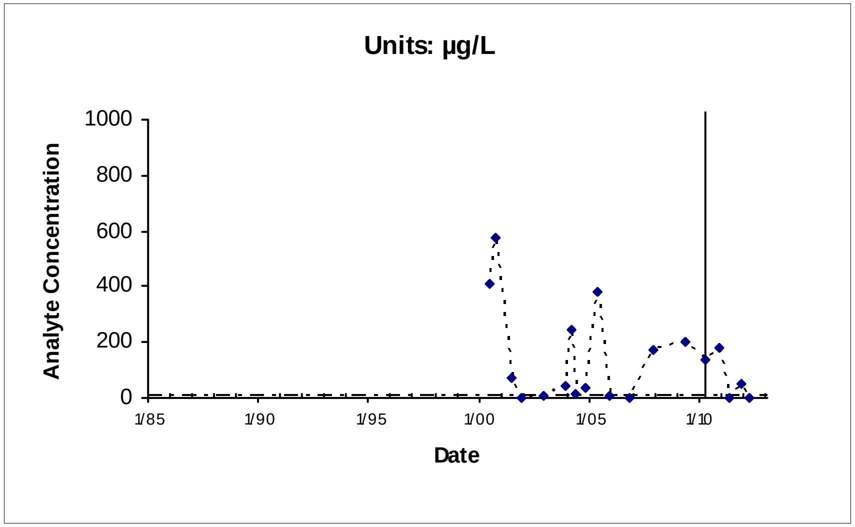
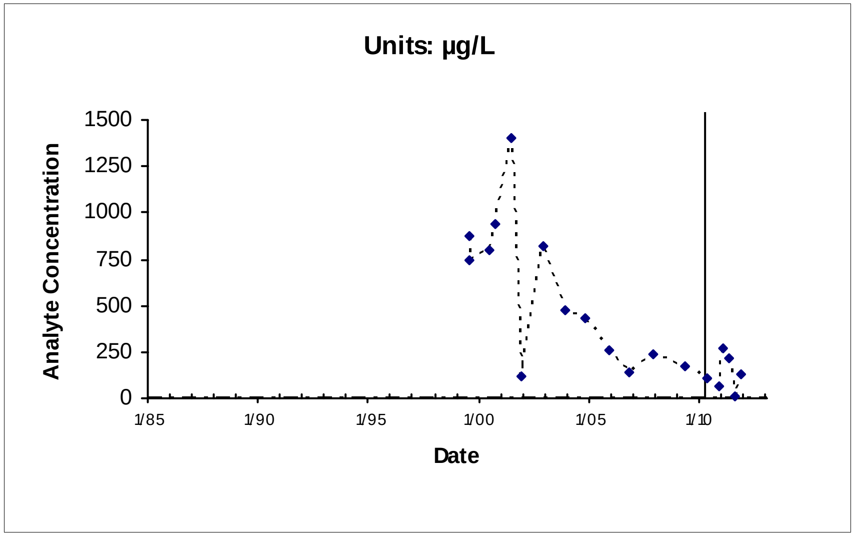
Chemical Time-series Plots



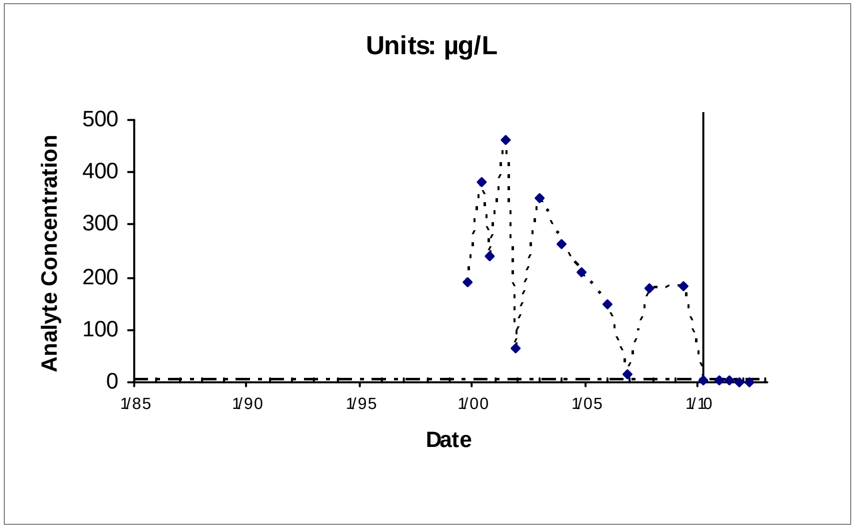
Location: EW599X37 Maximum: 1640



Location: EW700X37 Maximum: 577



Location: EW701X37 Maximum: 1400



Location: EW702X37 Maximum: 460

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

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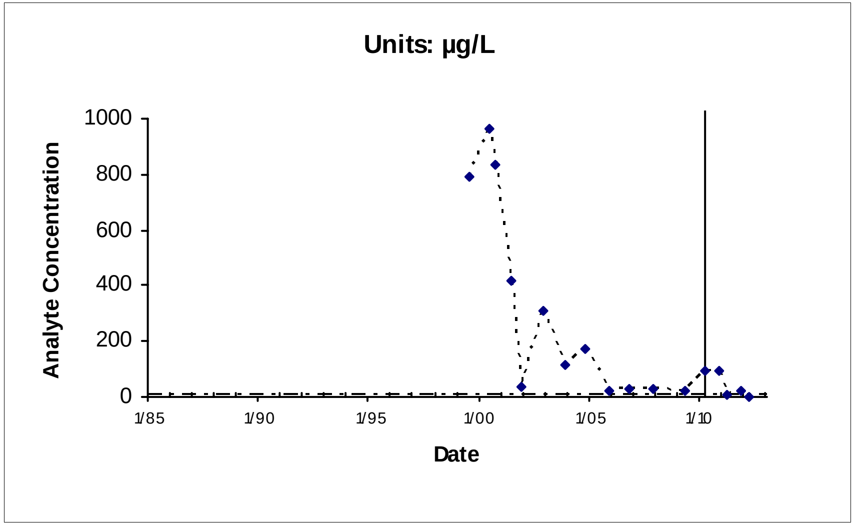
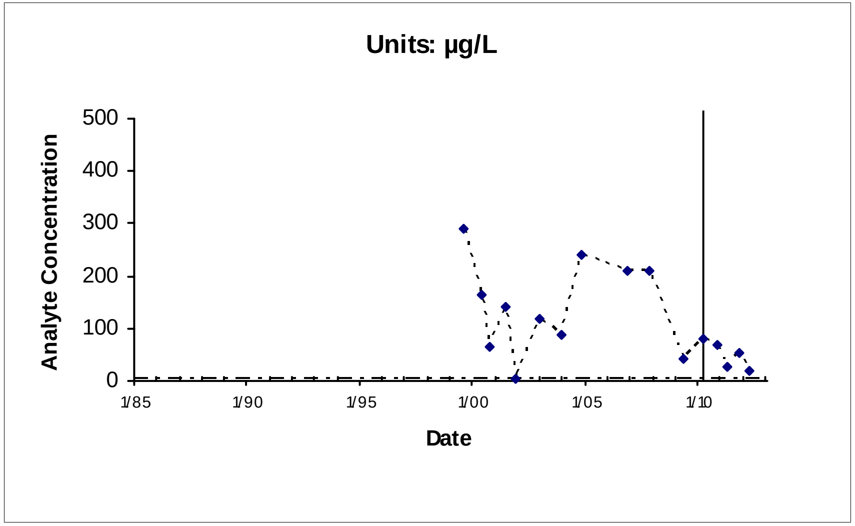
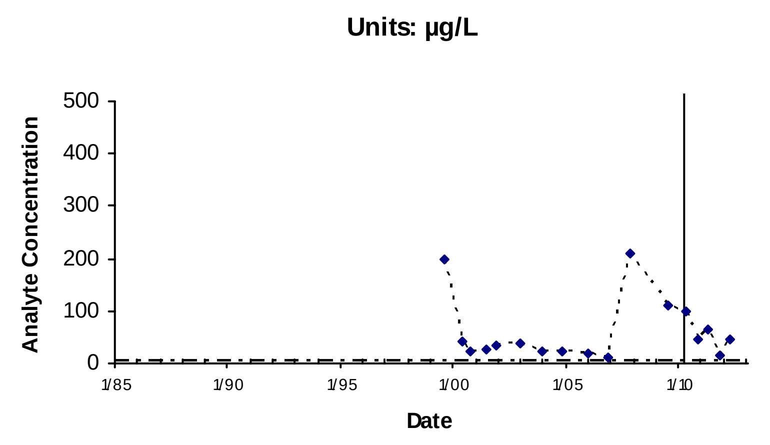
Chemical Time-series Plots



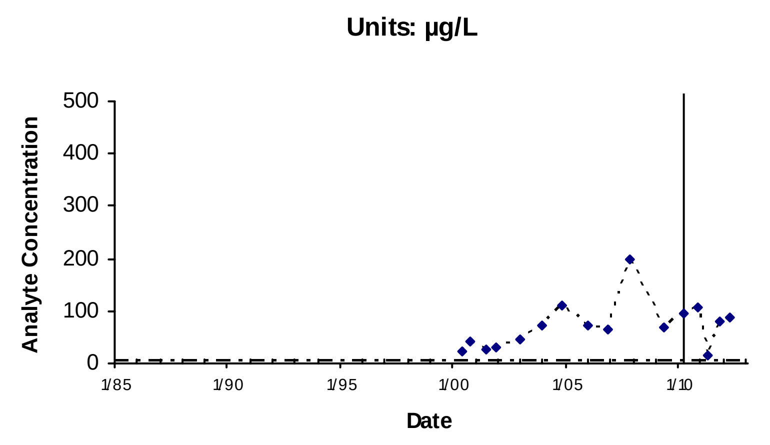
Location: EW703X37 Maximum: 962



Location: EW704X37 Maximum: 290



Location: EW705X37 Maximum: 210



Location: EW706X37 Maximum: 200

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

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FIGURE 2-16

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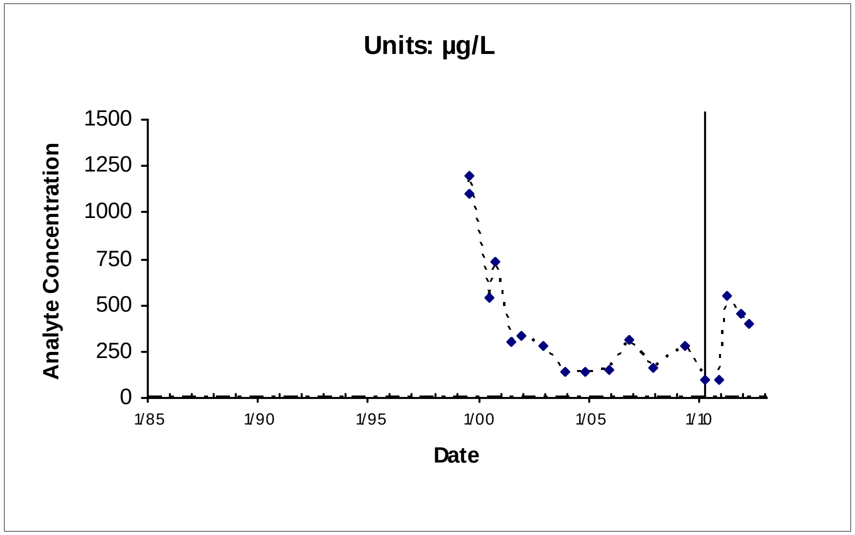
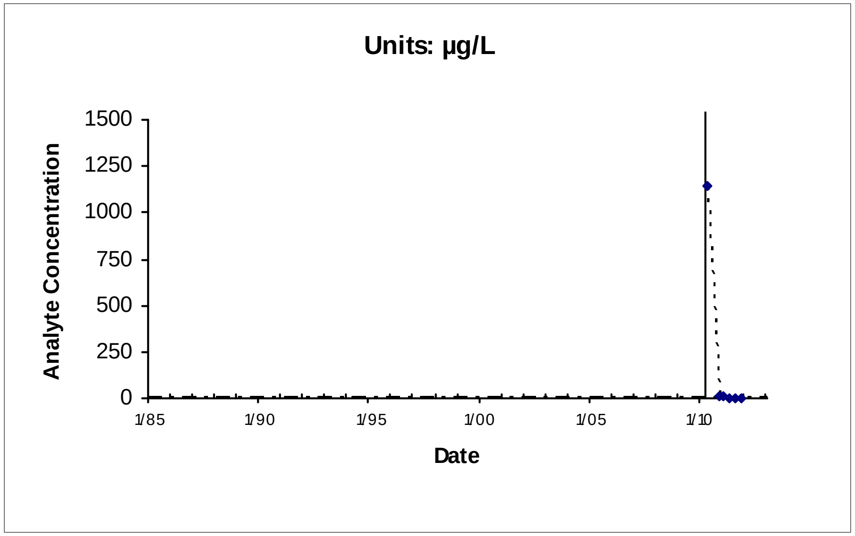
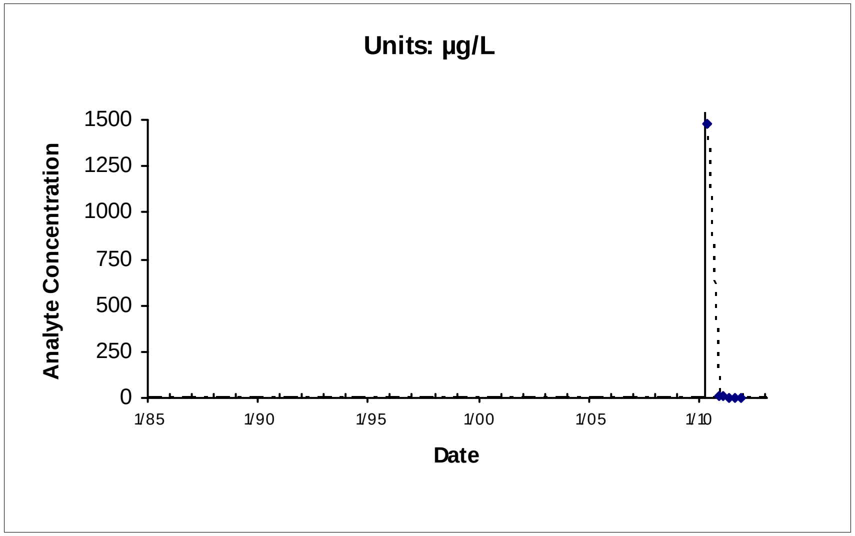
Chemical Time-series Plots



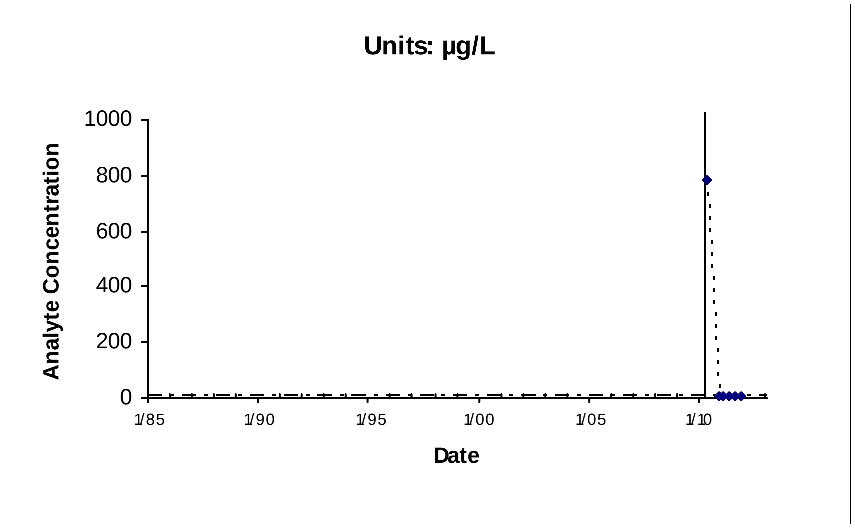
Location: EW707X37 Maximum: 1200



Location: IW2094x37 Maximum: 1140



Location: IW2096x37 Maximum: 1480



Location: IW2098x37 Maximum: 782

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

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FIGURE 2-16

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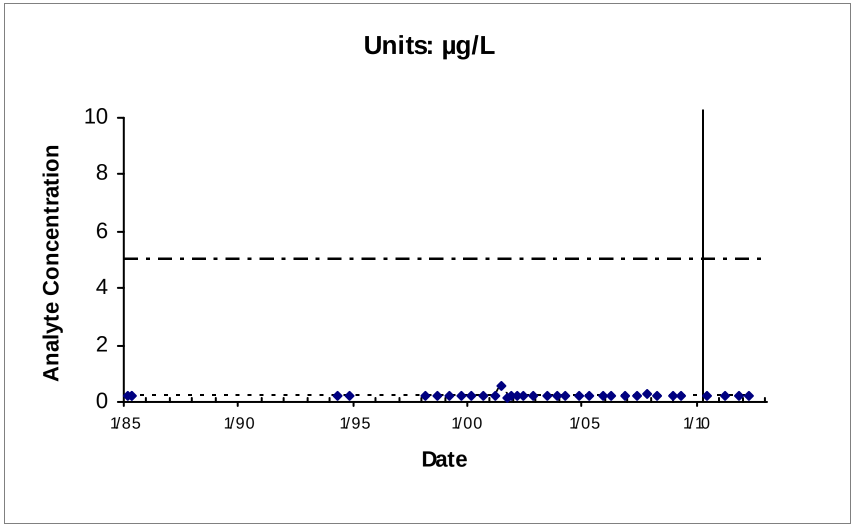
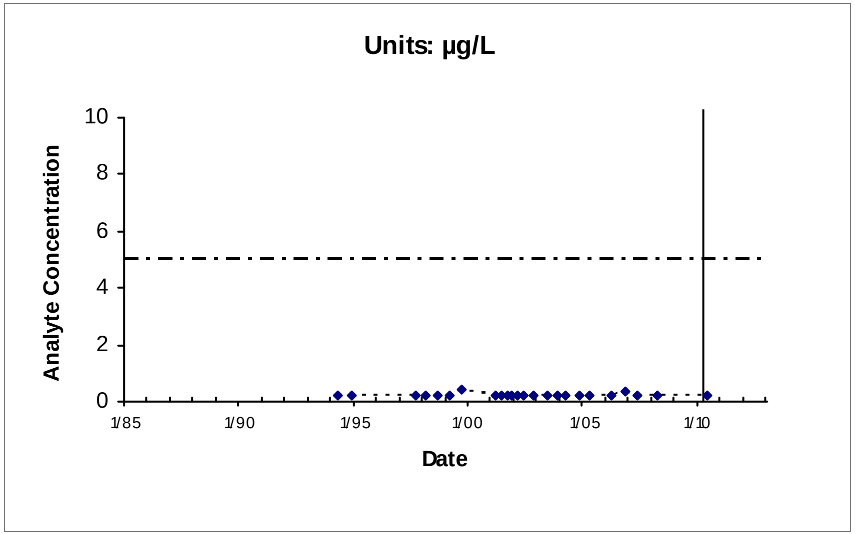
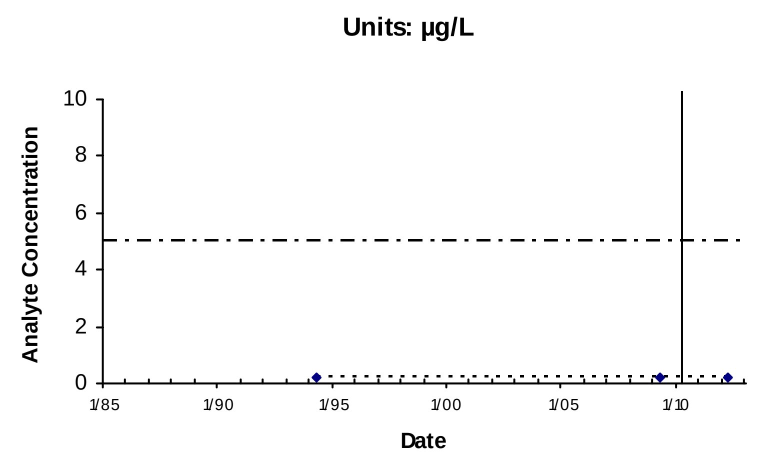
Chemical Time-series Plots



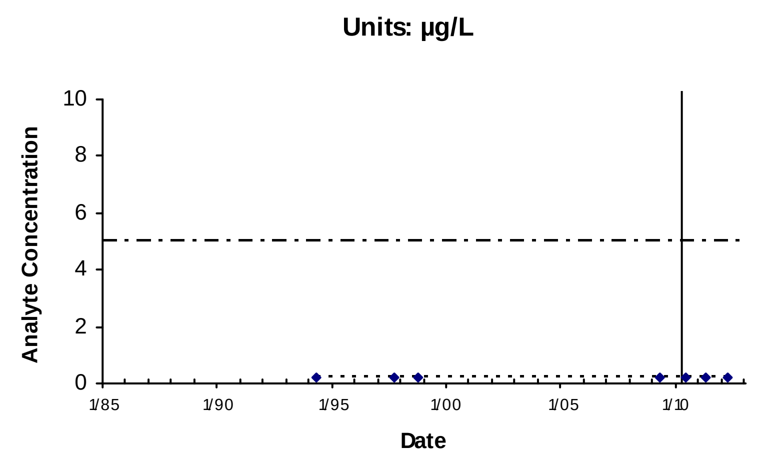
Location: MW116X37 Maximum: 0.56



Location: MW222X37 Maximum: 0.4



Location: MW223X37 Maximum: 0.19



Location: MW224X37 Maximum: 0.19

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

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FIGURE 2-16

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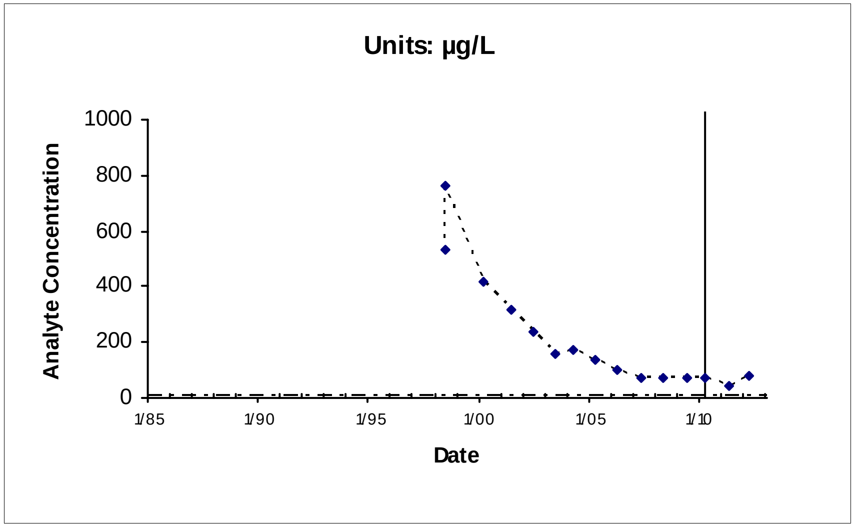
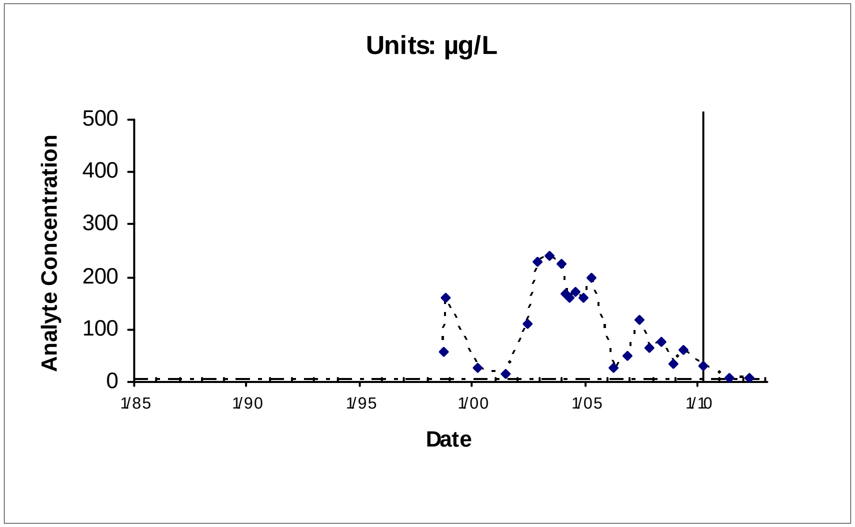
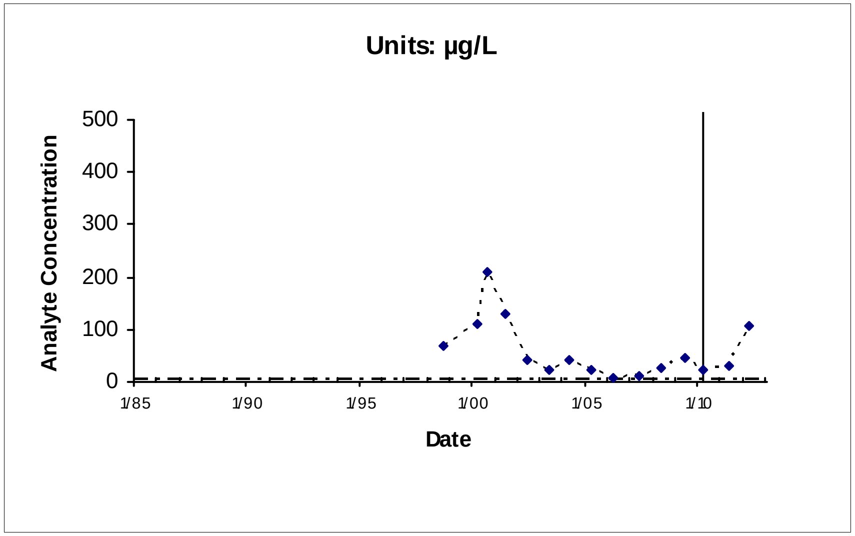
Chemical Time-series Plots



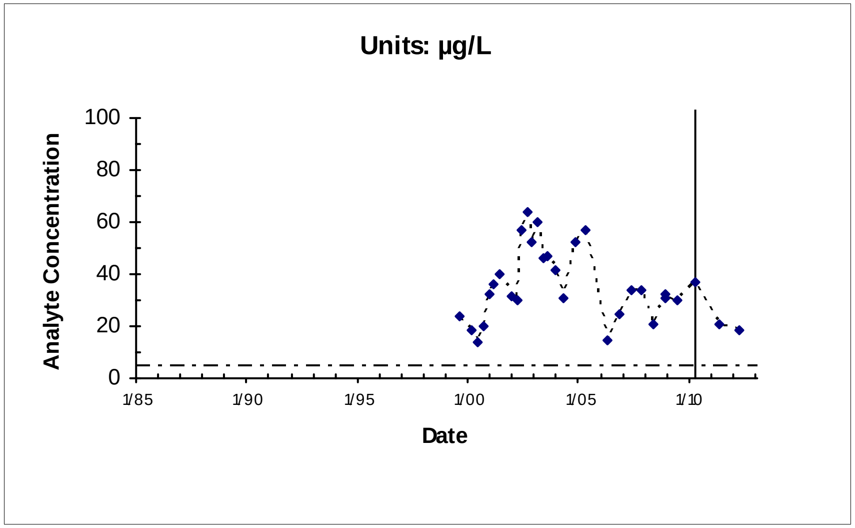
Location: MW500X37 Maximum: 760



Location: MW513X37 Maximum: 242



Location: MW514X37 Maximum: 210



Location: MW518X37 Maximum: 64

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

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FIGURE 2-16

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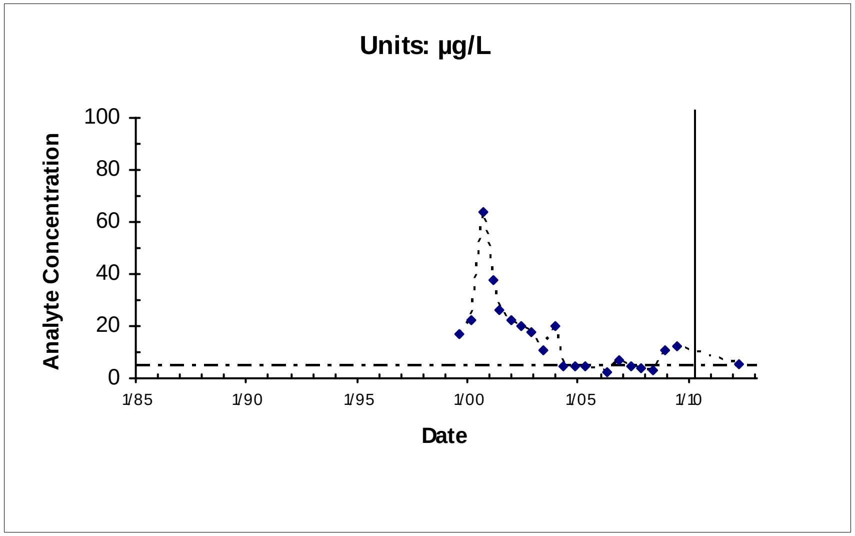
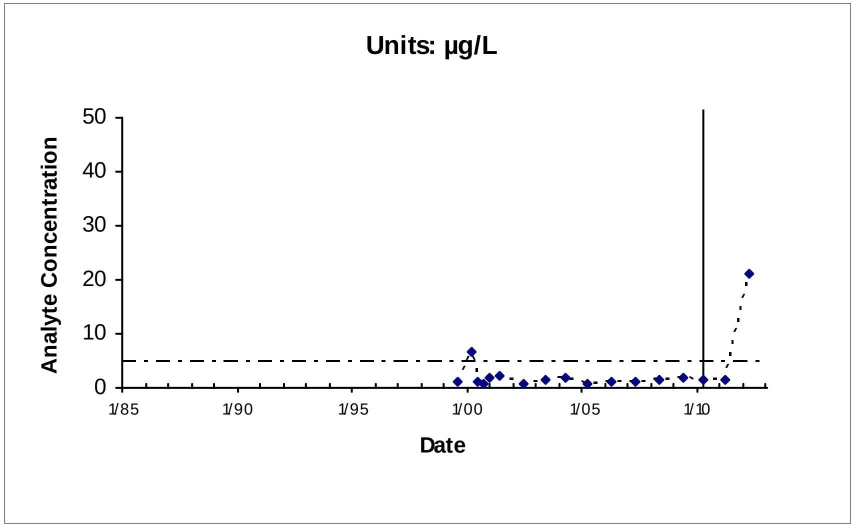
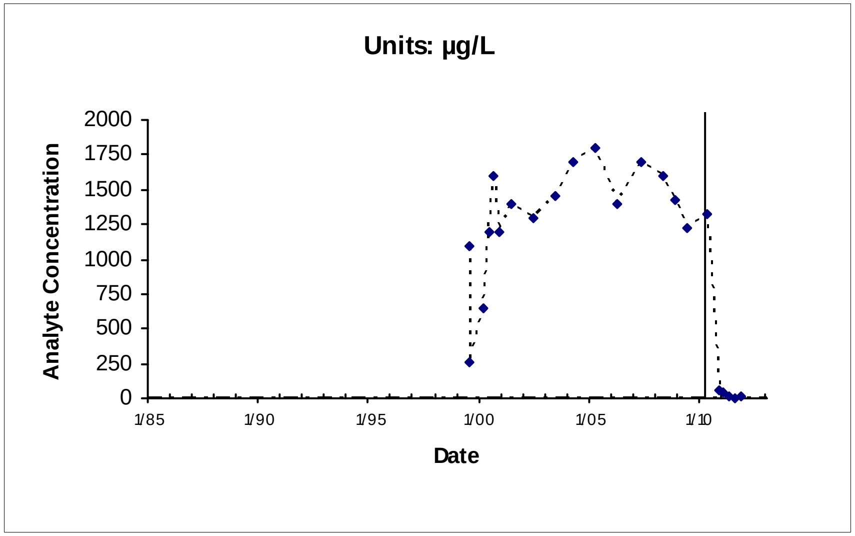
Chemical Time-series Plots

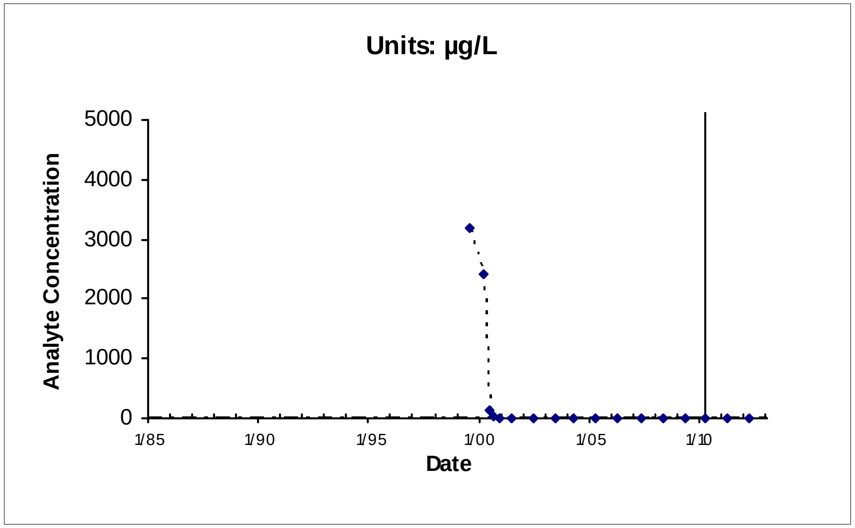




Location: MW519X37 Maximum: 64

Location: MW520X37 Maximum: 21.1





Location: MW525X37 Maximum: 3200

Location: MW524X37 Maximum: 1800

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

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FIGURE 2-16

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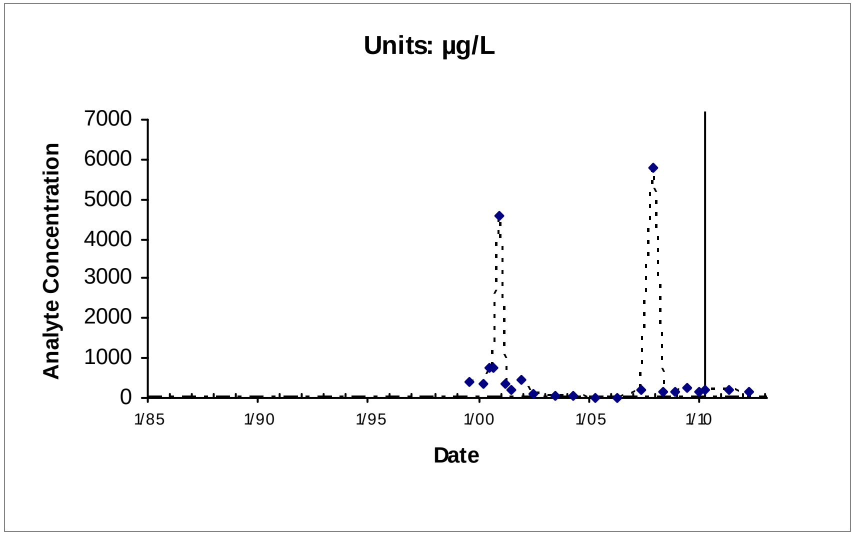
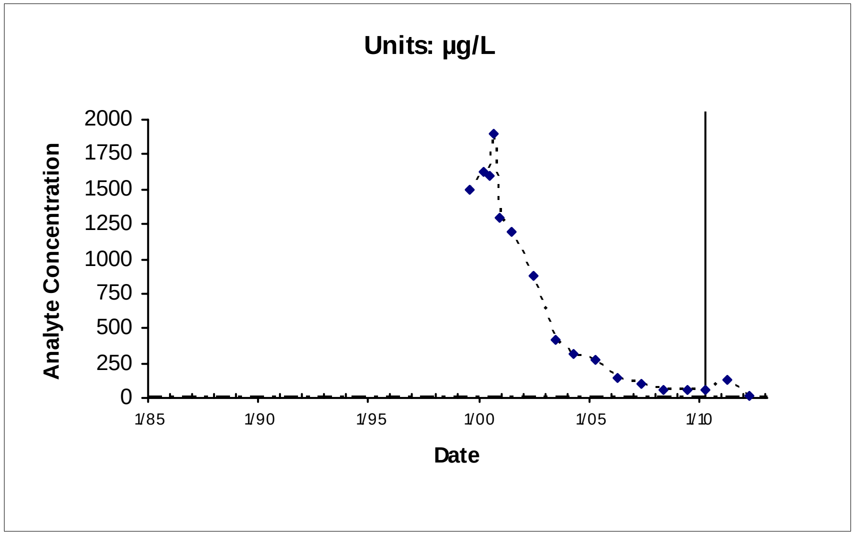
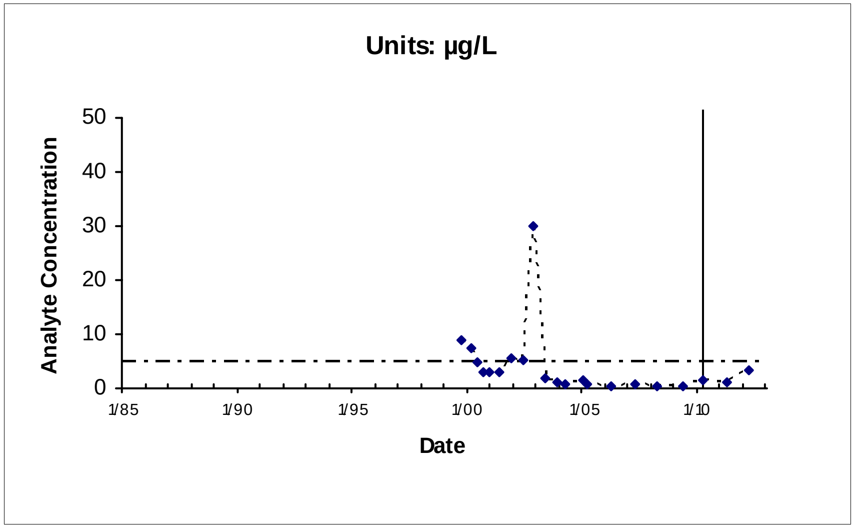
Chemical Time-series Plots



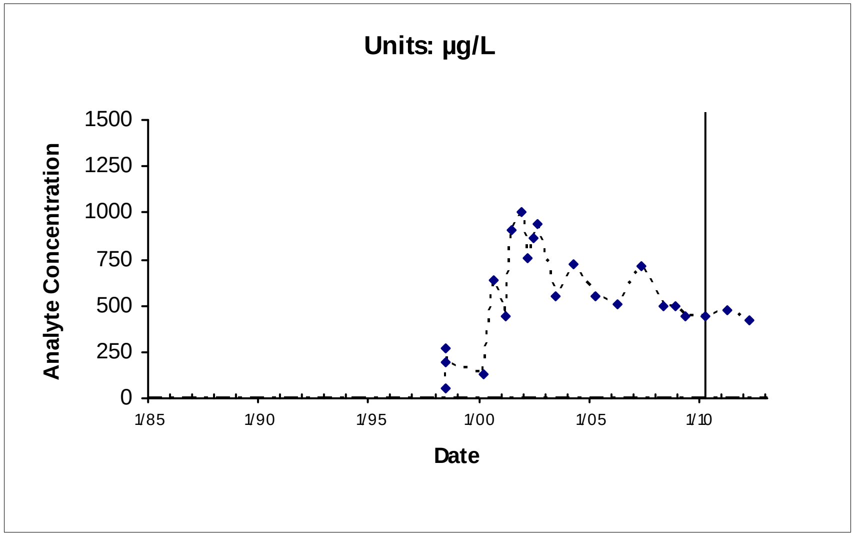
Location: MW526X37 Maximum: 5800



Location: MW528X37 Maximum: 1900



Location: MW529X37 Maximum: 30



Location: MW531X37 Maximum: 1000

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

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FIGURE 2-16

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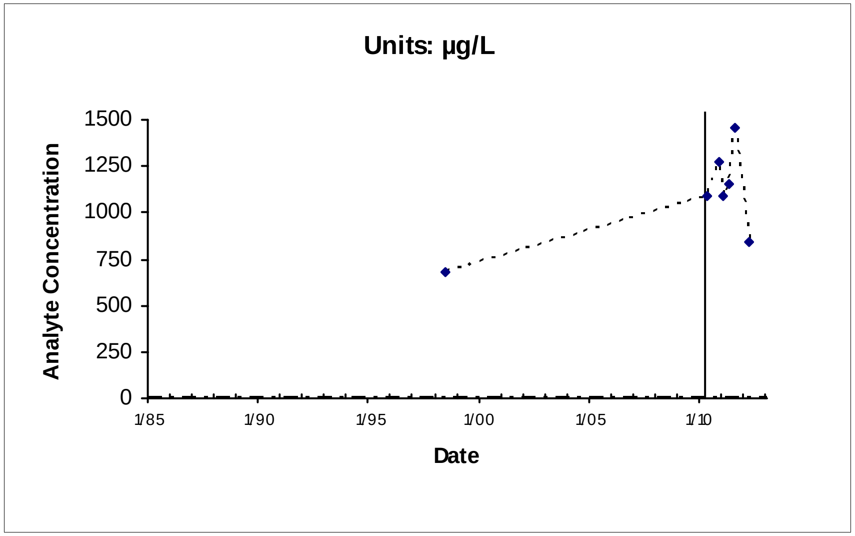
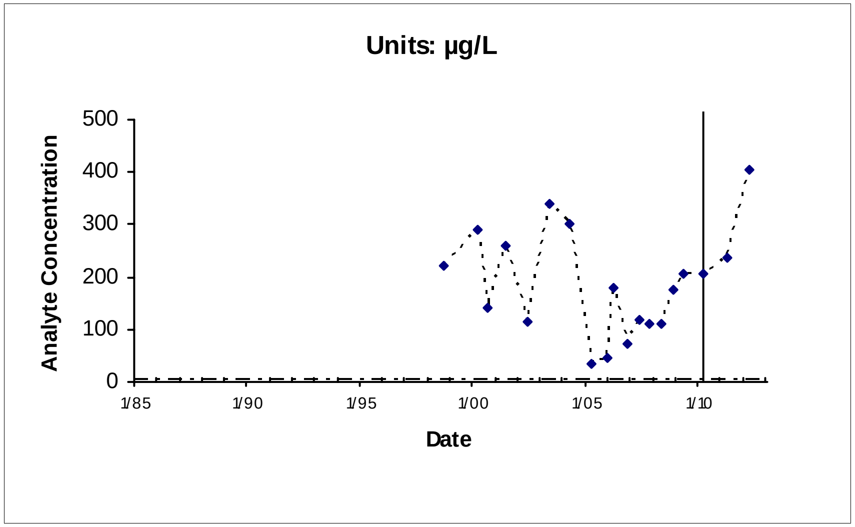
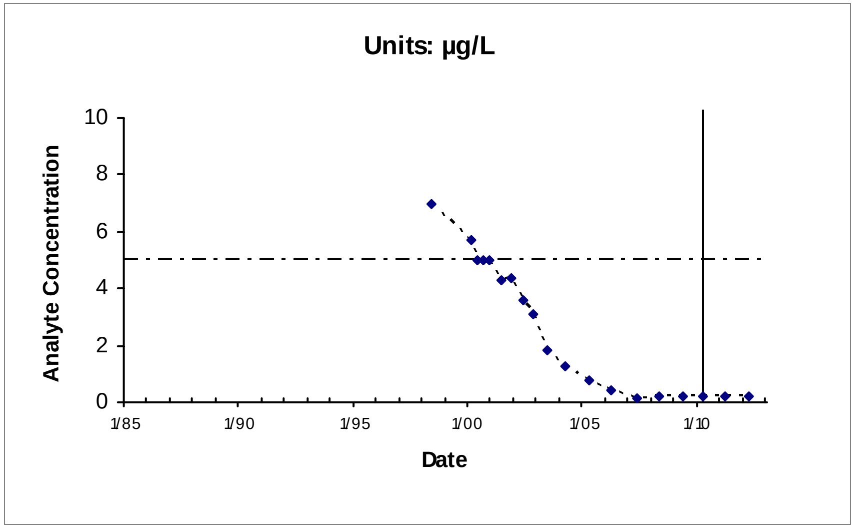
Chemical Time-series Plots



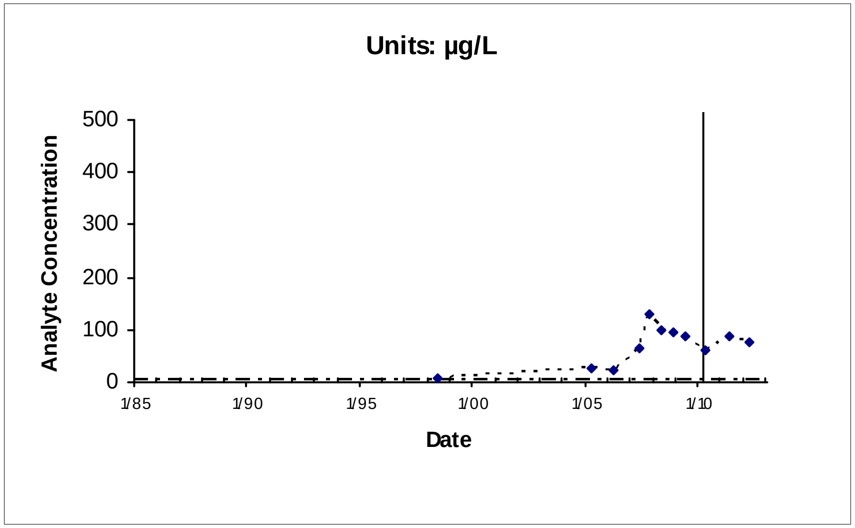
Location: MW532X37 Maximum: 1460



Location: MW535X37 Maximum: 403



Location: MW537X37 Maximum: 7



Location: MW539X37 Maximum: 130

——— Rebound Study Initiated

– - – - – IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

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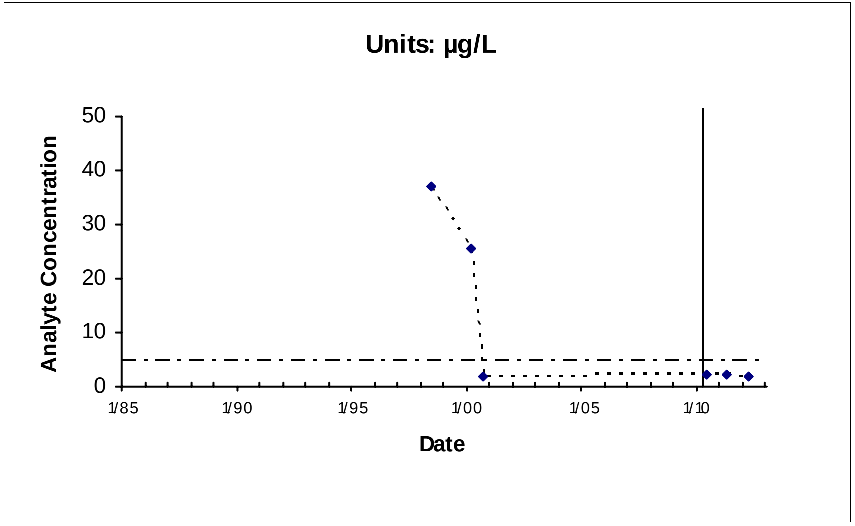
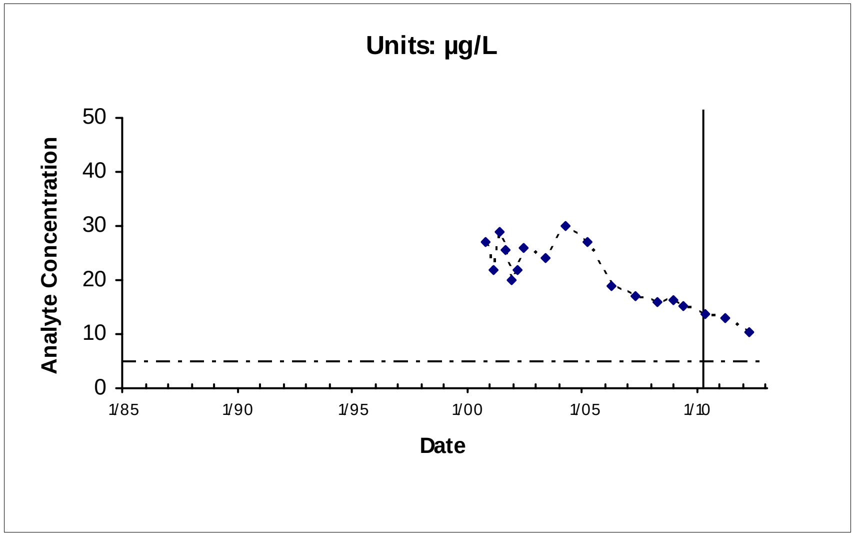
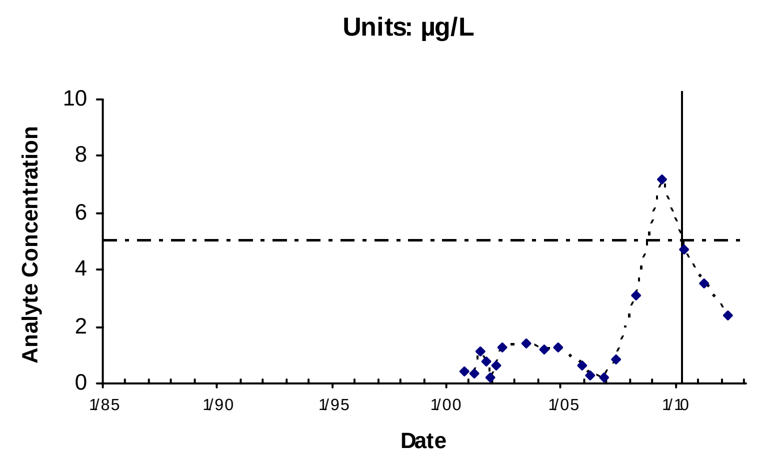
Chemical Time-series Plots



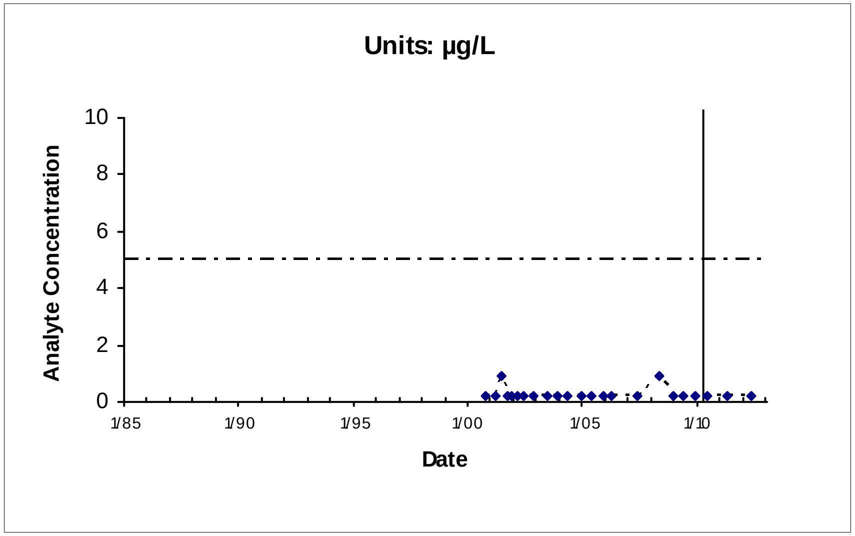
Location: MW541X37 Maximum: 37



Location: MW722X37 Maximum: 30



Location: MW723X37 Maximum: 7.2



Location: MW724X37 Maximum: 0.93

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

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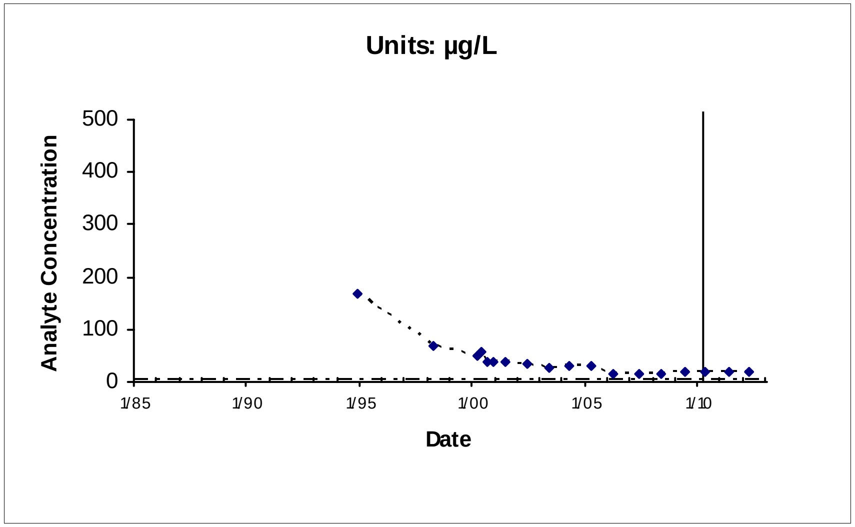
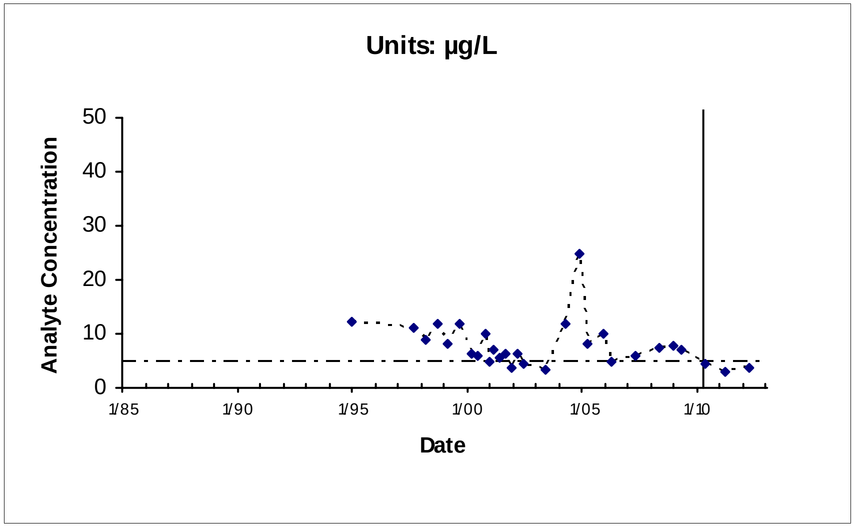
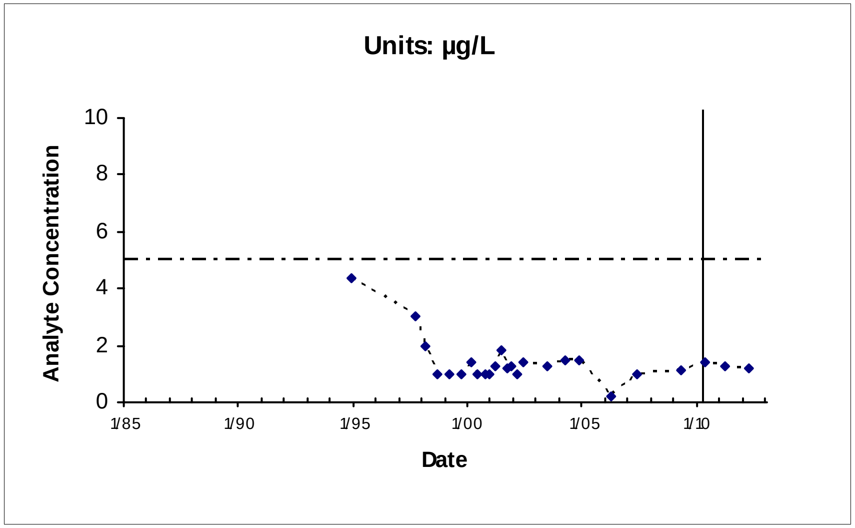
Chemical Time-series Plots



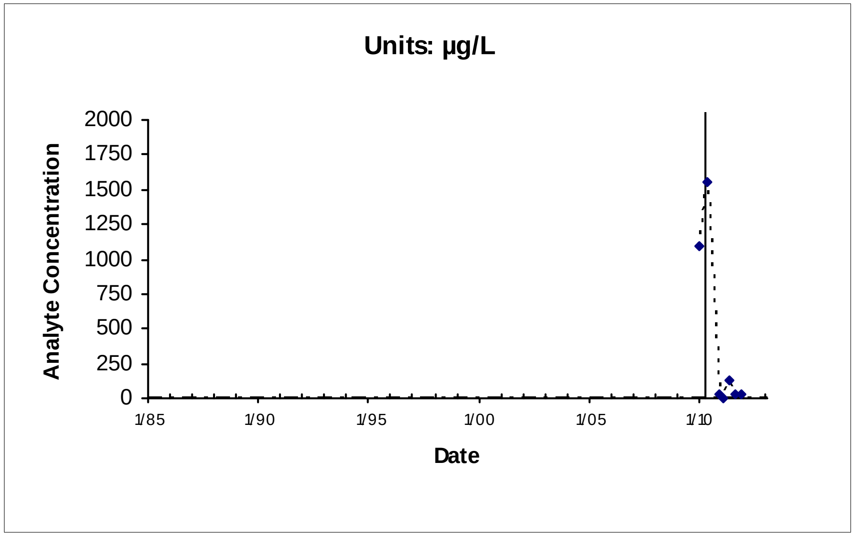
Location: MW1205X37 Maximum: 169



Location: MW1208X37 Maximum: 25



Location: MW1209X37 Maximum: 4.4



Location: MW2039Ax37 Maximum: 1550

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

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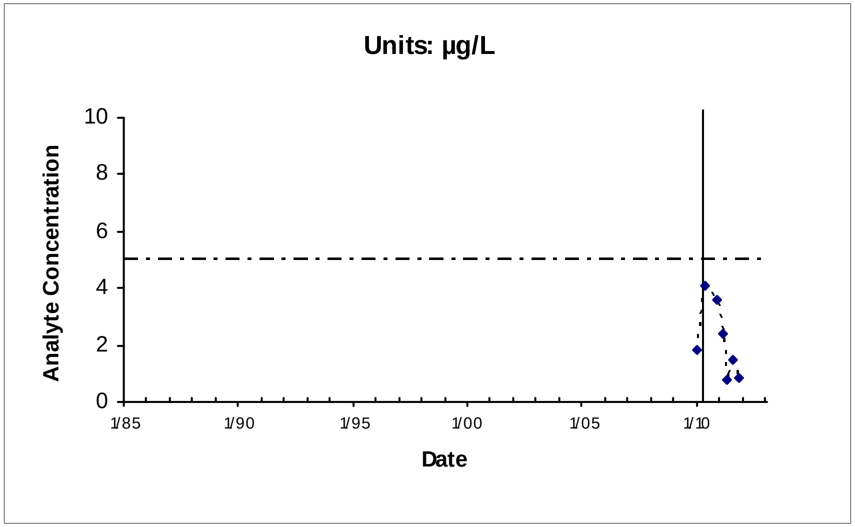
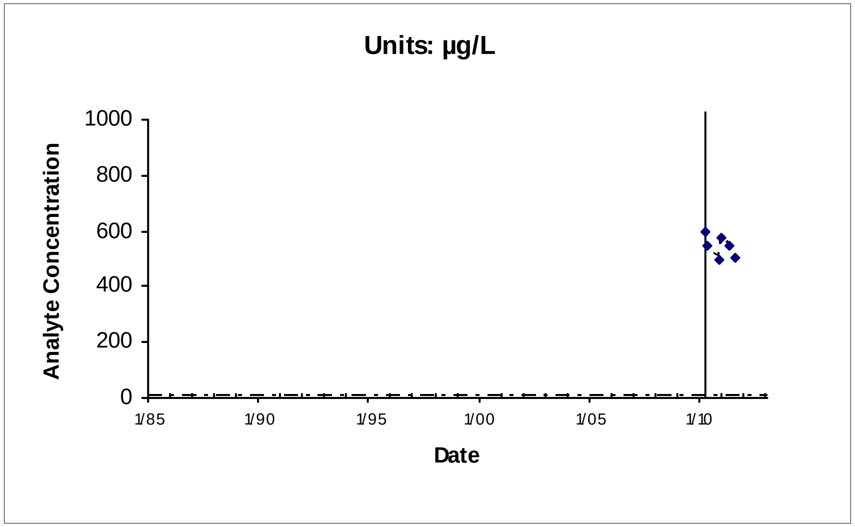
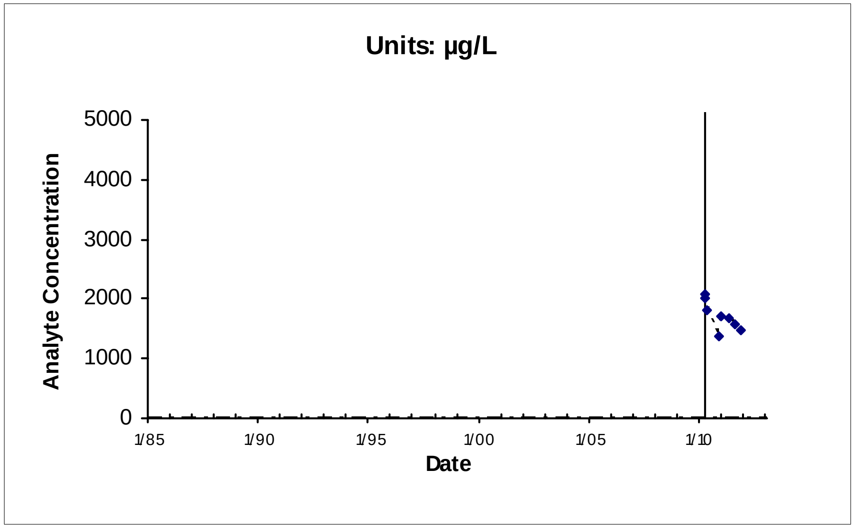
Chemical Time-series Plots



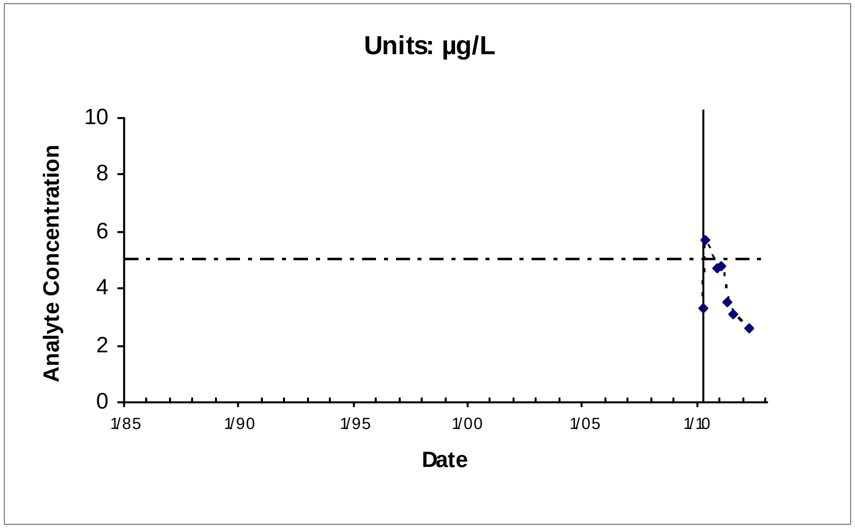
Location: MW2039Bx37 Maximum: 4.1



Location: MW2101Ax37 Maximum: 596



Location: MW2101Bx37 Maximum: 2070



Location: MW2101Cx37 Maximum: 5.7

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

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FIGURE 2-16
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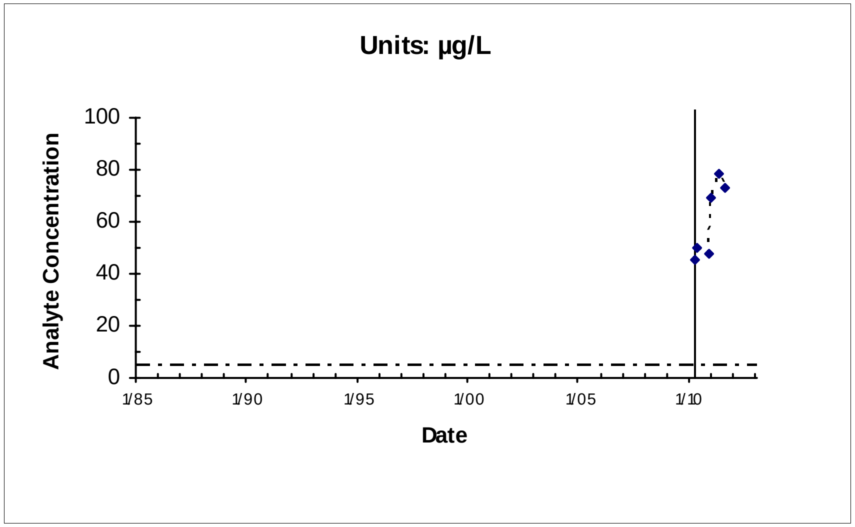
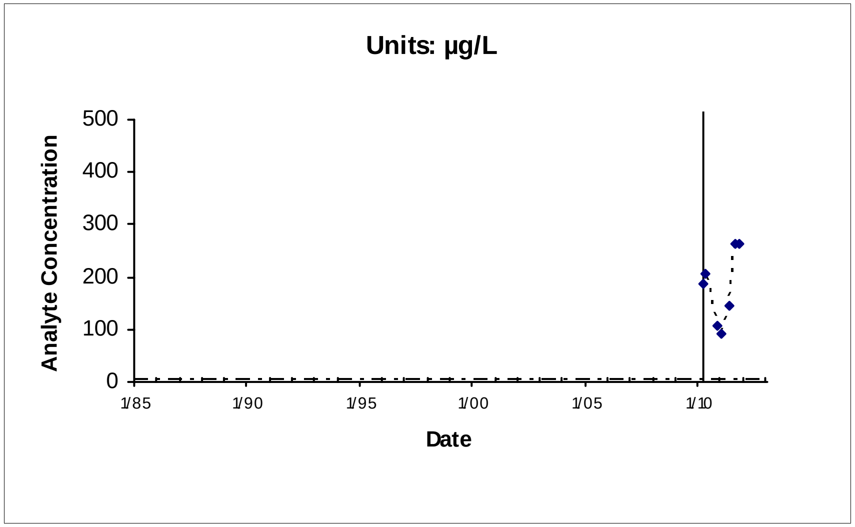
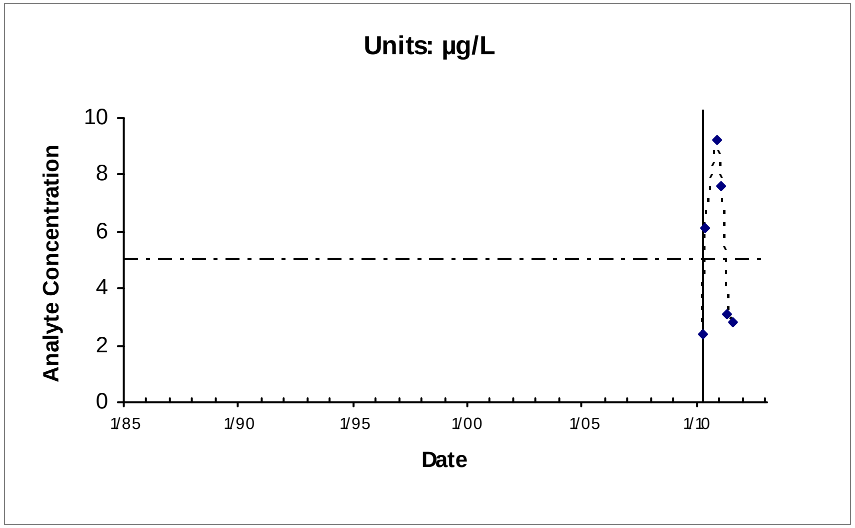
Chemical Time-series Plots



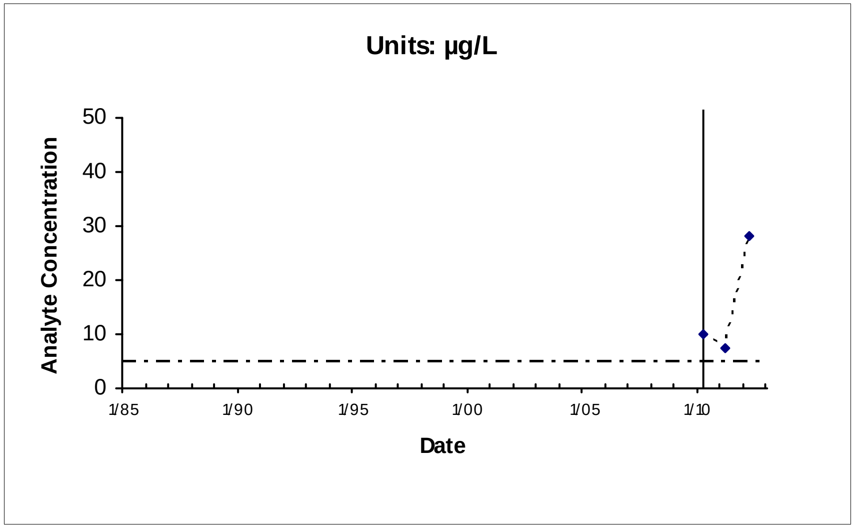
Location: MW2102Ax37 Maximum: 78.8



Location: MW2102Bx37 Maximum: 265



Location: MW2102Cx37 Maximum: 9.2



Location: MW2117x37 Maximum: 28

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

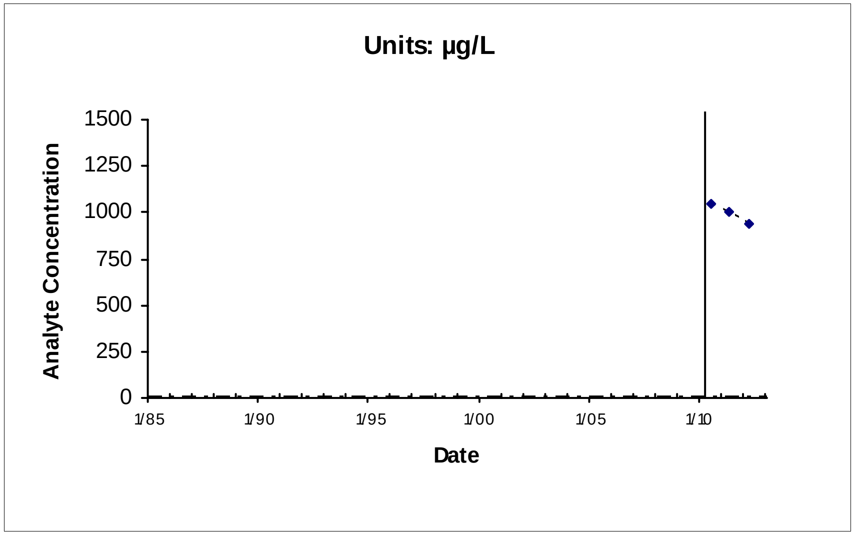
West IRA

FIGURE 2-16

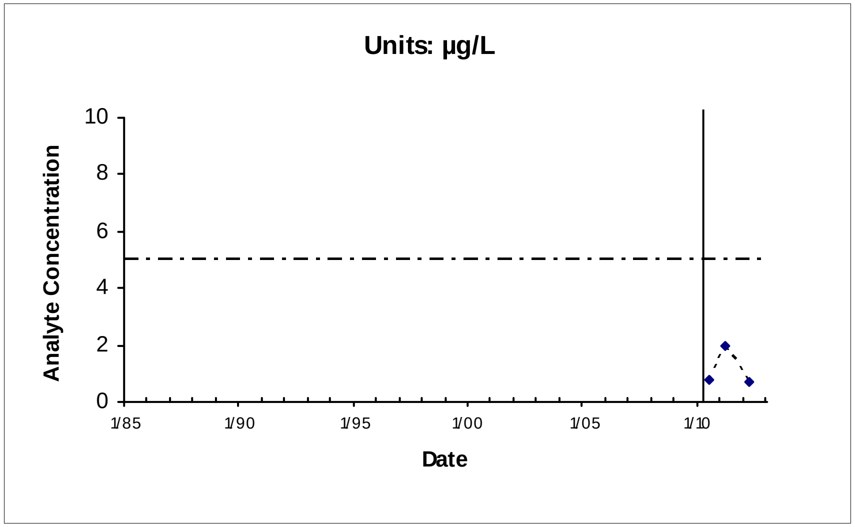
WIOU

TCE

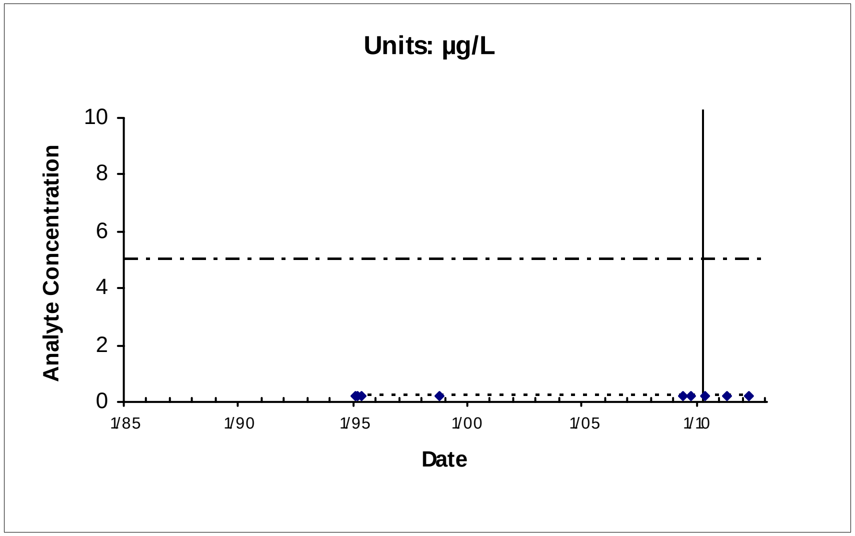
Chemical Time-series Plots



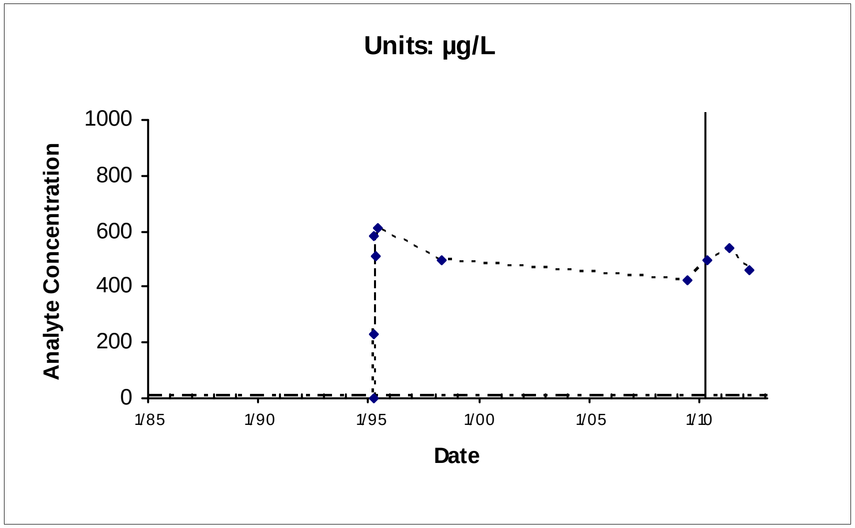
Location: MW2121x37 Maximum: 1050



Location: MW2122x37 Maximum: 2



Location: MWS3M3X37 Maximum: 0.19



Location: MWSNSM1X37 Maximum: 608

———— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

WIOU

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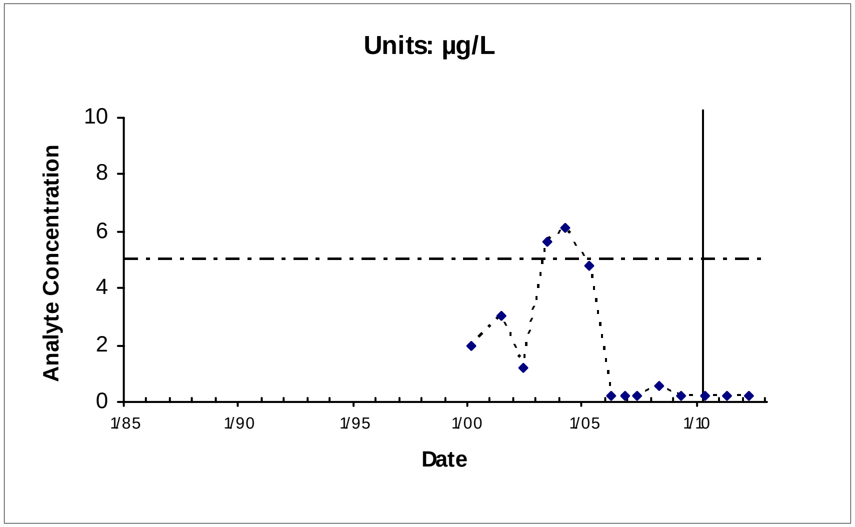
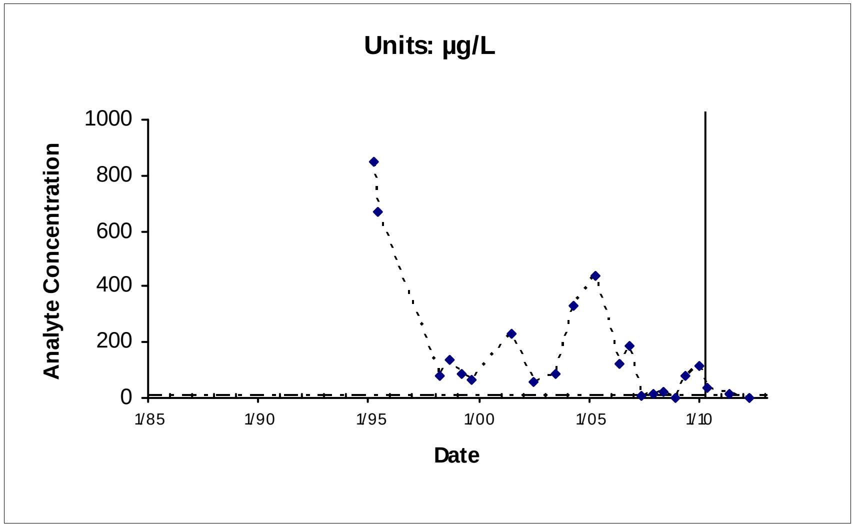
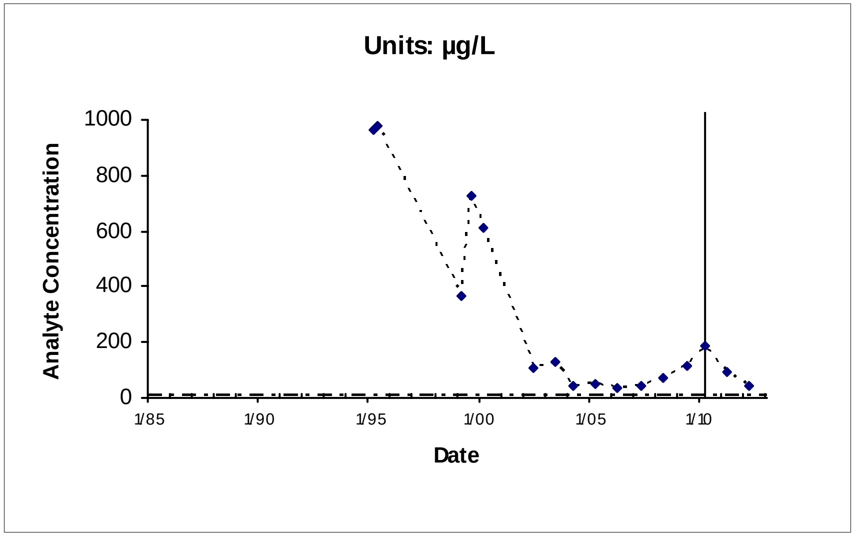
Chemical Time-series Plots



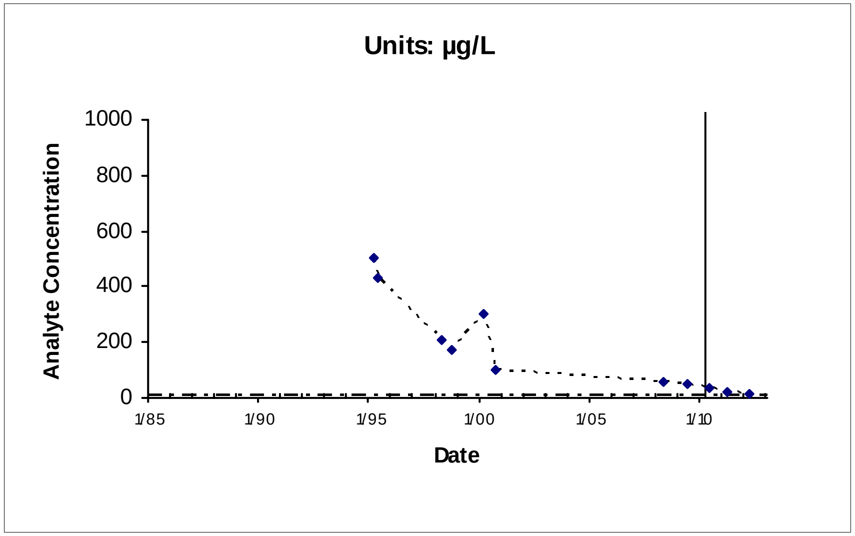
Location: MWSNSM3X37 Maximum: 6.1



Location: MWSNSM4X37 Maximum: 851



Location: MWSNSM5X37 Maximum: 979



Location: MWSSBM1X37 Maximum: 502

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

WIOU

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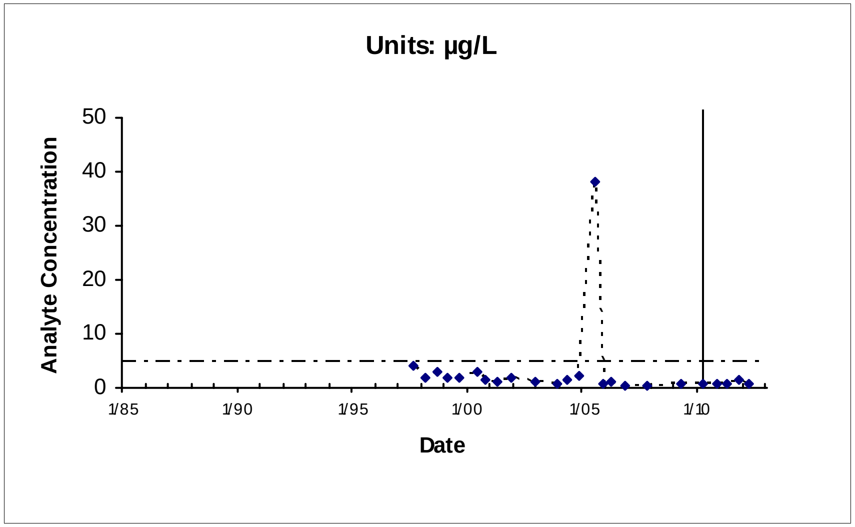
Chemical Time-series Plots



Location: EW555X43 Maximum: 38

——— Rebound Study Initiated

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-16

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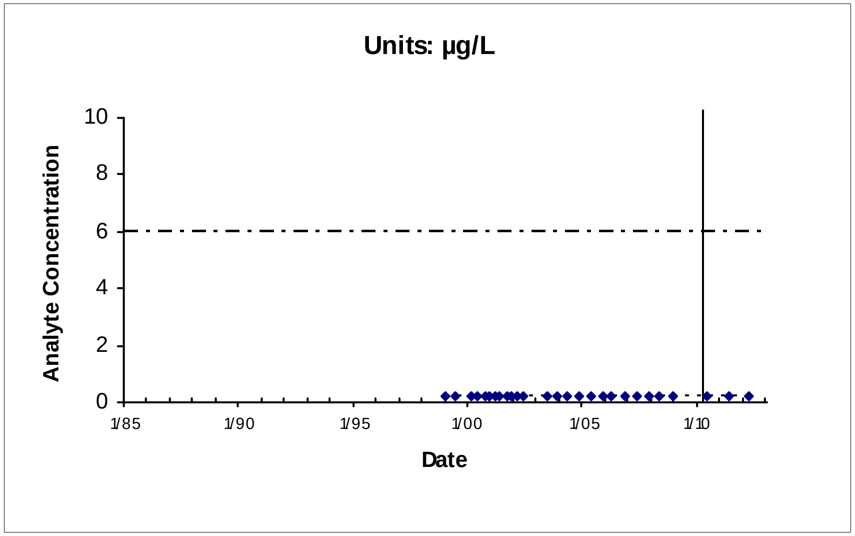
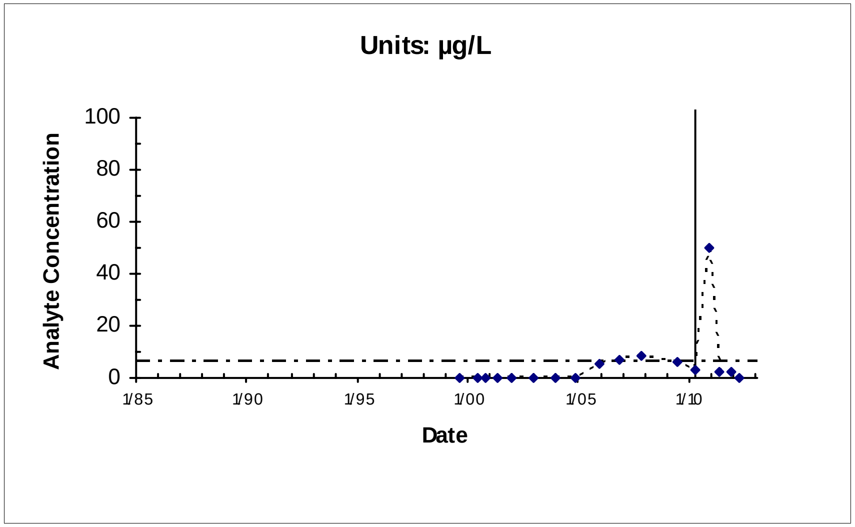
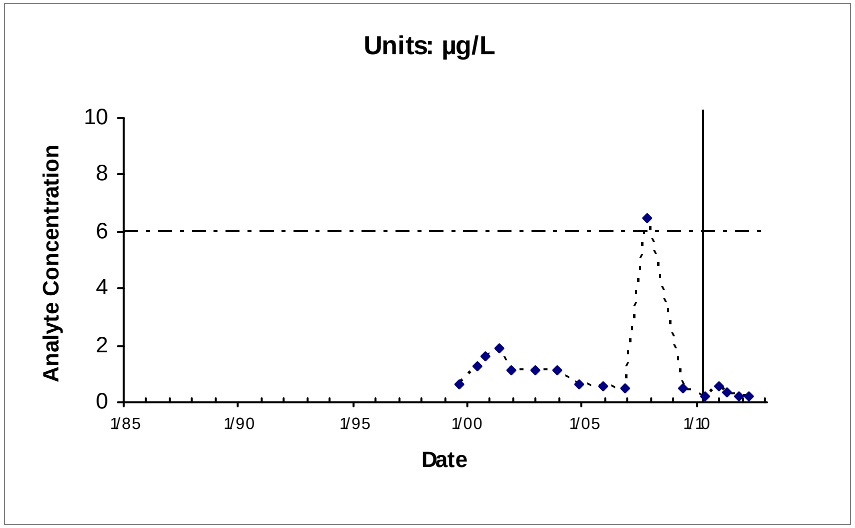
Chemical Time-series Plots



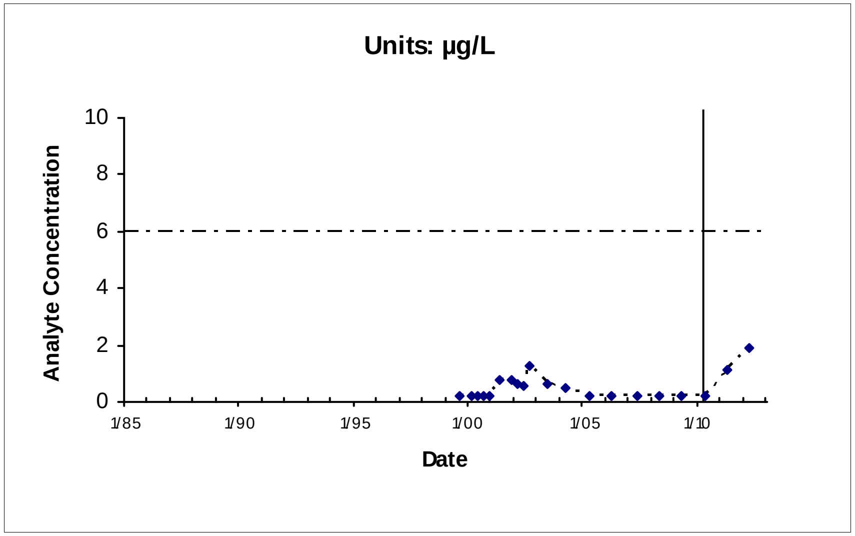
Location: MW05X14 Maximum: 0.19



Location: EW501X33 Maximum: 50



Location: EW503X33 Maximum: 6.5



Location: MW502X33 Maximum: 1.9

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

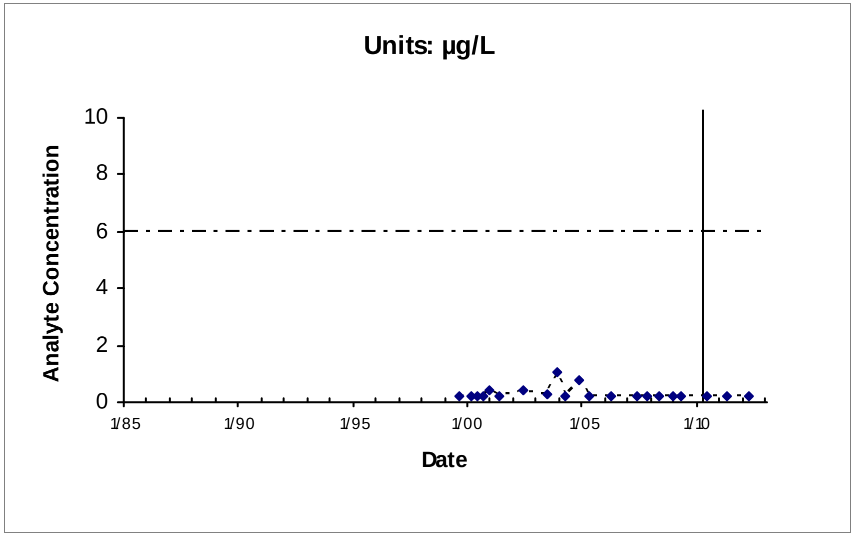
West IRA

FIGURE 2-17

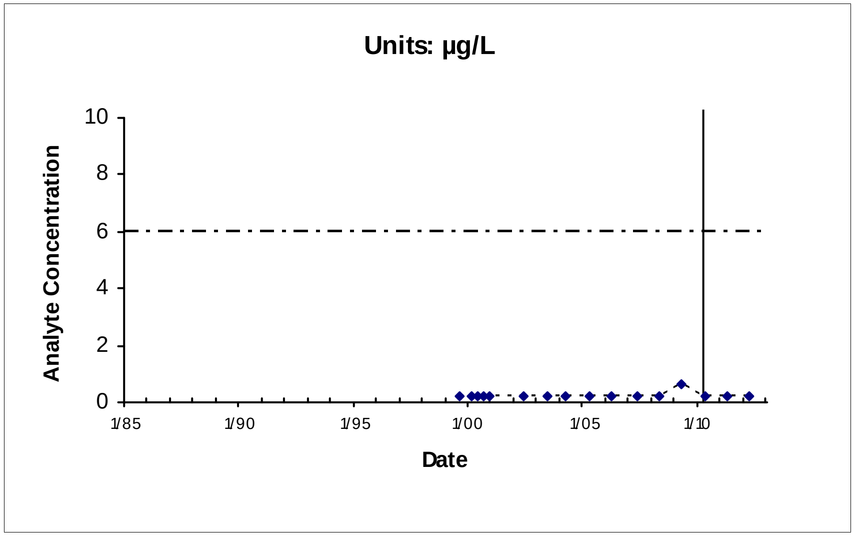
WIOU

cis-1,2-DCE

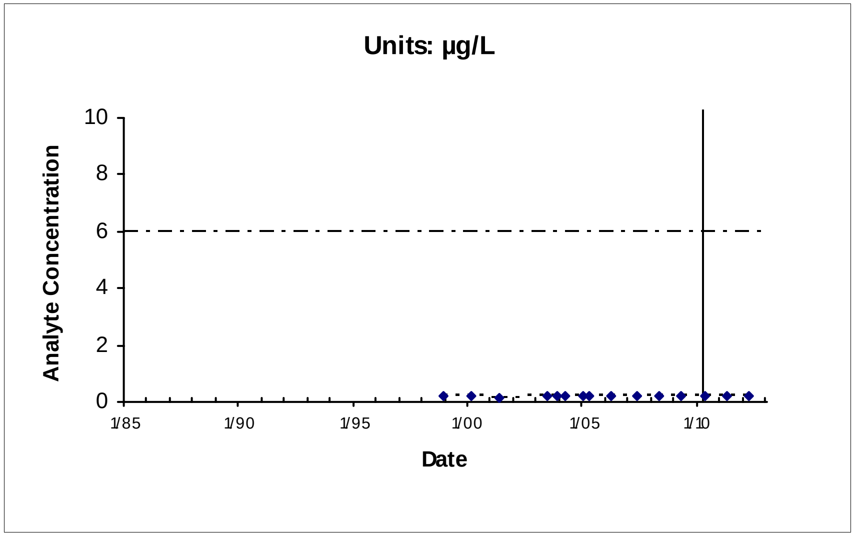
Chemical Time-series Plots



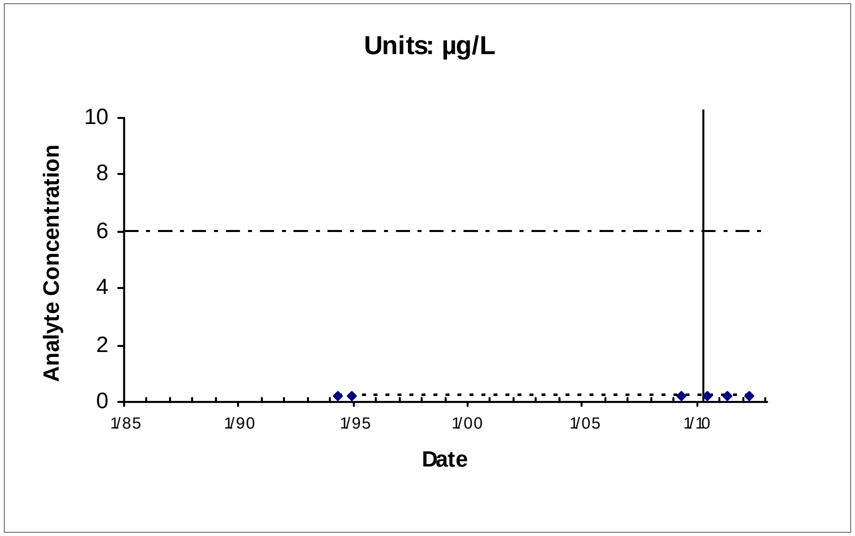
Location: MW504X33 Maximum: 1.04



Location: MW509X33 Maximum: 0.6



Location: MW530X33 Maximum: 0.19



Location: MW1S3X33 Maximum: 0.19

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

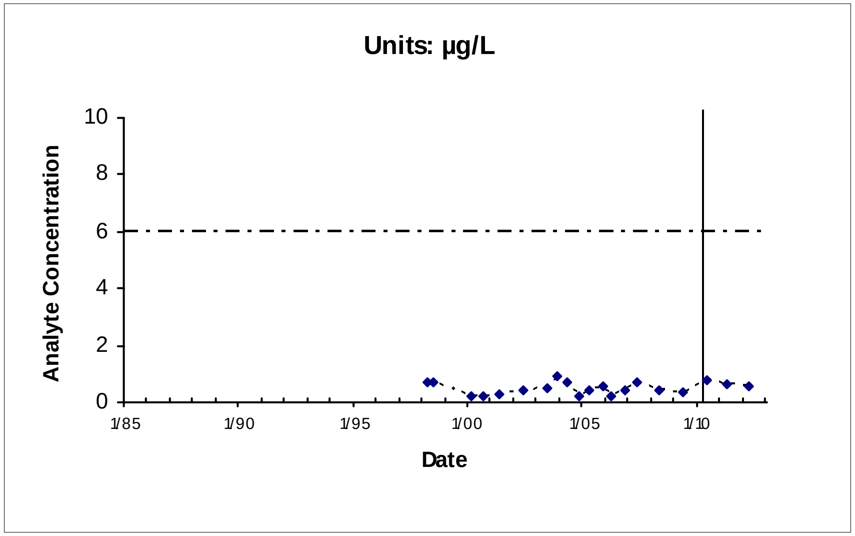
West IRA

FIGURE 2-17

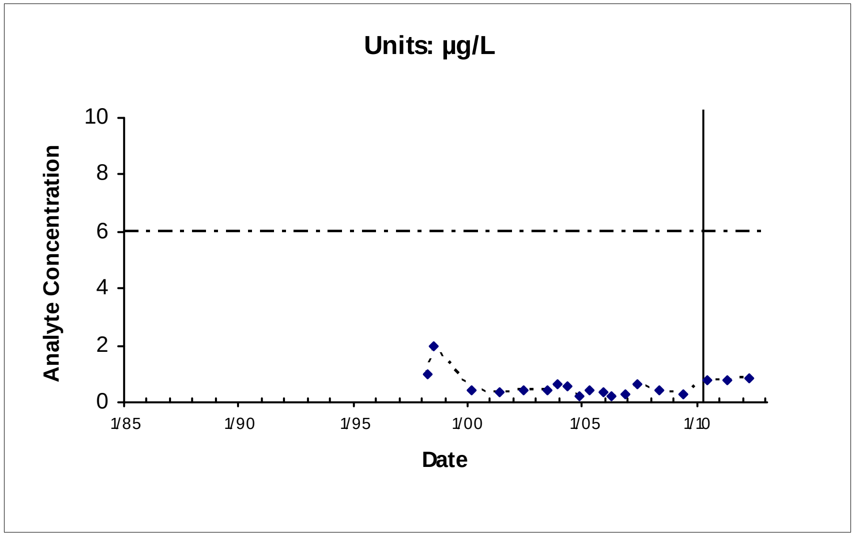
WIOU

cis-1,2-DCE

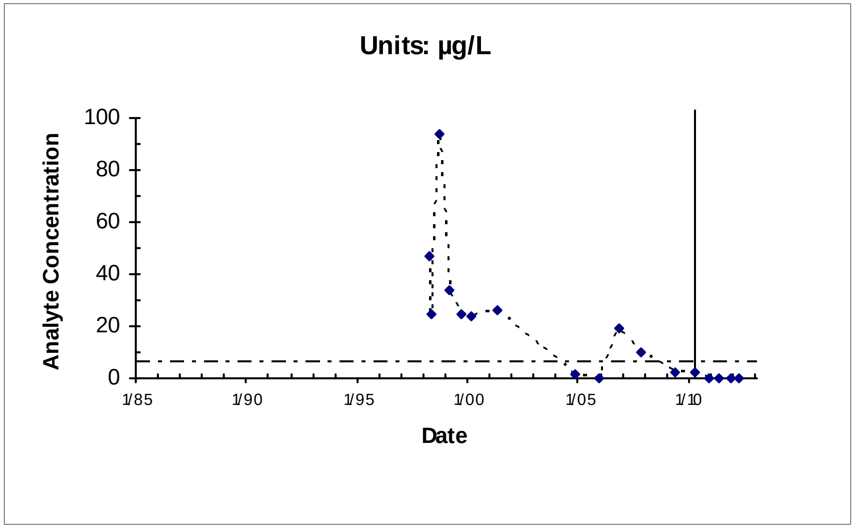
Chemical Time-series Plots



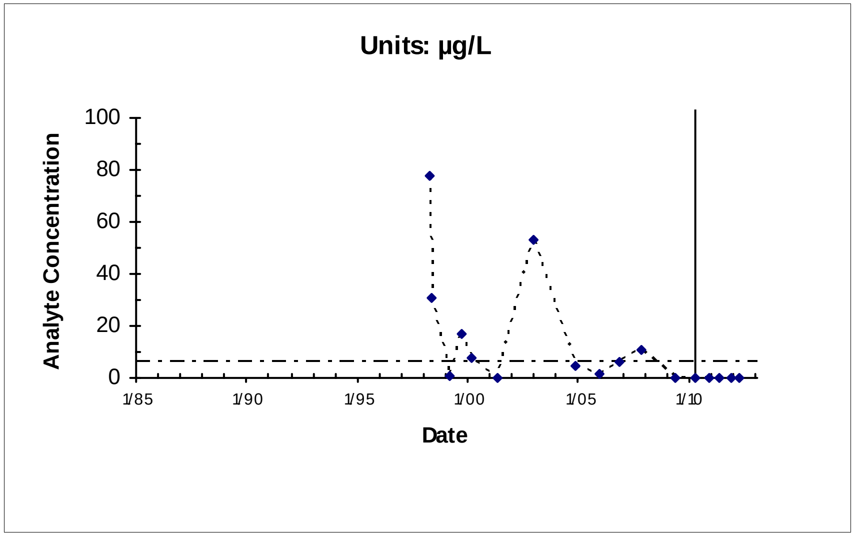
Location: WBUC-3 Maximum: 0.907



Location: WBUC-4 Maximum: 2



Location: EW01X34 Maximum: 94



Location: EW03X34 Maximum: 78

———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

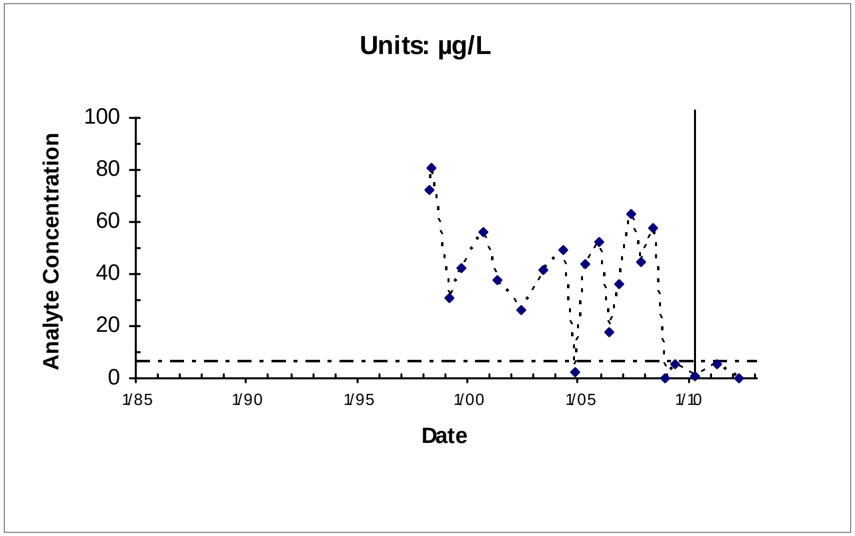
West IRA

FIGURE 2-17

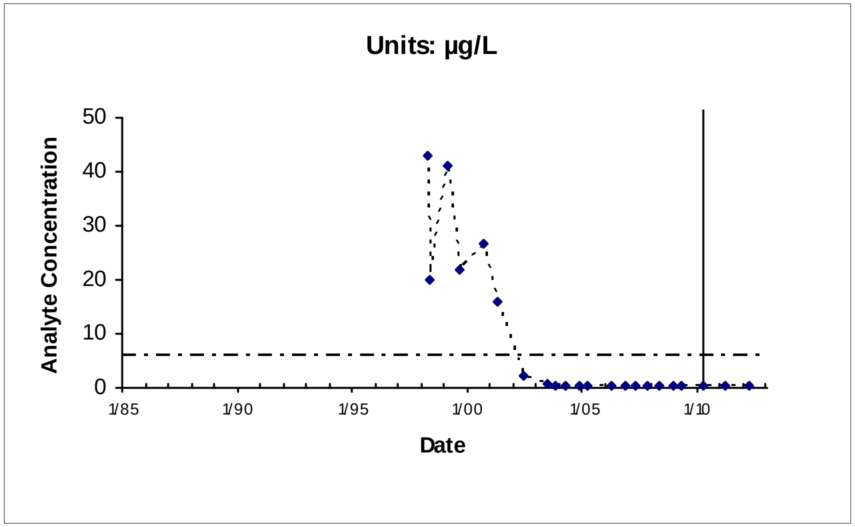
WIOU

cis-1,2-DCE

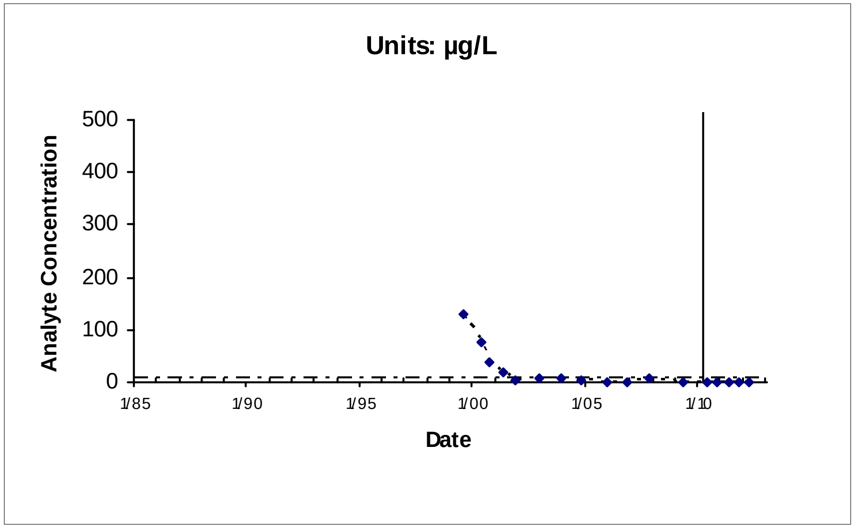
Chemical Time-series Plots



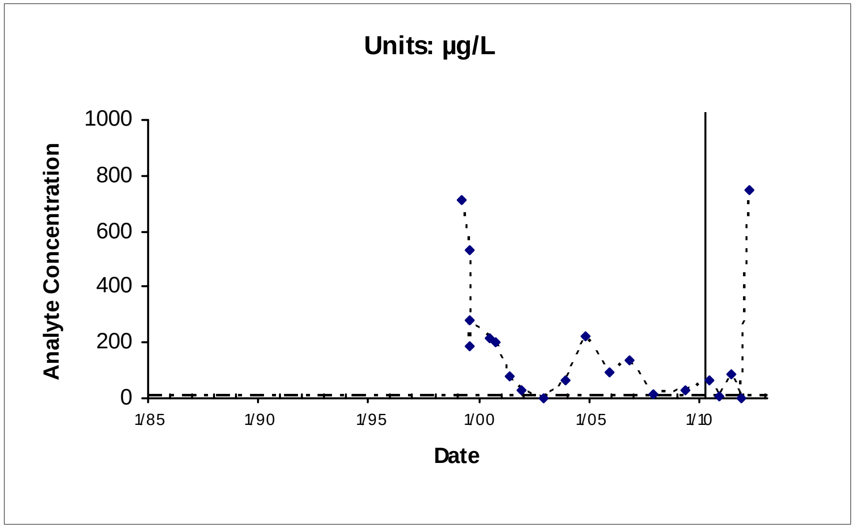
Location: MW02X34 Maximum: 81



Location: MW04X34 Maximum: 43



Location: EW593X36 Maximum: 130



Location: EW594X36 Maximum: 751

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

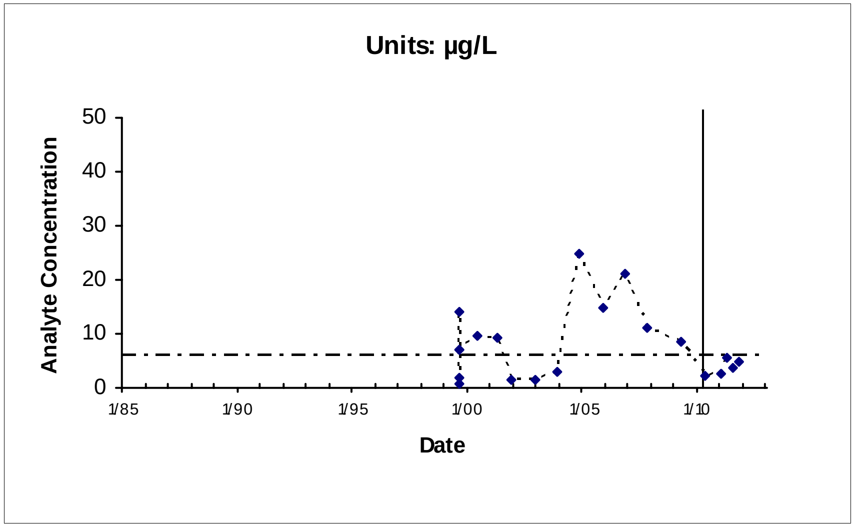
West IRA

FIGURE 2-17

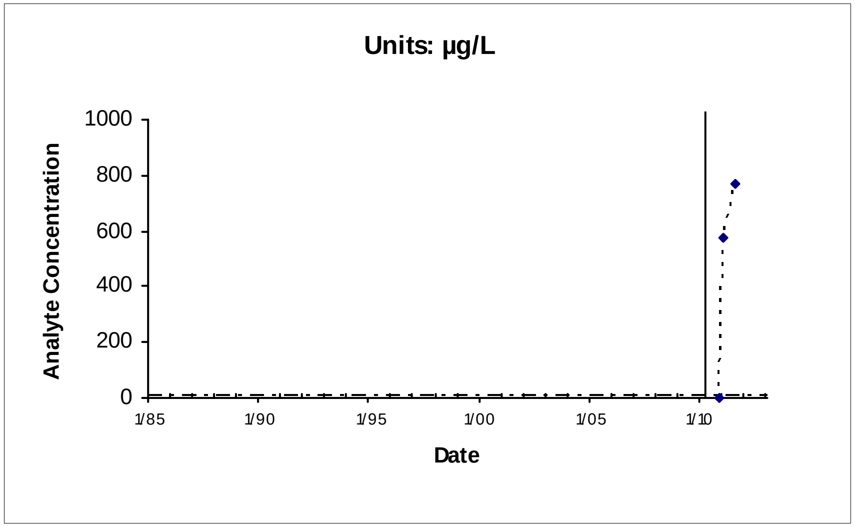
WIOU

cis-1,2-DCE

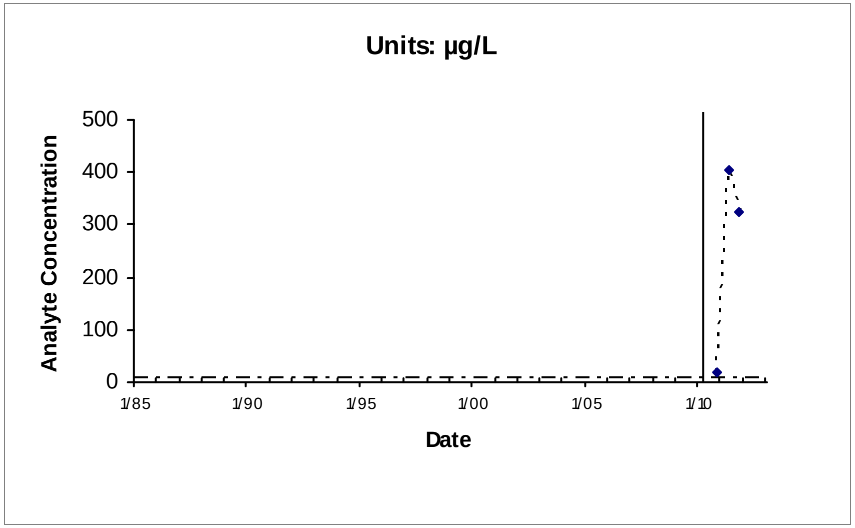
Chemical Time-series Plots



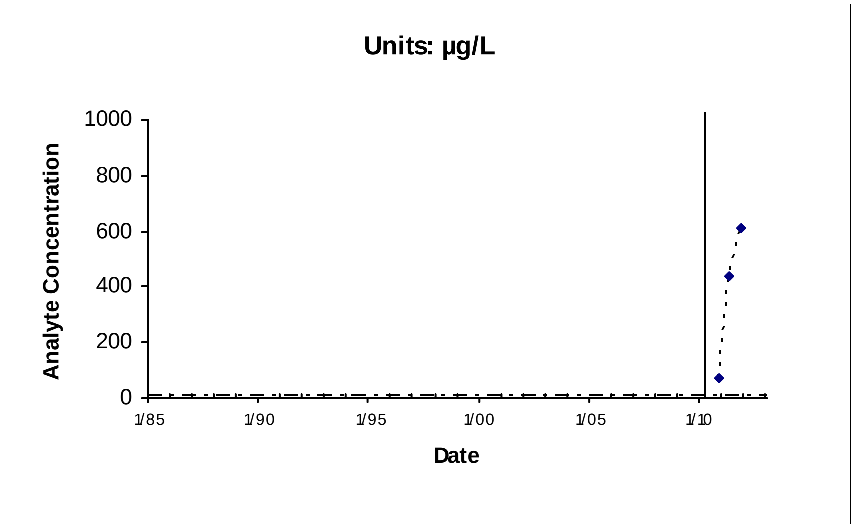
Location: EW595X36 Maximum: 25



Location: IW2133X36 Maximum: 768



Location: IW2134X36 Maximum: 406



Location: IW2135X36 Maximum: 611

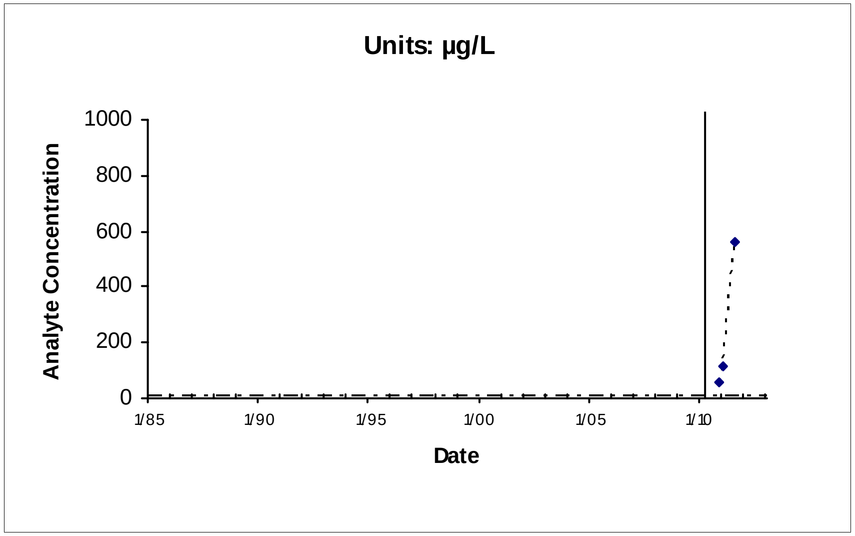
——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

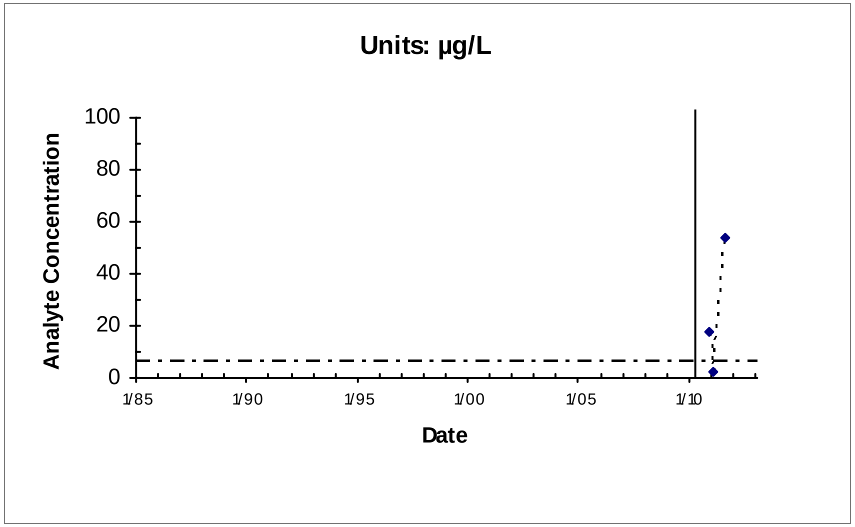
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

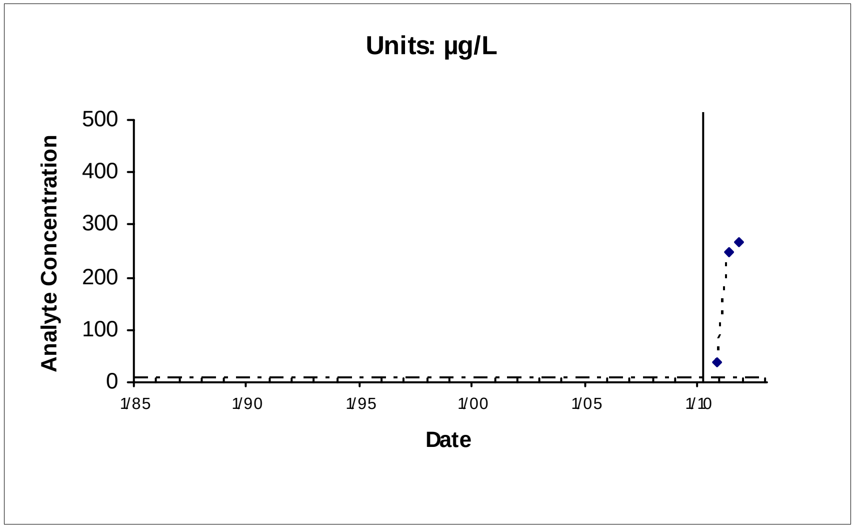
West IRA
FIGURE 2-17
WIOU
cis-1,2-DCE
Chemical Time-series Plots



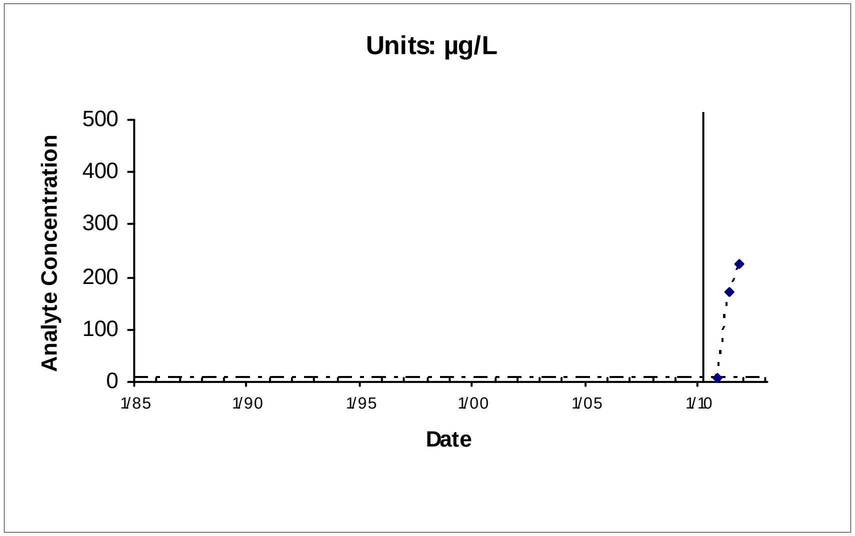
Location: IW2136x36 Maximum: 561



Location: IW2137x36 Maximum: 54.2



Location: IW2138X36 Maximum: 269



Location: IW2139x36 Maximum: 225

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

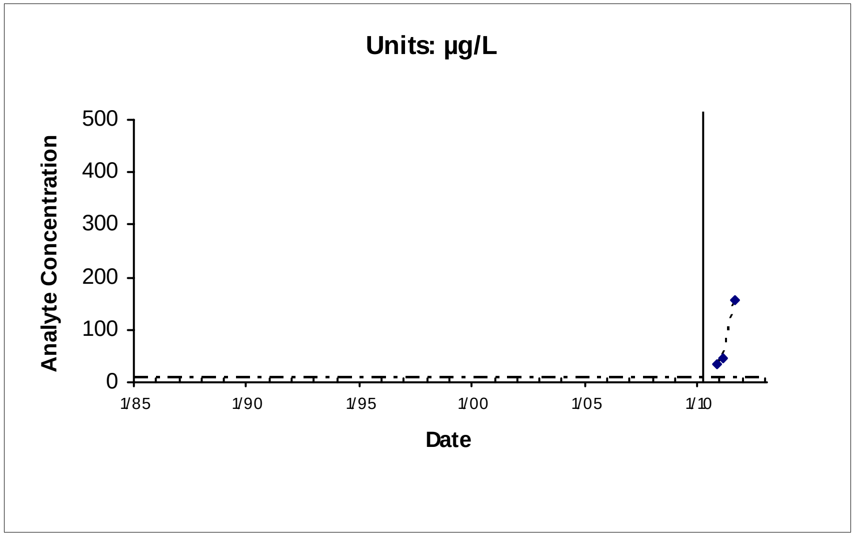
West IRA

FIGURE 2-17

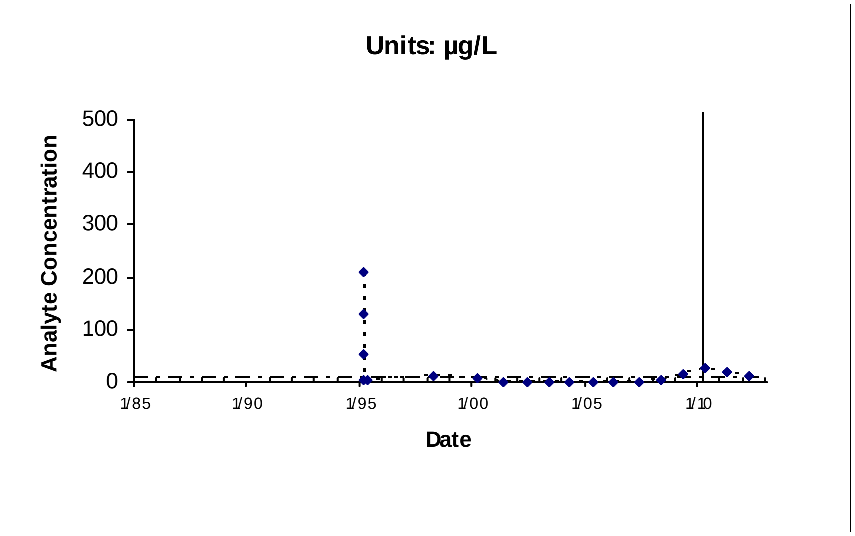
WIOU

cis-1,2-DCE

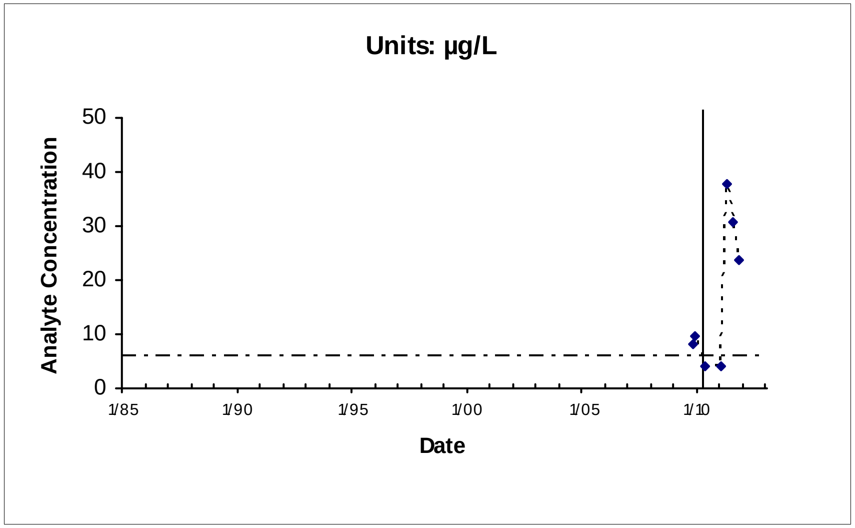
Chemical Time-series Plots



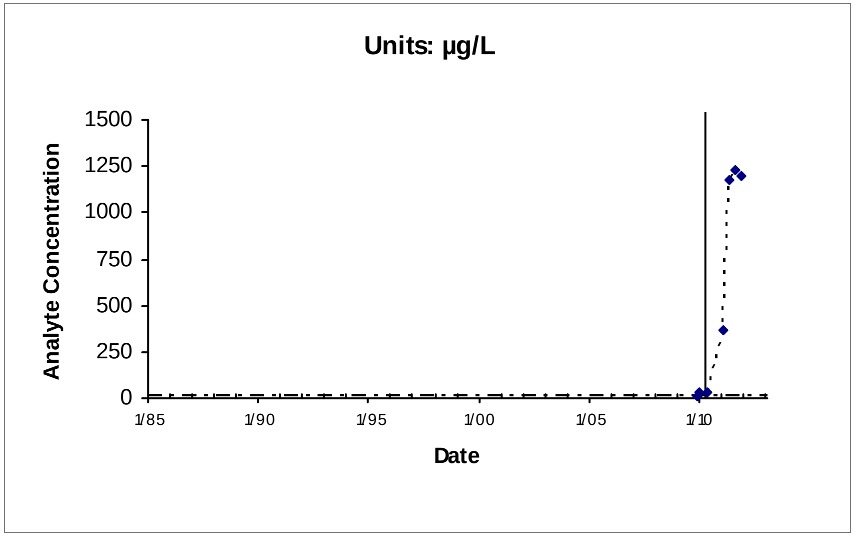
Location: IW2140X36 Maximum: 157



Location: MW873M2X36 Maximum: 210



Location: MW2031Ax36 Maximum: 37.7



Location: MW2031Bx36 Maximum: 1230

———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

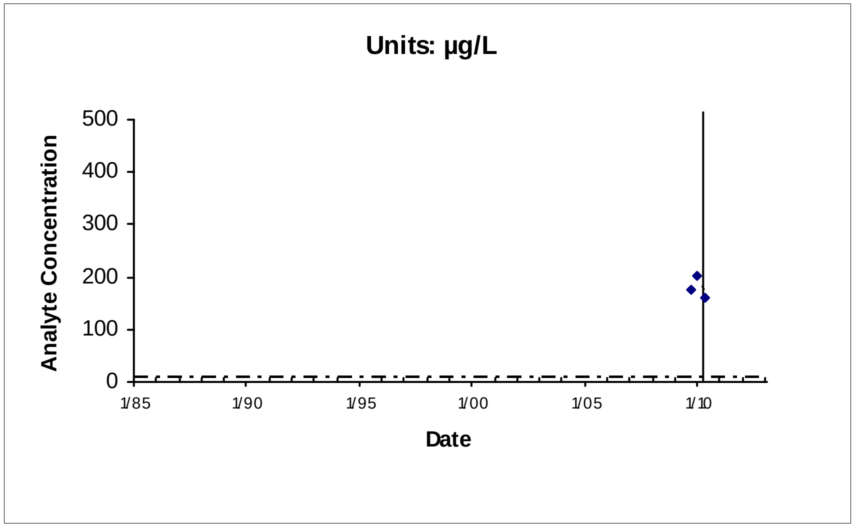
West IRA

FIGURE 2-17

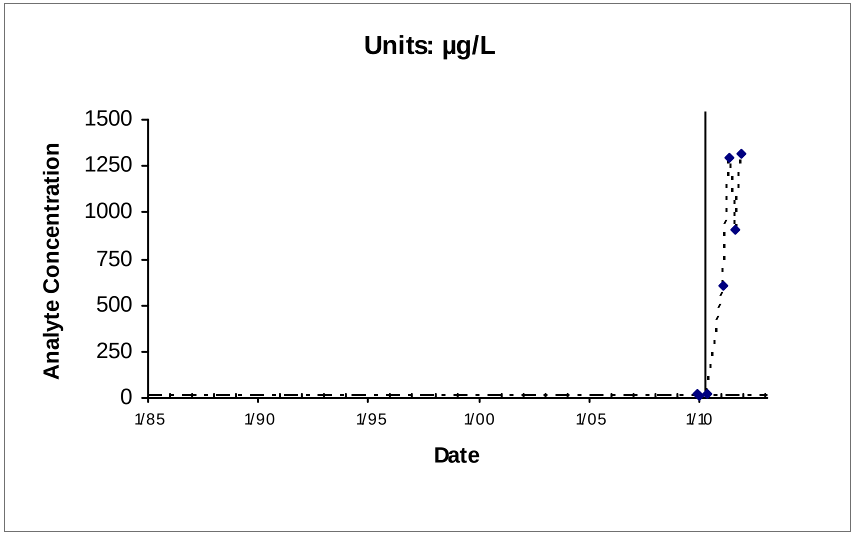
WIOU

cis-1,2-DCE

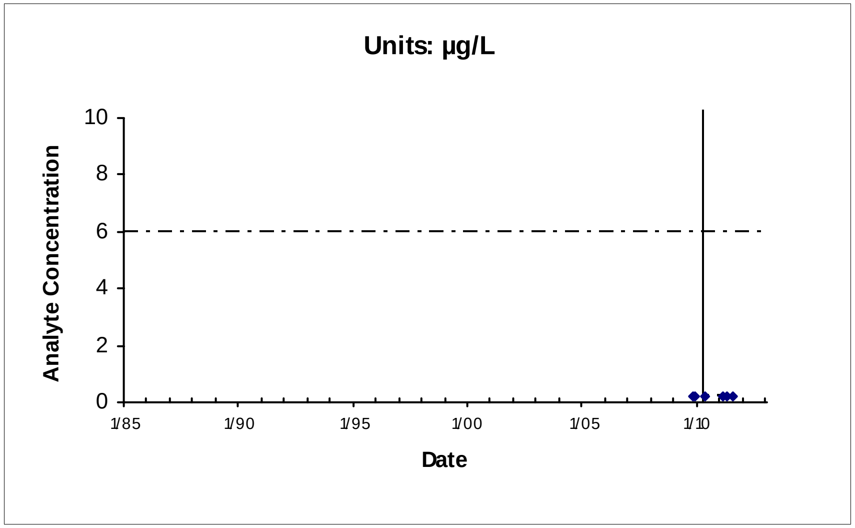
Chemical Time-series Plots



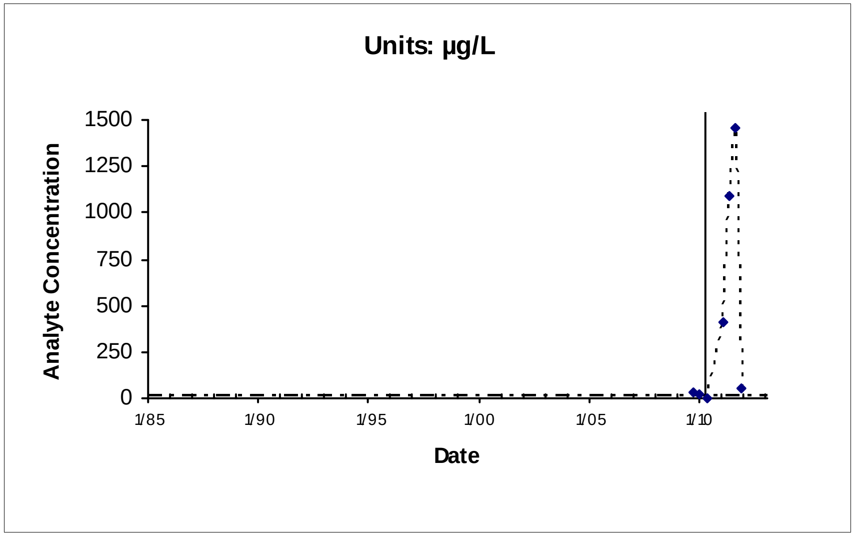
Location: MW2032x36 Maximum: 204



Location: MW2033Ax36 Maximum: 1320



Location: MW2033Bx36 Maximum: 0.23



Location: MW2034Ax36 Maximum: 1460

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

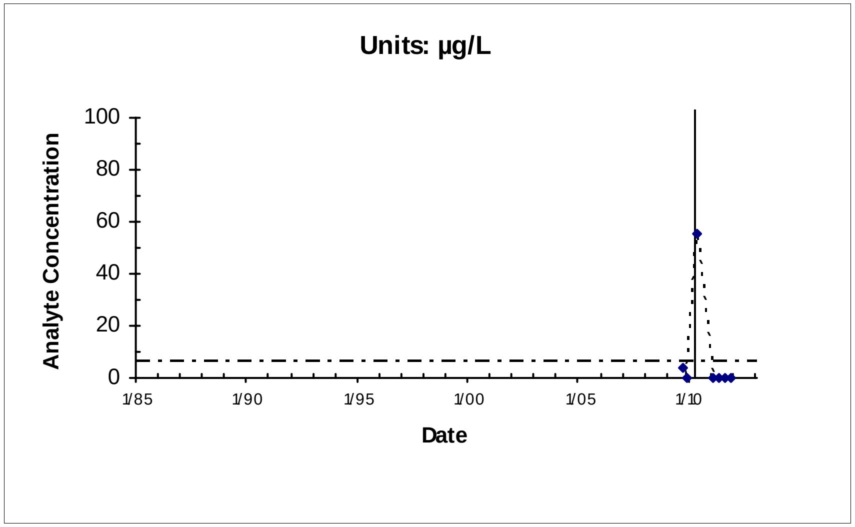
West IRA

FIGURE 2-17

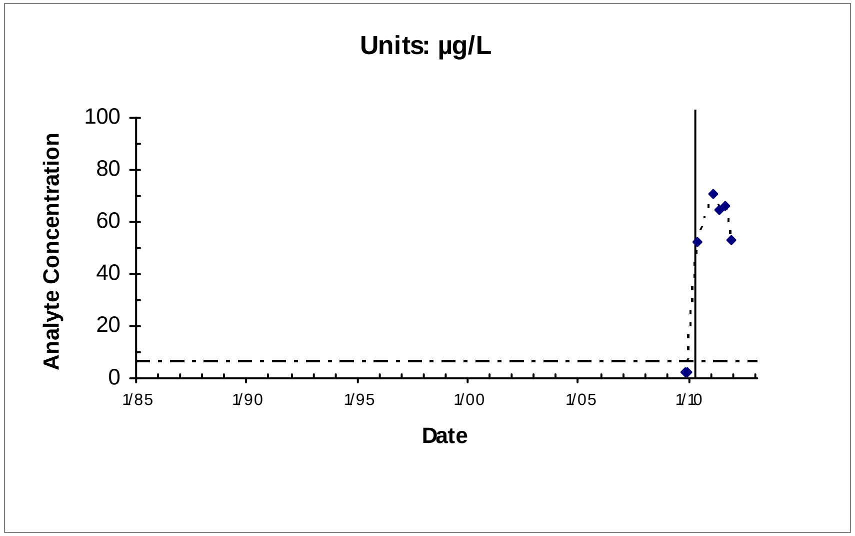
WIOU

cis-1,2-DCE

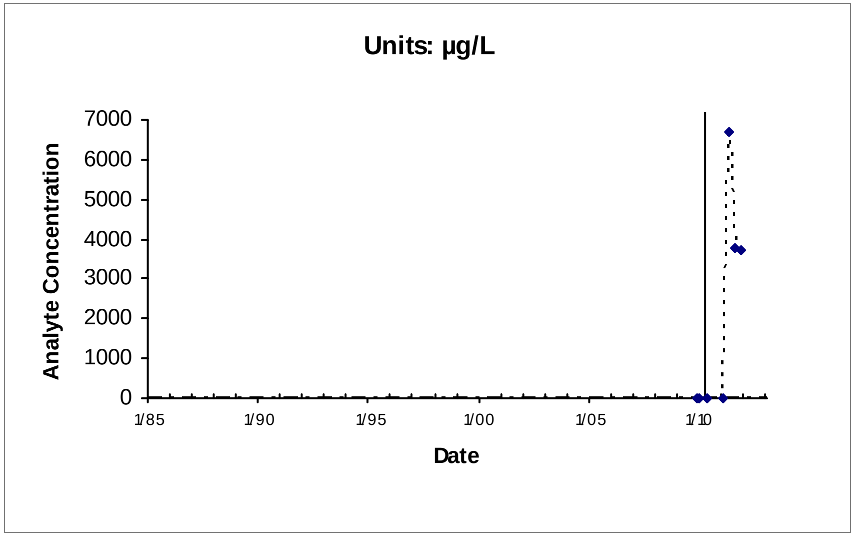
Chemical Time-series Plots



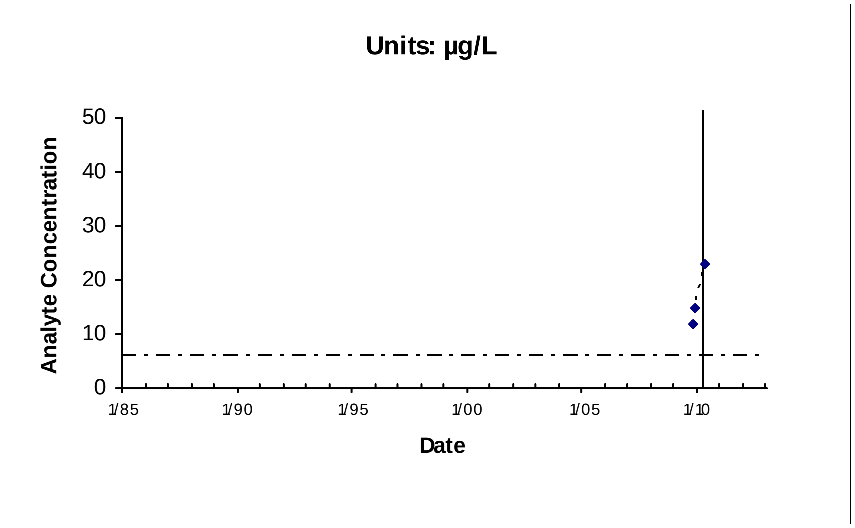
Location: MW2034Bx36 Maximum: 55.4



Location: MW2061Ax36 Maximum: 71



Location: MW2061Bx36 Maximum: 6710



Location: MW2063x36 Maximum: 23.1

———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

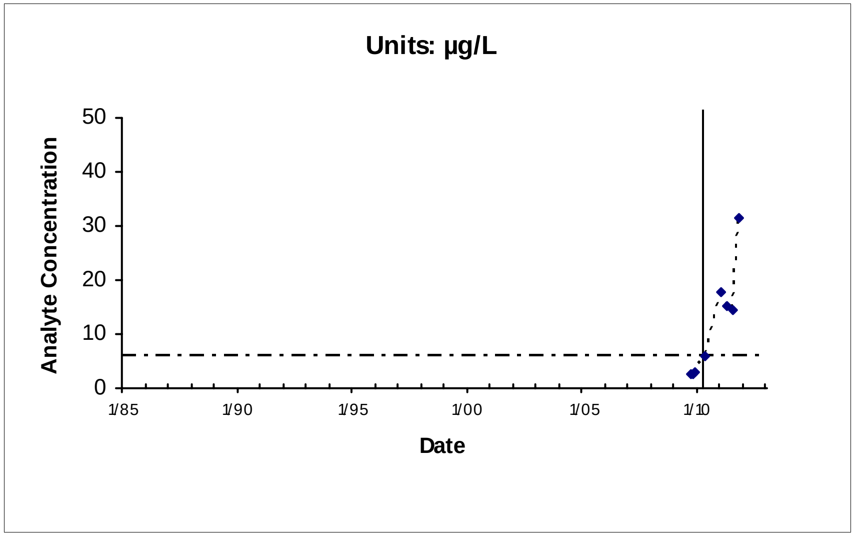
West IRA

FIGURE 2-17

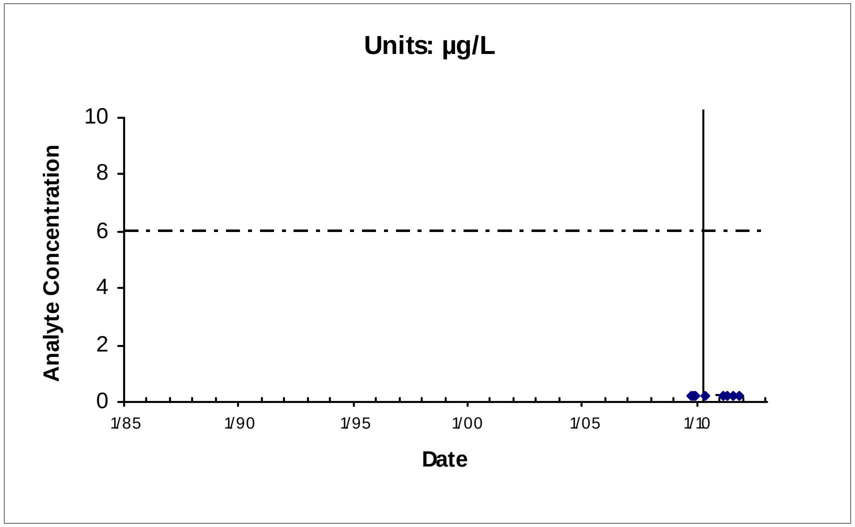
WIOU

cis-1,2-DCE

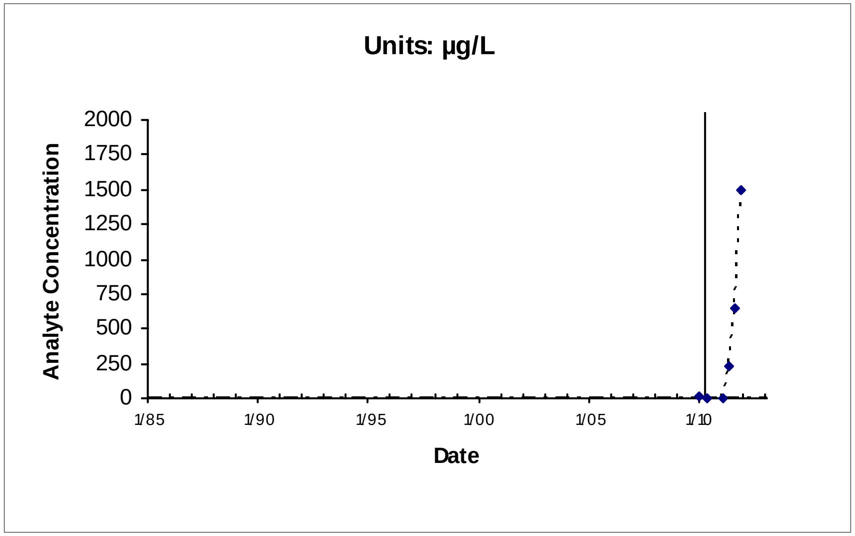
Chemical Time-series Plots



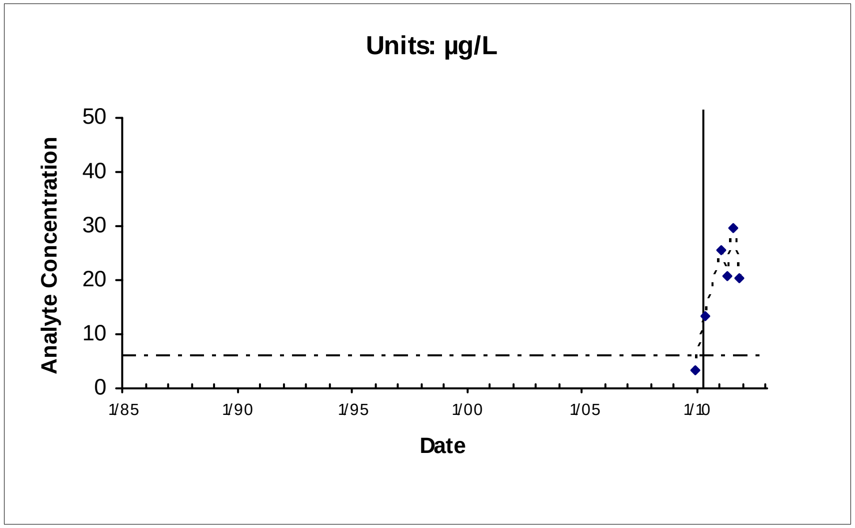
Location: MW2064Ax36 Maximum: 31.5



Location: MW2064Bx36 Maximum: 0.19



Location: MW2065x36 Maximum: 1500



Location: MW2075Ax36 Maximum: 29.6

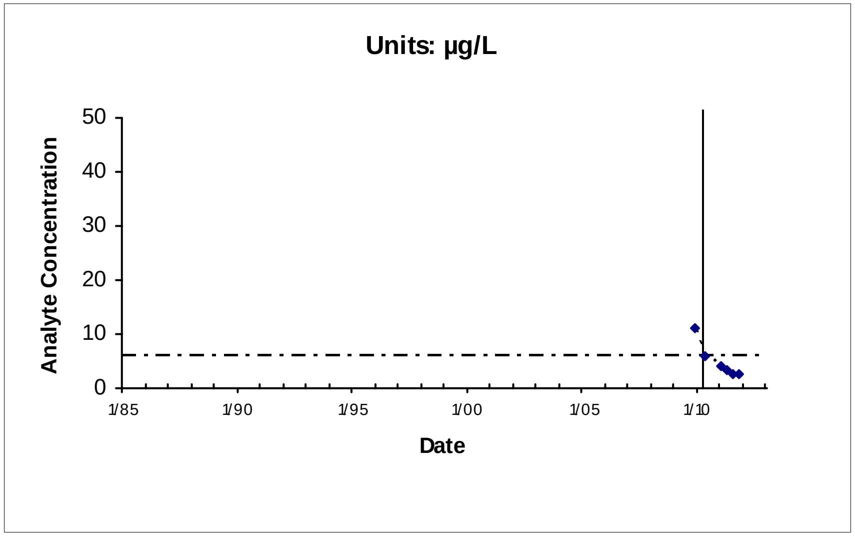
———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

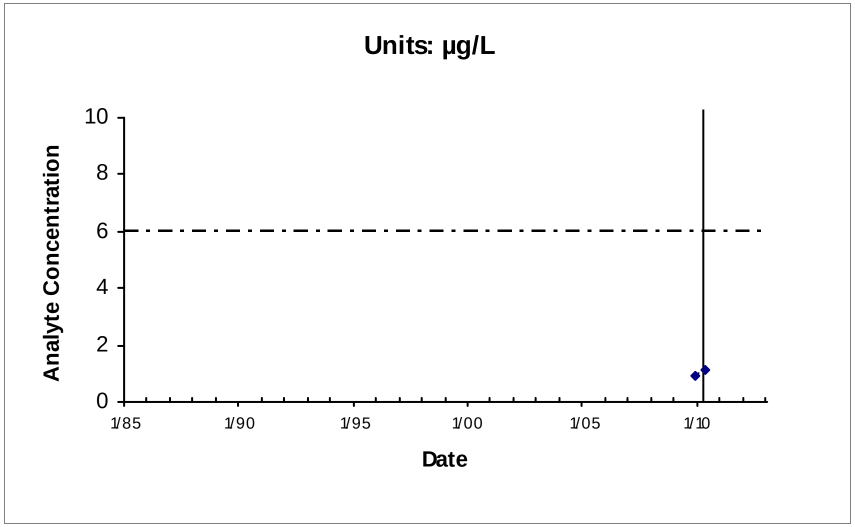
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

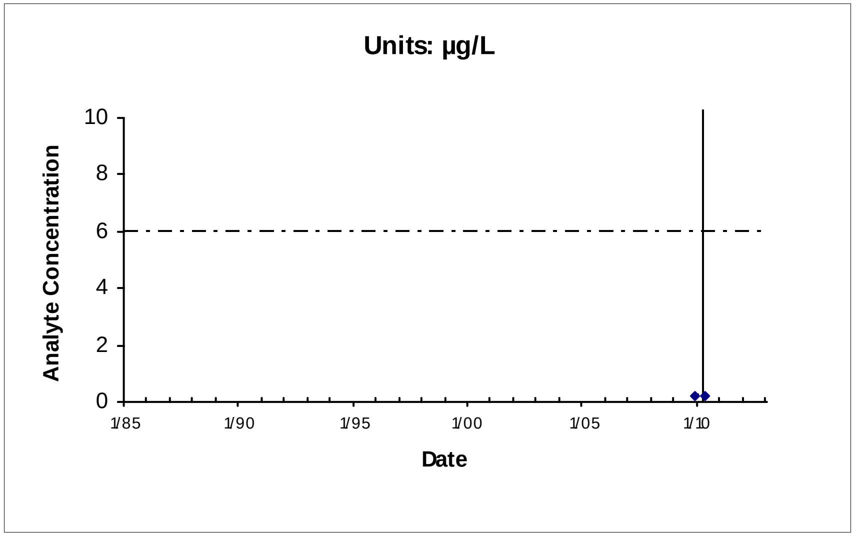
West IRA
FIGURE 2-17
WIOU
cis-1,2-DCE
Chemical Time-series Plots



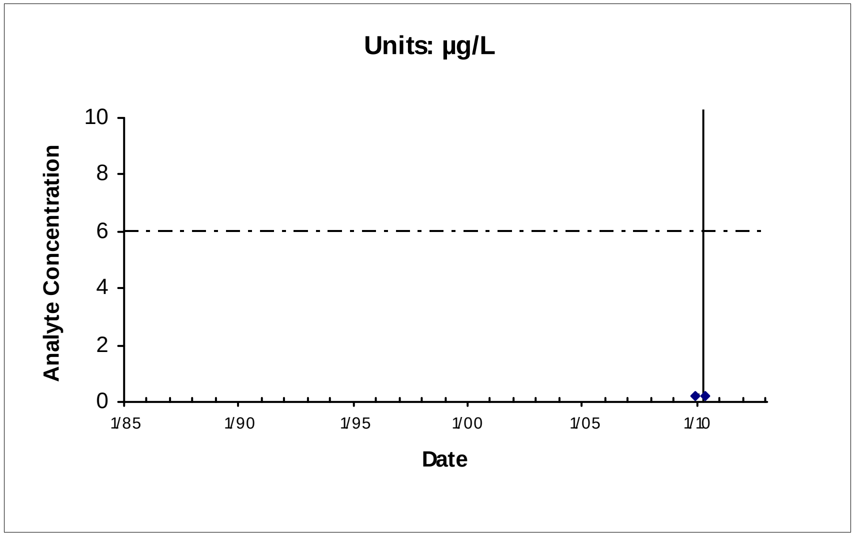
Location: MW2075Bx36 Maximum: 11.1



Location: MW2077Ax36 Maximum: 1.1



Location: MW2077Bx36 Maximum: 0.19



Location: MW2077Cx36 Maximum: 0.19

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

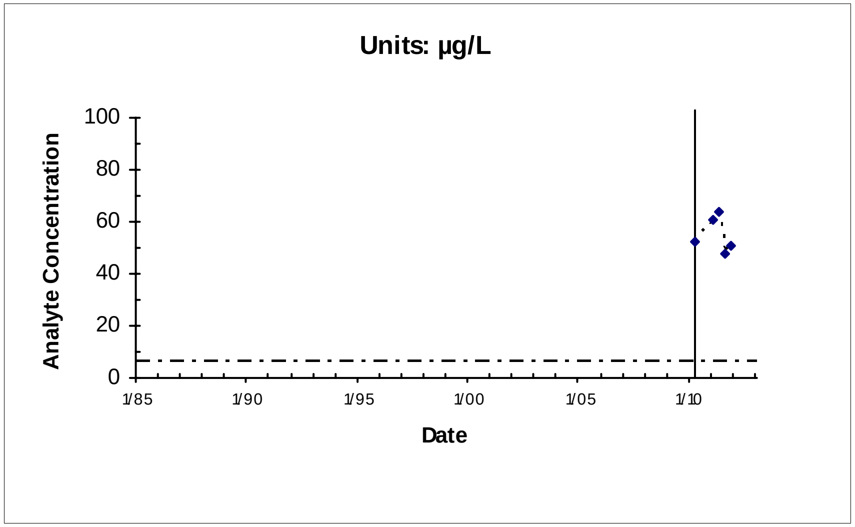
West IRA

FIGURE 2-17

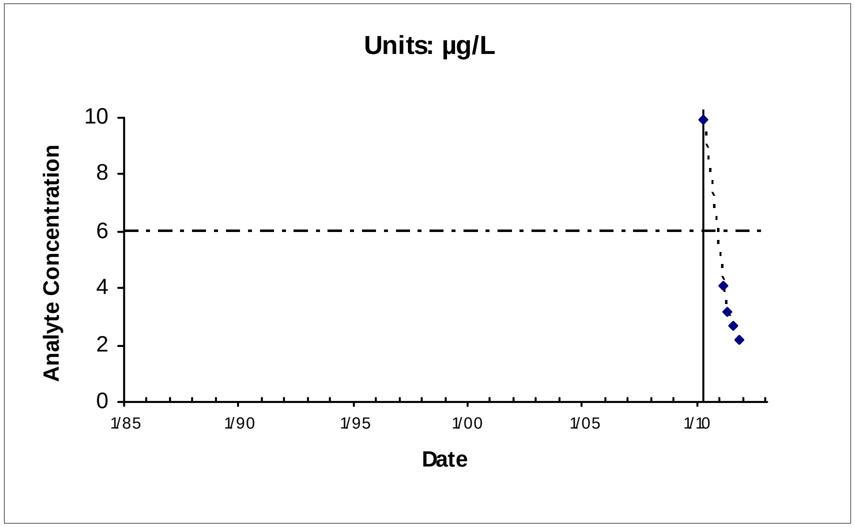
WIOU

cis-1,2-DCE

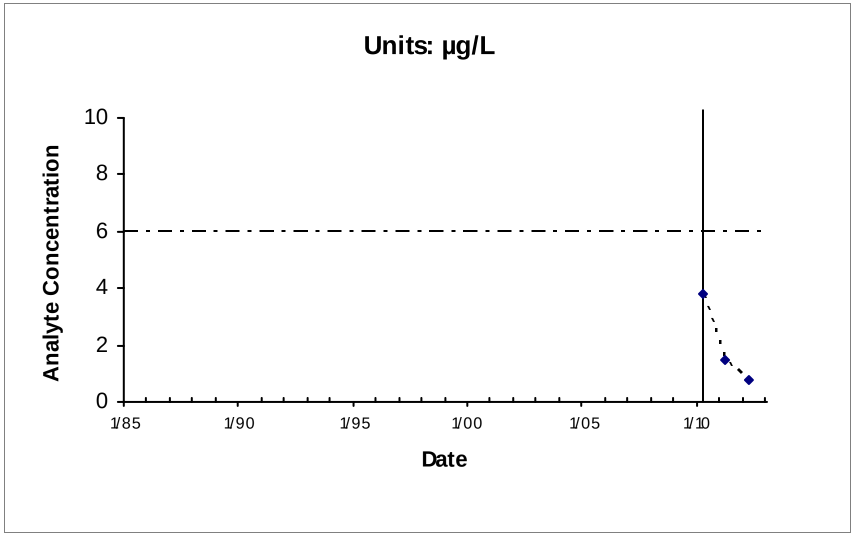
Chemical Time-series Plots



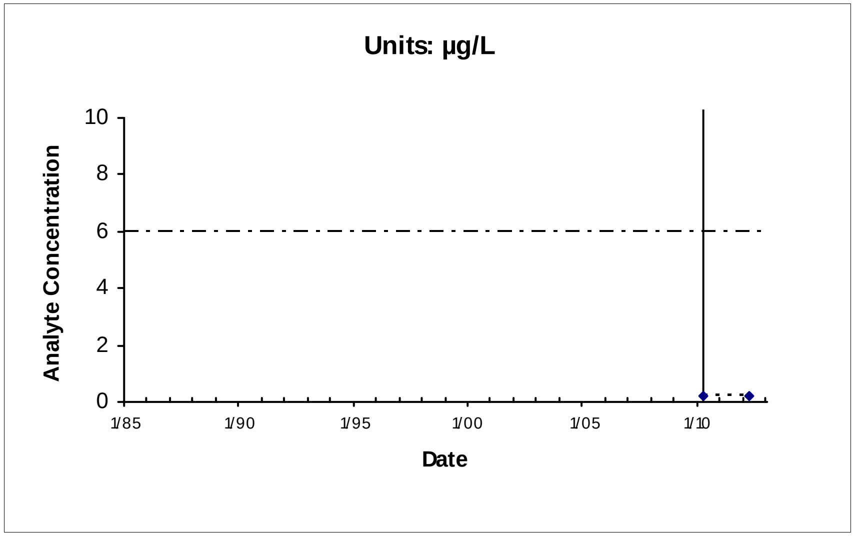
Location: MW2107Ax36 Maximum: 64



Location: MW2107Bx36 Maximum: 9.9



Location: MW2108Ax36 Maximum: 3.8



Location: MW2108Bx36 Maximum: 0.21

———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

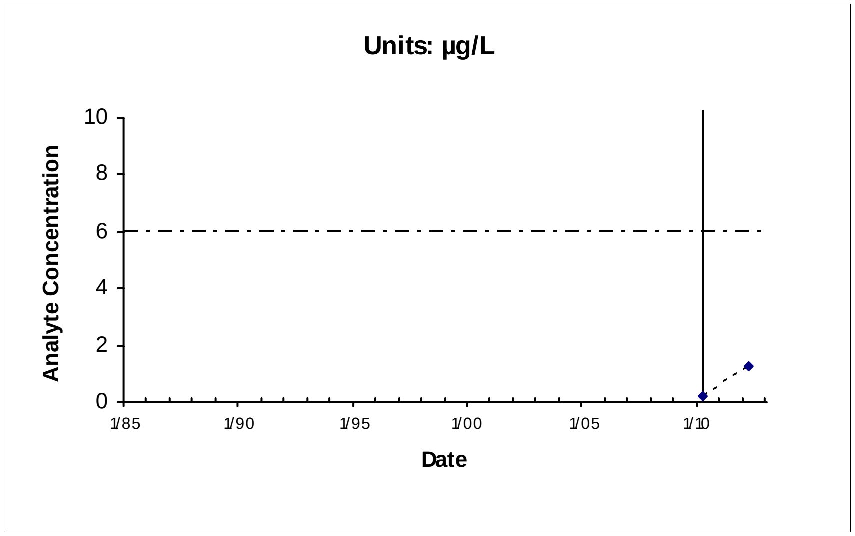
West IRA

FIGURE 2-17

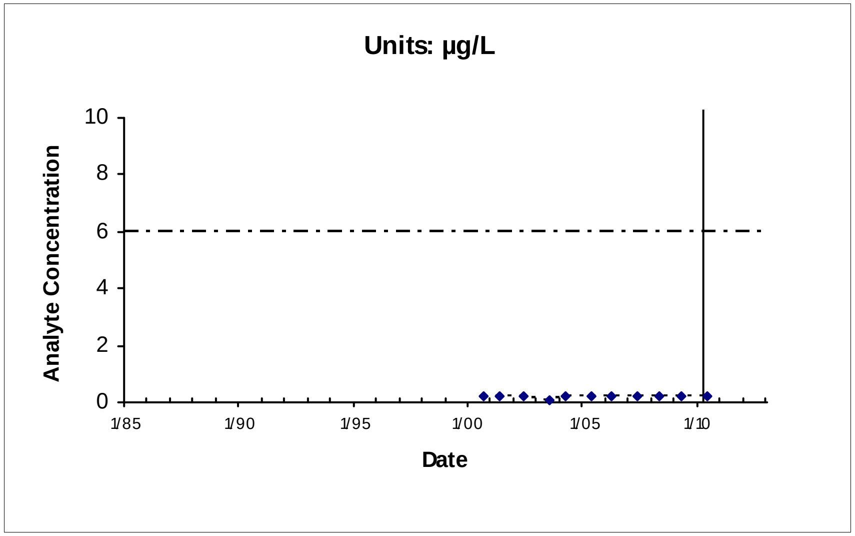
WIOU

cis-1,2-DCE

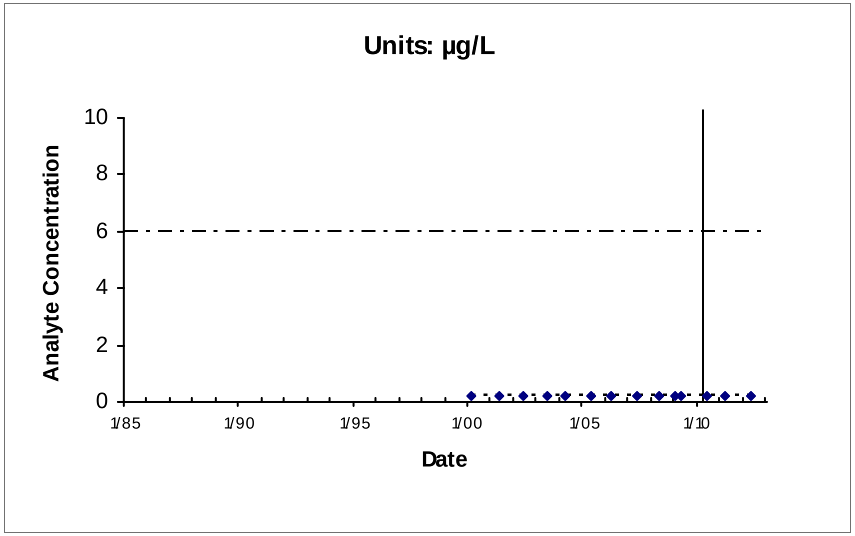
Chemical Time-series Plots



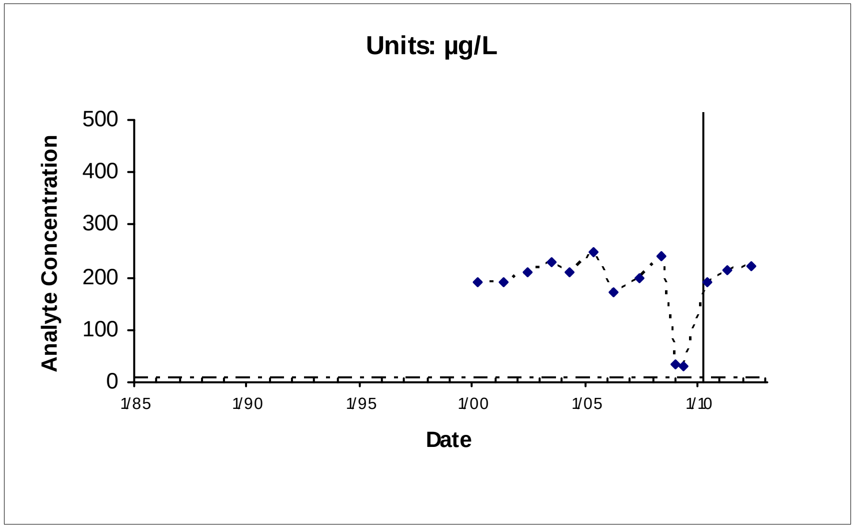
Location: MW2108Cx36 Maximum: 1.3



Location: PZ03X36 Maximum: 0.2



Location: PZ12DX36 Maximum: 0.19



Location: PZ12SX36 Maximum: 250

——————— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

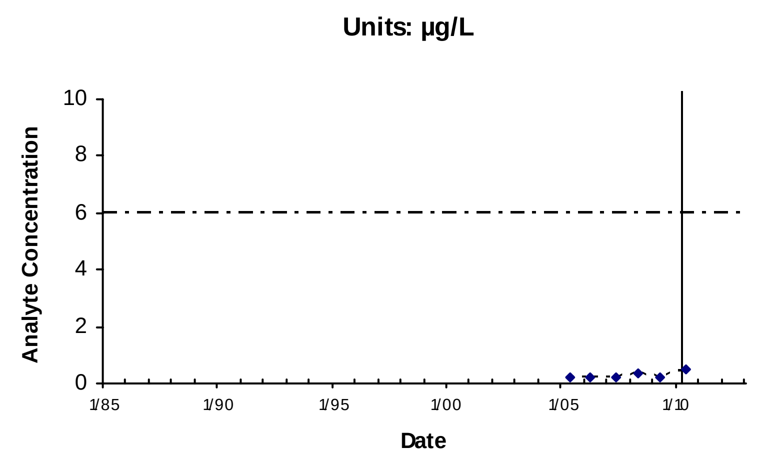
West IRA

FIGURE 2-17

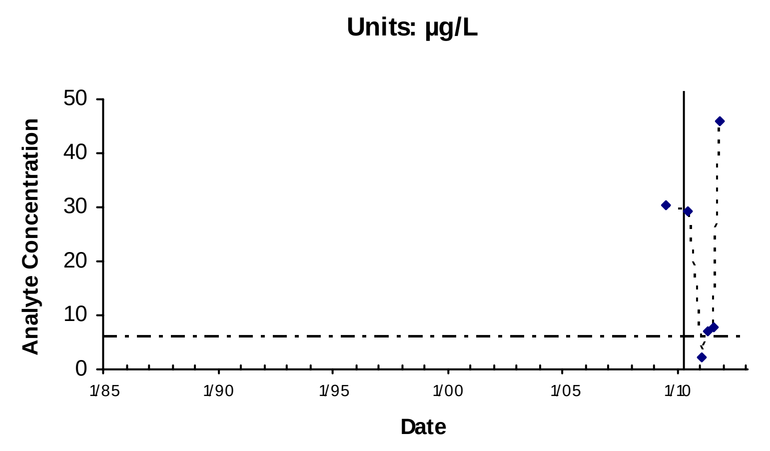
WIOU

cis-1,2-DCE

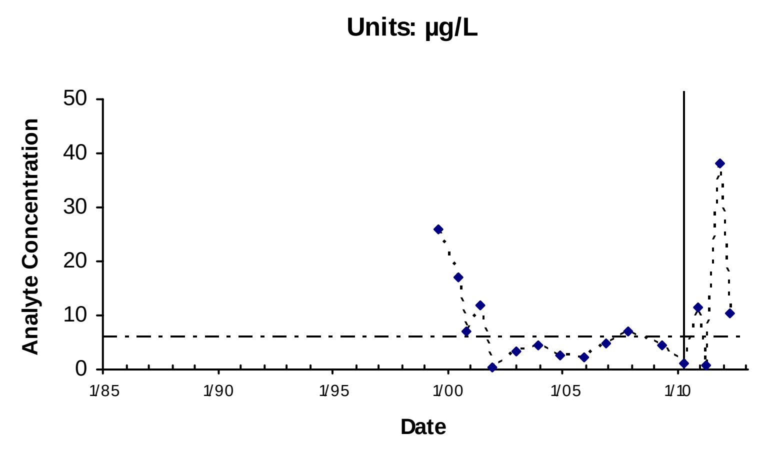
Chemical Time-series Plots



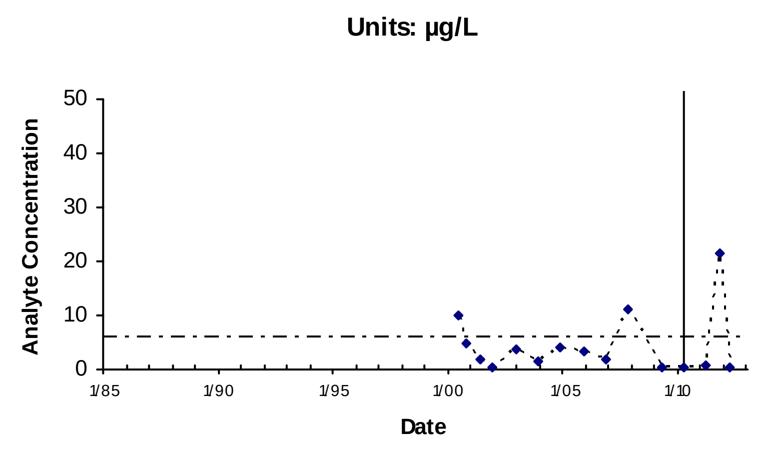
Location: PZ22x36 Maximum: 0.47



Location: PZ550Cx36 Maximum: 46



Location: EW510X37 Maximum: 38.2



Location: EW511X37 Maximum: 21.4

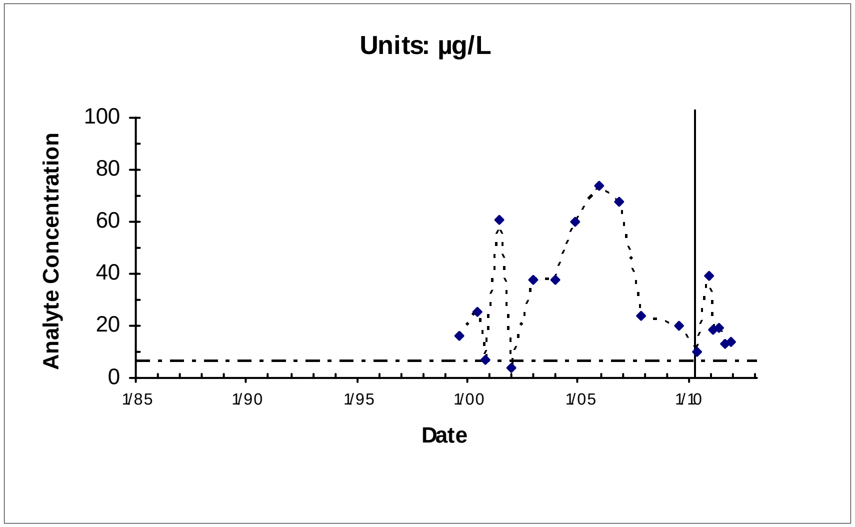
——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

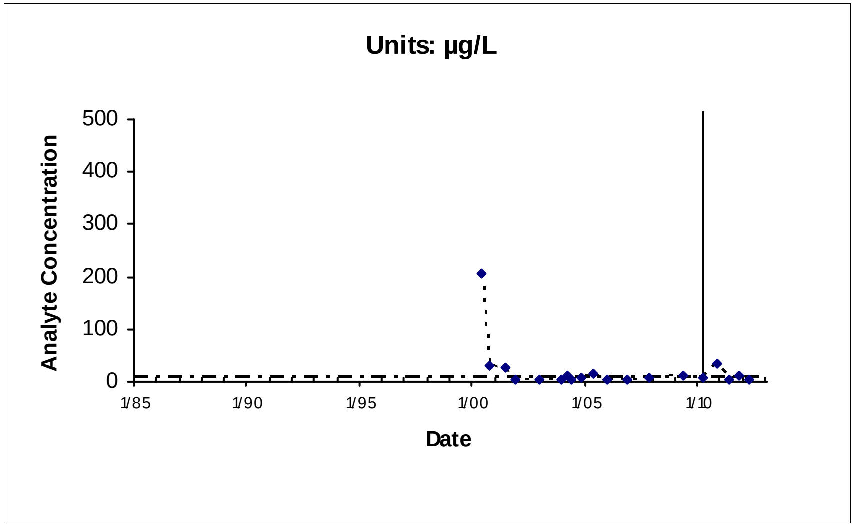
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

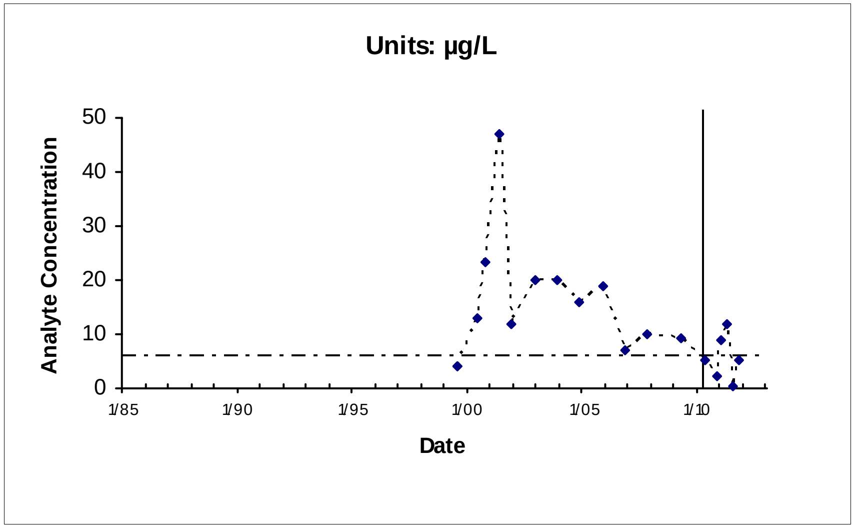
West IRA
FIGURE 2-17
WIOU
cis-1,2-DCE
Chemical Time-series Plots



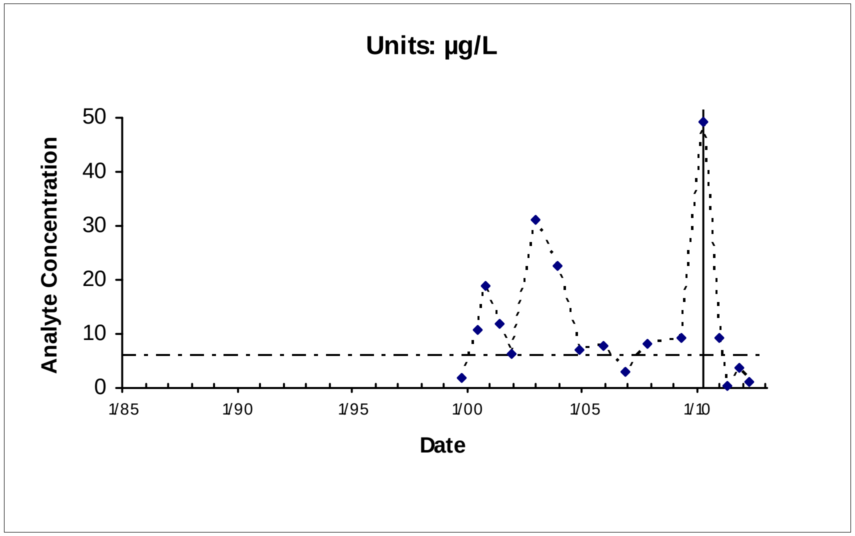
Location: EW599X37 Maximum: 74



Location: EW700X37 Maximum: 207



Location: EW701X37 Maximum: 47



Location: EW702X37 Maximum: 49.2

——————— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

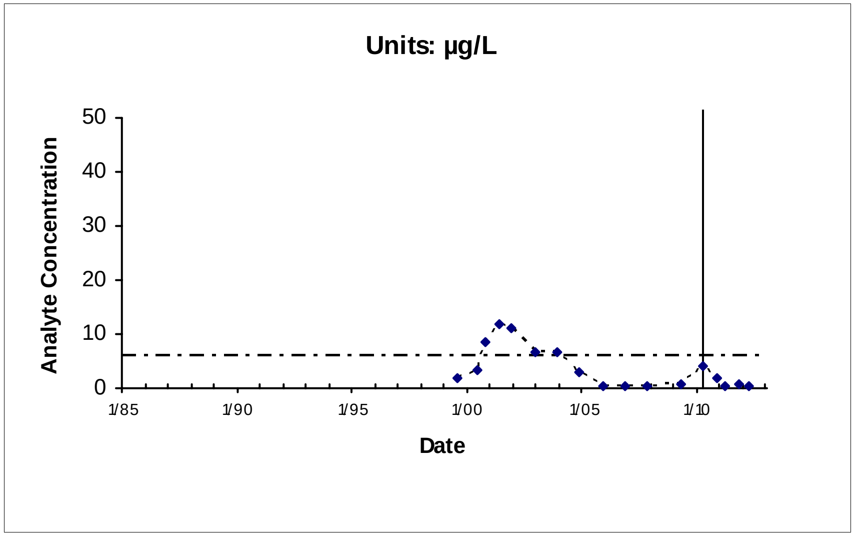
West IRA

FIGURE 2-17

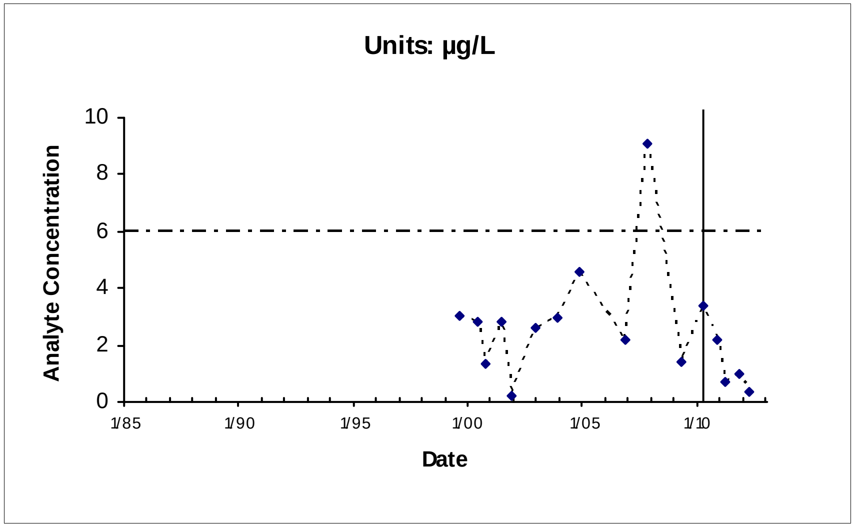
WIOU

cis-1,2-DCE

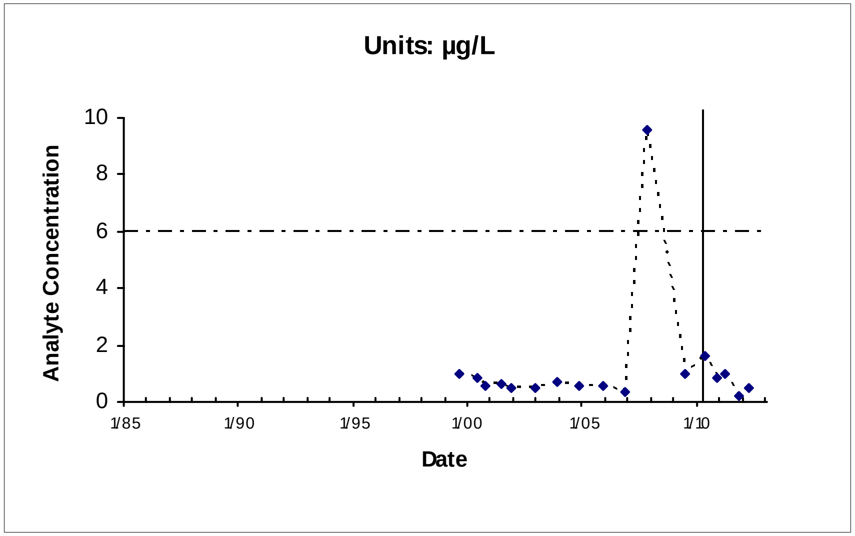
Chemical Time-series Plots



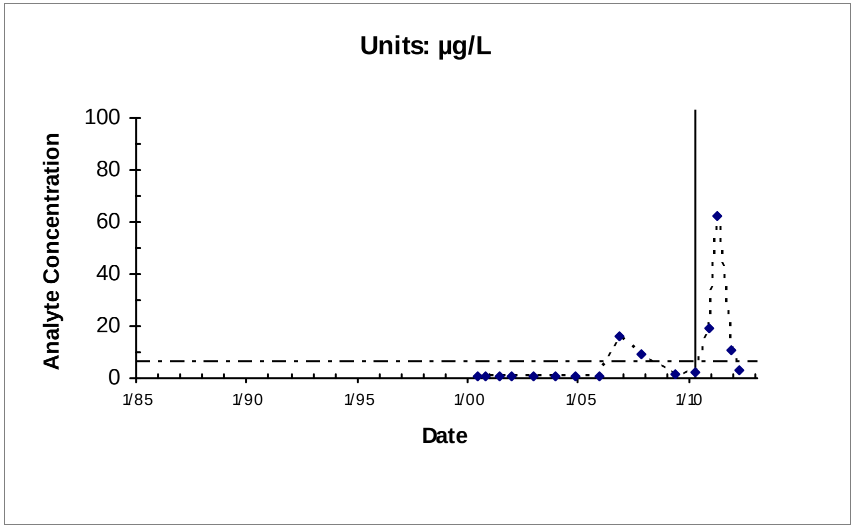
Location: EW703X37 Maximum: 12



Location: EW704X37 Maximum: 9.1



Location: EW705X37 Maximum: 9.6



Location: EW706X37 Maximum: 62.2

West IRA

FIGURE 2-17

WIOU

cis-1,2-DCE

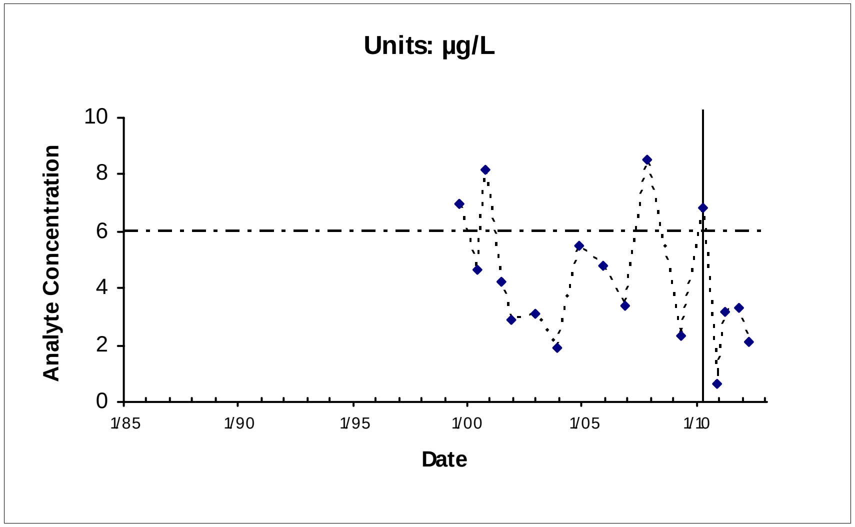
Chemical Time-series Plots

———— Rebound Study Initiated

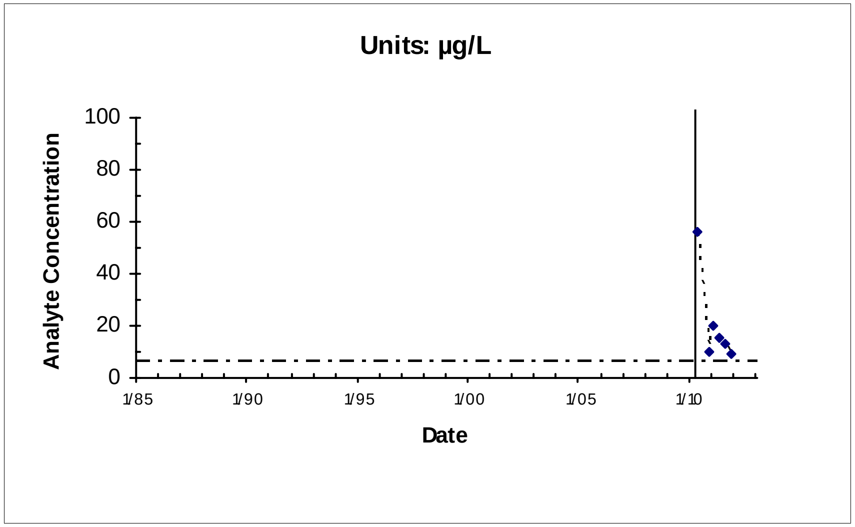
— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

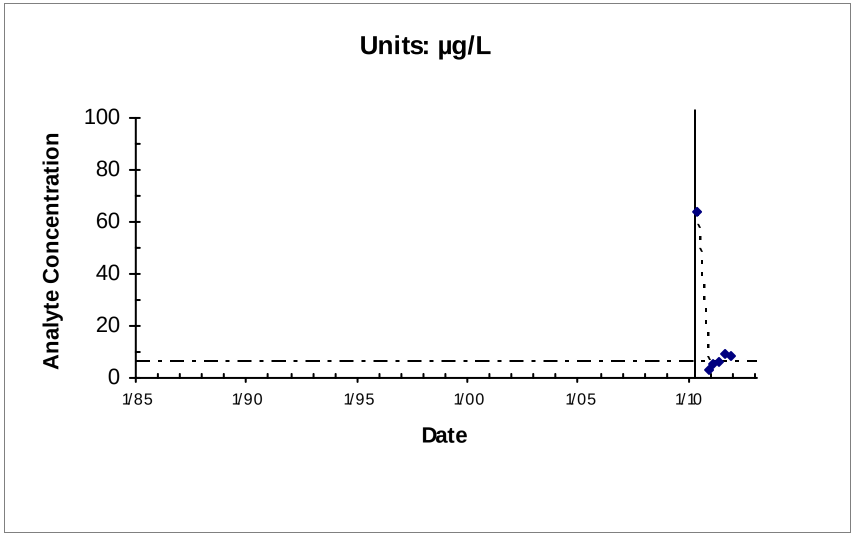
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



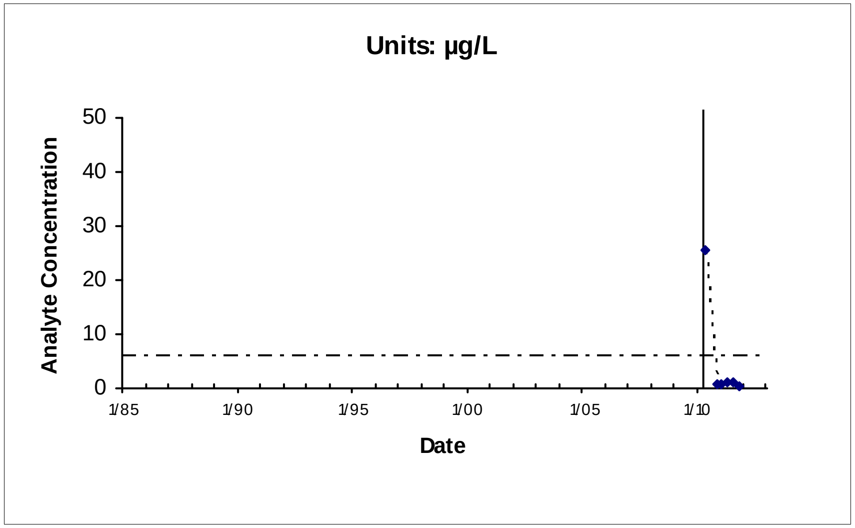
Location: EW707X37 Maximum: 8.5



Location: IW2094x37 Maximum: 56.4



Location: IW2096x37 Maximum: 63.8



Location: IW2098x37 Maximum: 25.5

———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

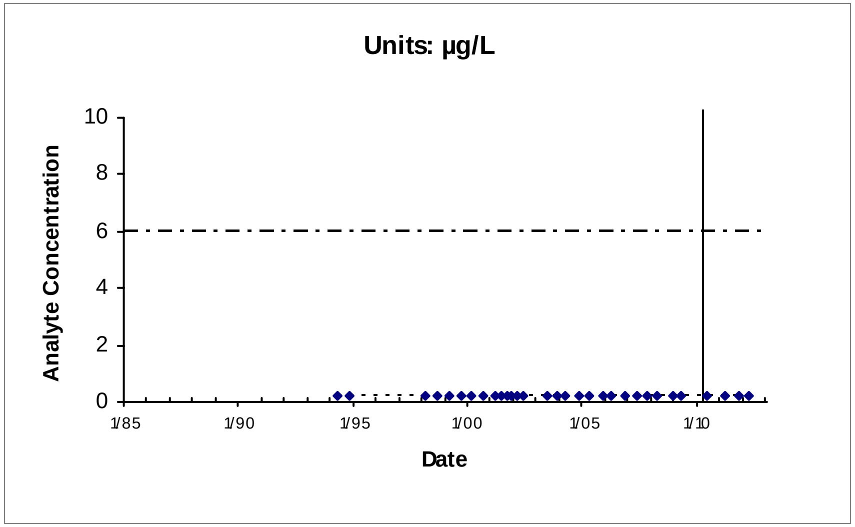
West IRA

FIGURE 2-17

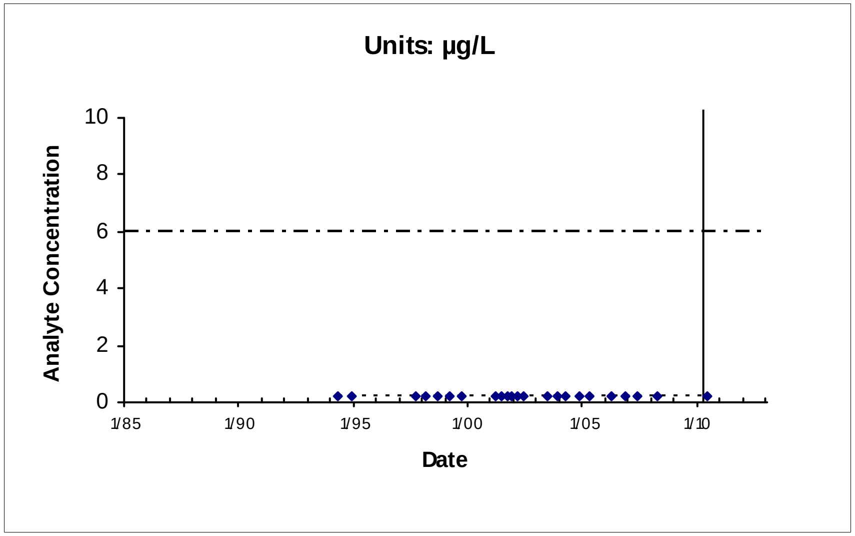
WIOU

cis-1,2-DCE

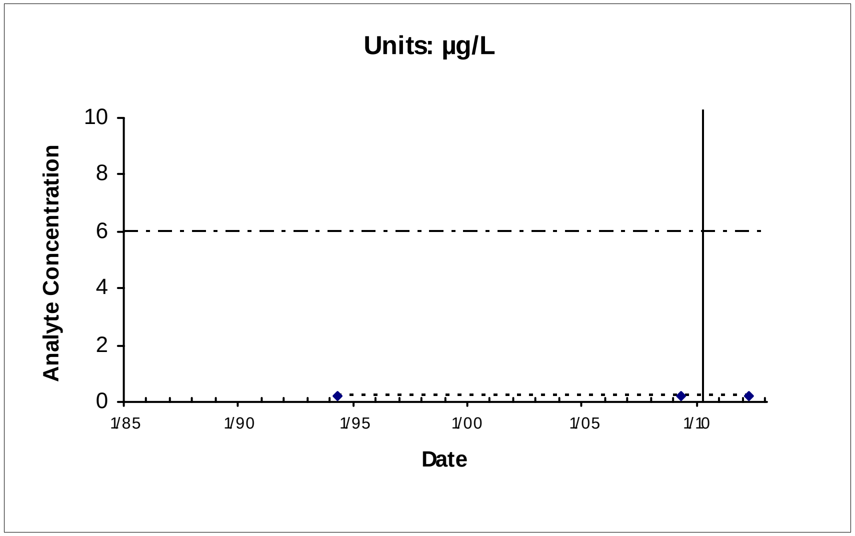
Chemical Time-series Plots



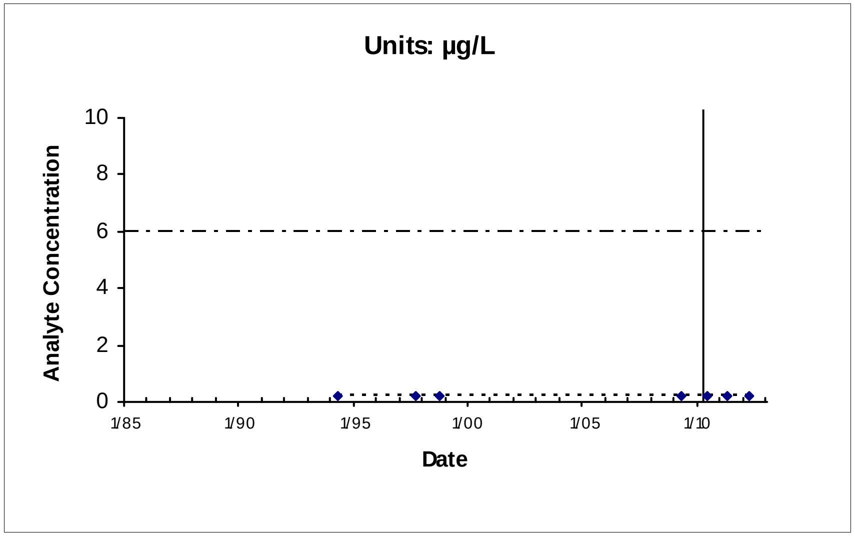
Location: MW116X37 Maximum: 0.2



Location: MW222X37 Maximum: 0.19



Location: MW223X37 Maximum: 0.19



Location: MW224X37 Maximum: 0.19

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

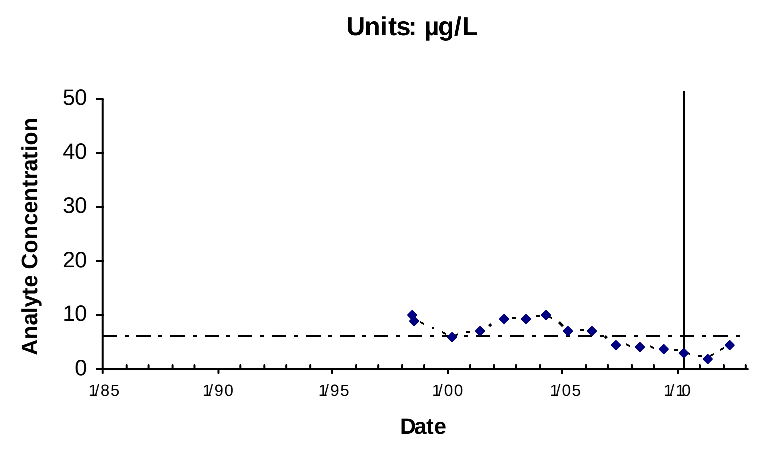
West IRA

FIGURE 2-17

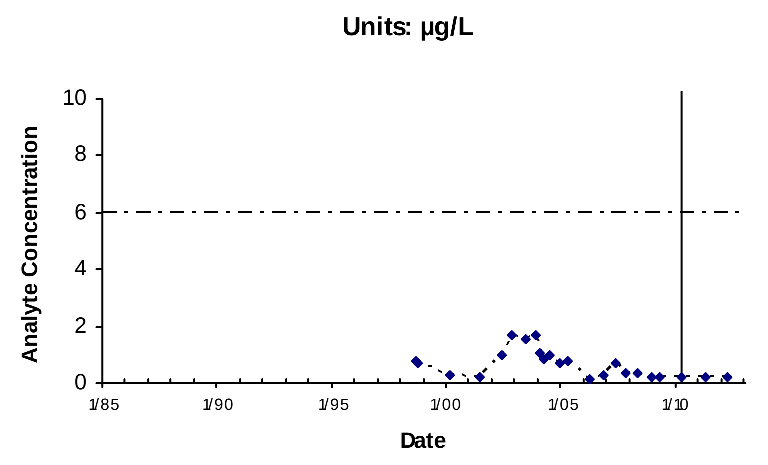
WIOU

cis-1,2-DCE

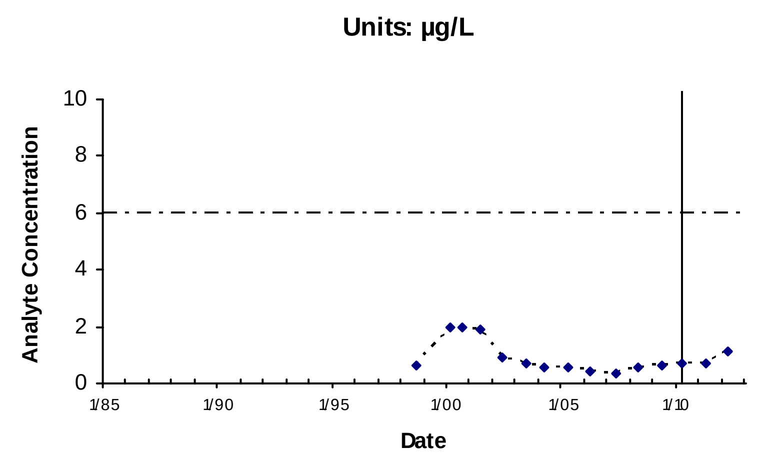
Chemical Time-series Plots



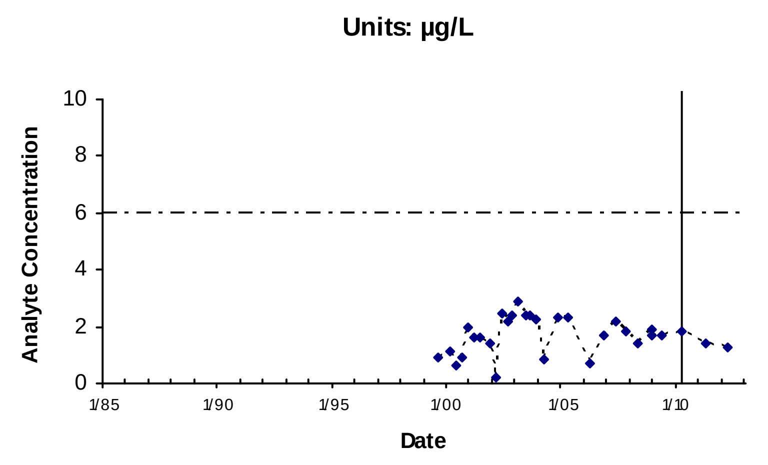
Location: MW500X37 Maximum: 10



Location: MW513X37 Maximum: 1.7



Location: MW514X37 Maximum: 2



Location: MW518X37 Maximum: 2.9

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

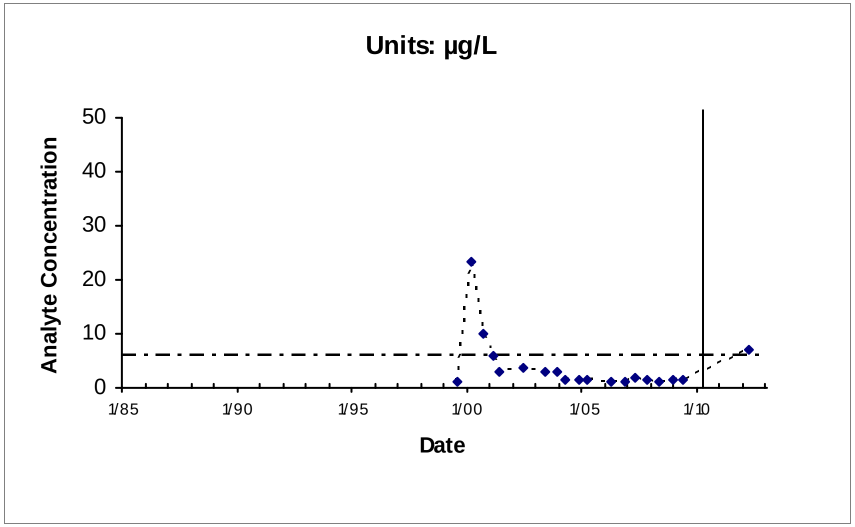
West IRA

FIGURE 2-17

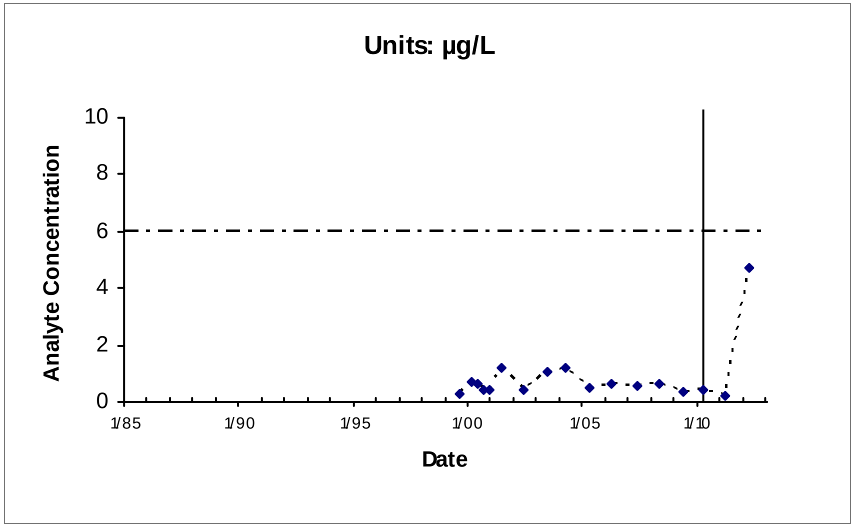
WIOU

cis-1,2-DCE

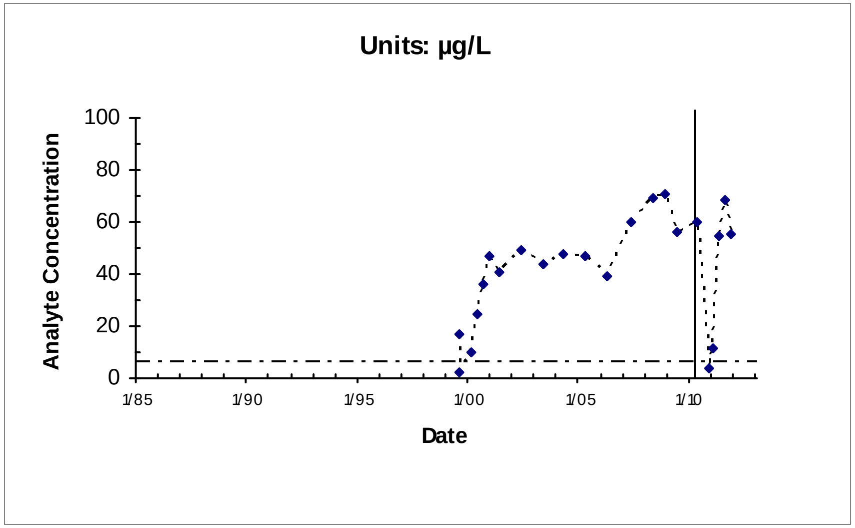
Chemical Time-series Plots



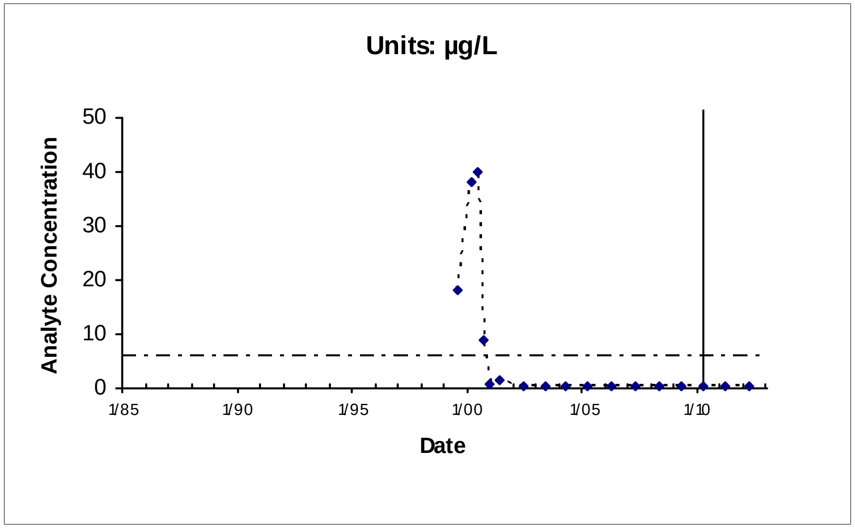
Location: MW519X37 Maximum: 23.5



Location: MW520X37 Maximum: 4.7



Location: MW524X37 Maximum: 71



Location: MW525X37 Maximum: 40

———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

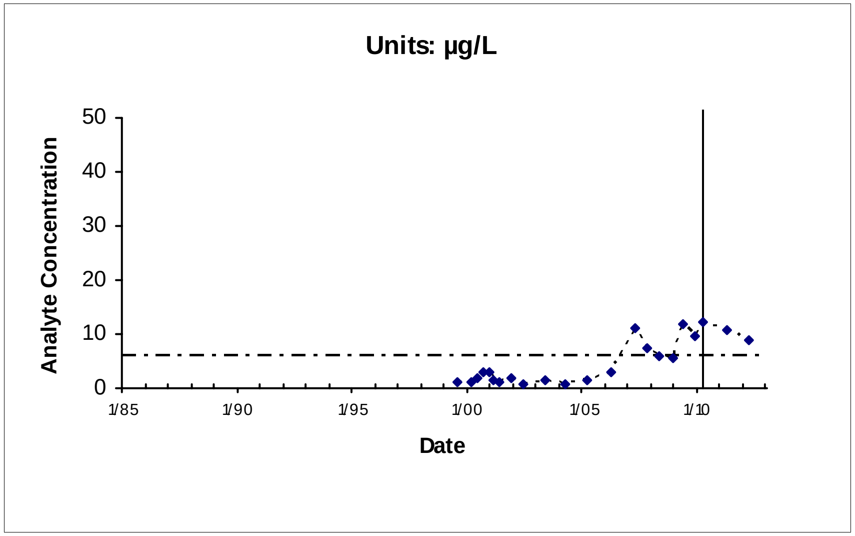
West IRA

FIGURE 2-17

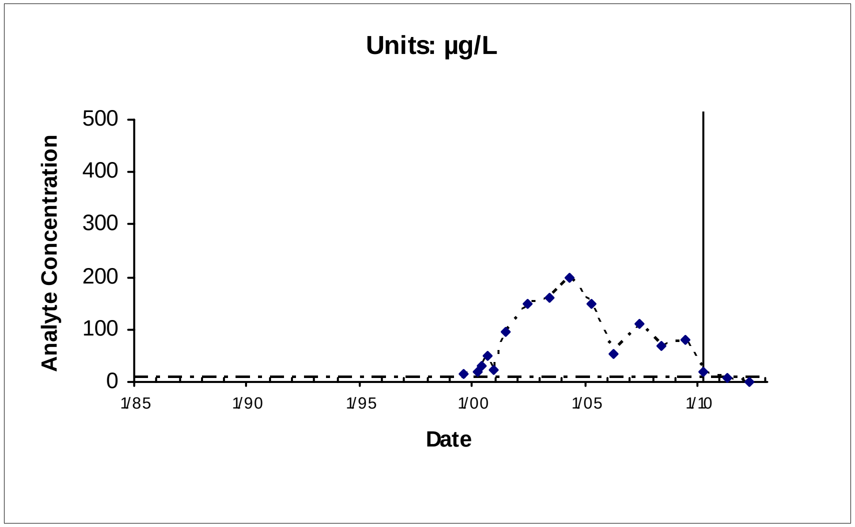
WIOU

cis-1,2-DCE

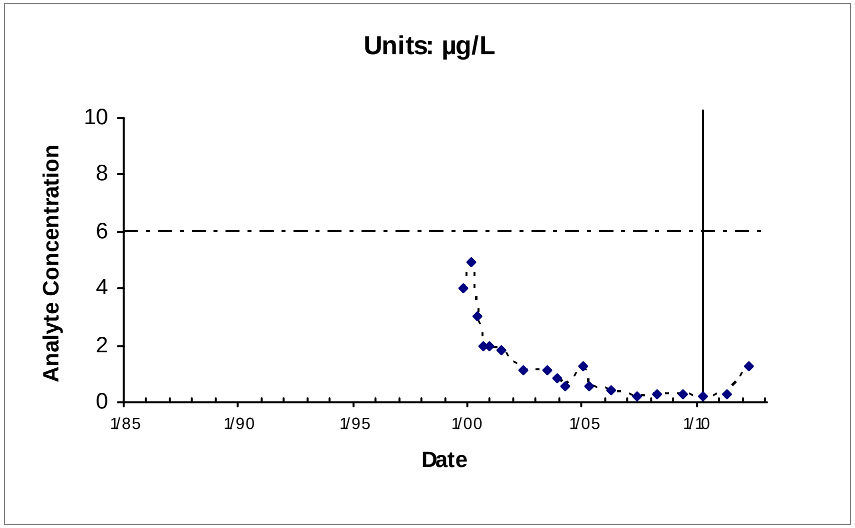
Chemical Time-series Plots



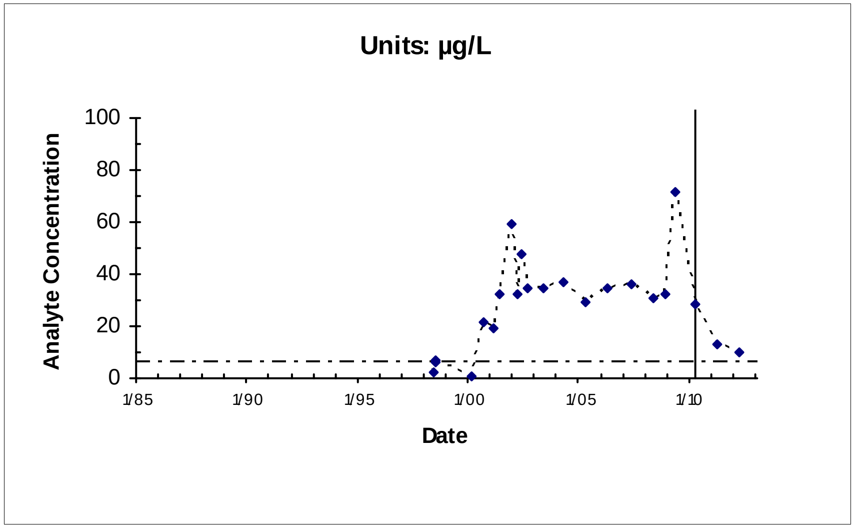
Location: MW526X37 Maximum: 12.2



Location: MW528X37 Maximum: 200



Location: MW529X37 Maximum: 4.9



Location: MW531X37 Maximum: 71.2

———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

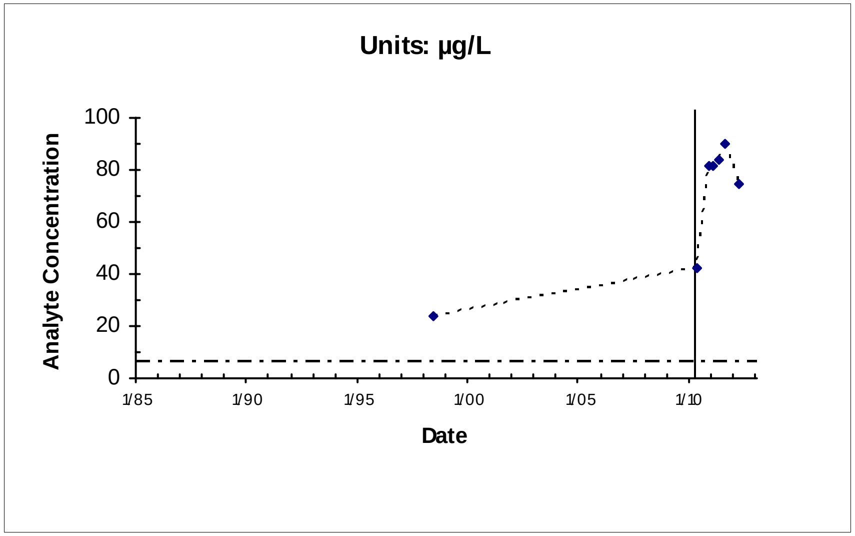
West IRA

FIGURE 2-17

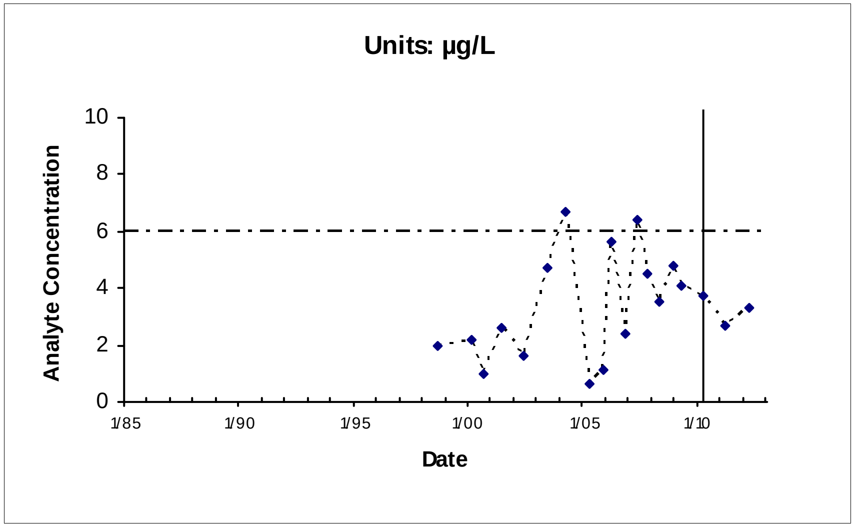
WIOU

cis-1,2-DCE

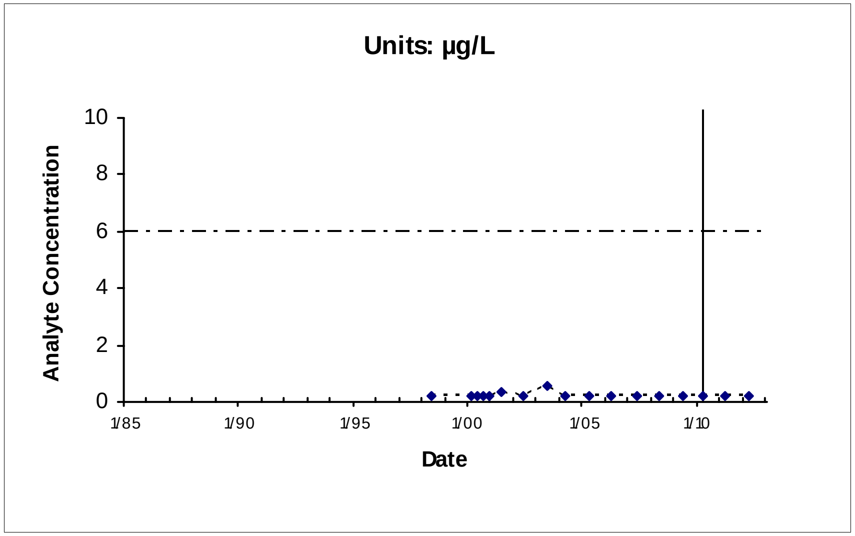
Chemical Time-series Plots



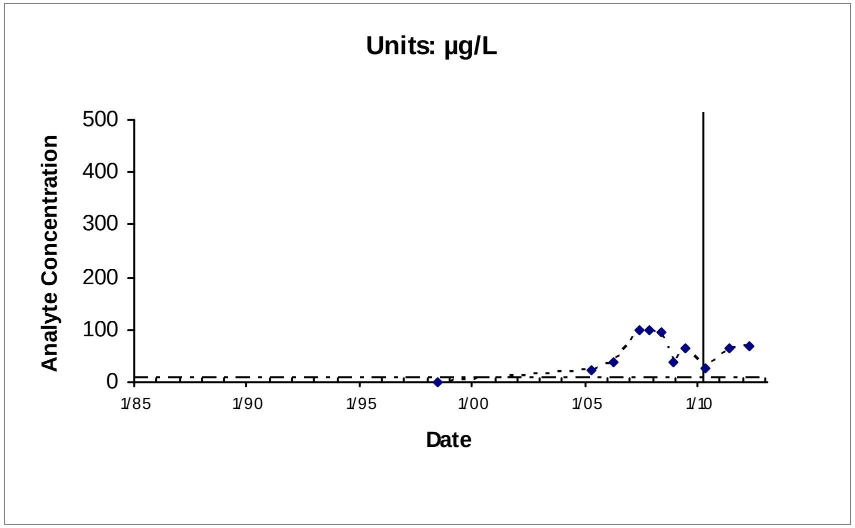
Location: MW532X37 Maximum: 89.7



Location: MW535X37 Maximum: 6.7



Location: MW537X37 Maximum: 0.56



Location: MW539X37 Maximum: 100

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

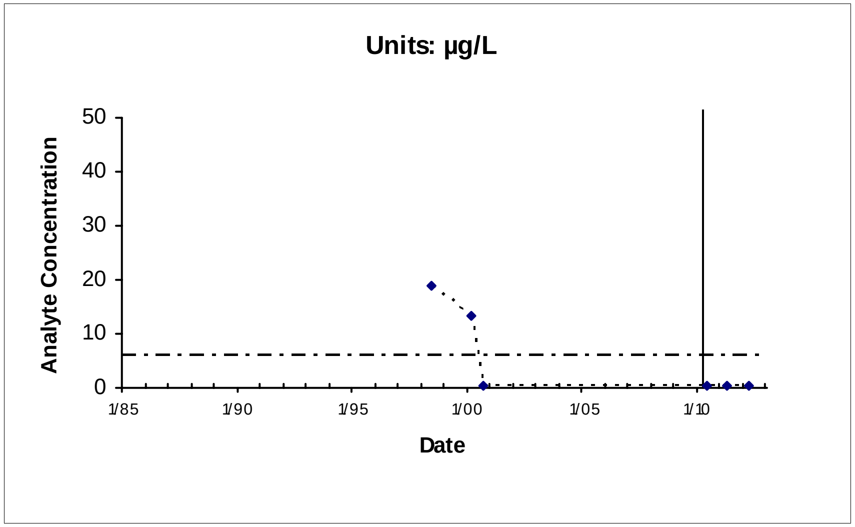
West IRA

FIGURE 2-17

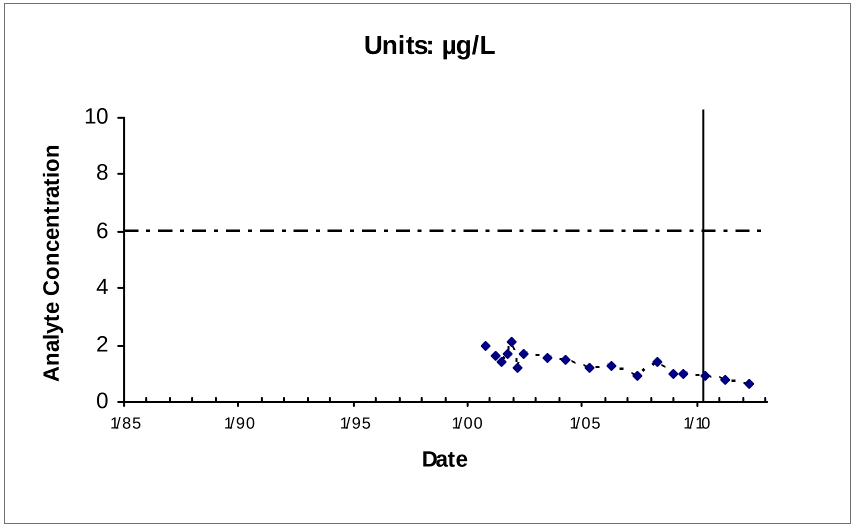
WIOU

cis-1,2-DCE

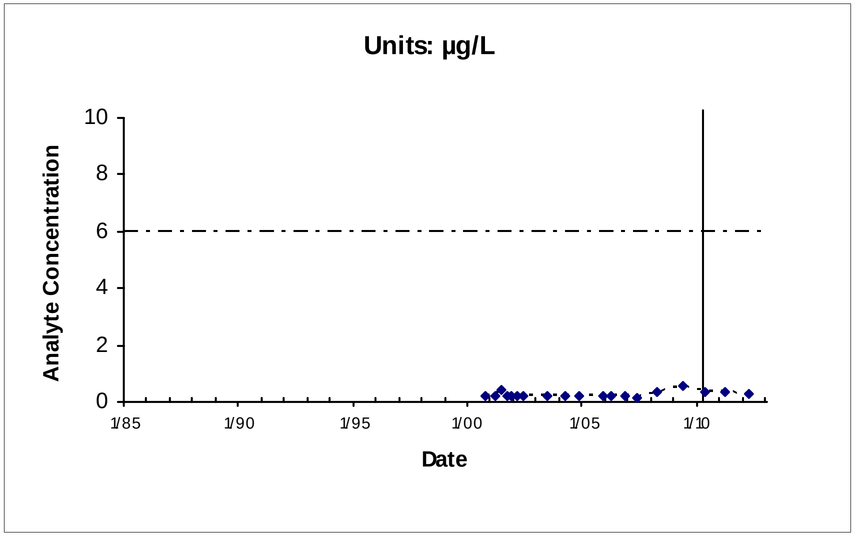
Chemical Time-series Plots



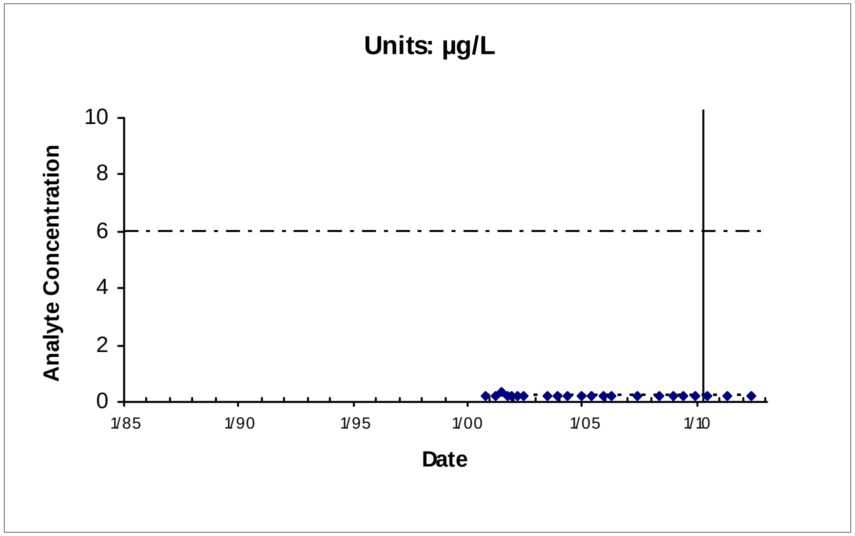
Location: MW541X37 Maximum: 19



Location: MW722X37 Maximum: 2.1



Location: MW723X37 Maximum: 0.55



Location: MW724X37 Maximum: 0.32

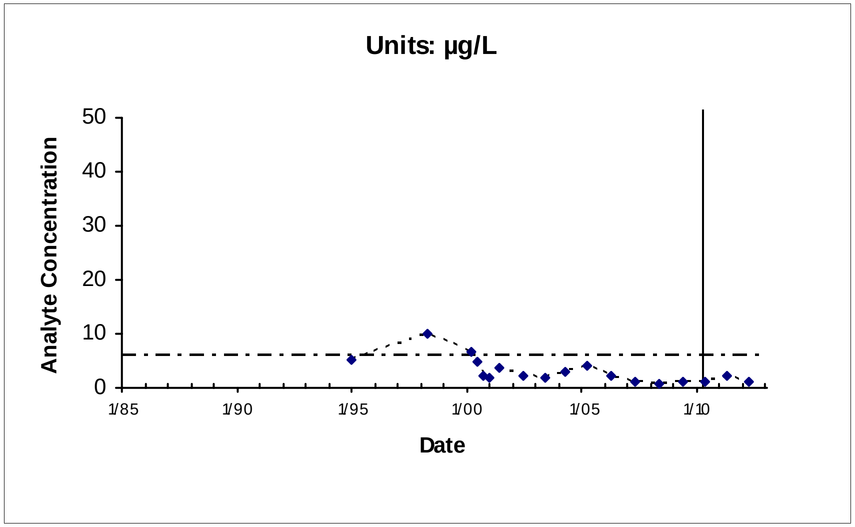
———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

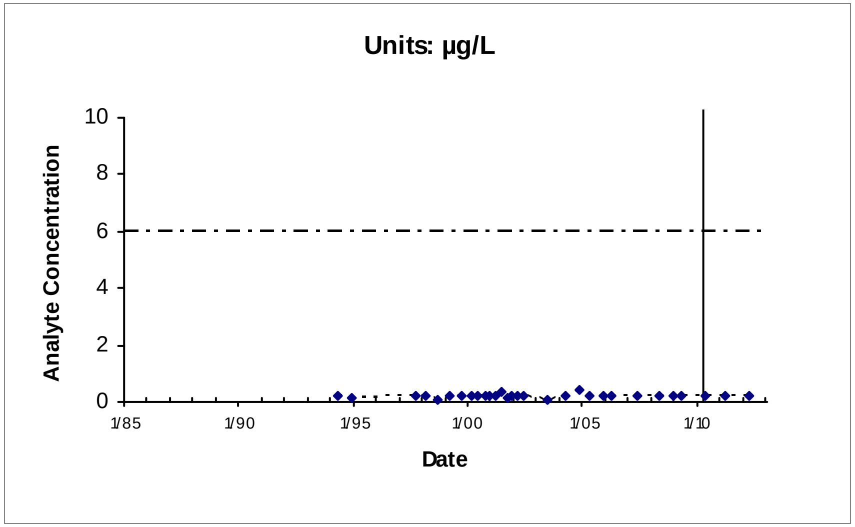
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

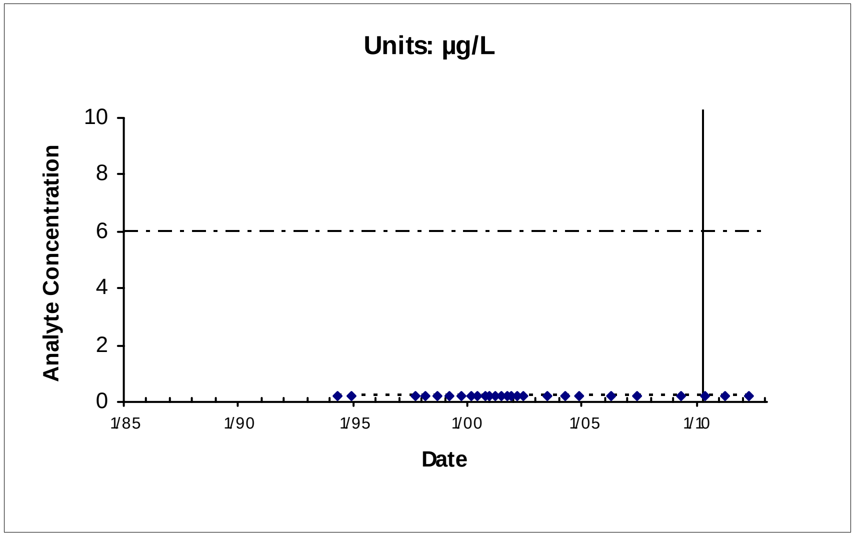
West IRA
FIGURE 2-17
WIOU
cis-1,2-DCE
Chemical Time-series Plots



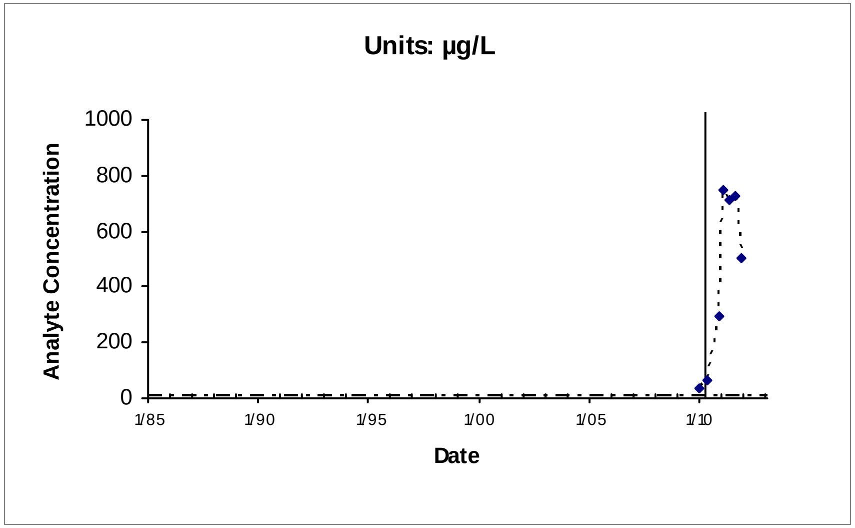
Location: MW1205X37 Maximum: 10



Location: MW1208X37 Maximum: 0.43



Location: MW1209X37 Maximum: 0.19



Location: MW2039Ax37 Maximum: 749

———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

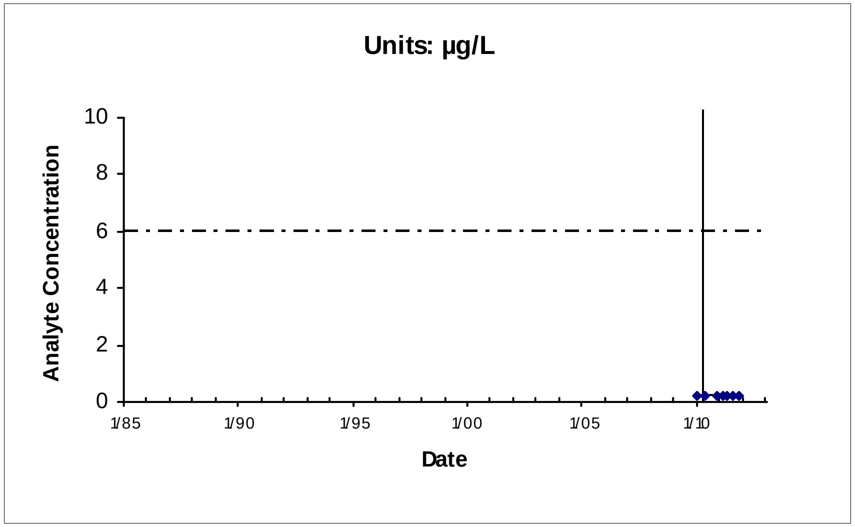
West IRA

FIGURE 2-17

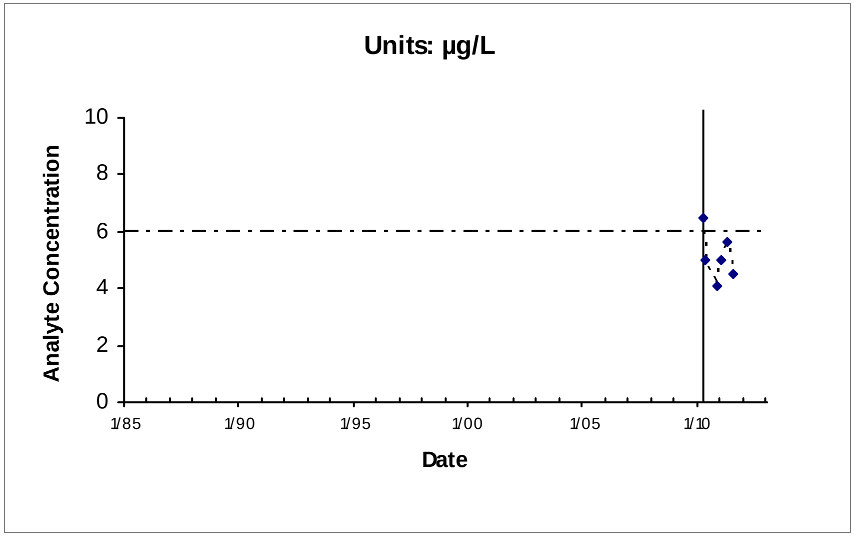
WIOU

cis-1,2-DCE

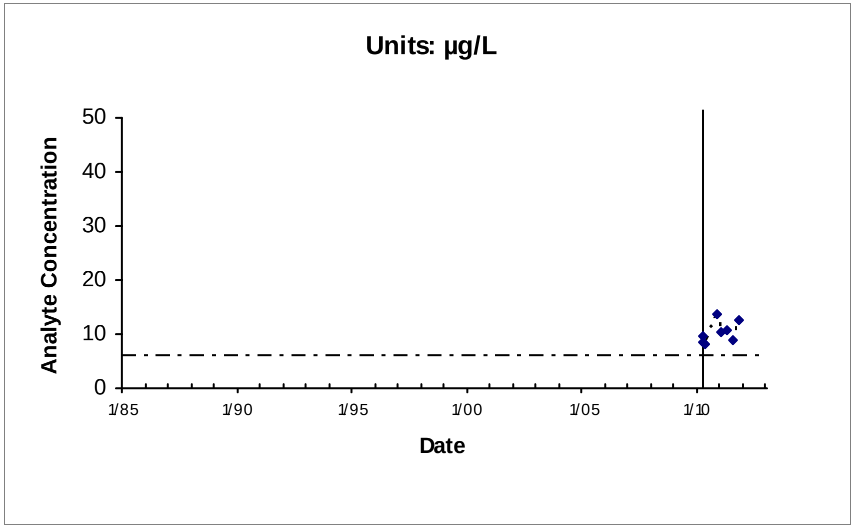
Chemical Time-series Plots



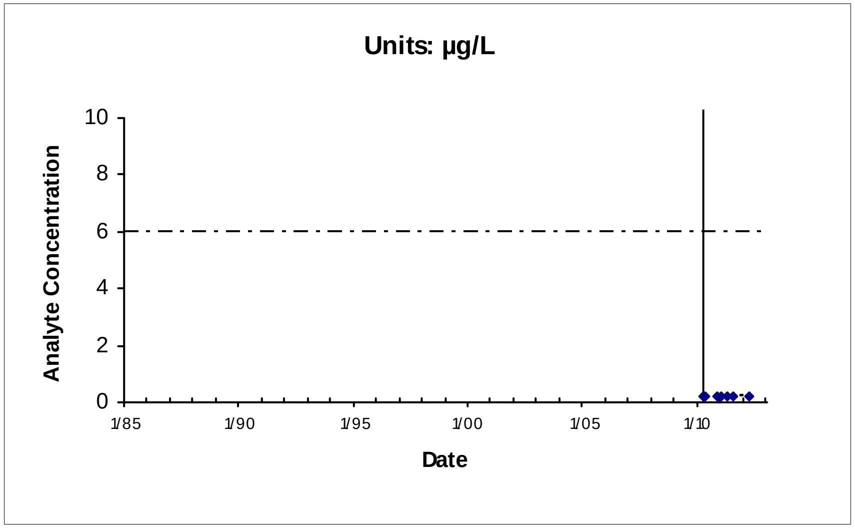
Location: MW2039Bx37 Maximum: 0.24



Location: MW2101Ax37 Maximum: 6.5



Location: MW2101Bx37 Maximum: 13.7



Location: MW2101Cx37 Maximum: 0.19

―――――― Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

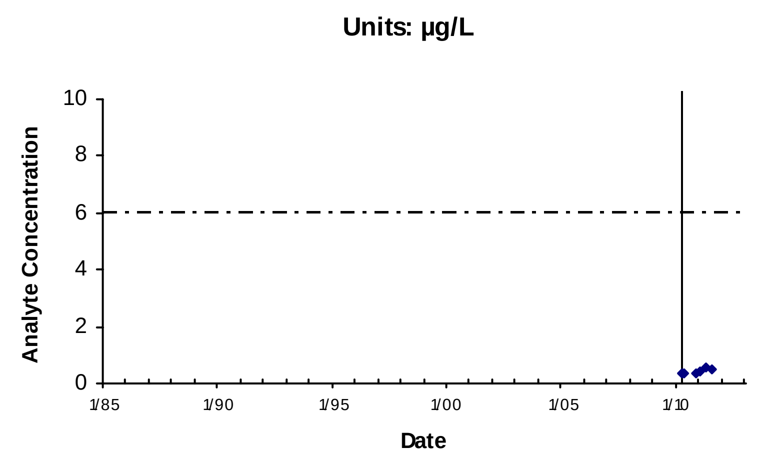
West IRA

FIGURE 2-17

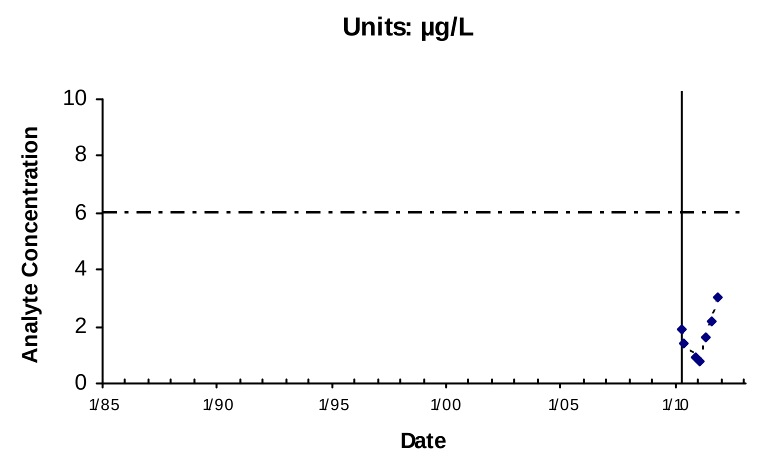
WIOU

cis-1,2-DCE

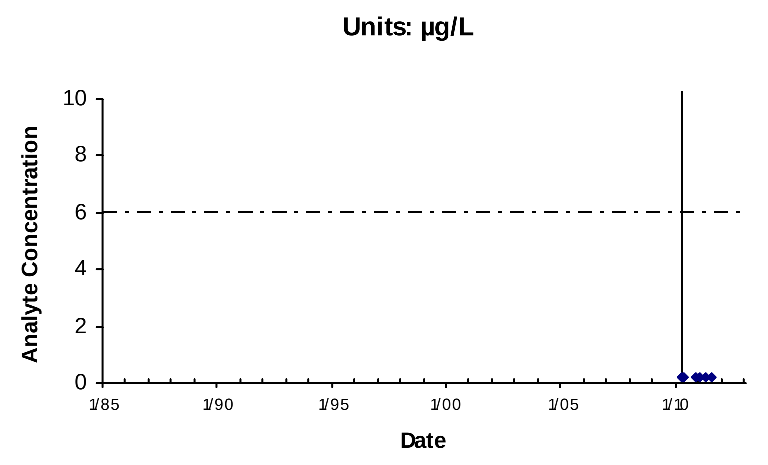
Chemical Time-series Plots



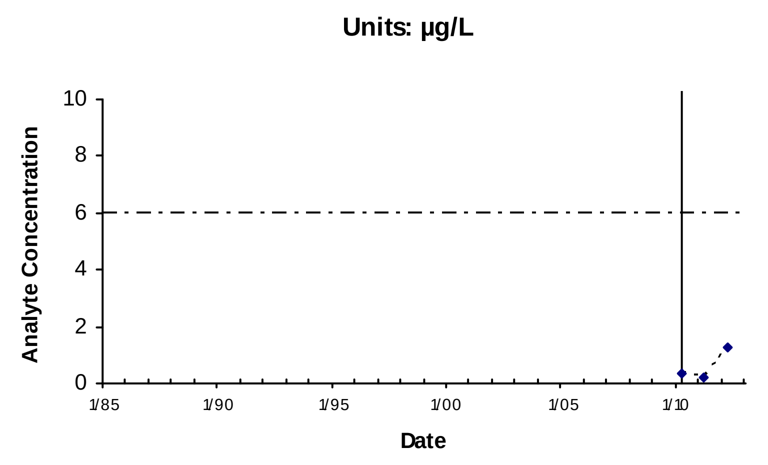
Location: MW2102Ax37 Maximum: 0.54



Location: MW2102Bx37 Maximum: 3



Location: MW2102Cx37 Maximum: 0.19



Location: MW2117x37 Maximum: 1.3

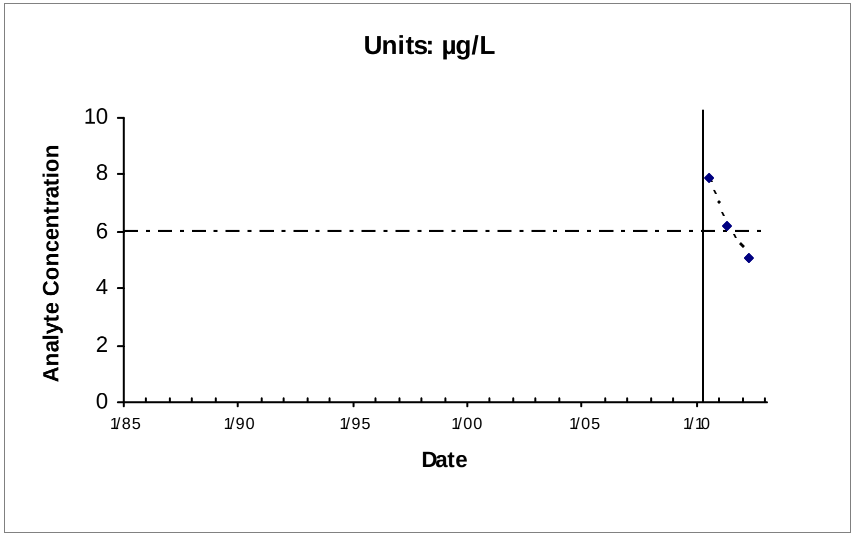
——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

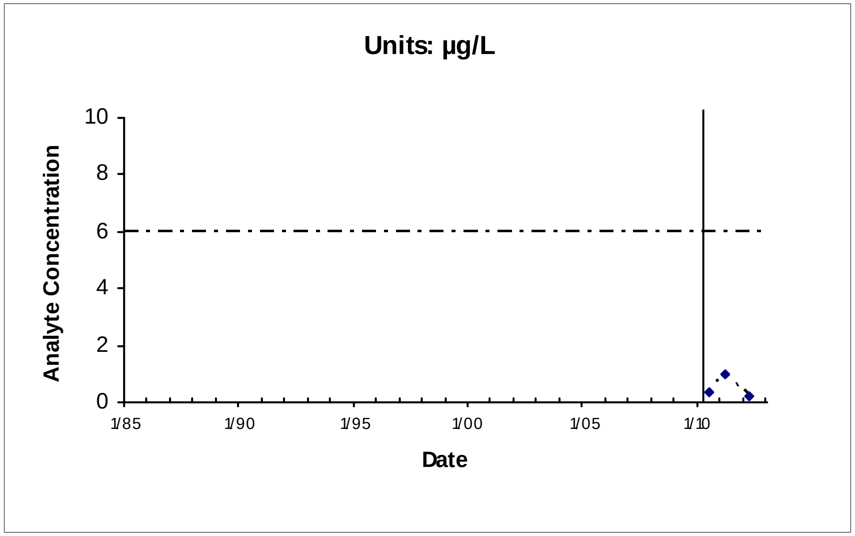
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

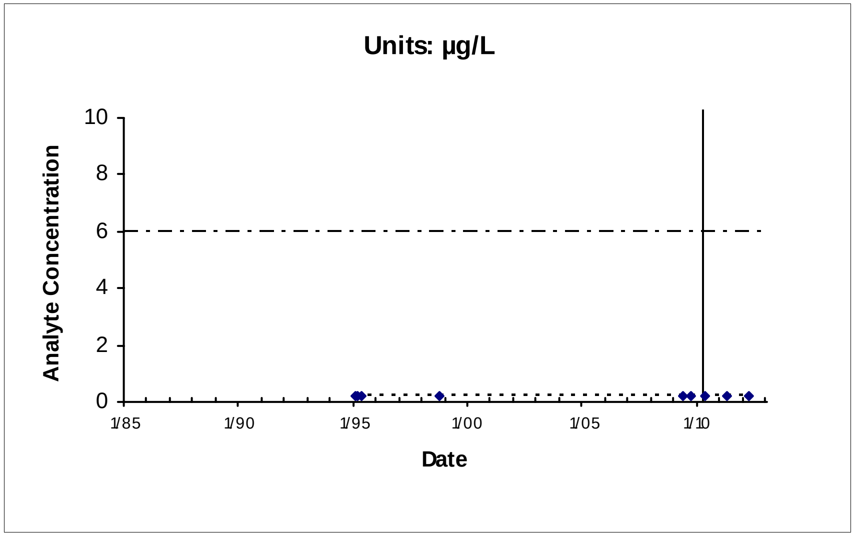
West IRA
FIGURE 2-17
WIOU
cis-1,2-DCE
Chemical Time-series Plots



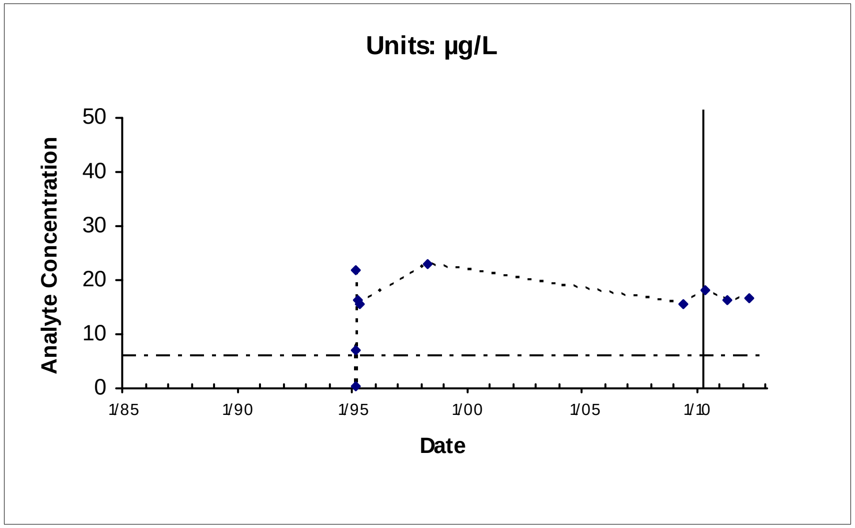
Location: MW2121x37 Maximum: 7.9



Location: MW2122x37 Maximum: 0.97



Location: MWS3M3X37 Maximum: 0.19



Location: MWSNSM1X37 Maximum: 23

——— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

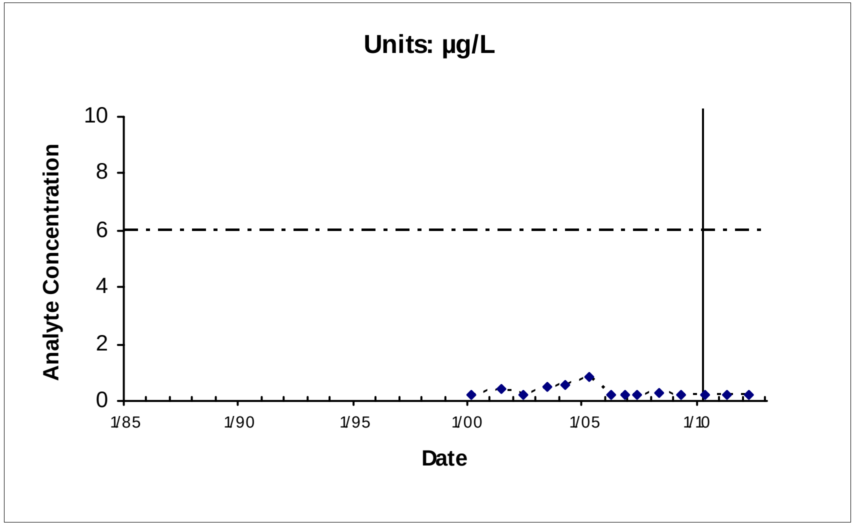
West IRA

FIGURE 2-17

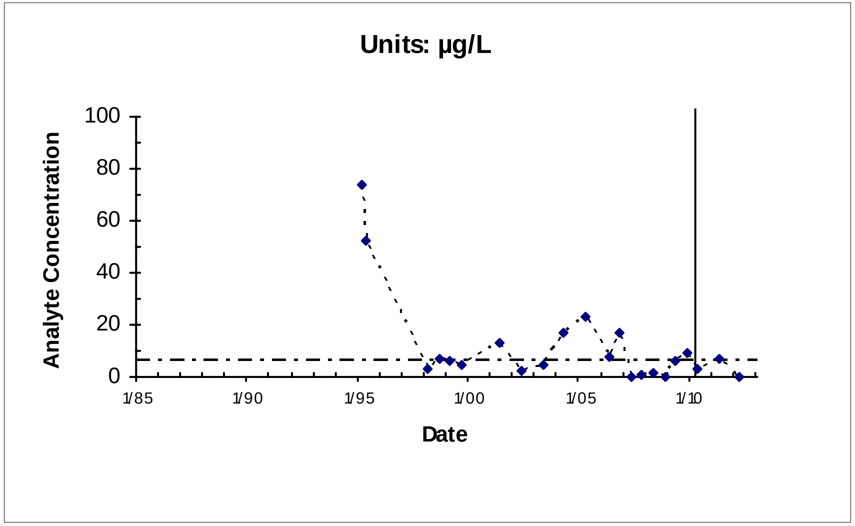
WIOU

cis-1,2-DCE

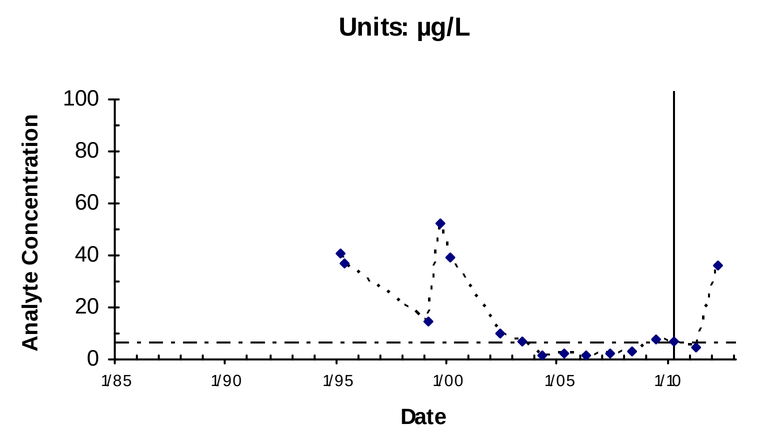
Chemical Time-series Plots



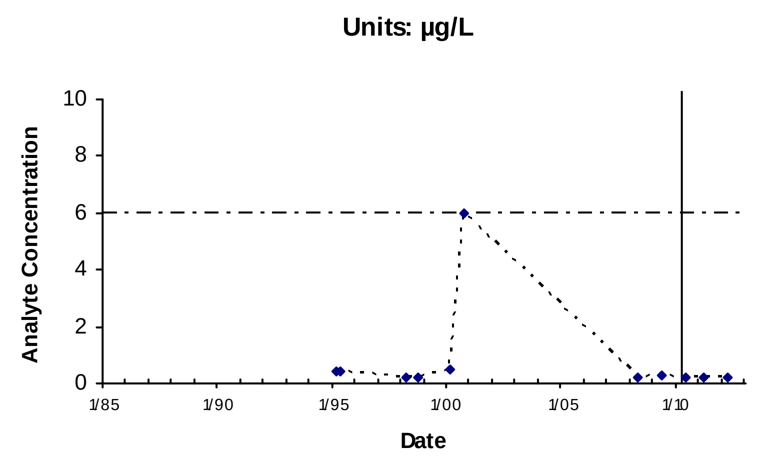
Location: MWSNSM3X37 Maximum: 0.84



Location: MWSNSM4X37 Maximum: 73.7



Location: MWSNSM5X37 Maximum: 52



Location: MWSSBM1X37 Maximum: 6

———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

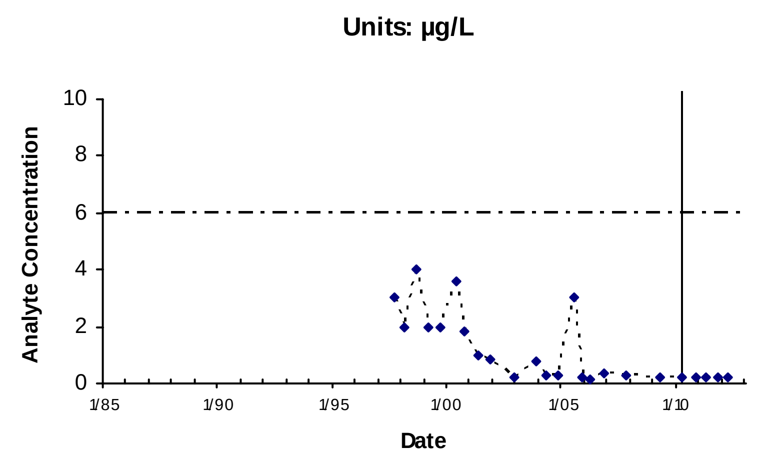
West IRA

FIGURE 2-17

WIOU

cis-1,2-DCE

Chemical Time-series Plots



Location: EW555X43 Maximum: 4

———— Rebound Study Initiated

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

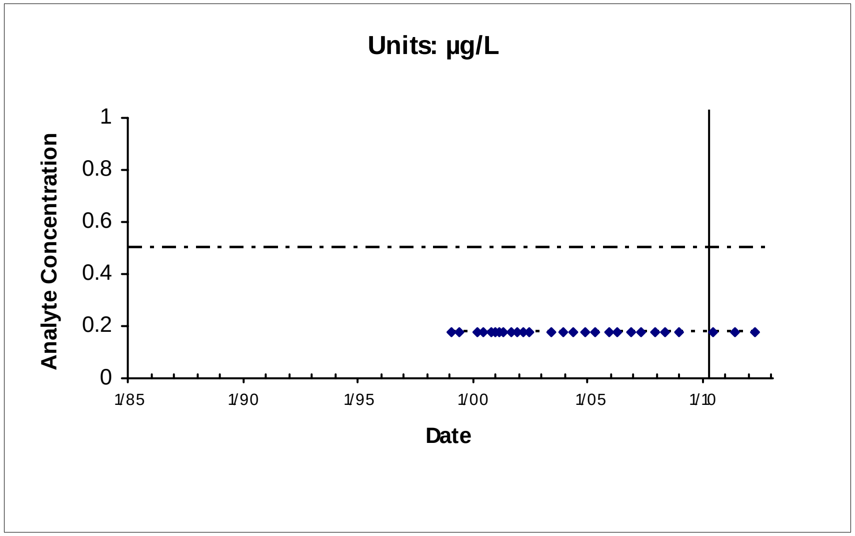
West IRA

FIGURE 2-17

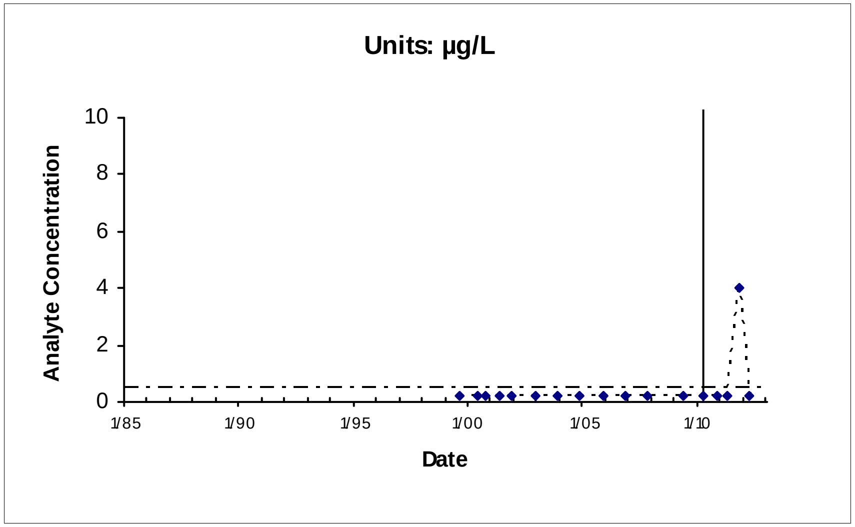
WIOU

cis-1,2-DCE

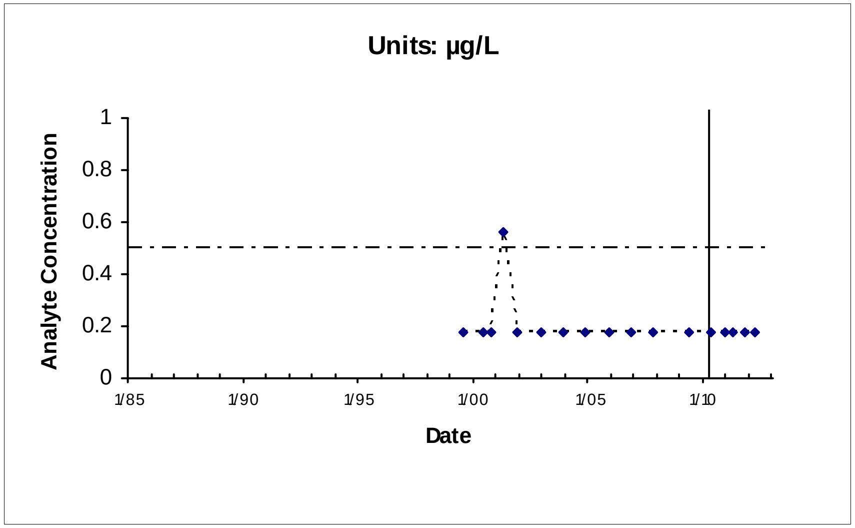
Chemical Time-series Plots



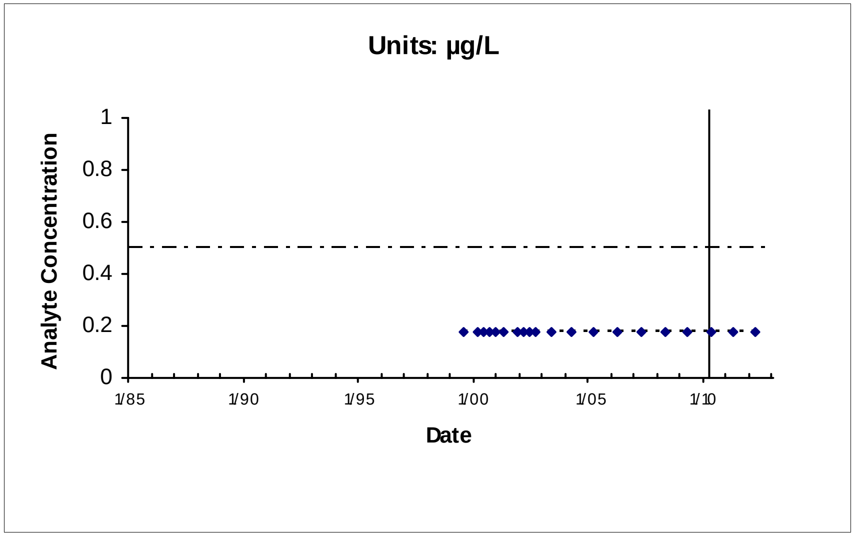
Location: MW05X14 Maximum: 0.18



Location: EW501X33 Maximum: 4



Location: EW503X33 Maximum: 0.56



Location: MW502X33 Maximum: 0.18

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

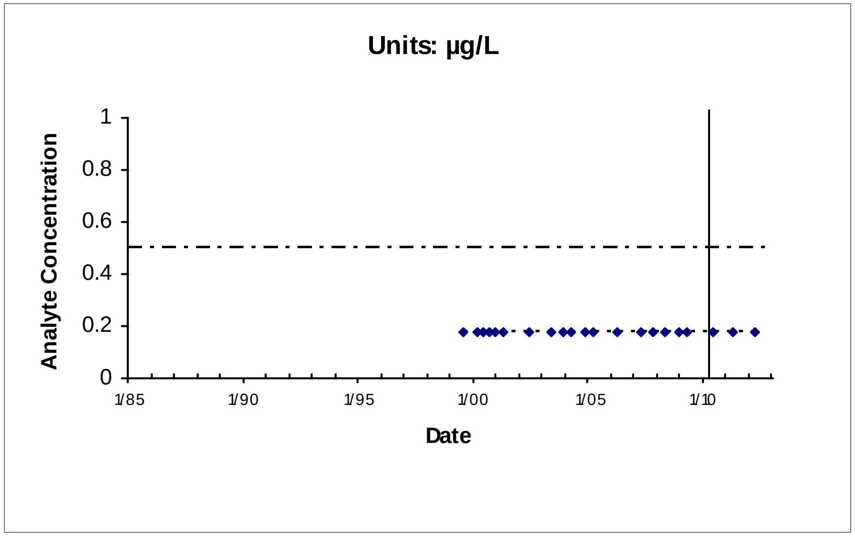
West IRA

FIGURE 2-18

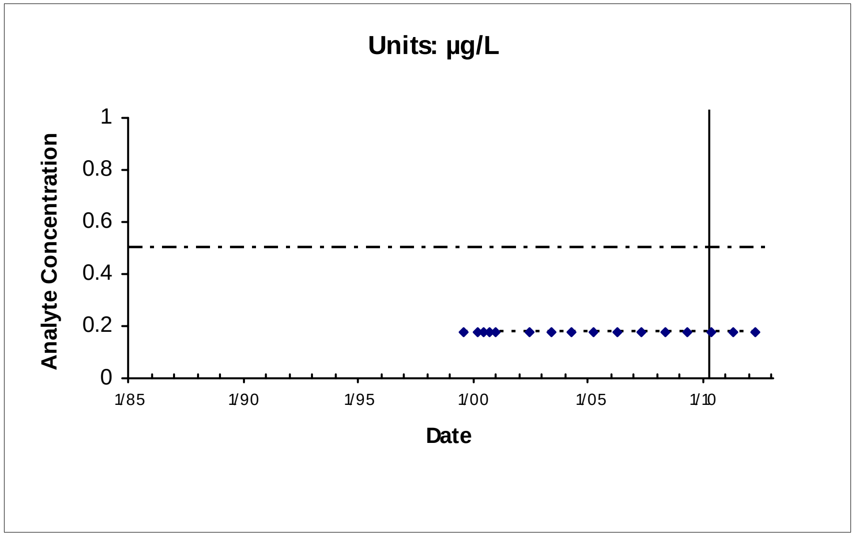
WIOU

Vinyl Chloride

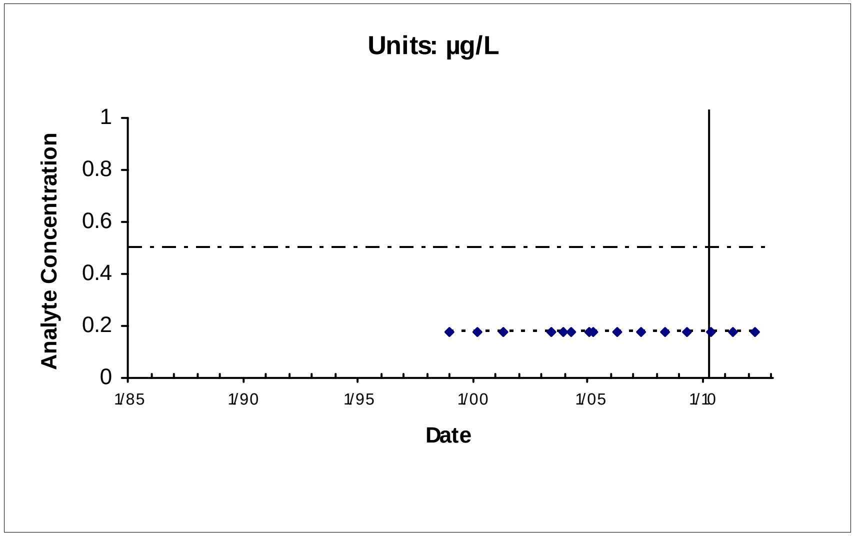
Chemical Time-series Plots



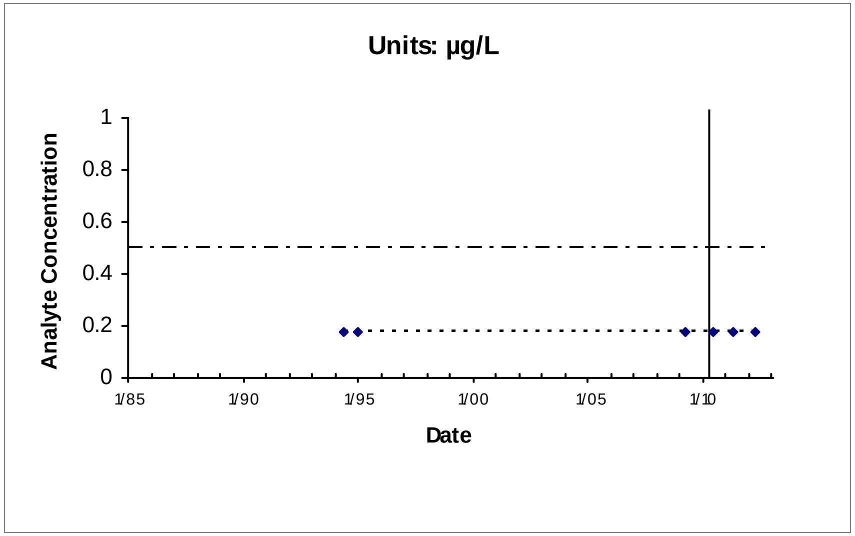
Location: MW504X33 Maximum: 0.18



Location: MW509X33 Maximum: 0.18



Location: MW530X33 Maximum: 0.18



Location: MW1S3X33 Maximum: 0.18

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

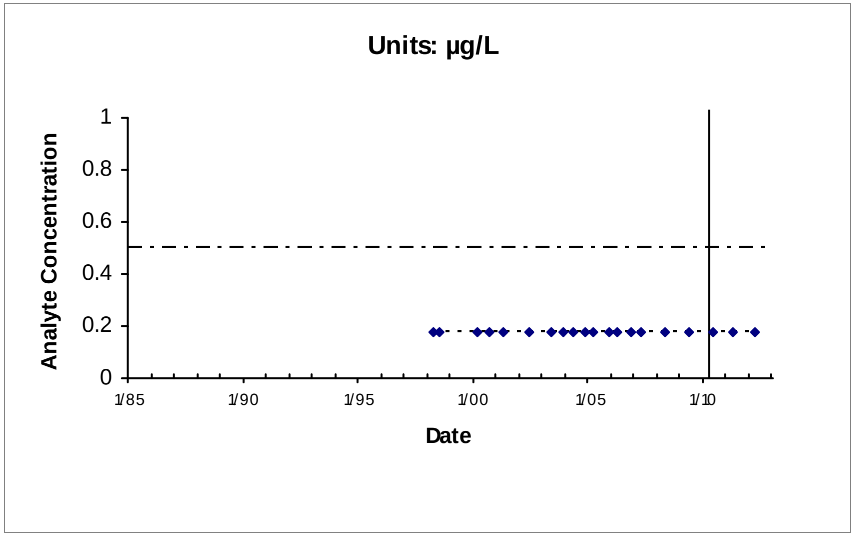
West IRA

FIGURE 2-18

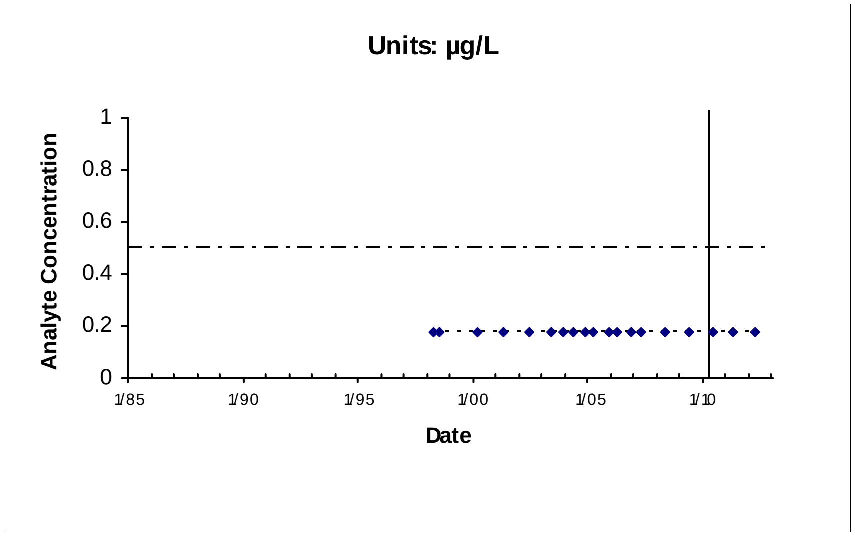
WIOU

Vinyl Chloride

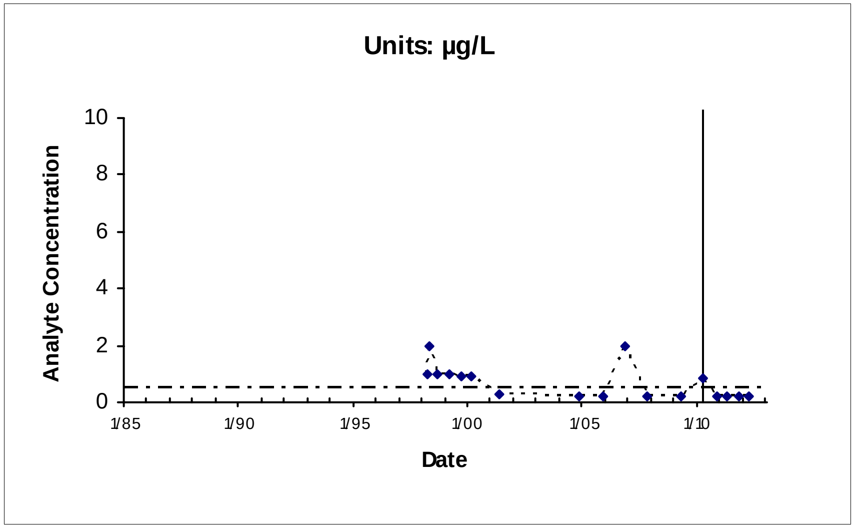
Chemical Time-series Plots



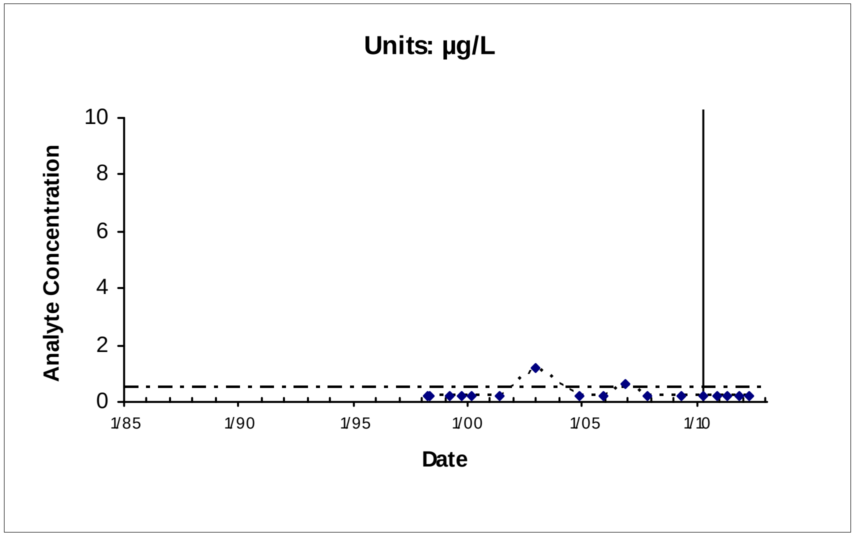
Location: WBUC-3 Maximum: 0.18



Location: WBUC-4 Maximum: 0.18



Location: EW01X34 Maximum: 2



Location: EW03X34 Maximum: 1.2

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

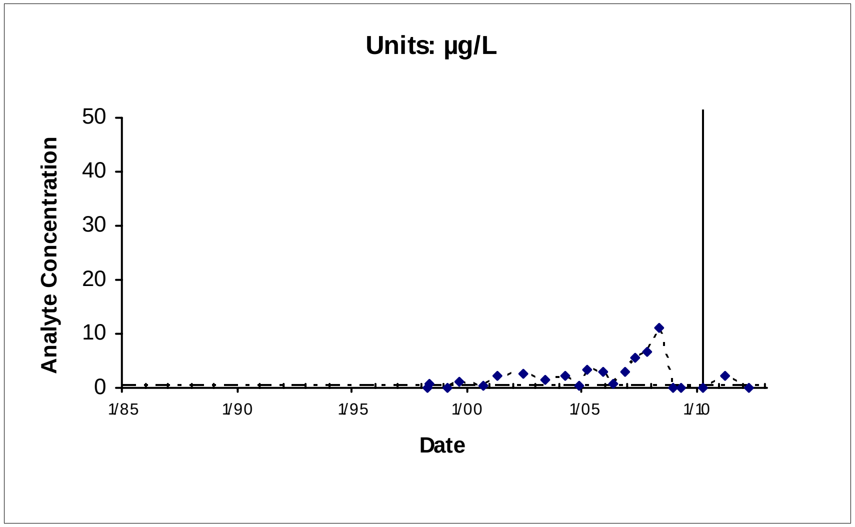
West IRA

FIGURE 2-18

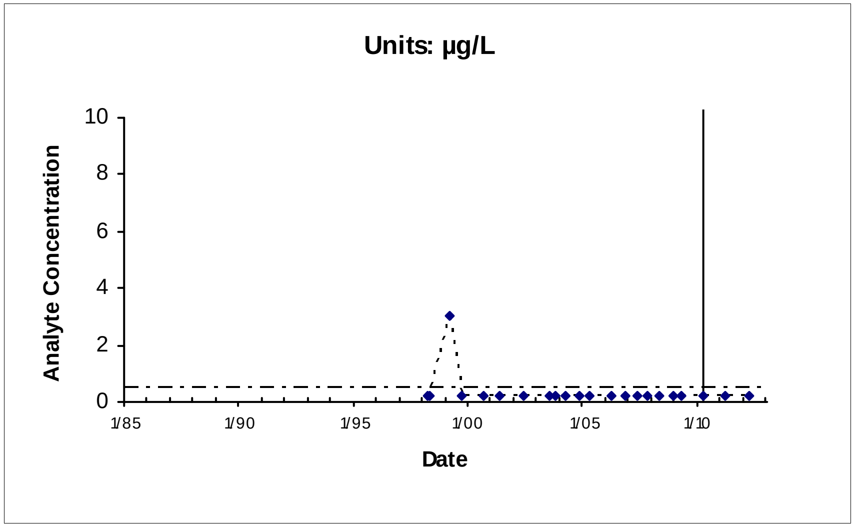
WIOU

Vinyl Chloride

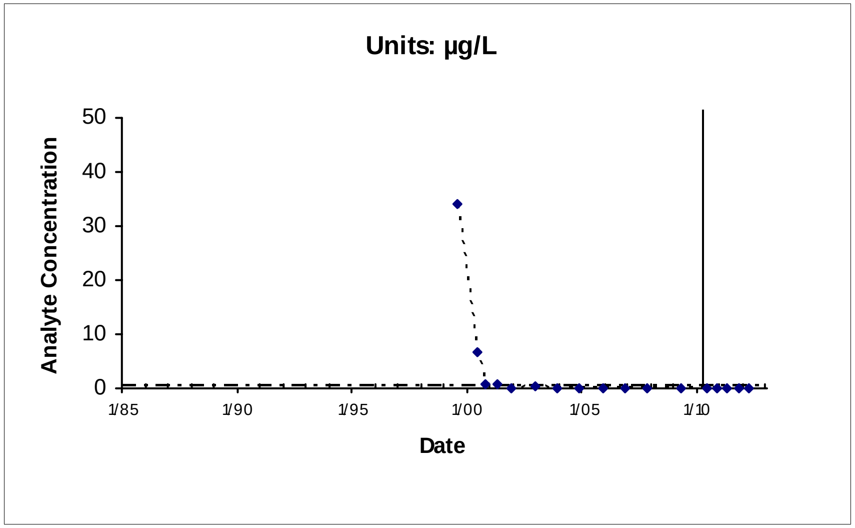
Chemical Time-series Plots



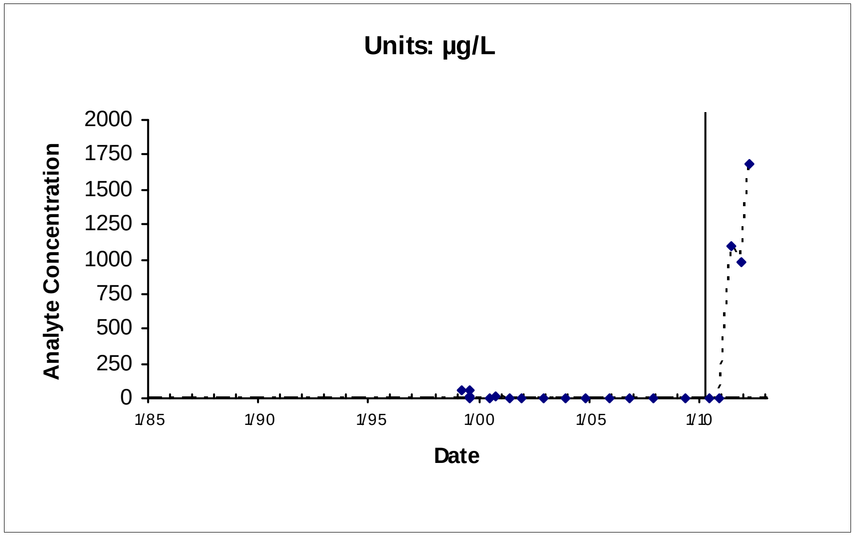
Location: MW02X34 Maximum: 11



Location: MW04X34 Maximum: 3



Location: EW593X36 Maximum: 34



Location: EW594X36 Maximum: 1680

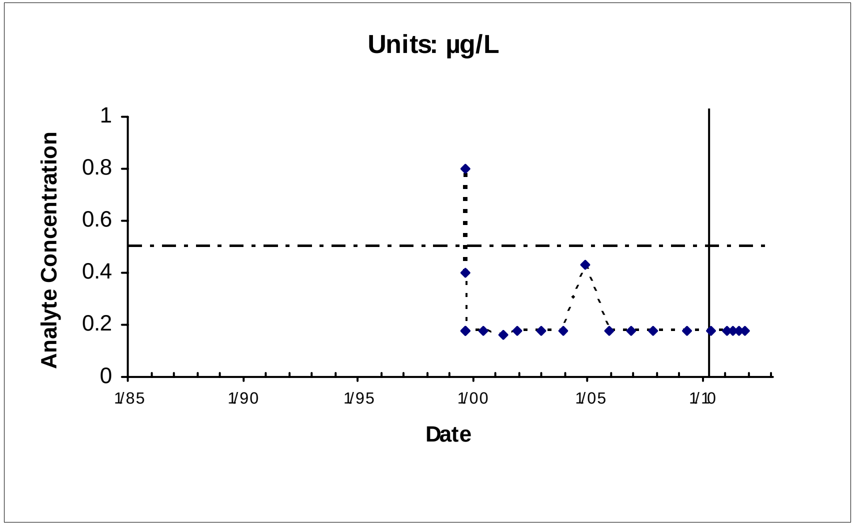
——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

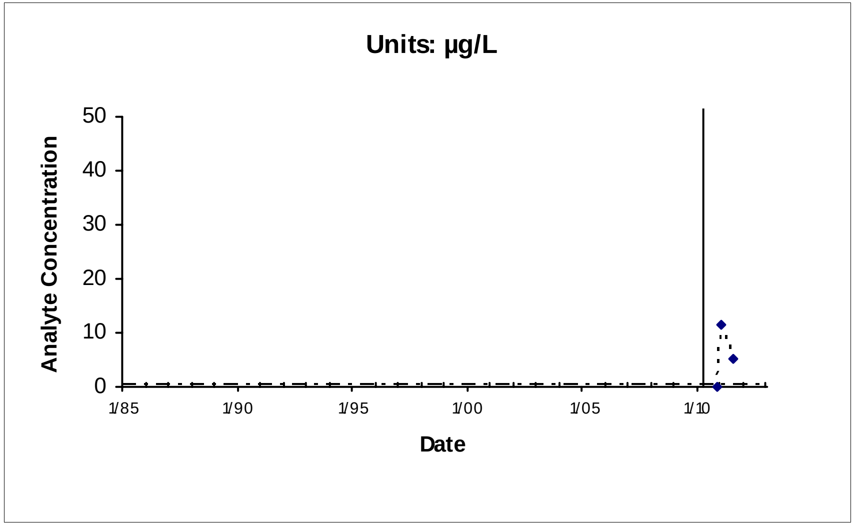
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

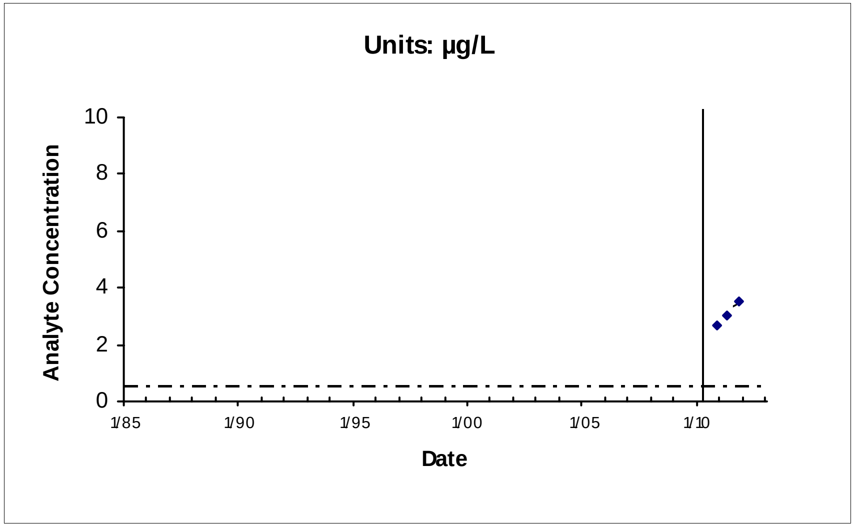
West IRA
FIGURE 2-18
WIOU
Vinyl Chloride
Chemical Time-series Plots



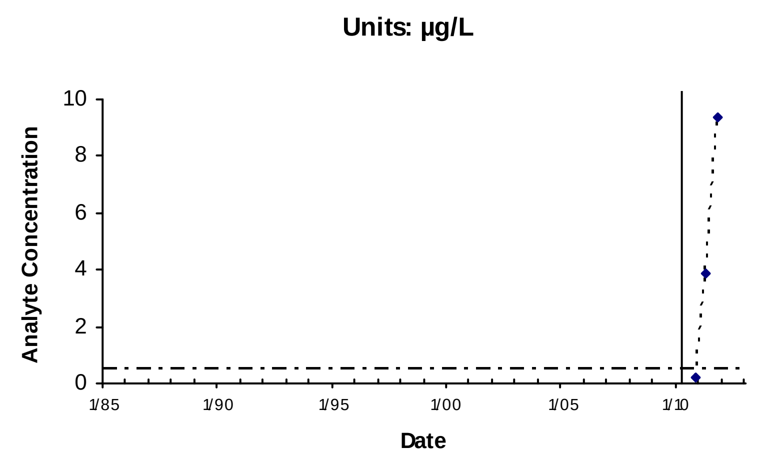
Location: EW595X36 Maximum: 0.8



Location: IW2133X36 Maximum: 11.3



Location: IW2134X36 Maximum: 3.5



Location: IW2135X36 Maximum: 9.4

———— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

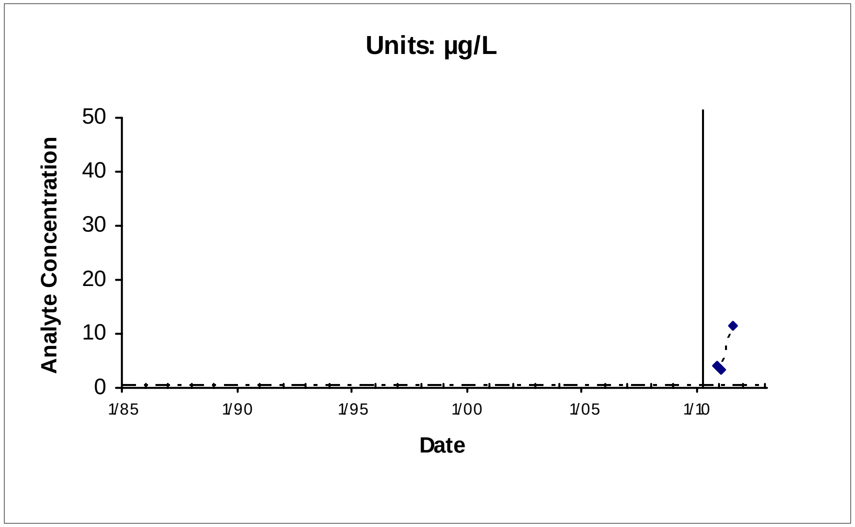
West IRA

FIGURE 2-18

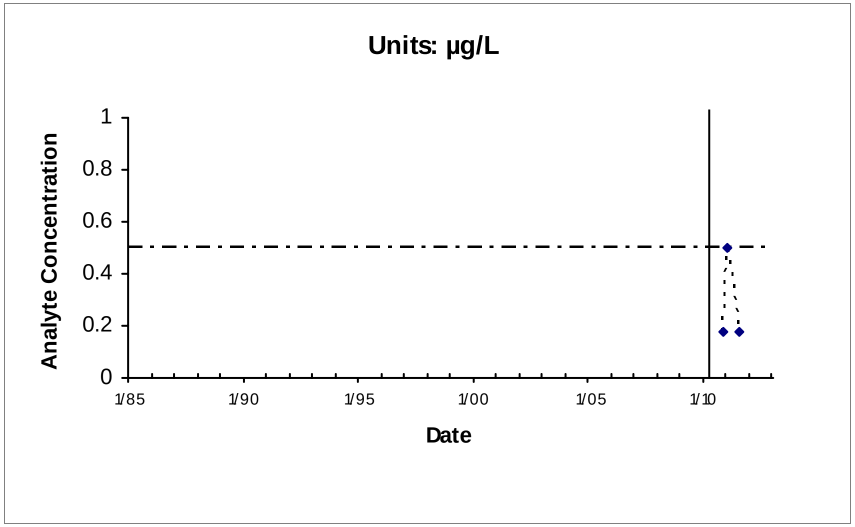
WIOU

Vinyl Chloride

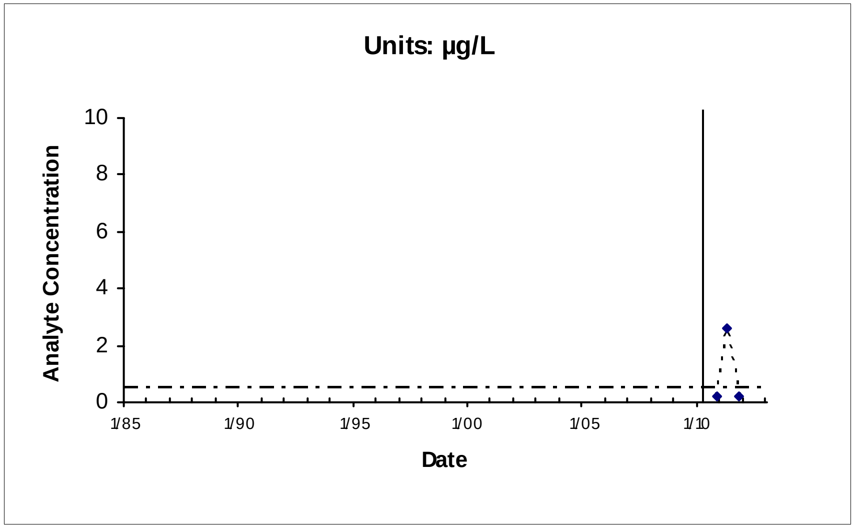
Chemical Time-series Plots



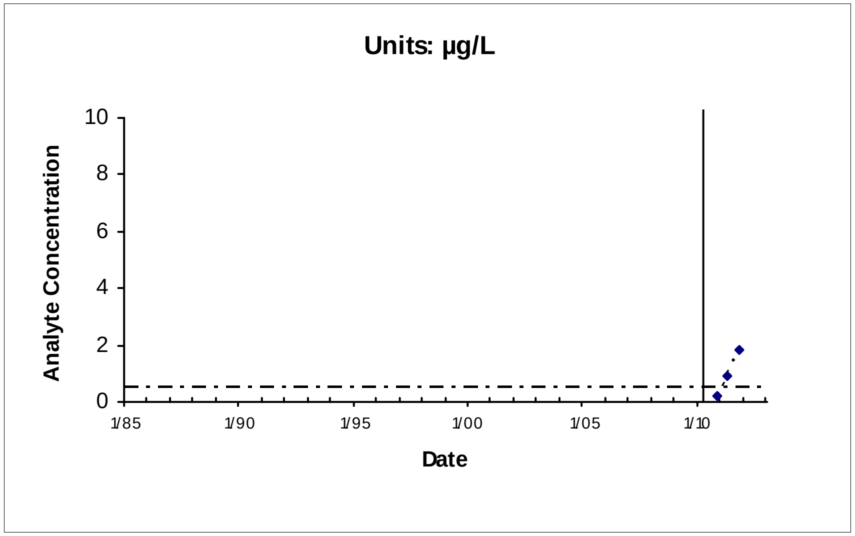
Location: IW2136x36 Maximum: 11.4



Location: IW2137x36 Maximum: 0.5



Location: IW2138X36 Maximum: 2.6



Location: IW2139x36 Maximum: 1.8

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

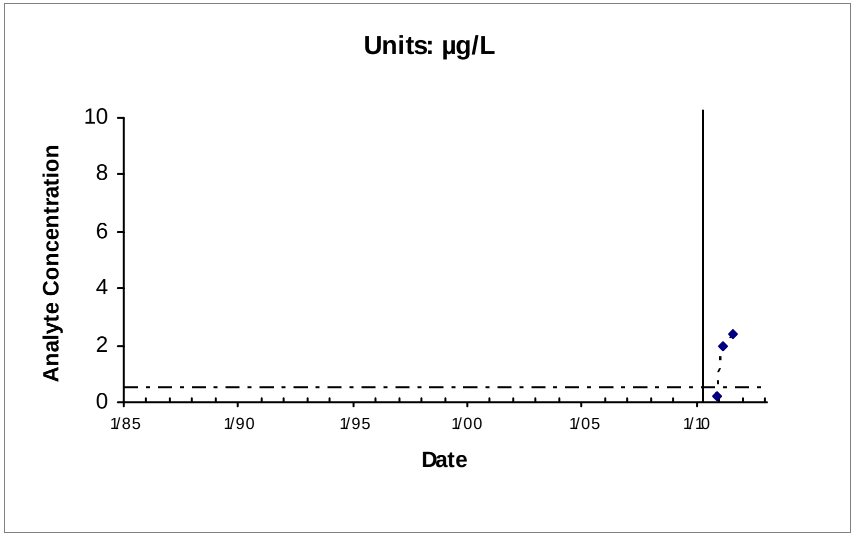
West IRA

FIGURE 2-18

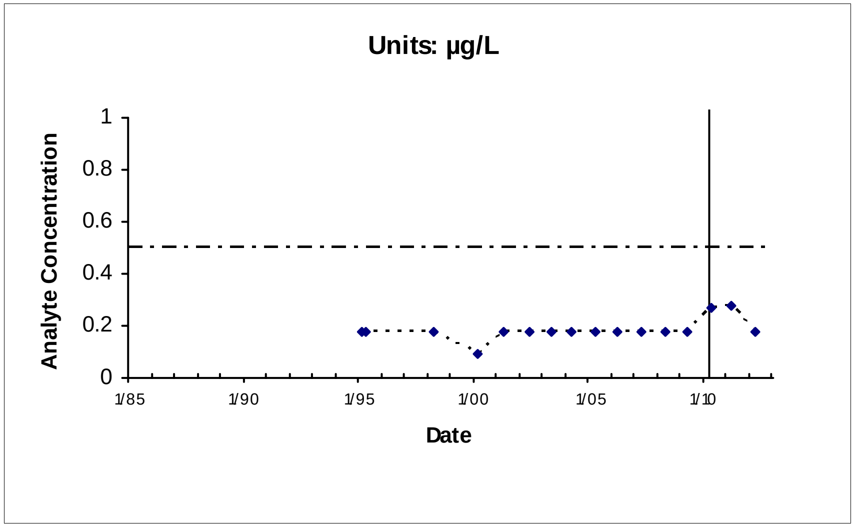
WIOU

Vinyl Chloride

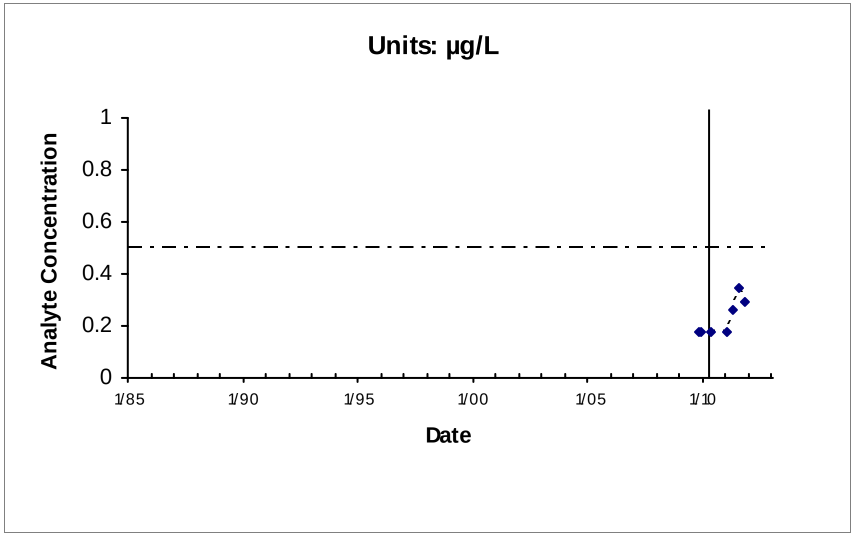
Chemical Time-series Plots



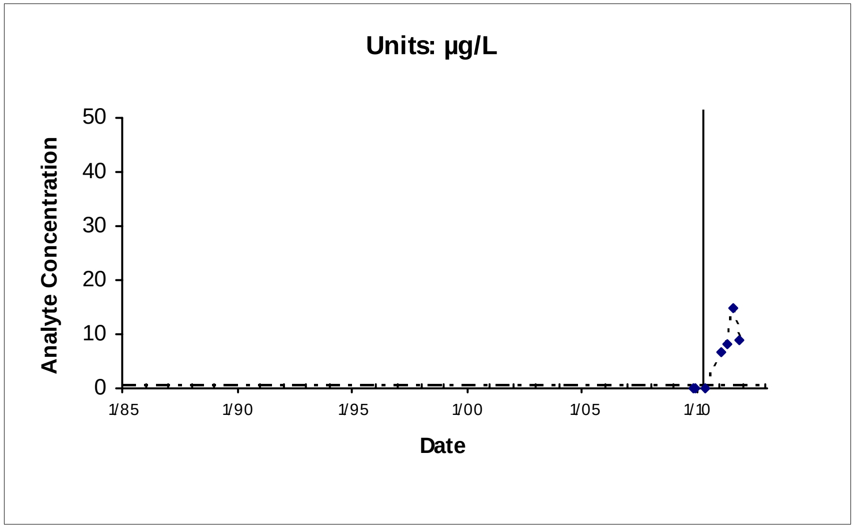
Location: IW2140X36 Maximum: 2.4



Location: MW873M2X36 Maximum: 0.28



Location: MW2031Ax36 Maximum: 0.35



Location: MW2031Bx36 Maximum: 15

———— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

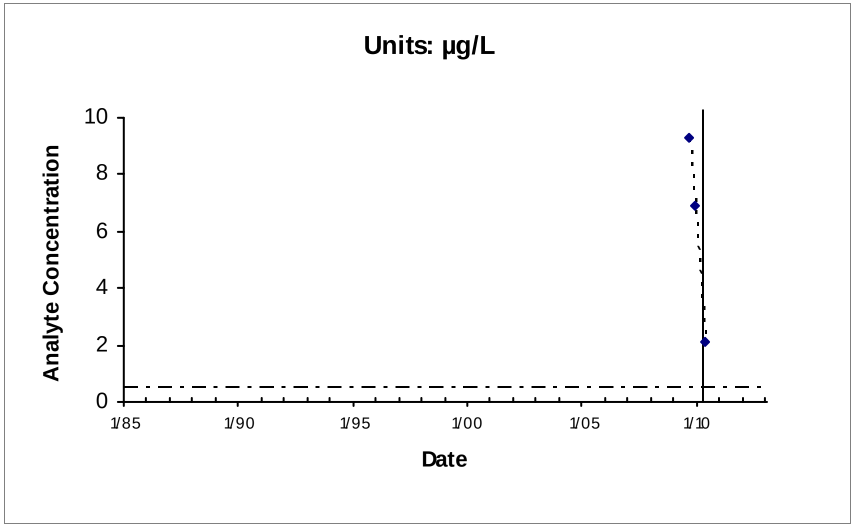
West IRA

FIGURE 2-18

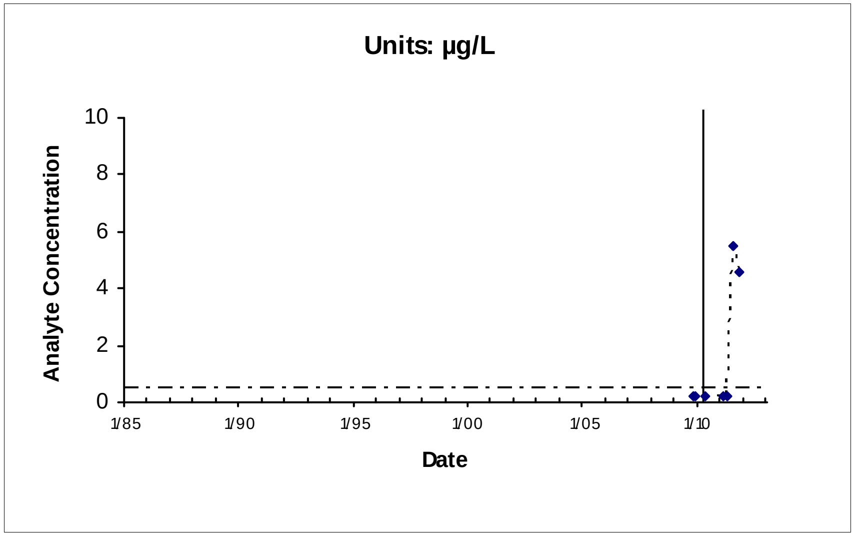
WIOU

Vinyl Chloride

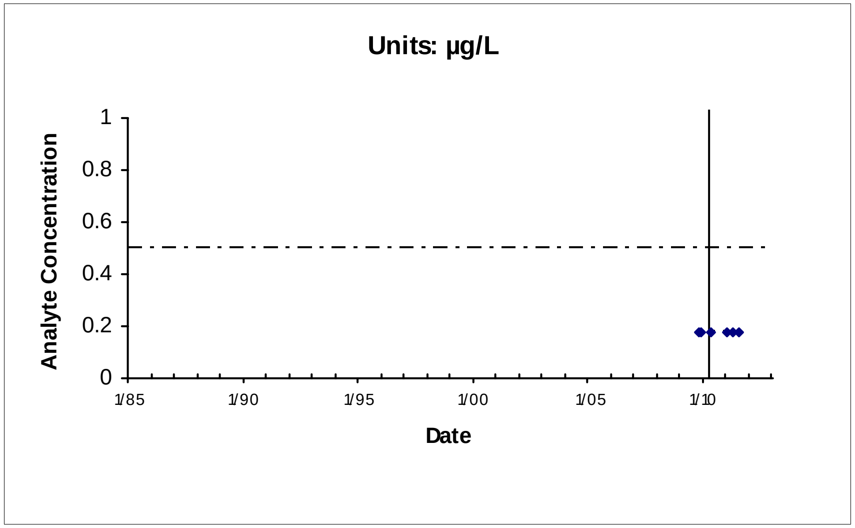
Chemical Time-series Plots



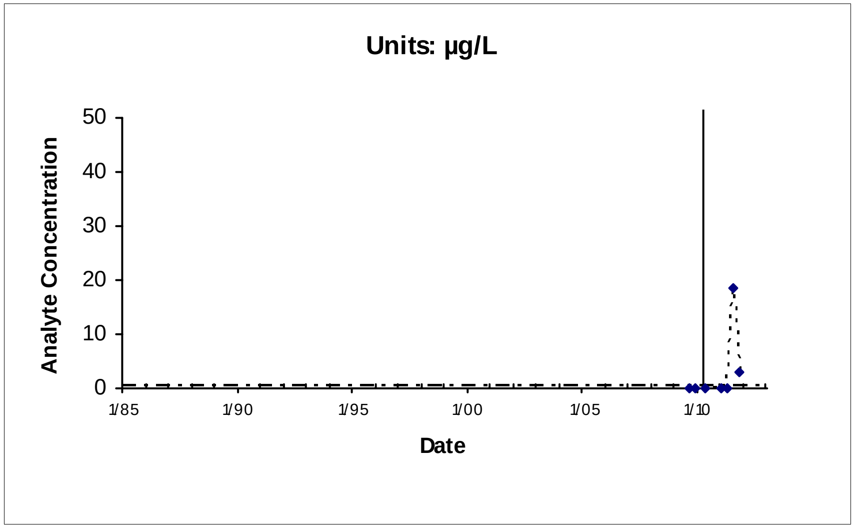
Location: MW2032x36 Maximum: 9.3



Location: MW2033Ax36 Maximum: 5.5



Location: MW2033Bx36 Maximum: 0.18



Location: MW2034Ax36 Maximum: 18.5

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

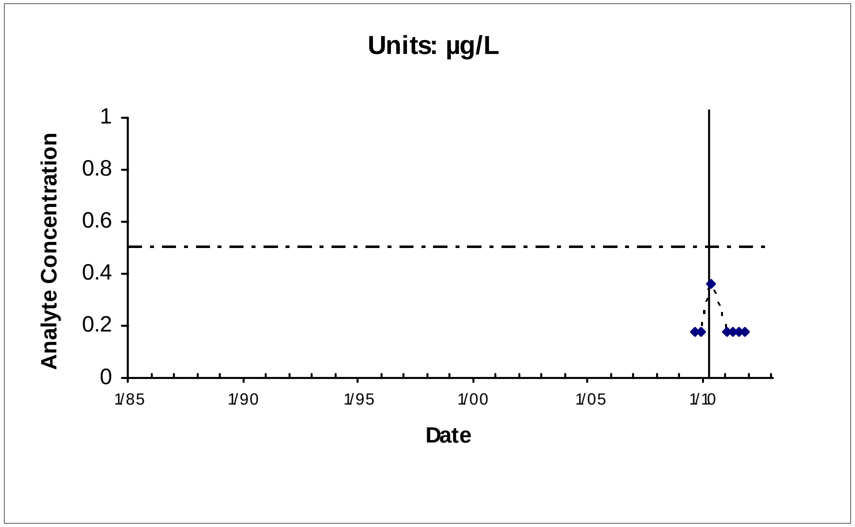
West IRA

FIGURE 2-18

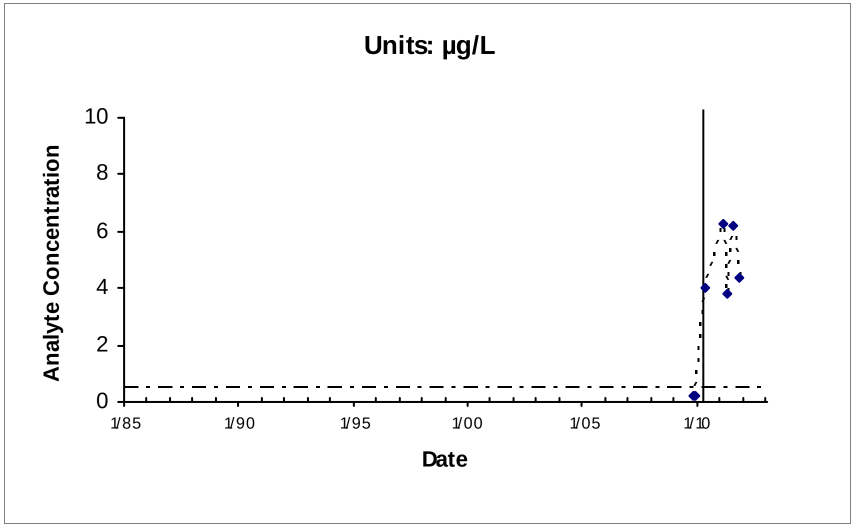
WIOU

Vinyl Chloride

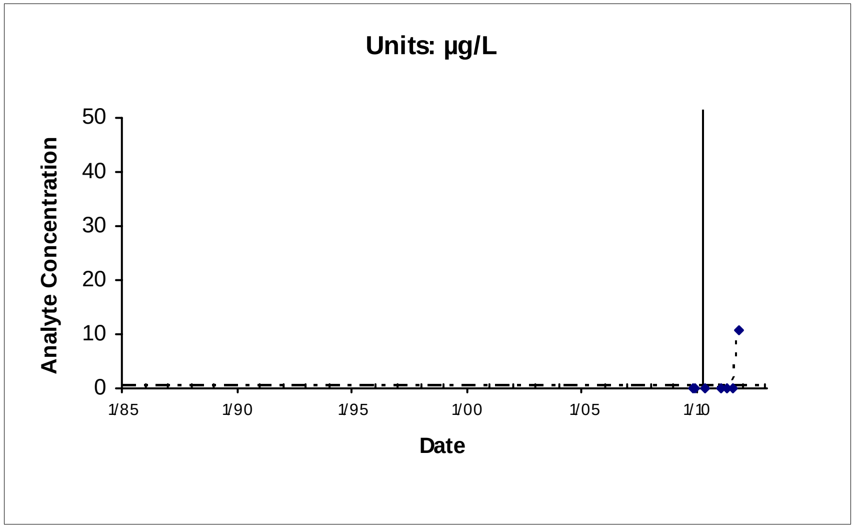
Chemical Time-series Plots



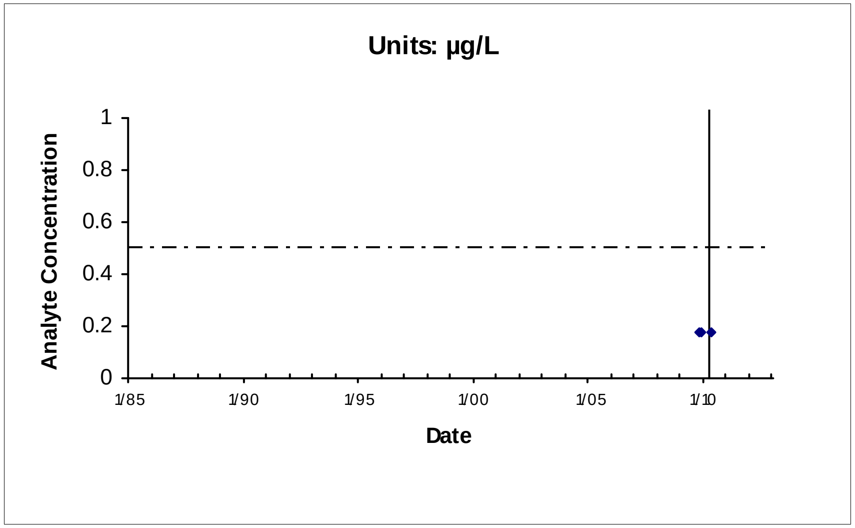
Location: MW2034Bx36 Maximum: 0.36



Location: MW2061Ax36 Maximum: 6.3



Location: MW2061Bx36 Maximum: 10.6



Location: MW2063x36 Maximum: 0.18

———— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

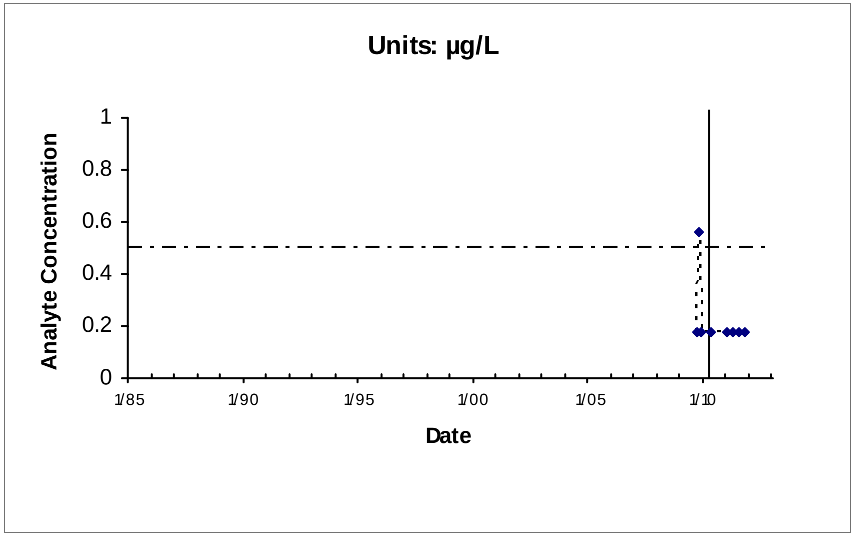
West IRA

FIGURE 2-18

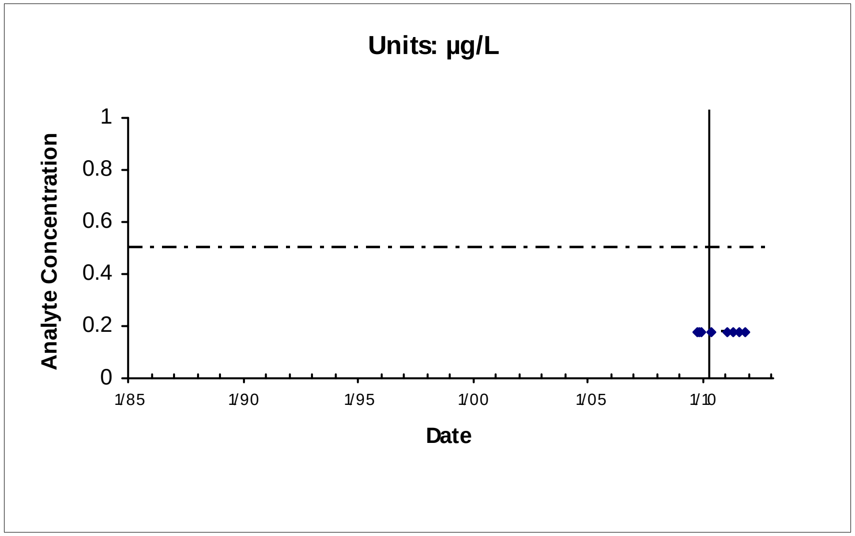
WIOU

Vinyl Chloride

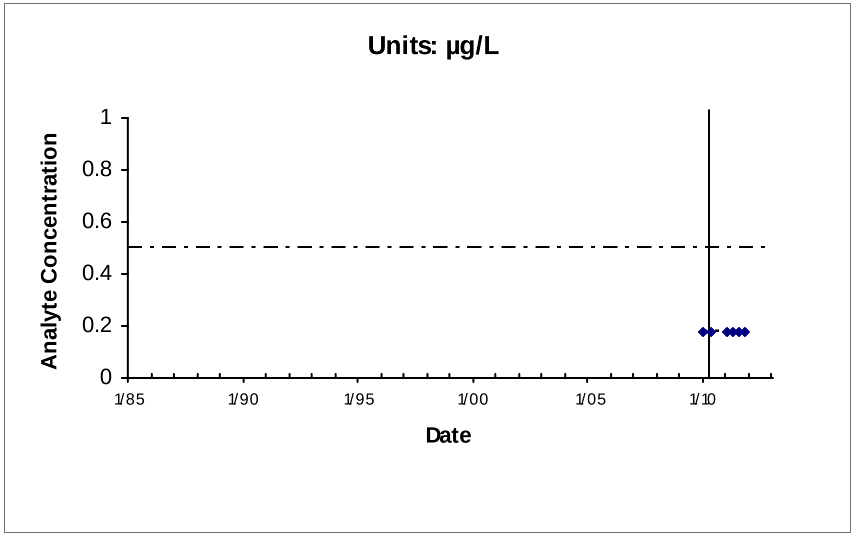
Chemical Time-series Plots



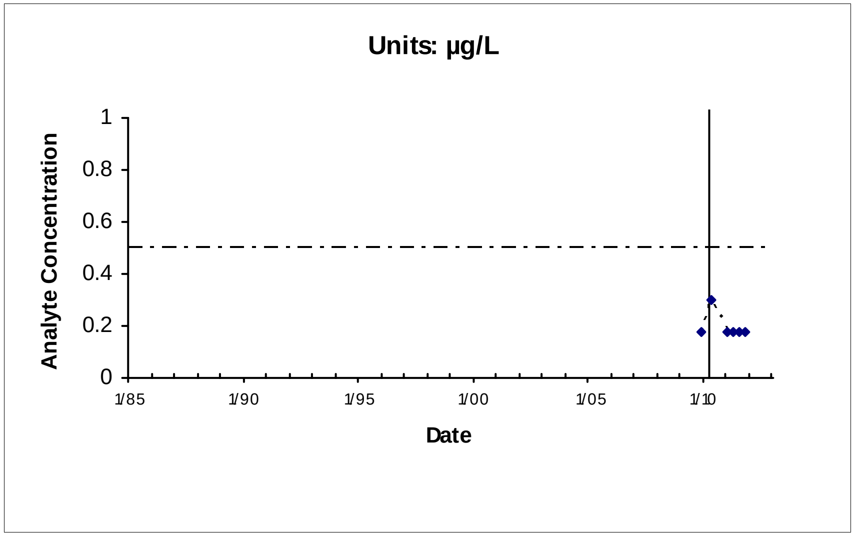
Location: MW2064Ax36 Maximum: 0.56



Location: MW2064Bx36 Maximum: 0.18



Location: MW2065x36 Maximum: 0.18



Location: MW2075Ax36 Maximum: 0.3

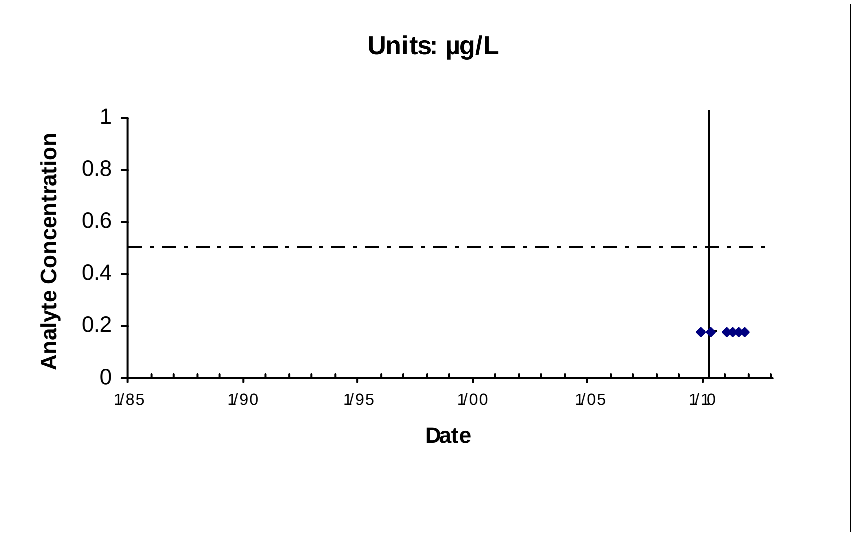
———— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

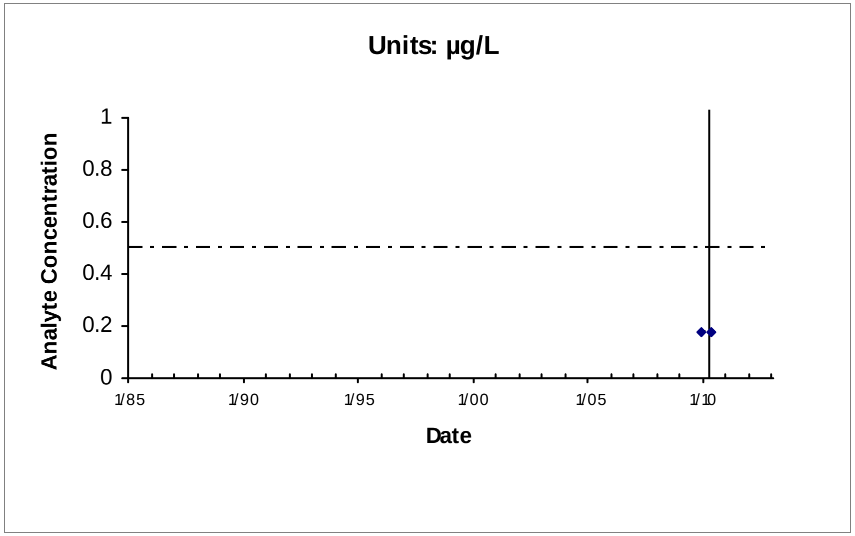
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

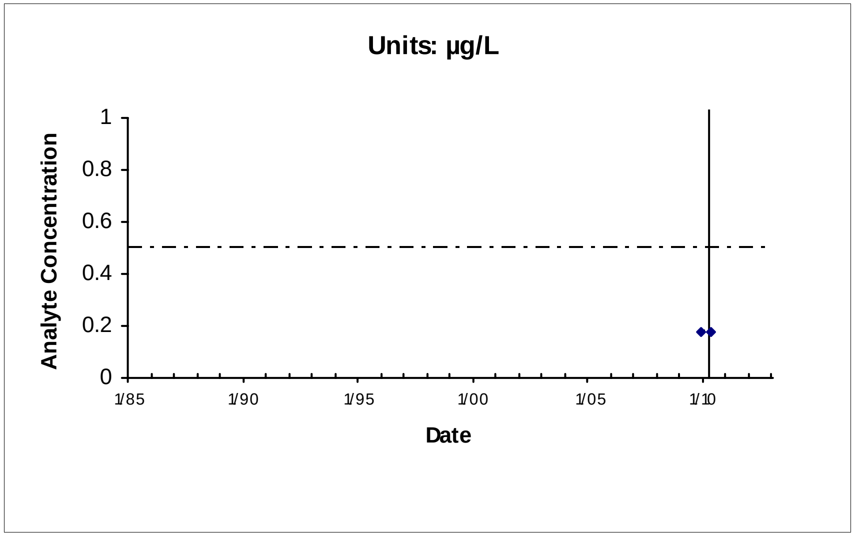
West IRA
FIGURE 2-18
WIOU
Vinyl Chloride
Chemical Time-series Plots



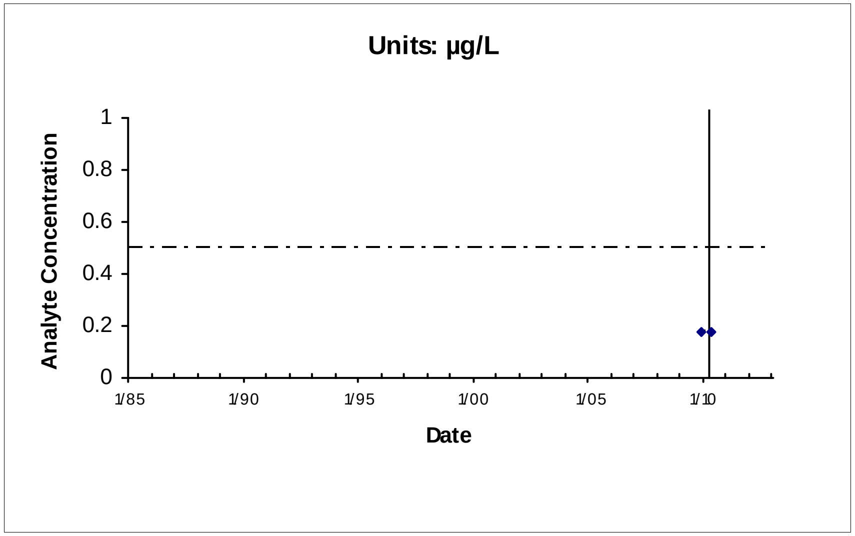
Location: MW2075Bx36 Maximum: 0.18



Location: MW2077Ax36 Maximum: 0.18



Location: MW2077Bx36 Maximum: 0.18



Location: MW2077Cx36 Maximum: 0.18

———— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

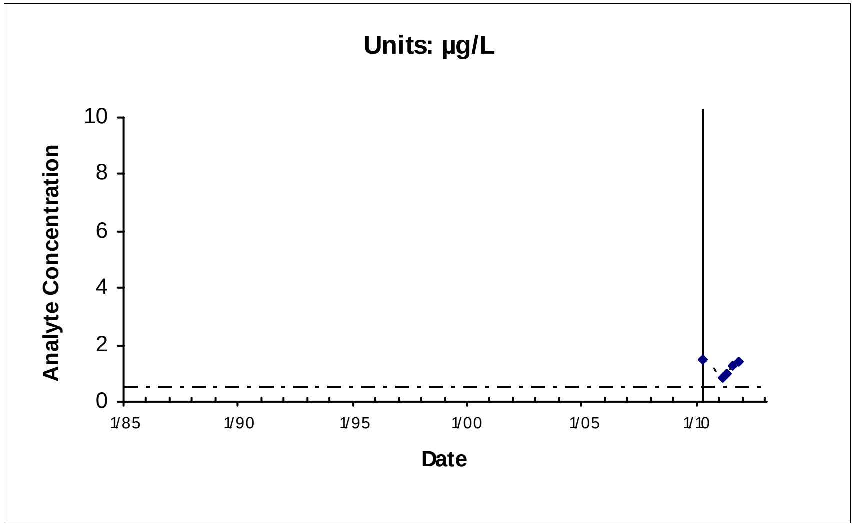
West IRA

FIGURE 2-18

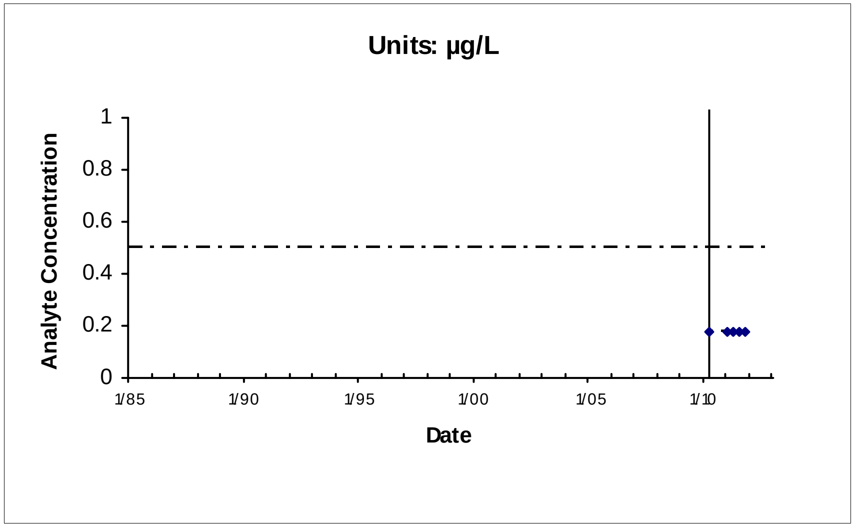
WIOU

Vinyl Chloride

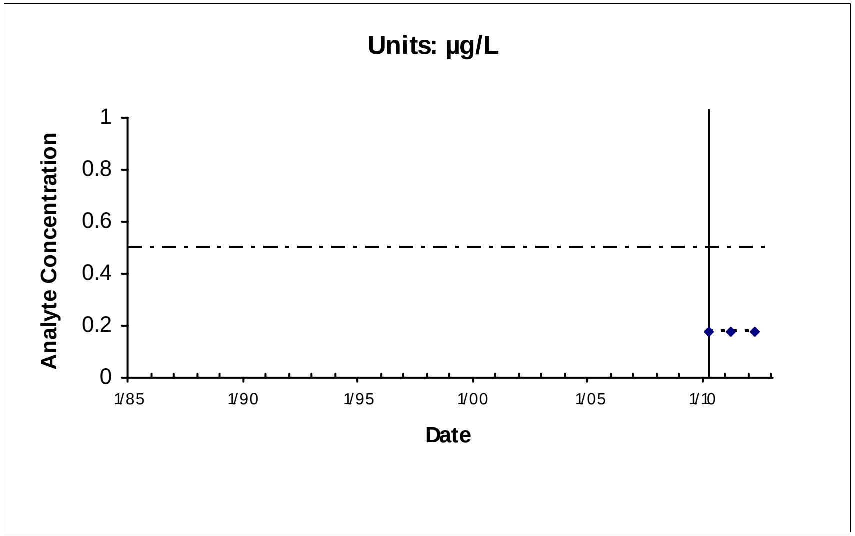
Chemical Time-series Plots



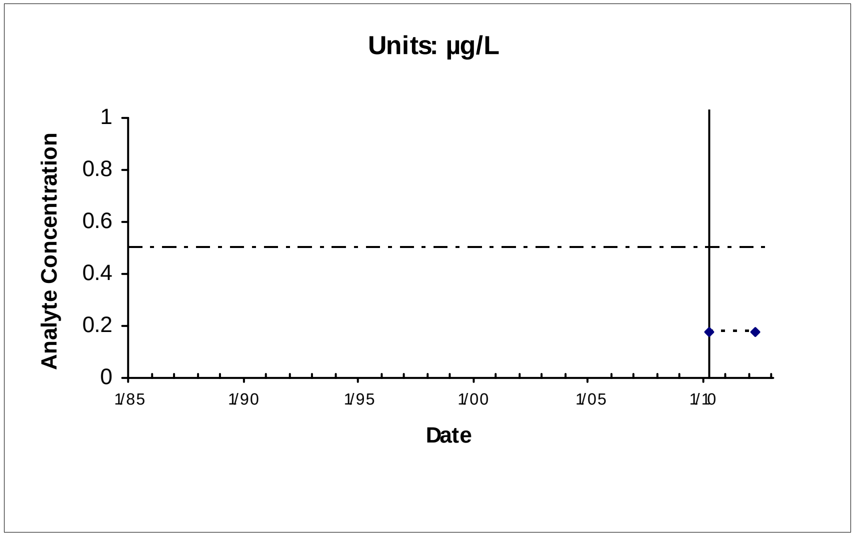
Location: MW2107Ax36 Maximum: 1.5



Location: MW2107Bx36 Maximum: 0.18



Location: MW2108Ax36 Maximum: 0.18



Location: MW2108Bx36 Maximum: 0.18

———— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

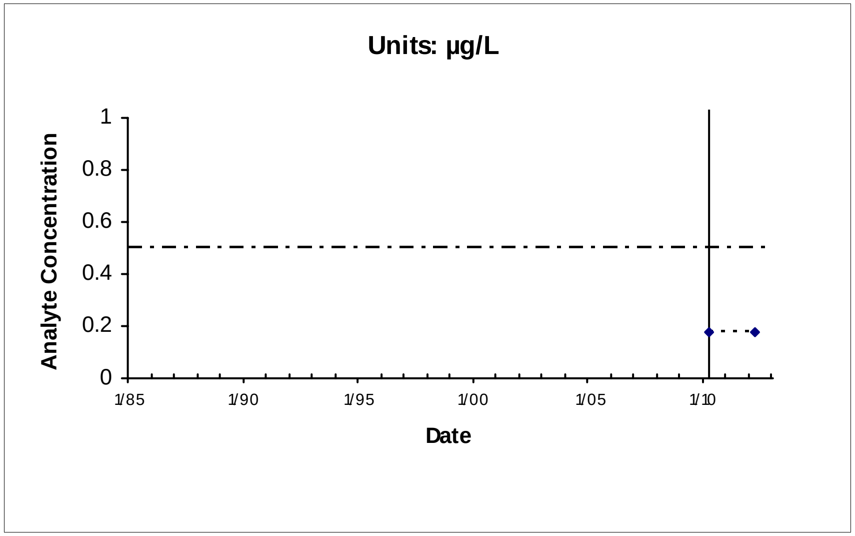
West IRA

FIGURE 2-18

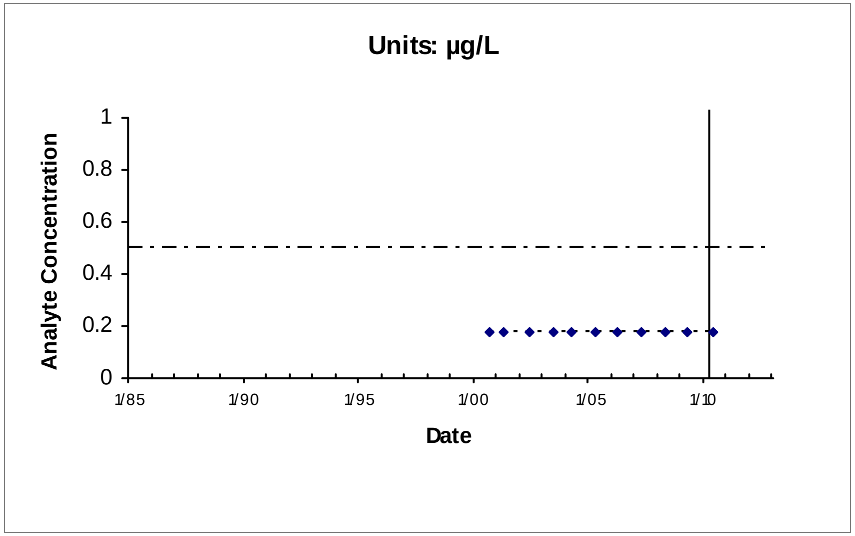
WIOU

Vinyl Chloride

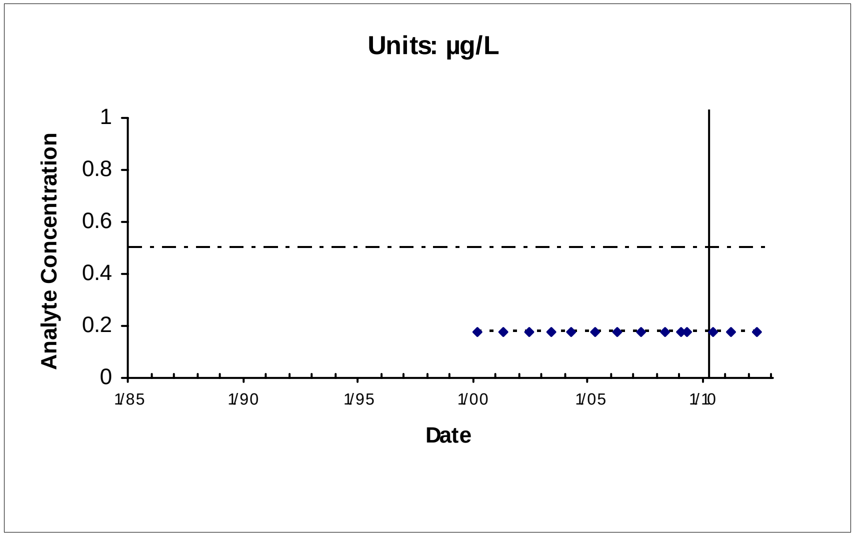
Chemical Time-series Plots



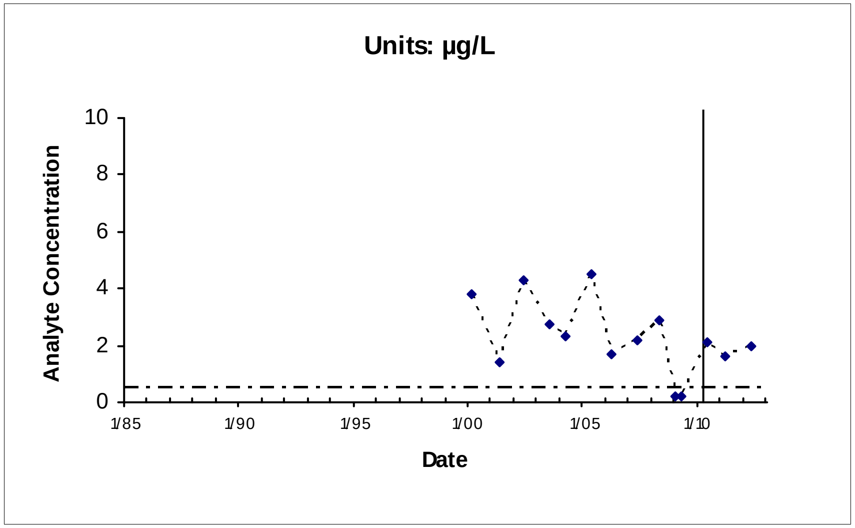
Location: MW2108Cx36 Maximum: 0.18



Location: PZ03X36 Maximum: 0.18



Location: PZ12DX36 Maximum: 0.18



Location: PZ12SX36 Maximum: 4.5

———— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

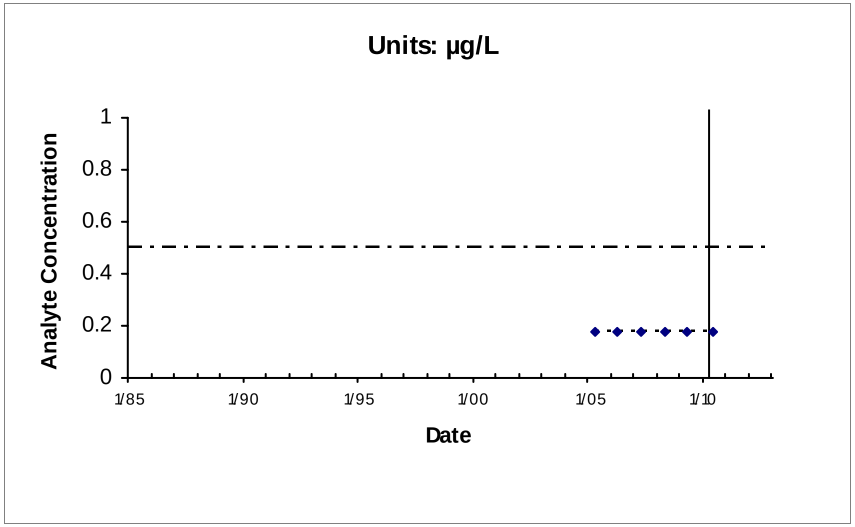
West IRA

FIGURE 2-18

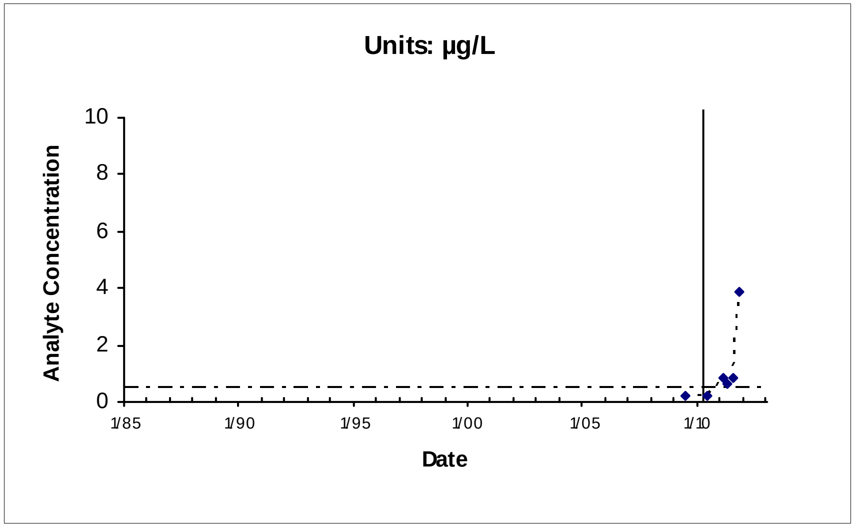
WIOU

Vinyl Chloride

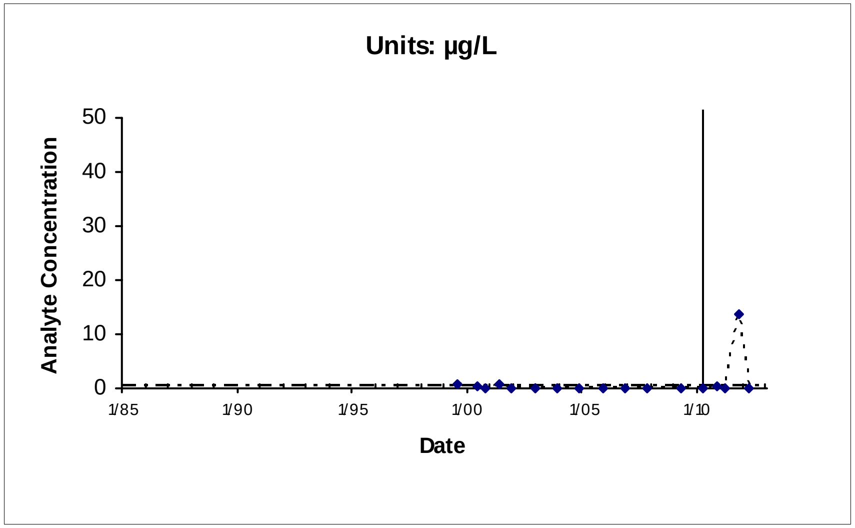
Chemical Time-series Plots



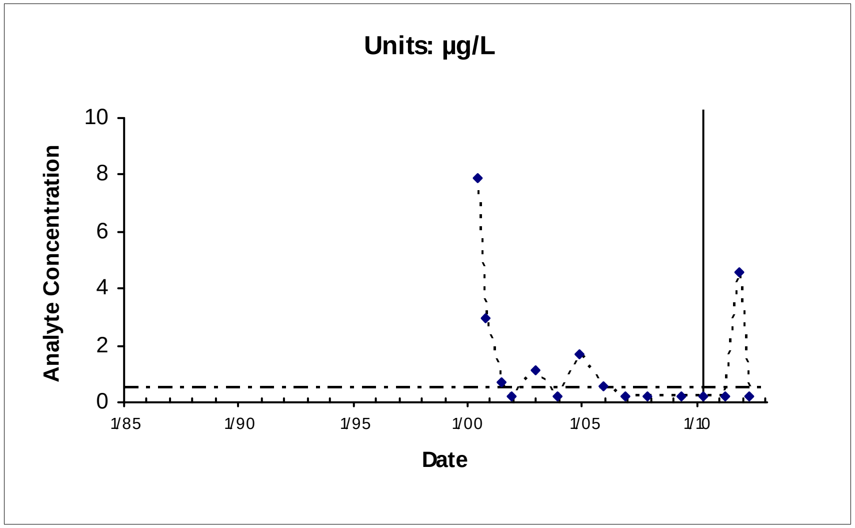
Location: PZ22x36 Maximum: 0.18



Location: PZ550Cx36 Maximum: 3.9



Location: EW510X37 Maximum: 13.7



Location: EW511X37 Maximum: 7.86

West IRA

FIGURE 2-18

WIOU

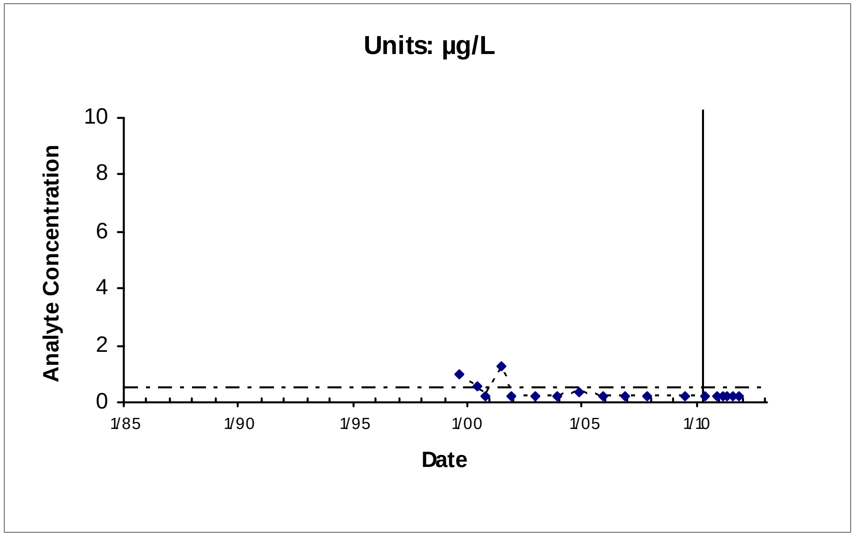
Vinyl Chloride

Chemical Time-series Plots

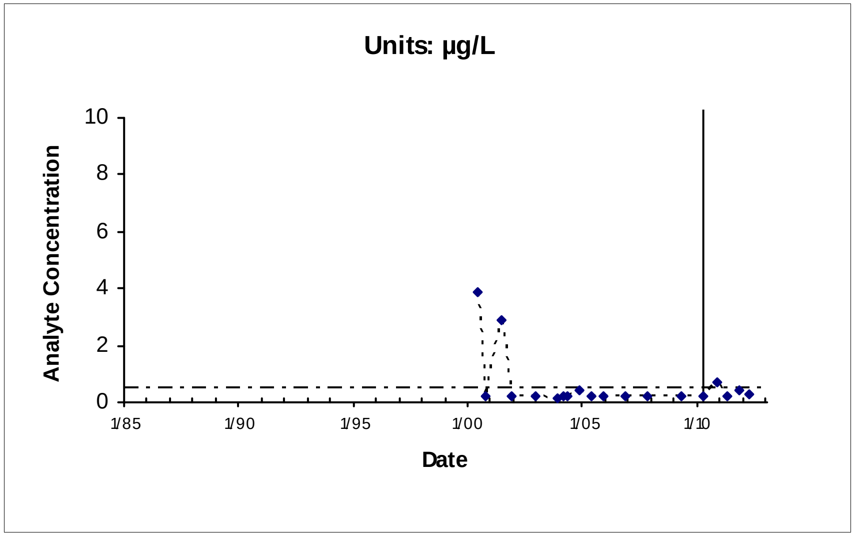
———— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

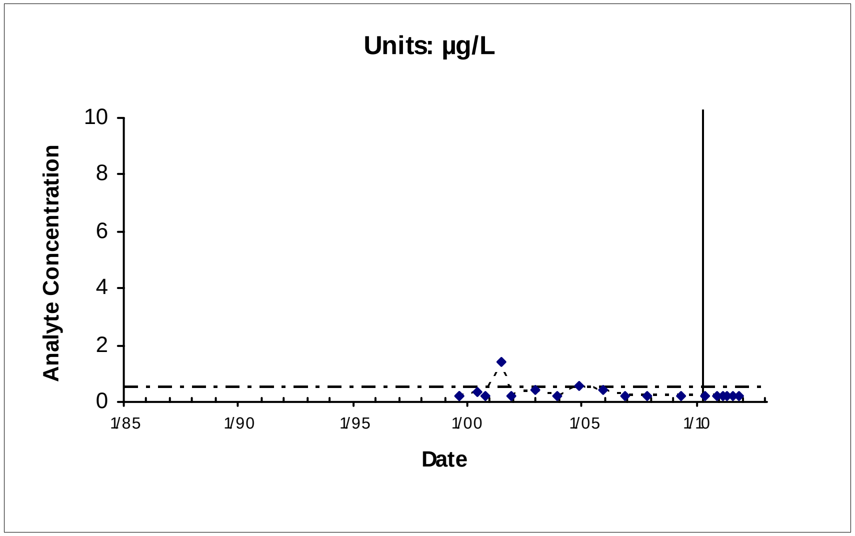
*Nondetects shown as the Method Detection Limit (0.18 µg/L)



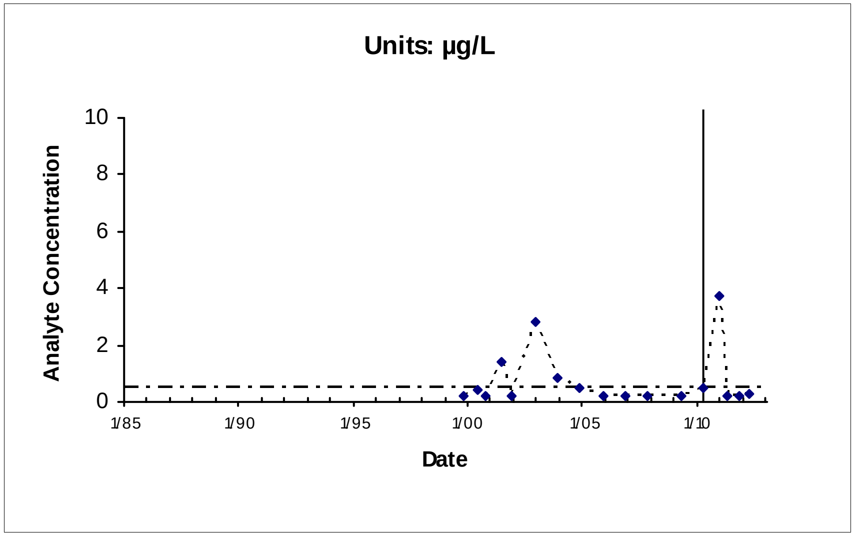
Location: EW599X37 Maximum: 1.3



Location: EW700X37 Maximum: 3.86



Location: EW701X37 Maximum: 1.4



Location: EW702X37 Maximum: 3.7

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

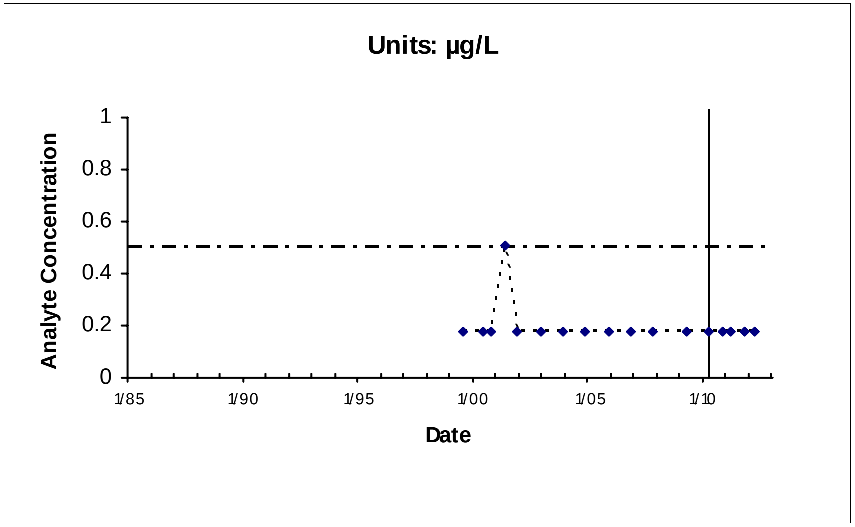
West IRA

FIGURE 2-18

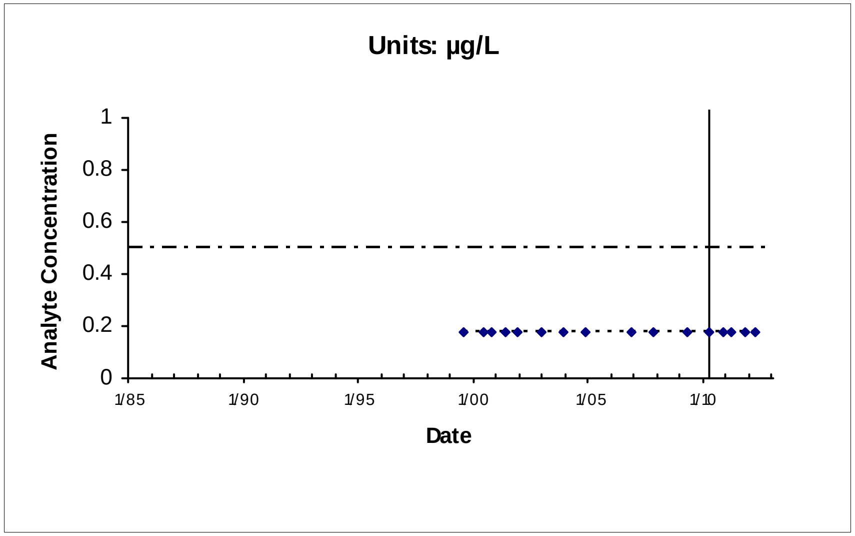
WIOU

Vinyl Chloride

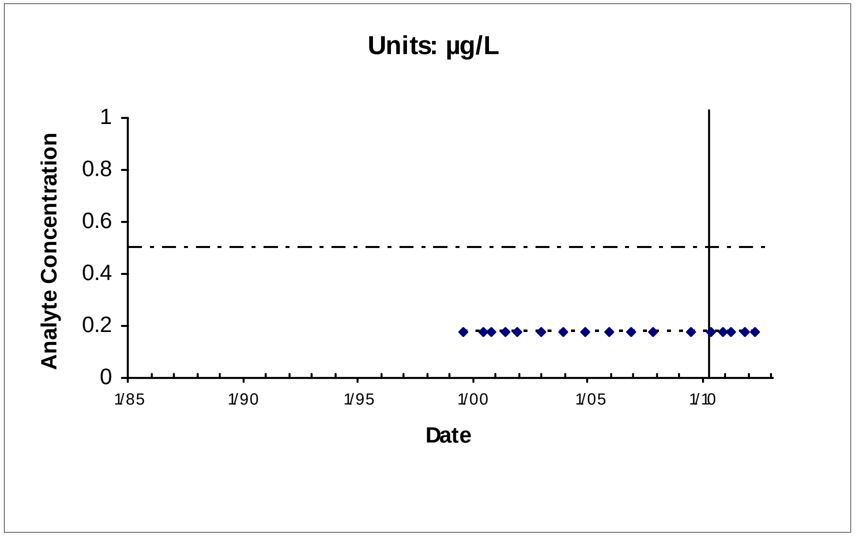
Chemical Time-series Plots



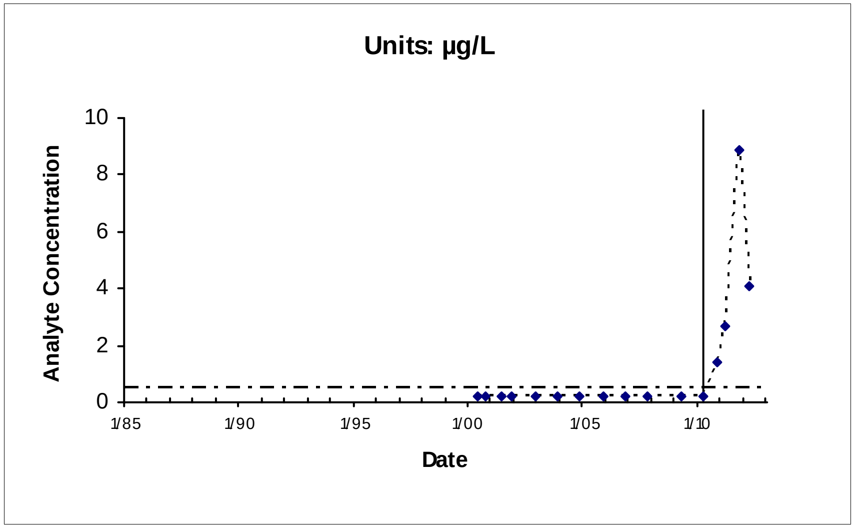
Location: EW703X37 Maximum: 0.51



Location: EW704X37 Maximum: 0.18



Location: EW705X37 Maximum: 0.18



Location: EW706X37 Maximum: 8.9

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

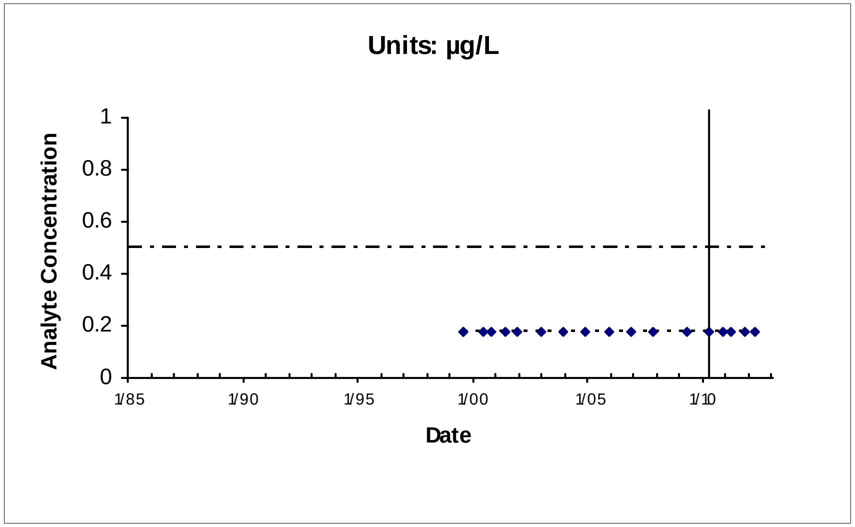
West IRA

FIGURE 2-18

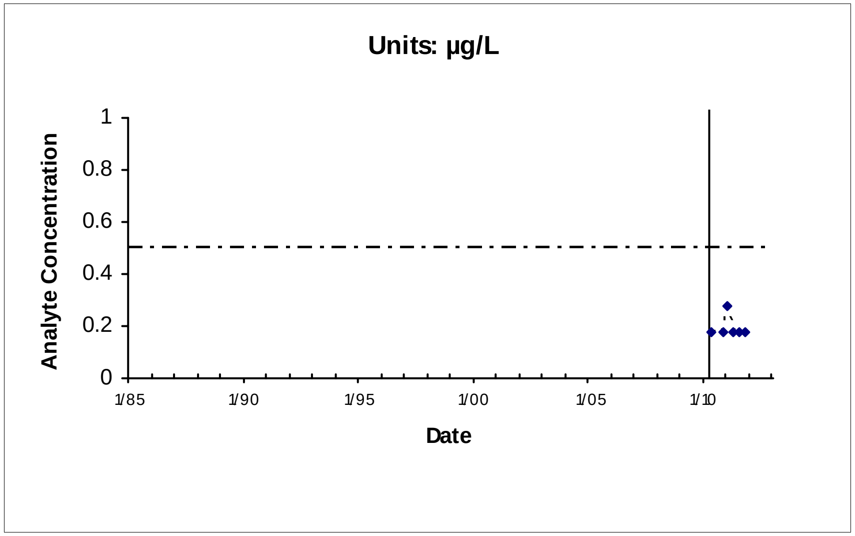
WIOU

Vinyl Chloride

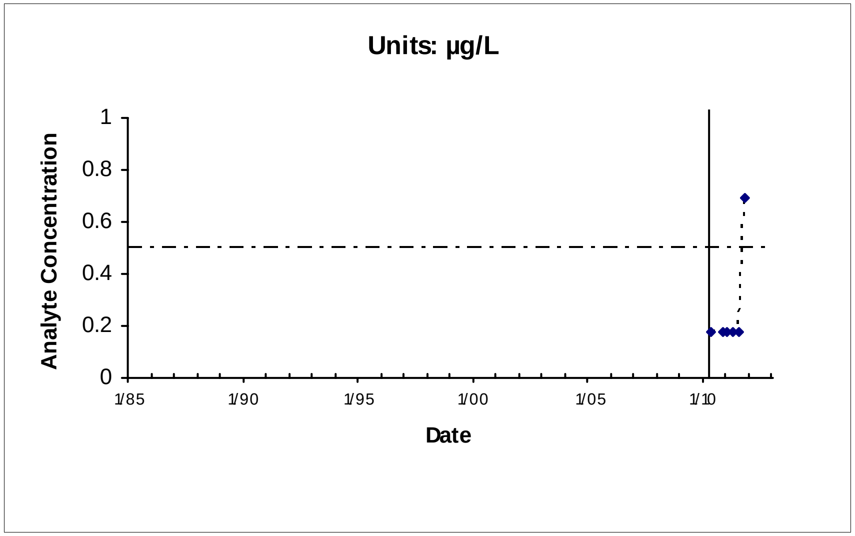
Chemical Time-series Plots



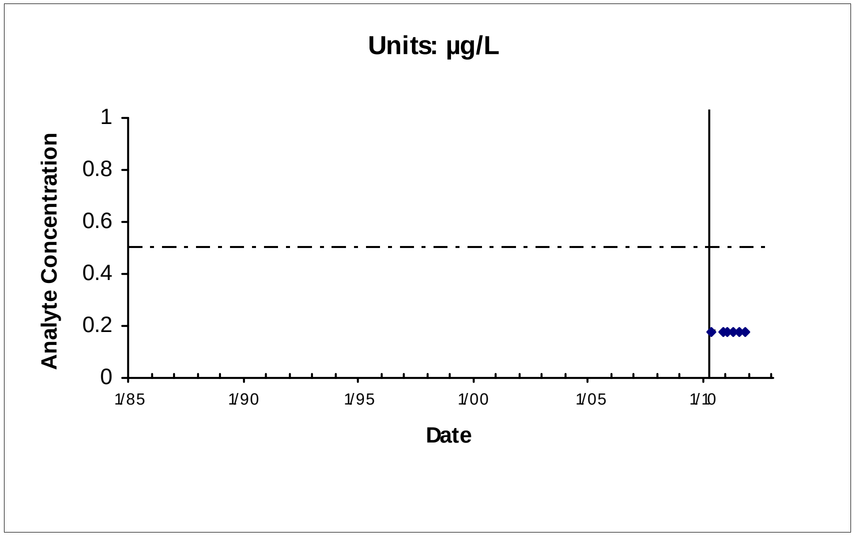
Location: EW707X37 Maximum: 0.18



Location: IW2094x37 Maximum: 0.28



Location: IW2096x37 Maximum: 0.69



Location: IW2098x37 Maximum: 0.18

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

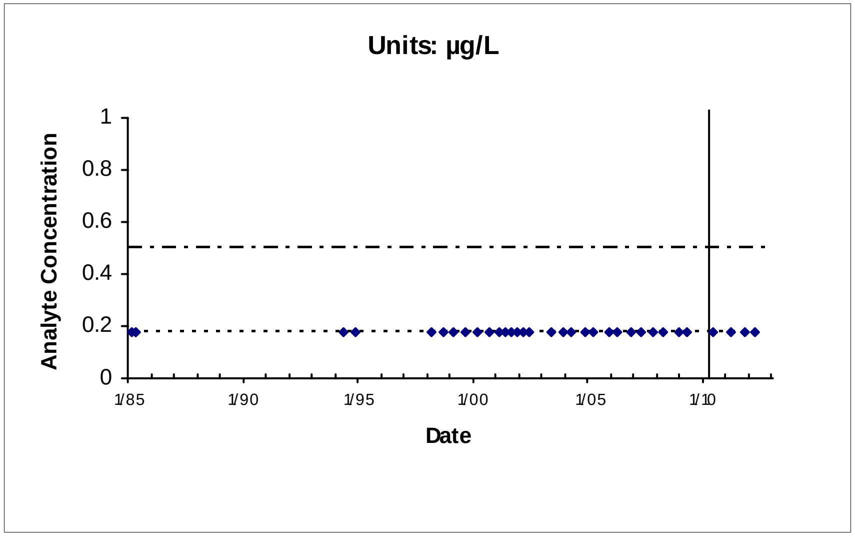
West IRA

FIGURE 2-18

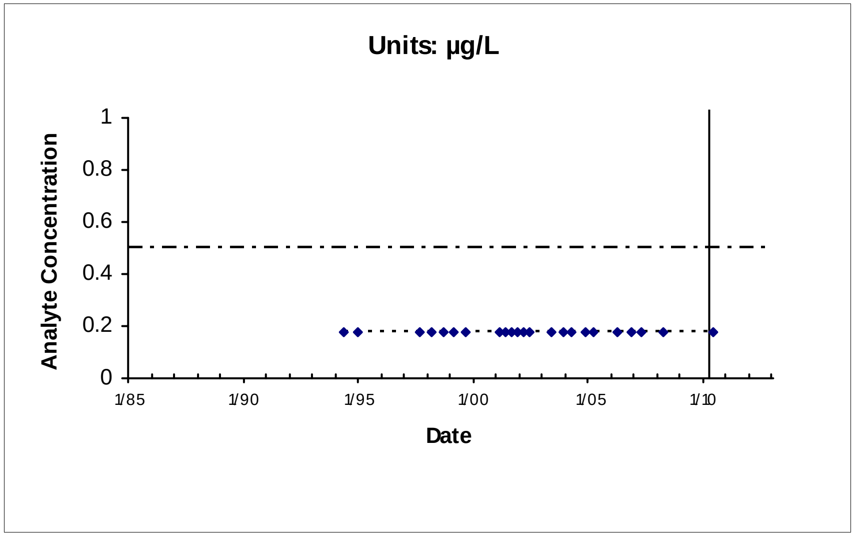
WIOU

Vinyl Chloride

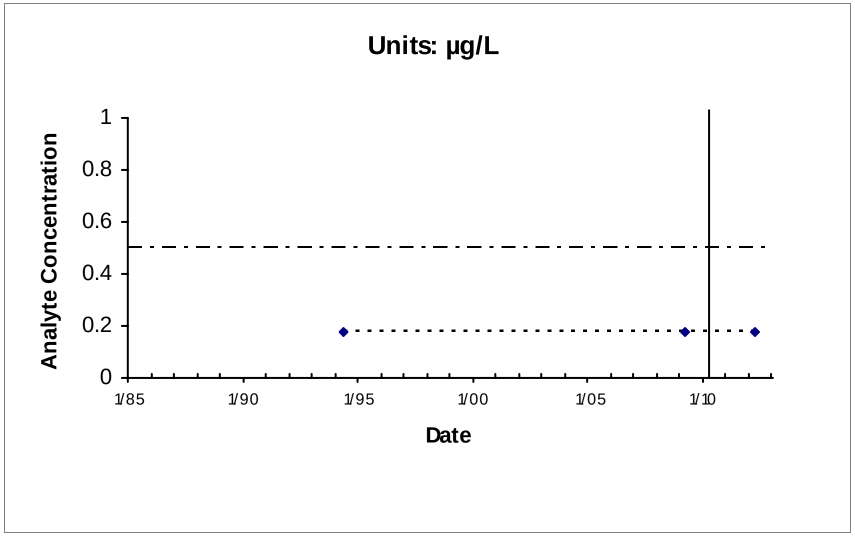
Chemical Time-series Plots



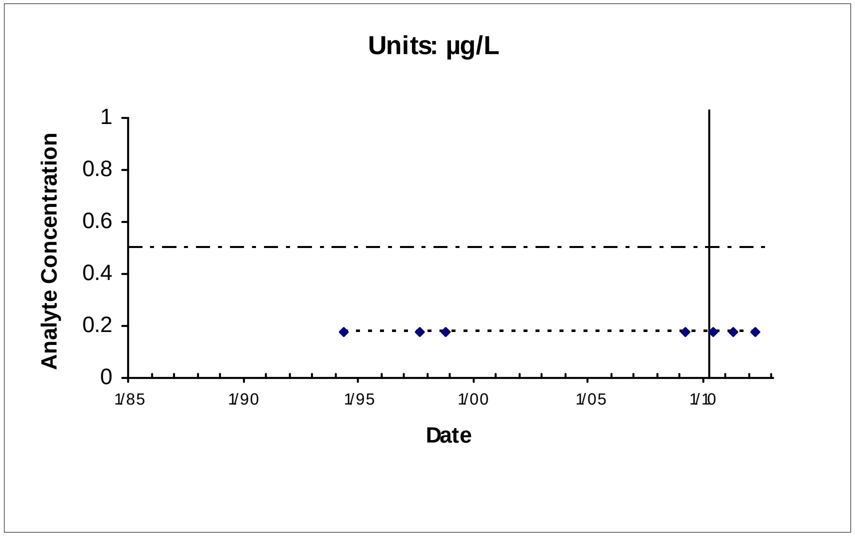
Location: MW116X37 Maximum: 0.18



Location: MW222X37 Maximum: 0.18



Location: MW223X37 Maximum: 0.18



Location: MW224X37 Maximum: 0.18

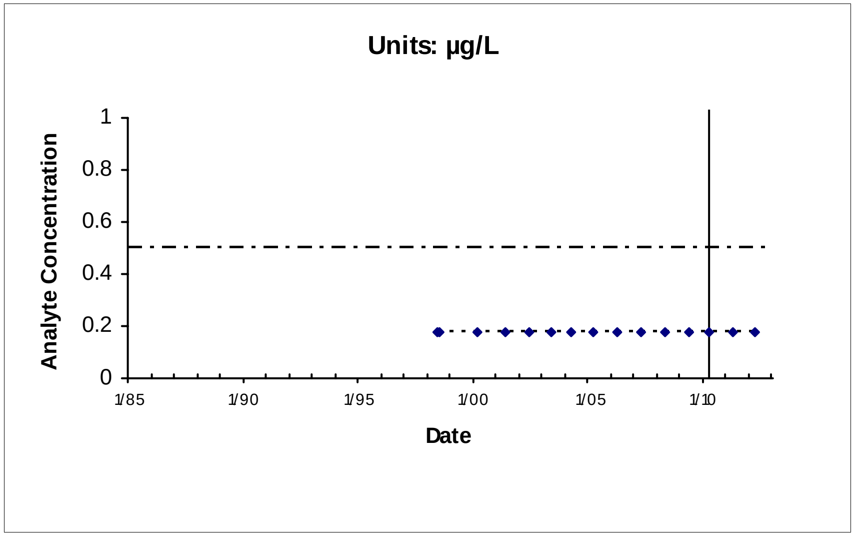
——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

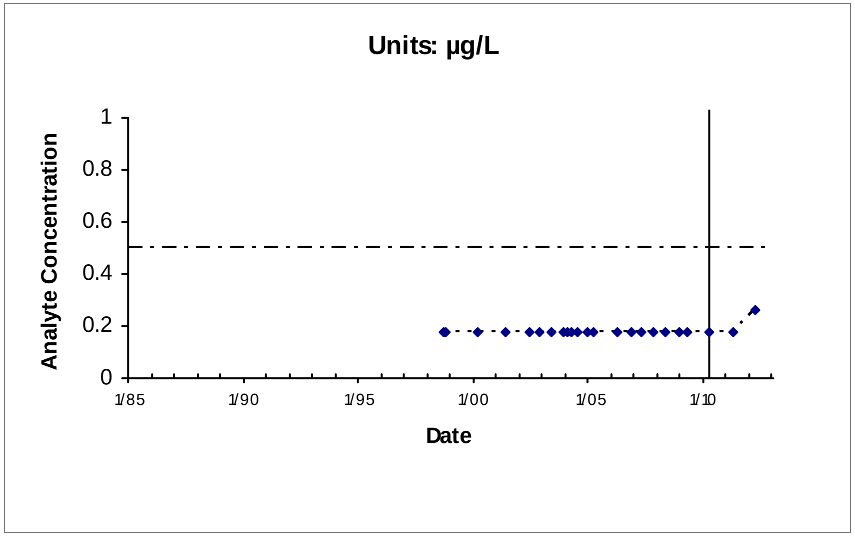
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

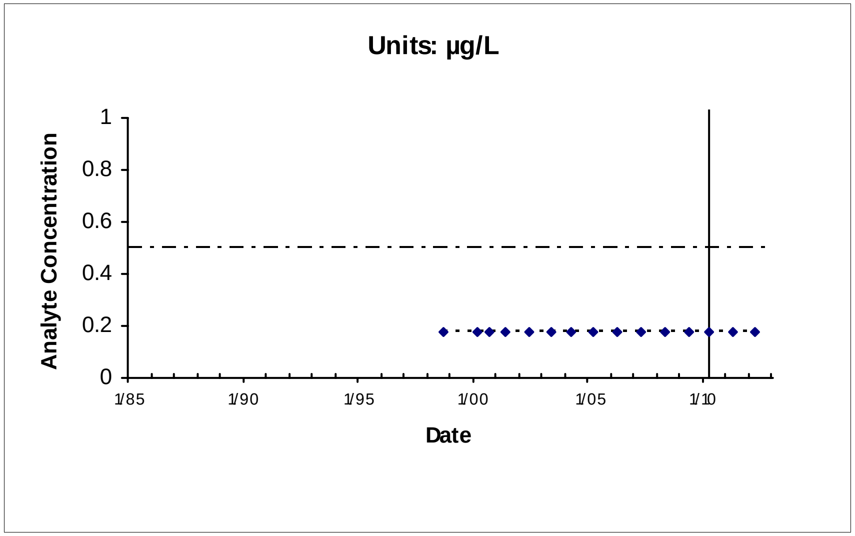
West IRA
FIGURE 2-18
WIOU
Vinyl Chloride
Chemical Time-series Plots



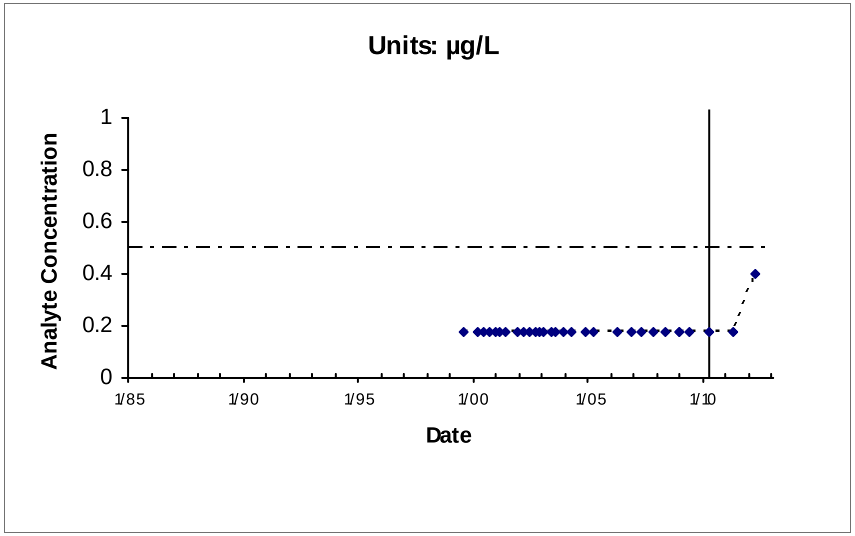
Location: MW500X37 Maximum: 0.18



Location: MW513X37 Maximum: 0.26



Location: MW514X37 Maximum: 0.18



Location: MW518X37 Maximum: 0.4

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

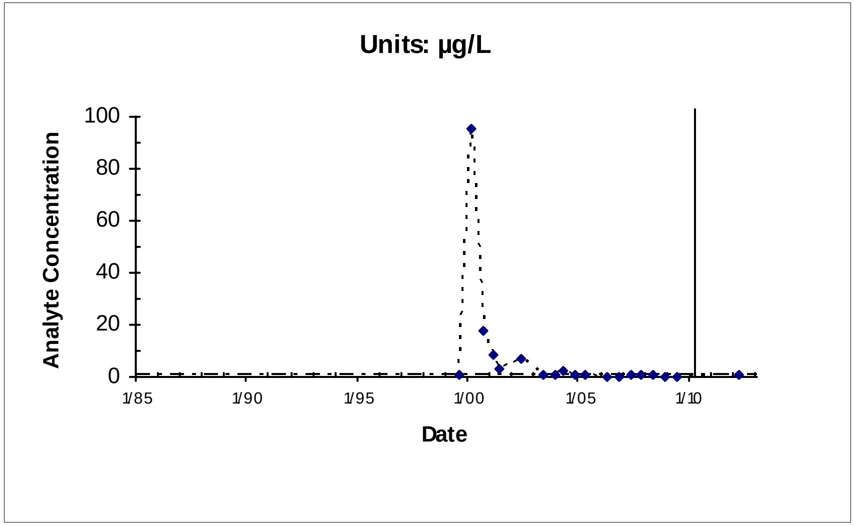
West IRA

FIGURE 2-18

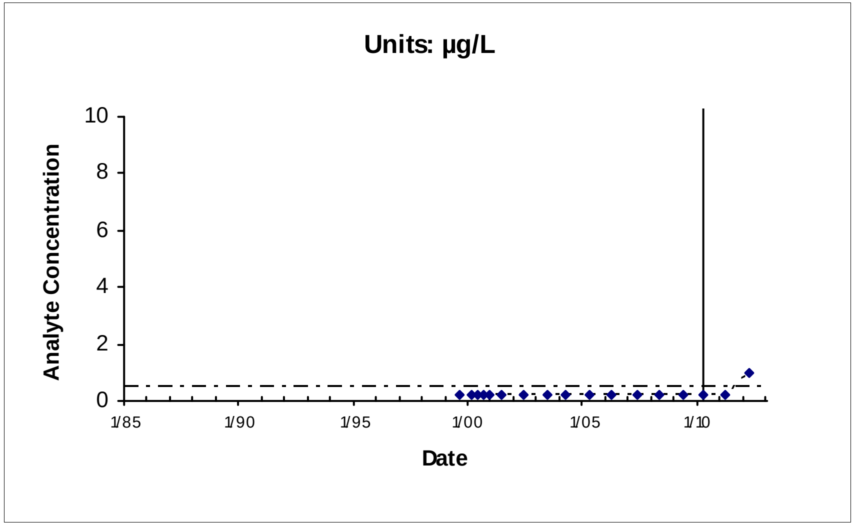
WIOU

Vinyl Chloride

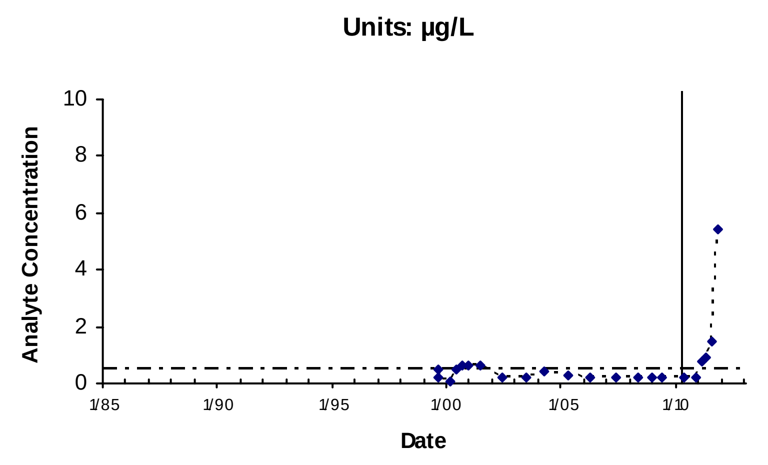
Chemical Time-series Plots



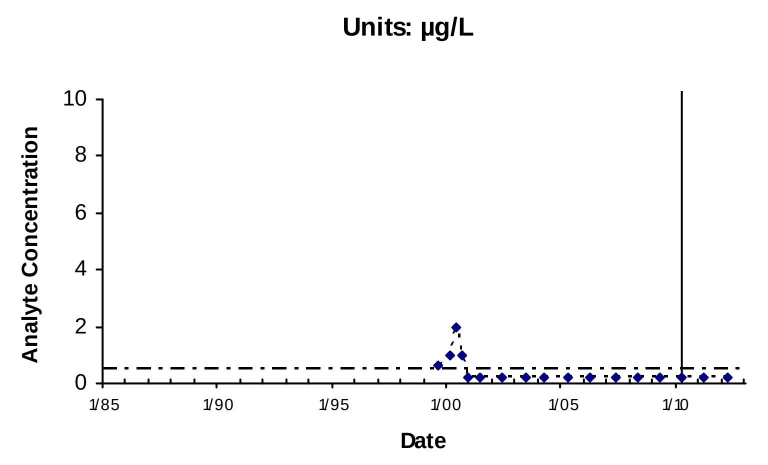
Location: MW519X37 Maximum: 95.2



Location: MW520X37 Maximum: 1



Location: MW524X37 Maximum: 5.4



Location: MW525X37 Maximum: 2

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

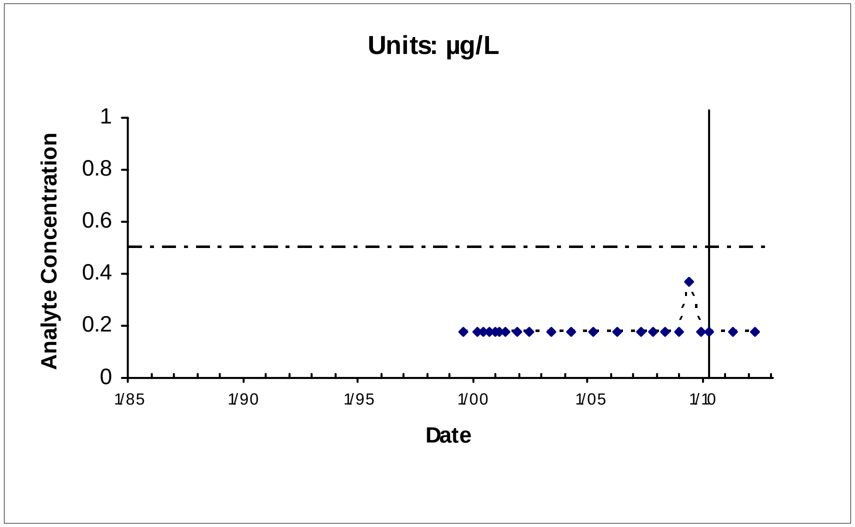
West IRA

FIGURE 2-18

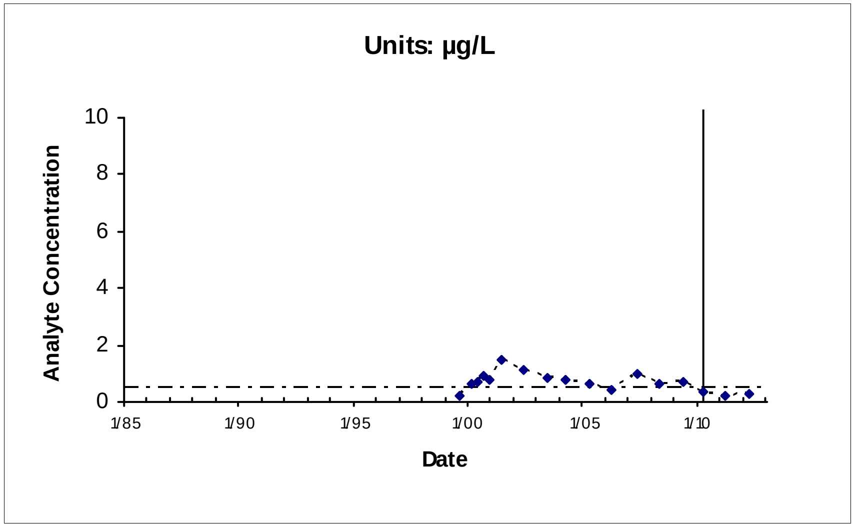
WIOU

Vinyl Chloride

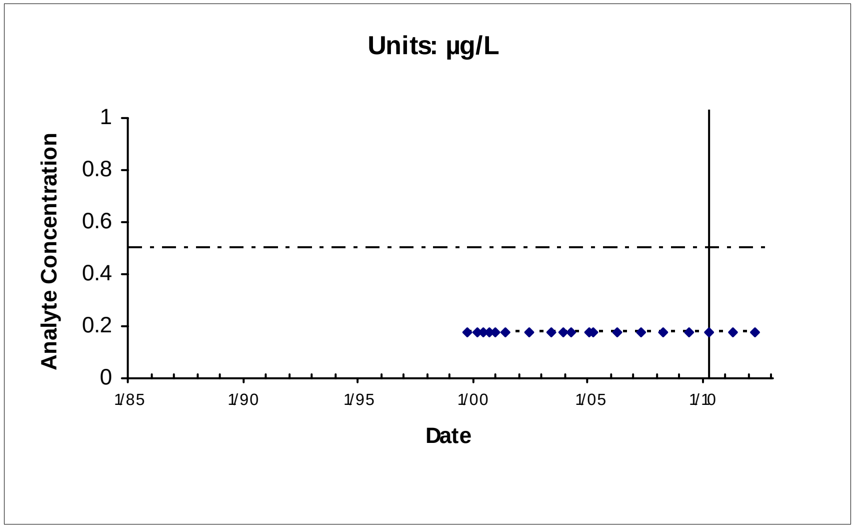
Chemical Time-series Plots



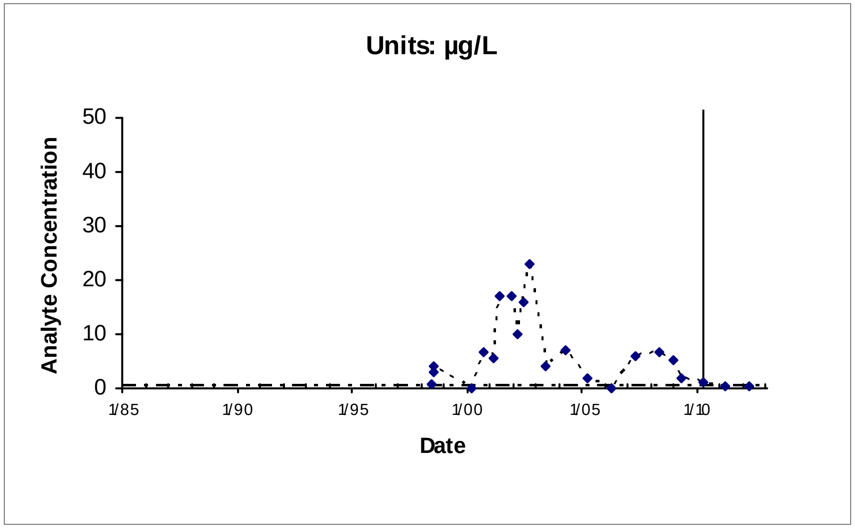
Location: MW526X37 Maximum: 0.37



Location: MW528X37 Maximum: 1.5



Location: MW529X37 Maximum: 0.18



Location: MW531X37 Maximum: 23

———— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

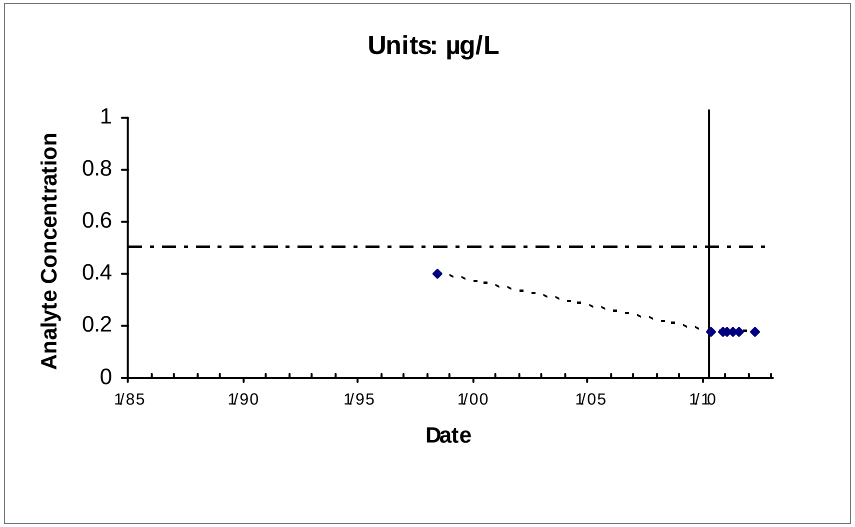
West IRA

FIGURE 2-18

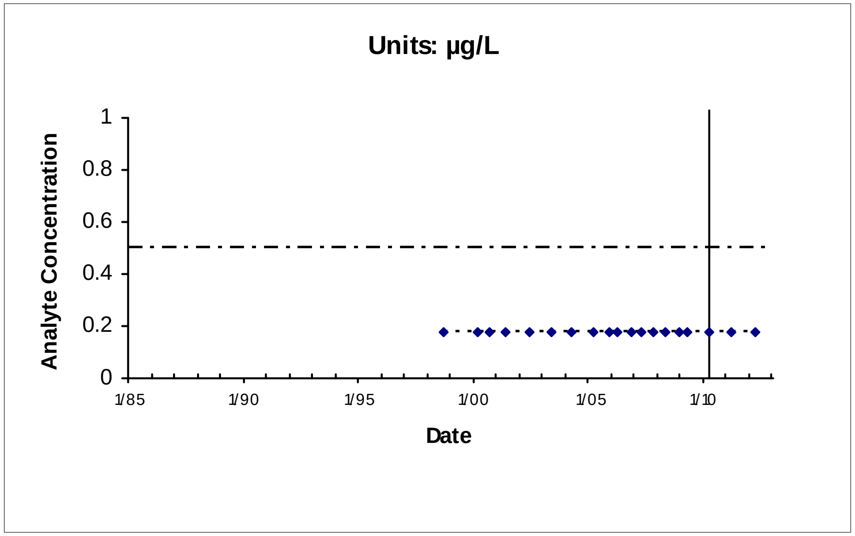
WIOU

Vinyl Chloride

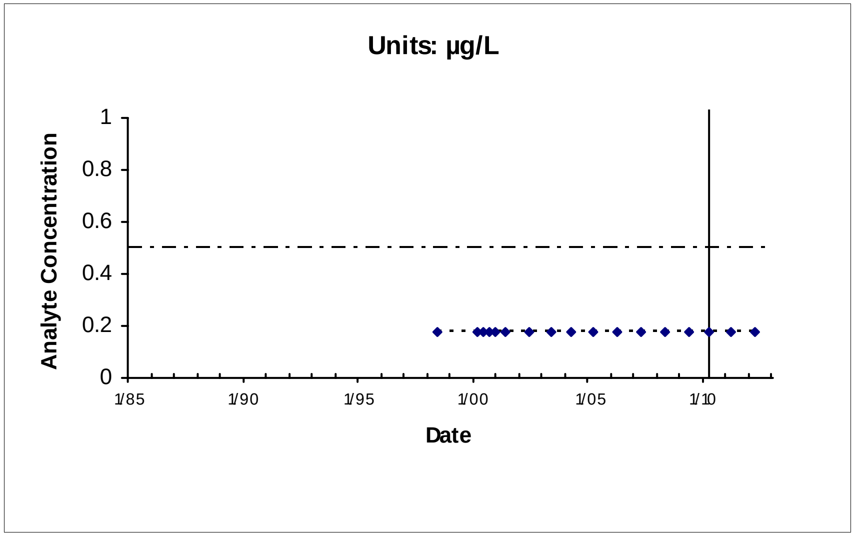
Chemical Time-series Plots



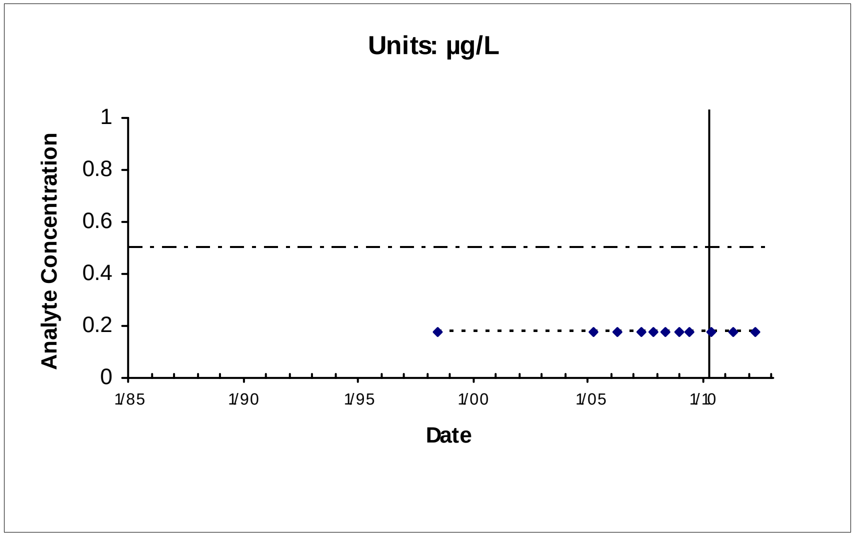
Location: MW532X37 Maximum: 0.4



Location: MW535X37 Maximum: 0.18



Location: MW537X37 Maximum: 0.18



Location: MW539X37 Maximum: 0.18

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

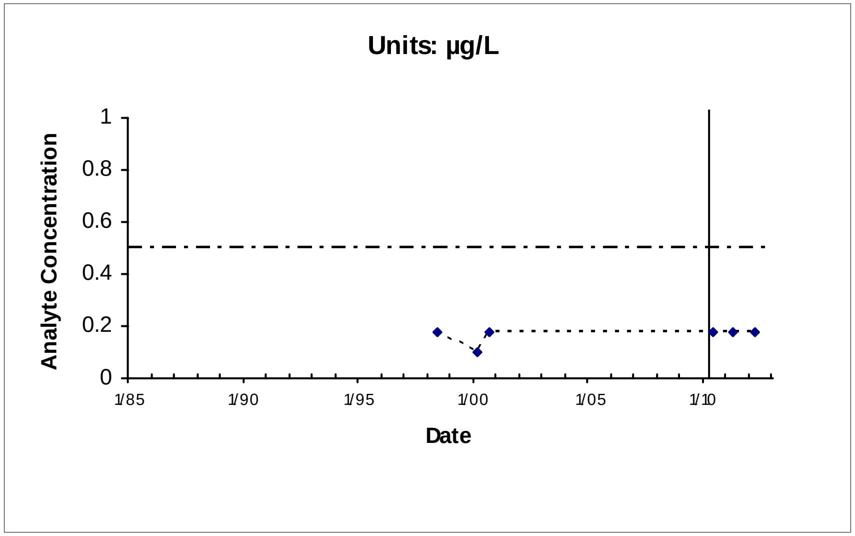
West IRA

FIGURE 2-18

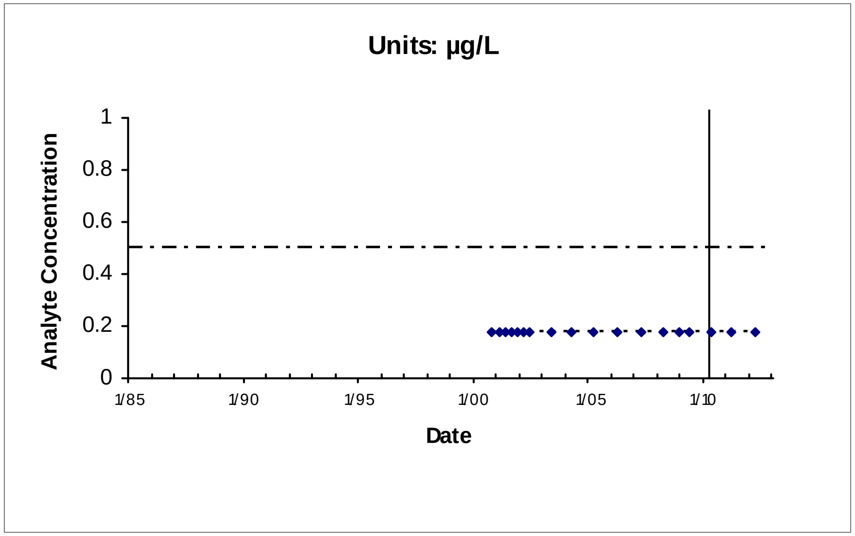
WIOU

Vinyl Chloride

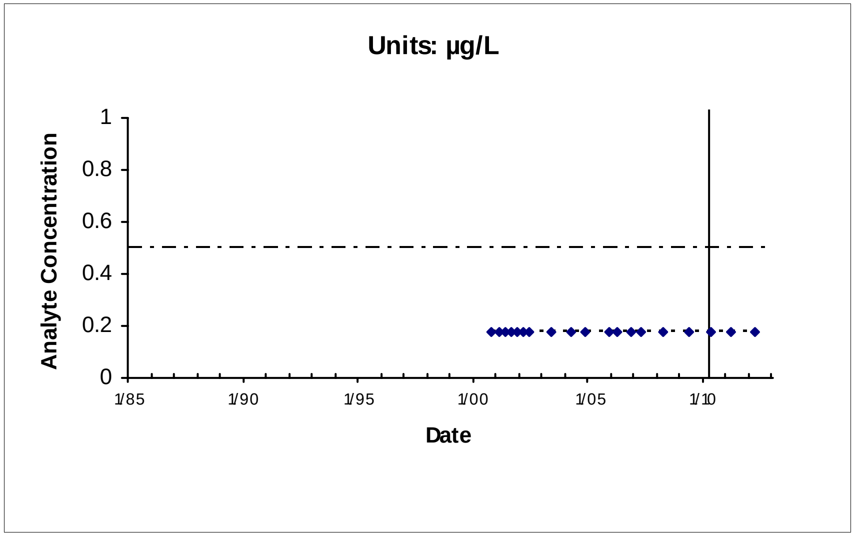
Chemical Time-series Plots



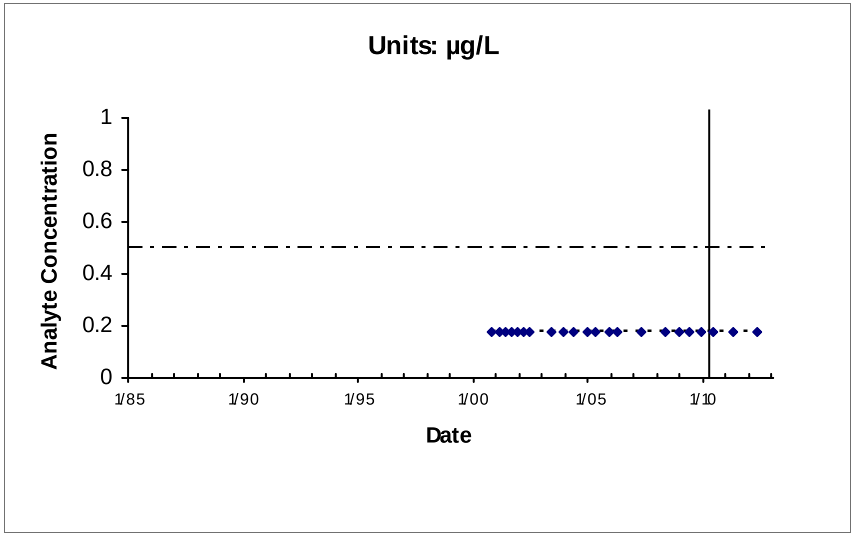
Location: MW541X37 Maximum: 0.18



Location: MW722X37 Maximum: 0.18



Location: MW723X37 Maximum: 0.18



Location: MW724X37 Maximum: 0.18

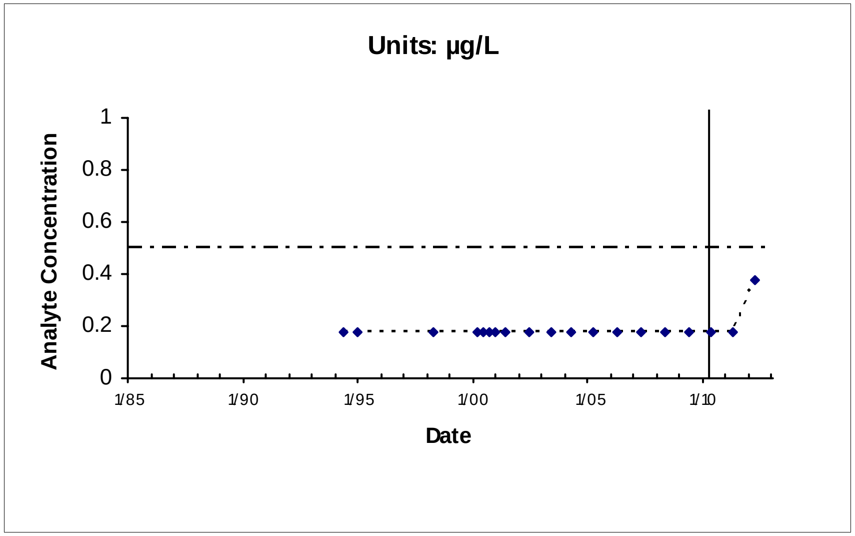
——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

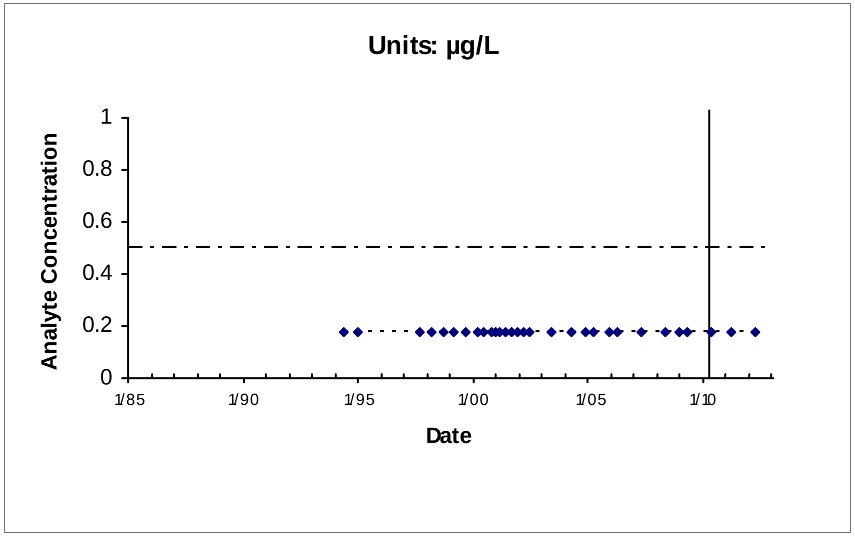
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

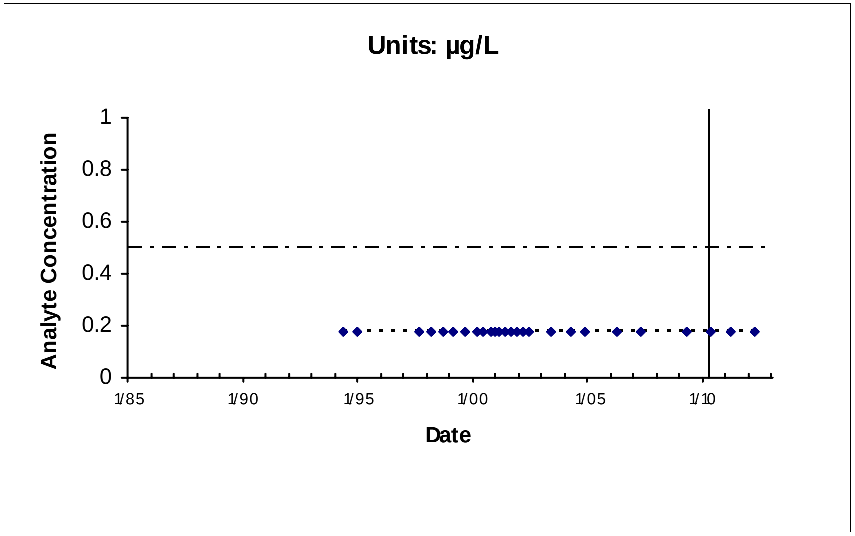
West IRA
FIGURE 2-18
WIOU
Vinyl Chloride
Chemical Time-series Plots



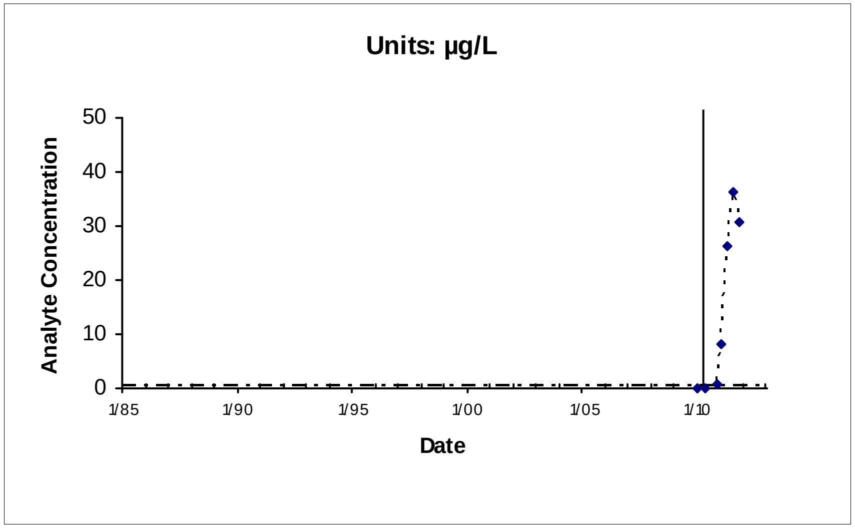
Location: MW1205X37 Maximum: 0.38



Location: MW1208X37 Maximum: 0.18



Location: MW1209X37 Maximum: 0.18



Location: MW2039Ax37 Maximum: 36.4

——————— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

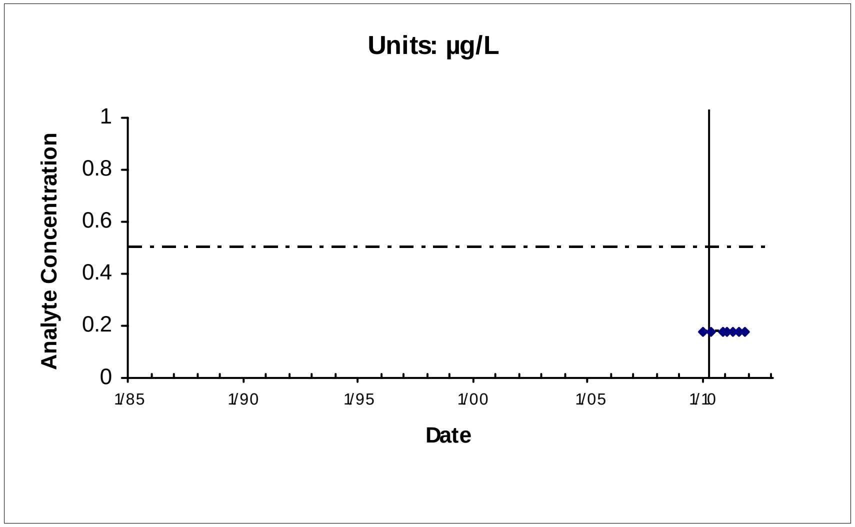
West IRA

FIGURE 2-18

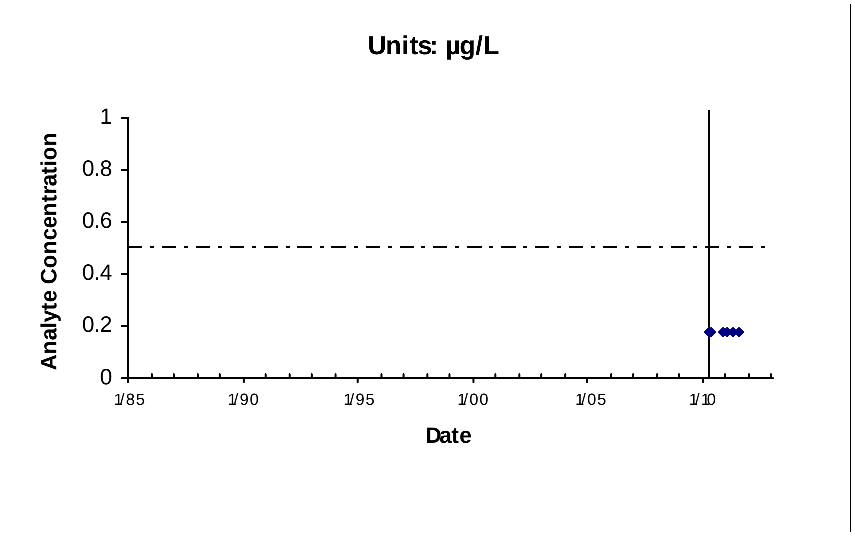
WIOU

Vinyl Chloride

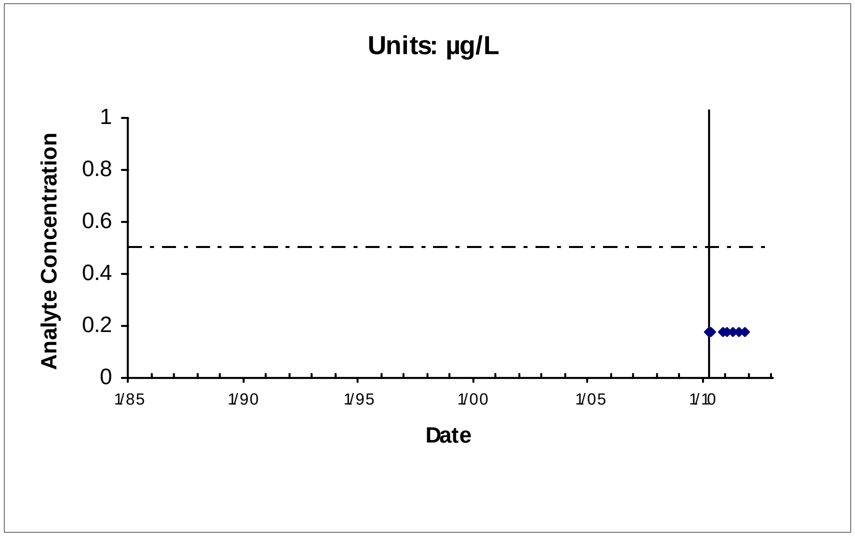
Chemical Time-series Plots



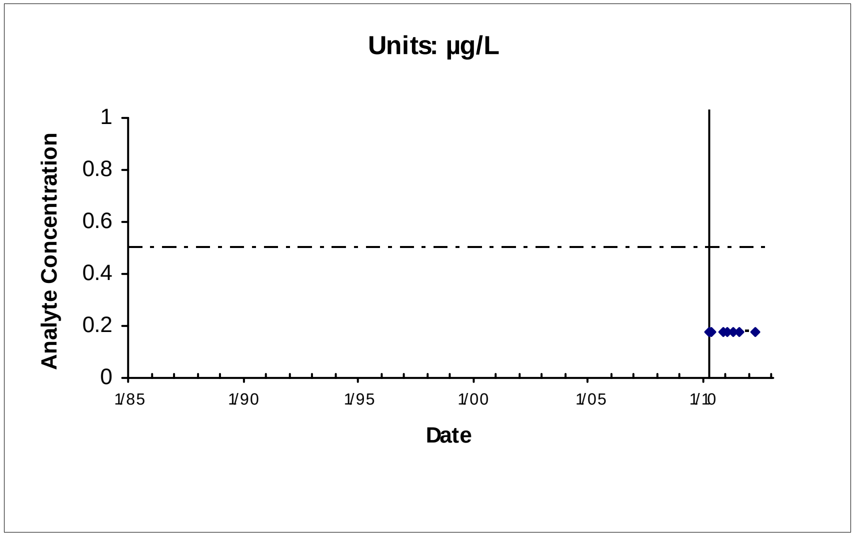
Location: MW2039Bx37 Maximum: 0.18



Location: MW2101Ax37 Maximum: 0.18



Location: MW2101Bx37 Maximum: 0.18



Location: MW2101Cx37 Maximum: 0.18

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

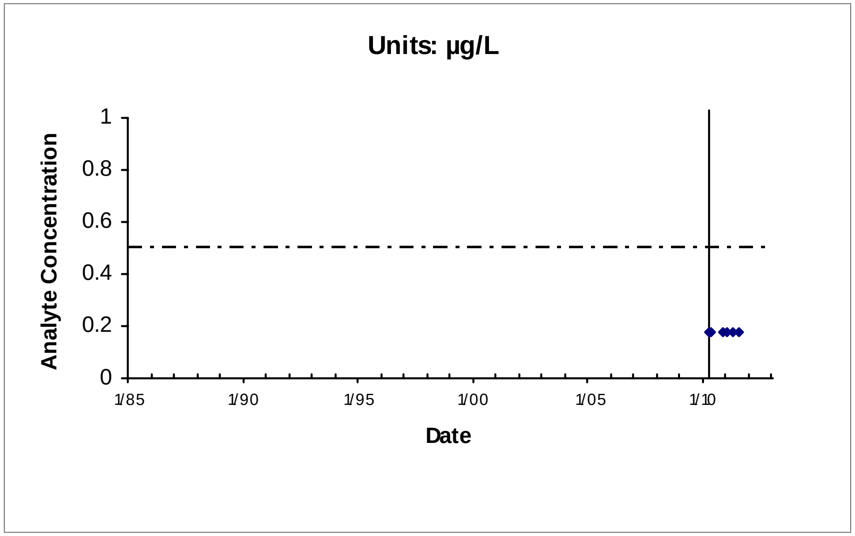
West IRA

FIGURE 2-18

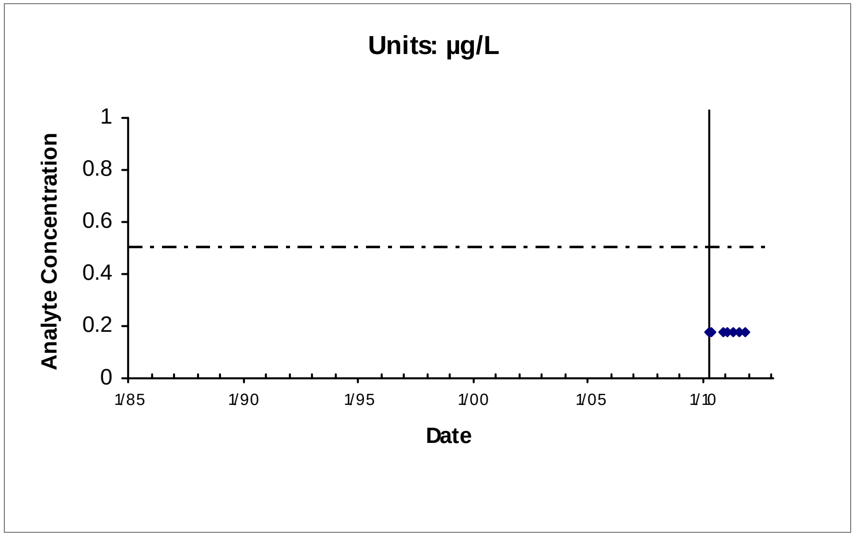
WIOU

Vinyl Chloride

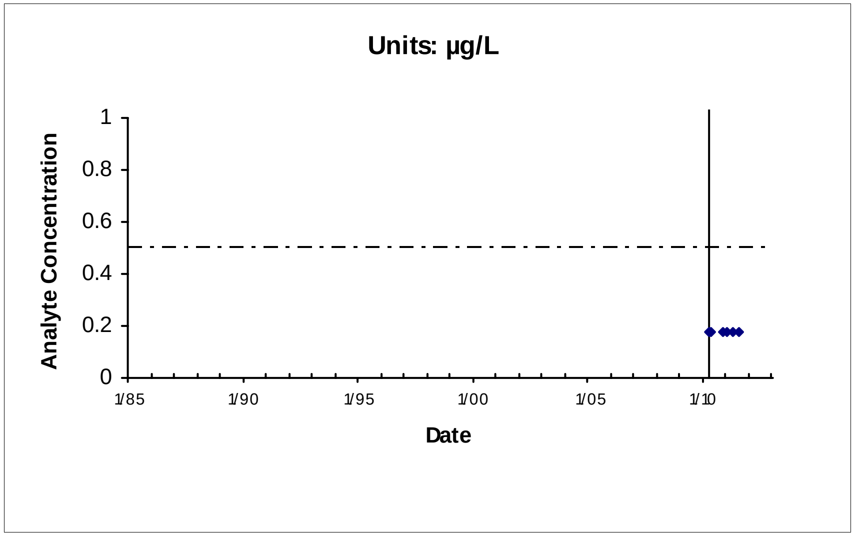
Chemical Time-series Plots



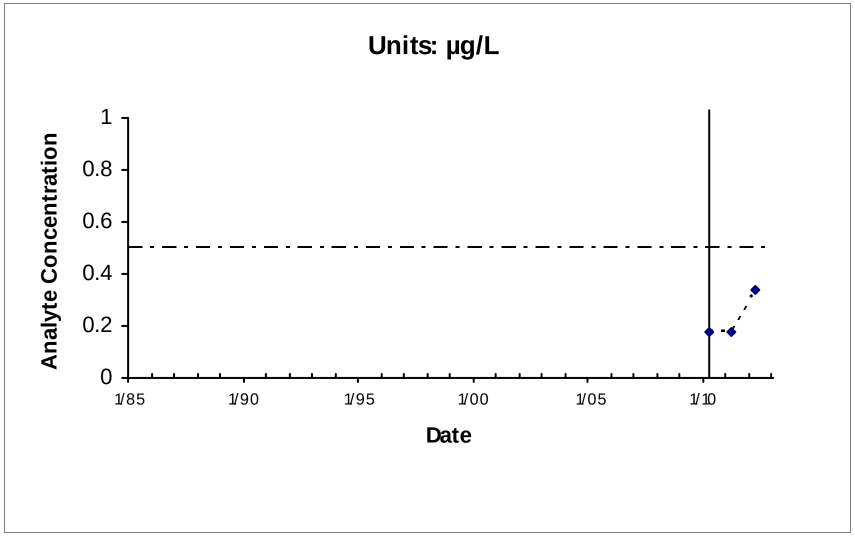
Location: MW2102Ax37 Maximum: 0.18



Location: MW2102Bx37 Maximum: 0.18



Location: MW2102Cx37 Maximum: 0.18



Location: MW2117x37 Maximum: 0.34

—— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

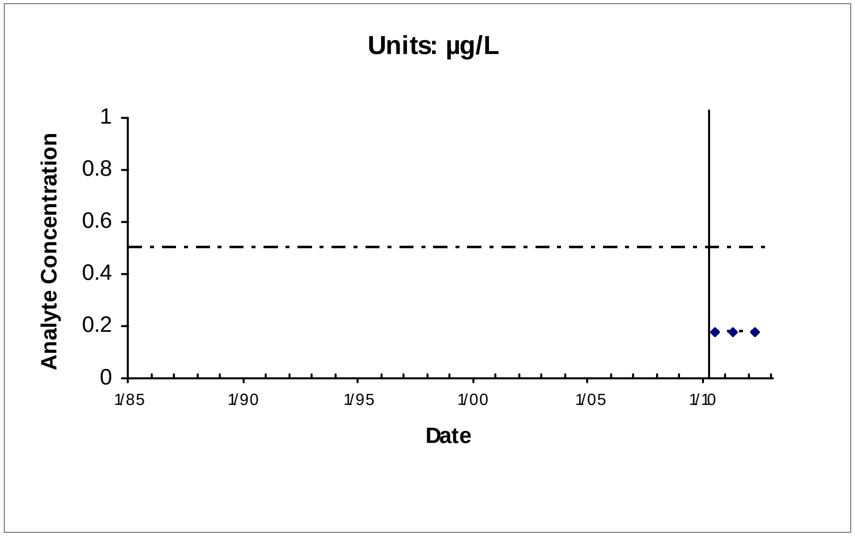
West IRA

FIGURE 2-18

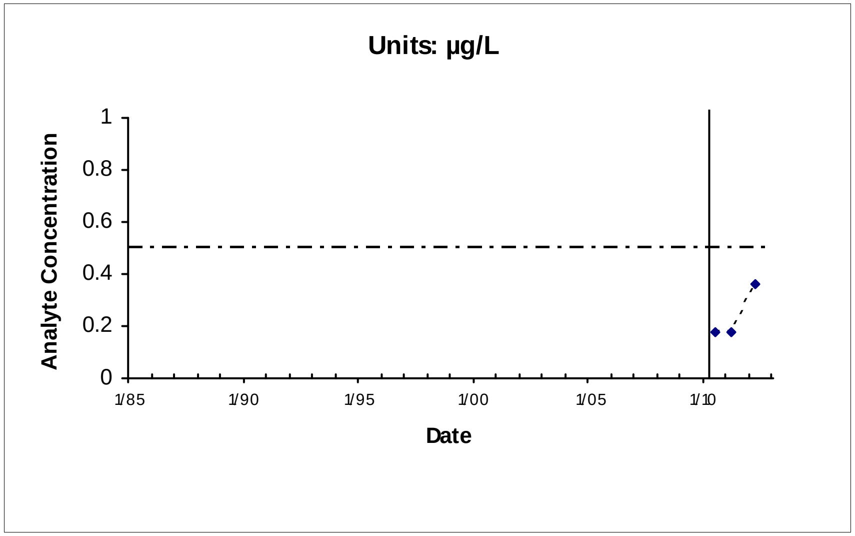
WIOU

Vinyl Chloride

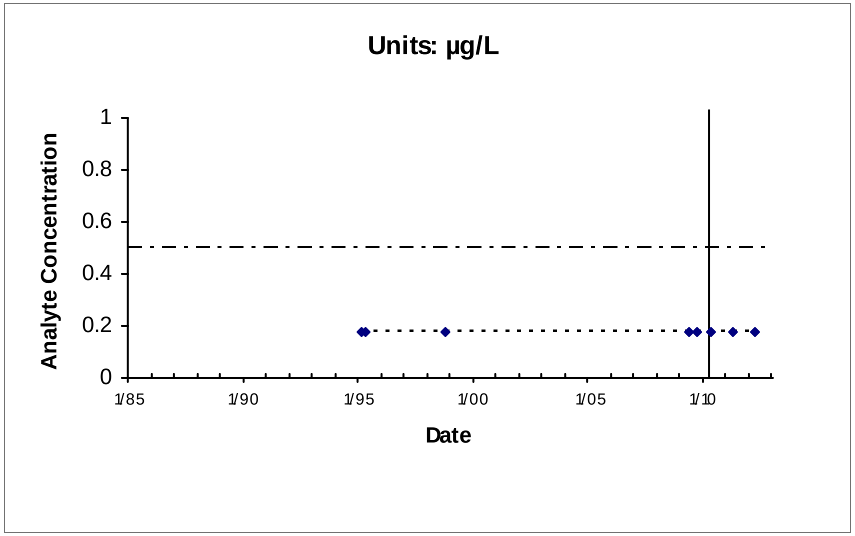
Chemical Time-series Plots



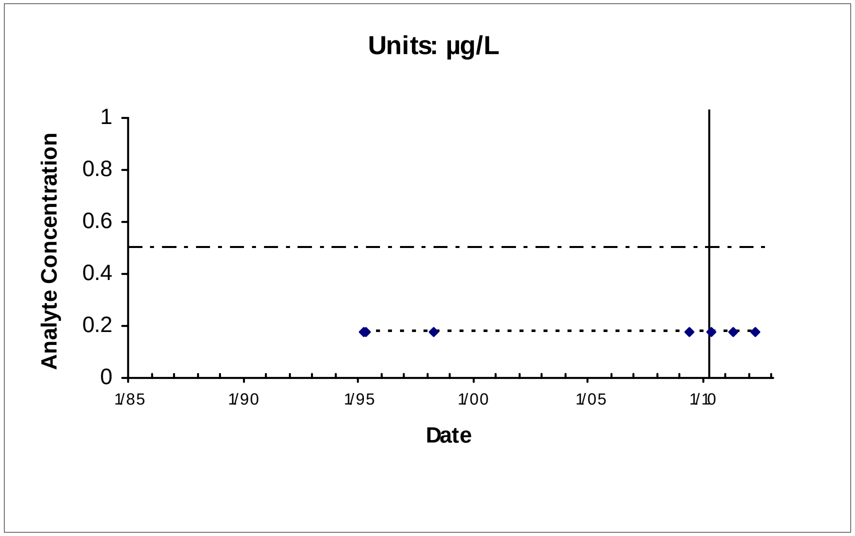
Location: MW2121x37 Maximum: 0.18



Location: MW2122x37 Maximum: 0.36



Location: MWS3M3X37 Maximum: 0.18



Location: MWSNSM1X37 Maximum: 0.18

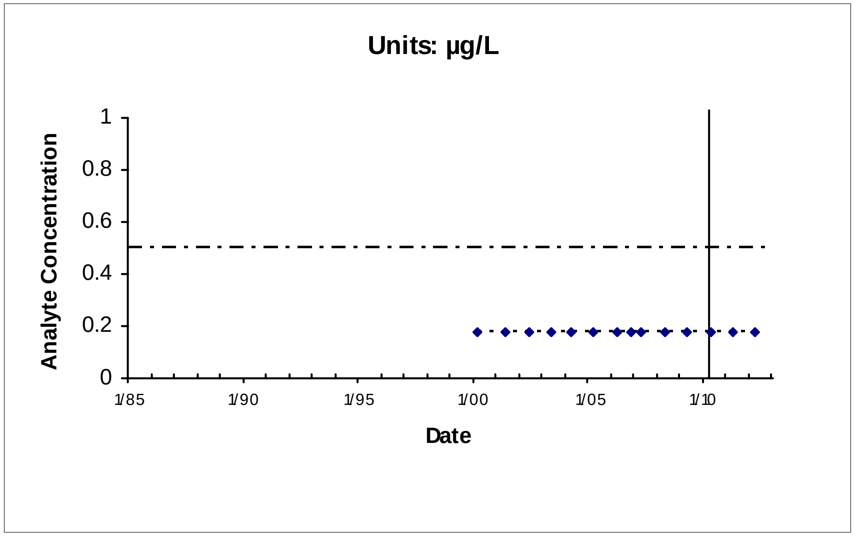
——————— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

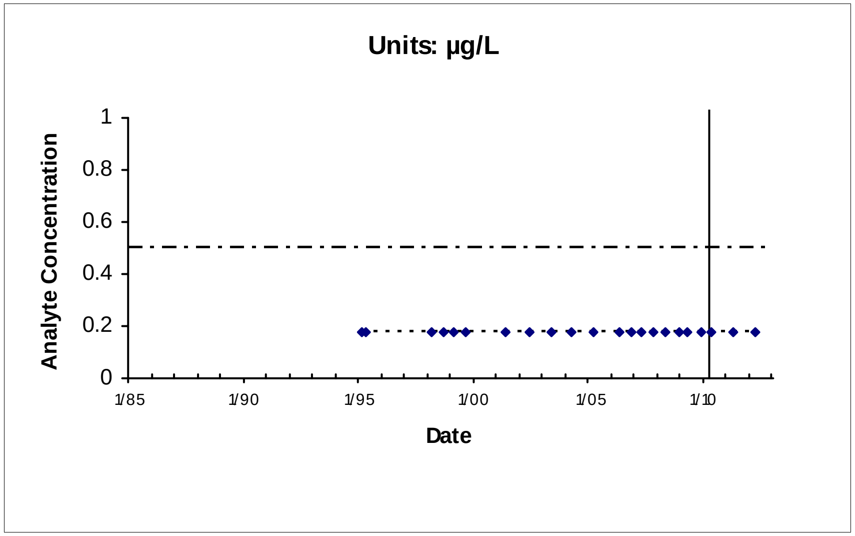
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

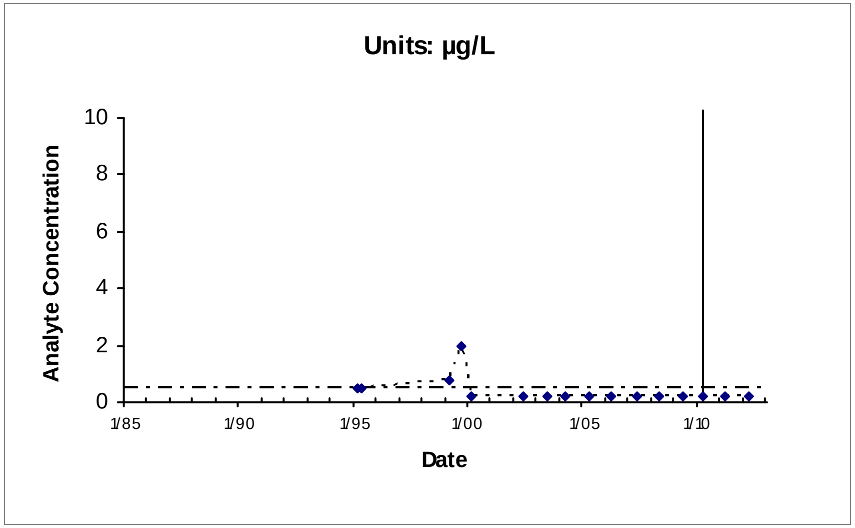
West IRA
FIGURE 2-18
WIOU
Vinyl Chloride
Chemical Time-series Plots



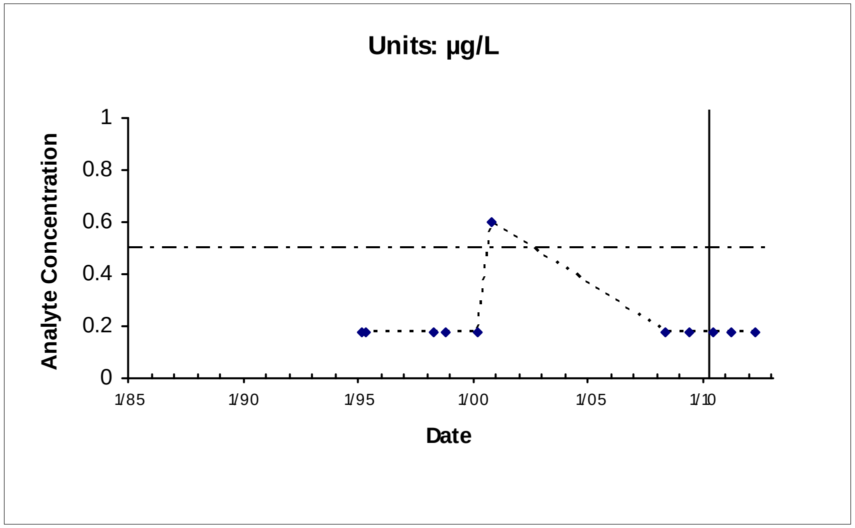
Location: MWSNSM3X37 Maximum: 0.18



Location: MWSNSM4X37 Maximum: 0.18



Location: MWSNSM5X37 Maximum: 2



Location: MWSSBM1X37 Maximum: 0.6

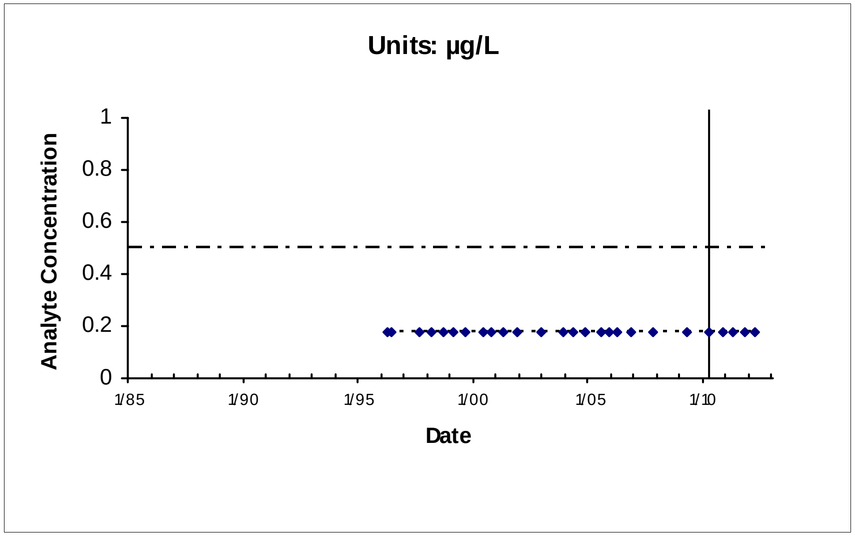
——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

West IRA

FIGURE 2-18
WIOU
Vinyl Chloride
Chemical Time-series Plots



Location: EW555X43 Maximum: 0.18

——— Rebound Study Initiated

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

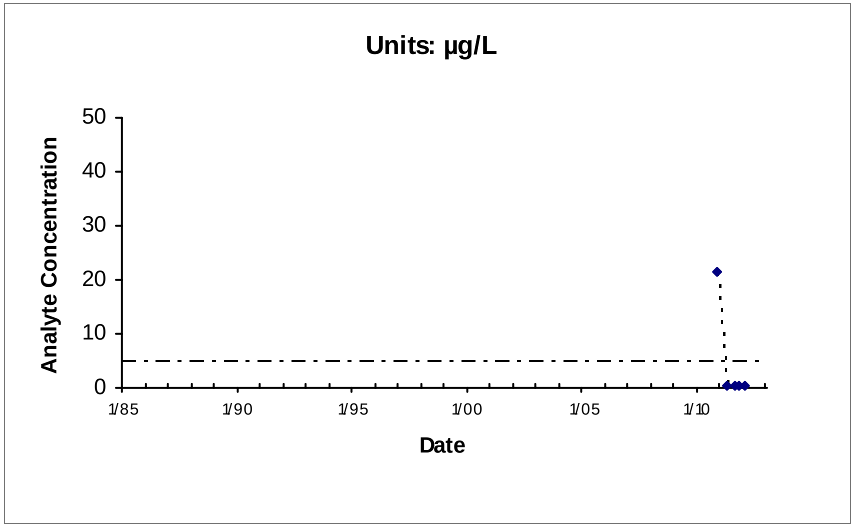
West IRA

FIGURE 2-18

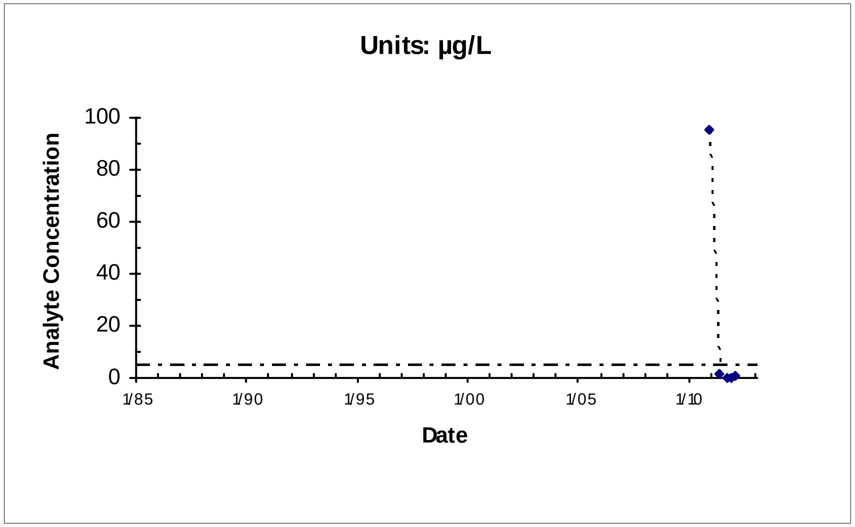
WIOU

Vinyl Chloride

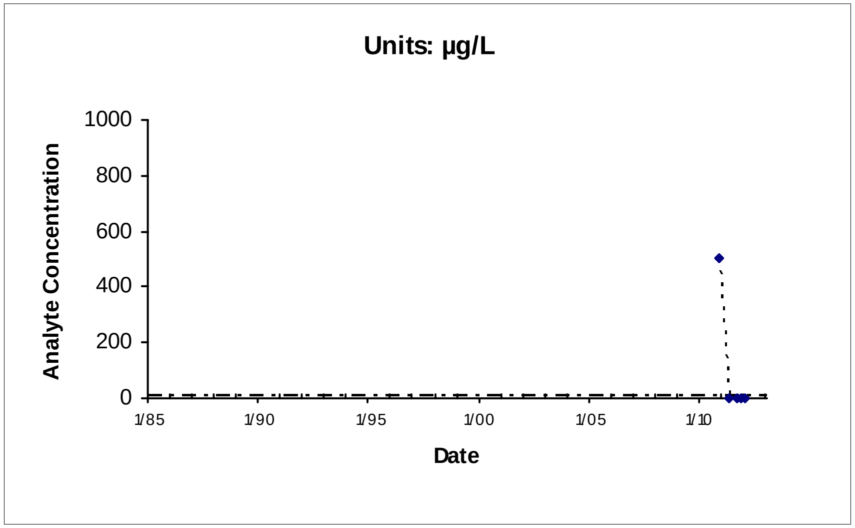
Chemical Time-series Plots



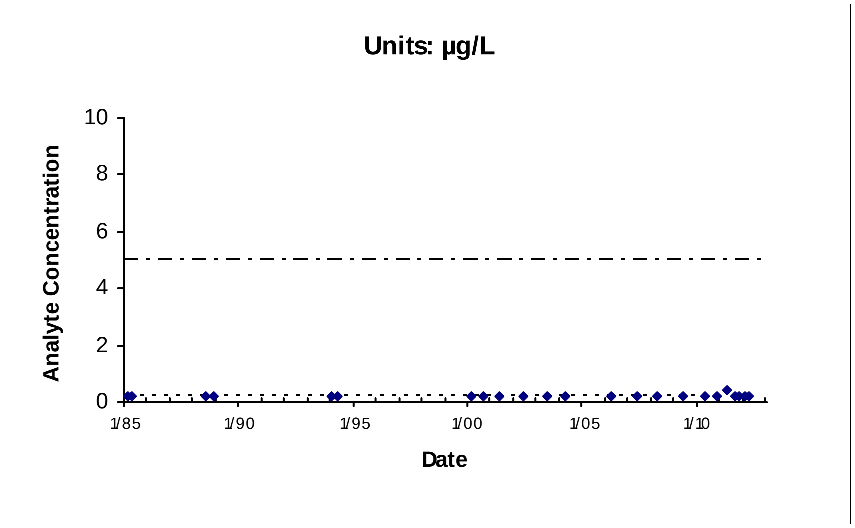
Location: IW2126x15 Maximum: 21.4



Location: IW2127x15 Maximum: 95.7



Location: IW2128x15 Maximum: 504



Location: MW104X15 Maximum: 0.39

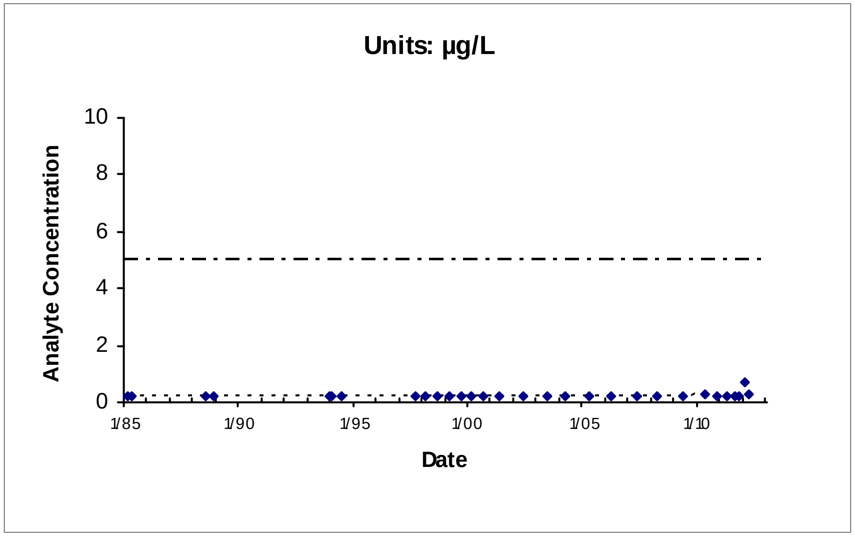
— - — - — IRG (5 µg/L)

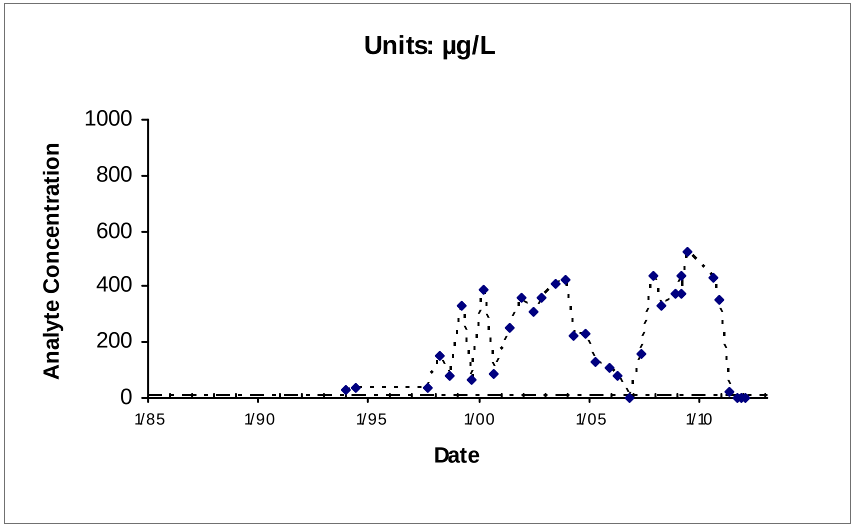
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

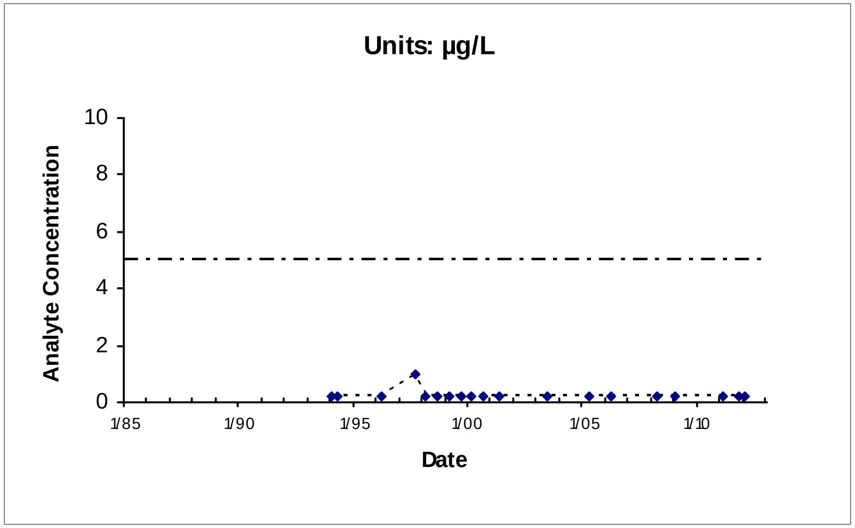
FIGURE 2-19
Site SS015
TCE
Chemical Time-series Plots

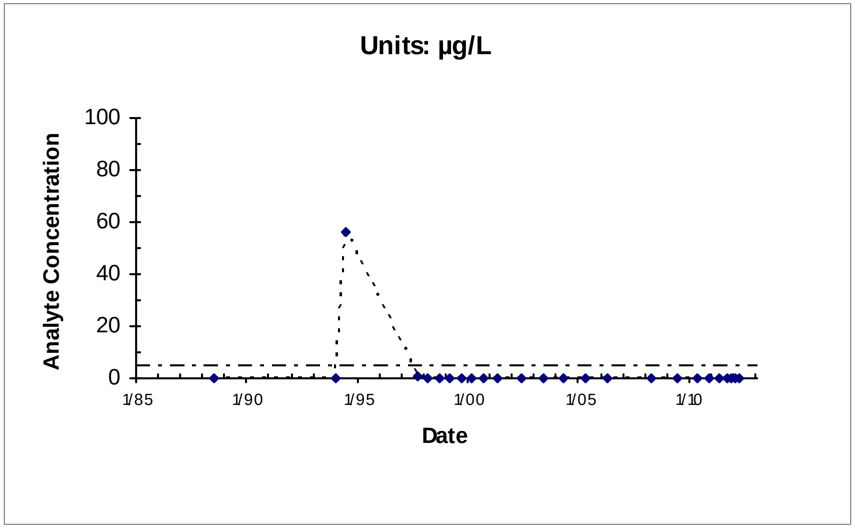




Location: MW105X15 Maximum: 0.68

Location: MW216X15 Maximum: 525





Location: MW238X15 Maximum: 1

Location: MW306X15 Maximum: 56

West IRA

FIGURE 2-19

Site SS015

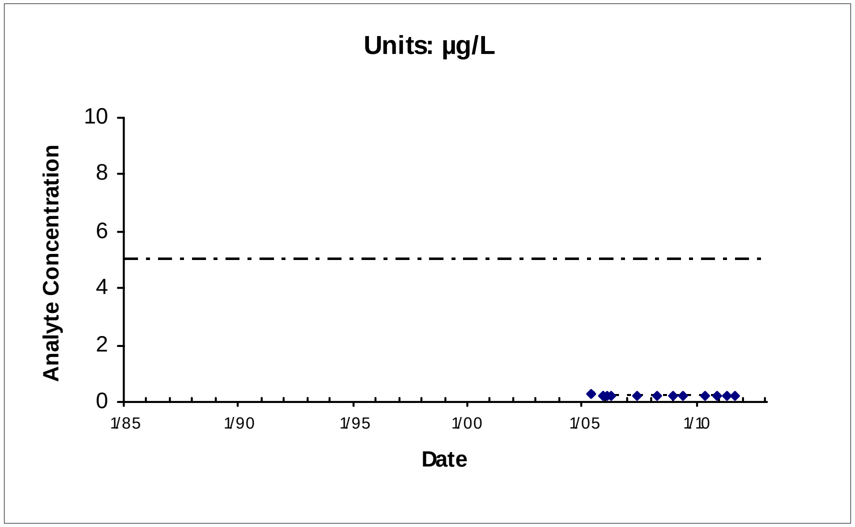
TCE

Chemical Time-series Plots

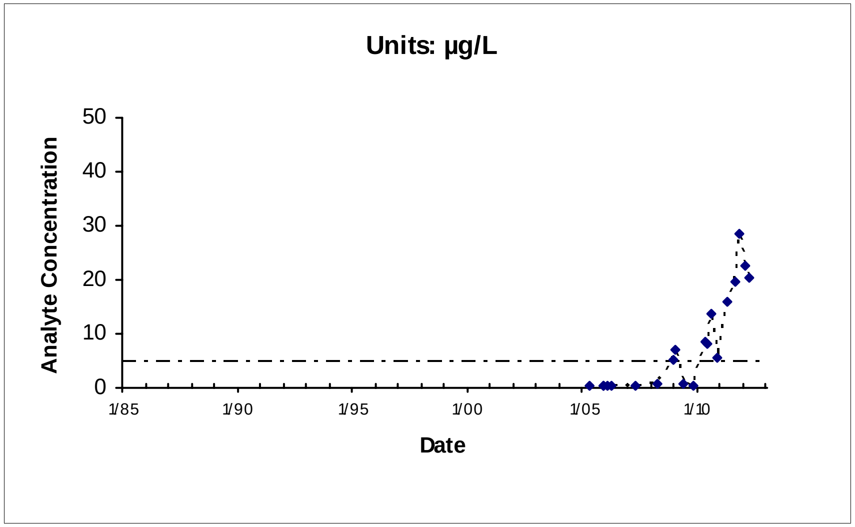
— - — - — IRG (5 μg/L)

*Nondetects shown as the Method Detection Limit (0.19 μg/L)

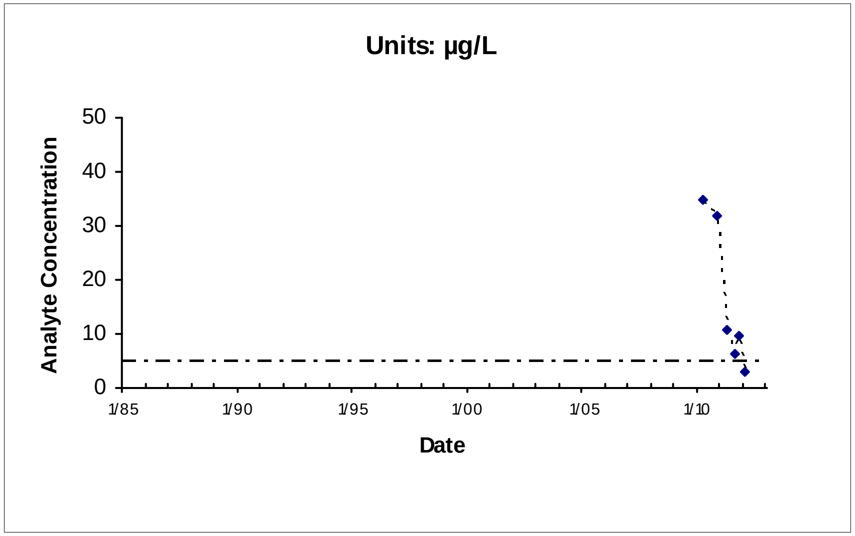
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



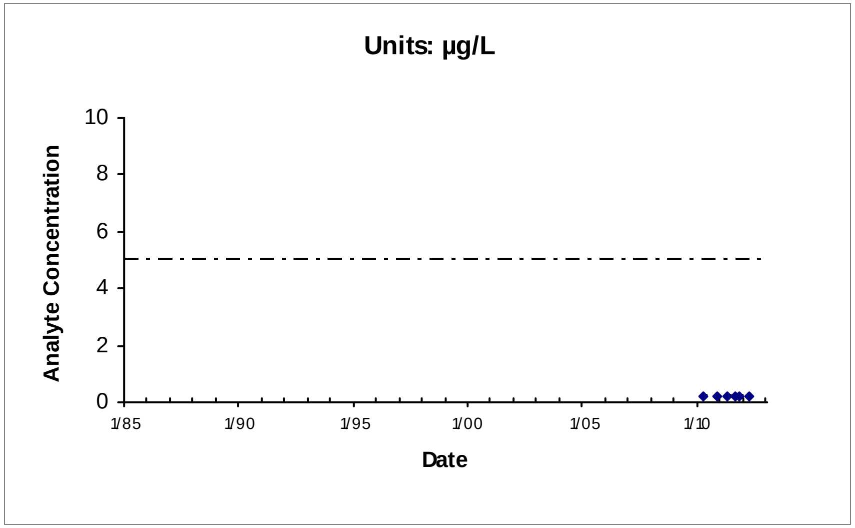
Location: MW624X15 Maximum: 0.27



Location: MW625X15 Maximum: 28.4



Location: MW2103x15 Maximum: 34.7



Location: MW2104x15 Maximum: 0.19

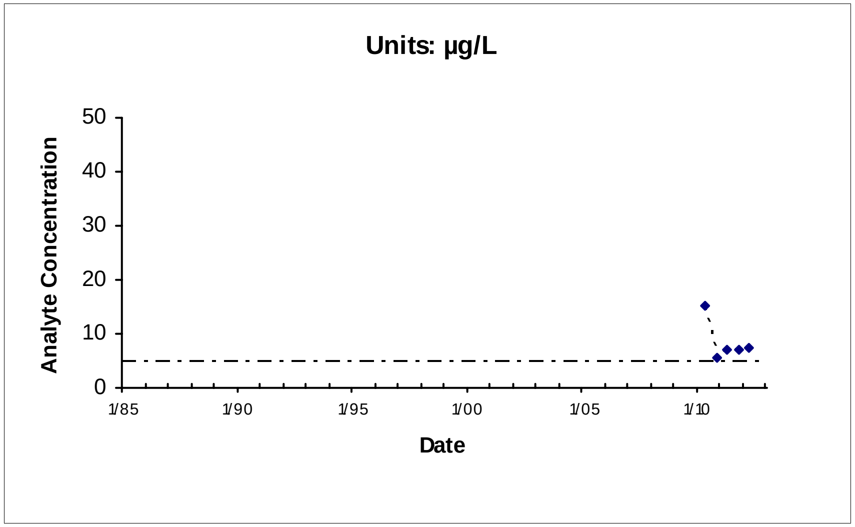
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

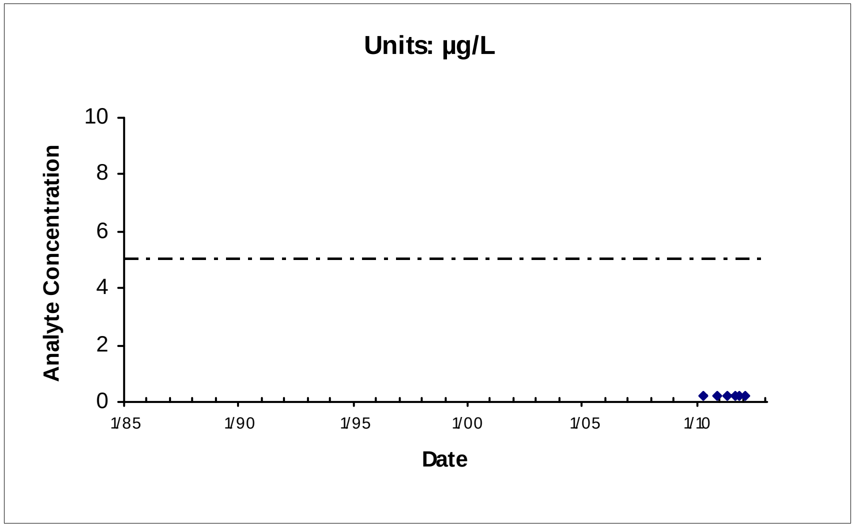
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

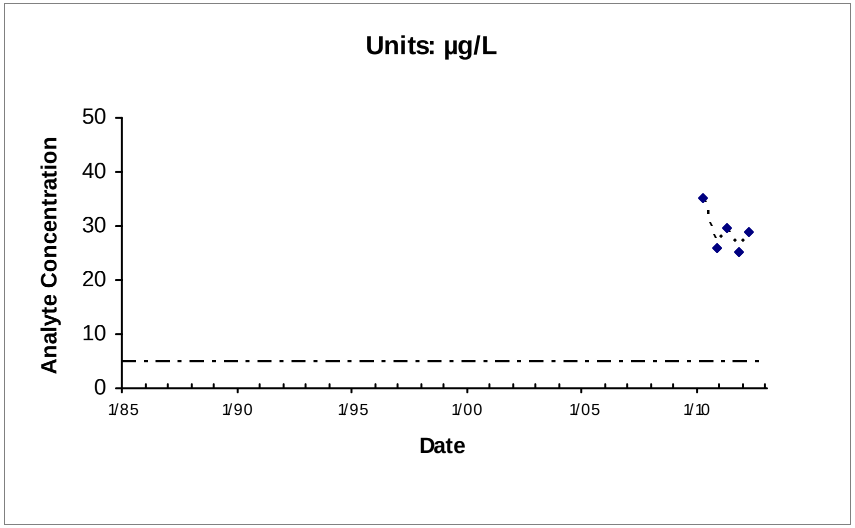
FIGURE 2-19
Site SS015
TCE
Chemical Time-series Plots



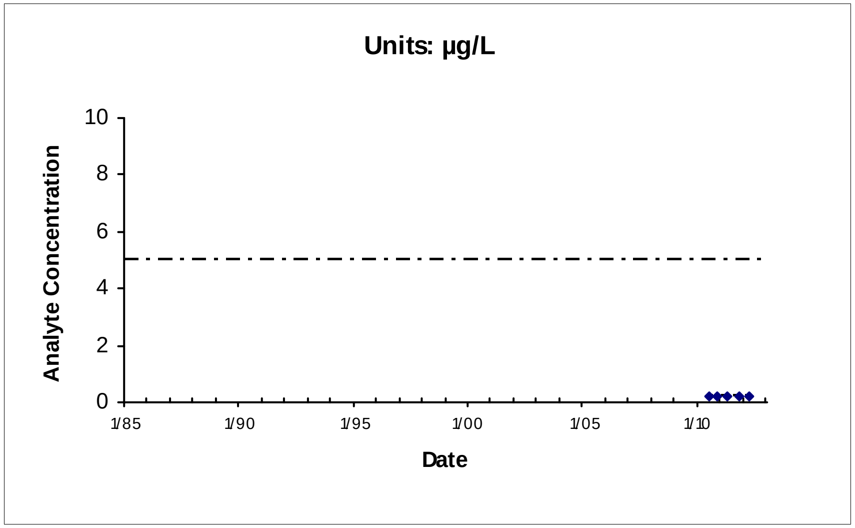
Location: MW2105x15 Maximum: 15.2



Location: MW2106x15 Maximum: 0.19



Location: MW2118x15 Maximum: 35.1



Location: MW2119x15 Maximum: 0.19

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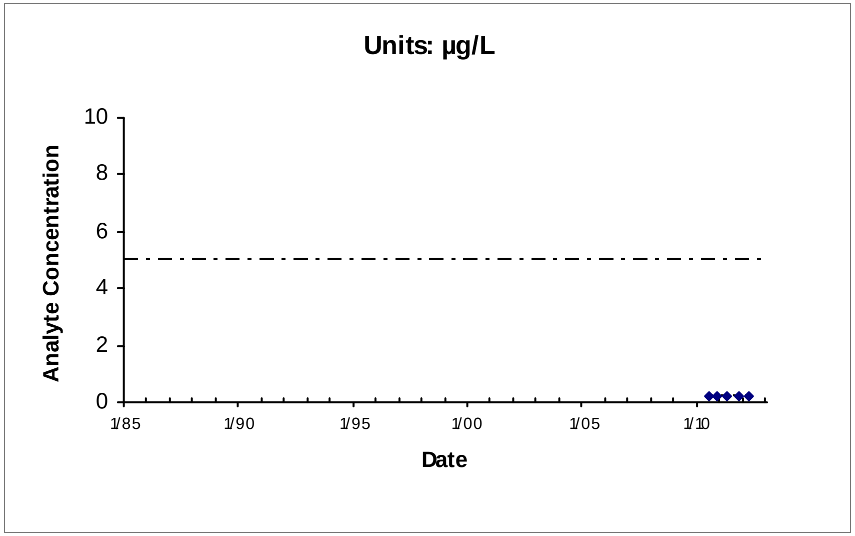
FIGURE 2-19
Site SS015
TCE
Chemical Time-series Plots

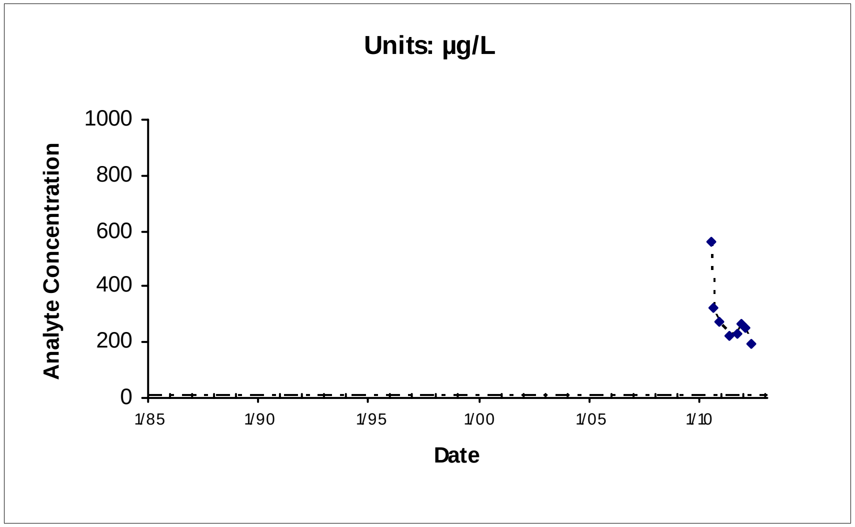
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

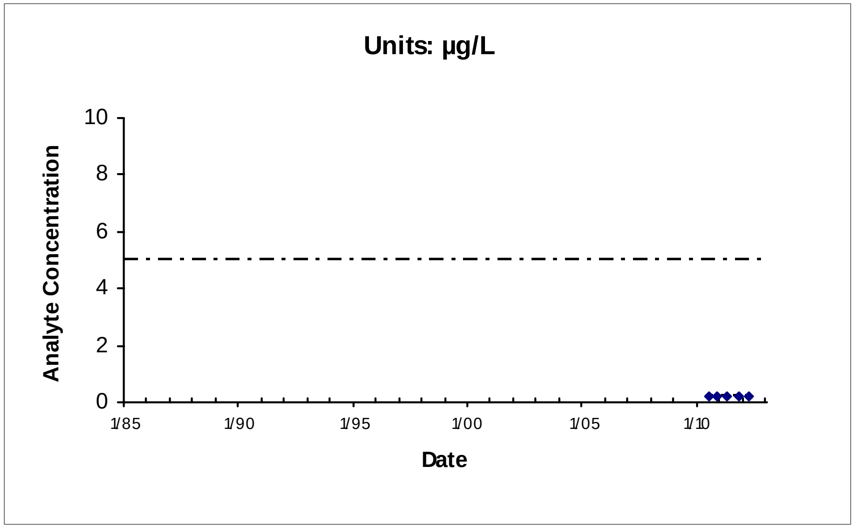
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



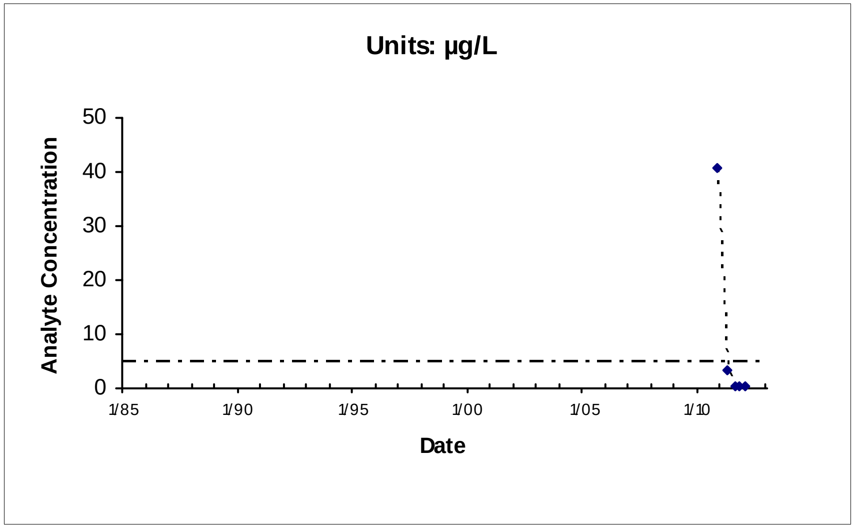
Location: MW2120x15 Maximum: 0.19



Location: MW2124x15 Maximum: 563



Location: MW2125x15 Maximum: 0.19



Location: MW2129x15 Maximum: 40.8

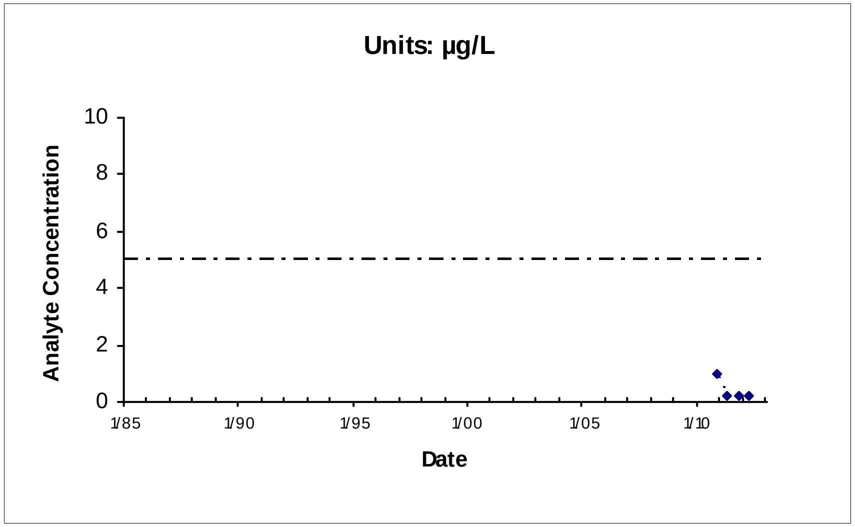
West IRA

FIGURE 2-19
Site SS015
TCE
Chemical Time-series Plots

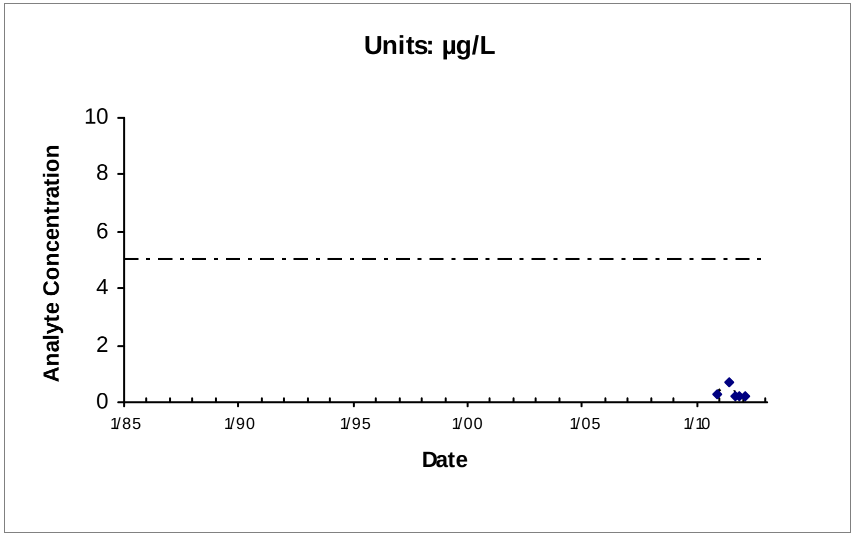
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

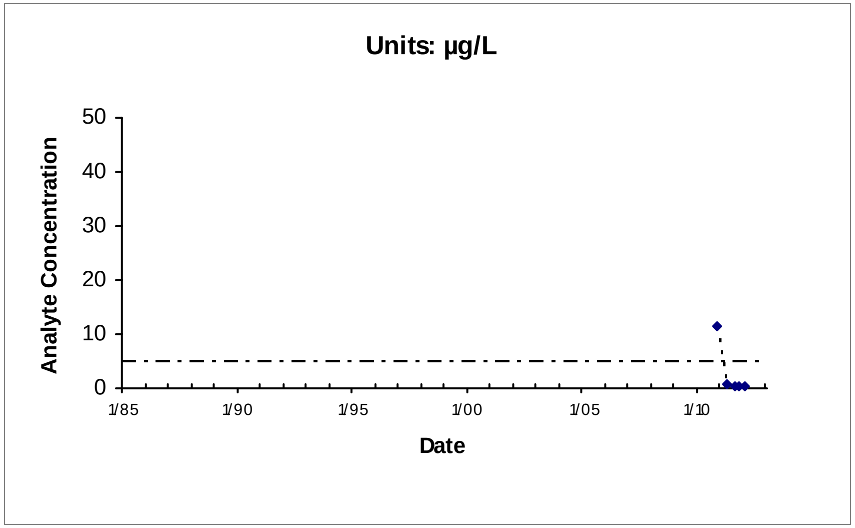
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



Location: MW2130x15 Maximum: 1



Location: MW2131x15 Maximum: 0.7



Location: MW2132x15 Maximum: 11.4

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

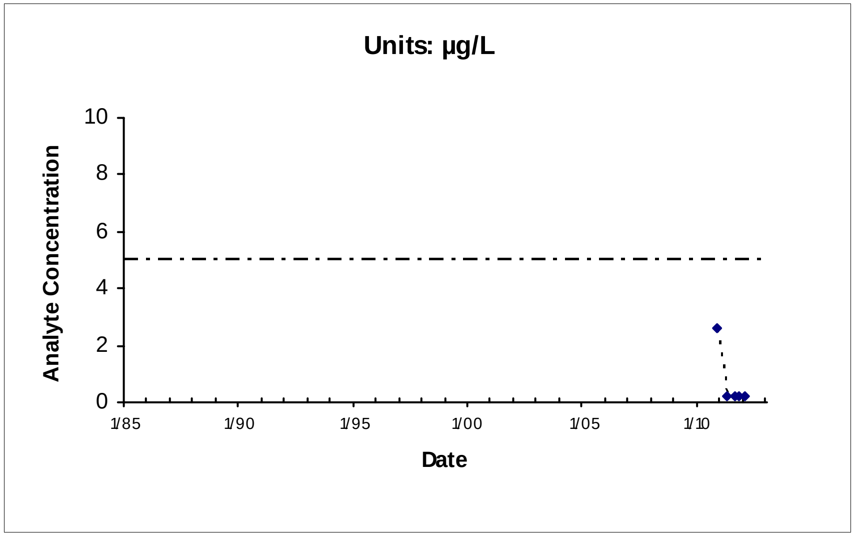
West IRA

FIGURE 2-19

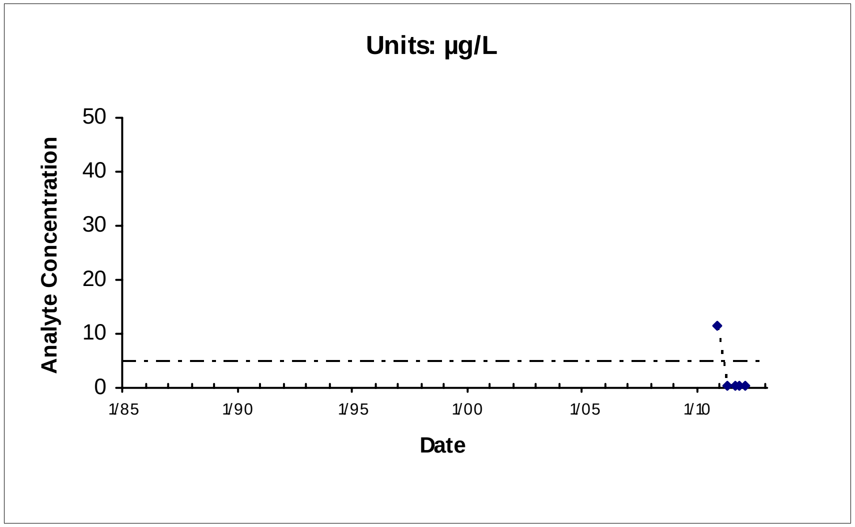
Site SS015

TCE

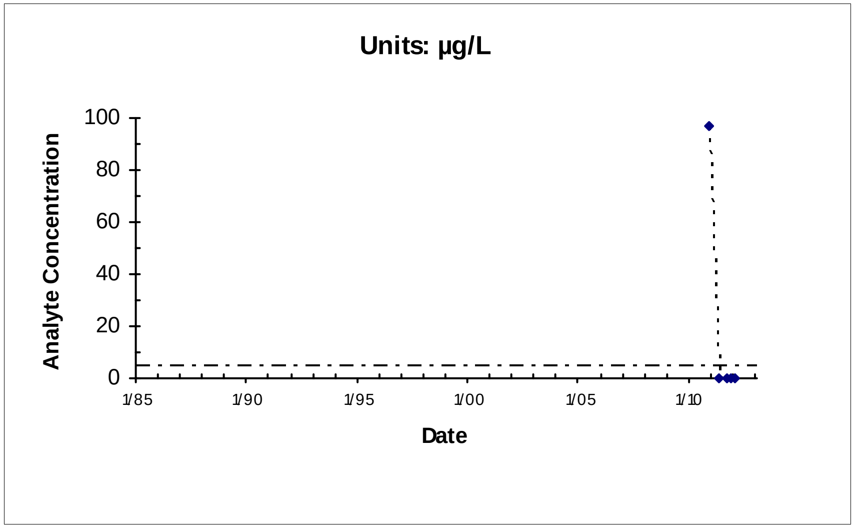
Chemical Time-series Plots



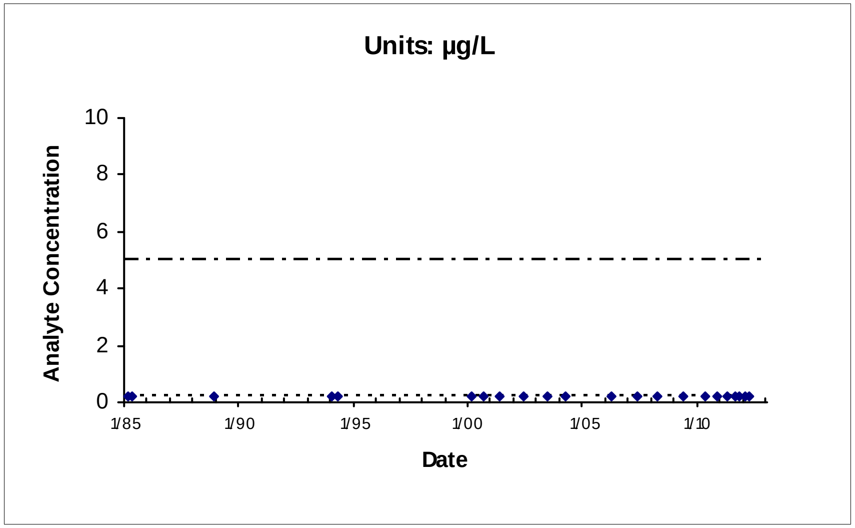
Location: IW2126x15 Maximum: 2.6



Location: IW2127x15 Maximum: 11.3



Location: IW2128x15 Maximum: 96.9



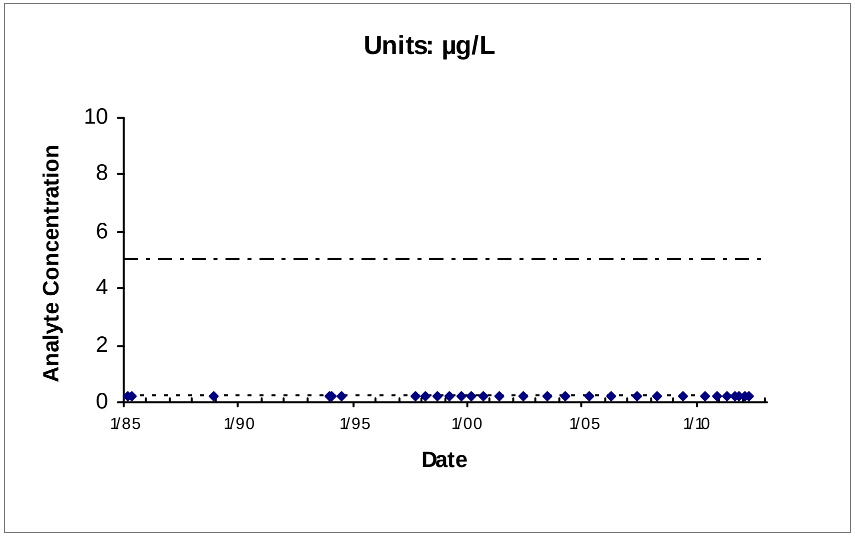
Location: MW104X15 Maximum: 0.21

— - — - — IRG (5 µg/L)

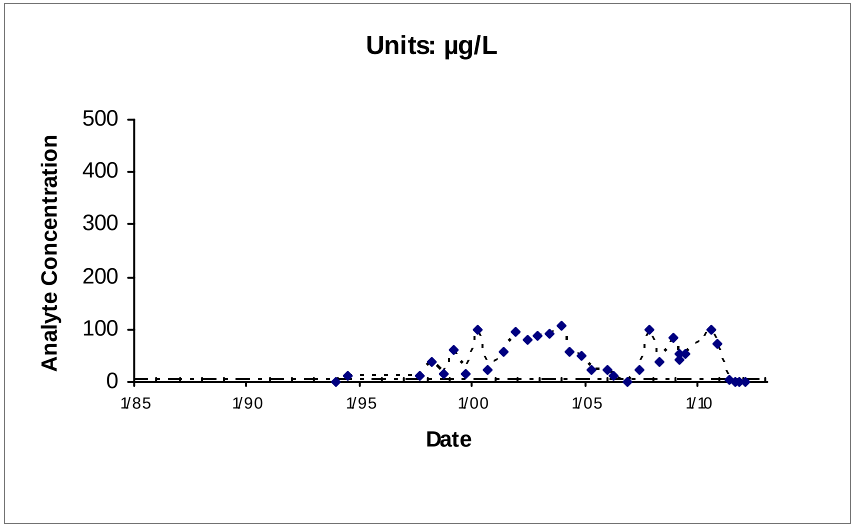
*Nondetects shown as the Method Detection Limit (0.21 µg/L)

West IRA

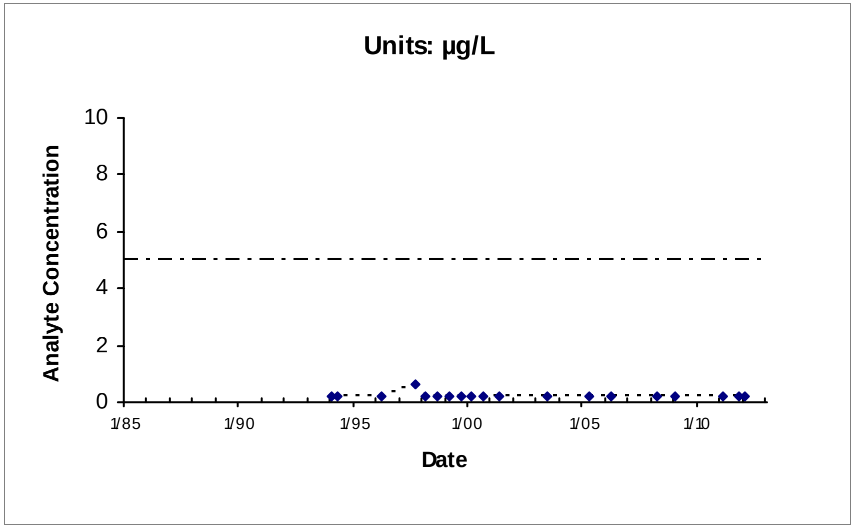
FIGURE 2-20
Site SS015
PCE
Chemical Time-series Plots



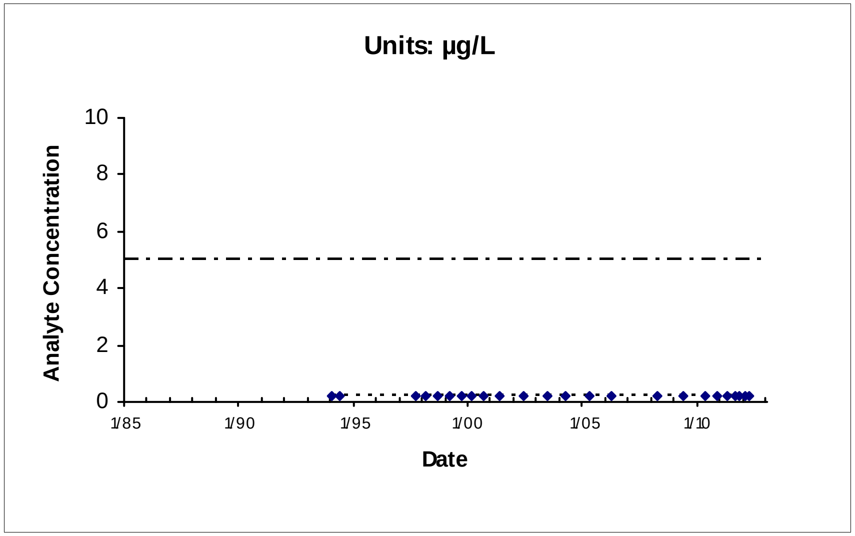
Location: MW105X15 Maximum: 0.21



Location: MW216X15 Maximum: 105



Location: MW238X15 Maximum: 0.6

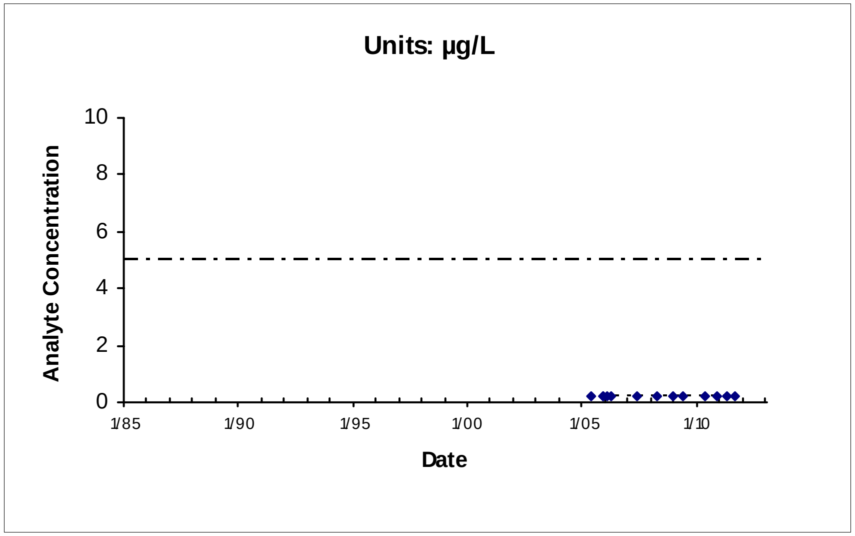


Location: MW306X15 Maximum: 0.21

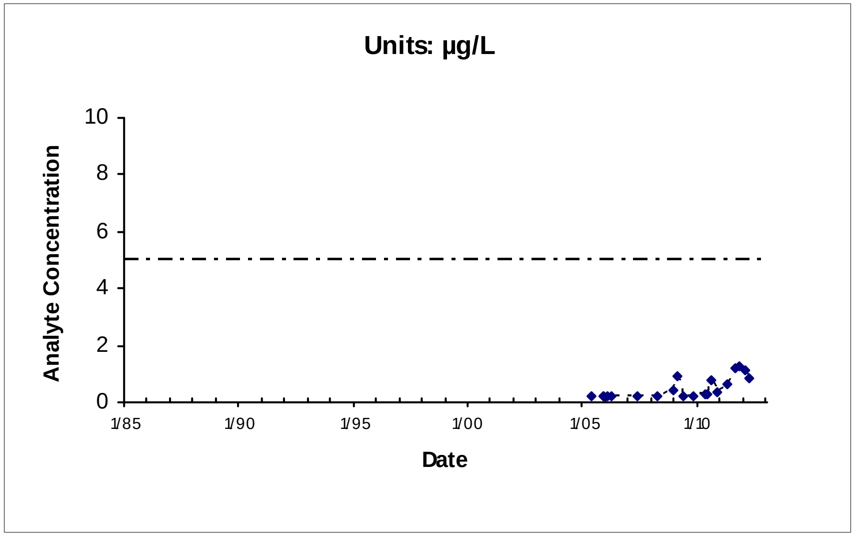
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.21 µg/L)

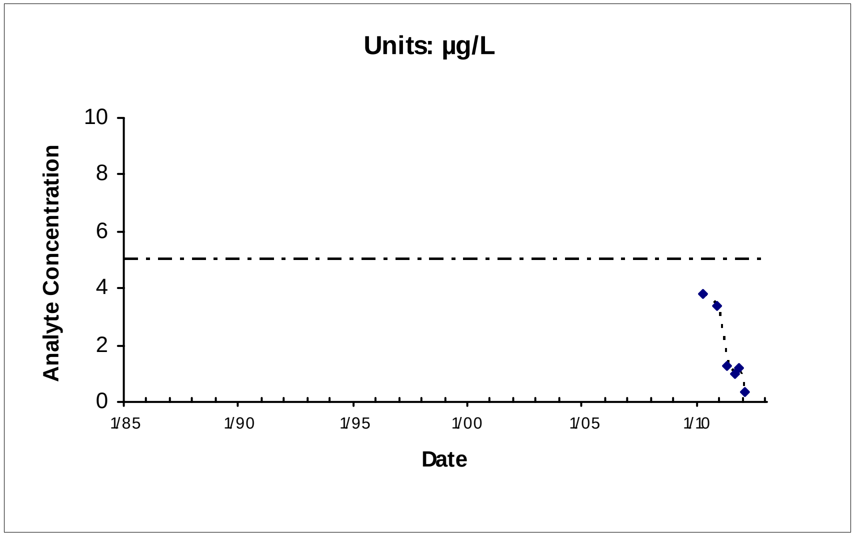
West IRA
FIGURE 2-20
Site SS015
PCE
Chemical Time-series Plots



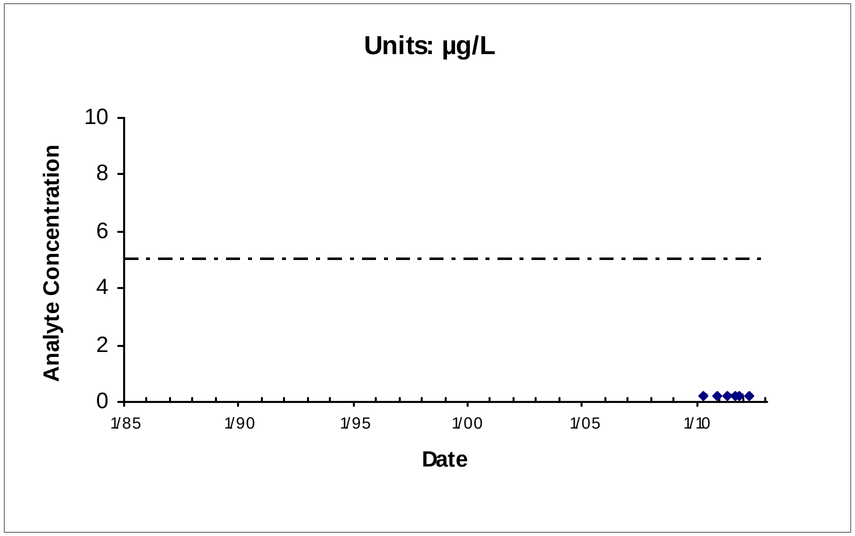
Location: MW624X15 Maximum: 0.21



Location: MW625X15 Maximum: 1.3



Location: MW2103x15 Maximum: 3.8



Location: MW2104x15 Maximum: 0.21

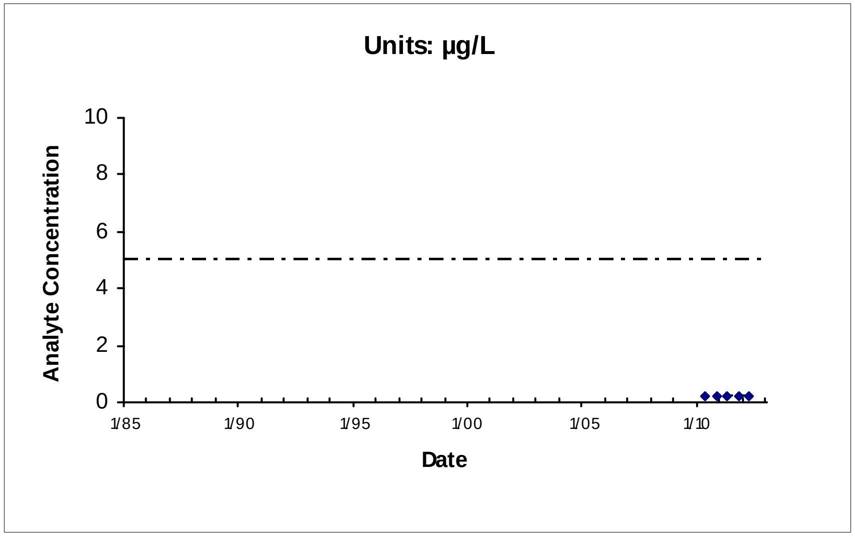
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.21 µg/L)

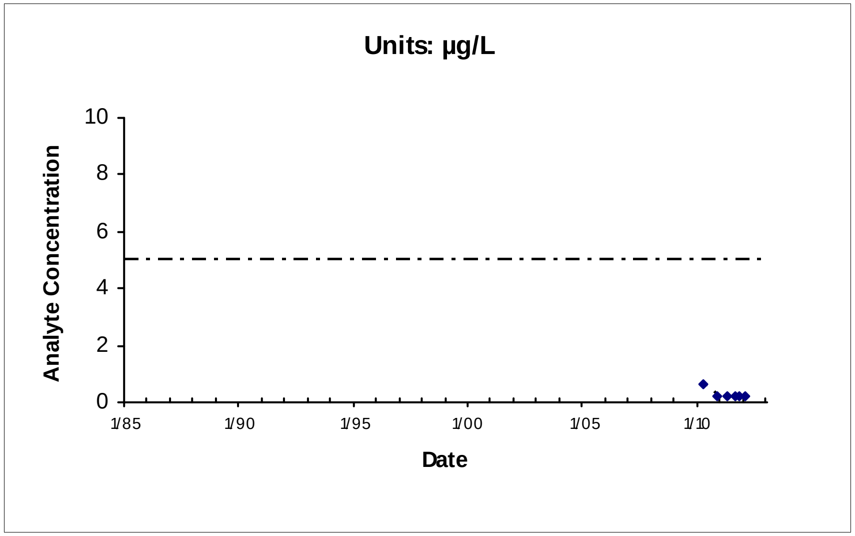
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

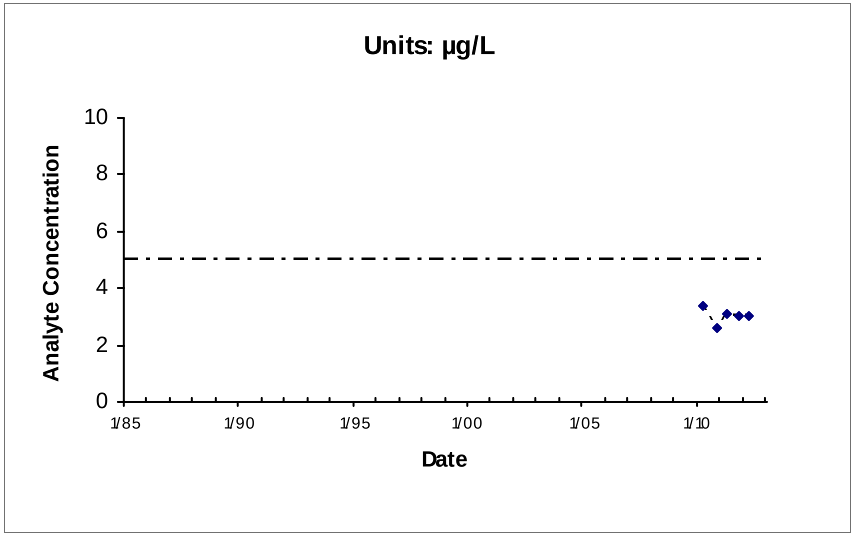
FIGURE 2-20
Site SS015
PCE
Chemical Time-series Plots



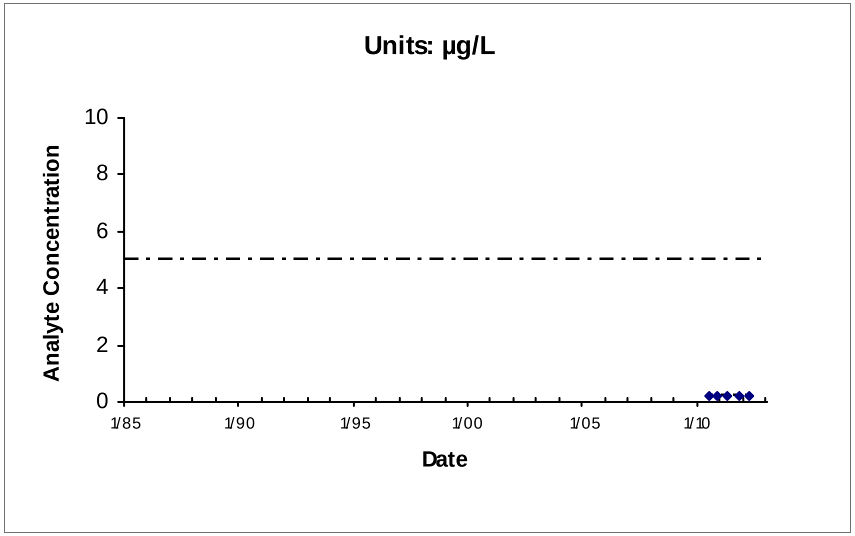
Location: MW2105x15 Maximum: 0.21



Location: MW2106x15 Maximum: 0.63



Location: MW2118x15 Maximum: 3.4



Location: MW2119x15 Maximum: 0.21

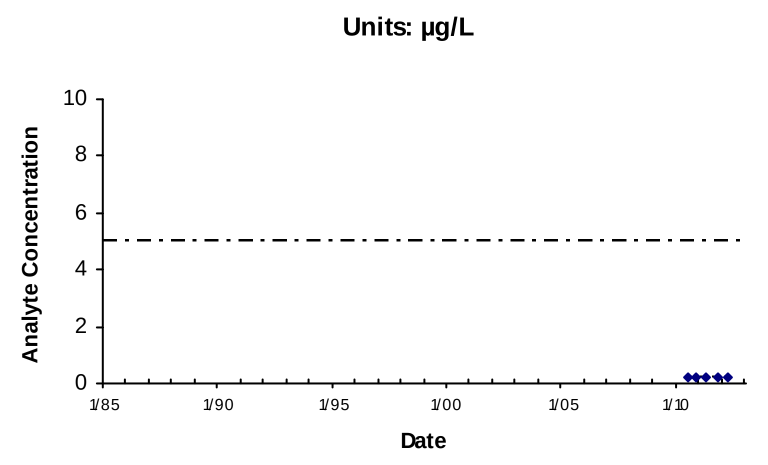
— - — - — IRG (5 µg/L)

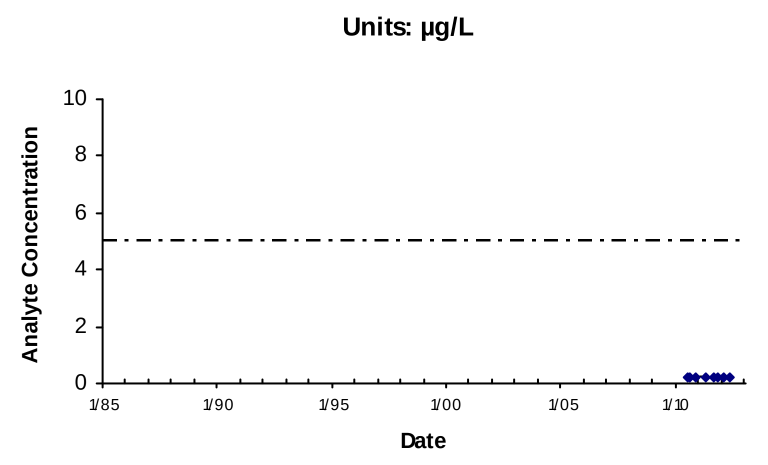
*Nondetects shown as the Method Detection Limit (0.21 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

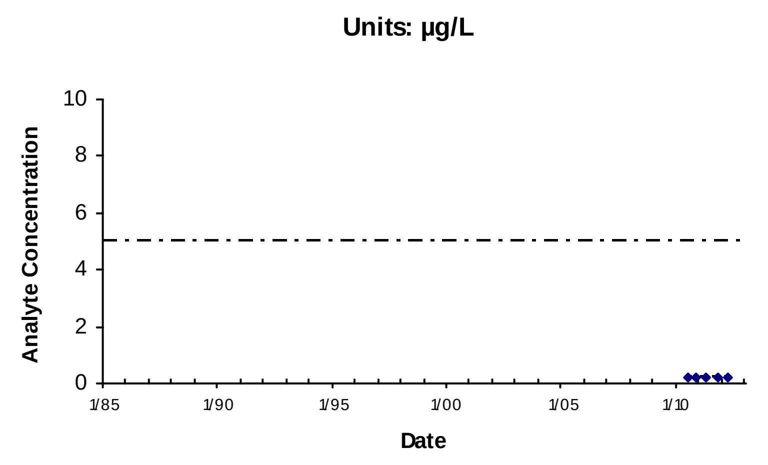
FIGURE 2-20
Site SS015
PCE
Chemical Time-series Plots

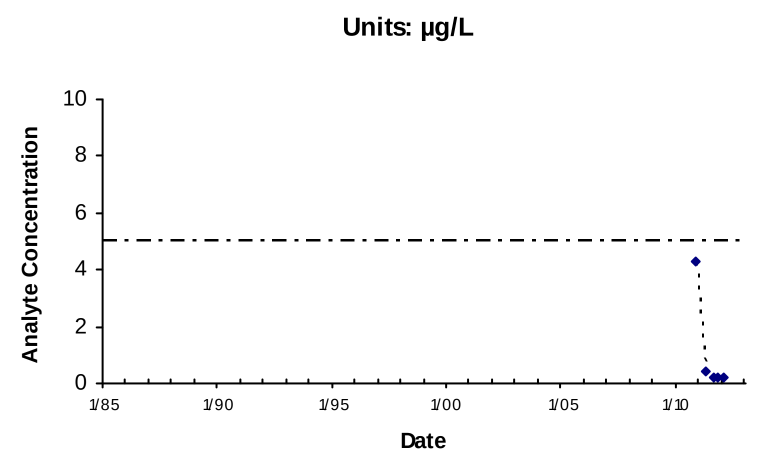




Location: MW2120x15 Maximum: 0.21

Location: MW2124x15 Maximum: 0.21





Location: MW2125x15 Maximum: 0.21

Location: MW2129x15 Maximum: 4.3

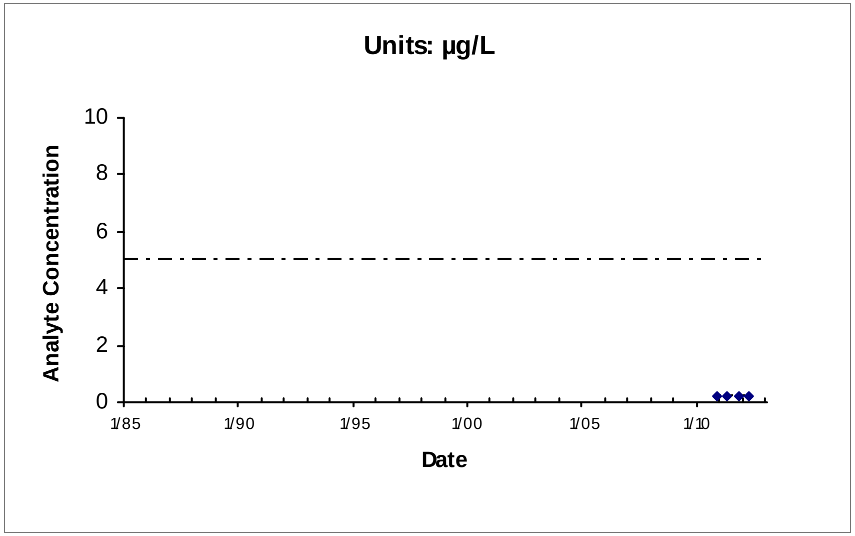
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.21 µg/L)

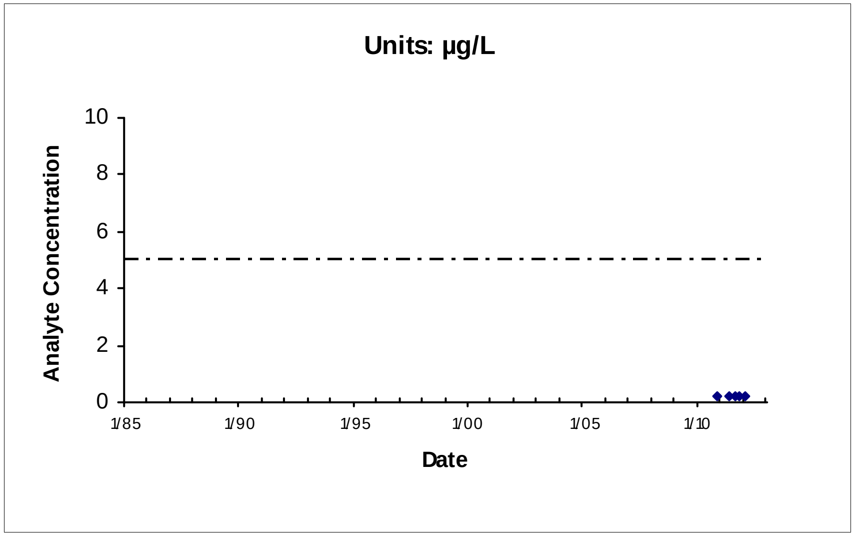
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

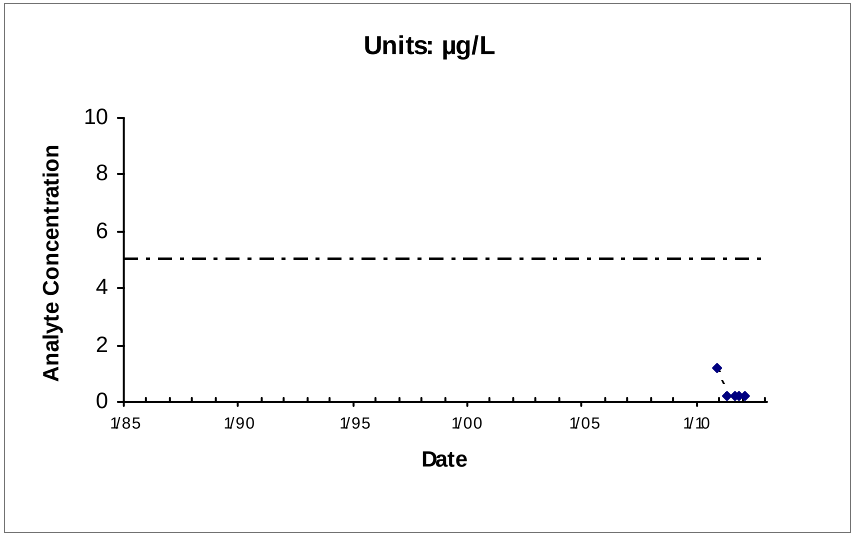
FIGURE 2-20
Site SS015
PCE
Chemical Time-series Plots



Location: MW2130x15 Maximum: 0.21



Location: MW2131x15 Maximum: 0.21



Location: MW2132x15 Maximum: 1.2

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.21 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

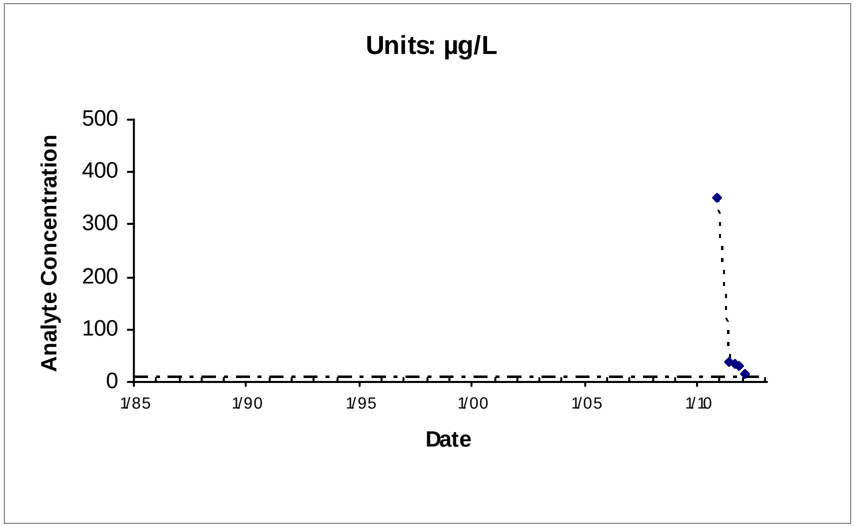
West IRA

FIGURE 2-20

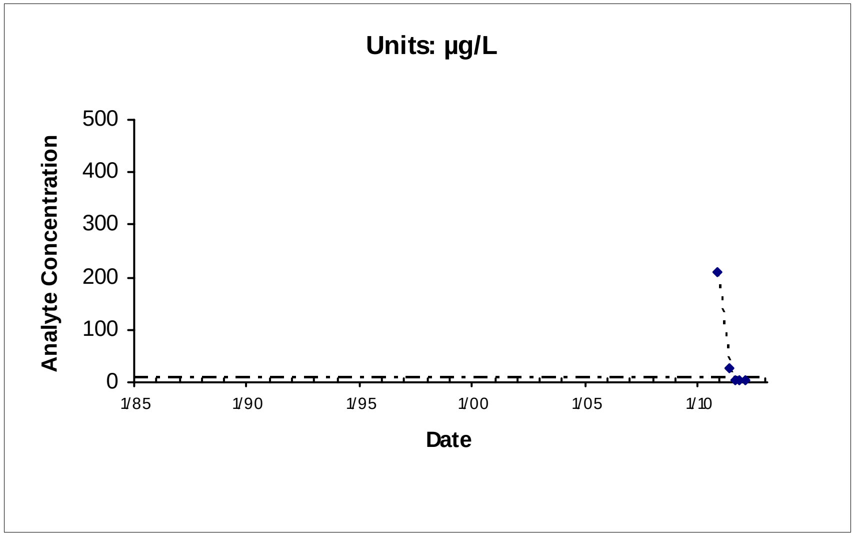
Site SS015

PCE

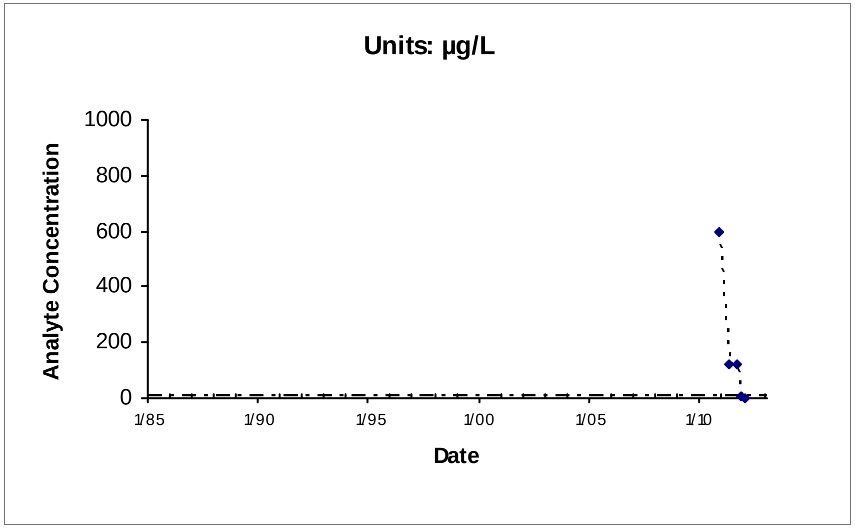
Chemical Time-series Plots



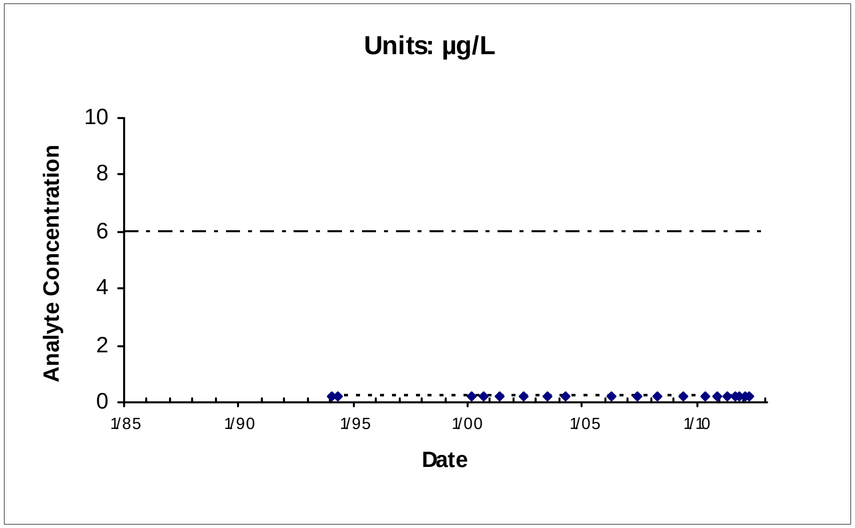
Location: IW2126x15 Maximum: 350



Location: IW2127x15 Maximum: 211



Location: IW2128x15 Maximum: 598



Location: MW104X15 Maximum: 0.19

West IRA

FIGURE 2-21

Site SS015

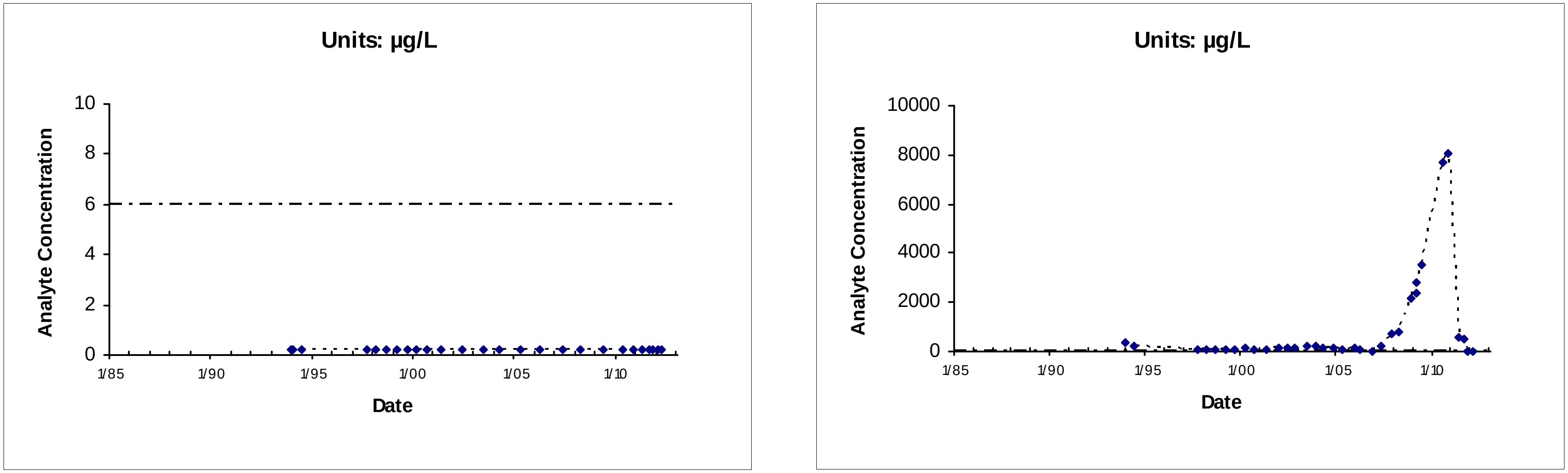
cis-1,2-DCE

Chemical Time-series Plots

— - — - — IRG (6 µg/L)

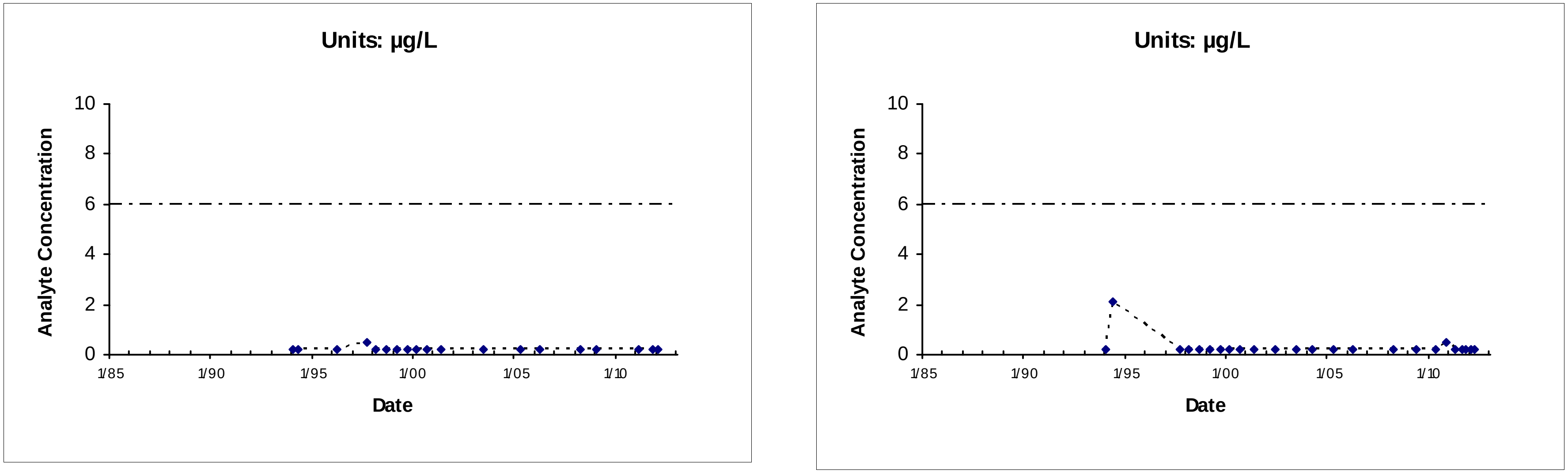
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



Location: MW105X15 Maximum: 0.19

Location: MW216X15 Maximum: 8080



Location: MW238X15 Maximum: 0.5

Location: MW306X15 Maximum: 2.1

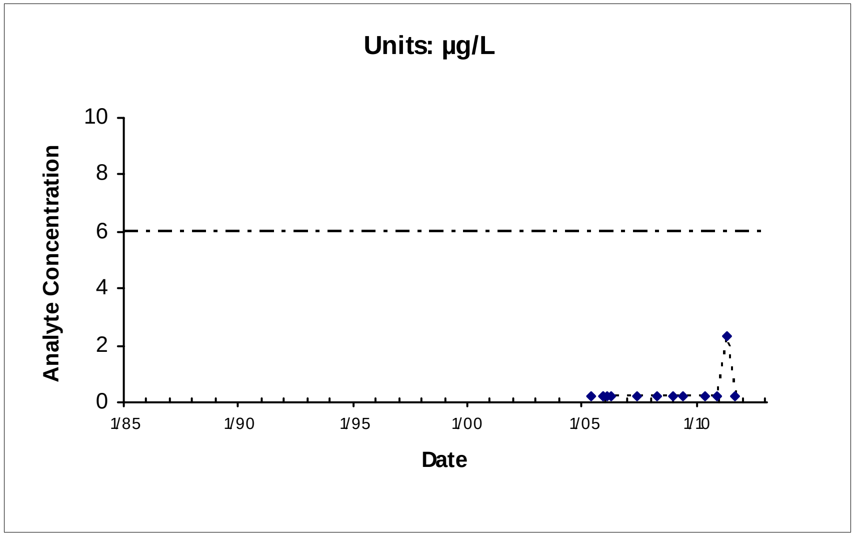
— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

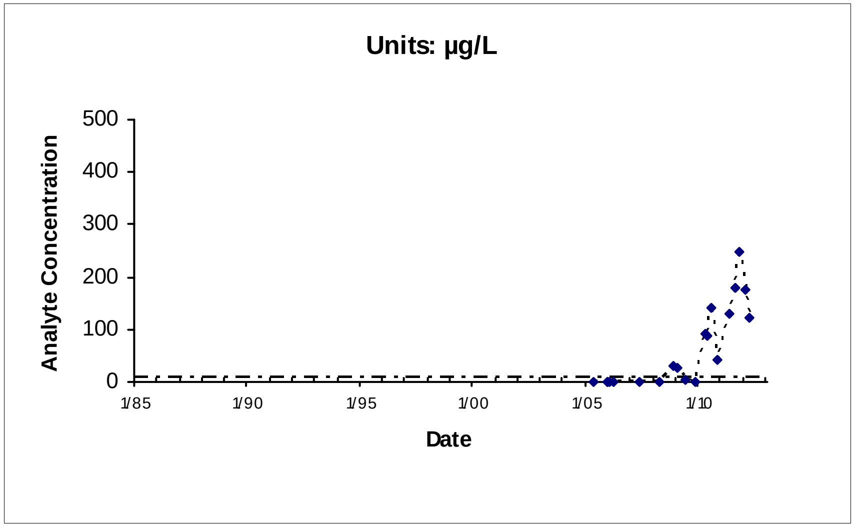
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

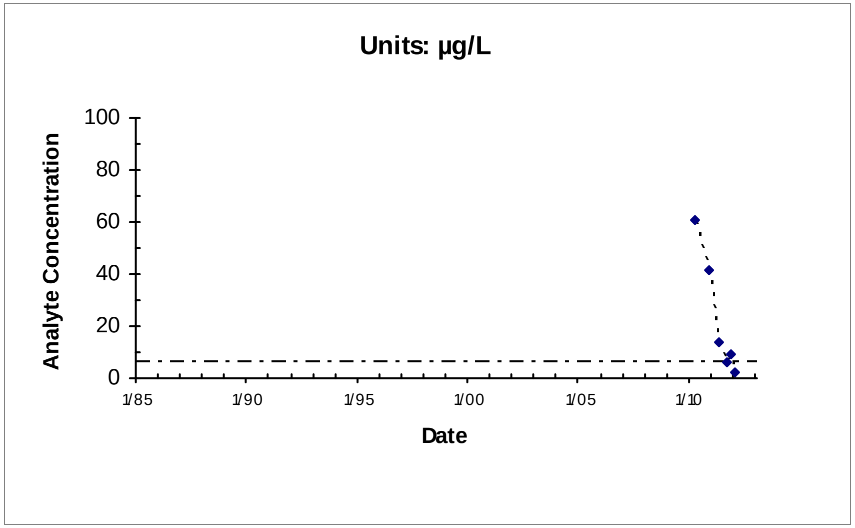
FIGURE 2-21
Site SS015
cis-1,2-DCE
Chemical Time-series Plots



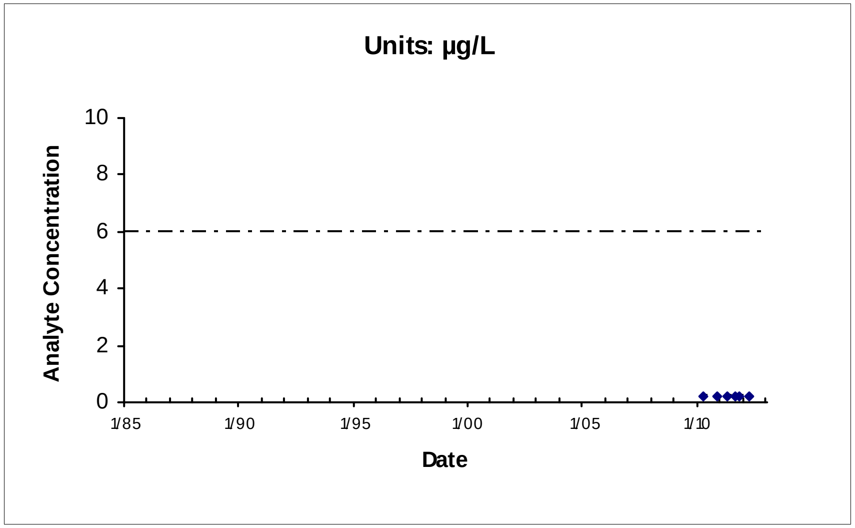
Location: MW624X15 Maximum: 2.3



Location: MW625X15 Maximum: 250



Location: MW2103x15 Maximum: 60.6



Location: MW2104x15 Maximum: 0.21

West IRA

FIGURE 2-21

Site SS015

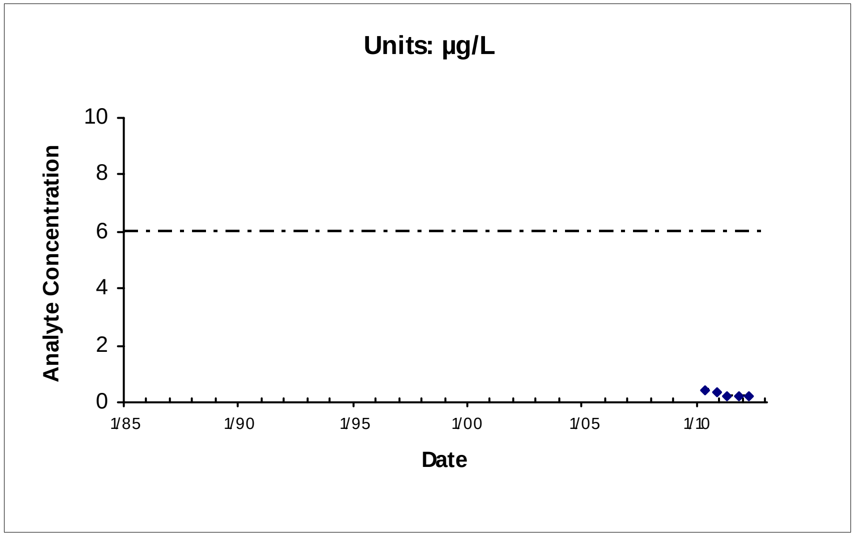
cis-1,2-DCE

Chemical Time-series Plots

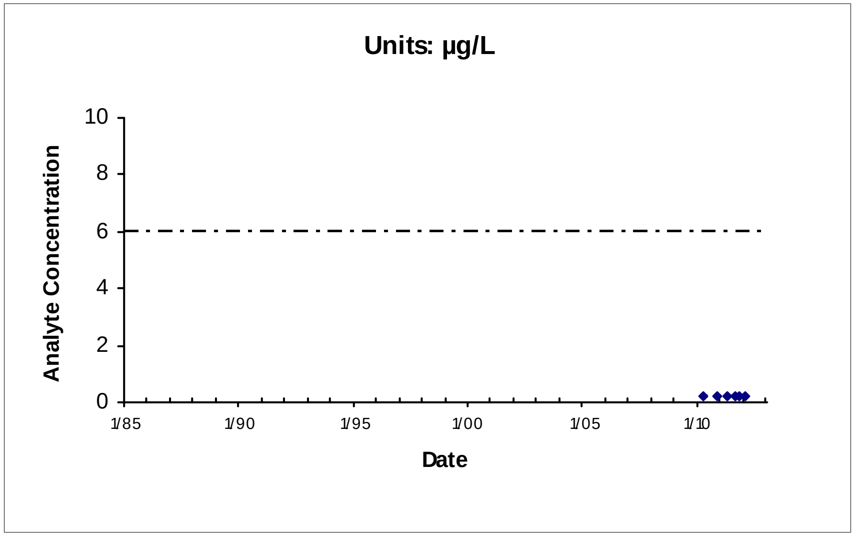
— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

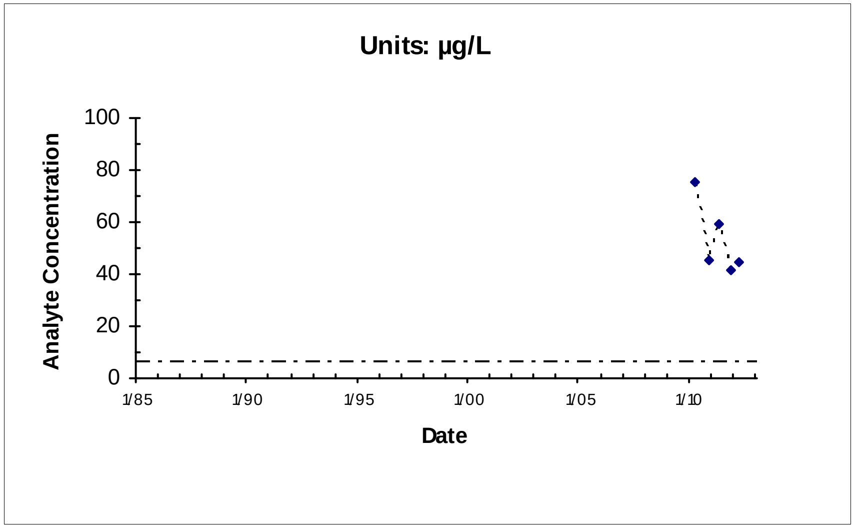
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



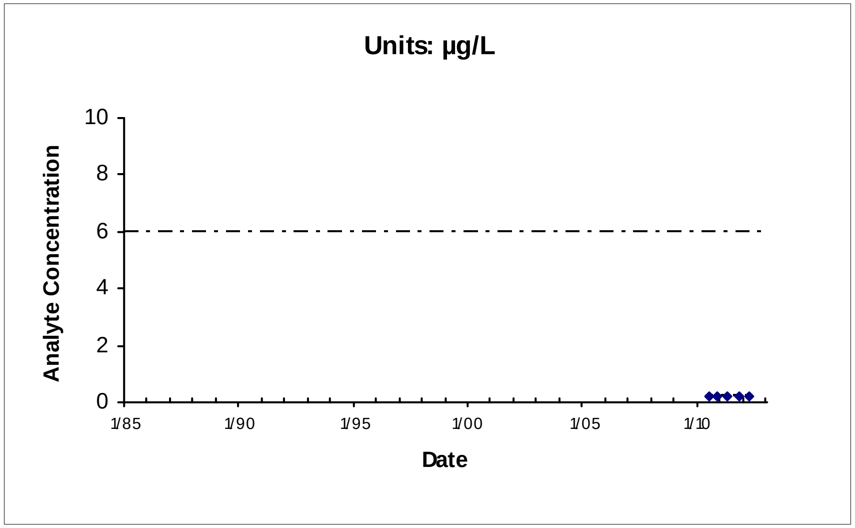
Location: MW2105x15 Maximum: 0.39



Location: MW2106x15 Maximum: 0.19



Location: MW2118x15 Maximum: 75.7



Location: MW2119x15 Maximum: 0.19

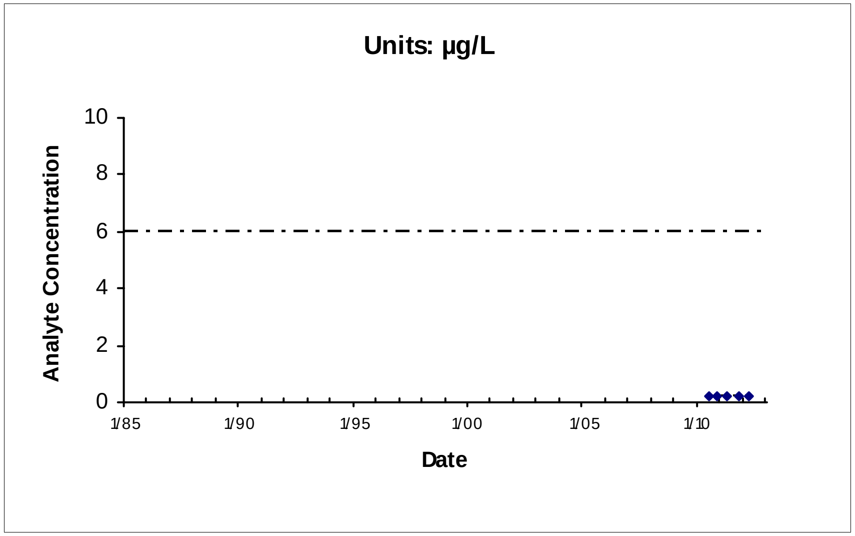
West IRA

FIGURE 2-21
Site SS015
cis-1,2-DCE
Chemical Time-series Plots

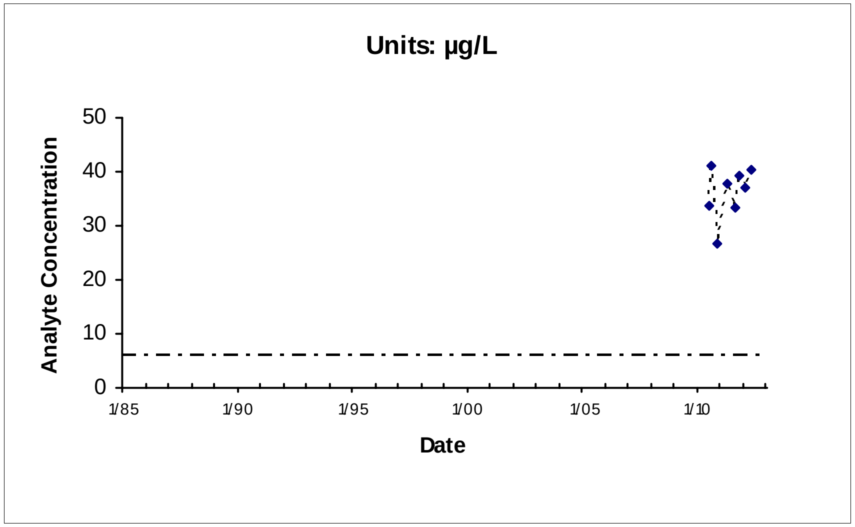
— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

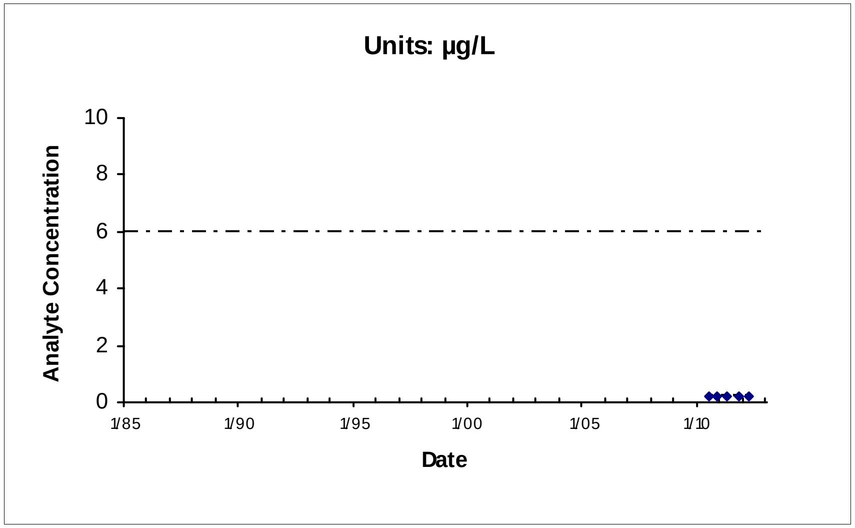
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



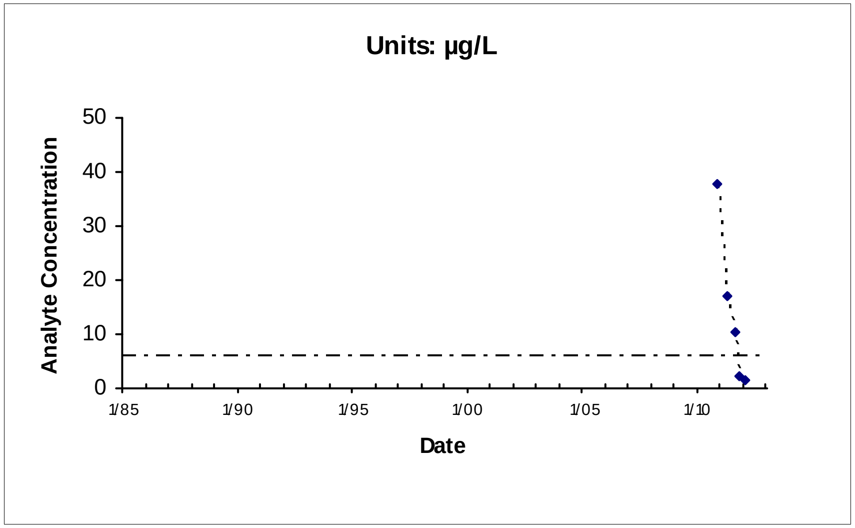
Location: MW2120x15 Maximum: 0.2



Location: MW2124x15 Maximum: 41



Location: MW2125x15 Maximum: 0.19



Location: MW2129x15 Maximum: 37.9

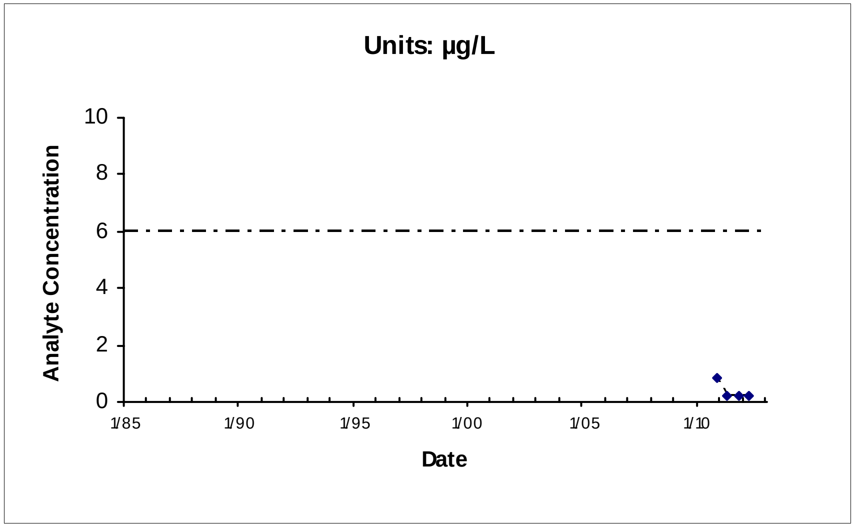
— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

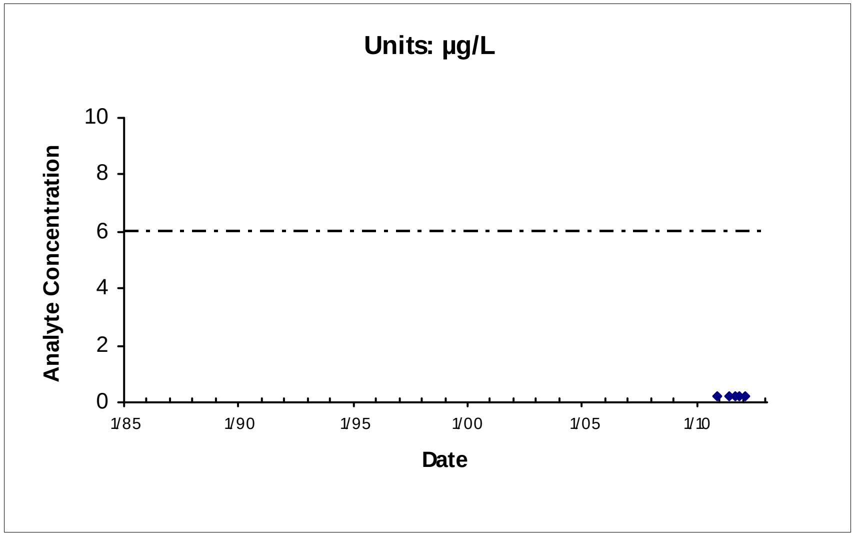
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

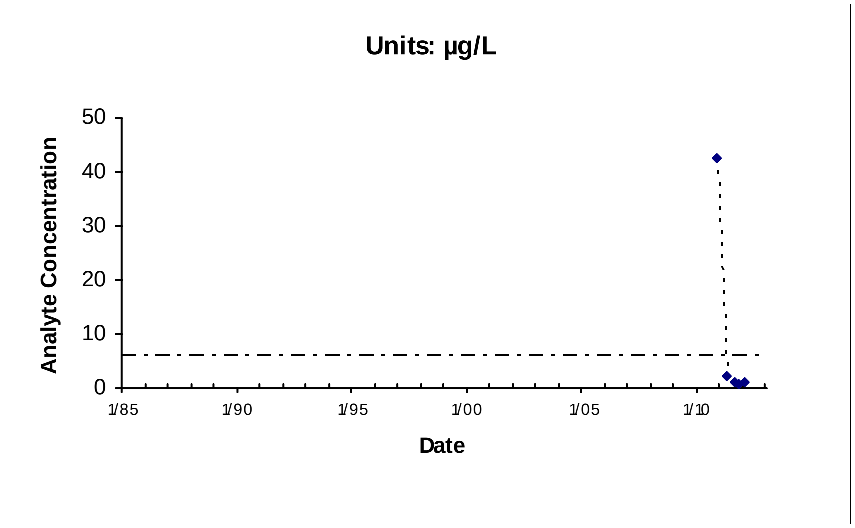
FIGURE 2-21
Site SS015
cis-1,2-DCE
Chemical Time-series Plots



Location: MW2130x15 Maximum: 0.87



Location: MW2131x15 Maximum: 0.2



Location: MW2132x15 Maximum: 42.5

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

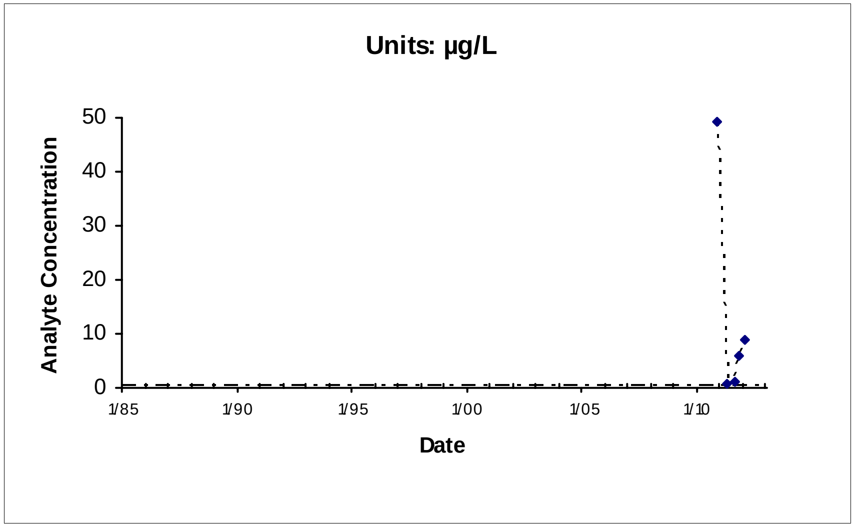
West IRA

FIGURE 2-21

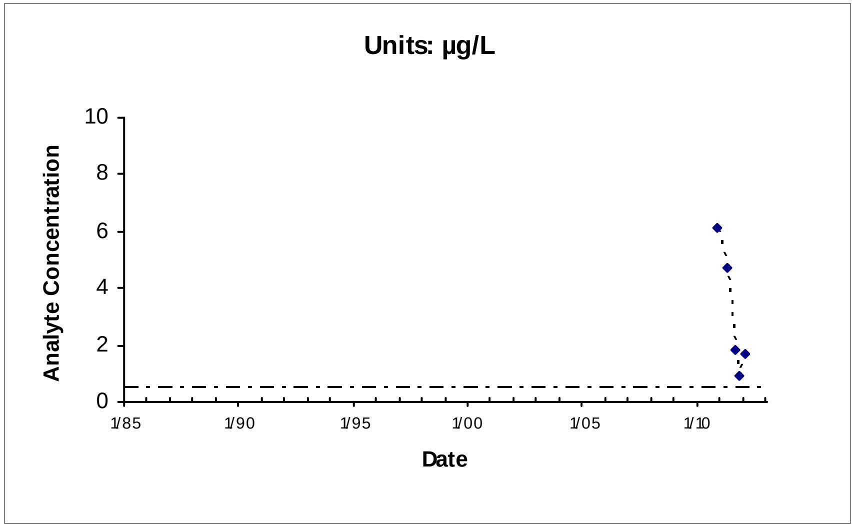
Site SS015

cis-1,2-DCE

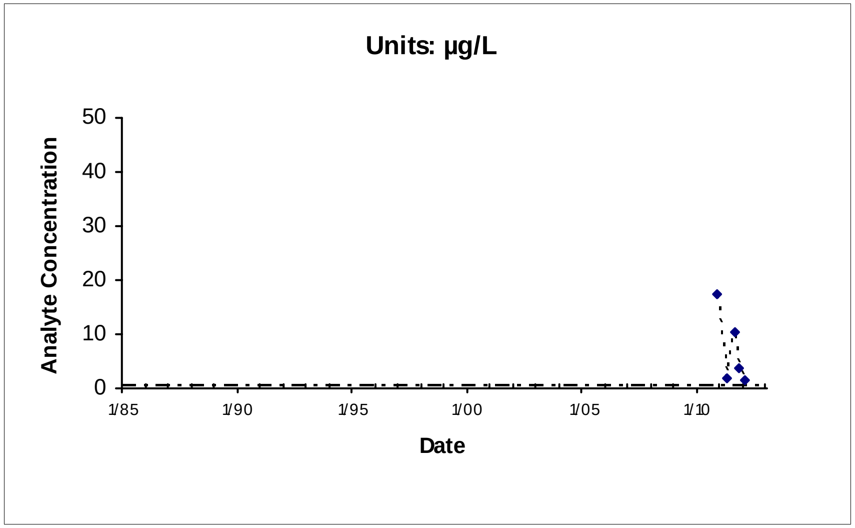
Chemical Time-series Plots



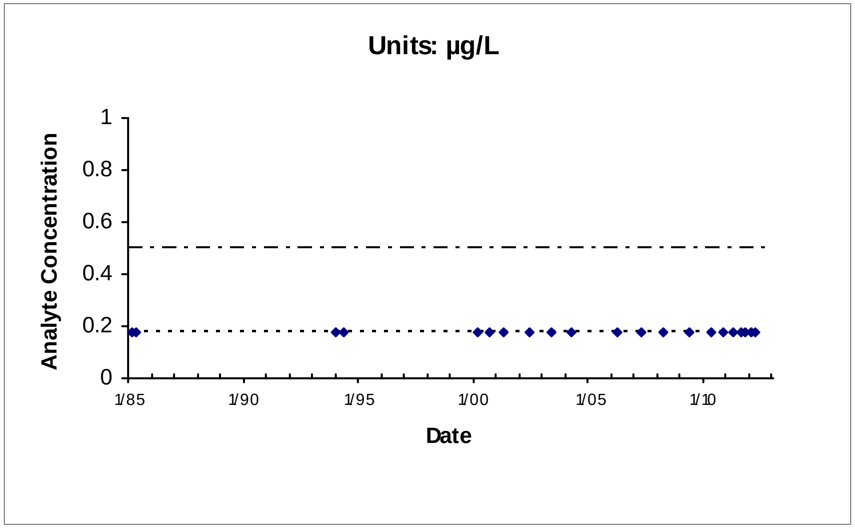
Location: IW2126x15 Maximum: 49.2



Location: IW2127x15 Maximum: 6.1



Location: IW2128x15 Maximum: 17.5



Location: MW104X15 Maximum: 0.18

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

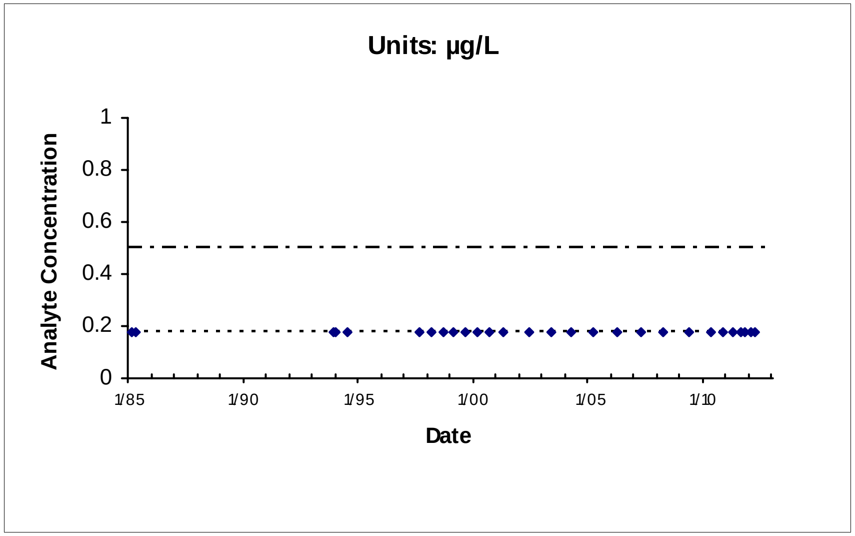
West IRA

FIGURE 2-22

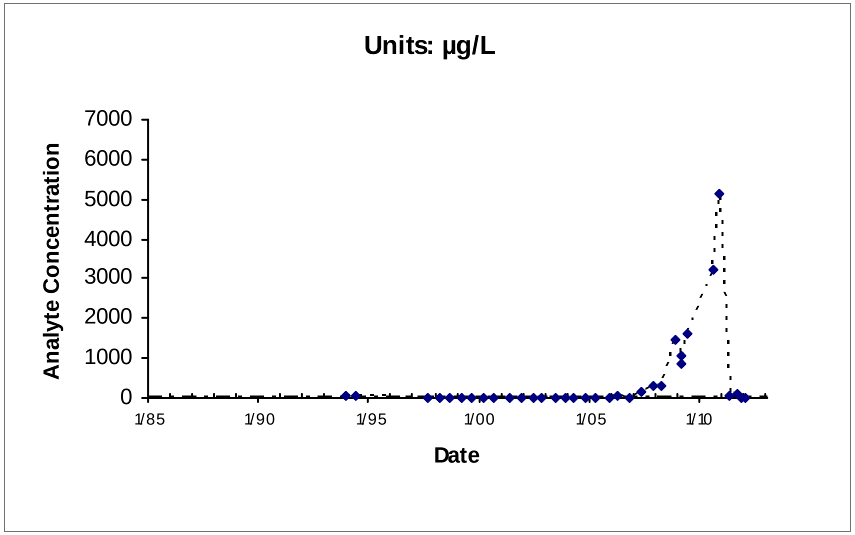
Site SS015

Vinyl Chloride

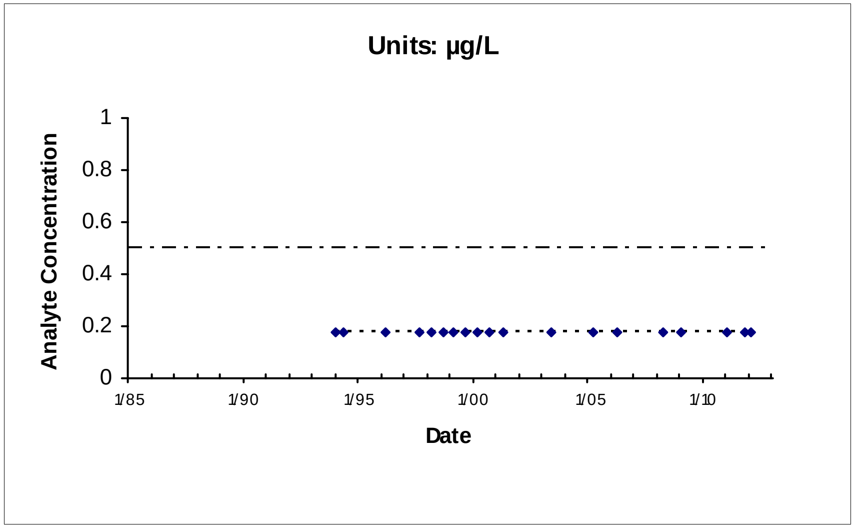
Chemical Time-series Plots



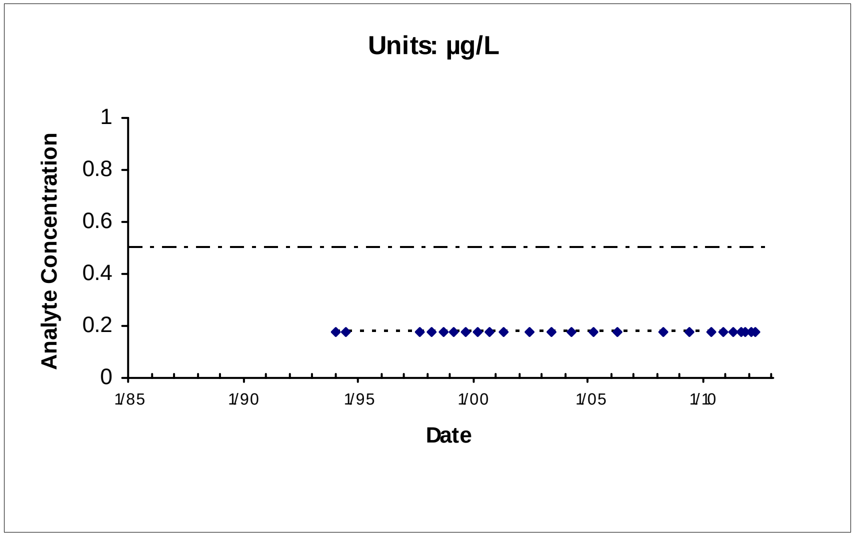
Location: MW105X15 Maximum: 0.18



Location: MW216X15 Maximum: 5140



Location: MW238X15 Maximum: 0.18



Location: MW306X15 Maximum: 0.18

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

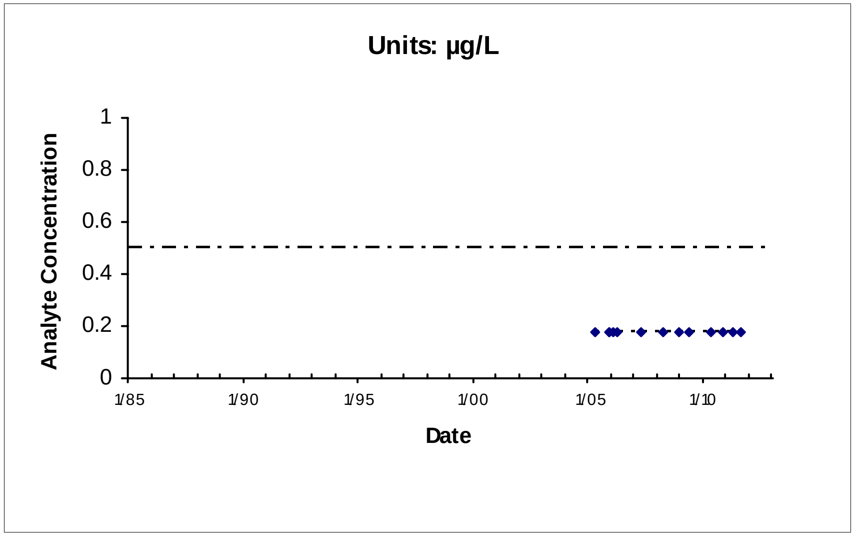
West IRA

FIGURE 2-22

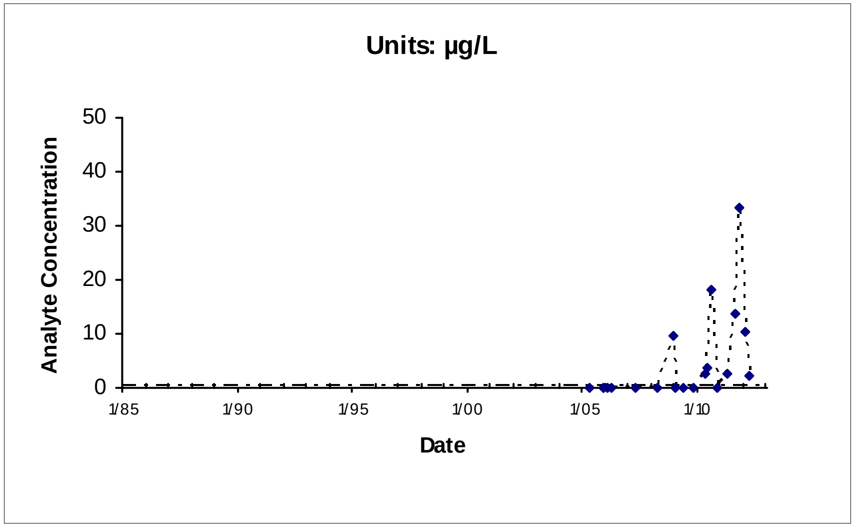
Site SS015

Vinyl Chloride

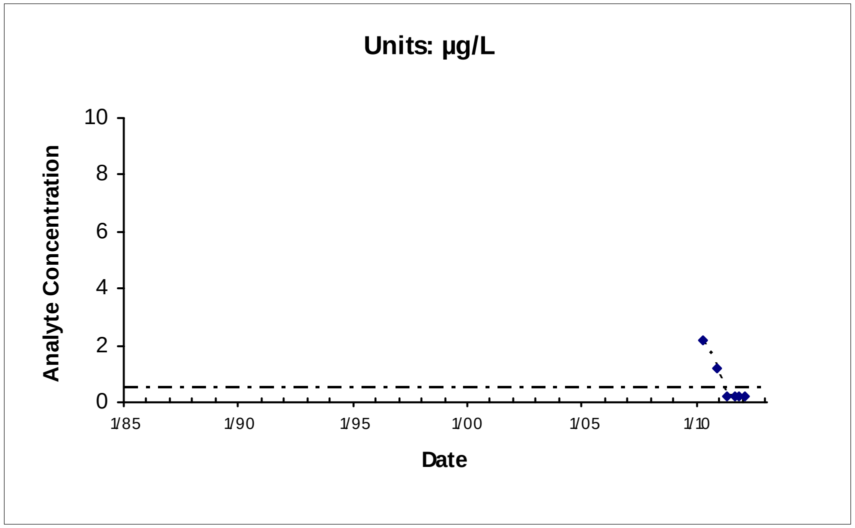
Chemical Time-series Plots



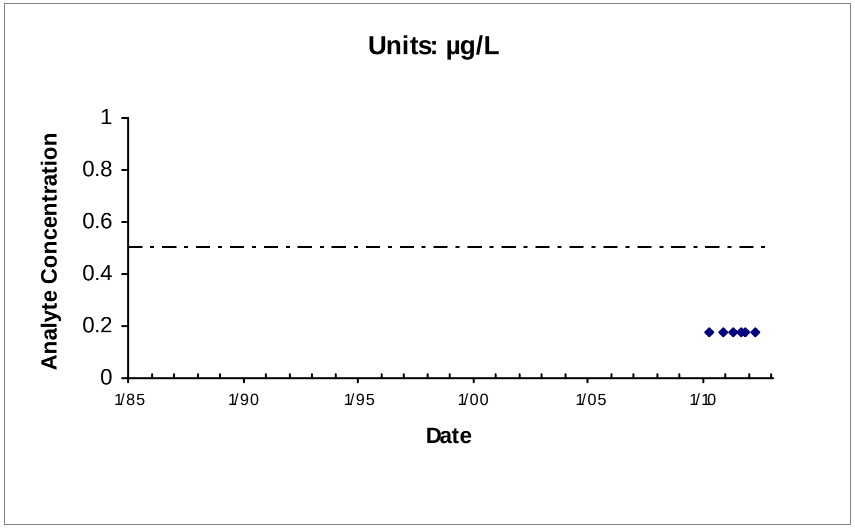
Location: MW624X15 Maximum: 0.18



Location: MW625X15 Maximum: 33.2



Location: MW2103x15 Maximum: 2.2



Location: MW2104x15 Maximum: 0.18

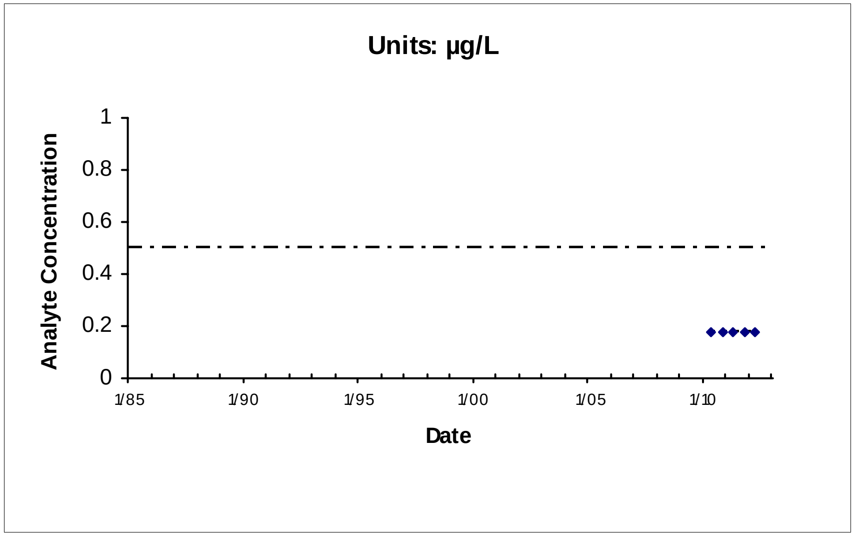
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

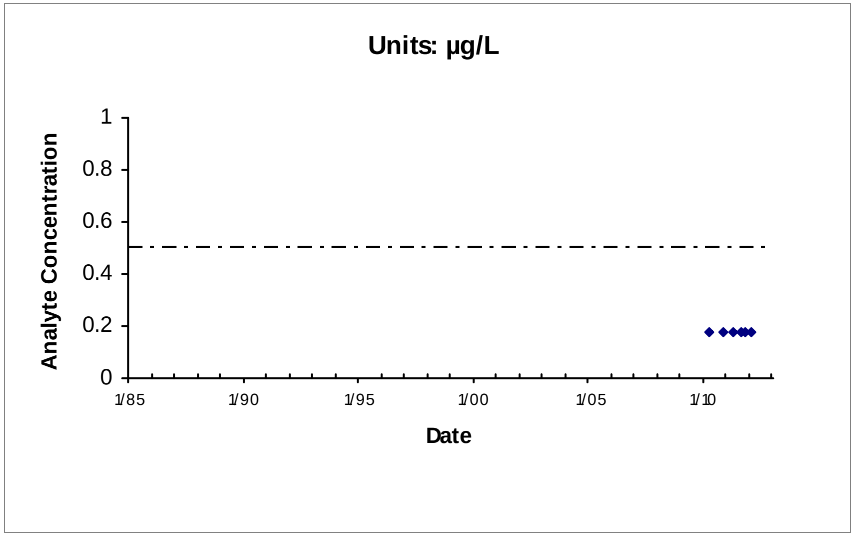
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

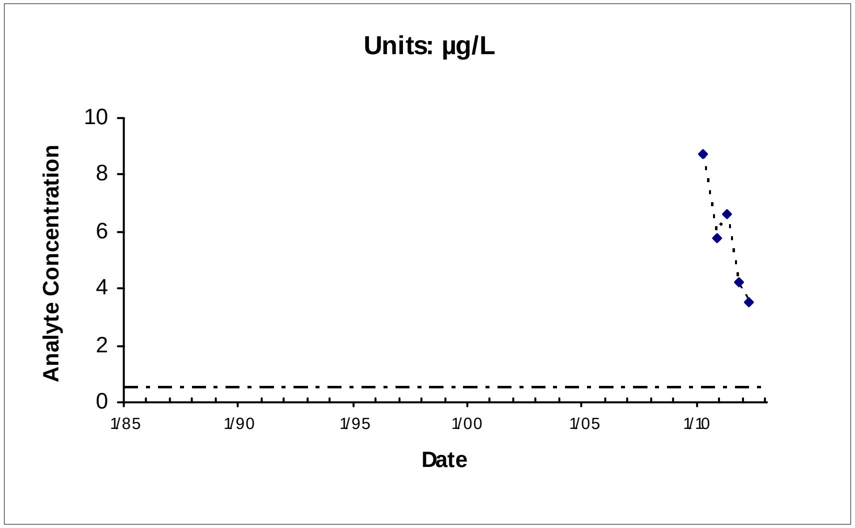
FIGURE 2-22
Site SS015
Vinyl Chloride
Chemical Time-series Plots



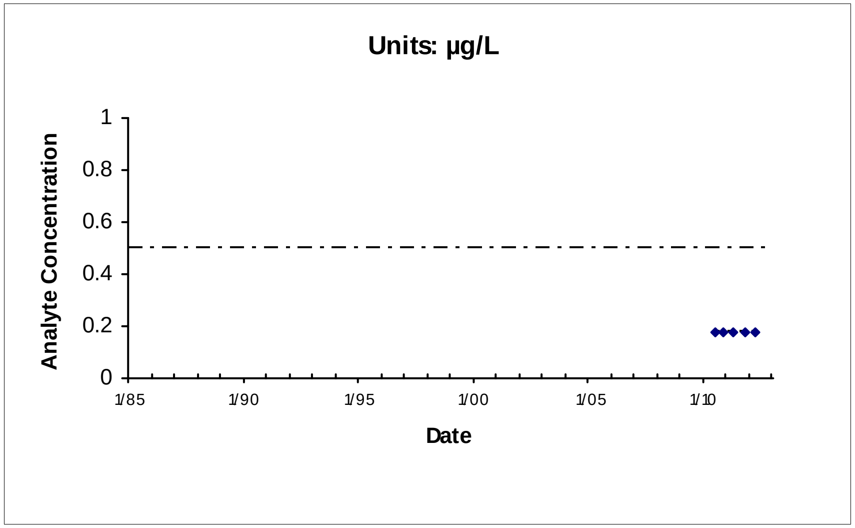
Location: MW2105x15 Maximum: 0.18



Location: MW2106x15 Maximum: 0.18



Location: MW2118x15 Maximum: 8.7



Location: MW2119x15 Maximum: 0.18

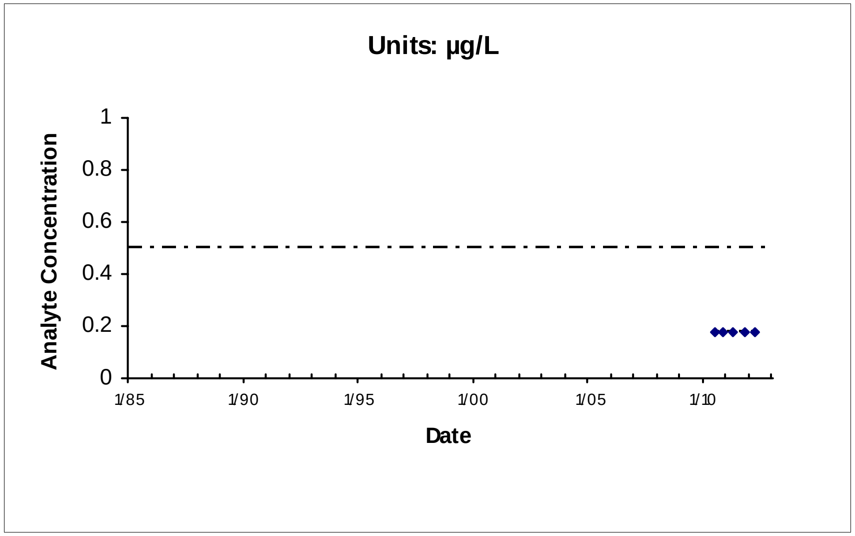
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

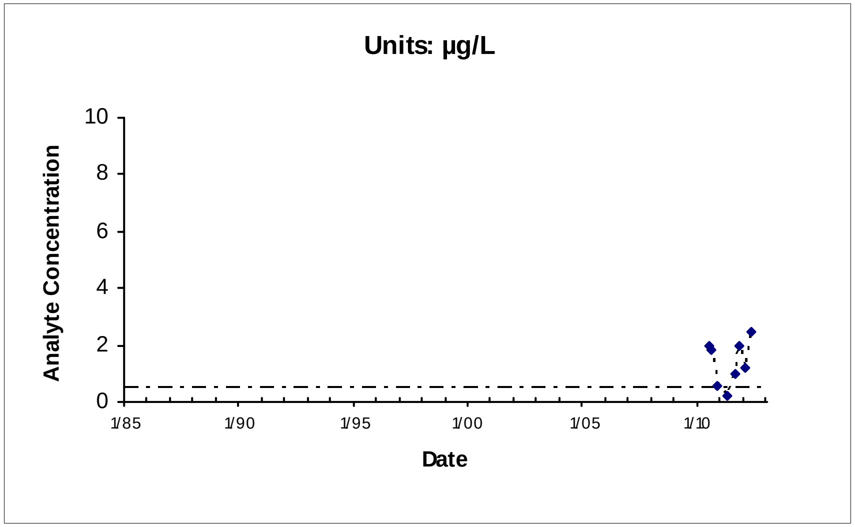
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

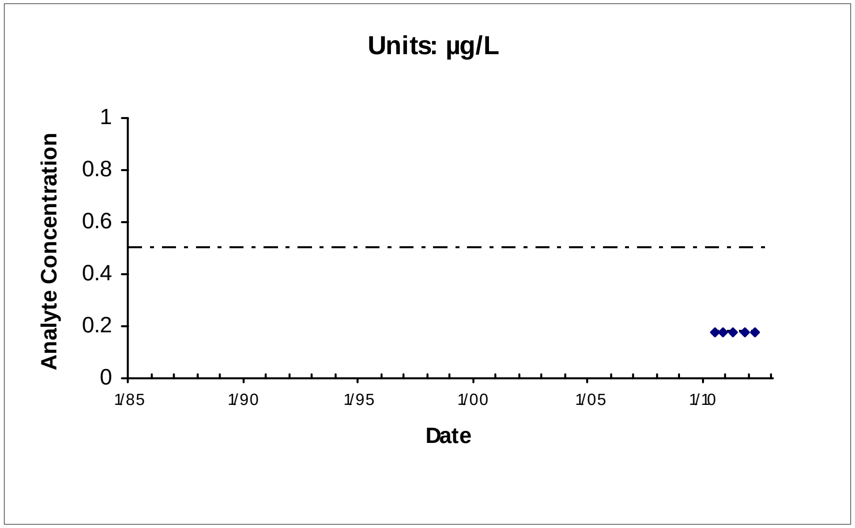
FIGURE 2-22
Site SS015
Vinyl Chloride
Chemical Time-series Plots



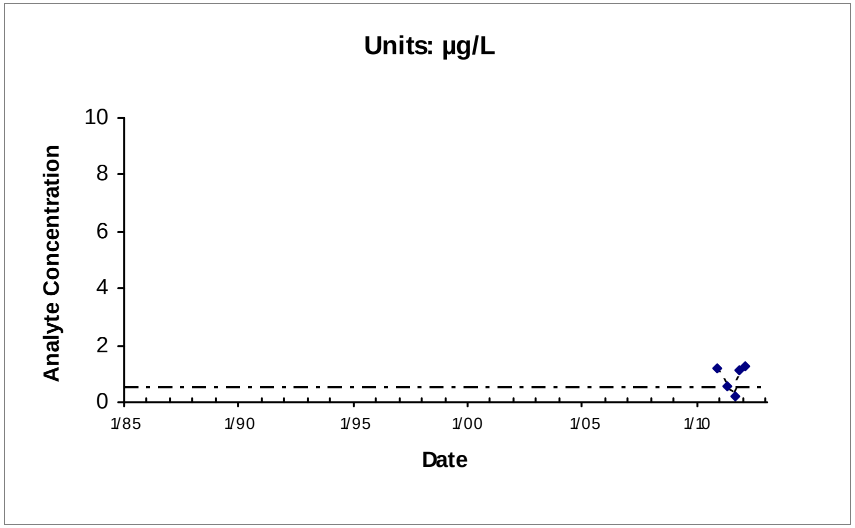
Location: MW2120x15 Maximum: 0.18



Location: MW2124x15 Maximum: 2.5



Location: MW2125x15 Maximum: 0.18



Location: MW2129x15 Maximum: 1.3

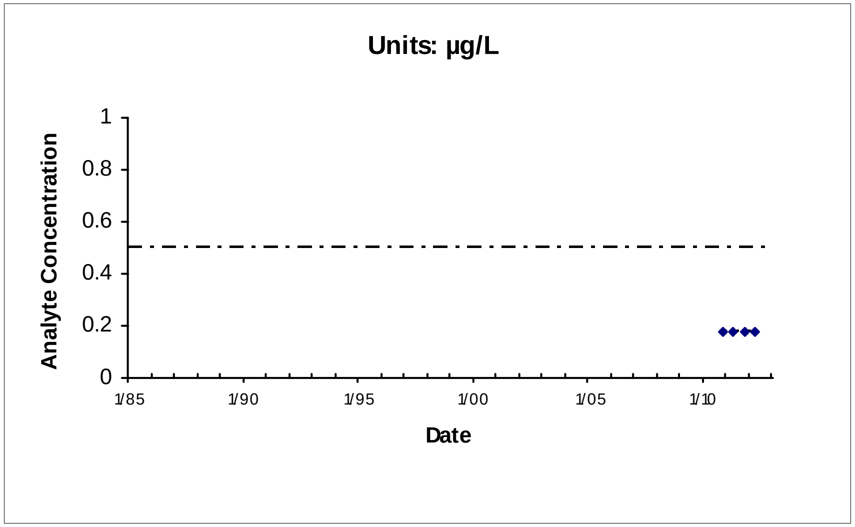
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

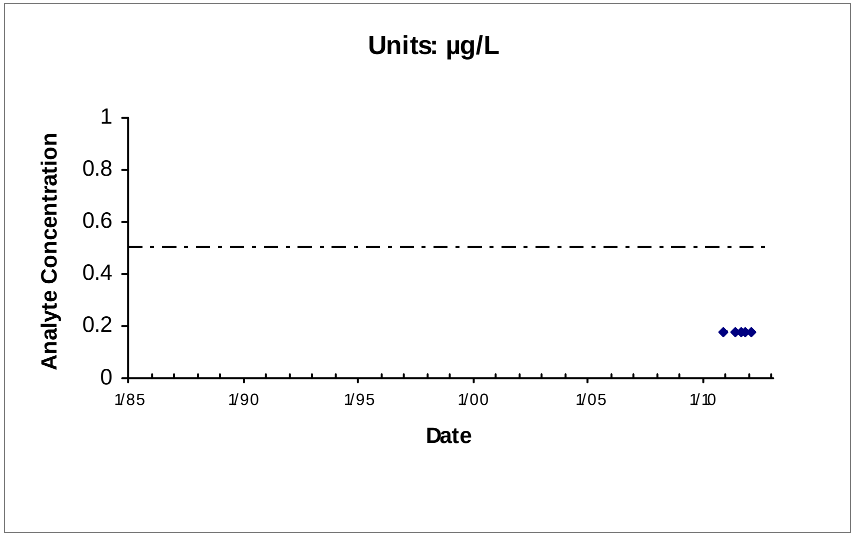
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

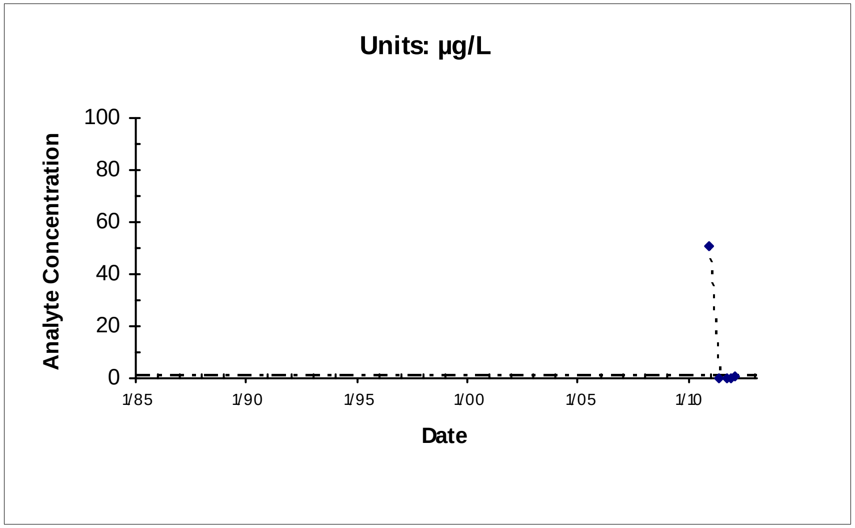
FIGURE 2-22
Site SS015
Vinyl Chloride
Chemical Time-series Plots



Location: MW2130x15 Maximum: 0.18



Location: MW2131x15 Maximum: 0.18



Location: MW2132x15 Maximum: 50.6

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

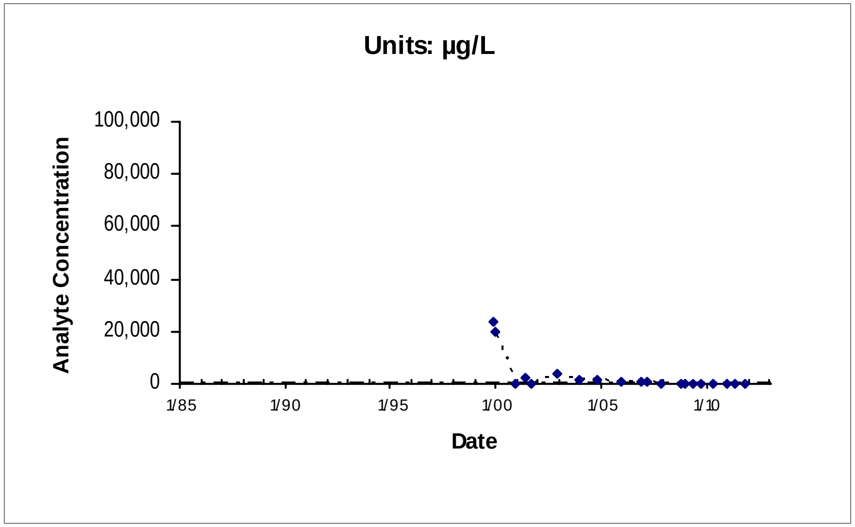
West IRA

FIGURE 2-22

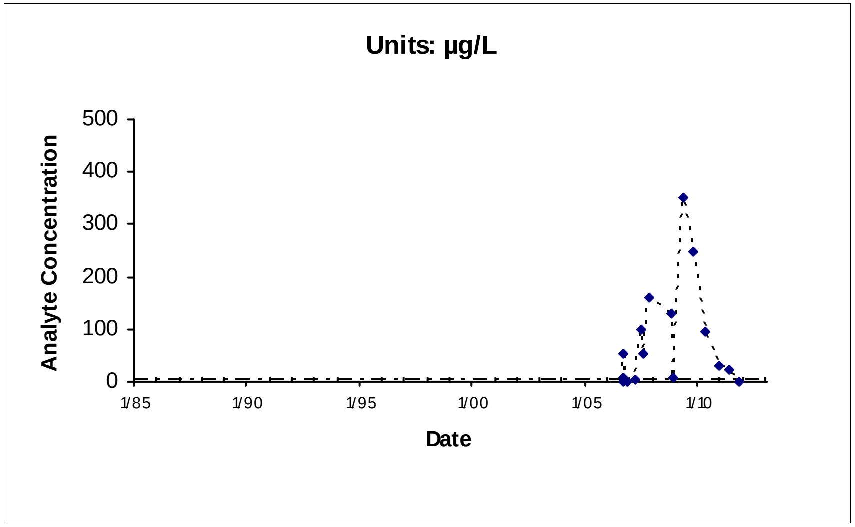
Site SS015

Vinyl Chloride

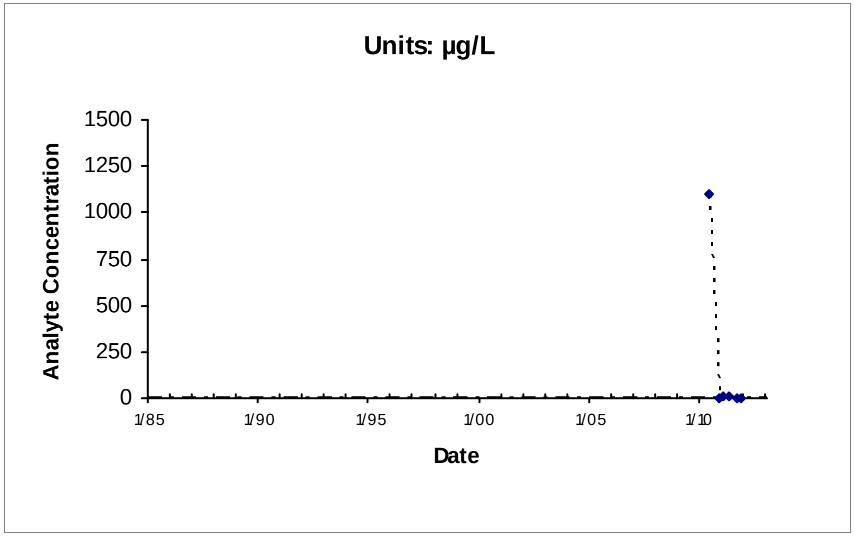
Chemical Time-series Plots



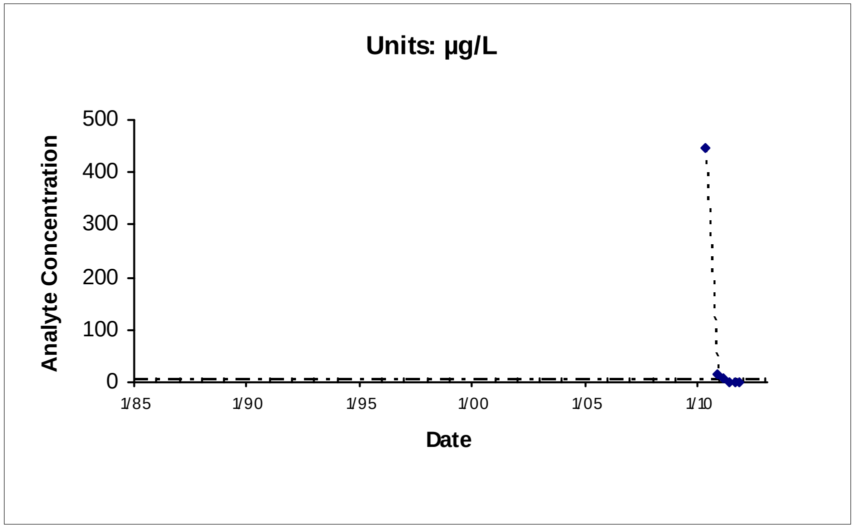
Location: EW563X39 Maximum: 24000



Location: EW782X39 Maximum: 350



Location: IW2081x39 Maximum: 1100



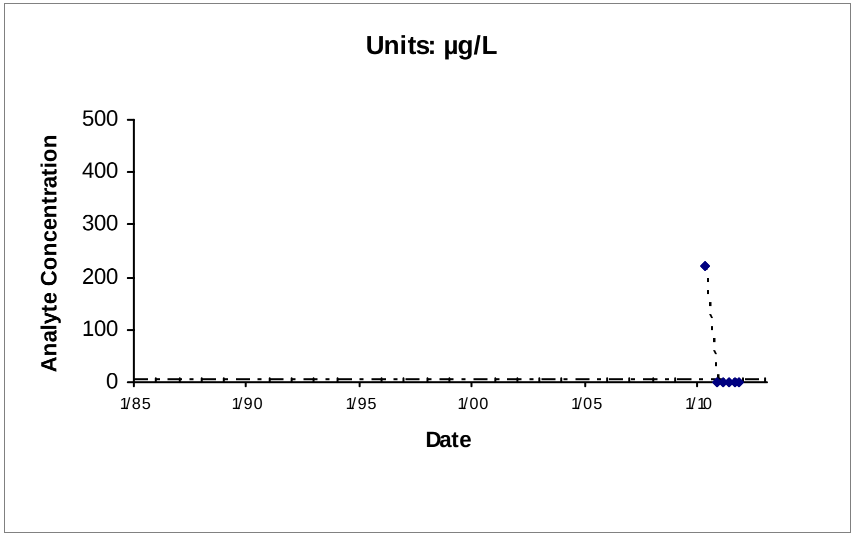
Location: IW2085x39 Maximum: 445

— - — - — IRG (5 µg/L)

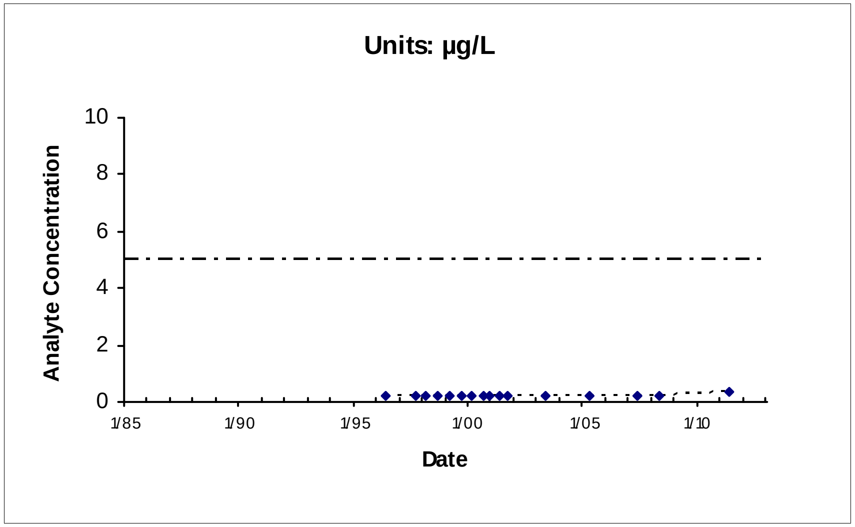
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

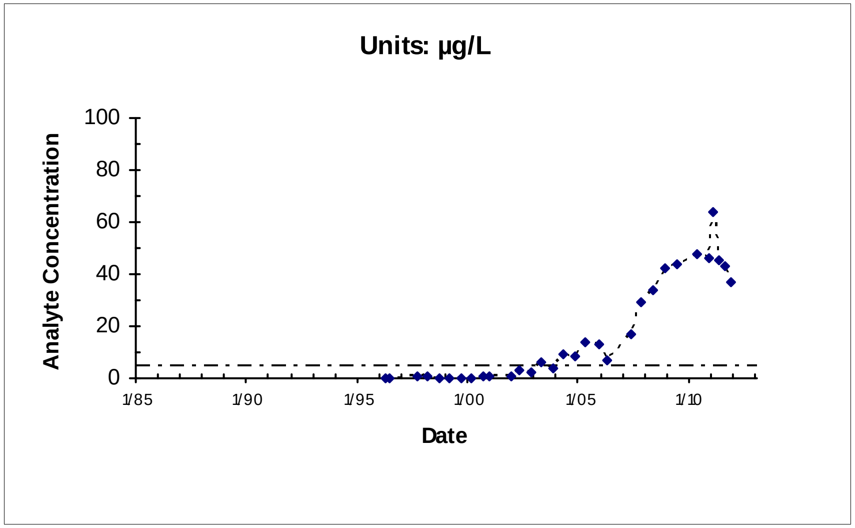
West IRA
FIGURE 2-23
Site DP039
TCE
Chemical Time-series Plots



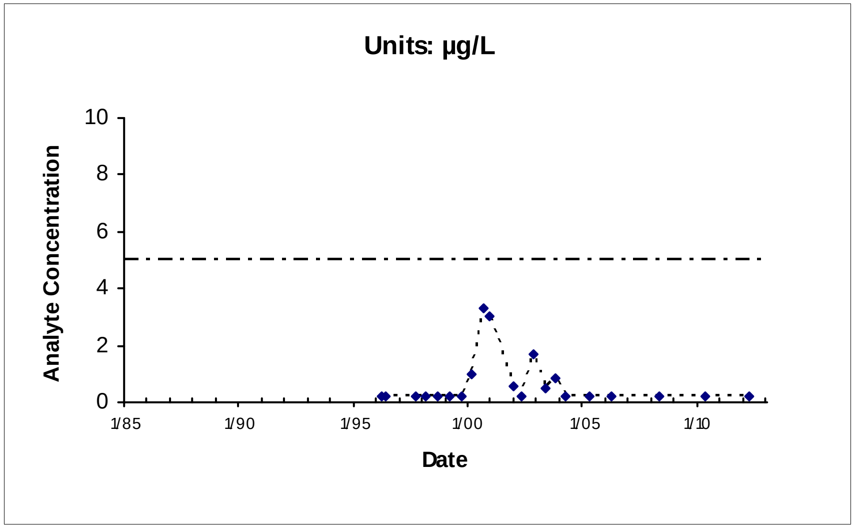
Location: IW2090x39 Maximum: 220



Location: MW01X39 Maximum: 0.33



Location: MW02X39 Maximum: 64.1



Location: MW03X39 Maximum: 3.3

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

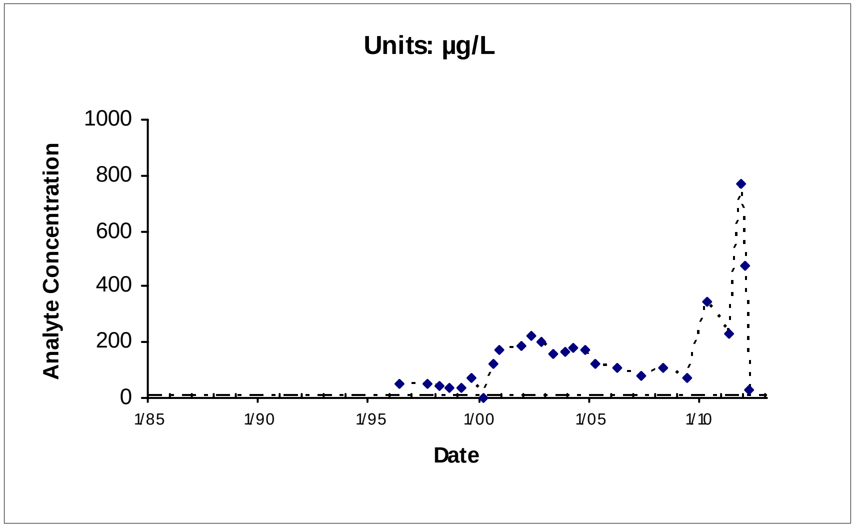
West IRA

FIGURE 2-23

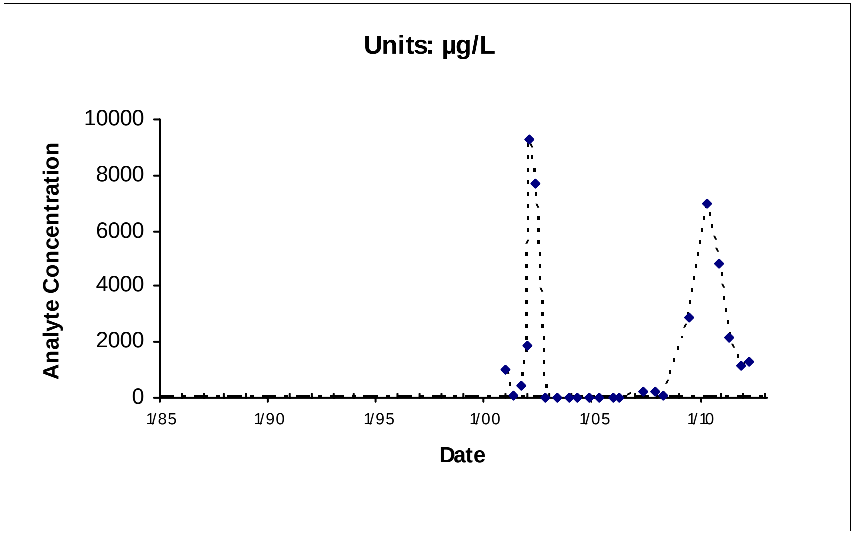
Site DP039

TCE

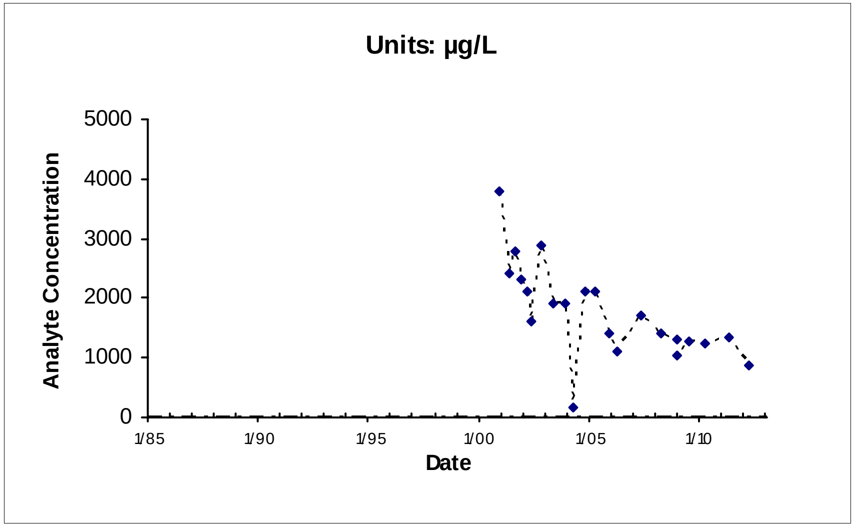
Chemical Time-series Plots



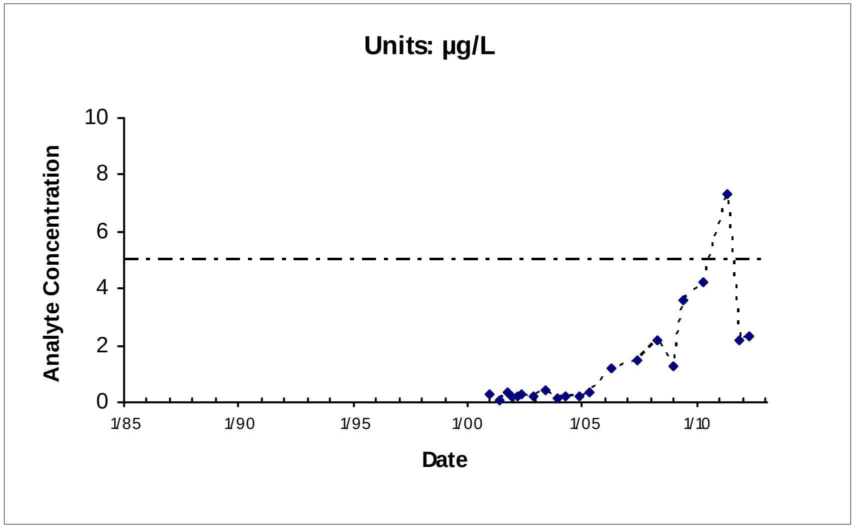
Location: MW04X39 Maximum: 772



Location: MW750X39 Maximum: 9300



Location: MW751X39 Maximum: 3800



Location: MW758X39 Maximum: 7.3

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

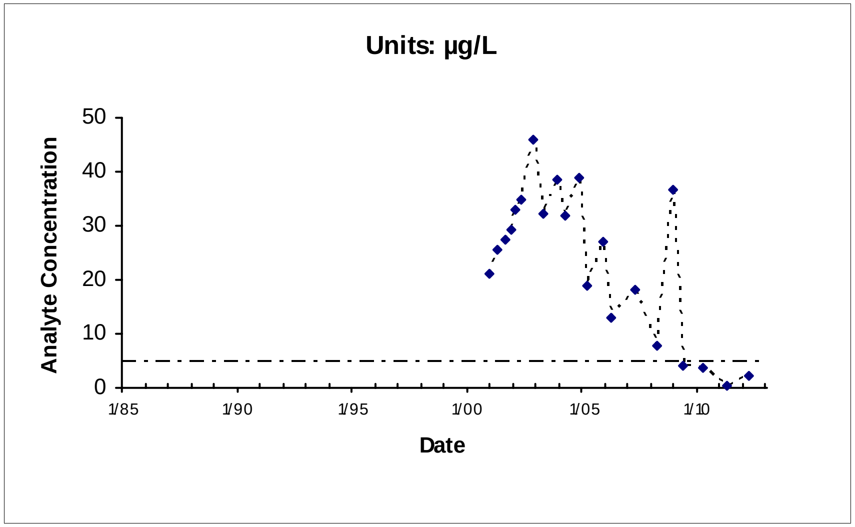
West IRA

FIGURE 2-23

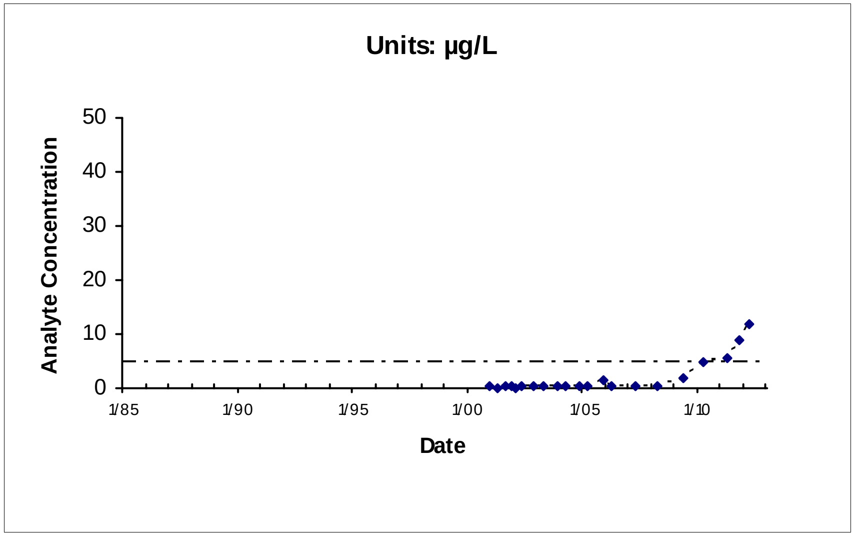
Site DP039

TCE

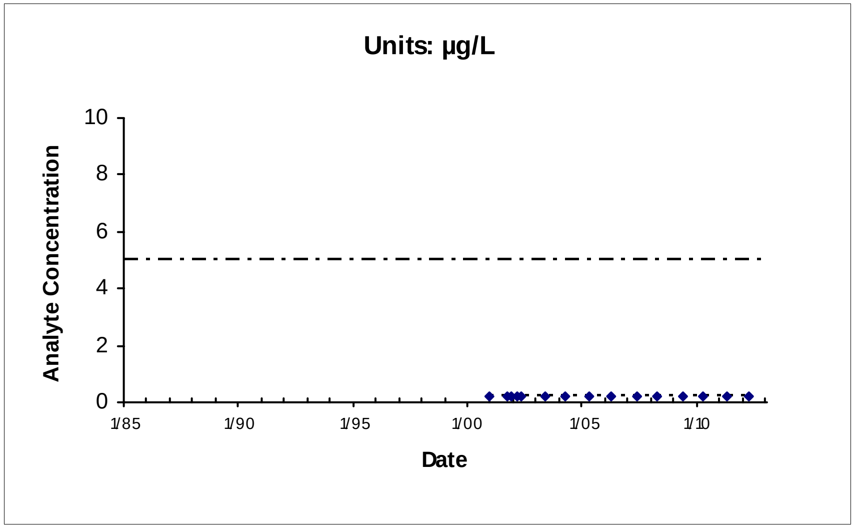
Chemical Time-series Plots



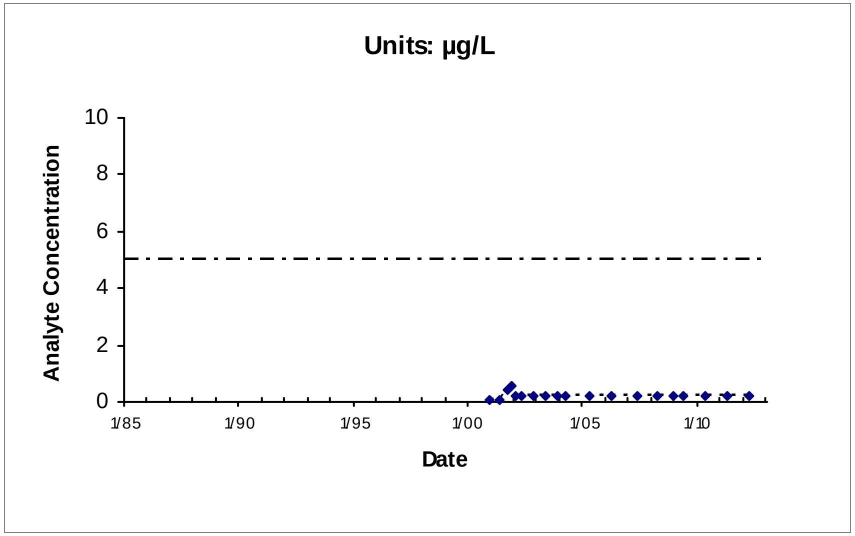
Location: MW759X39 Maximum: 46



Location: MW760X39 Maximum: 12



Location: MW761X39 Maximum: 0.19



Location: MW762X39 Maximum: 0.54

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

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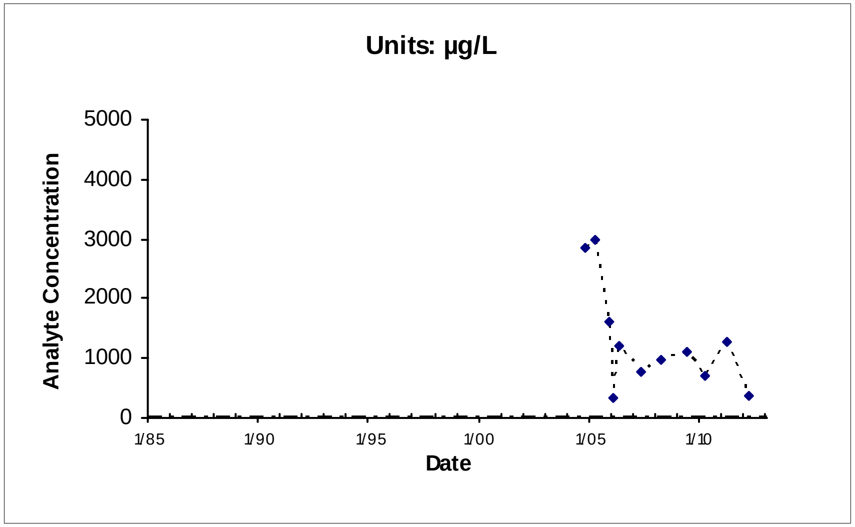
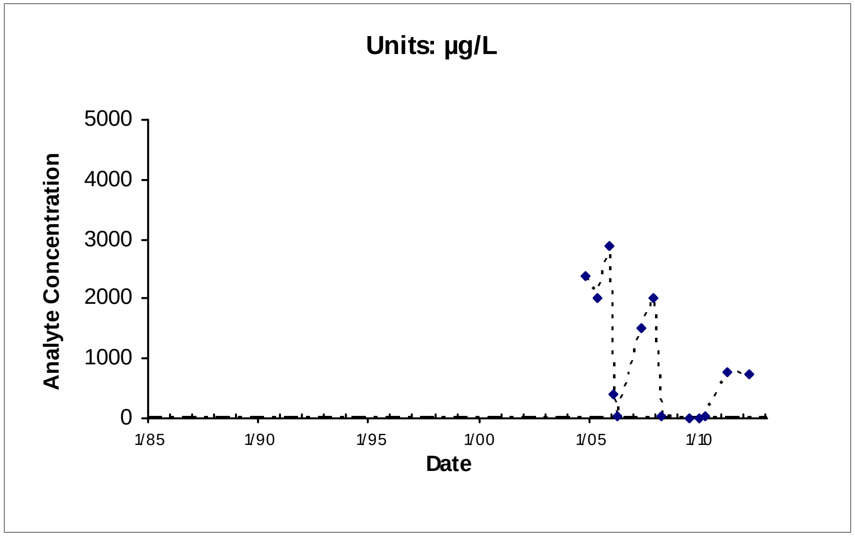
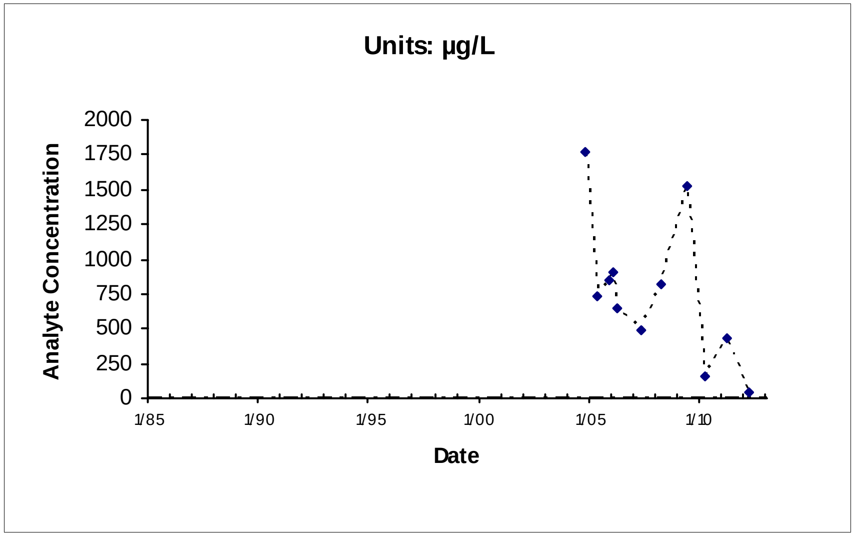
FIGURE 2-23
Site DP039
TCE
Chemical Time-series Plots



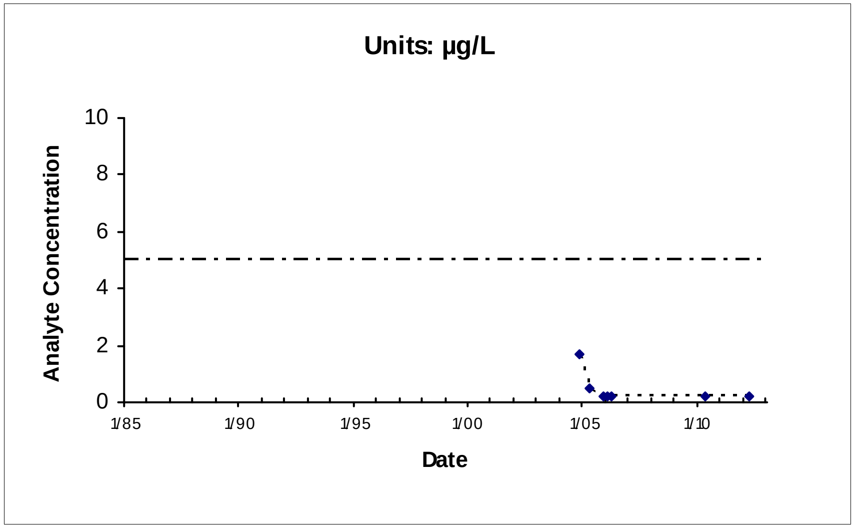
Location: MW777X39 Maximum: 3000



Location: MW778X39 Maximum: 2900



Location: MW779X39 Maximum: 1770



Location: MW780X39 Maximum: 1.67

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

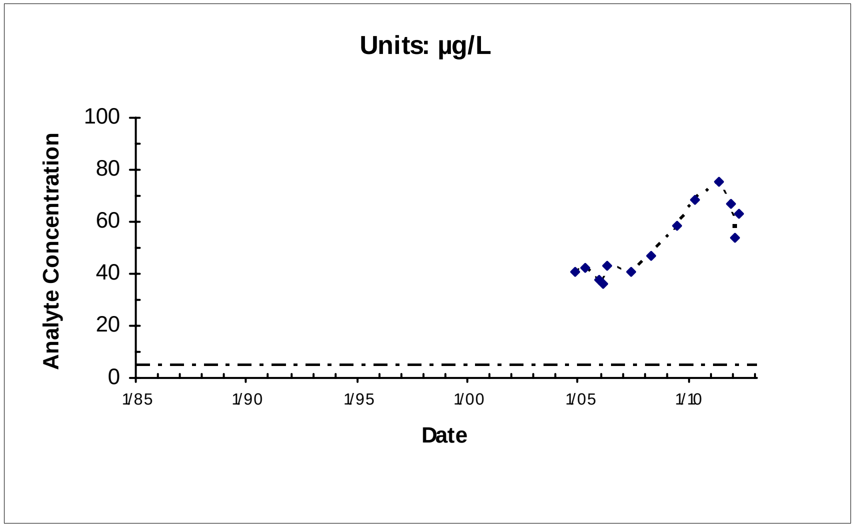
West IRA

FIGURE 2-23

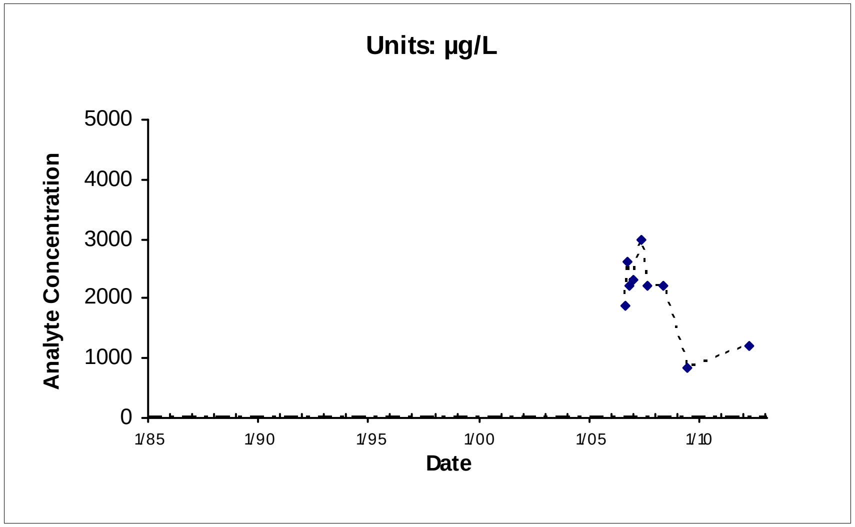
Site DP039

TCE

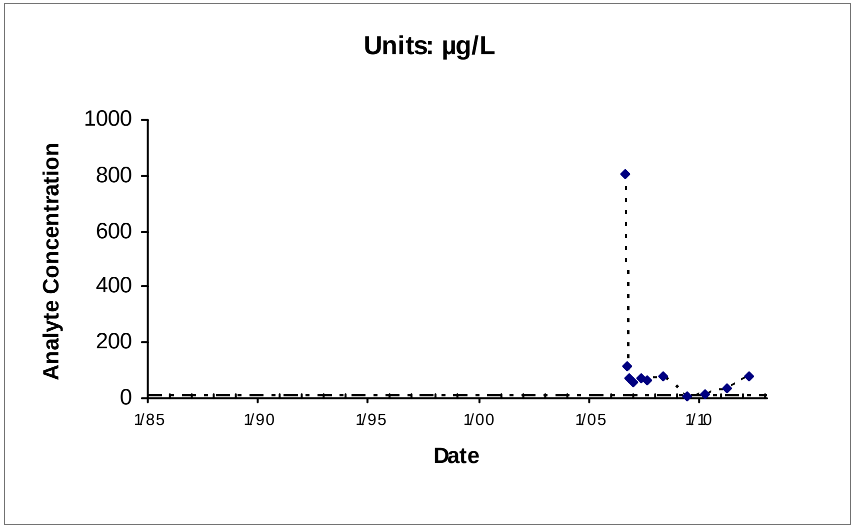
Chemical Time-series Plots



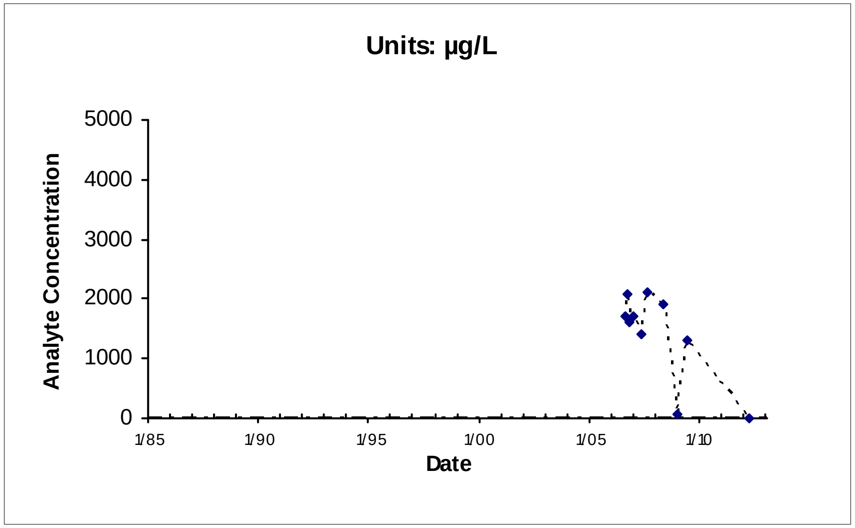
Location: MW781X39 Maximum: 75.2



Location: MW783Sx39 Maximum: 3000



Location: MW783Dx39 Maximum: 807



Location: MW784Sx39 Maximum: 2100

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

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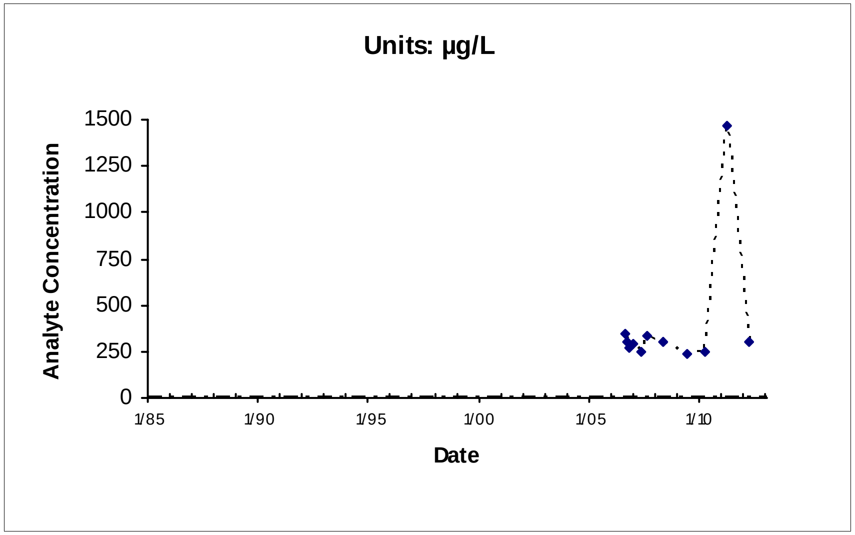
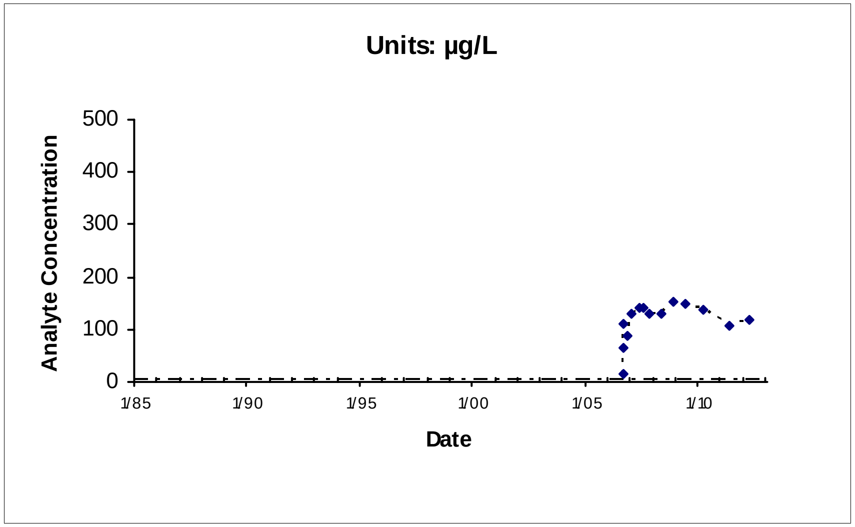
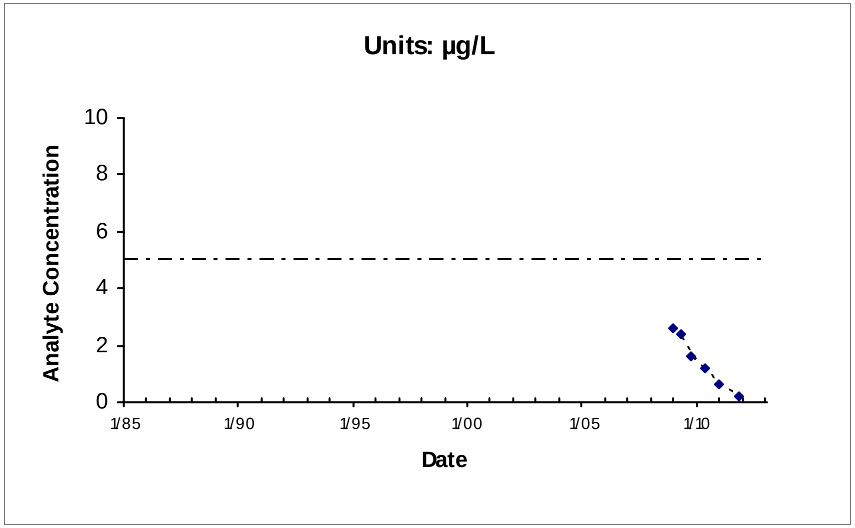
FIGURE 2-23
Site DP039
TCE
Chemical Time-series Plots



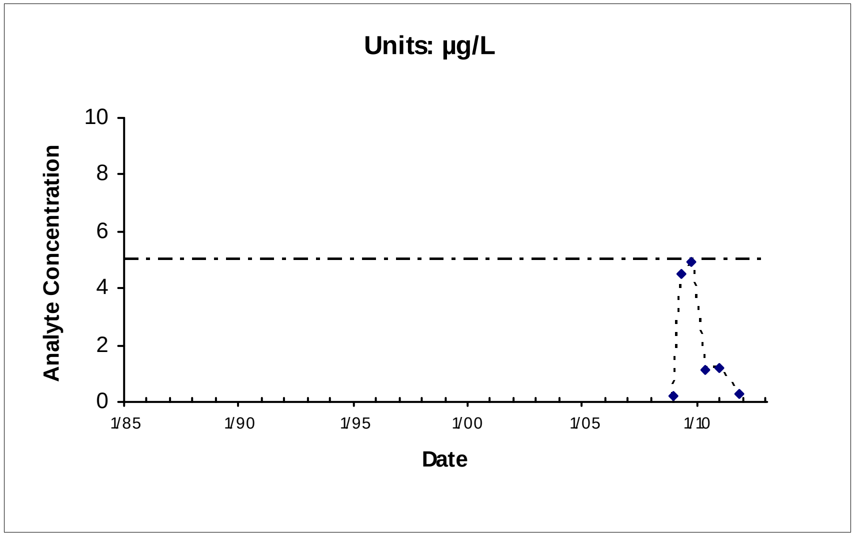
Location: MW784Dx39 Maximum: 1470



Location: MW785X39 Maximum: 151



Location: MW787X39 Maximum: 2.6



Location: MW788X39 Maximum: 4.9

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

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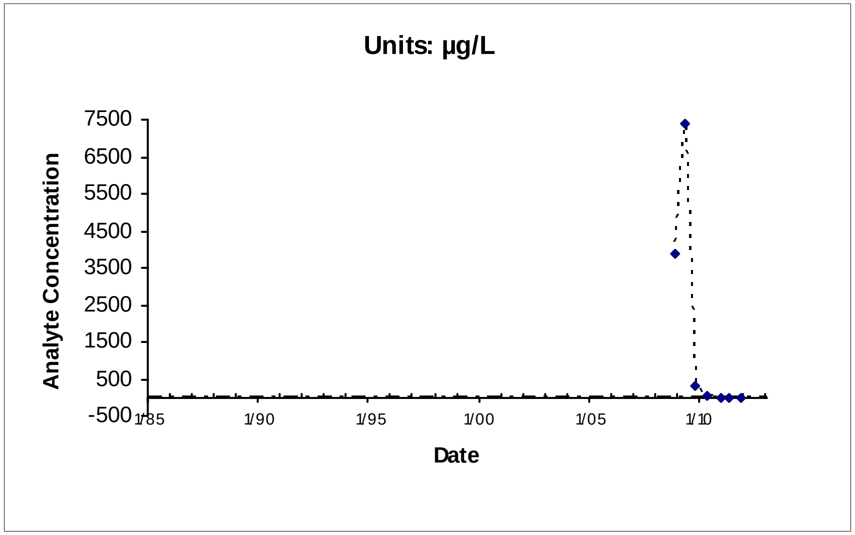
FIGURE 2-23

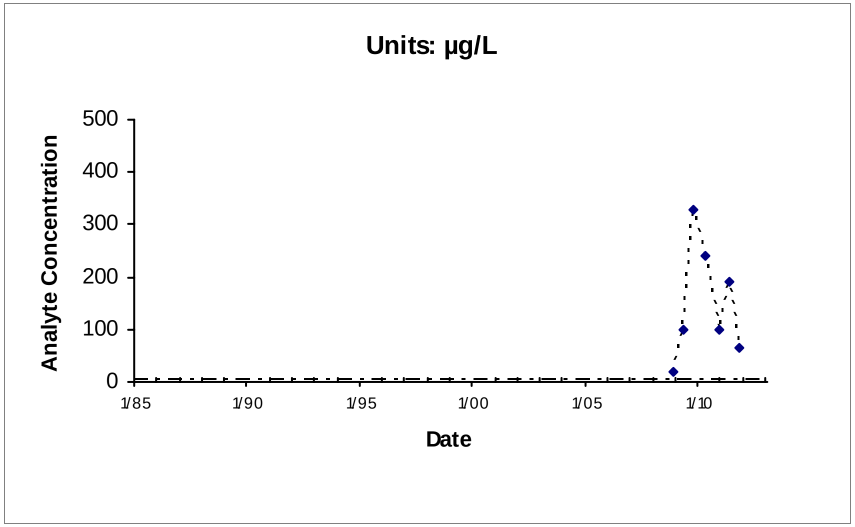
Site DP039

TCE

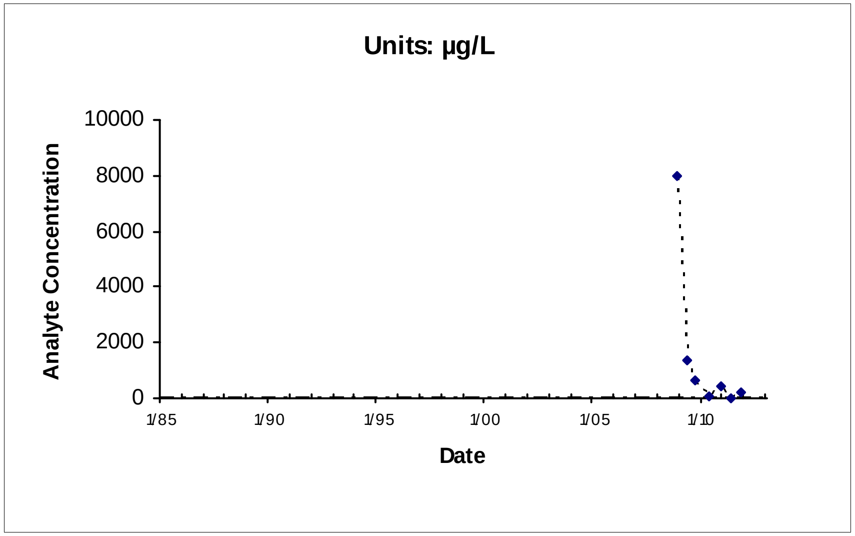
Chemical Time-series Plots



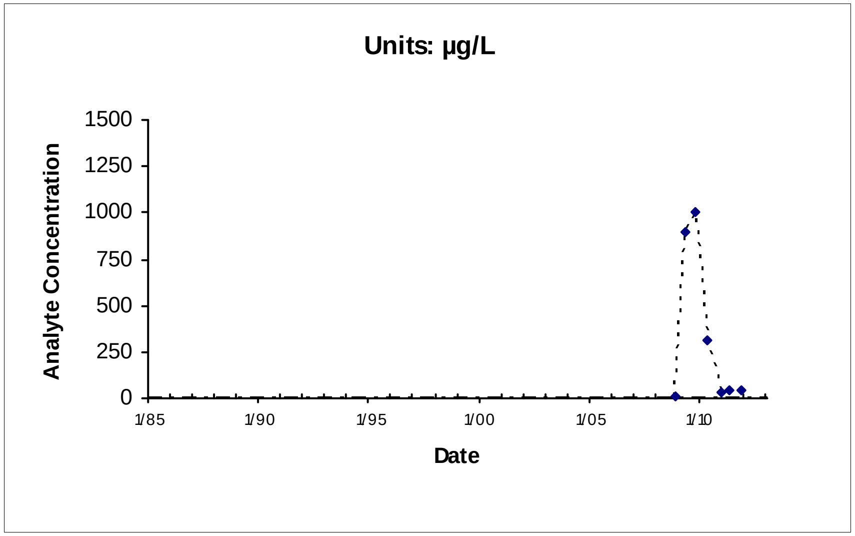
Location: MW791X39 Maximum: 7400



Location: MW792X39 Maximum: 330



Location: MW793X39 Maximum: 8000



Location: MW794X39 Maximum: 1000

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

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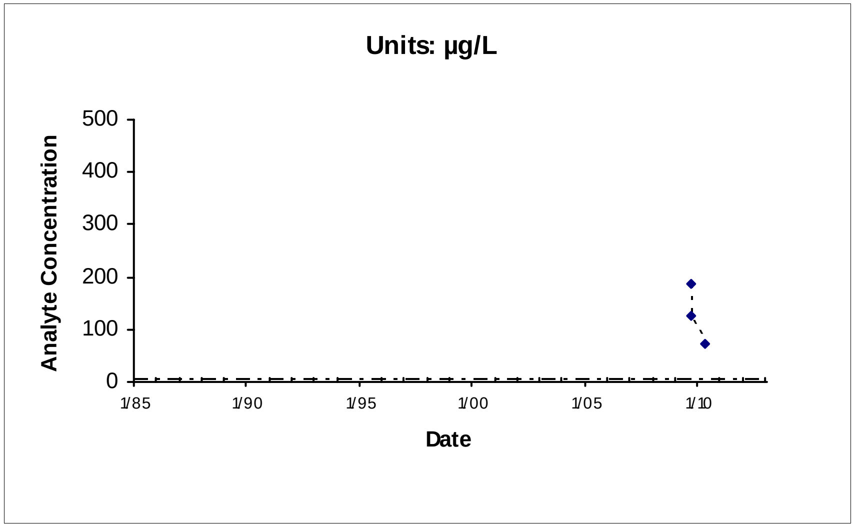
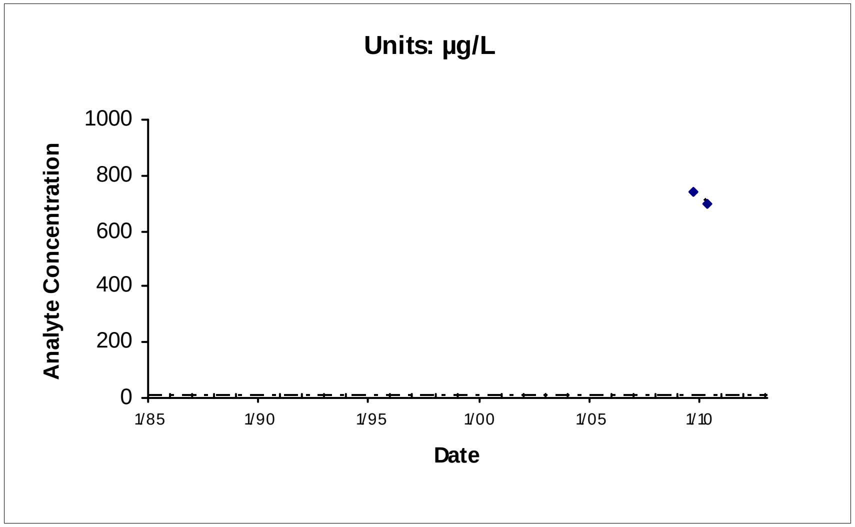
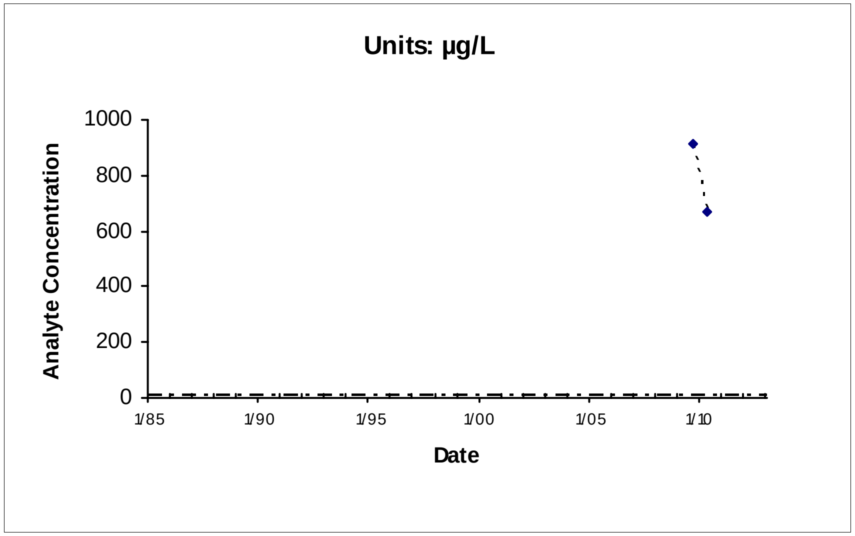
FIGURE 2-23
Site DP039
TCE
Chemical Time-series Plots



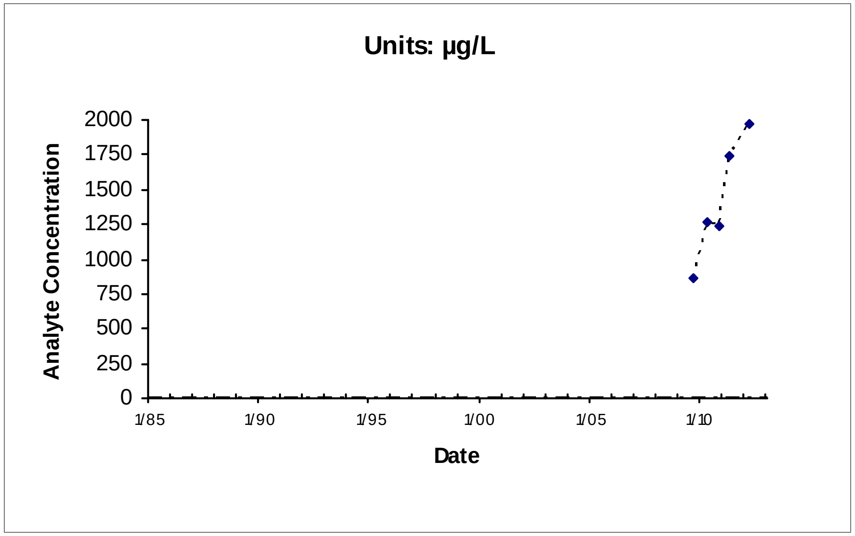
Location: MW2041Ax39 Maximum: 186



Location: MW2041Bx39 Maximum: 743



Location: MW2042Ax39 Maximum: 913

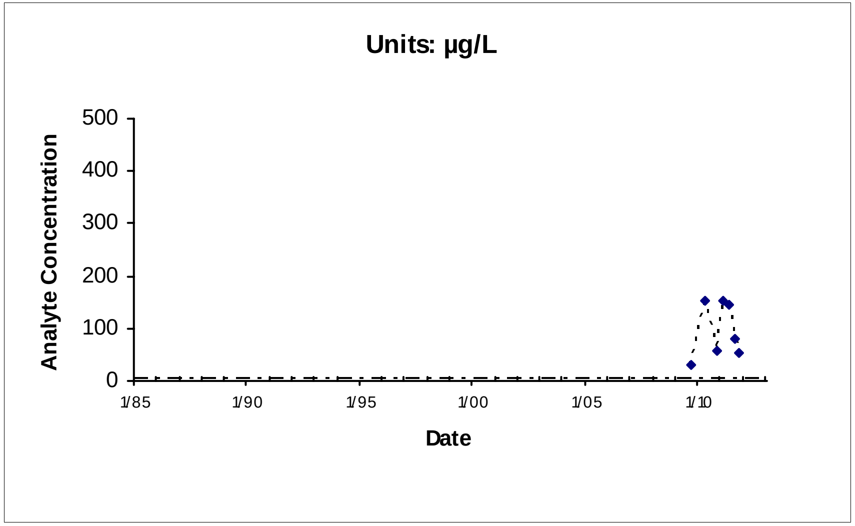


Location: MW2042Bx39 Maximum: 1970

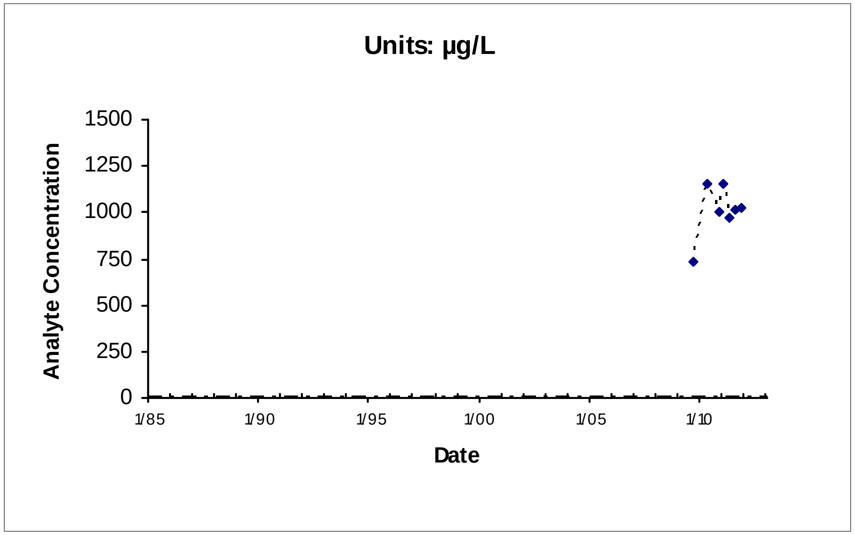
— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

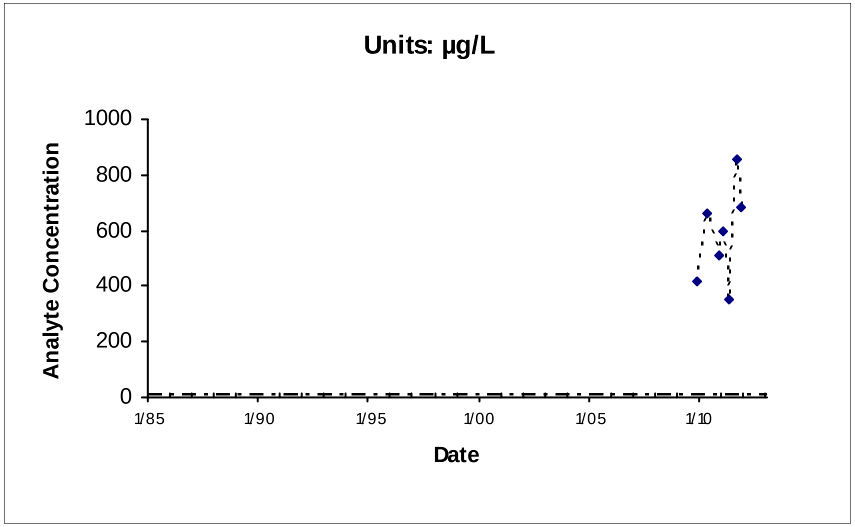
West IRA
FIGURE 2-23
Site DP039
TCE
Chemical Time-series Plots



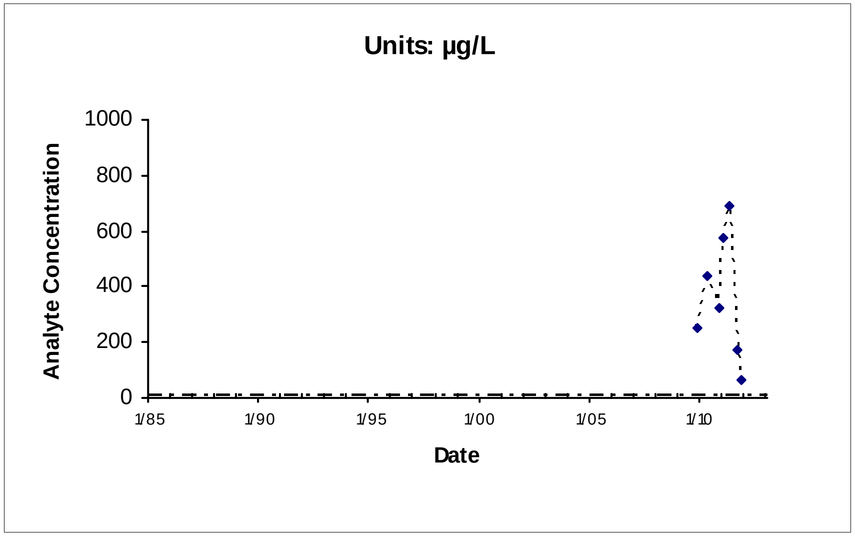
Location: MW2043Ax39 Maximum: 151



Location: MW2043Bx39 Maximum: 1160



Location: MW2056Ax39 Maximum: 856



Location: MW2056Bx39 Maximum: 691

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

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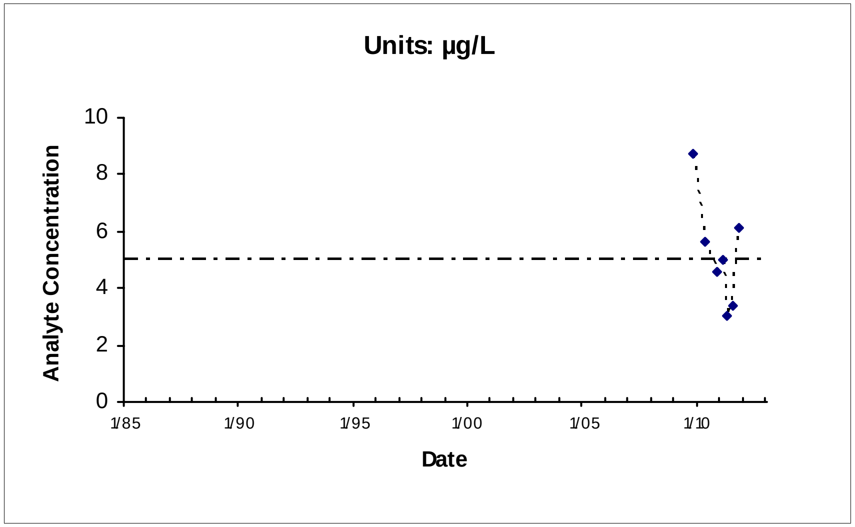
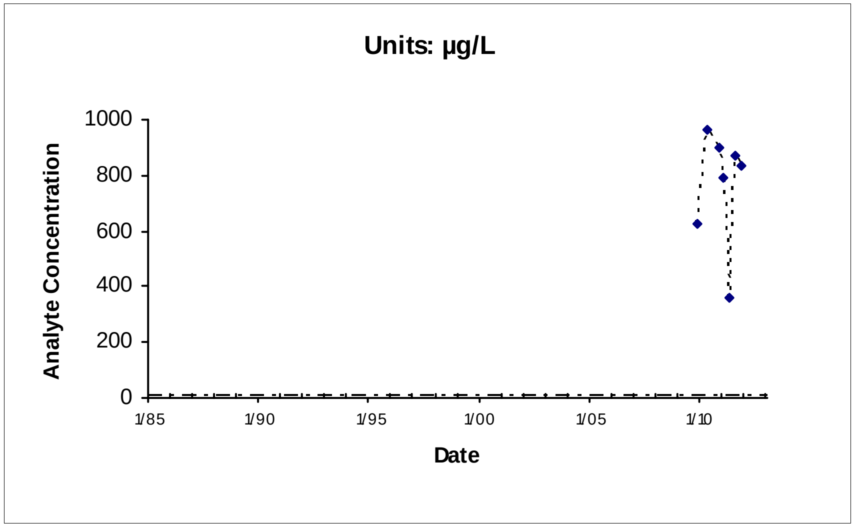
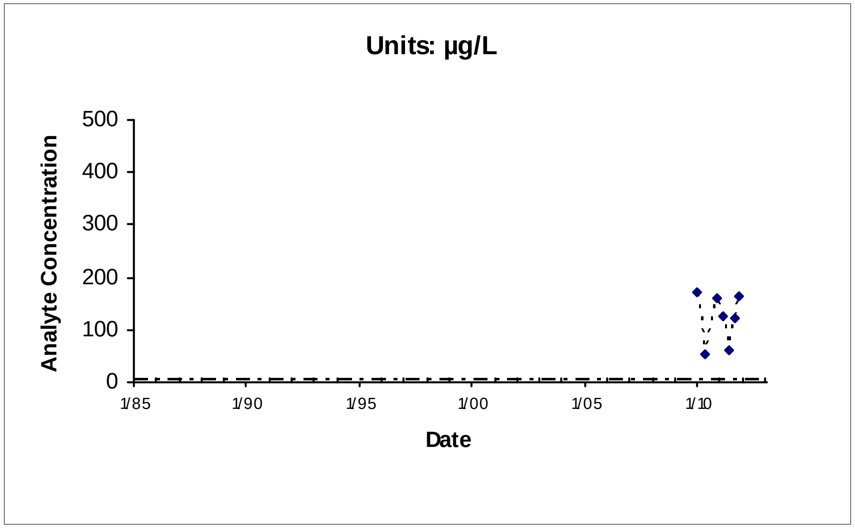
FIGURE 2-23
Site DP039
TCE
Chemical Time-series Plots



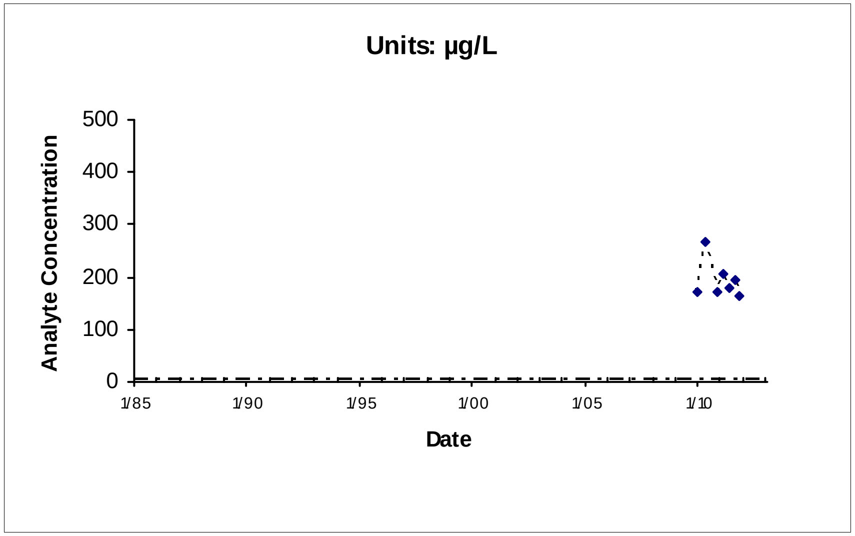
Location: MW2057Ax39 Maximum: 8.7



Location: MW2057Bx39 Maximum: 965



Location: MW2060Ax39 Maximum: 173



Location: MW2060Bx39 Maximum: 268

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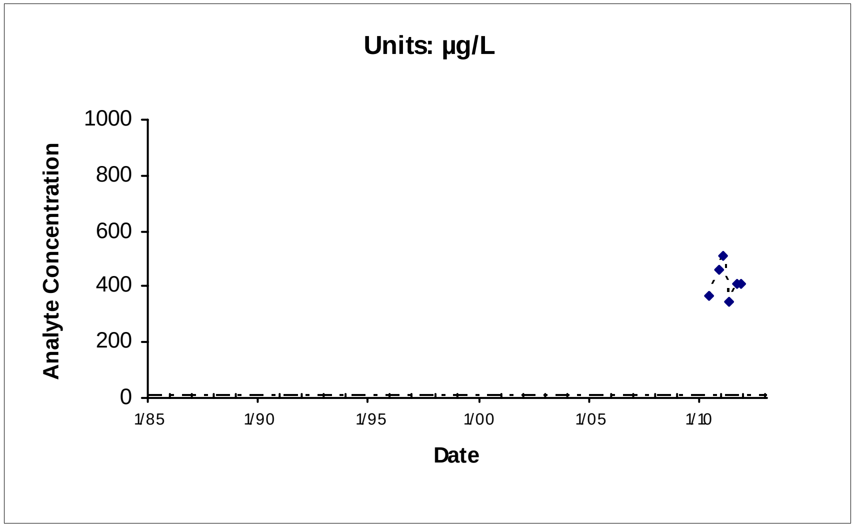
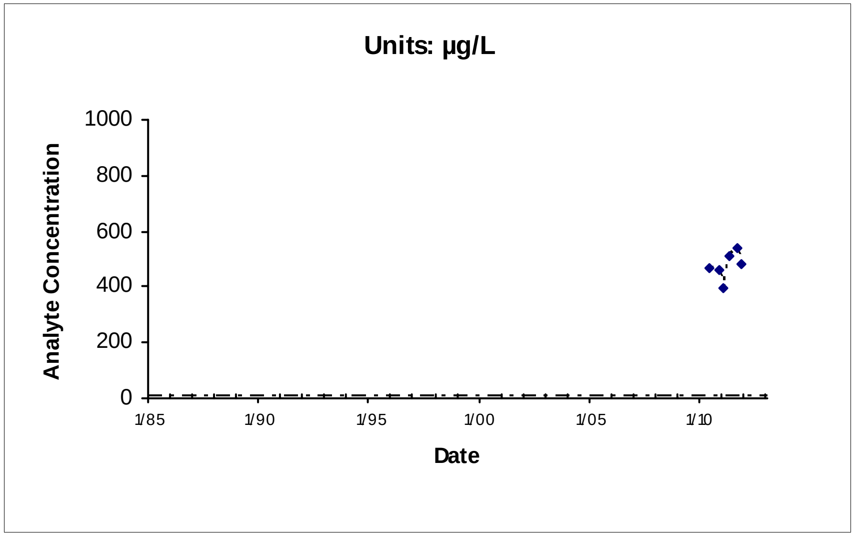
FIGURE 2-23
Site DP039
TCE
Chemical Time-series Plots

— - — - — IRG (5 µg/L)

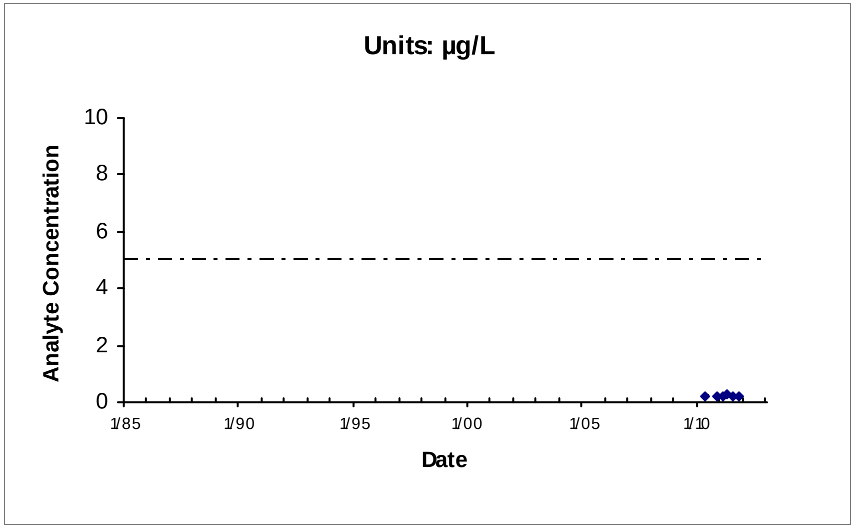
*Nondetects shown as the Method Detection Limit (0.19 µg/L)



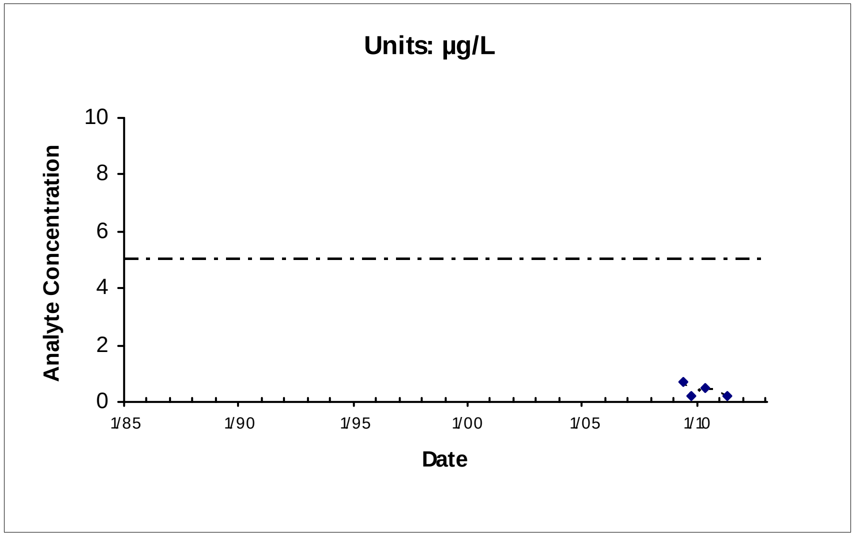
Location: MW2092Ax39 Maximum: 514



Location: MW2092Bx39 Maximum: 541



Location: MW2093x39 Maximum: 0.31



Location: PZ102x39 Maximum: 0.7

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

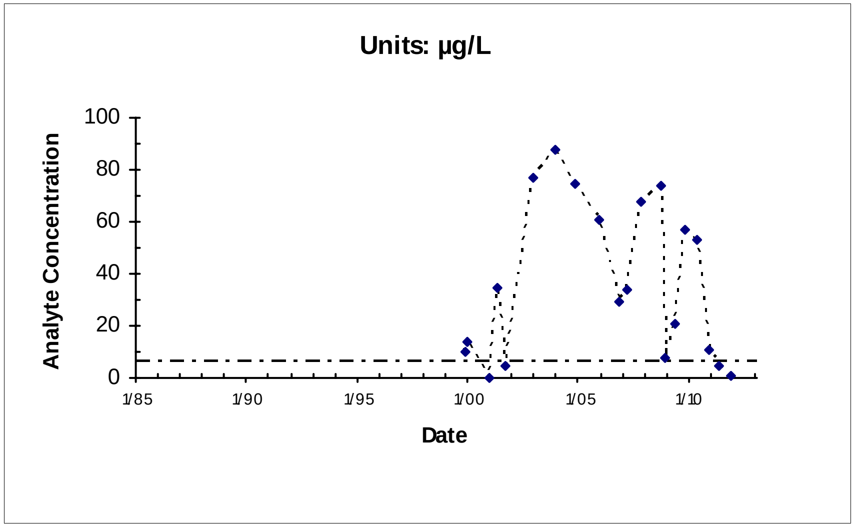
West IRA

FIGURE 2-23

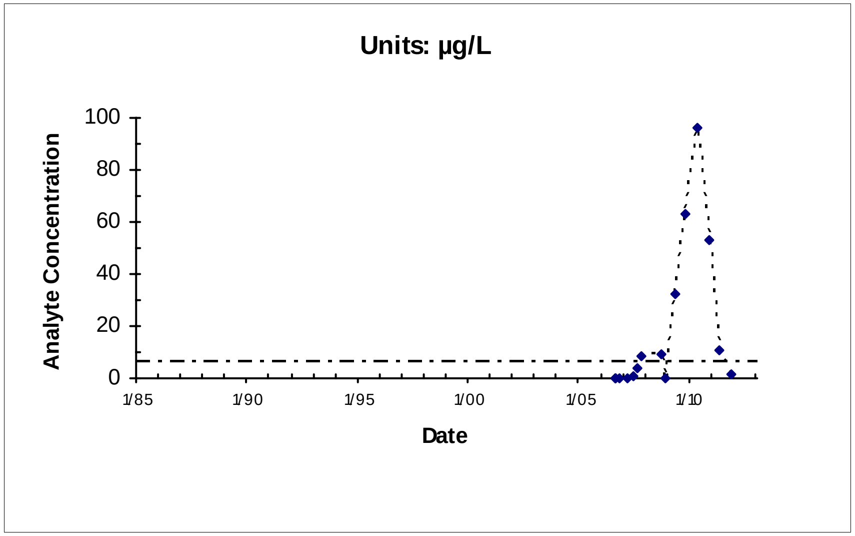
Site DP039

TCE

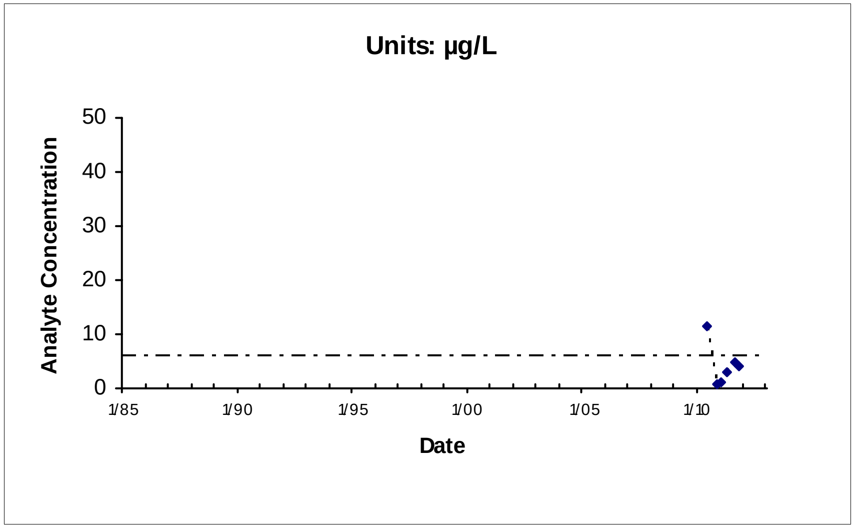
Chemical Time-series Plots



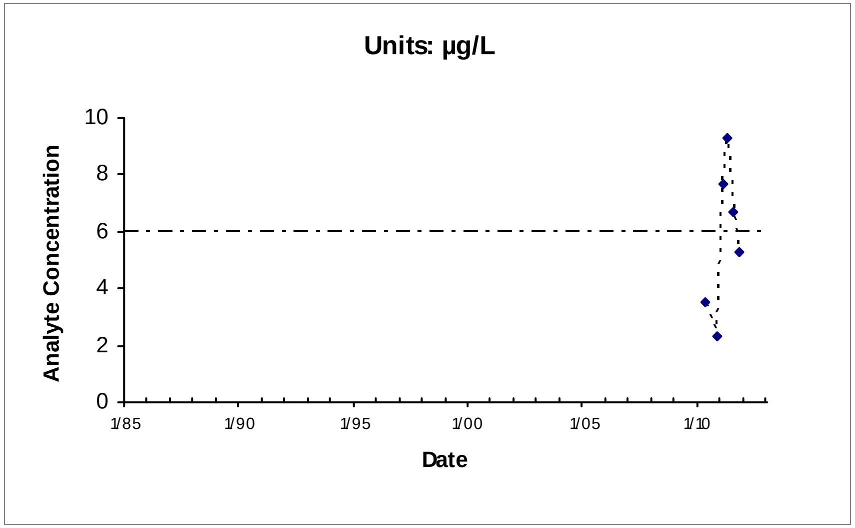
Location: EW563X39 Maximum: 87.8



Location: EW782X39 Maximum: 96



Location: IW2081x39 Maximum: 11.3



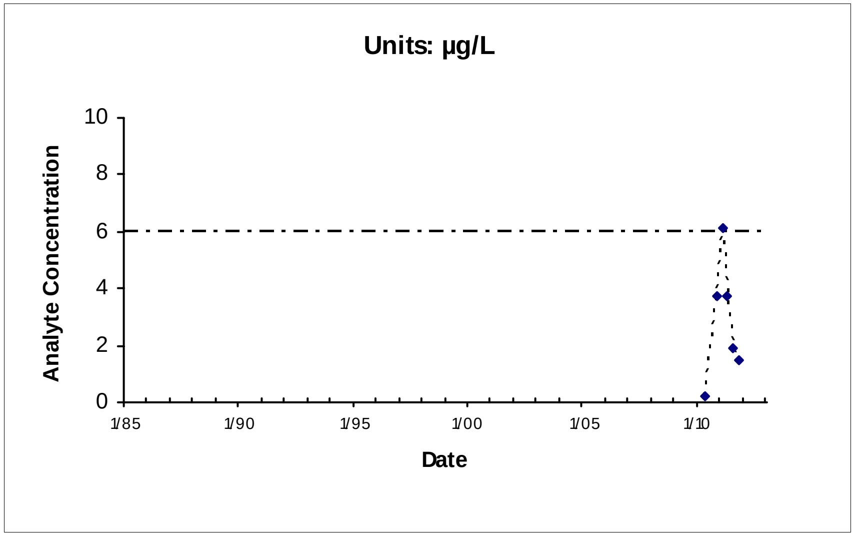
Location: IW2085x39 Maximum: 9.3

— - — - — IRG (6 µg/L)

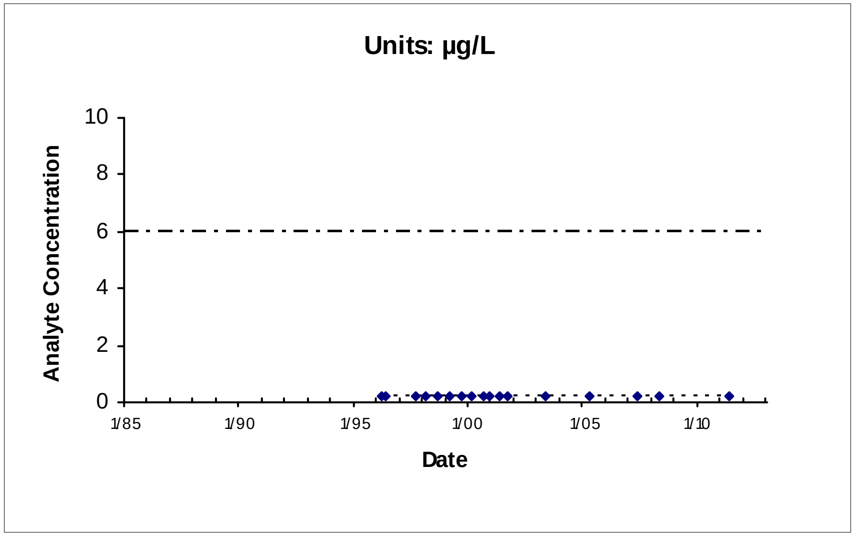
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

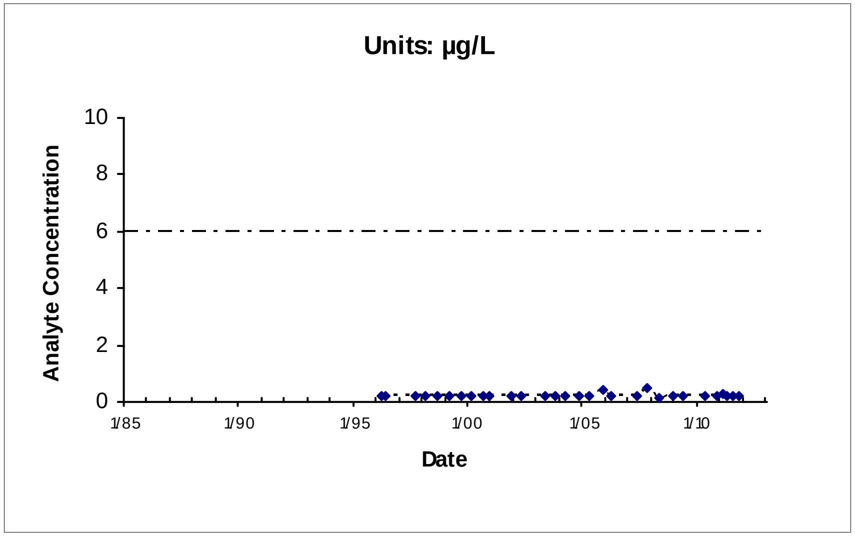
West IRA
FIGURE 2-24
Site DP039
cis-1,2-DCE
Chemical Time-series Plots



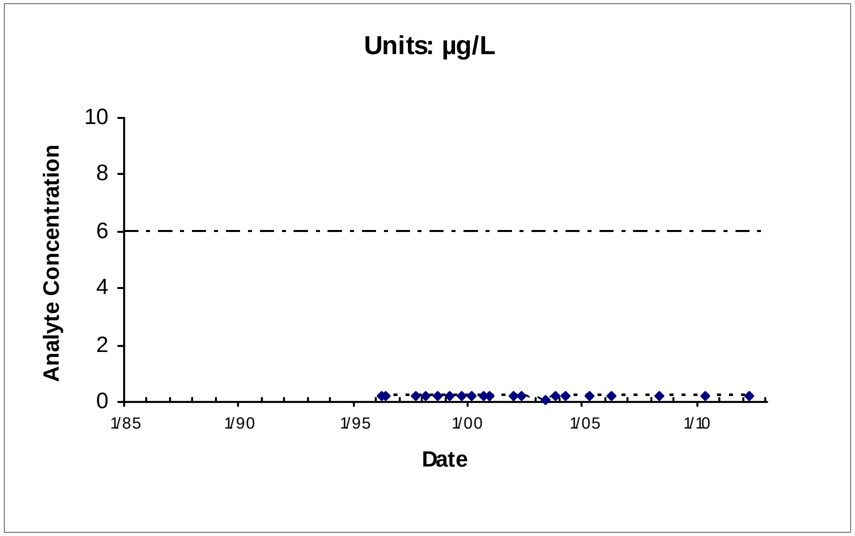
Location: IW2090x39 Maximum: 6.1



Location: MW01X39 Maximum: 0.19



Location: MW02X39 Maximum: 0.5



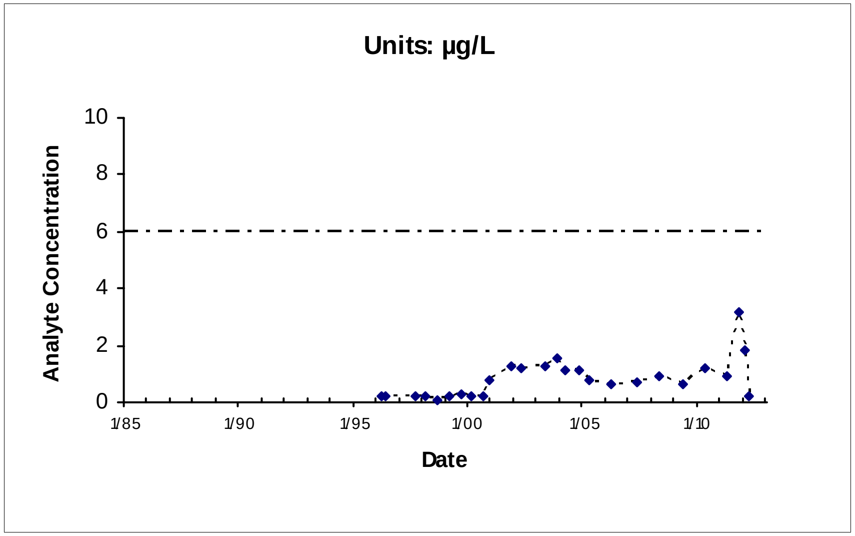
Location: MW03X39 Maximum: 0.19

— - — - — IRG (6 µg/L)

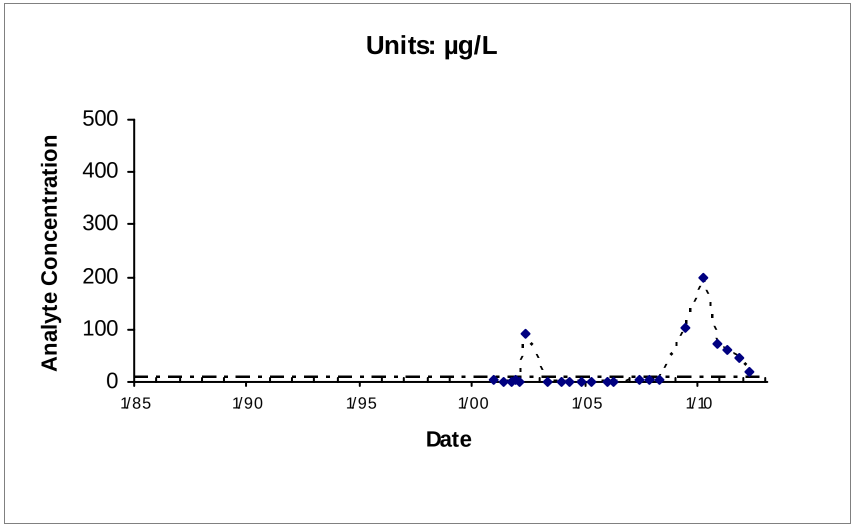
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

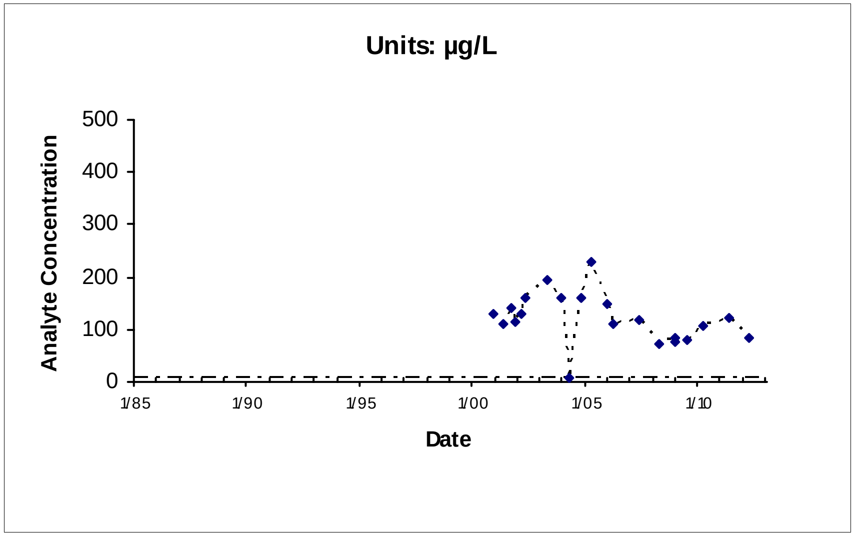
West IRA
FIGURE 2-24
Site DP039
cis-1,2-DCE
Chemical Time-series Plots



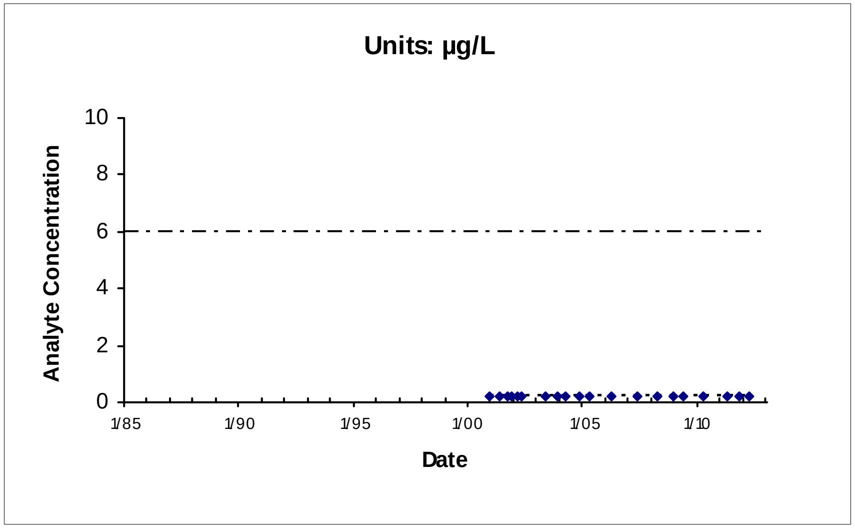
Location: MW04X39 Maximum: 3.2



Location: MW750X39 Maximum: 198



Location: MW751X39 Maximum: 230



Location: MW758X39 Maximum: 0.19

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

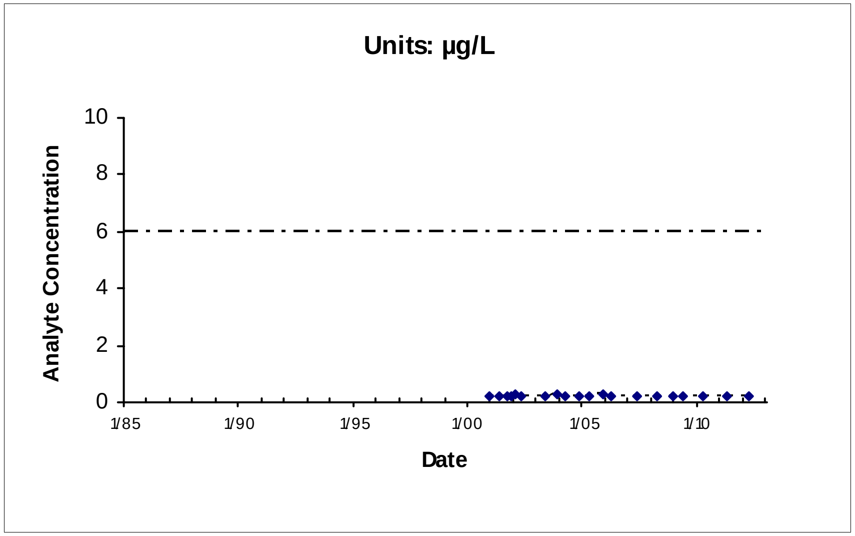
West IRA

FIGURE 2-24

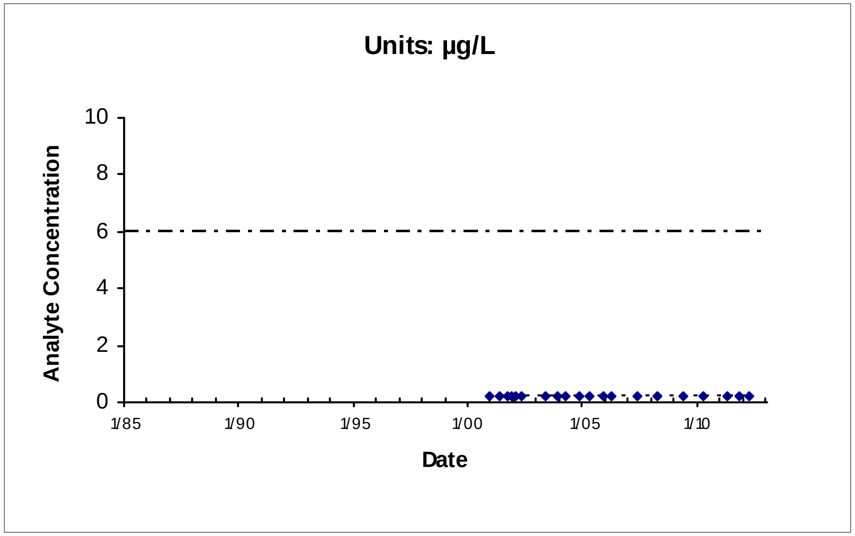
Site DP039

cis-1,2-DCE

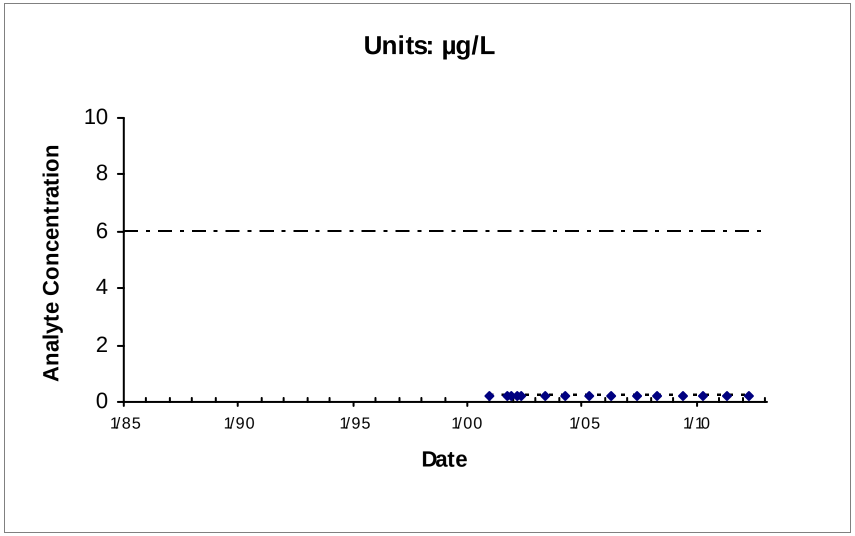
Chemical Time-series Plots



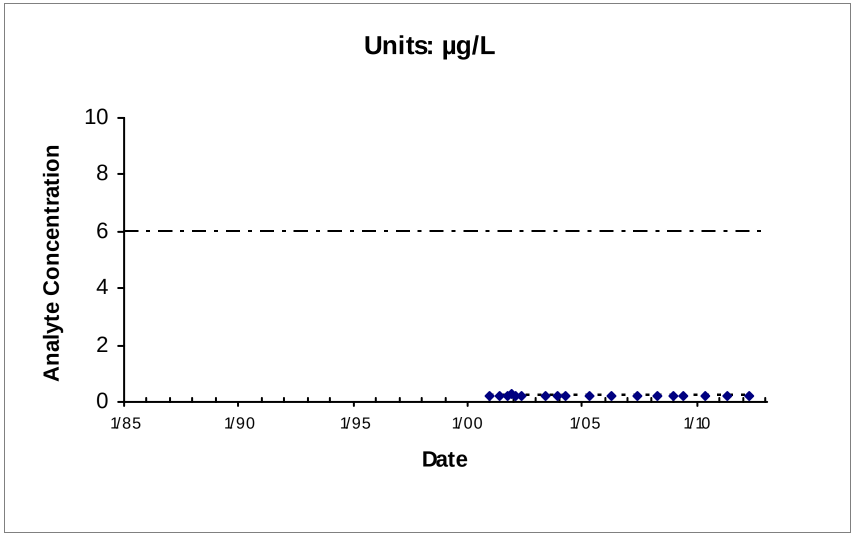
Location: MW759X39 Maximum: 0.31



Location: MW760X39 Maximum: 0.19



Location: MW761X39 Maximum: 0.19



Location: MW762X39 Maximum: 0.3

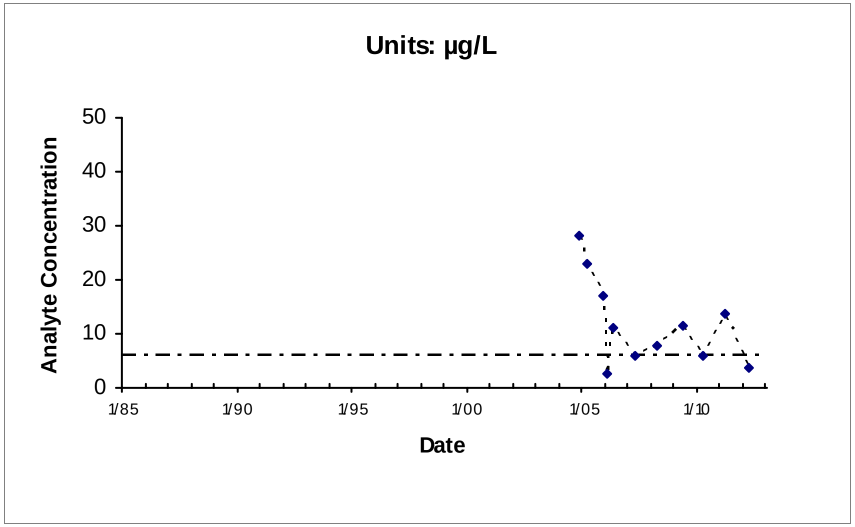
— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

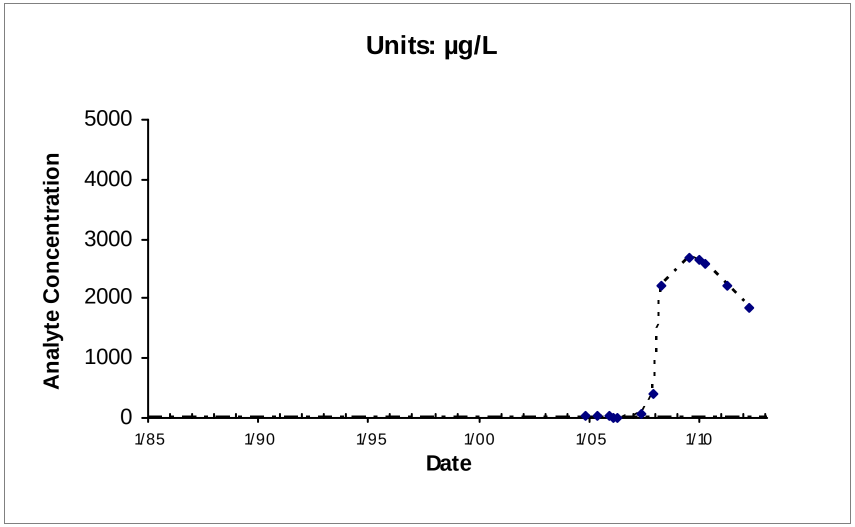
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

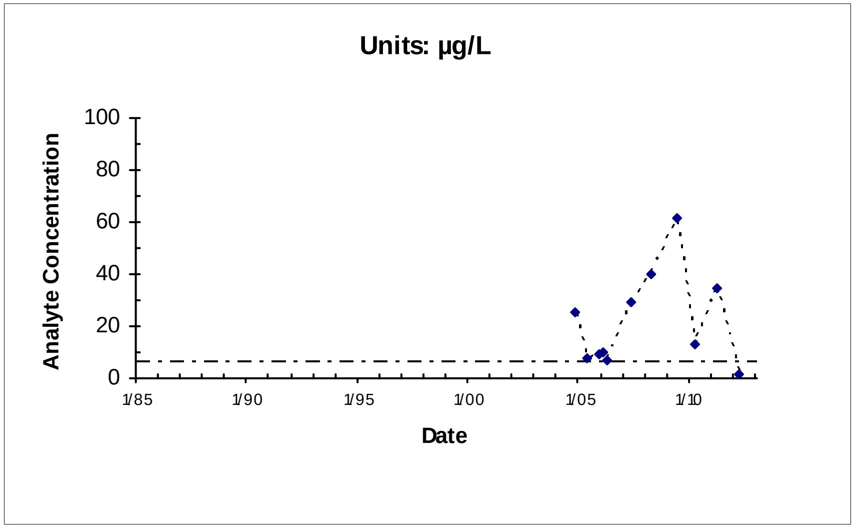
FIGURE 2-24
Site DP039
cis-1,2-DCE
Chemical Time-series Plots



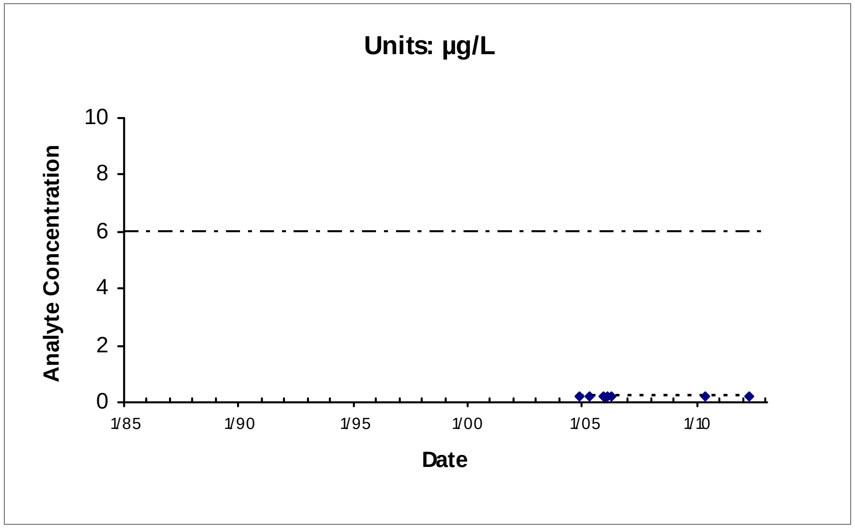
Location: MW777X39 Maximum: 28.3



Location: MW778X39 Maximum: 2690



Location: MW779X39 Maximum: 61.5



Location: MW780X39 Maximum: 0.19

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

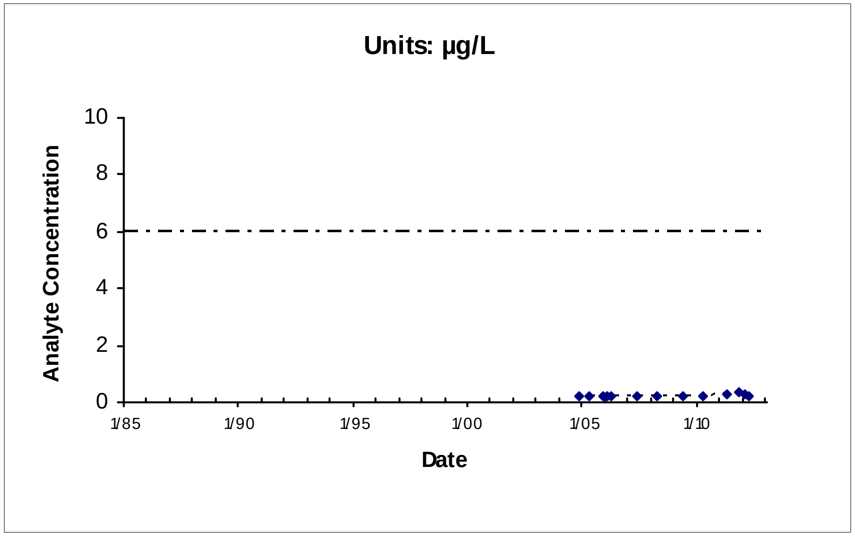
West IRA

FIGURE 2-24

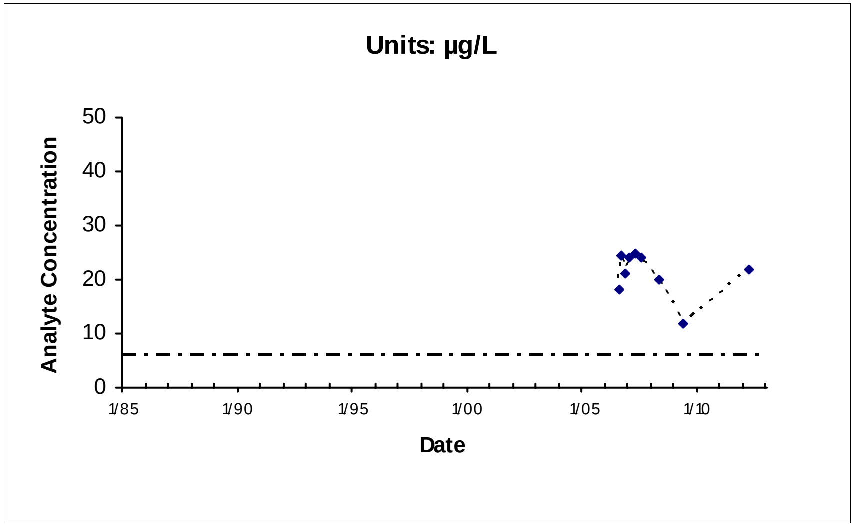
Site DP039

cis-1,2-DCE

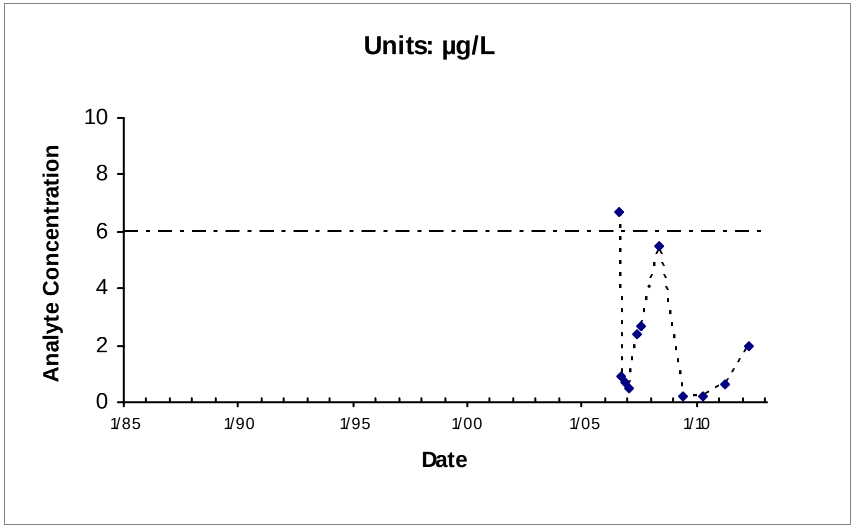
Chemical Time-series Plots



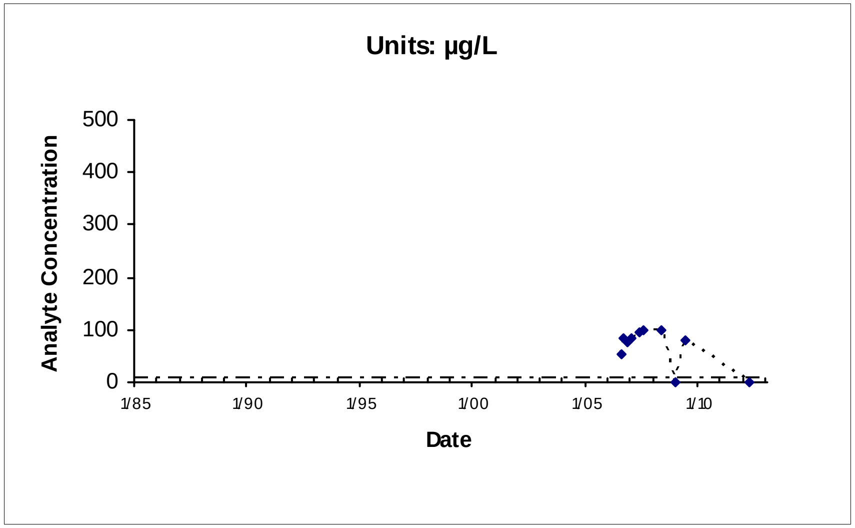
Location: MW781X39 Maximum: 0.37



Location: MW783Sx39 Maximum: 25



Location: MW783Dx39 Maximum: 6.71



Location: MW784Sx39 Maximum: 100

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

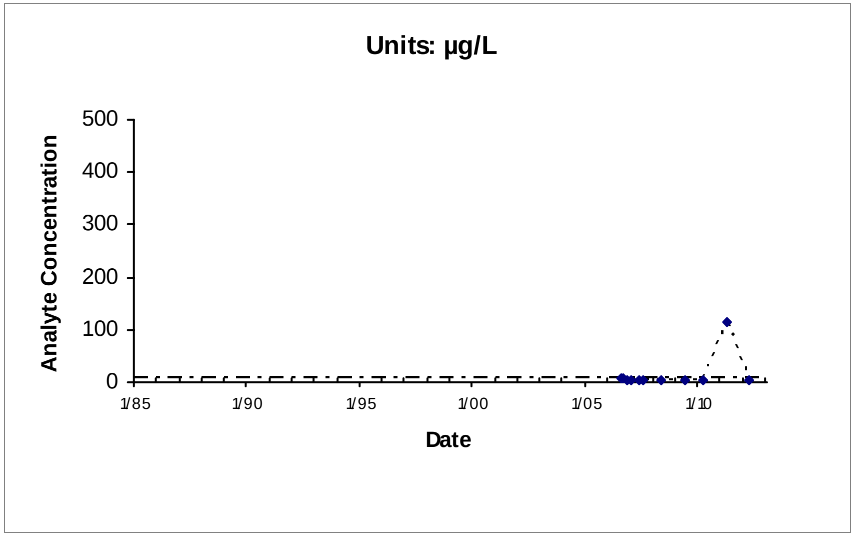
West IRA

FIGURE 2-24

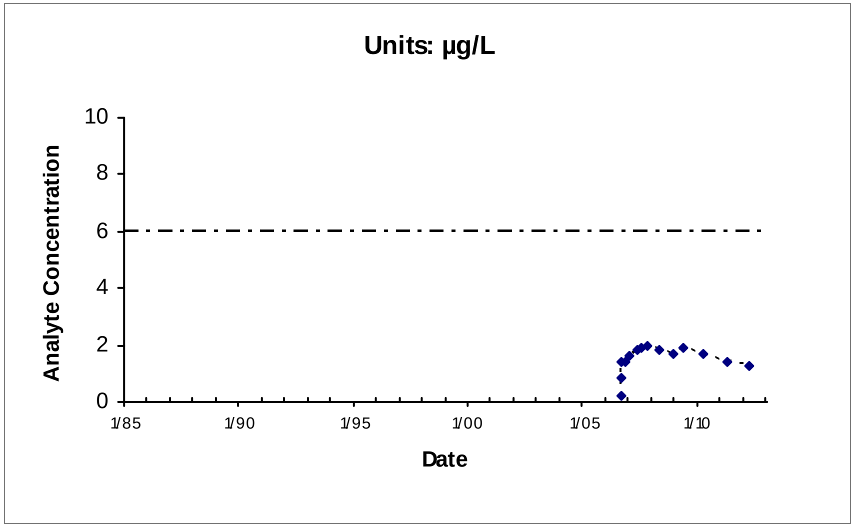
Site DP039

cis-1,2-DCE

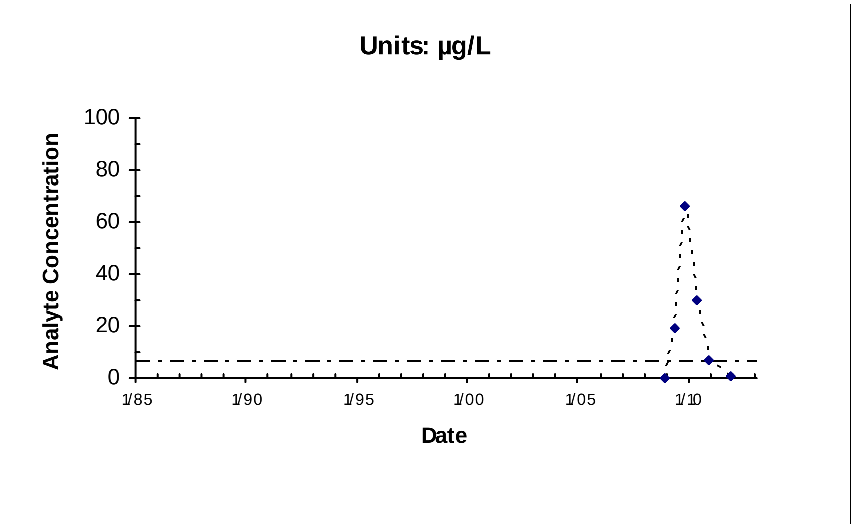
Chemical Time-series Plots



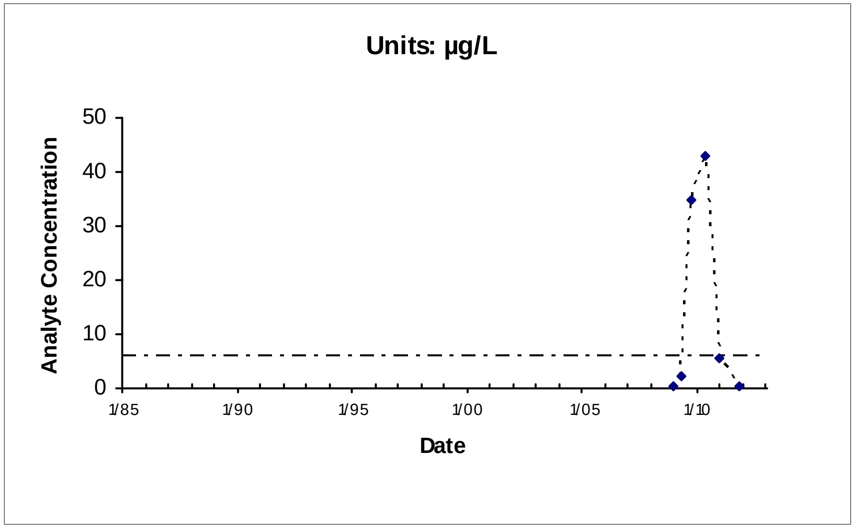
Location: MW784Dx39 Maximum: 114



Location: MW785X39 Maximum: 2



Location: MW787X39 Maximum: 66



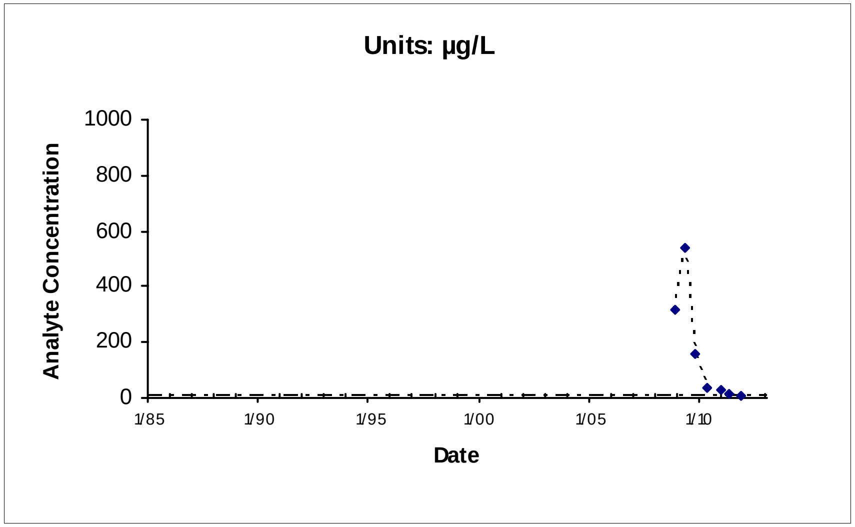
Location: MW788X39 Maximum: 43

— - — - — IRG (6 µg/L)

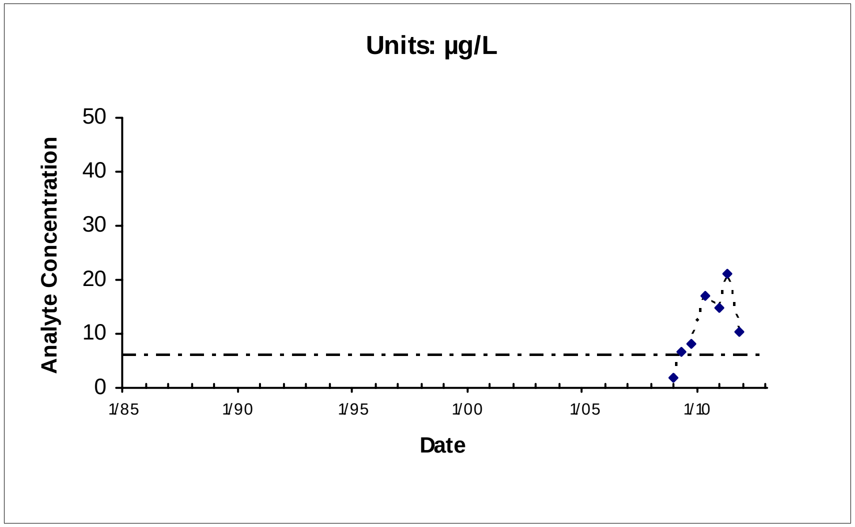
*Nondetects shown as the Method Detection Limit (0.19 µg/L)

West IRA

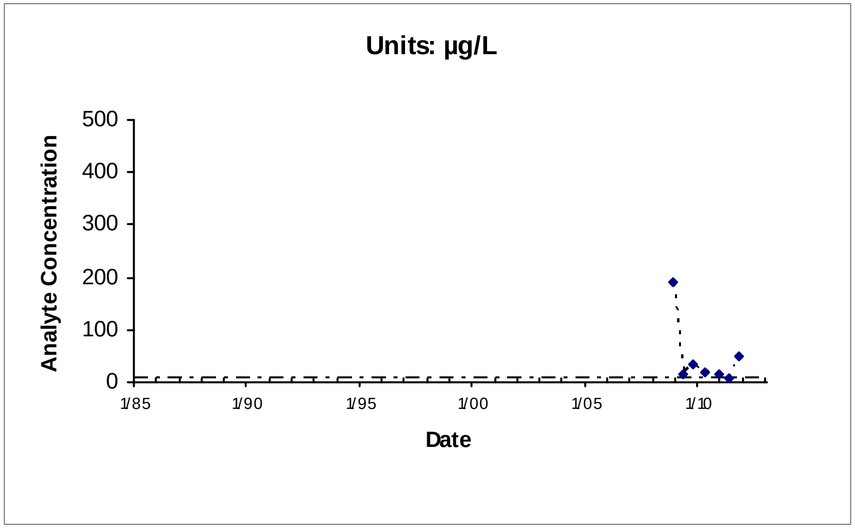
FIGURE 2-24
Site DP039
cis-1,2-DCE
Chemical Time-series Plots



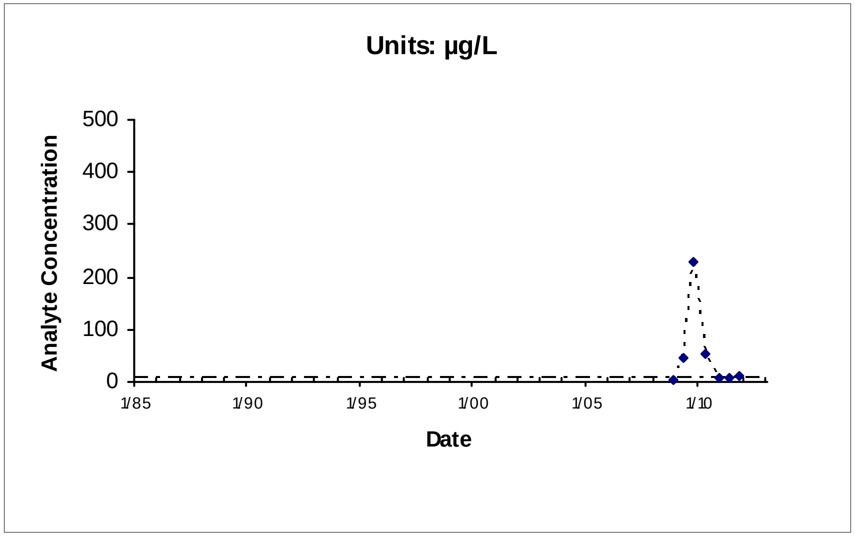
Location: MW791X39 Maximum: 540



Location: MW792X39 Maximum: 21.2



Location: MW793X39 Maximum: 190



Location: MW794X39 Maximum: 230

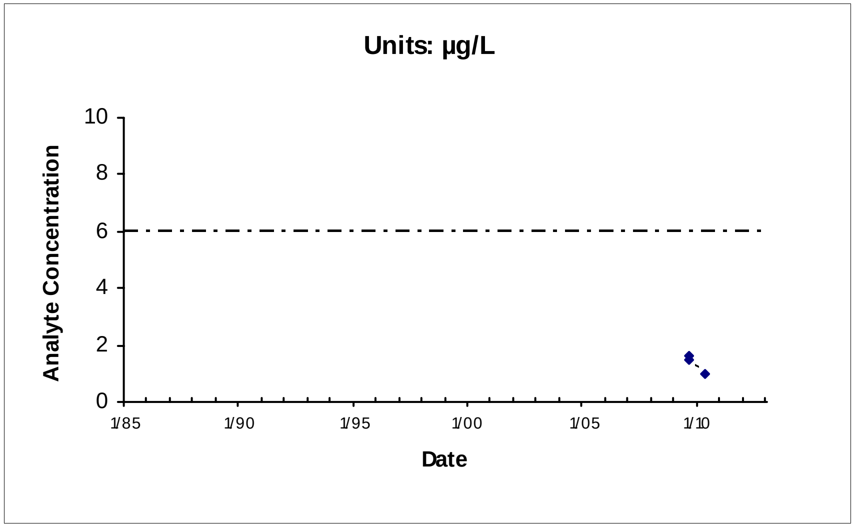
— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

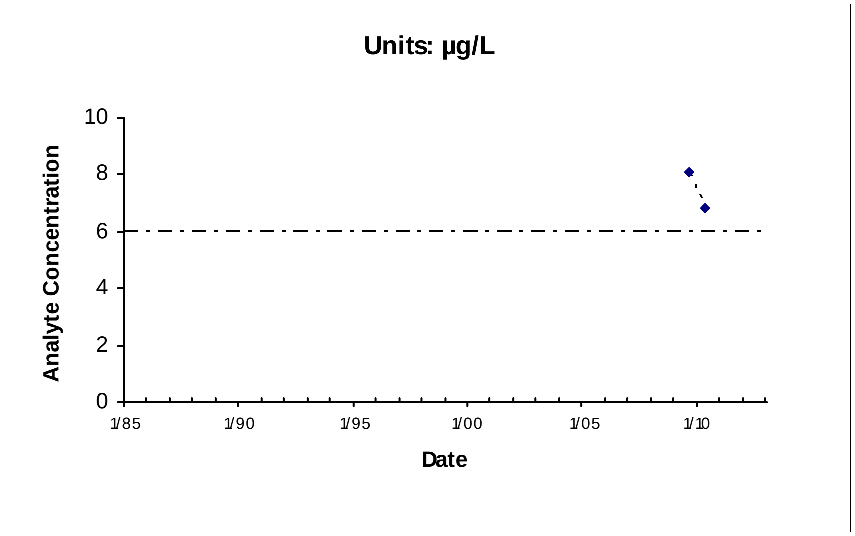
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

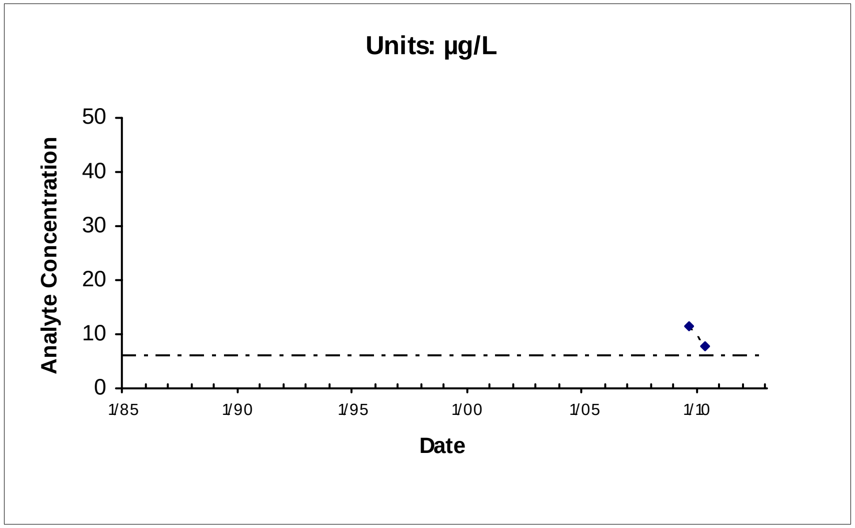
FIGURE 2-24
Site DP039
cis-1,2-DCE
Chemical Time-series Plots



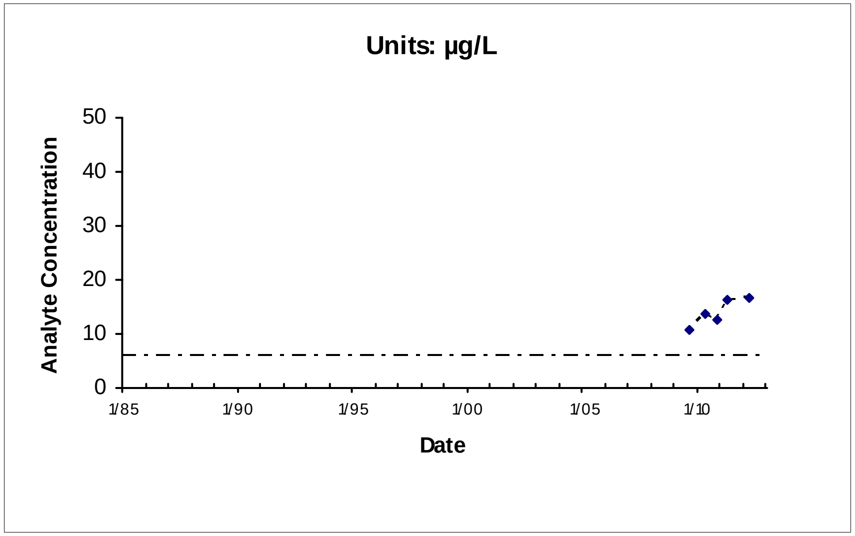
Location: MW2041Ax39 Maximum: 1.6



Location: MW2041Bx39 Maximum: 8.1



Location: MW2042Ax39 Maximum: 11.5



Location: MW2042Bx39 Maximum: 16.8

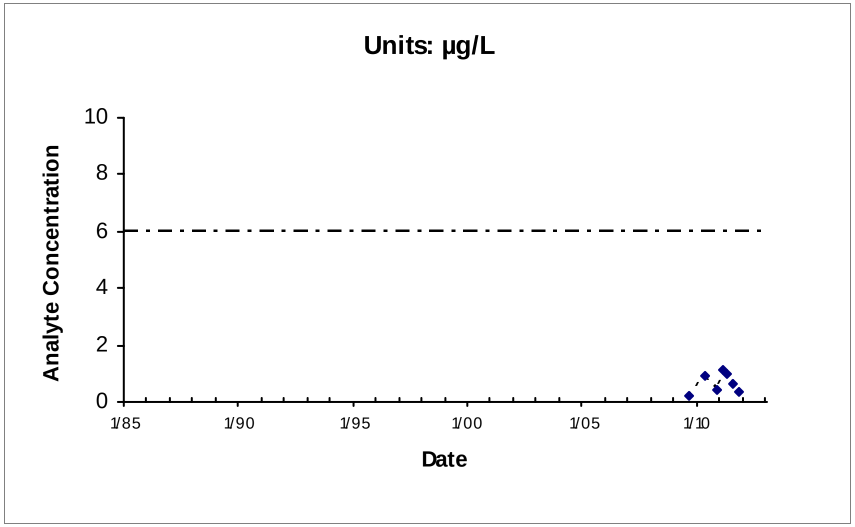
West IRA

FIGURE 2-24
Site DP039
cis-1,2-DCE
Chemical Time-series Plots

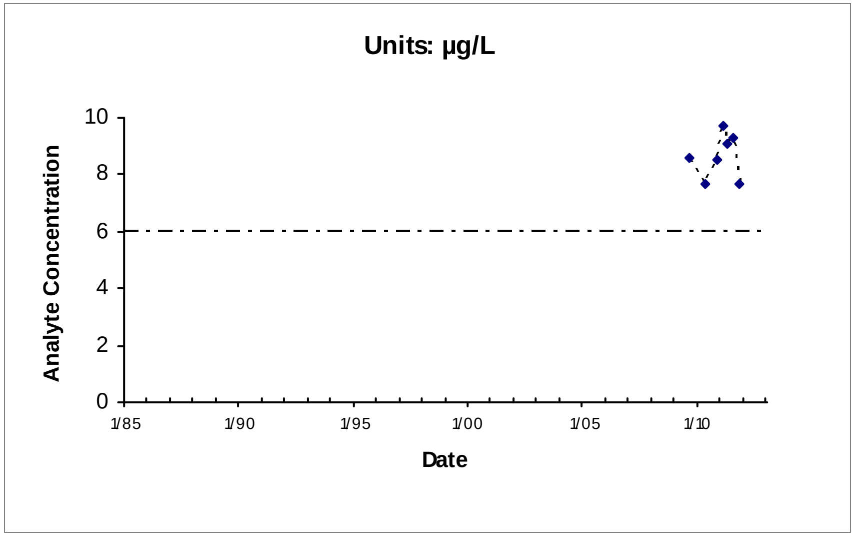
— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

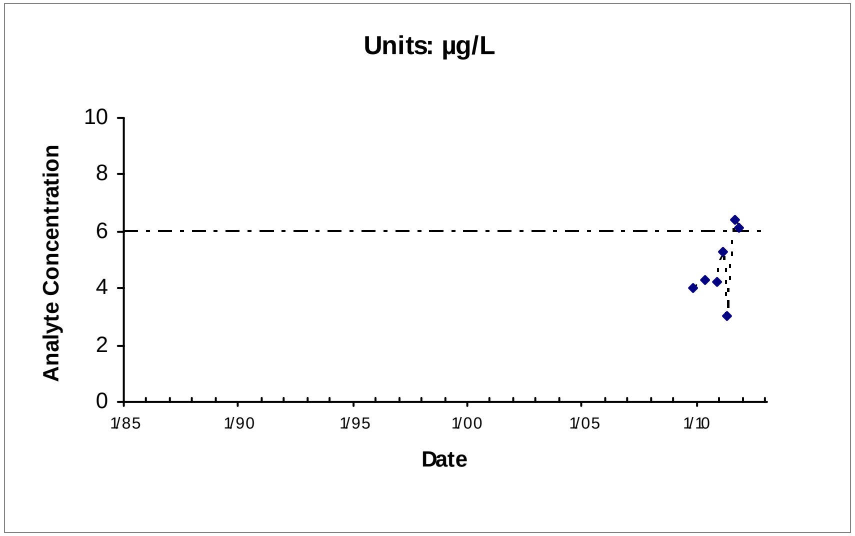
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



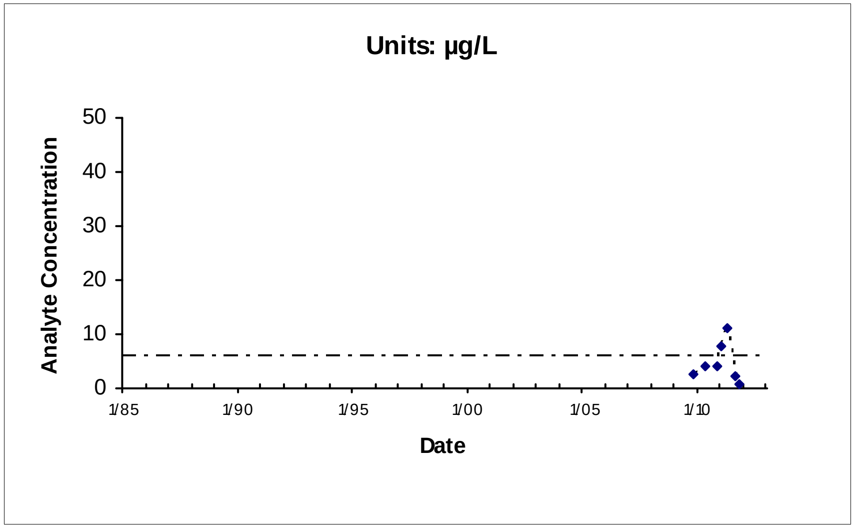
Location: MW2043Ax39 Maximum: 1.1



Location: MW2043Bx39 Maximum: 9.7



Location: MW2056Ax39 Maximum: 6.4



Location: MW2056Bx39 Maximum: 11.2

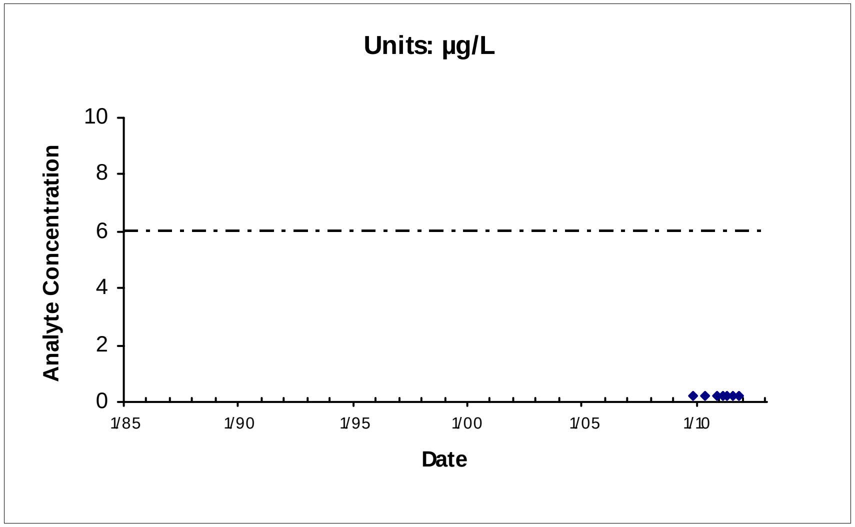
— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

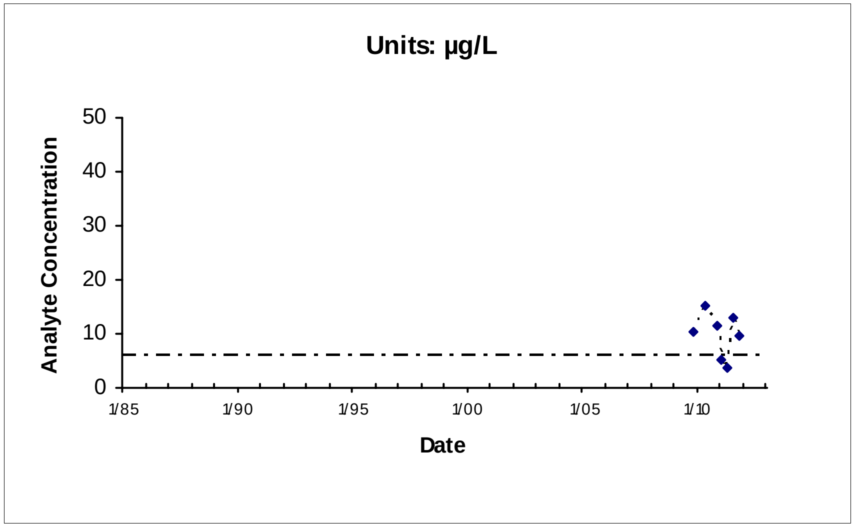
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

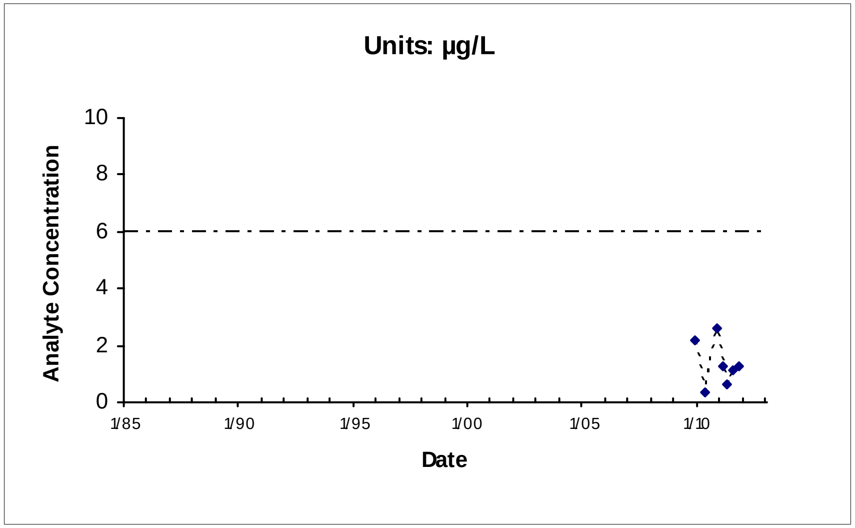
FIGURE 2-24
Site DP039
cis-1,2-DCE
Chemical Time-series Plots



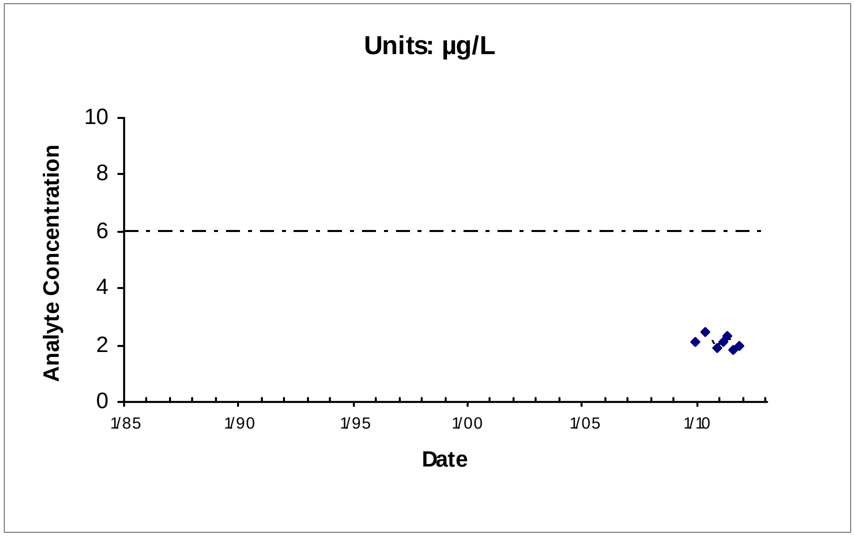
Location: MW2057Ax39 Maximum: 0.19



Location: MW2057Bx39 Maximum: 15.3



Location: MW2060Ax39 Maximum: 2.6



Location: MW2060Bx39 Maximum: 2.5

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

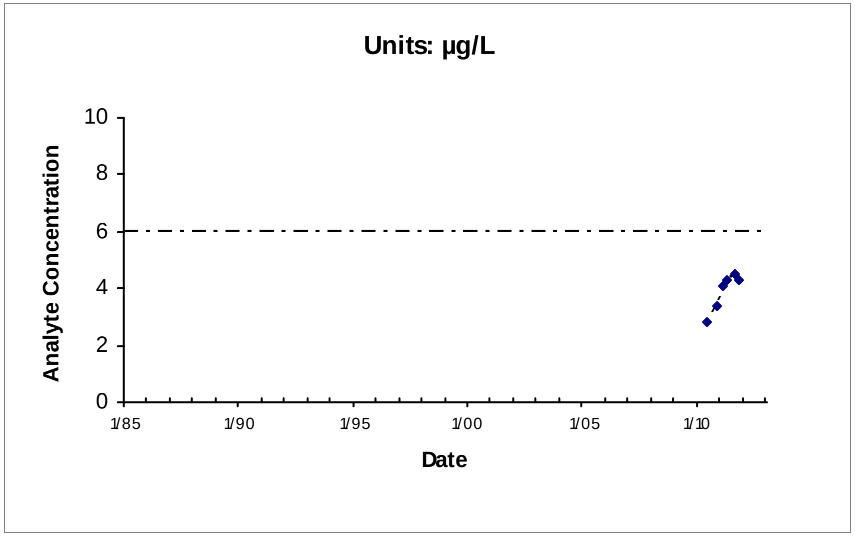
West IRA

FIGURE 2-24

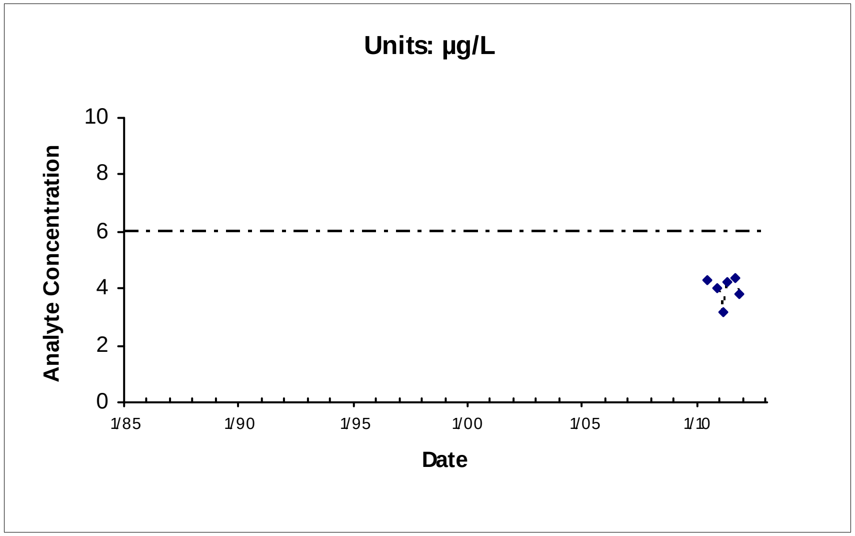
Site DP039

cis-1,2-DCE

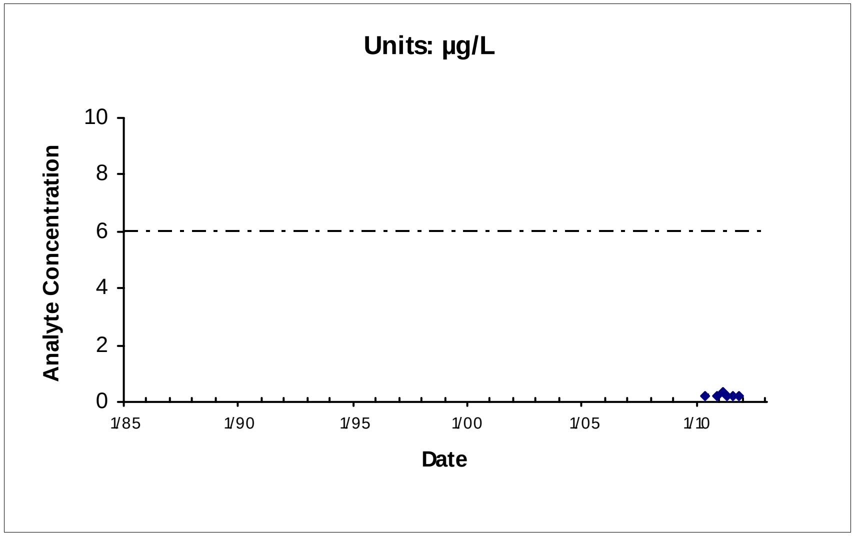
Chemical Time-series Plots



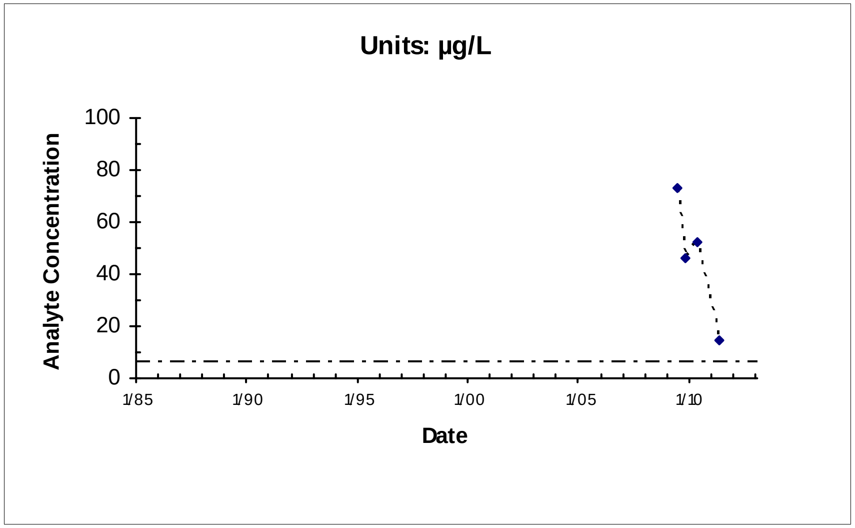
Location: MW2092Ax39 Maximum: 4.5



Location: MW2092Bx39 Maximum: 4.4



Location: MW2093x39 Maximum: 0.36



Location: PZ102x39 Maximum: 73

— - — - — IRG (6 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

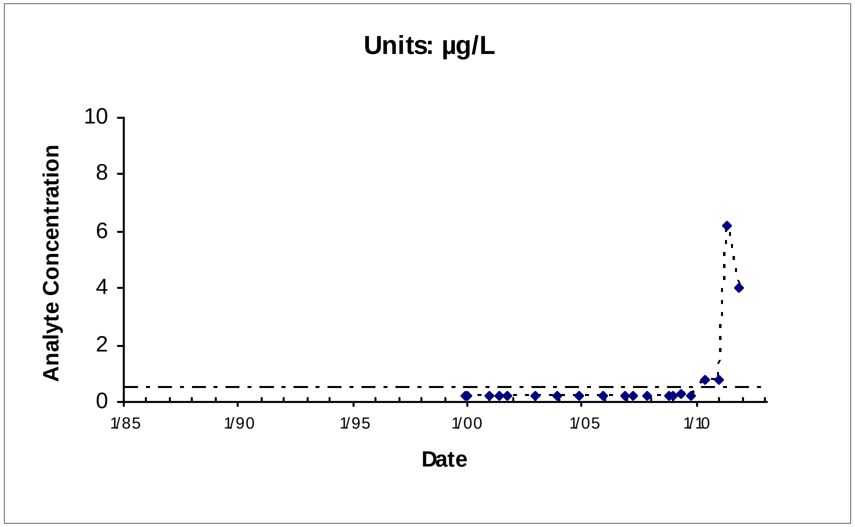
West IRA

FIGURE 2-24

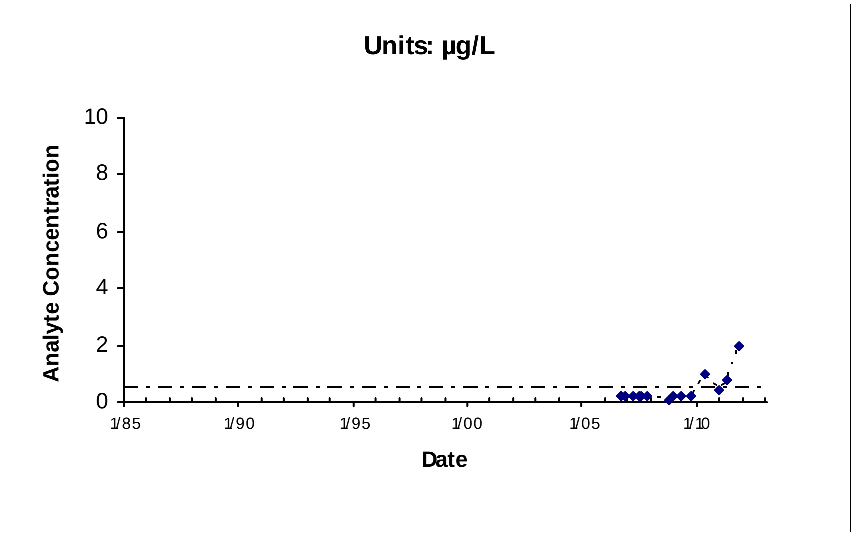
Site DP039

cis-1,2-DCE

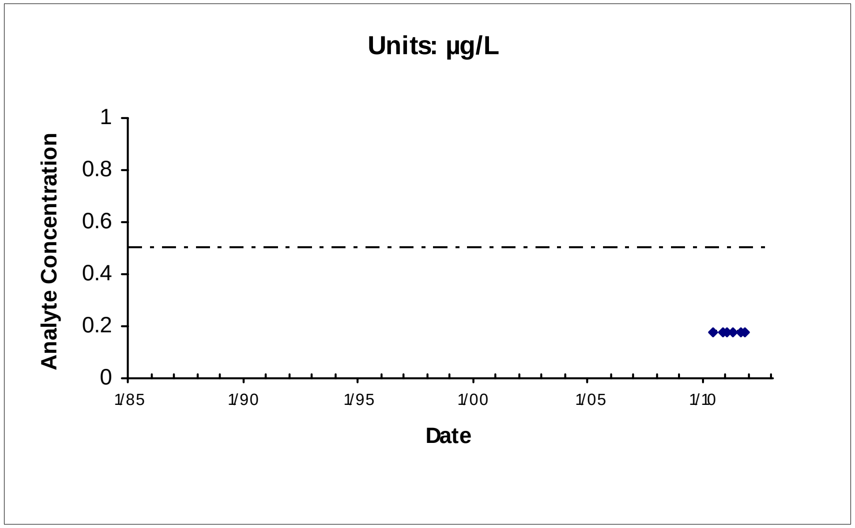
Chemical Time-series Plots



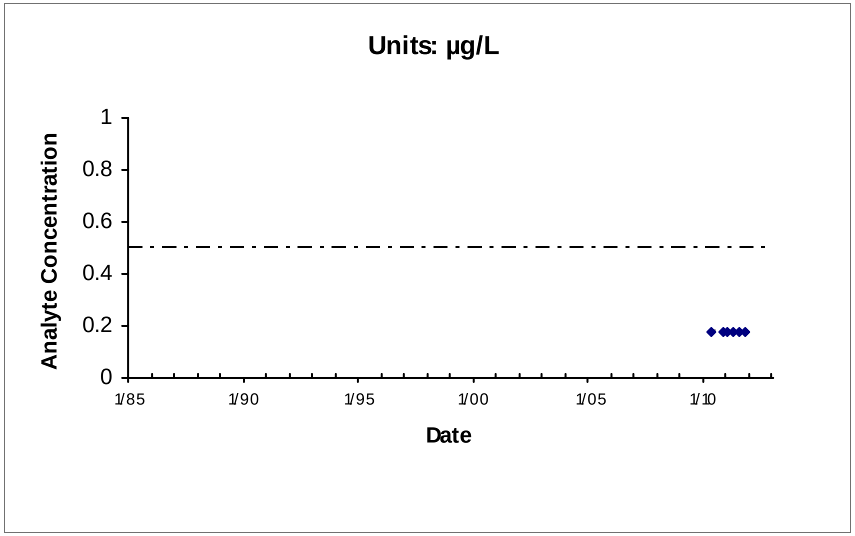
Location: EW563X39 Maximum: 6.2



Location: EW782X39 Maximum: 2



Location: IW2081x39 Maximum: 0.18



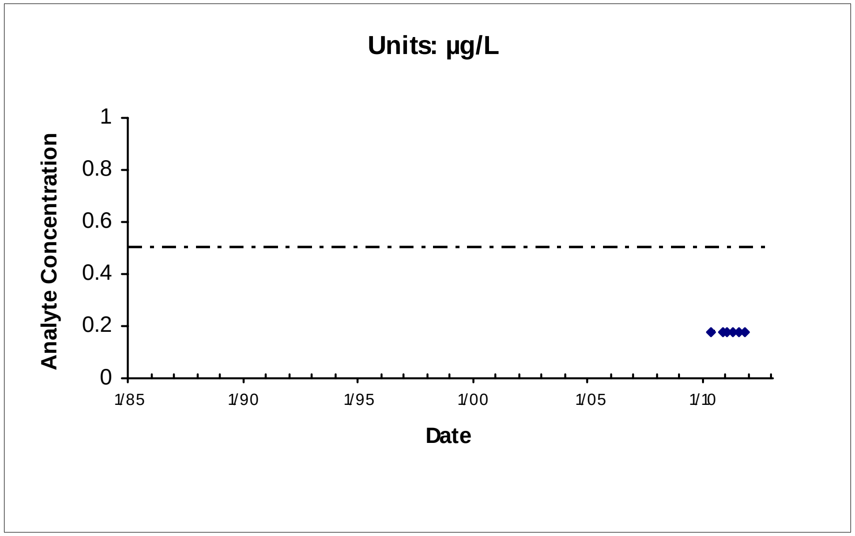
Location: IW2085x39 Maximum: 0.18

— - — - — IRG (0.5 µg/L)

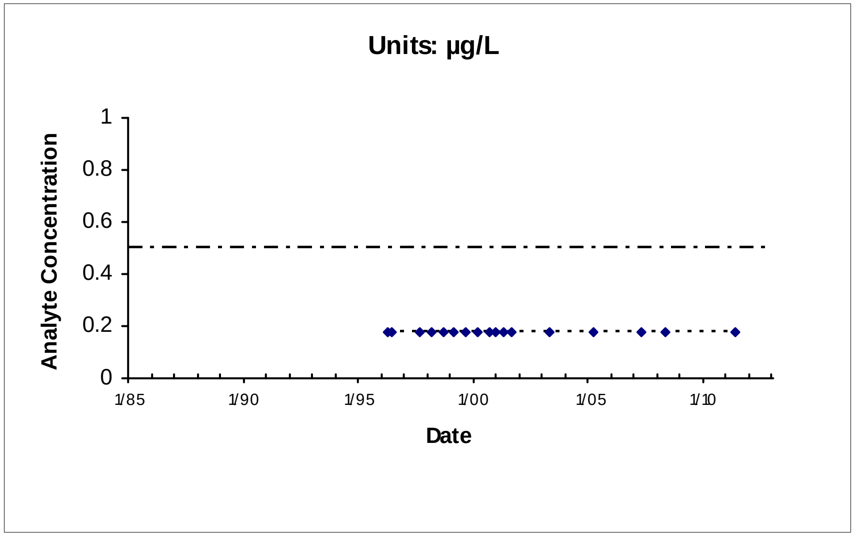
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

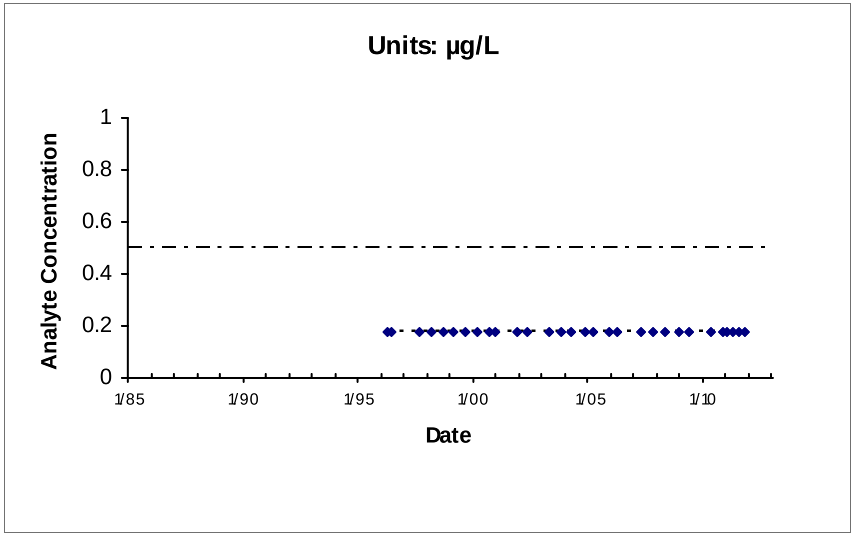
West IRA
FIGURE 2-25
Site DP039
Vinyl Chloride
Chemical Time-series Plots



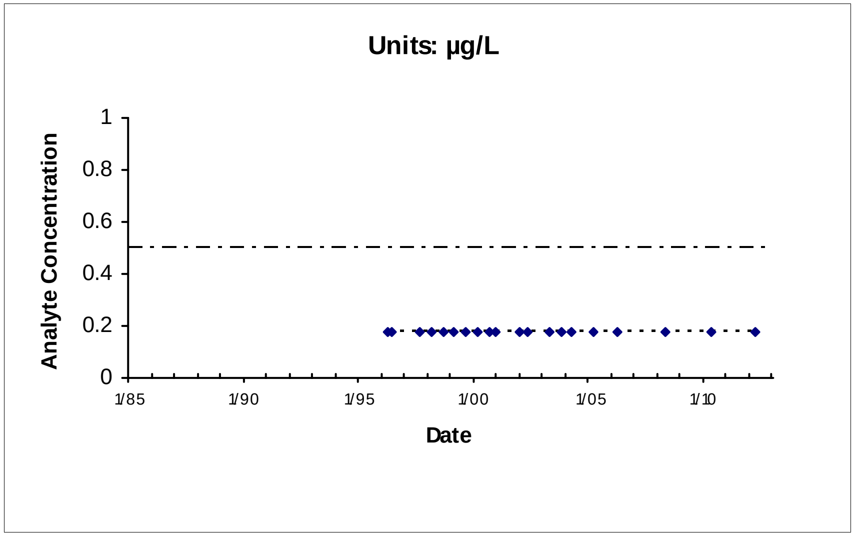
Location: IW2090x39 Maximum: 0.18



Location: MW01X39 Maximum: 0.18



Location: MW02X39 Maximum: 0.18



Location: MW03X39 Maximum: 0.18

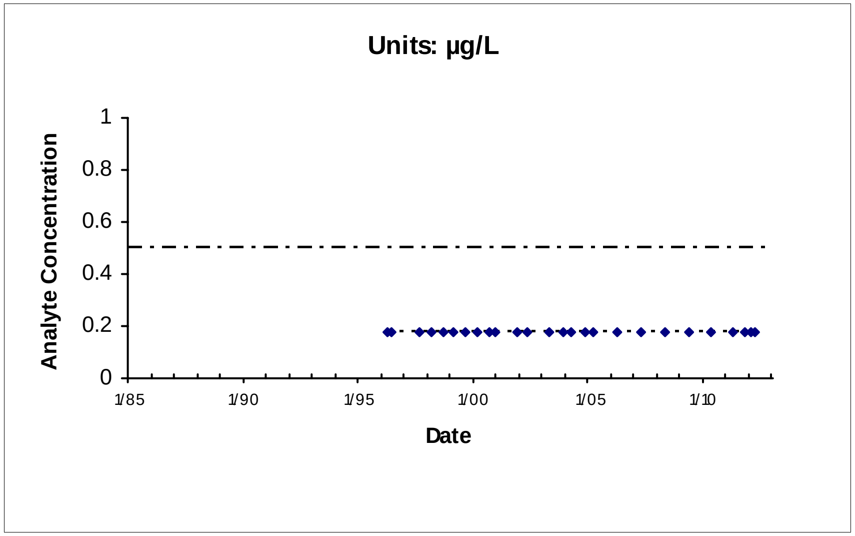
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

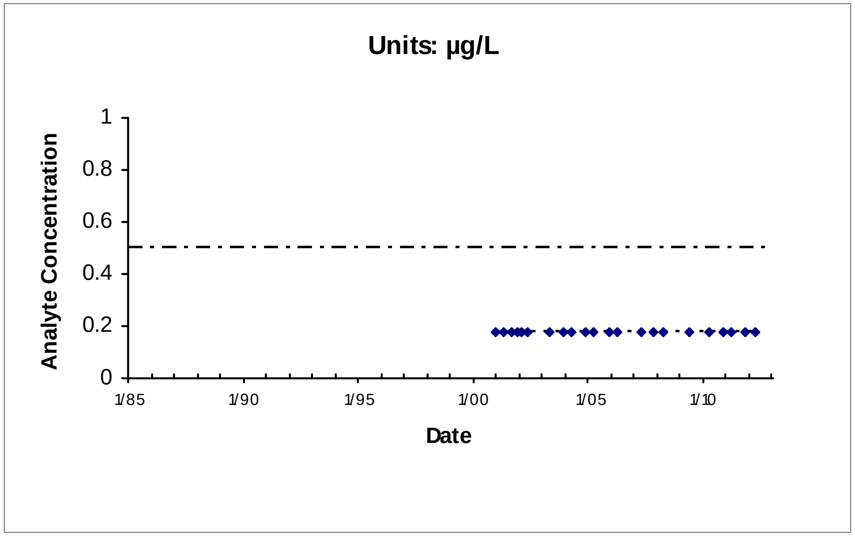
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

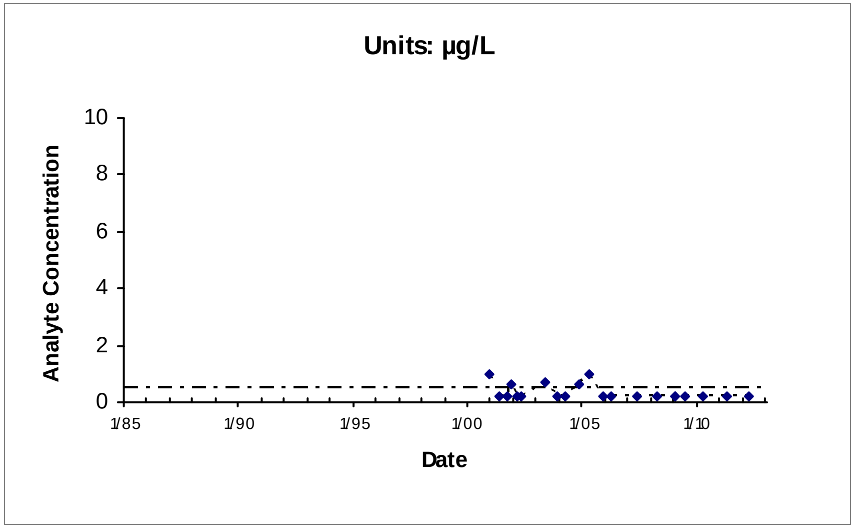
FIGURE 2-25
Site DP039
Vinyl Chloride
Chemical Time-series Plots



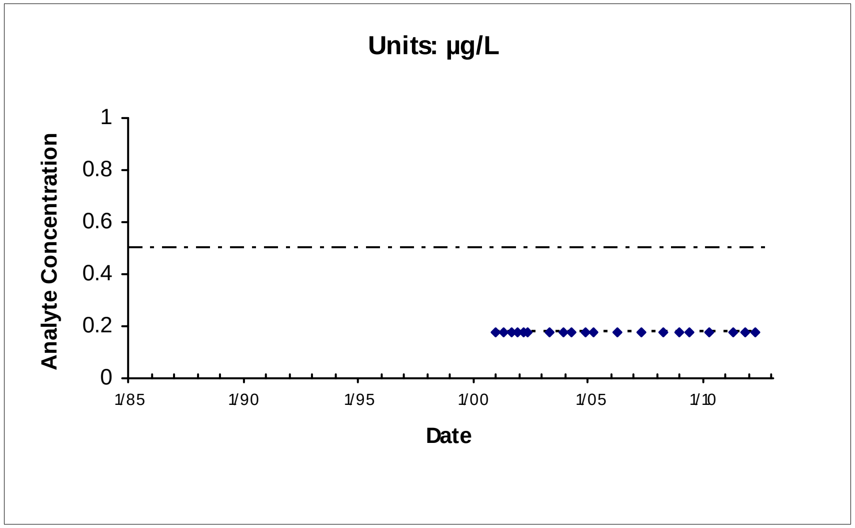
Location: MW04X39 Maximum: 0.18



Location: MW750X39 Maximum: 0.18



Location: MW751X39 Maximum: 1



Location: MW758X39 Maximum: 0.18

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

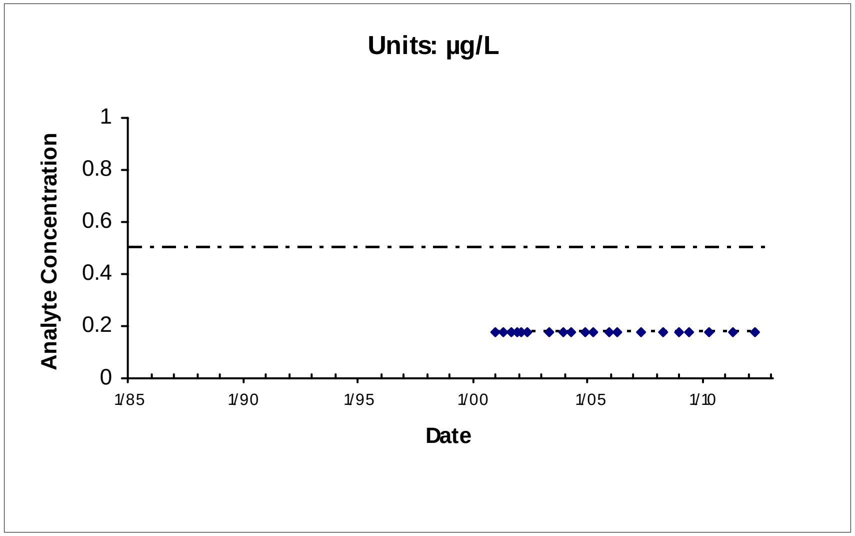
West IRA

FIGURE 2-25

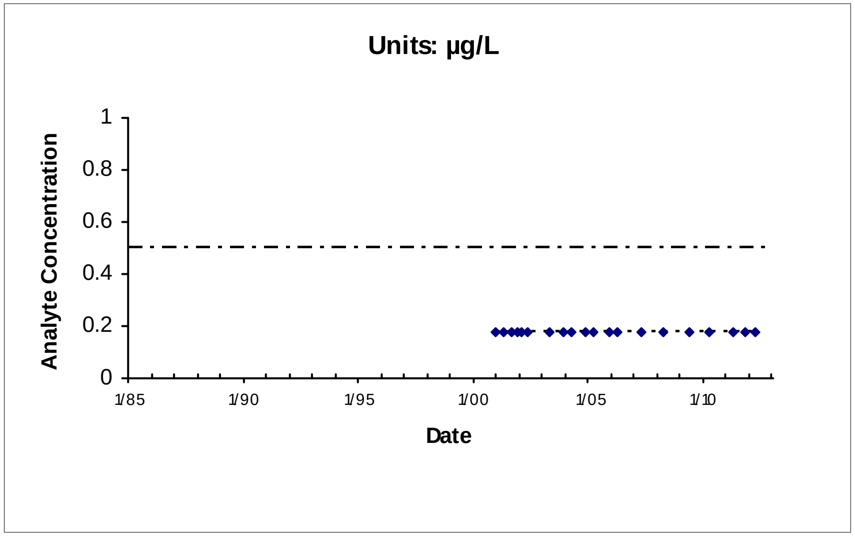
Site DP039

Vinyl Chloride

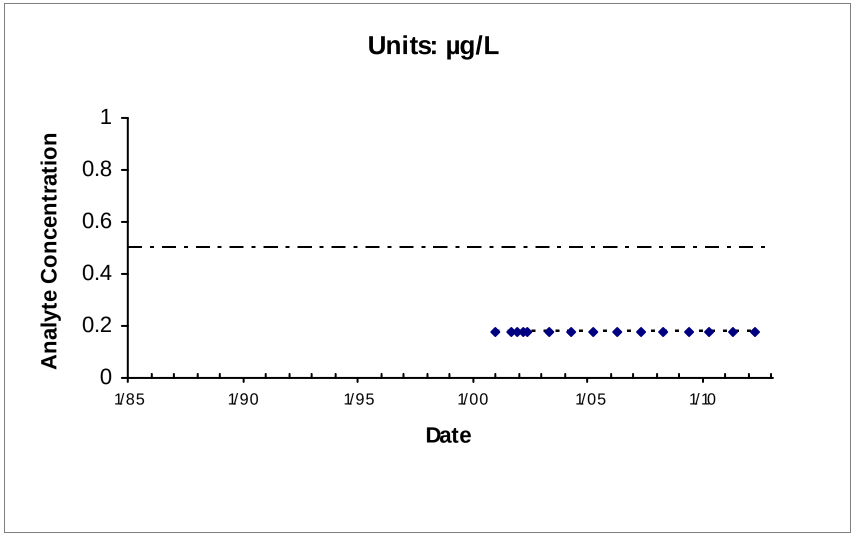
Chemical Time-series Plots



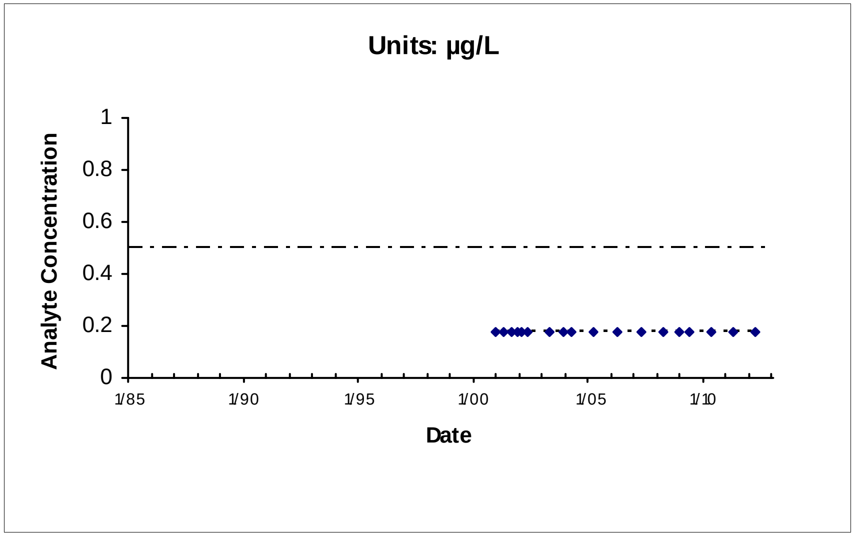
Location: MW759X39 Maximum: 0.18



Location: MW760X39 Maximum: 0.18



Location: MW761X39 Maximum: 0.18



Location: MW762X39 Maximum: 0.18

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

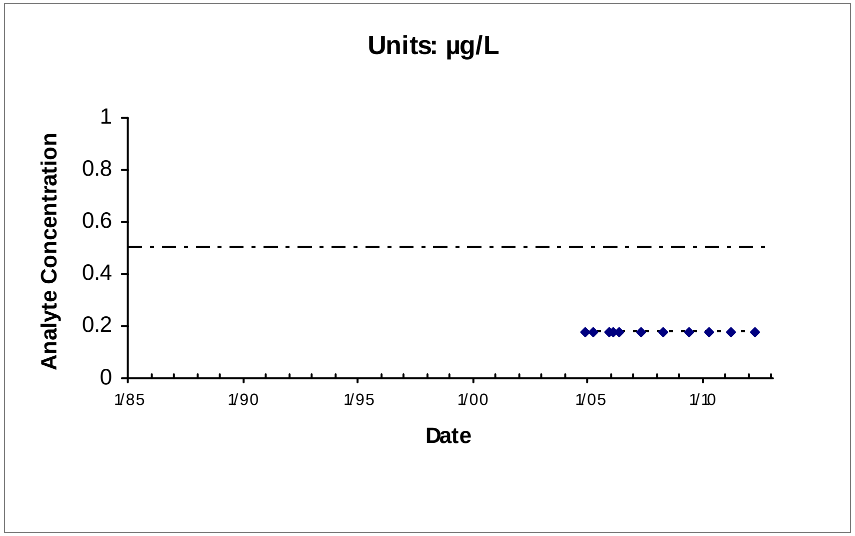
West IRA

FIGURE 2-25

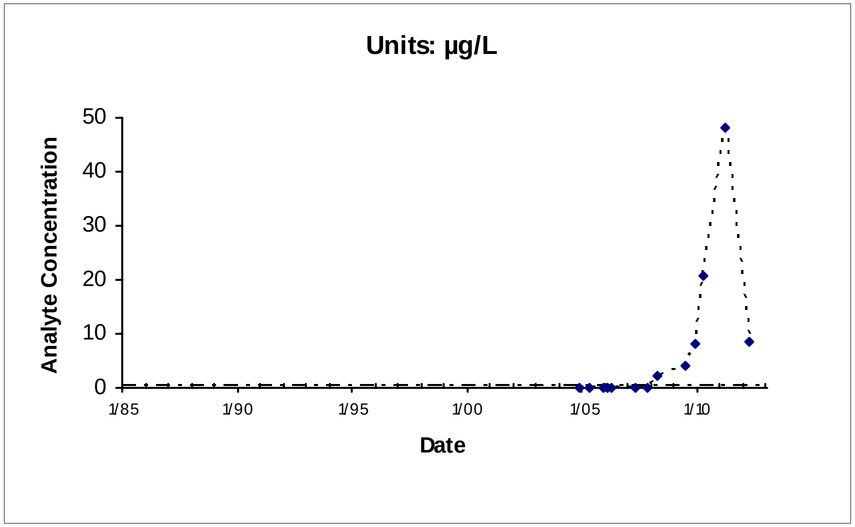
Site DP039

Vinyl Chloride

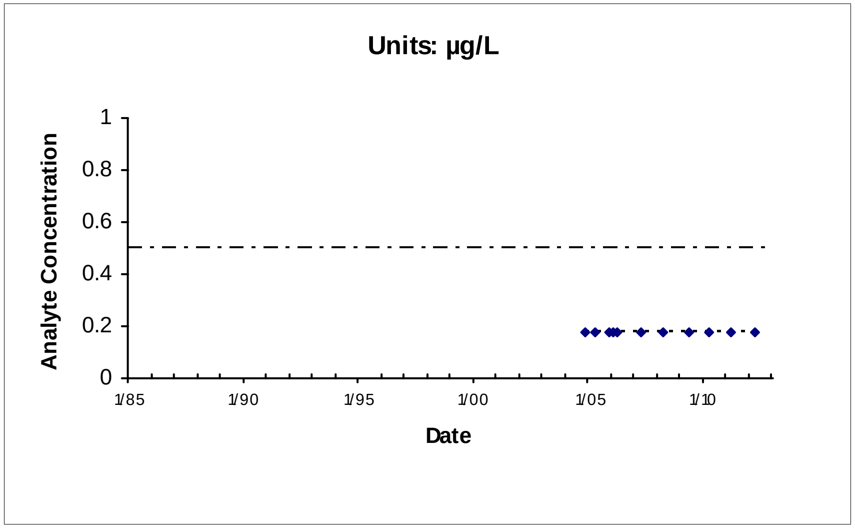
Chemical Time-series Plots



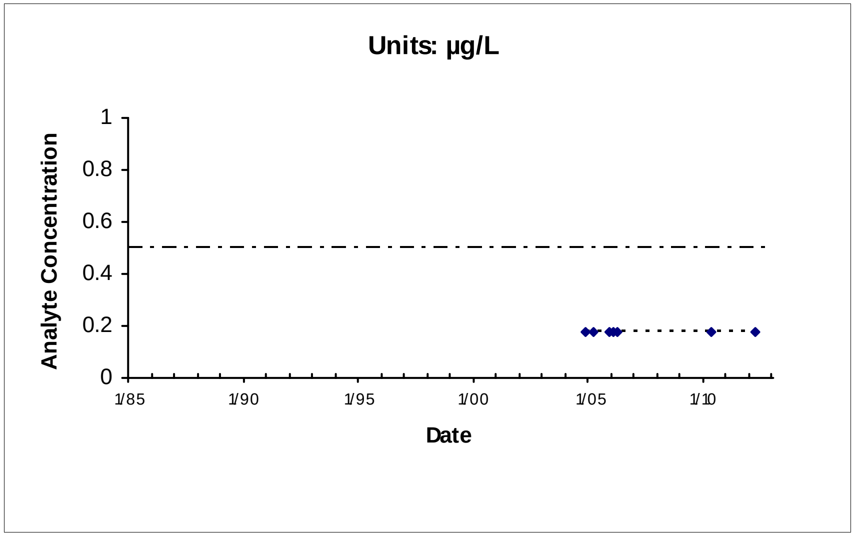
Location: MW777X39 Maximum: 0.18



Location: MW778X39 Maximum: 48



Location: MW779X39 Maximum: 0.18



Location: MW780X39 Maximum: 0.18

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

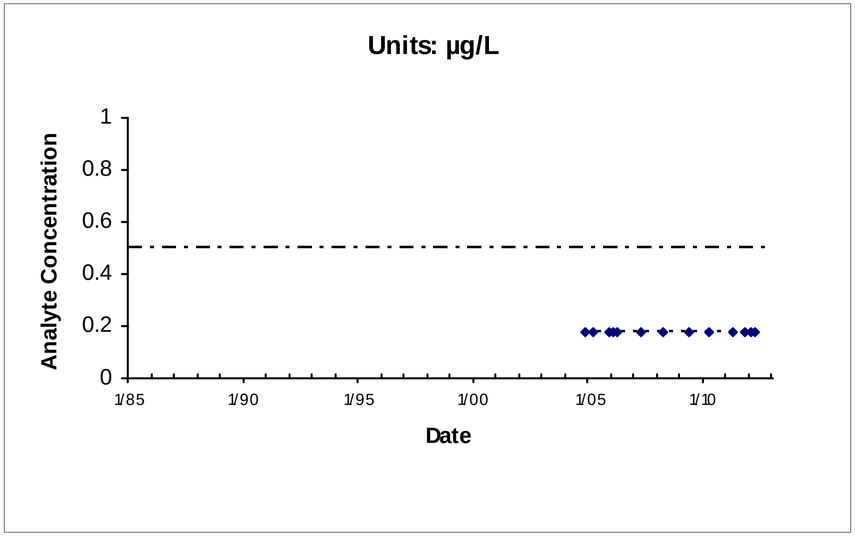
West IRA

FIGURE 2-25

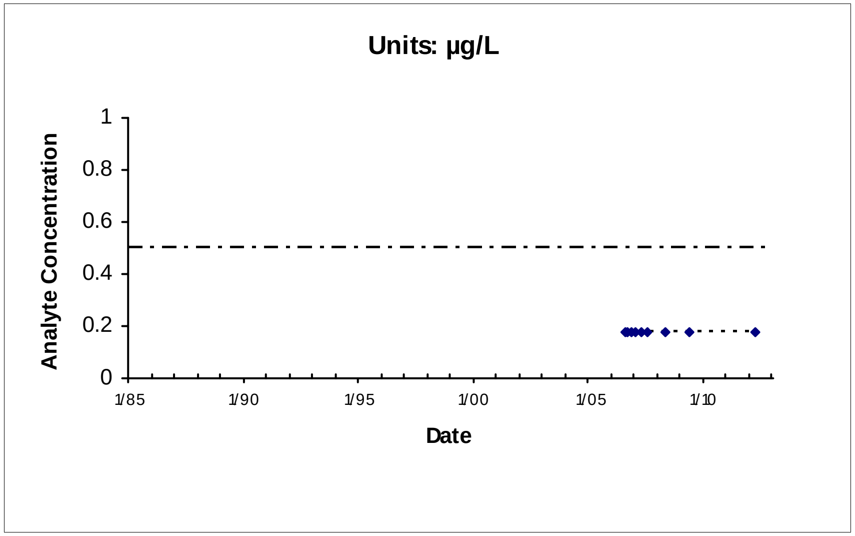
Site DP039

Vinyl Chloride

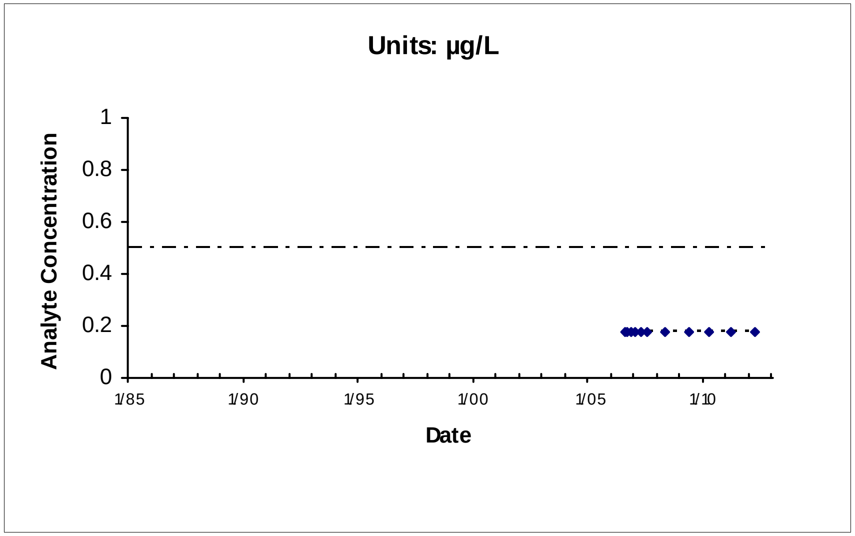
Chemical Time-series Plots



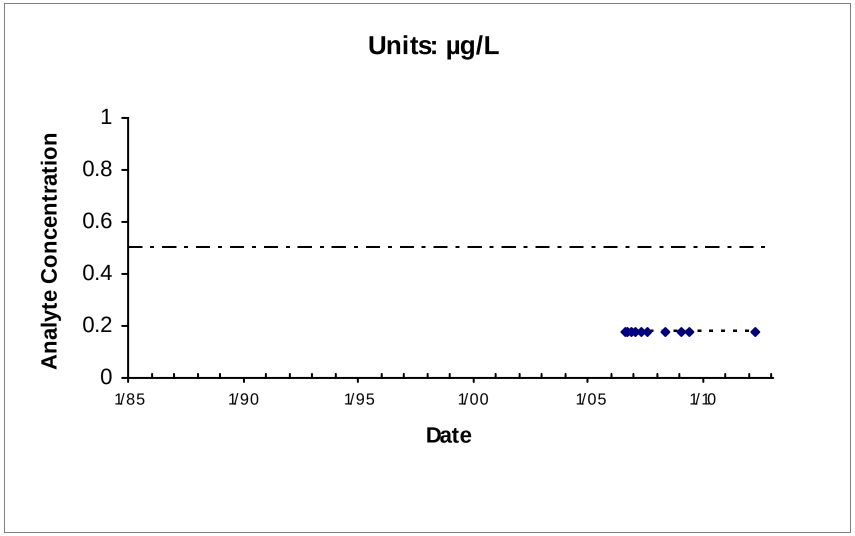
Location: MW781X39 Maximum: 0.18



Location: MW783Sx39 Maximum: 0.18



Location: MW783Dx39 Maximum: 0.18



Location: MW784Sx39 Maximum: 0.18

— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

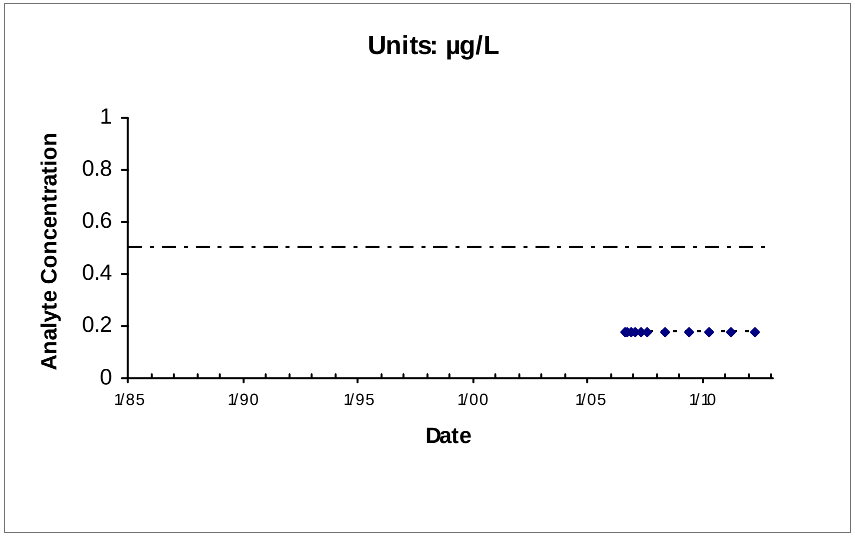
West IRA

FIGURE 2-25

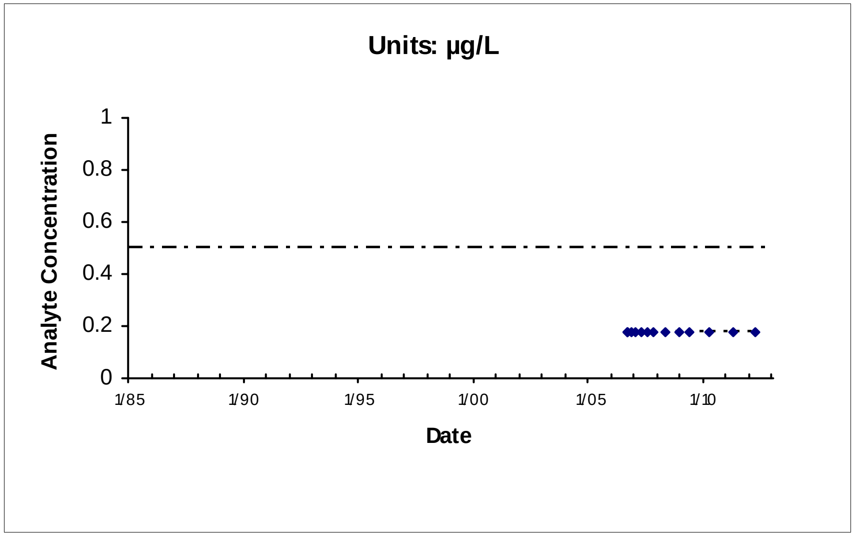
Site DP039

Vinyl Chloride

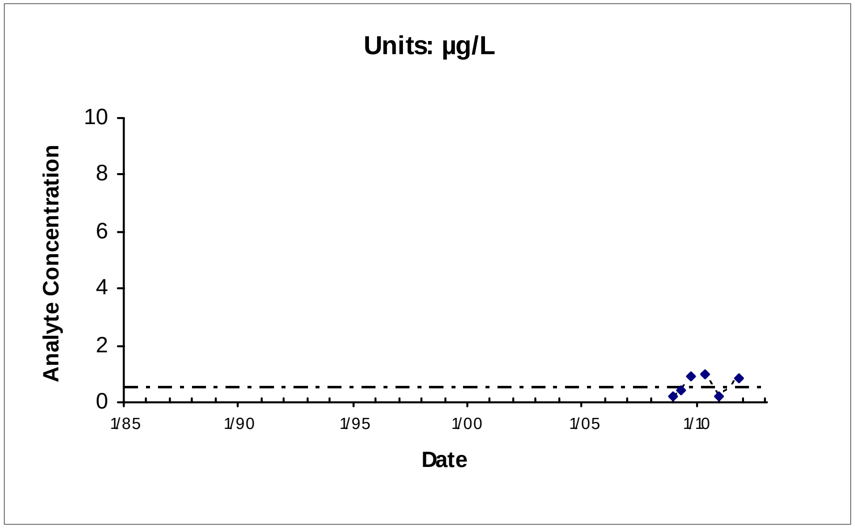
Chemical Time-series Plots



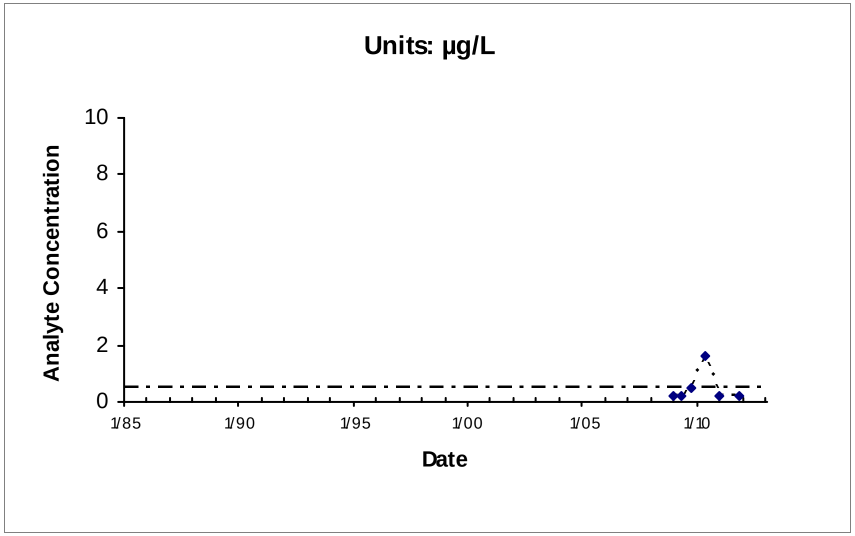
Location: MW784Dx39 Maximum: 0.18



Location: MW785X39 Maximum: 0.18



Location: MW787X39 Maximum: 1



Location: MW788X39 Maximum: 1.6

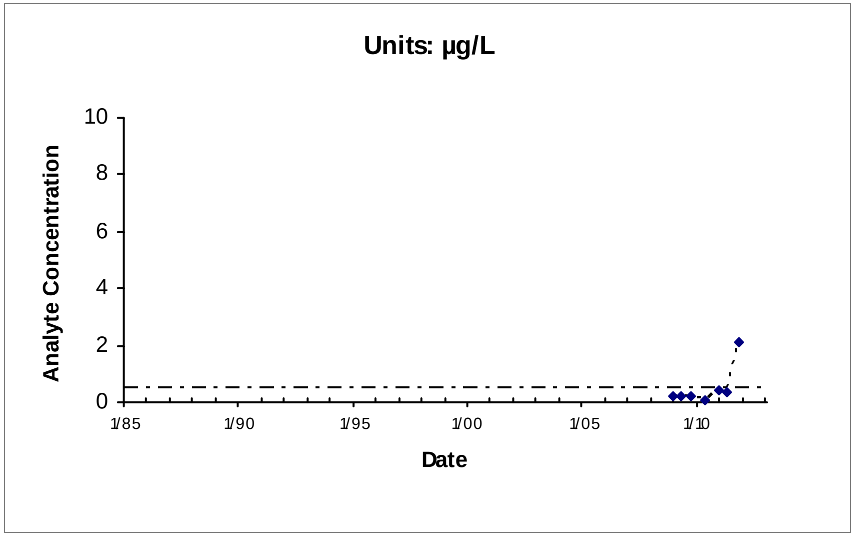
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

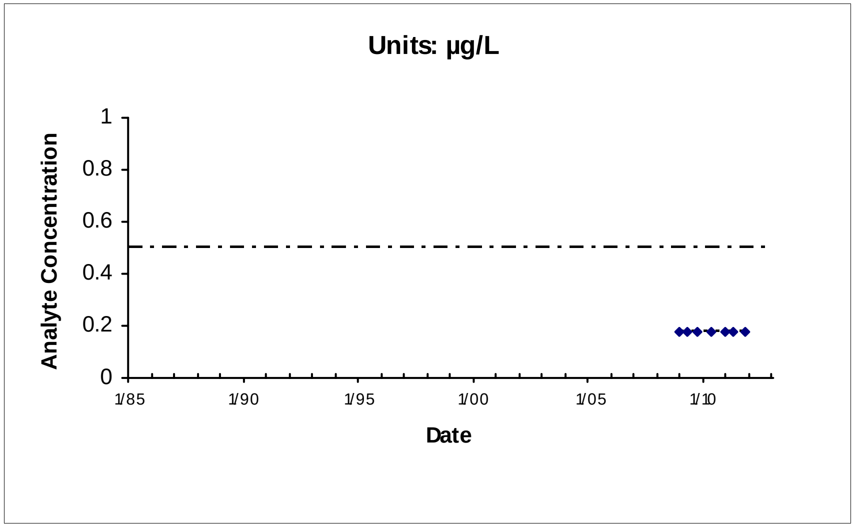
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

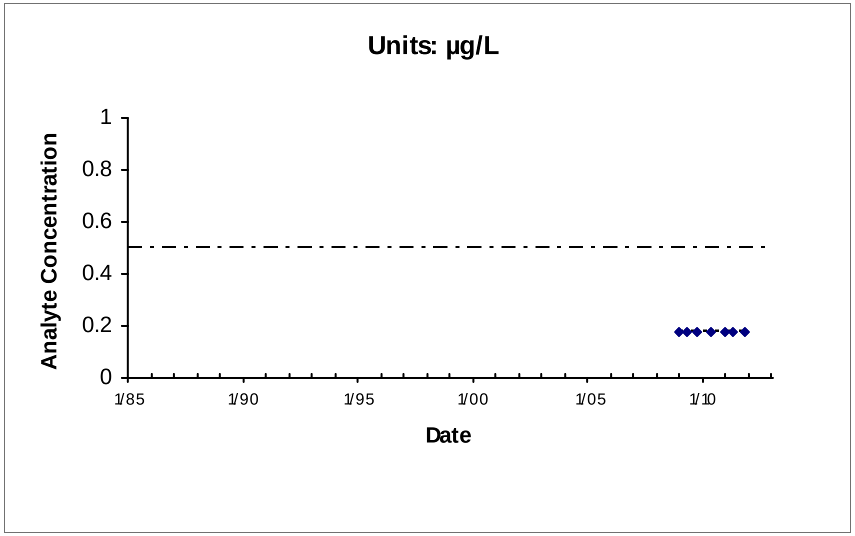
FIGURE 2-25
Site DP039
Vinyl Chloride
Chemical Time-series Plots



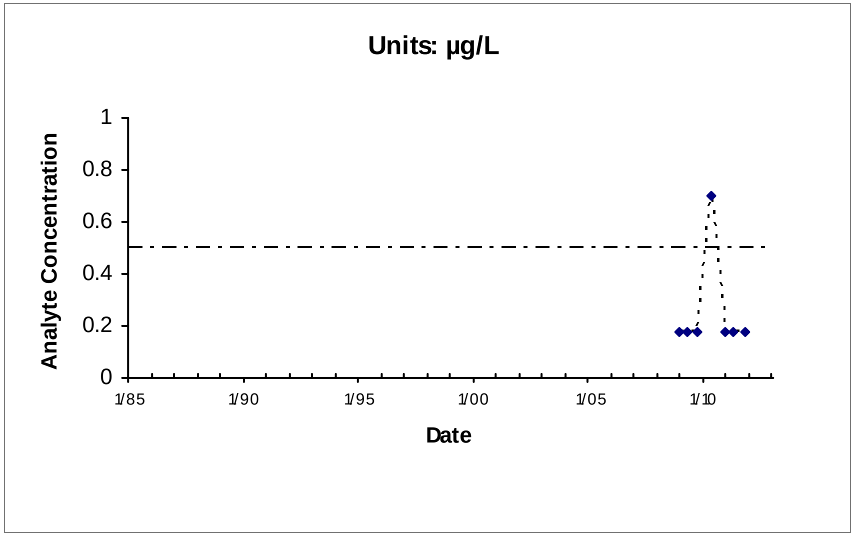
Location: MW791X39 Maximum: 2.1



Location: MW792X39 Maximum: 0.18



Location: MW793X39 Maximum: 0.18



Location: MW794X39 Maximum: 0.7

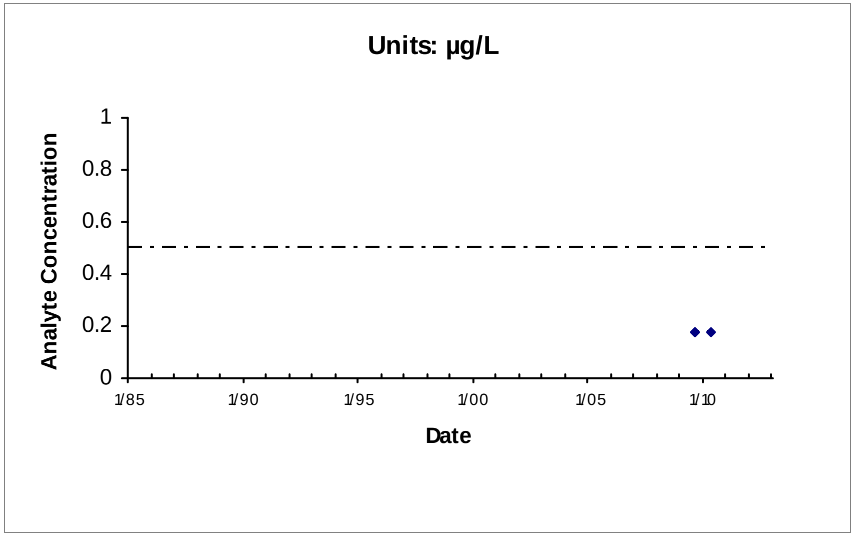
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

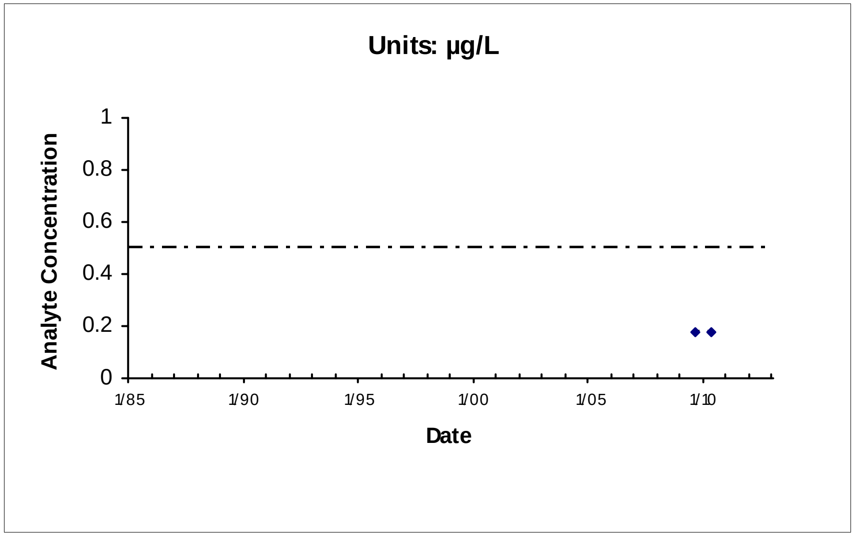
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

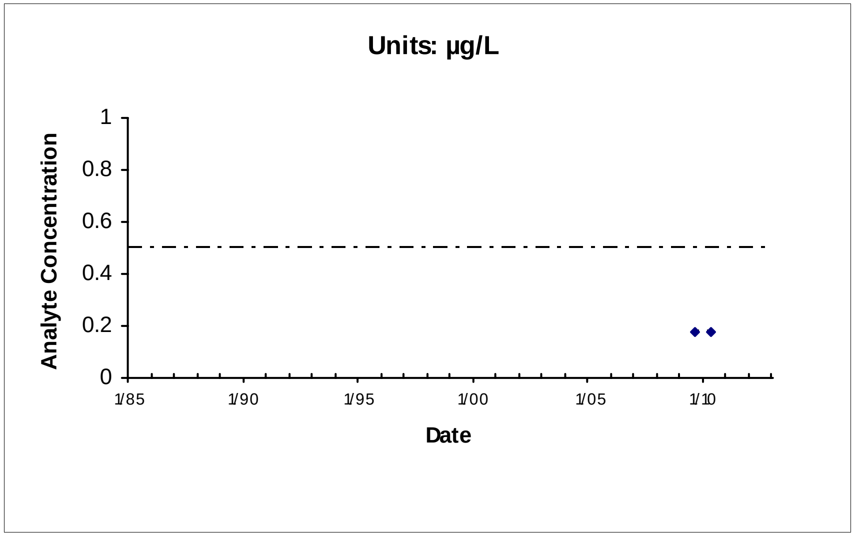
FIGURE 2-25
Site DP039
Vinyl Chloride
Chemical Time-series Plots



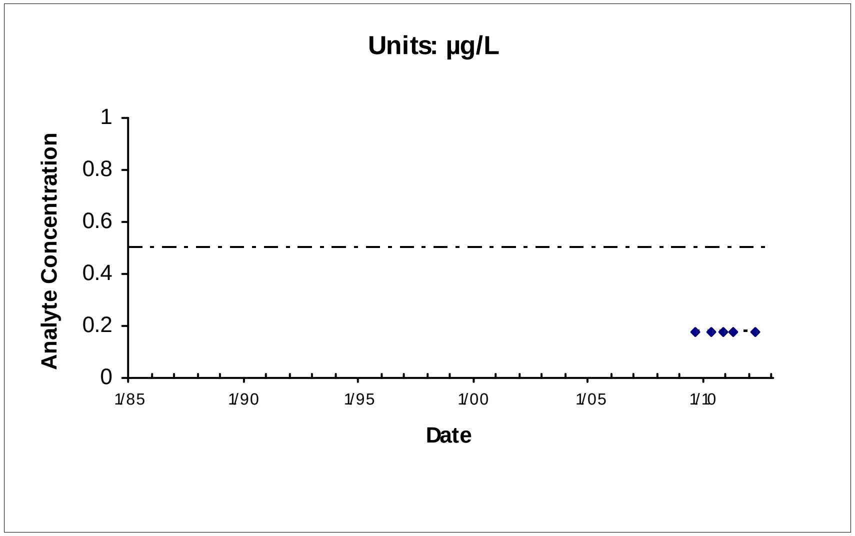
Location: MW2041Ax39 Maximum: 0.18



Location: MW2041Bx39 Maximum: 0.18



Location: MW2042Ax39 Maximum: 0.18



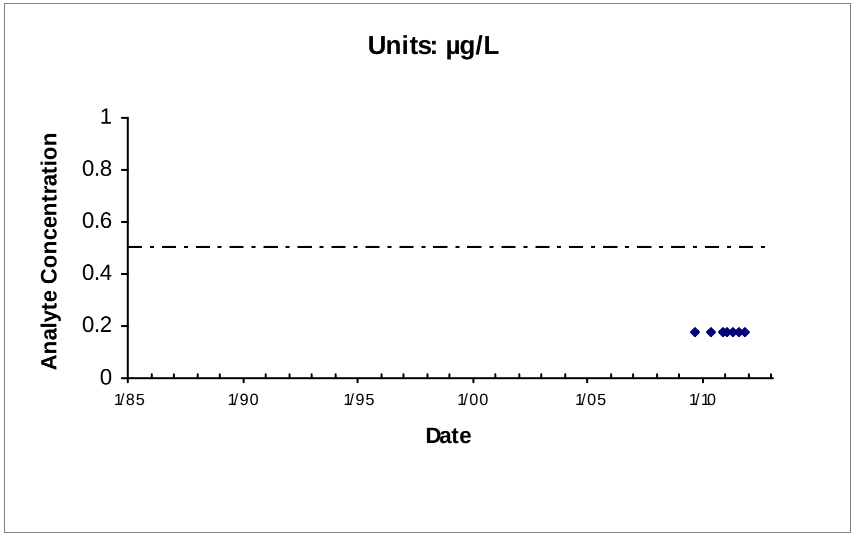
Location: MW2042Bx39 Maximum: 0.18

— - — - — IRG (0.5 µg/L)

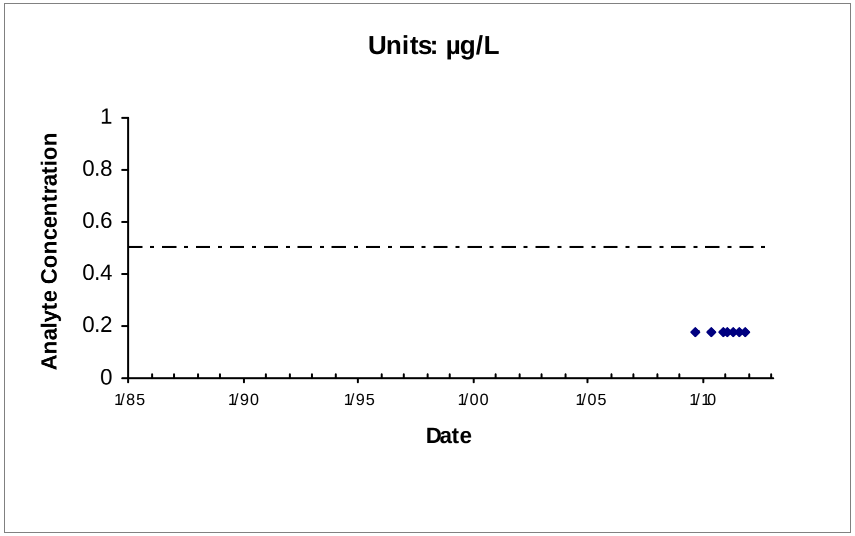
*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

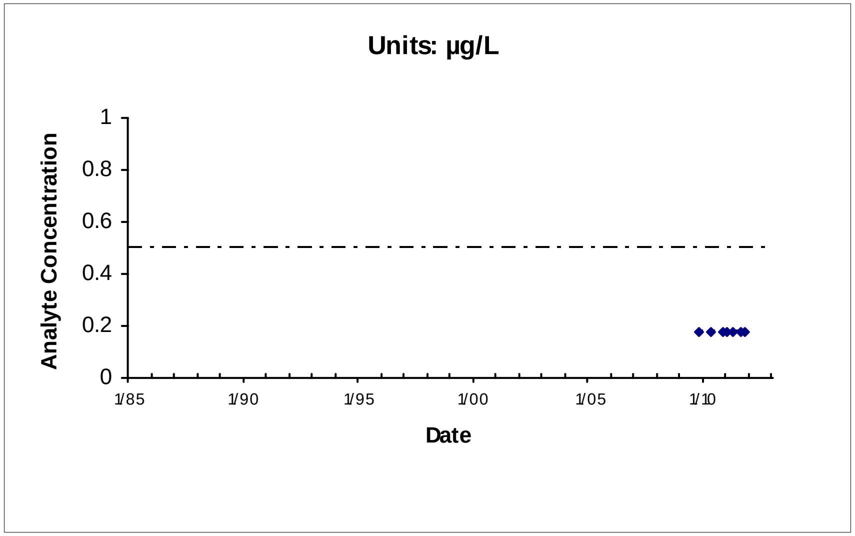
West IRA
FIGURE 2-25
Site DP039
Vinyl Chloride
Chemical Time-series Plots



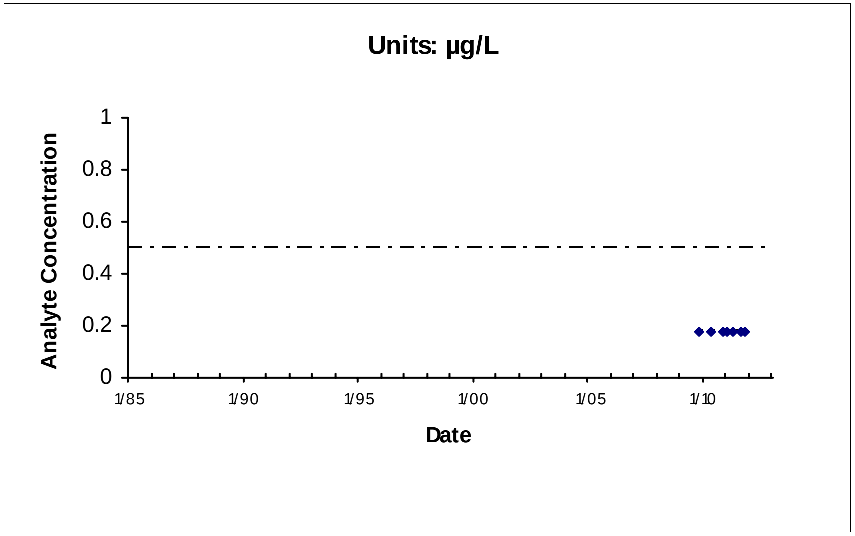
Location: MW2043Ax39 Maximum: 0.18



Location: MW2043Bx39 Maximum: 0.18



Location: MW2056Ax39 Maximum: 0.18



Location: MW2056Bx39 Maximum: 0.18

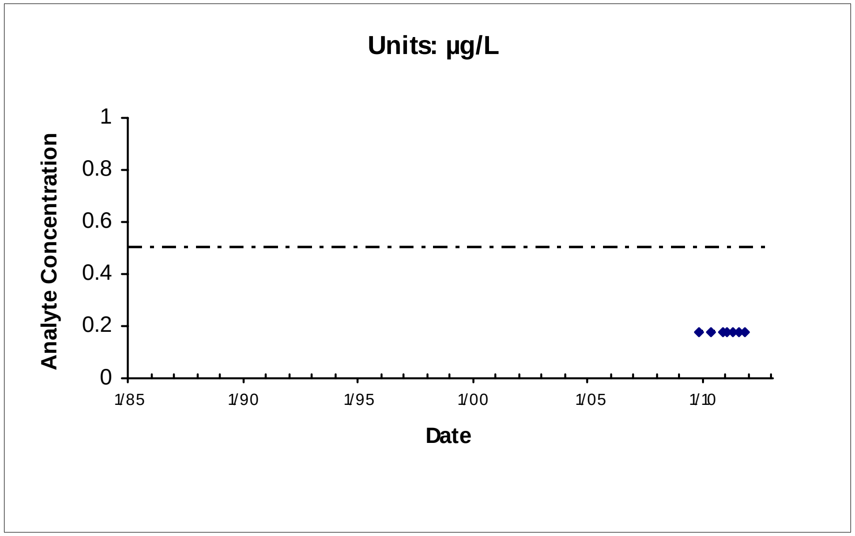
West IRA

FIGURE 2-25
Site DP039
Vinyl Chloride
Chemical Time-series Plots

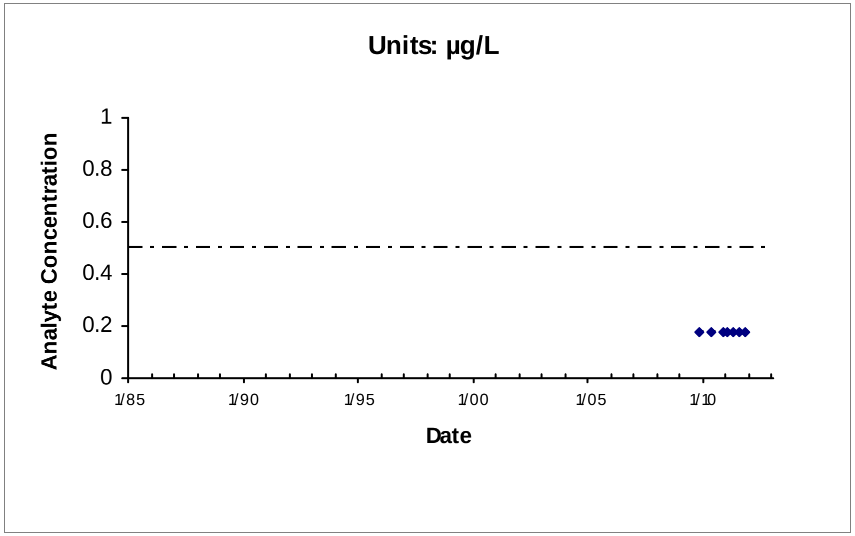
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

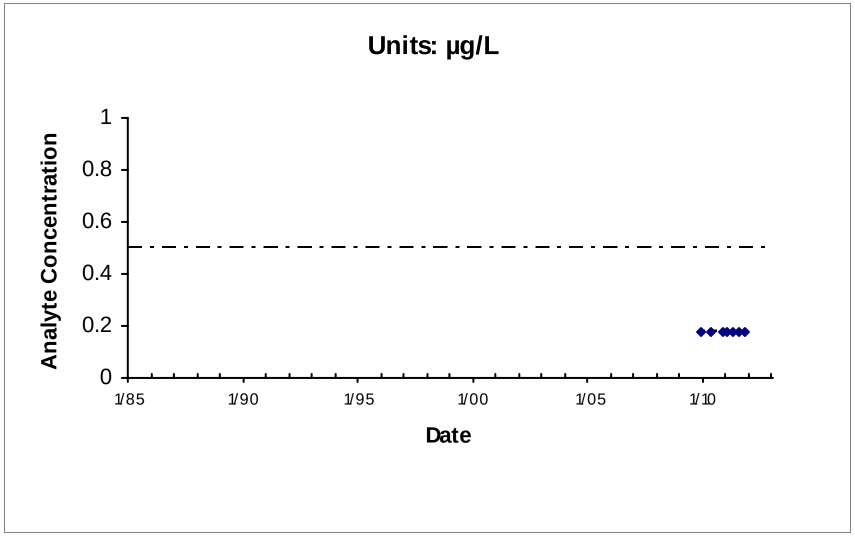
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



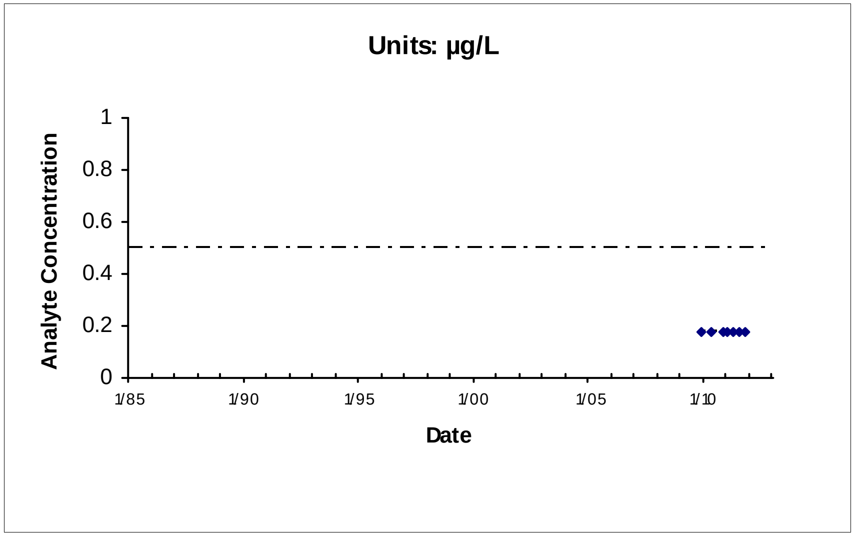
Location: MW2057Ax39 Maximum: 0.18



Location: MW2057Bx39 Maximum: 0.18



Location: MW2060Ax39 Maximum: 0.18



Location: MW2060Bx39 Maximum: 0.18

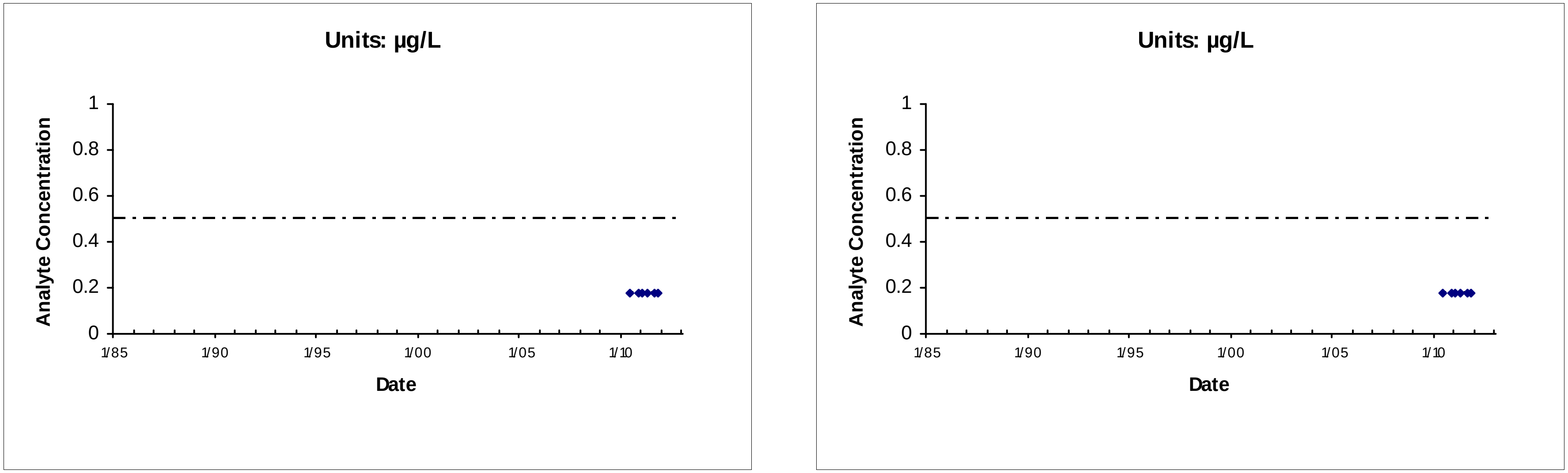
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

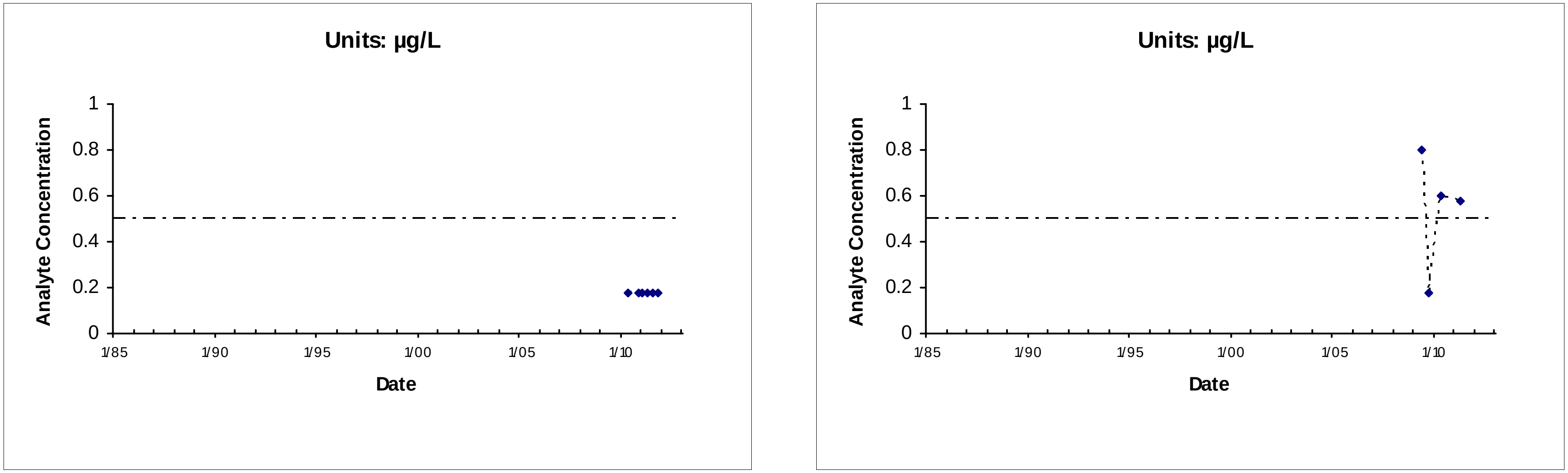
West IRA

FIGURE 2-25
Site DP039
Vinyl Chloride
Chemical Time-series Plots



Location: MW2092Ax39 Maximum: 0.18

Location: MW2092Bx39 Maximum: 0.18



Location: MW2093x39 Maximum: 0.18

Location: PZ102x39 Maximum: 0.8

West IRA

FIGURE 2-25

Site DP039

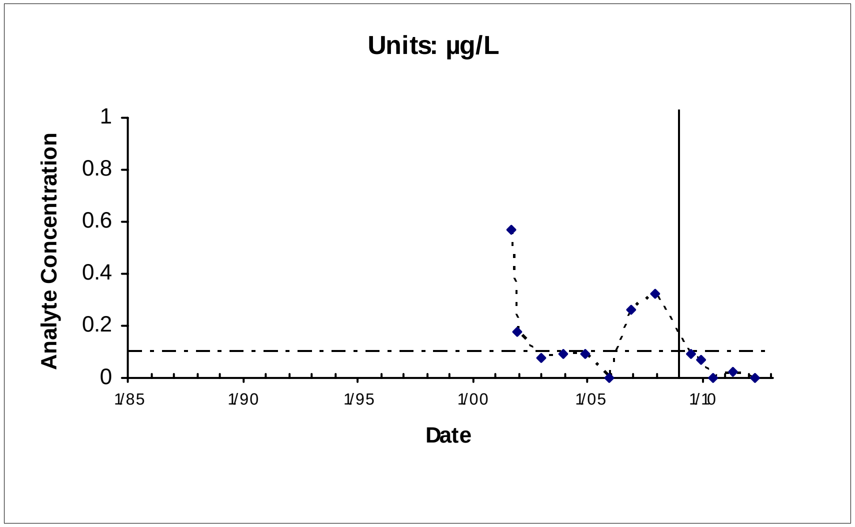
Vinyl Chloride

Chemical Time-series Plots

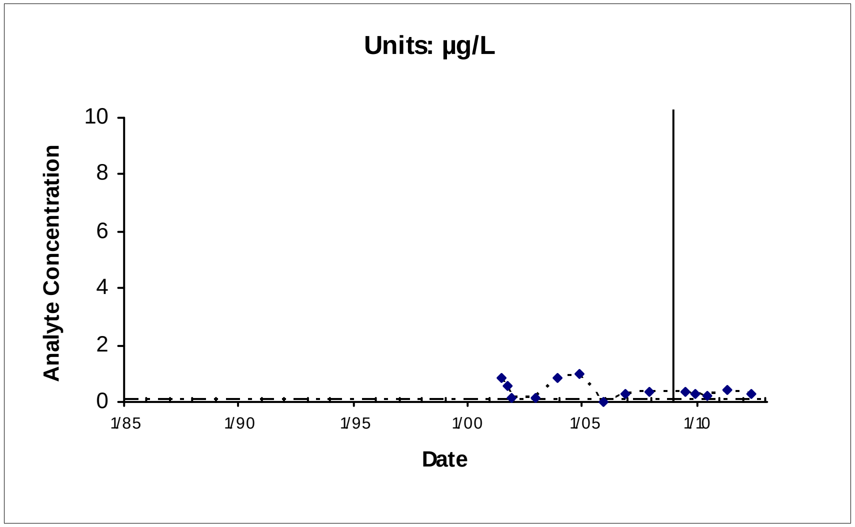
— - — - — IRG (0.5 µg/L)

*Nondetects shown as the Method Detection Limit (0.18 µg/L)

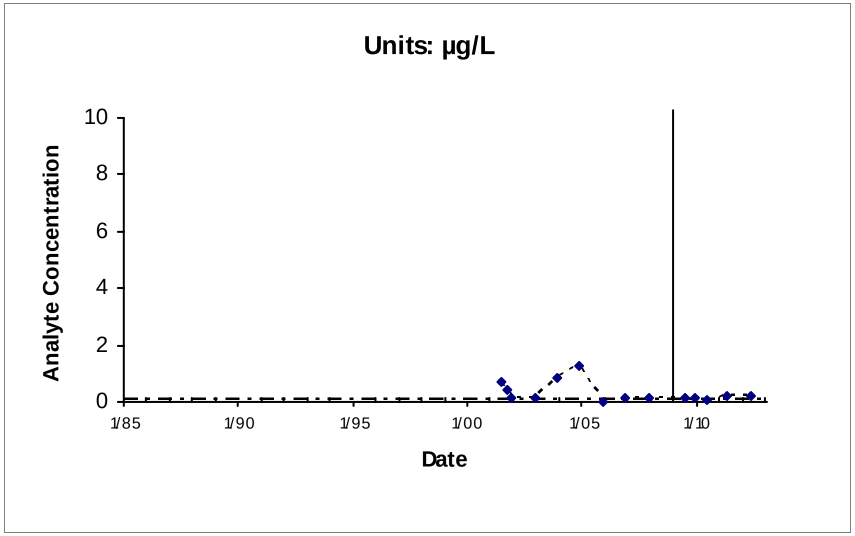
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



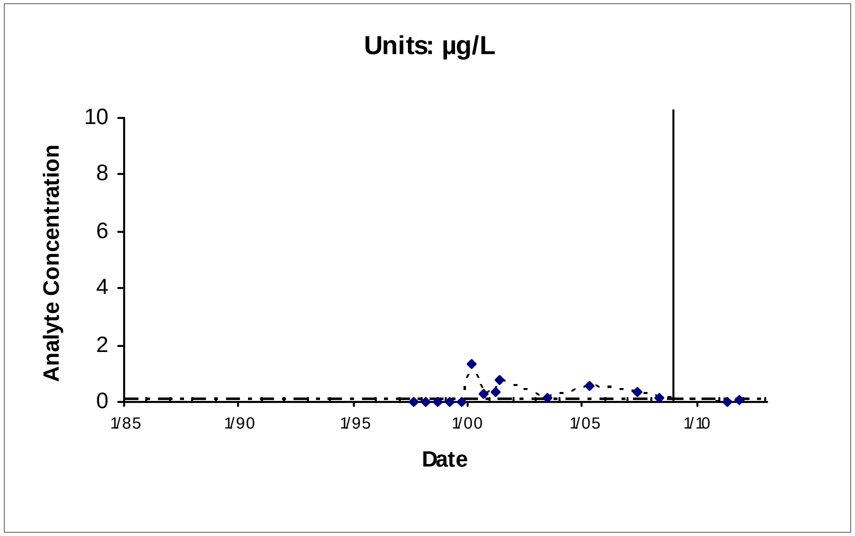
Location: EW719X08 Maximum: 0.571



Location: EW720X08 Maximum: 1



Location: EW721X08 Maximum: 1.3



Location: MW01X08 Maximum: 1.353

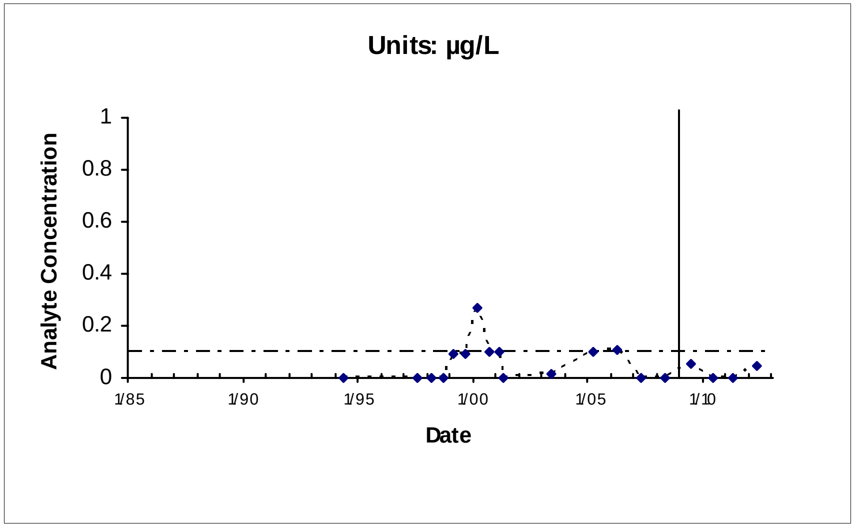
——— Rebound Study Initiated

— - — - — IRG (0.1 µg/L)

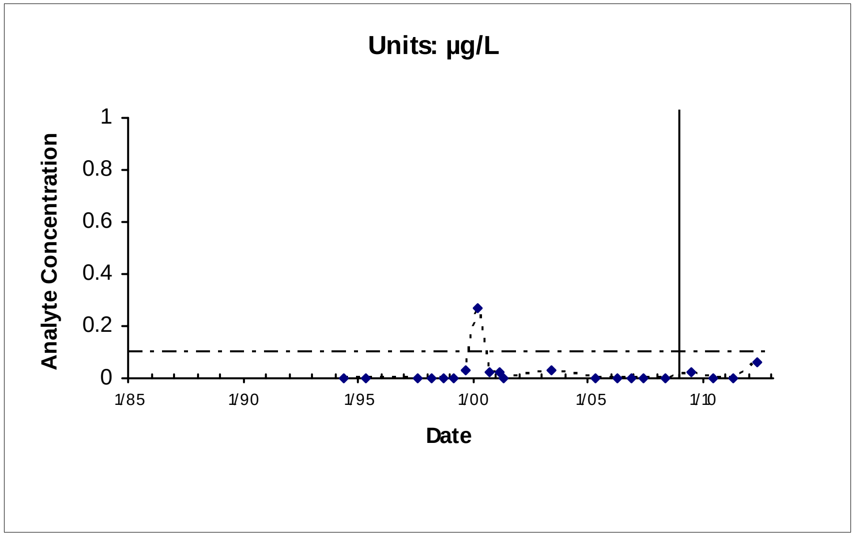
*Nondetects shown as the Method Detection Limit (0.0031 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

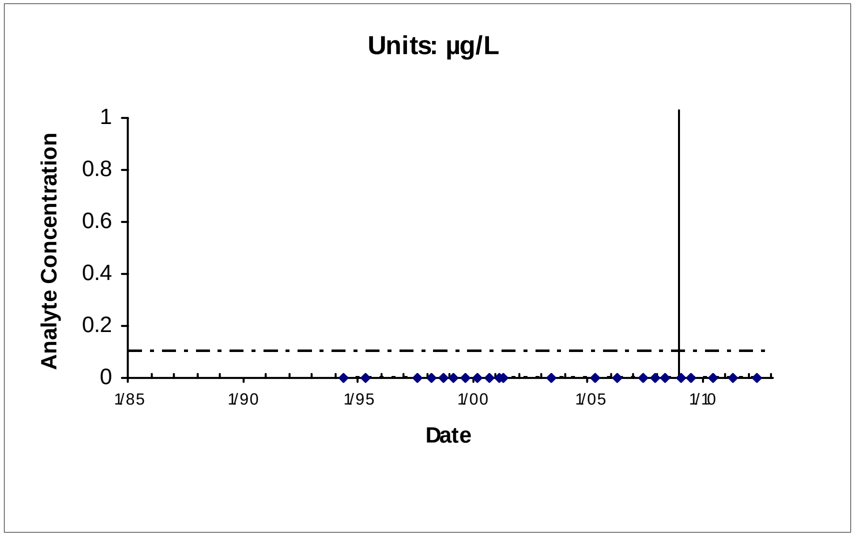
West IRA
FIGURE 2-26
Site LF008
Alpha-chlordane
Chemical Time-series Plots



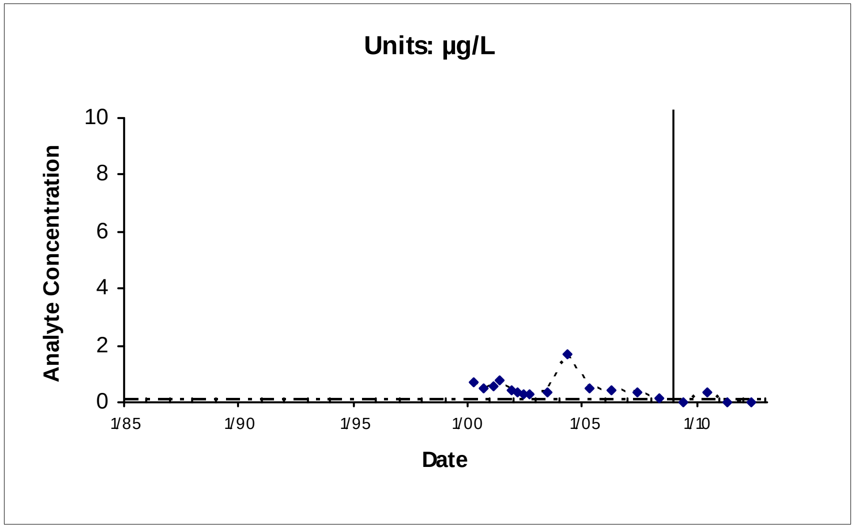
Location: MW114X08 Maximum: 0.2712



Location: MW115X08 Maximum: 0.2729



Location: MW311X08 Maximum: 0.0031



Location: MW712X08 Maximum: 1.7

——————— Rebound Study Initiated

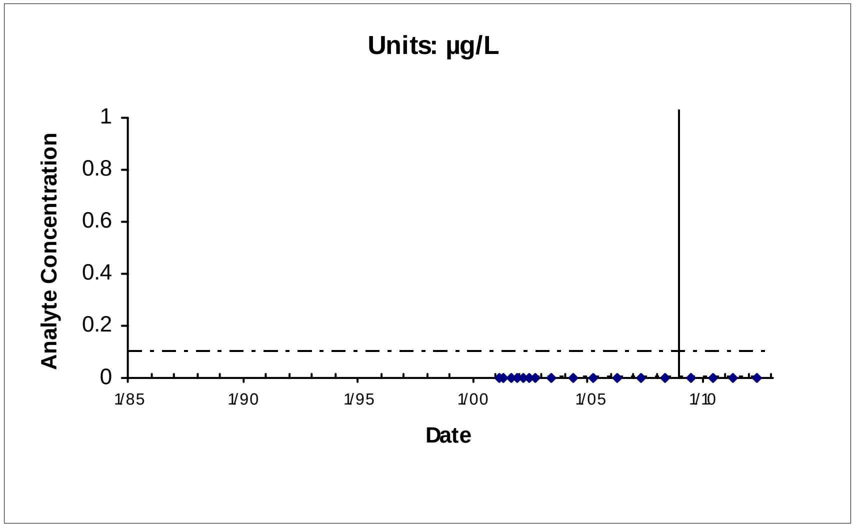
— - — - — IRG (0.1 µg/L)

*Nondetects shown as the Method Detection Limit (0.0031 µg/L)

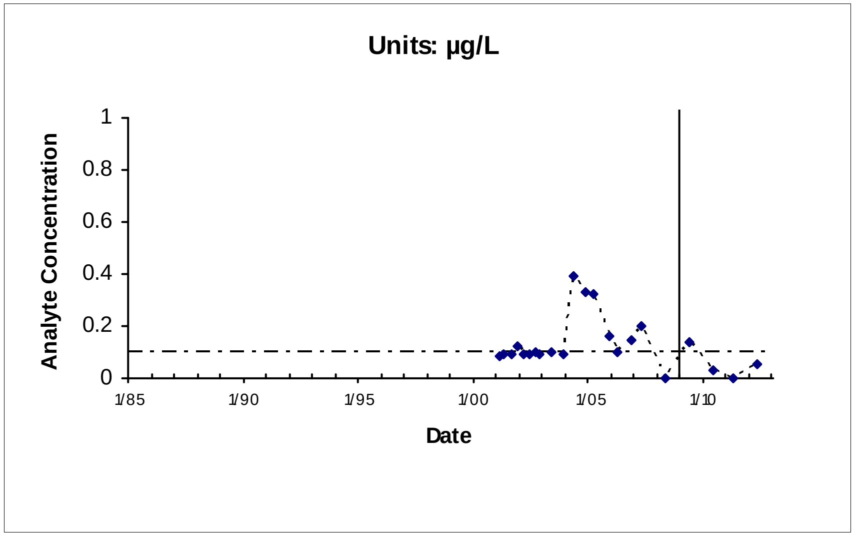
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

West IRA

FIGURE 2-26
Site LF008
Alpha-chlordane
Chemical Time-series Plots



Location: MW714X08 Maximum: 0.0031



Location: MW717X08 Maximum: 0.39

———— Rebound Study Initiated

— - — - — IRG (0.1 µg/L)

*Nondetects shown as the Method Detection Limit (0.0031 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisReboundLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

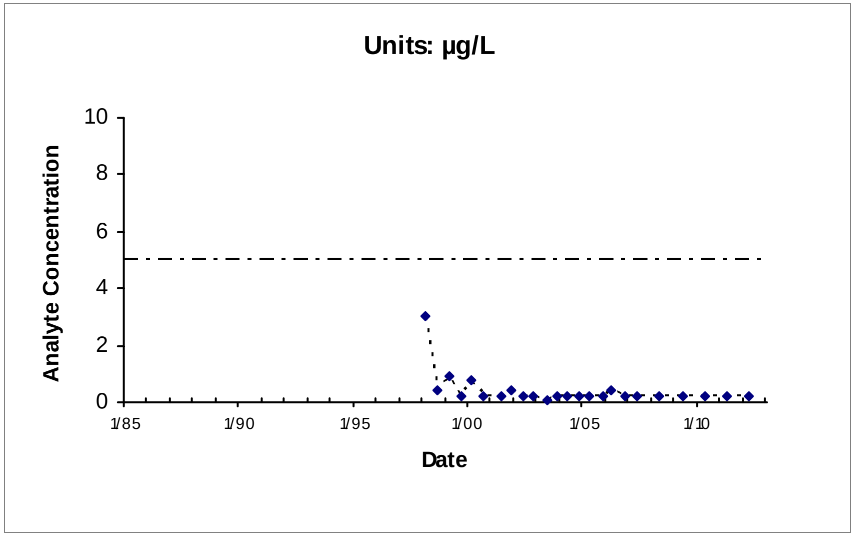
West IRA

FIGURE 2-26

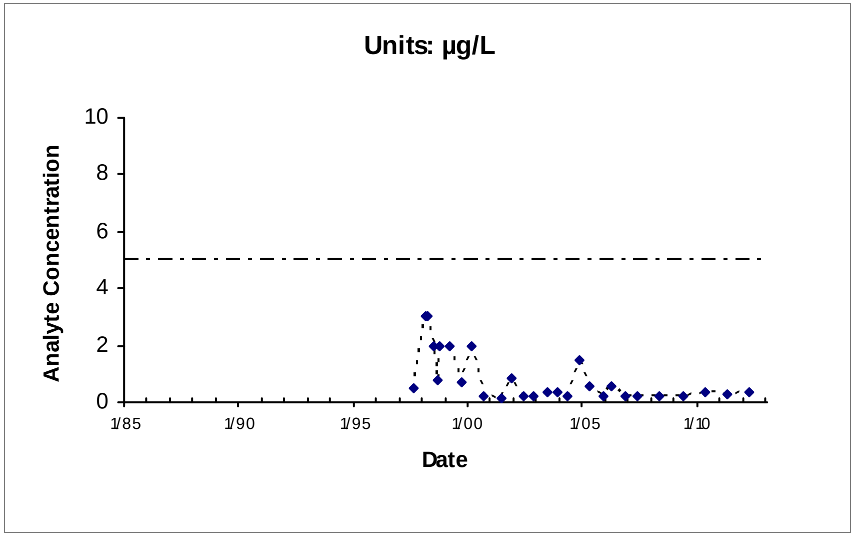
Site LF008

Alpha-chlordane

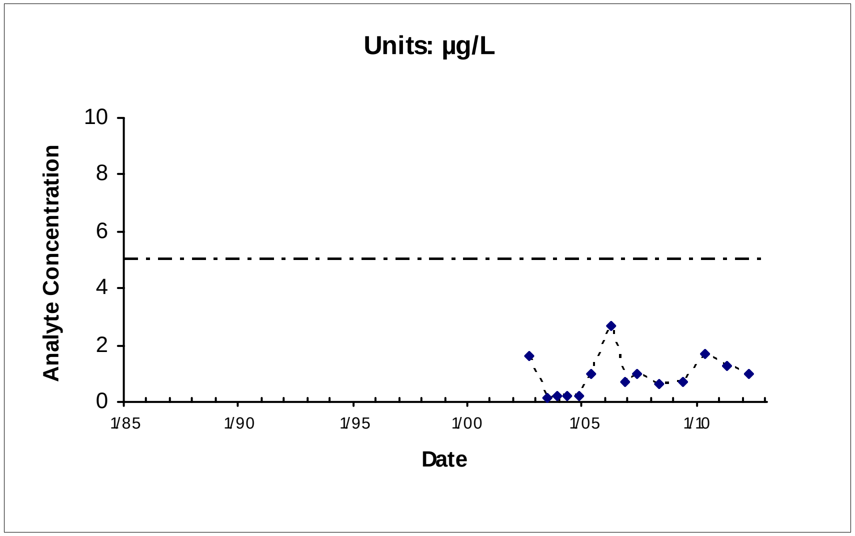
Chemical Time-series Plots



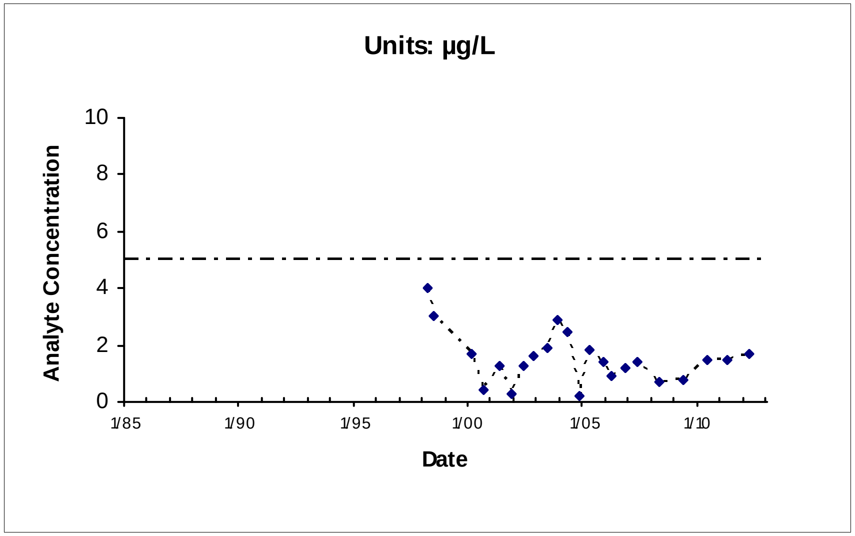
Location: OUTFALL1 Maximum: 3



Location: OUTFALL2 Maximum: 3



Location: SWPZ01X29 Maximum: 2.7



Location: WBUC-3 Maximum: 4

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

Surface Water

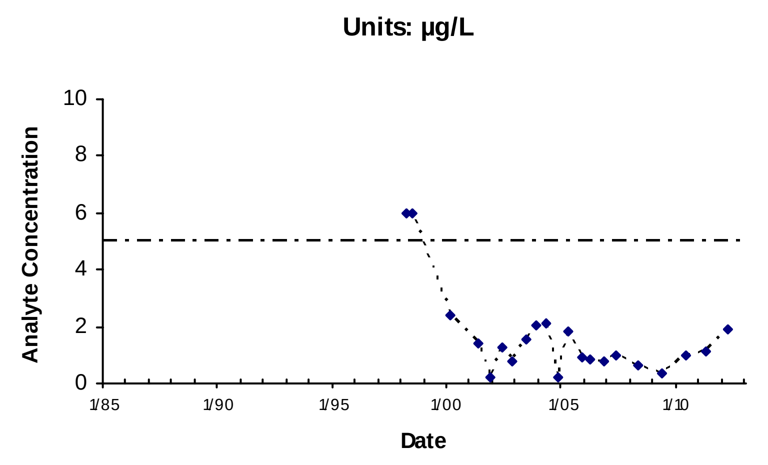
FIGURE 2-27

Site SD001

TCE

Chemical Time-series Plots

Page 1 of 2



Location: WBUC-4 Maximum: 6

— - — - — IRG (5 µg/L)

*Nondetects shown as the Method Detection Limit (0.19 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

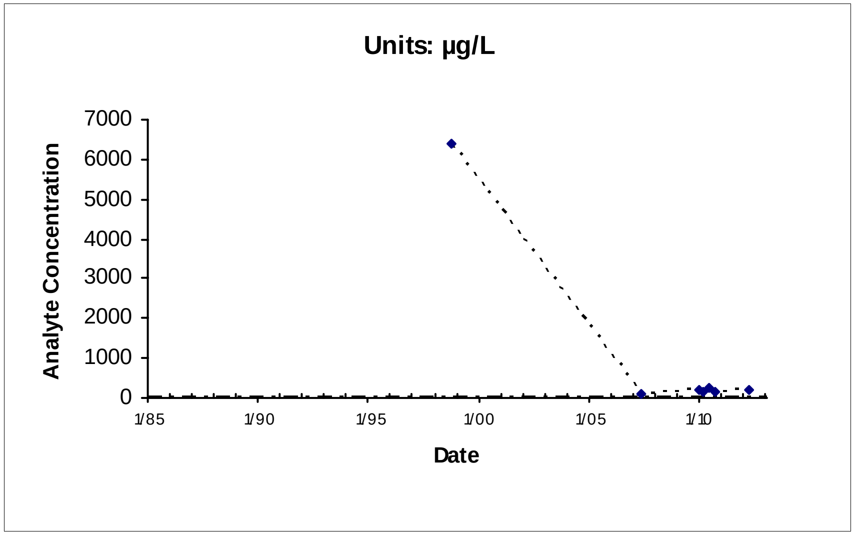
Surface Water

FIGURE 2-27

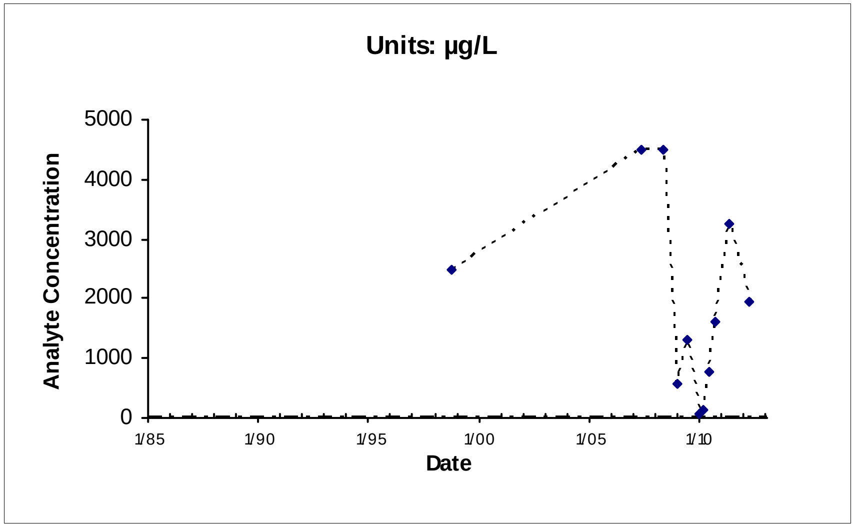
Site SD001

TCE

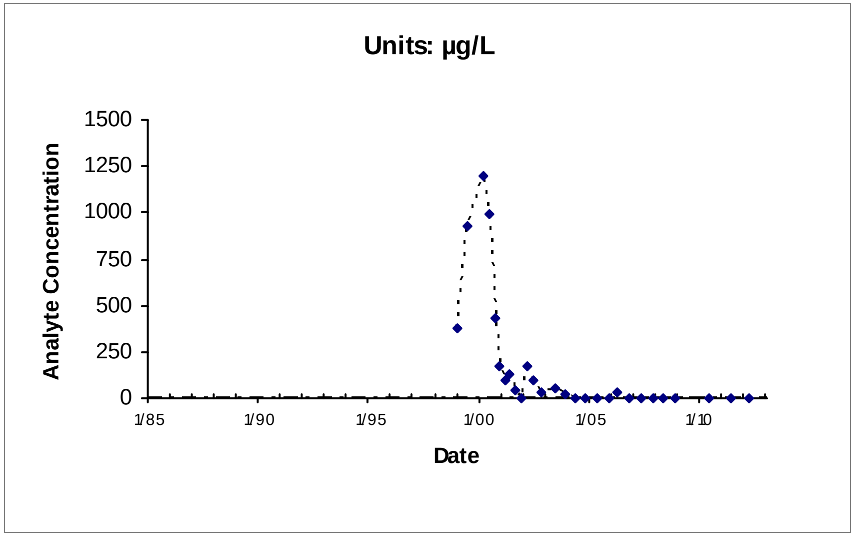
Chemical Time-series Plots



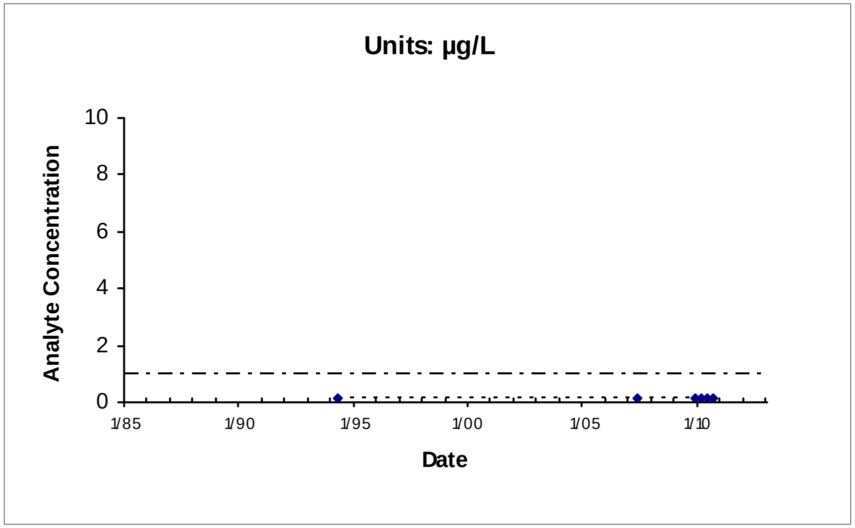
Location: MW01X14 Maximum: 6400



Location: MW02X14 Maximum: 4500



Location: MW05X14 Maximum: 1200



Location: MW1P1X14 Maximum: 0.17

— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

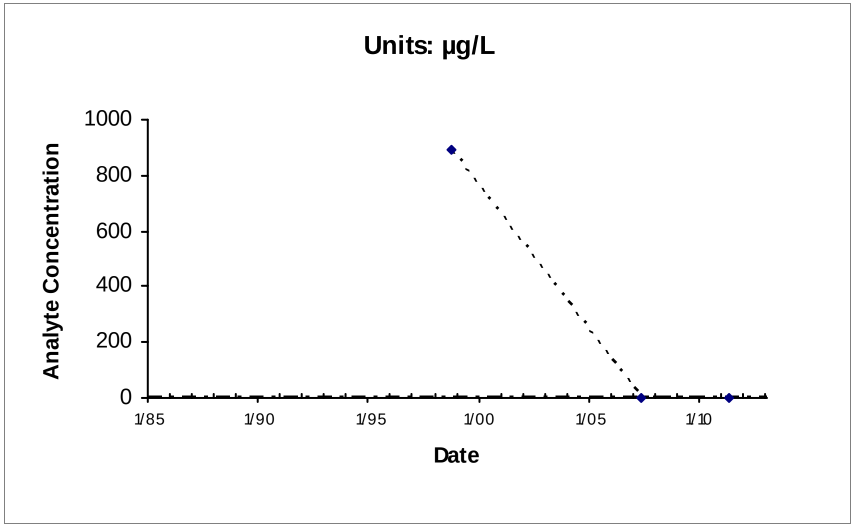
POCO Sites

FIGURE 2-28

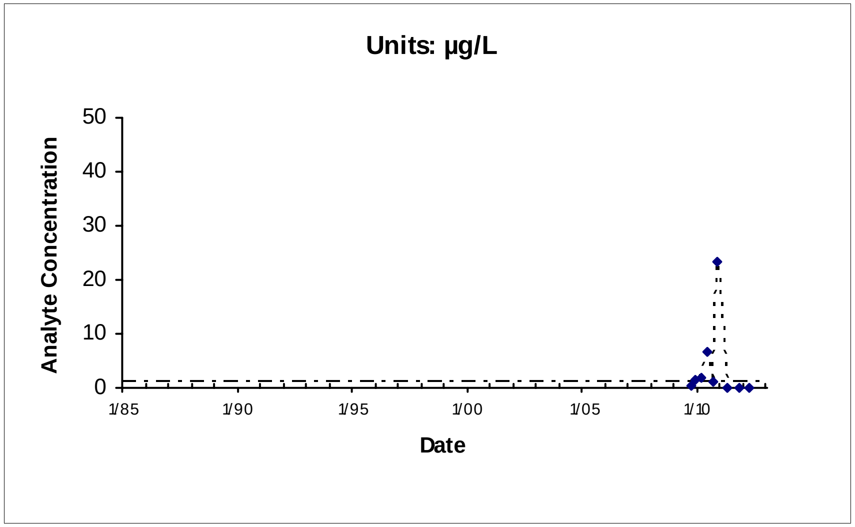
Site SS014

Benzene

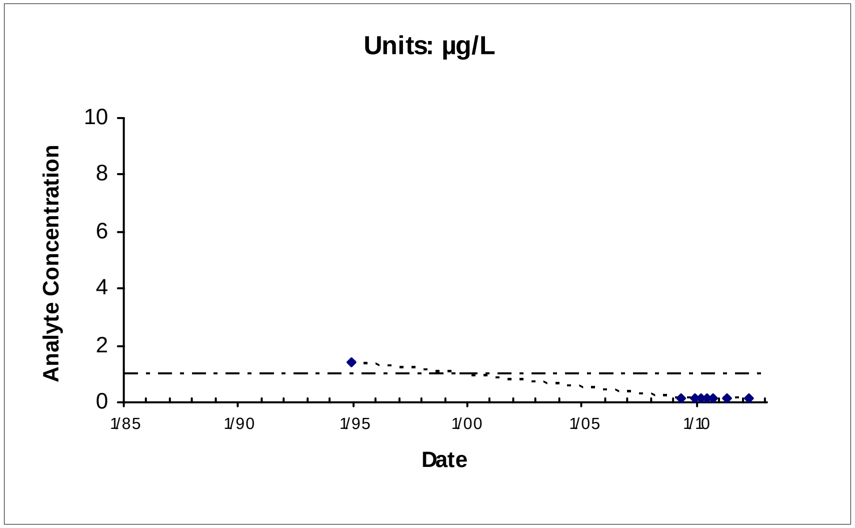
Chemical Time-series Plots



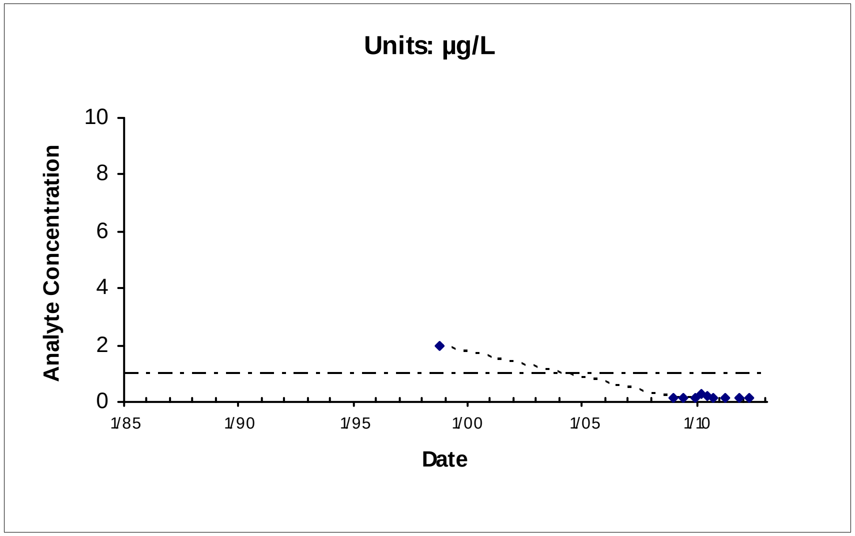
Location: MW5302X14 Maximum: 890



Location: MW2011x14 Maximum: 23.2



Location: MW1S3X33 Maximum: 1.38



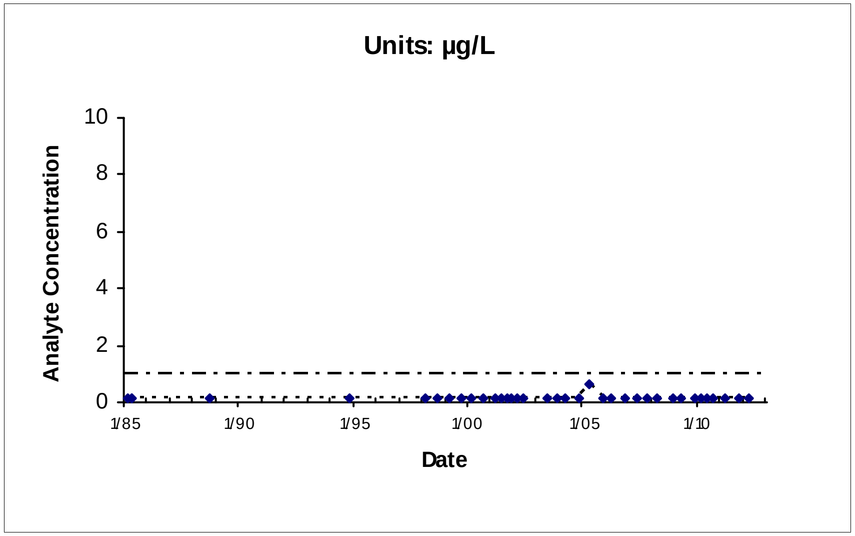
Location: MW04X37 Maximum: 2

— - — - — IRG (1 µg/L)

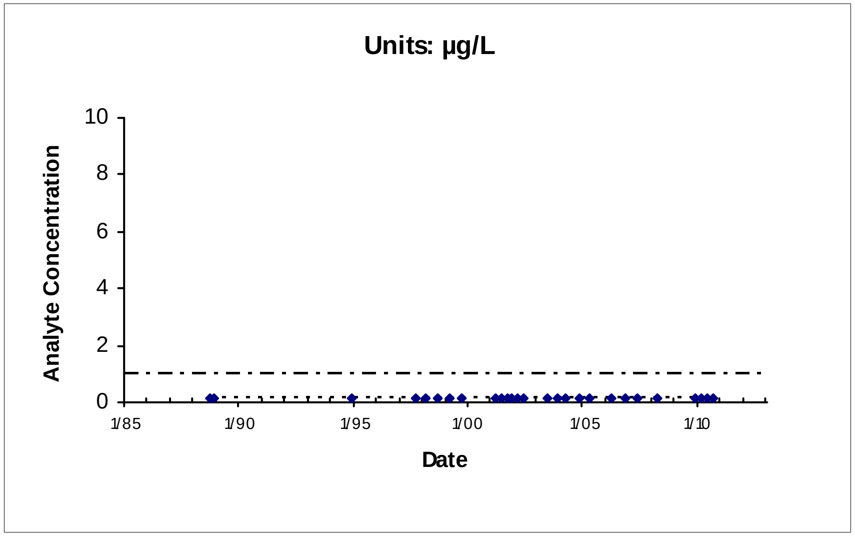
*Nondetects shown as the Method Detection Limit (0.17 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

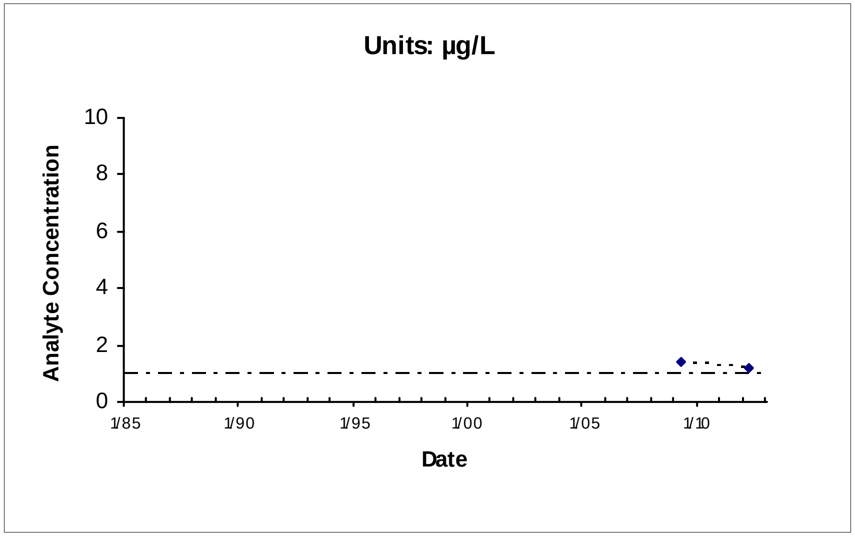
POCO Sites
FIGURE 2-28
Site SS014
Benzene
Chemical Time-series Plots



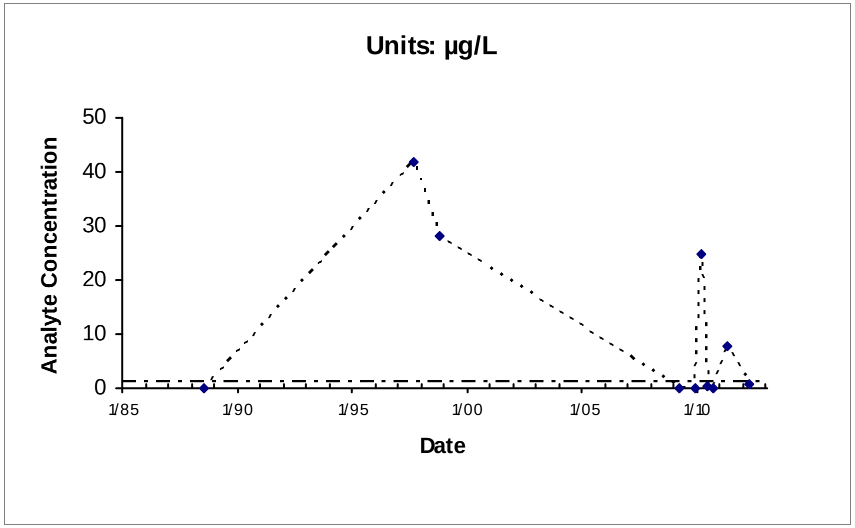
Location: MW116X37 Maximum: 0.61



Location: MW222X37 Maximum: 0.17



Location: MW223X37 Maximum: 1.4



Location: MW224X37 Maximum: 42

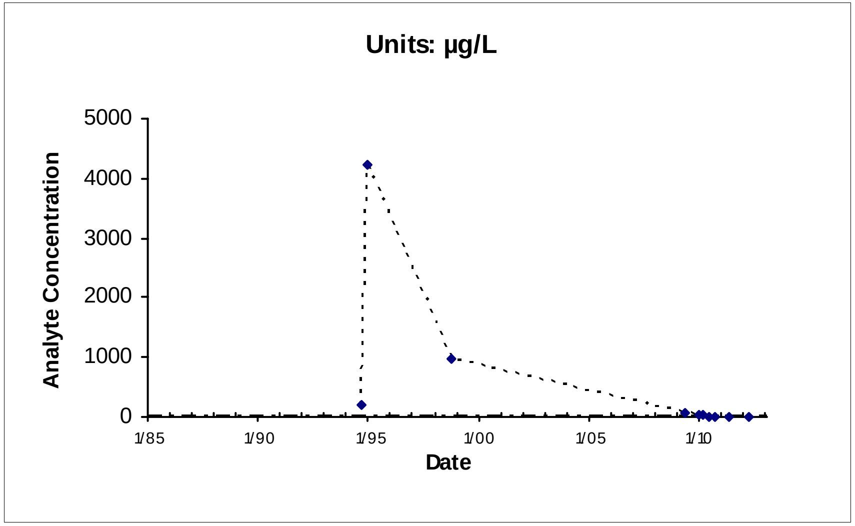
POCO Sites

FIGURE 2-28
Site SS014
Benzene
Chemical Time-series Plots
Page 3 of 4

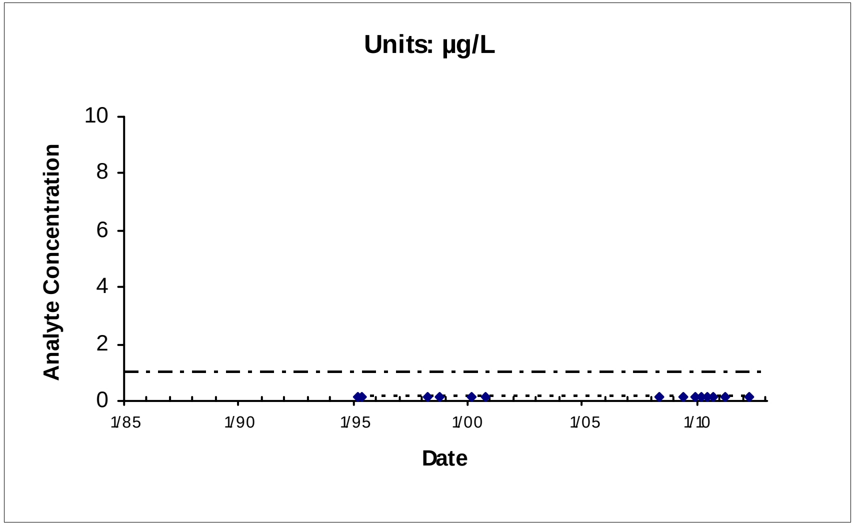
— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



Location: MWS3M2X37 Maximum: 4240



Location: MWSSBM1X37 Maximum: 0.17

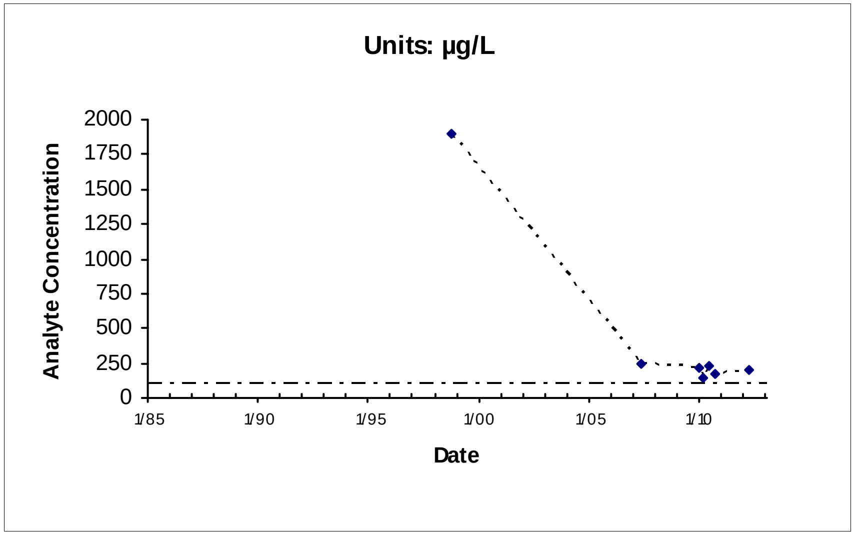
— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

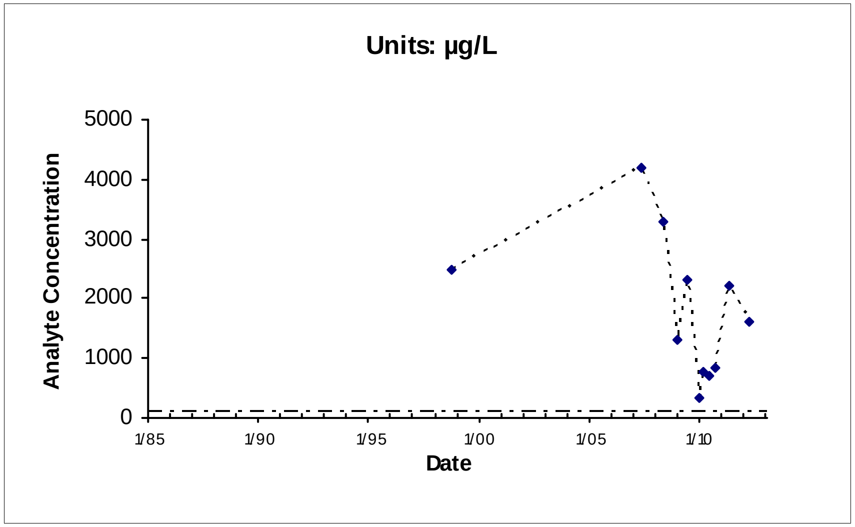
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

POCO Sites

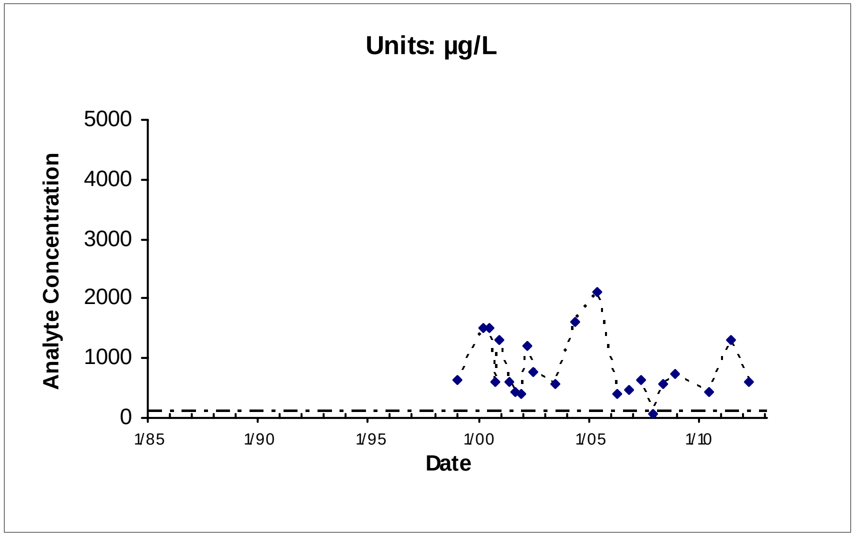
FIGURE 2-28
Site SS014
Benzene
Chemical Time-series Plots



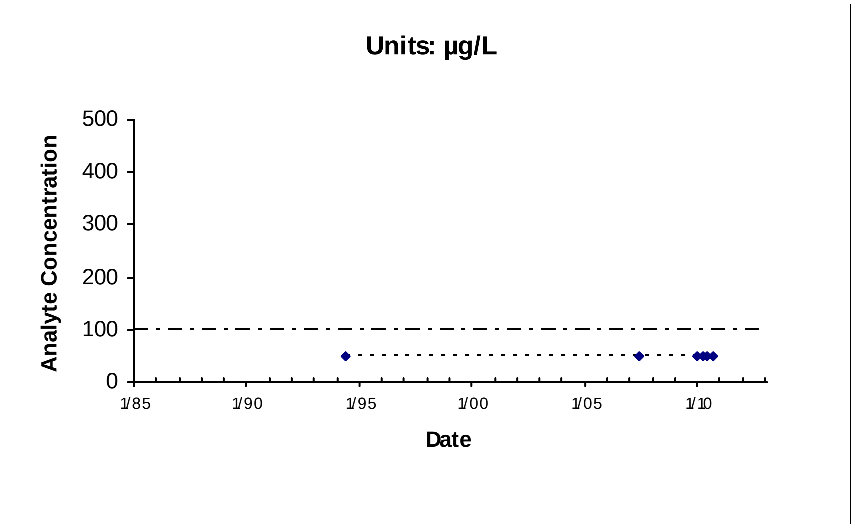
Location: MW01X14 Maximum: 1900



Location: MW02X14 Maximum: 4200



Location: MW05X14 Maximum: 2100



Location: MW1P1X14 Maximum: 50

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (50 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

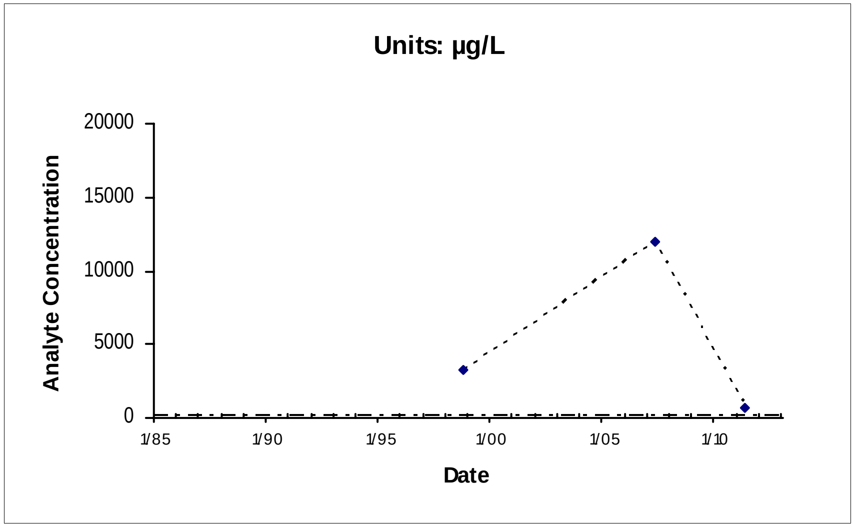
POCO Sites

FIGURE 2-29

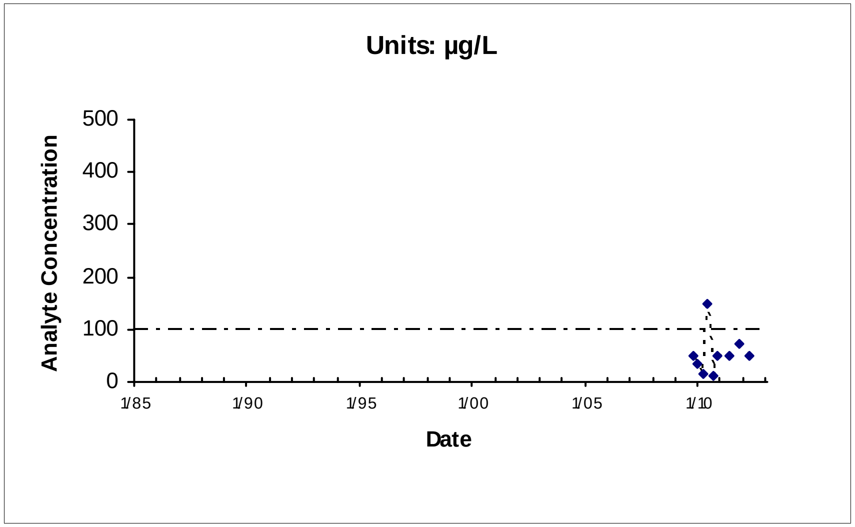
Site SS014

TPH-D

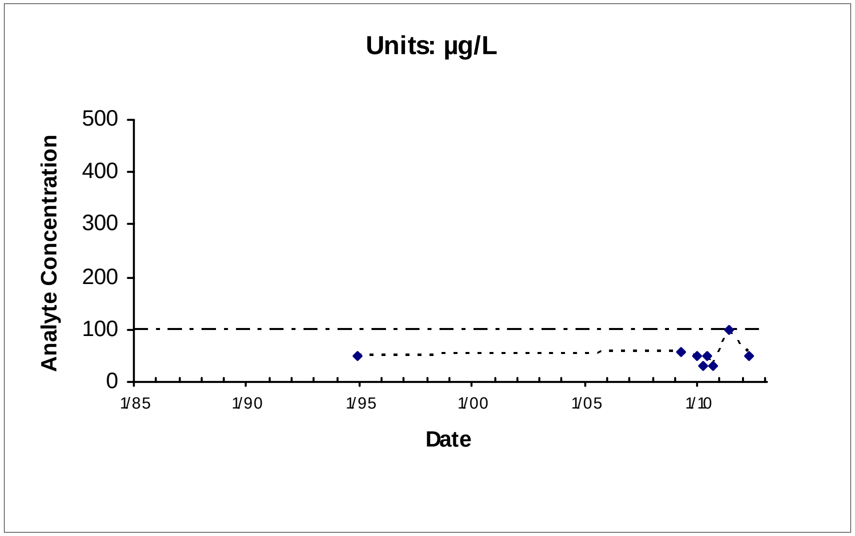
Chemical Time-series Plots



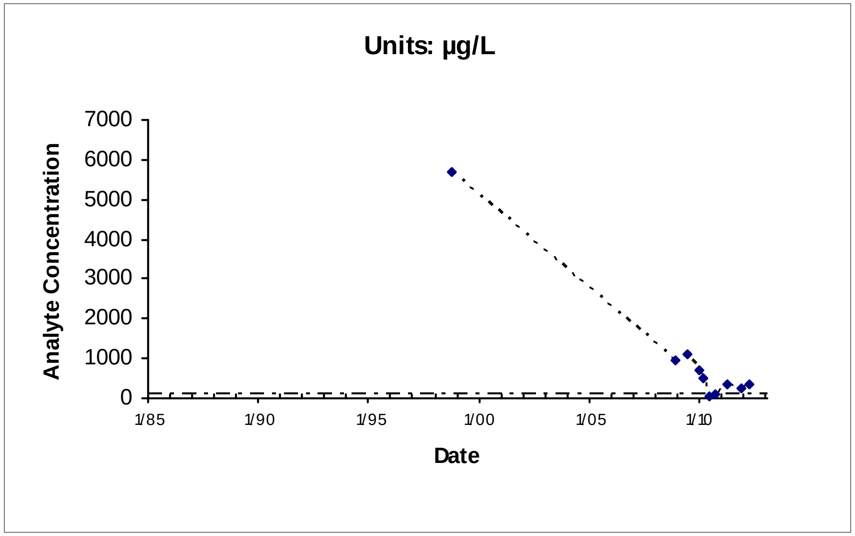
Location: MW5302X14 Maximum: 12000



Location: MW2011x14 Maximum: 150



Location: MW1S3X33 Maximum: 100



Location: MW04X37 Maximum: 5700

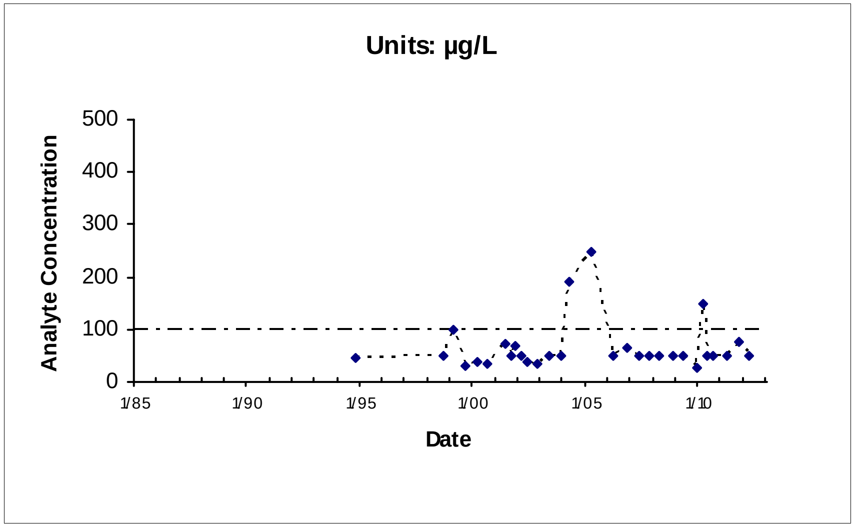
POCO Sites

FIGURE 2-29
Site SS014
TPH-D
Chemical Time-series Plots
Page 2 of 4

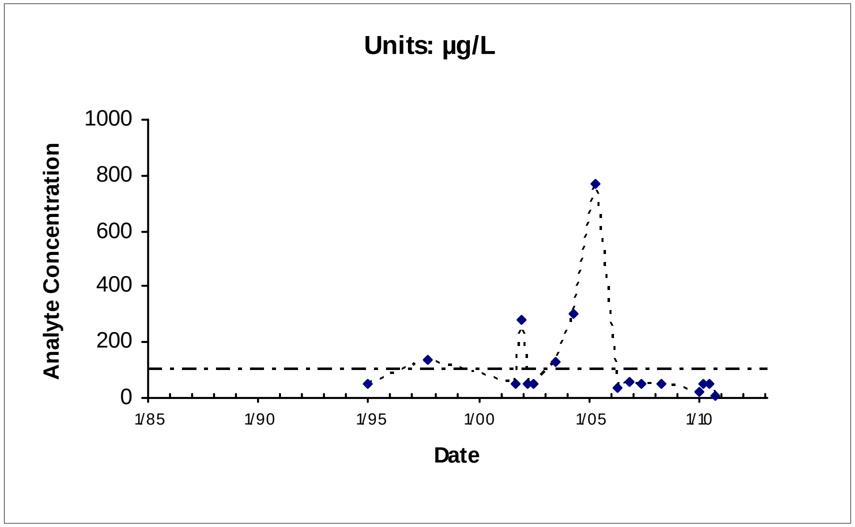
— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (50 µg/L)

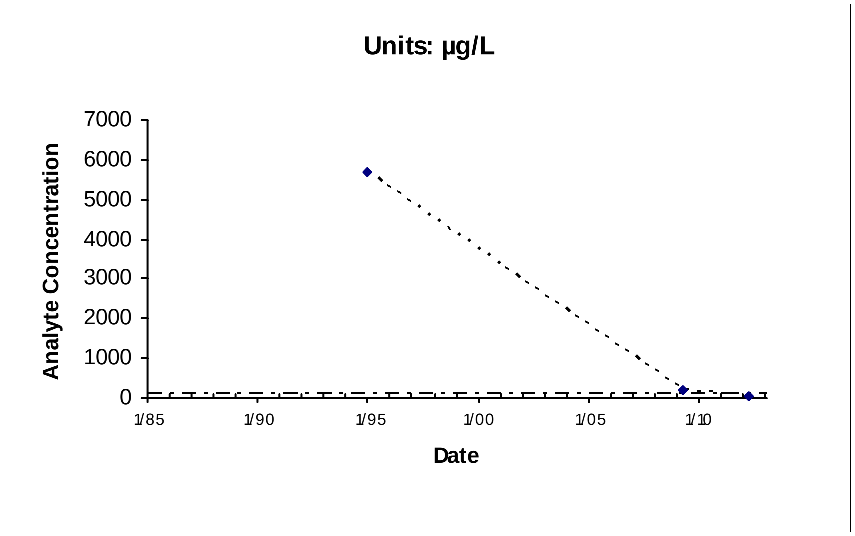
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



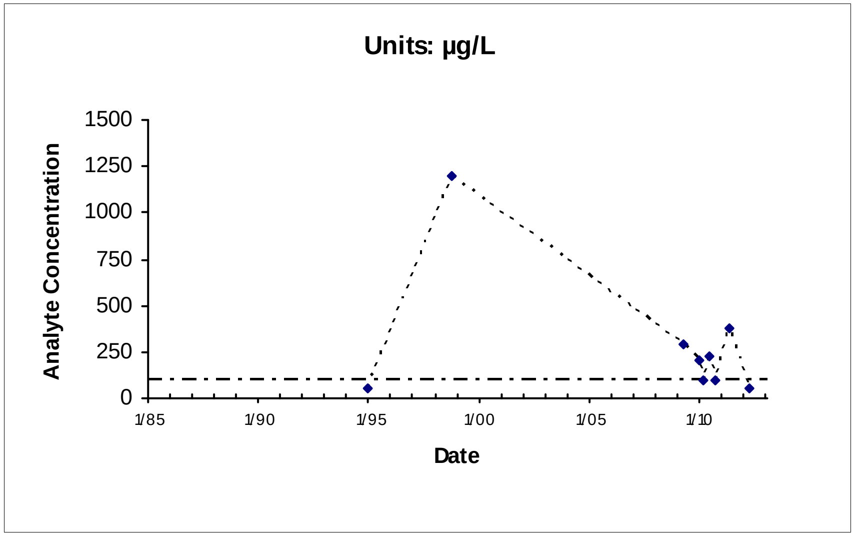
Location: MW116X37 Maximum: 250



Location: MW222X37 Maximum: 770



Location: MW223X37 Maximum: 5700



Location: MW224X37 Maximum: 1200

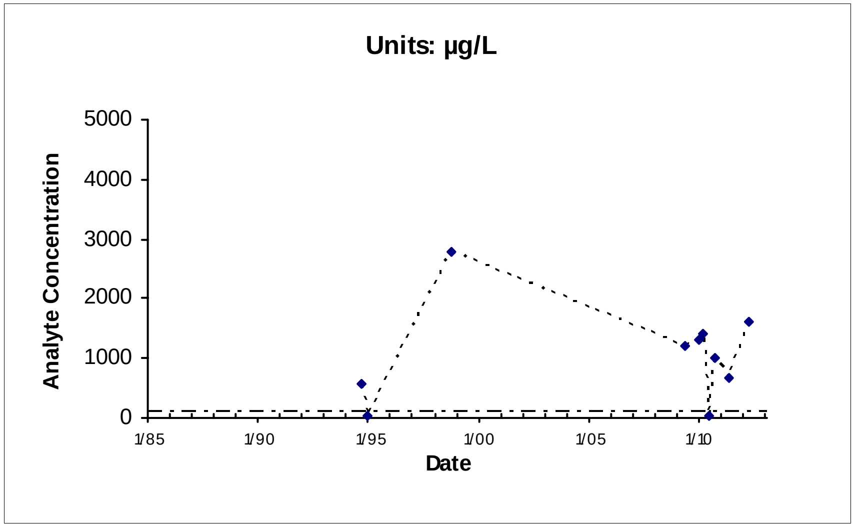
POCO Sites

FIGURE 2-29
Site SS014
TPH-D
Chemical Time-series Plots
Page 3 of 4

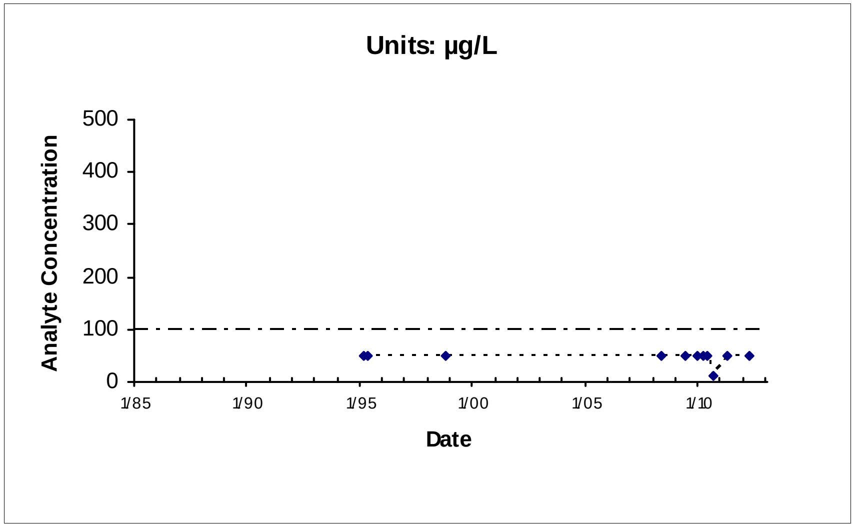
— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (50 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



Location: MWS3M2X37 Maximum: 2800



Location: MWSSBM1X37 Maximum: 50

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (50 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

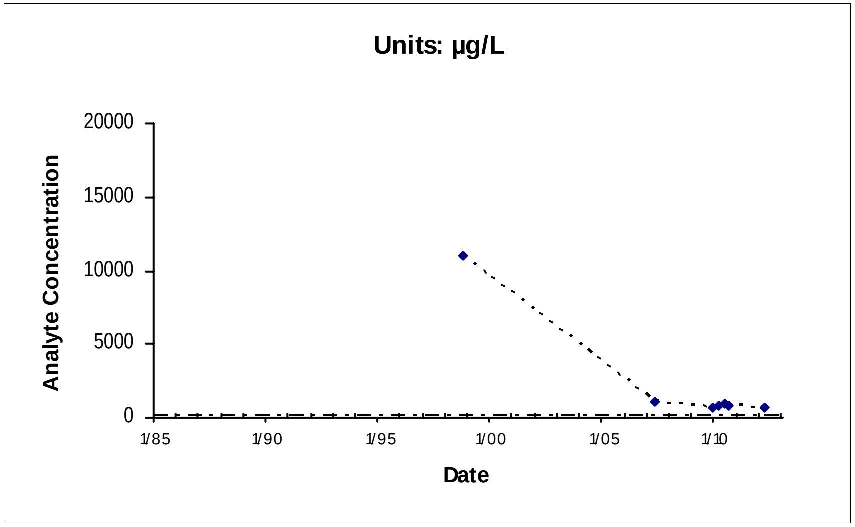
POCO Sites

FIGURE 2-29

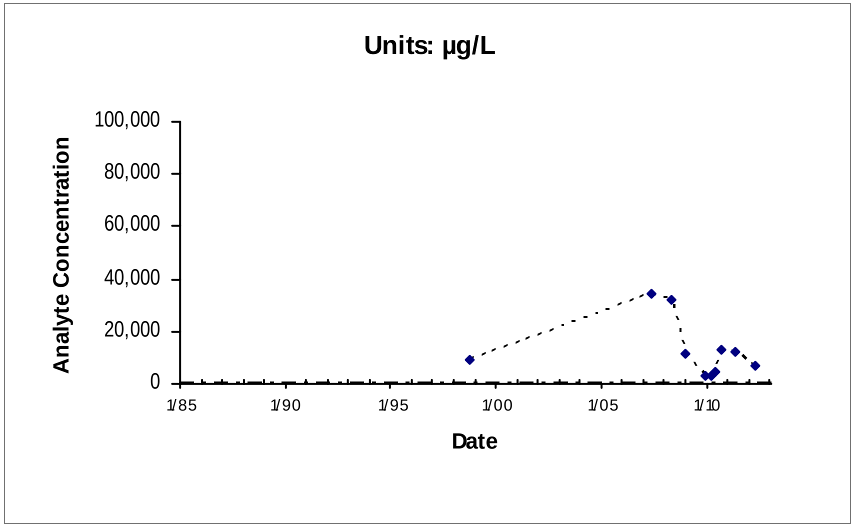
Site SS014

TPH-D

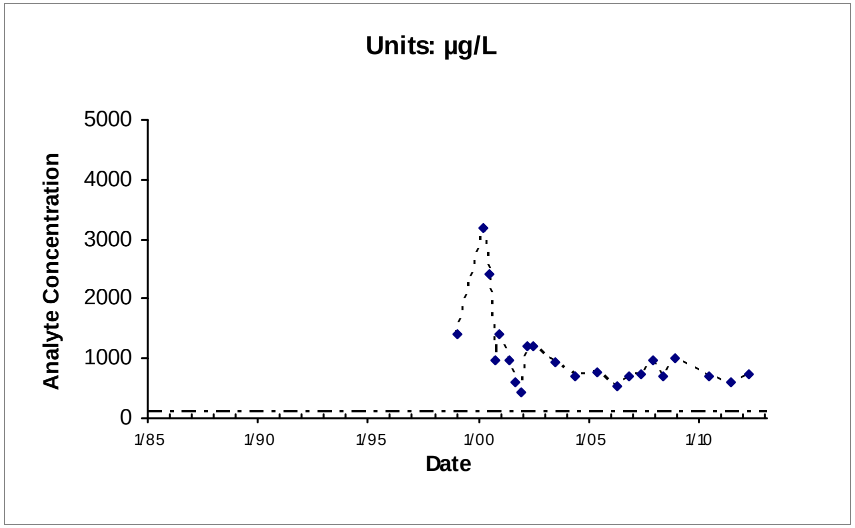
Chemical Time-series Plots



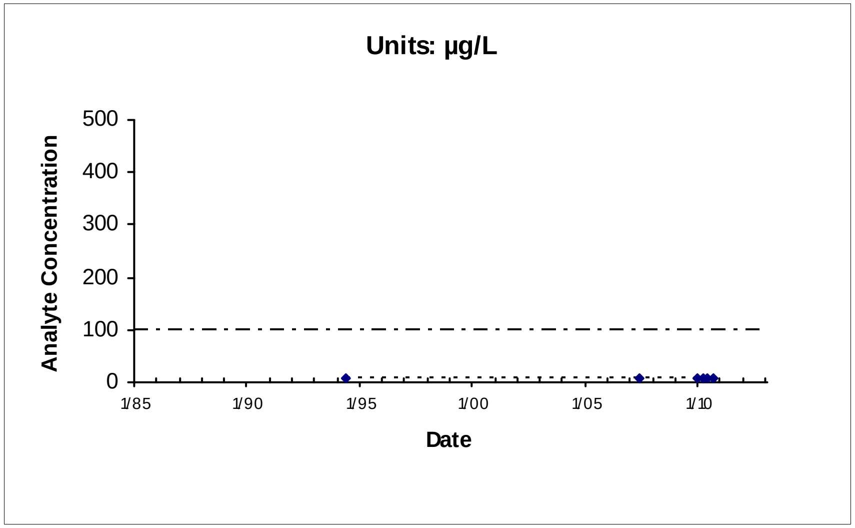
Location: MW01X14 Maximum: 11000



Location: MW02X14 Maximum: 34000



Location: MW05X14 Maximum: 3200



Location: MW1P1X14 Maximum: 8.5

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (8.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

POCO Sites

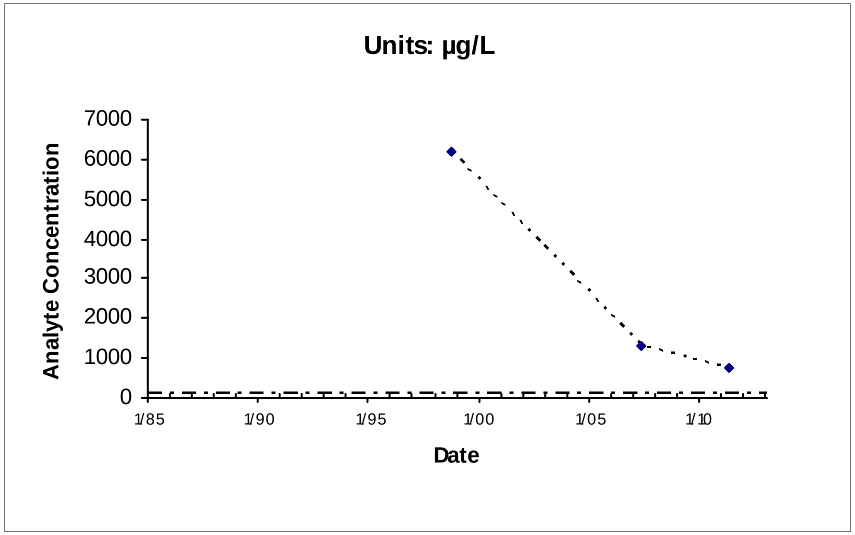
FIGURE 2-30

Site SS014

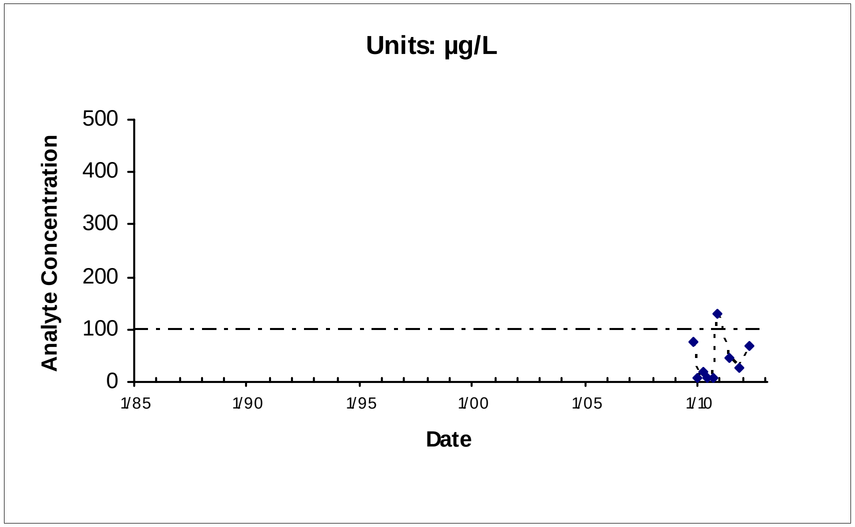
TPH-G

Chemical Time-series Plots

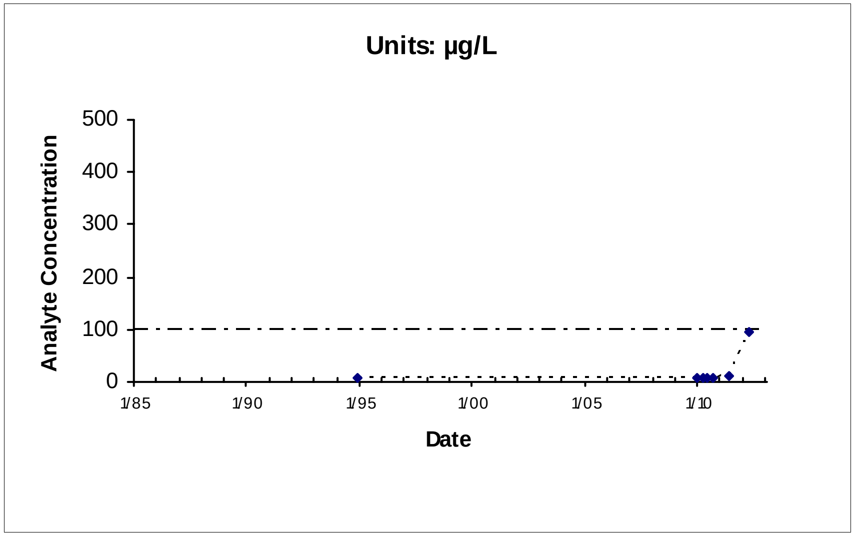
Page 1 of 4



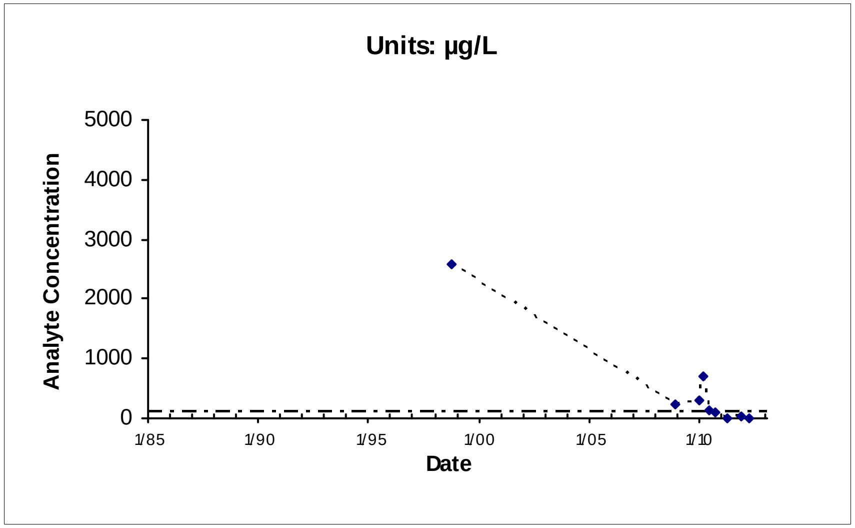
Location: MW5302X14 Maximum: 6200



Location: MW2011x14 Maximum: 130



Location: MW1S3X33 Maximum: 97



Location: MW04X37 Maximum: 2600

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (8.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

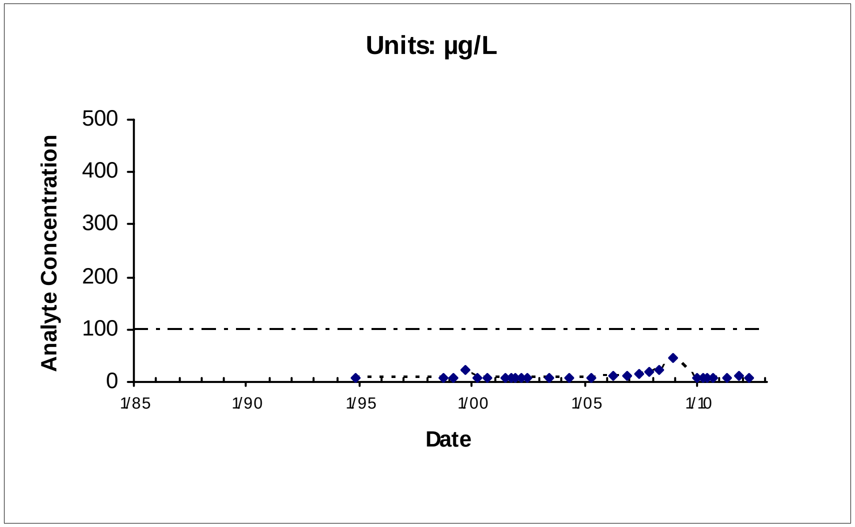
POCO Sites

FIGURE 2-30

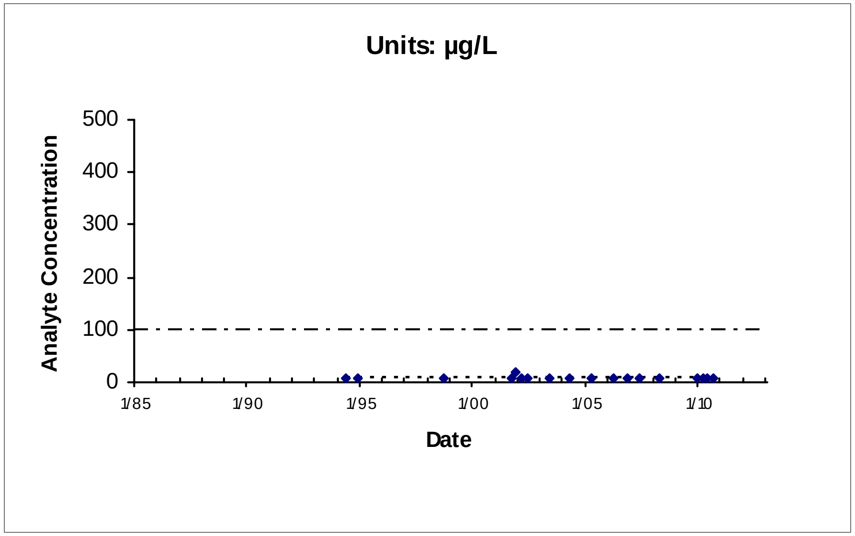
Site SS014

TPH-G

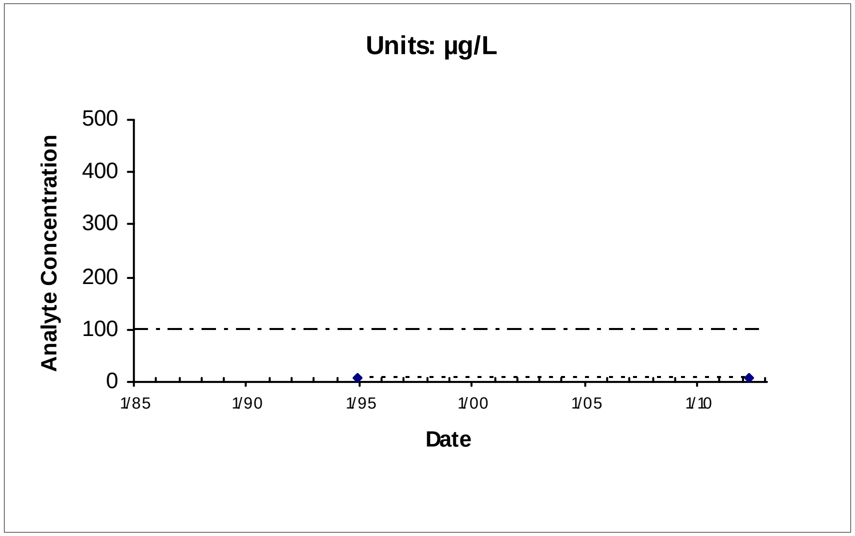
Chemical Time-series Plots



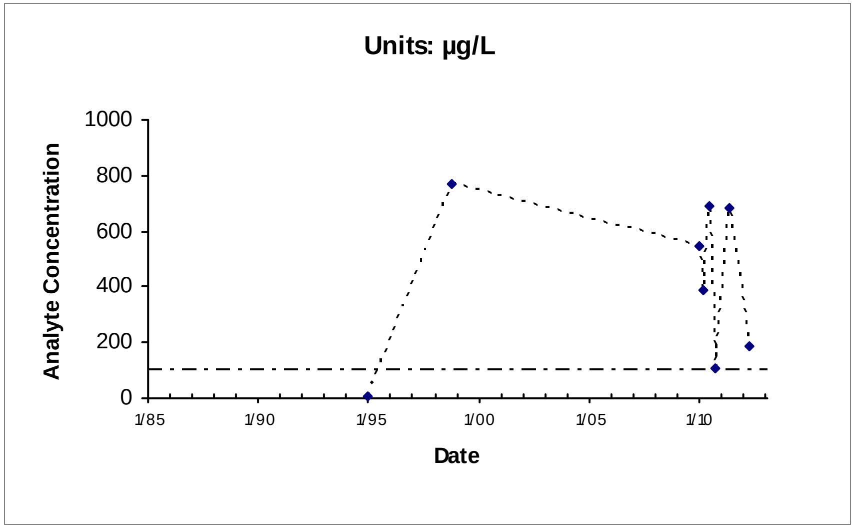
Location: MW116X37 Maximum: 44



Location: MW222X37 Maximum: 18



Location: MW223X37 Maximum: 8.5



Location: MW224X37 Maximum: 770

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (8.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

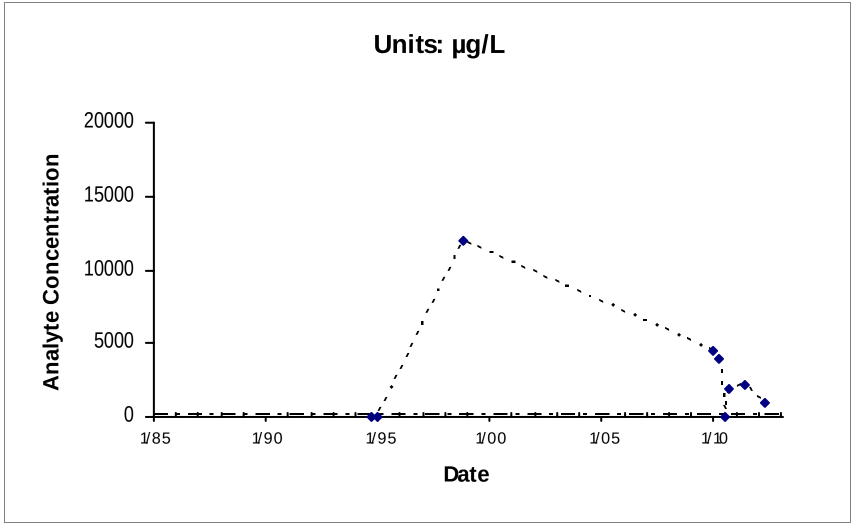
POCO Sites

FIGURE 2-30

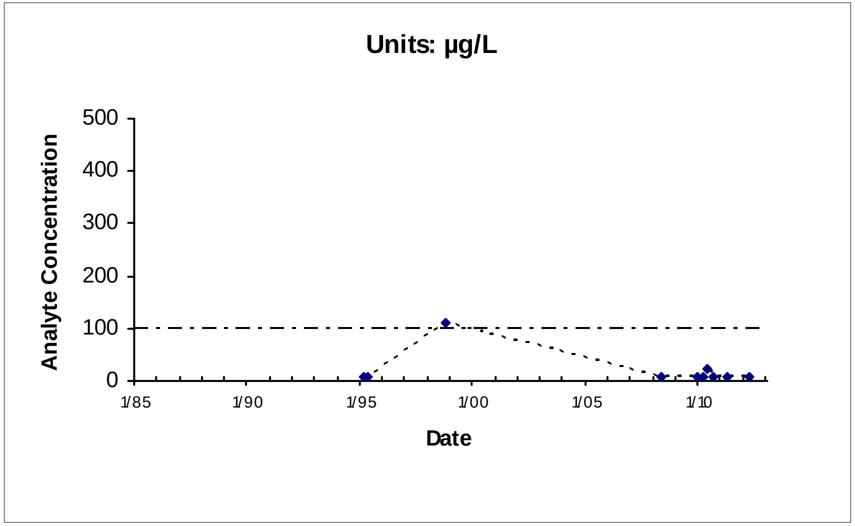
Site SS014

TPH-G

Chemical Time-series Plots



Location: MWS3M2X37 Maximum: 12000



Location: MWSSBM1X37 Maximum: 110

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (8.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

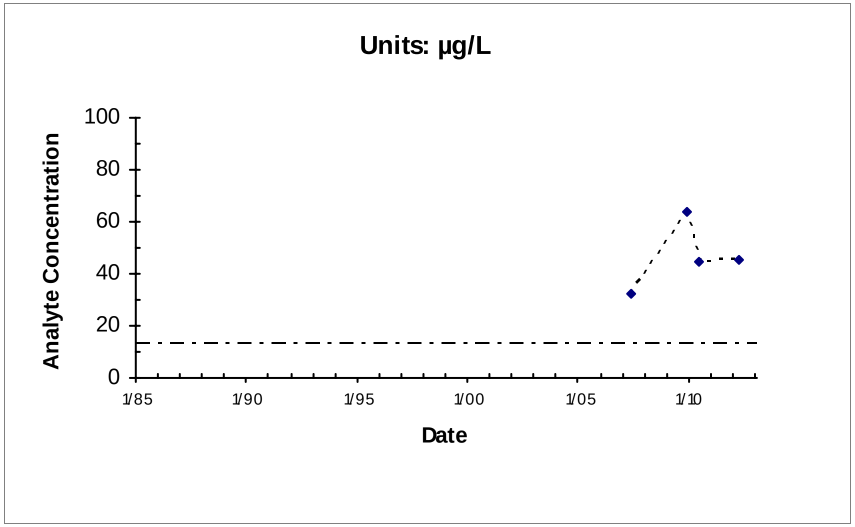
POCO Sites

FIGURE 2-30

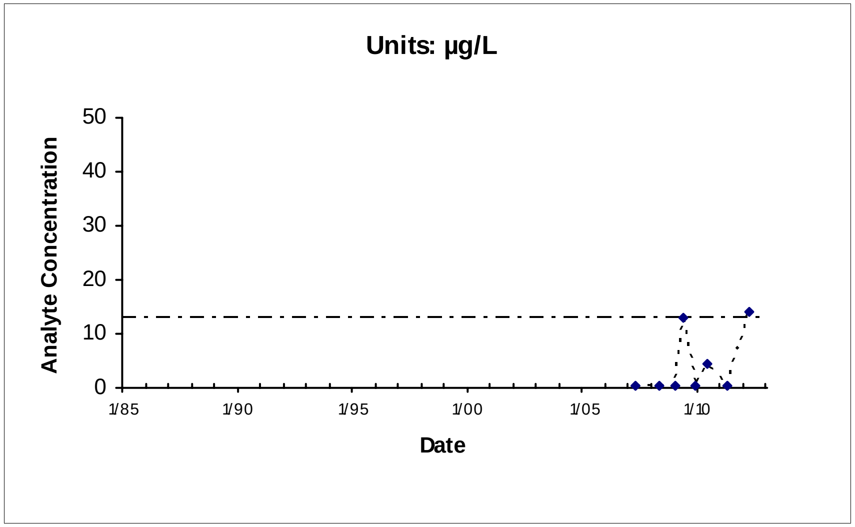
Site SS014

TPH-G

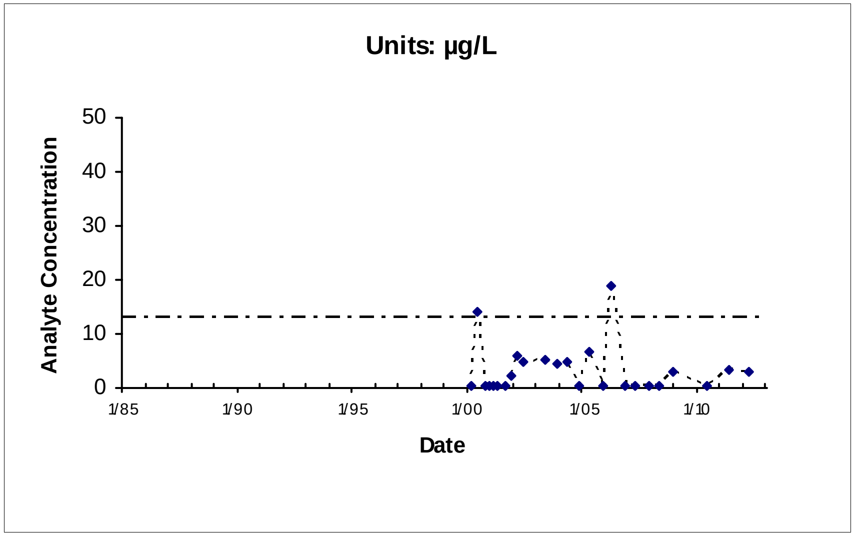
Chemical Time-series Plots



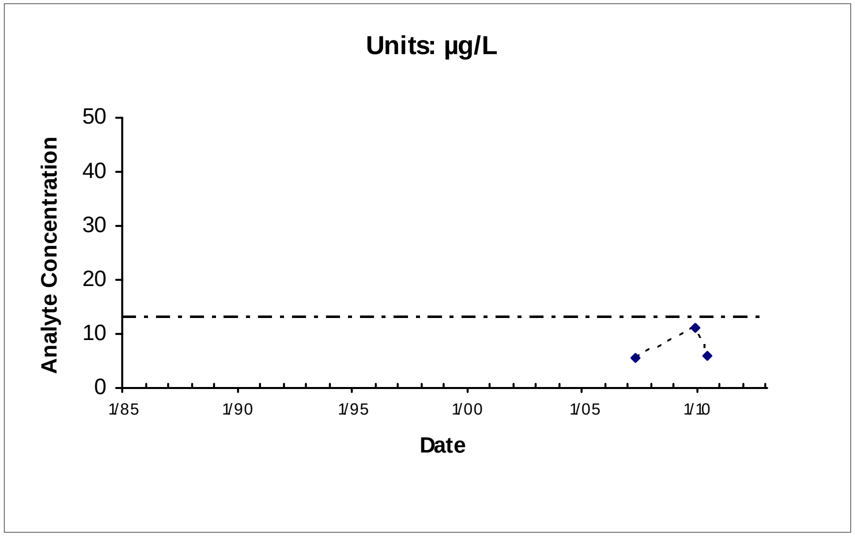
Location: MW01X14 Maximum: 64



Location: MW02X14 Maximum: 14.1



Location: MW05X14 Maximum: 19



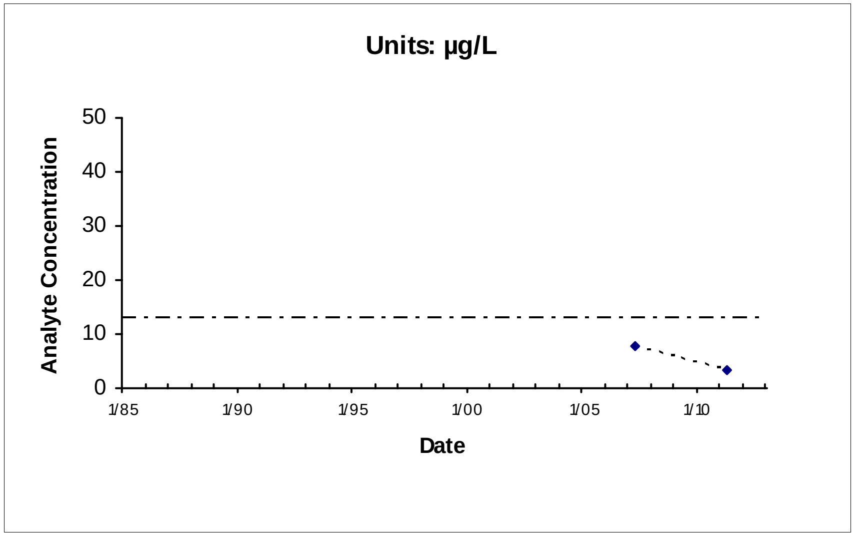
Location: MW1P1X14 Maximum: 11

— - — - — IRG (13 µg/L)

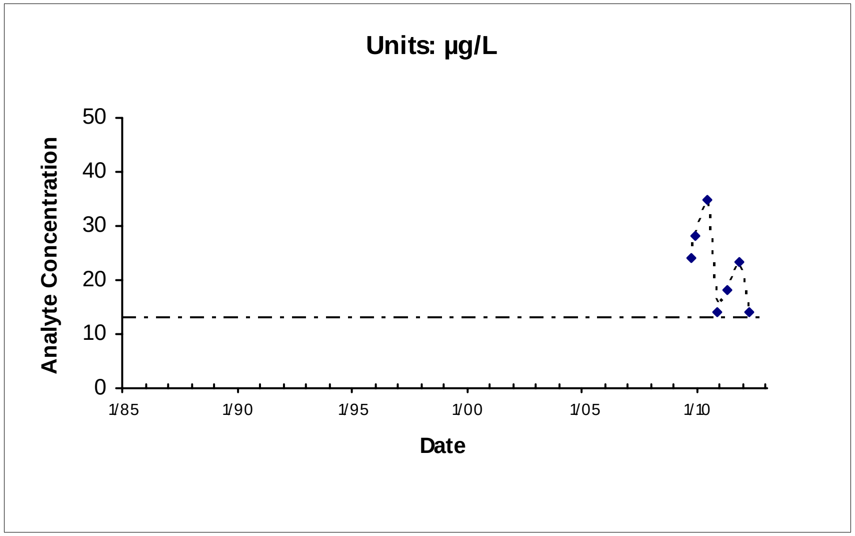
*Nondetects shown as the Method Detection Limit (0.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

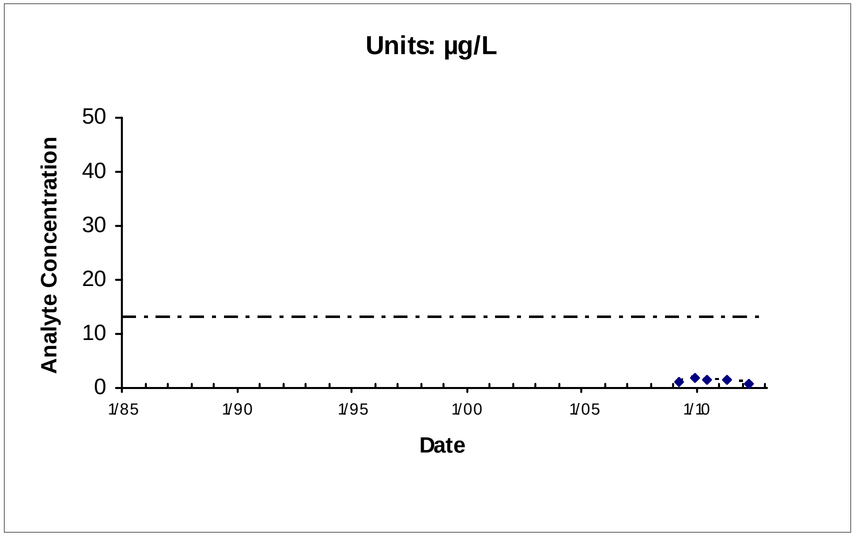
POCO Sites
FIGURE 2-31
Site SS014
MTBE
Chemical Time-series Plots



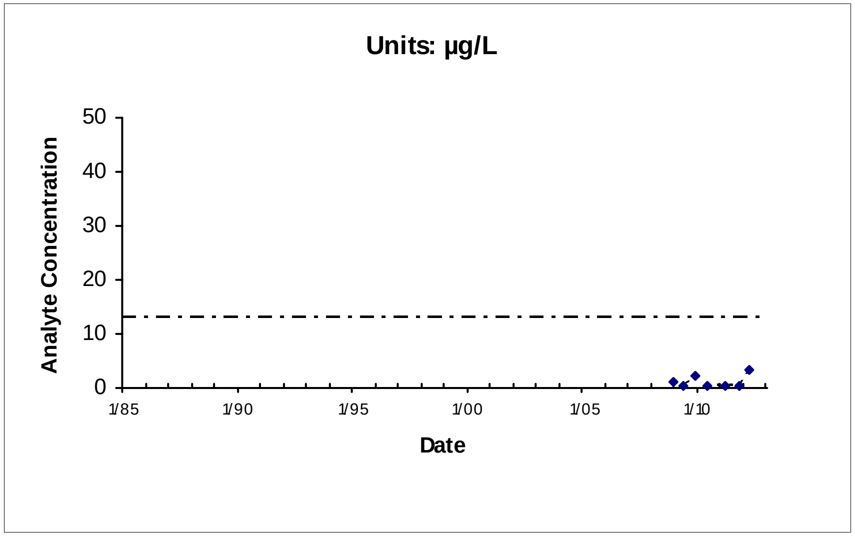
Location: MW5302X14 Maximum: 7.6



Location: MW2011x14 Maximum: 35



Location: MW1S3X33 Maximum: 1.8



Location: MW04X37 Maximum: 3.2

— - — - — IRG (13 µg/L)

*Nondetects shown as the Method Detection Limit (0.5 µg/L)

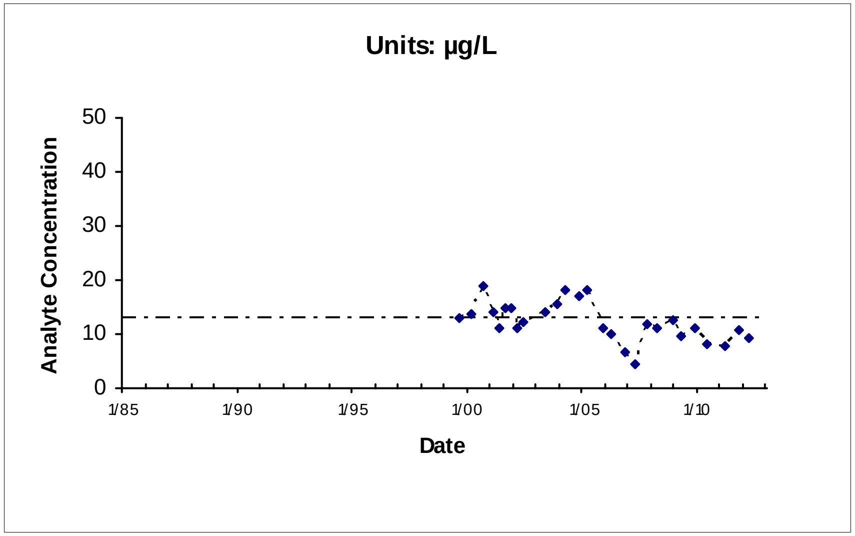
POCO Sites

FIGURE 2-31

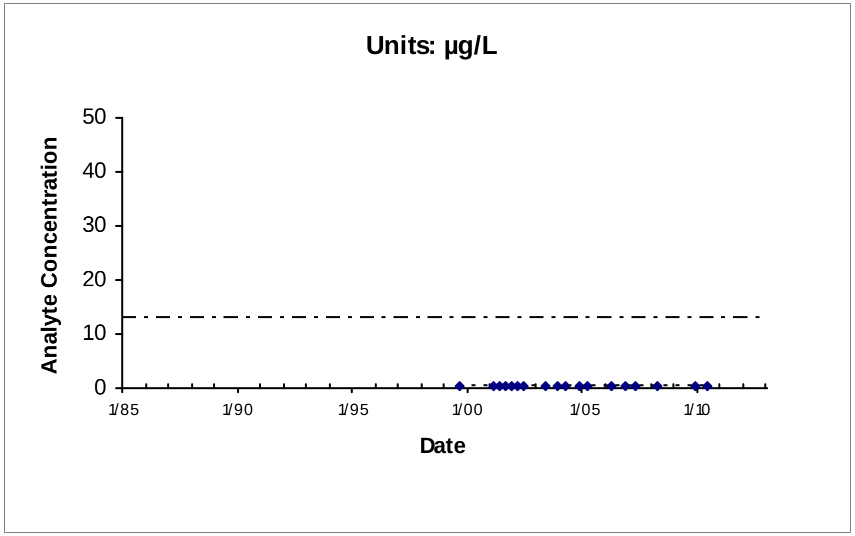
Site SS014

MTBE

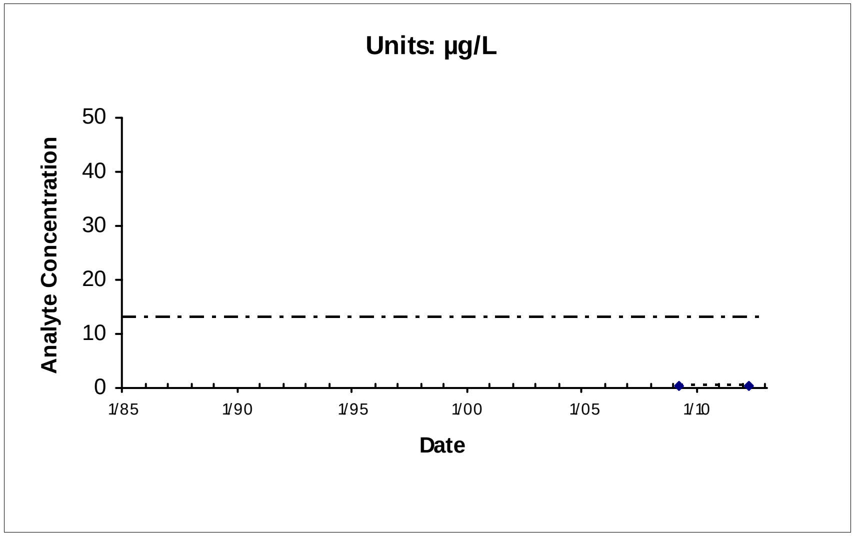
Chemical Time-series Plots



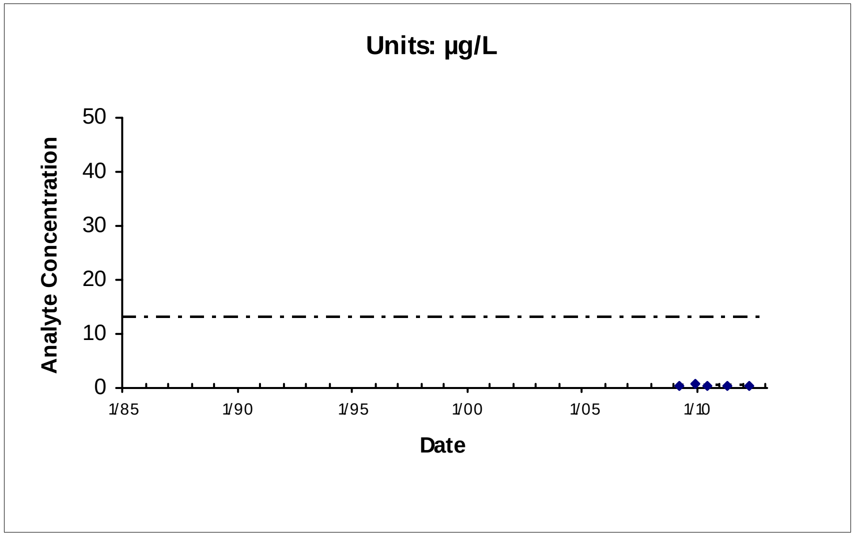
Location: MW116X37 Maximum: 19



Location: MW222X37 Maximum: 0.5



Location: MW223X37 Maximum: 0.5



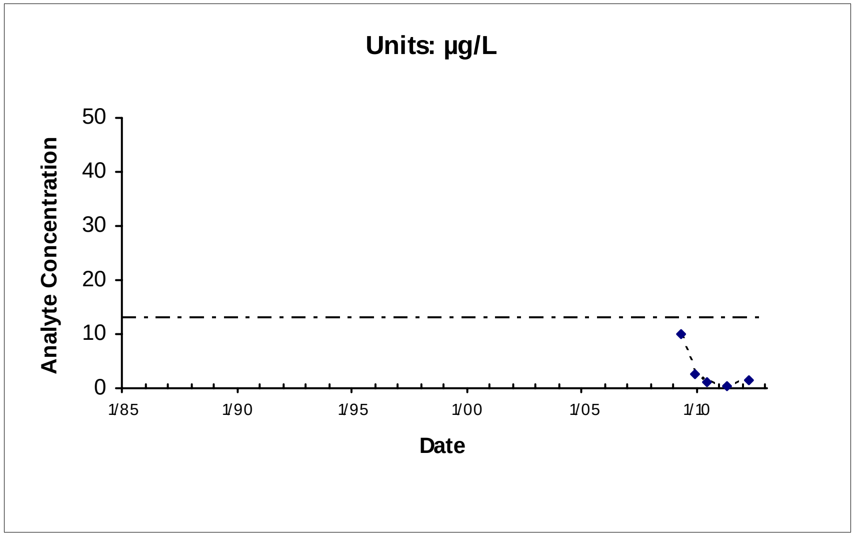
Location: MW224X37 Maximum: 0.6

— - — - — IRG (13 µg/L)

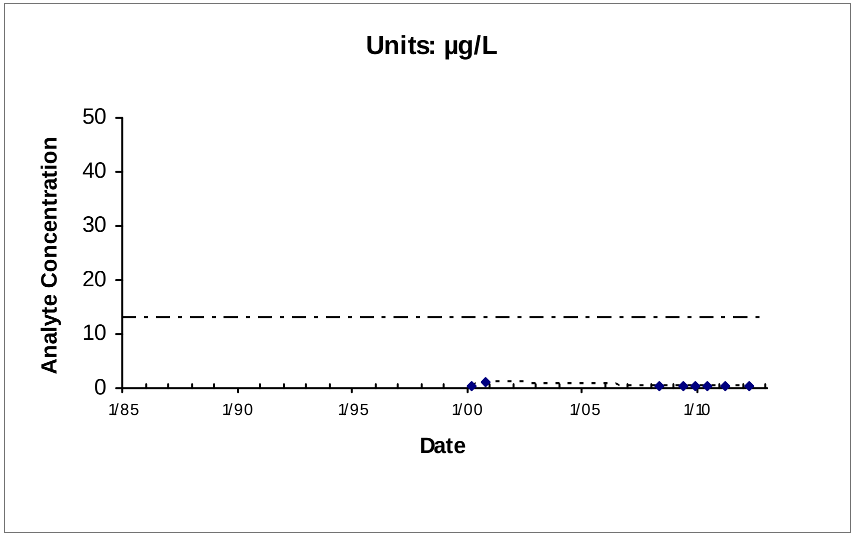
*Nondetects shown as the Method Detection Limit (0.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

POCO Sites
FIGURE 2-31
Site SS014
MTBE
Chemical Time-series Plots



Location: MWS3M2X37 Maximum: 10



Location: MWSSBM1X37 Maximum: 1

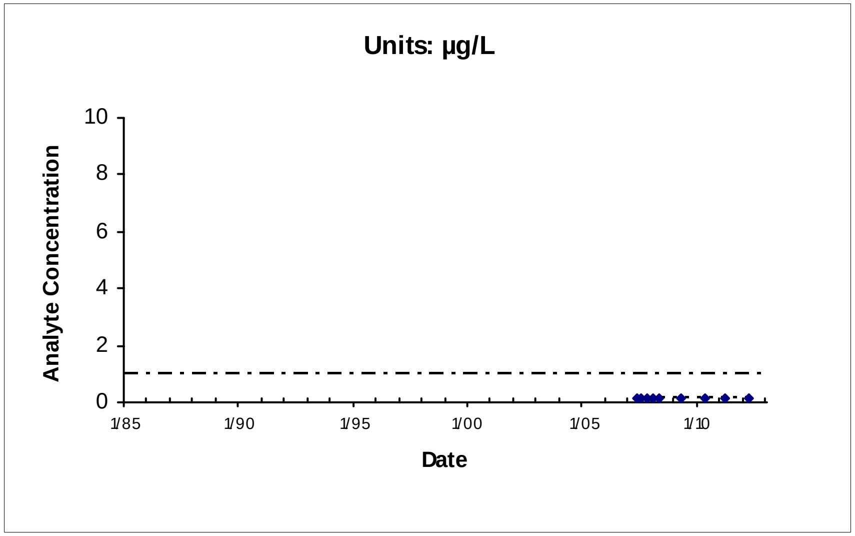
— - — - — IRG (13 µg/L)

*Nondetects shown as the Method Detection Limit (0.5 µg/L)

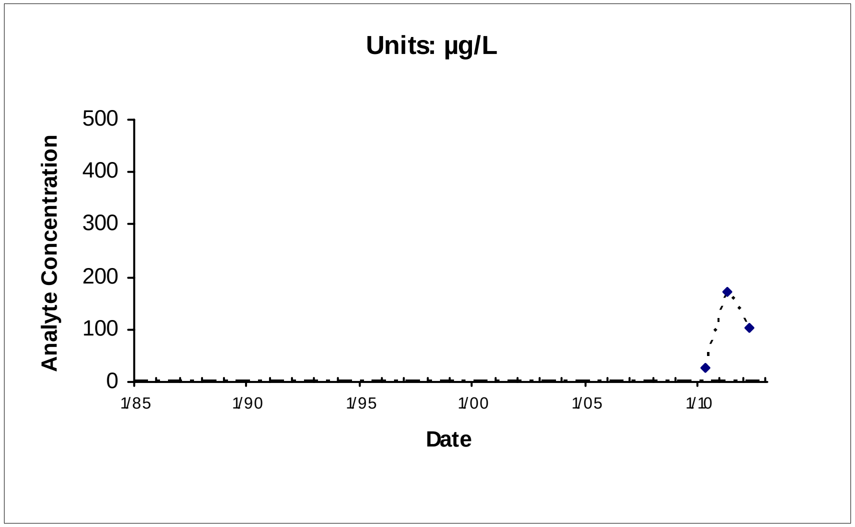
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

POCO Sites

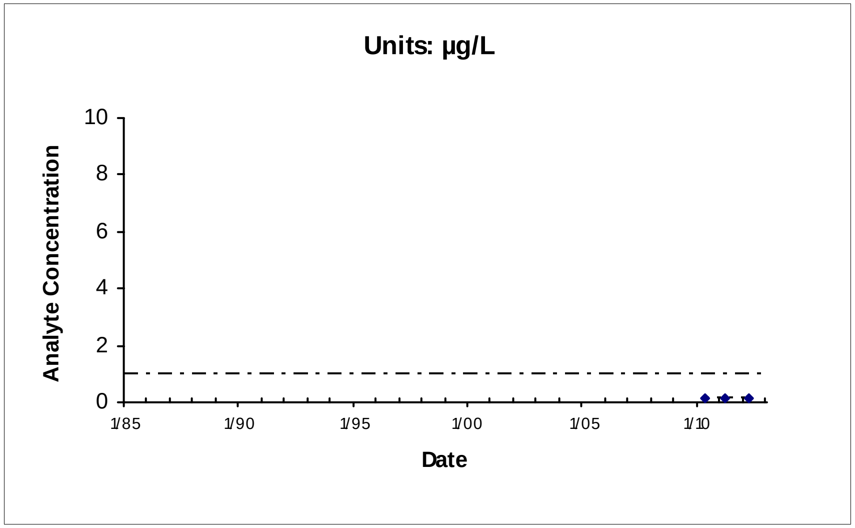
FIGURE 2-31
Site SS014
MTBE
Chemical Time-series Plots



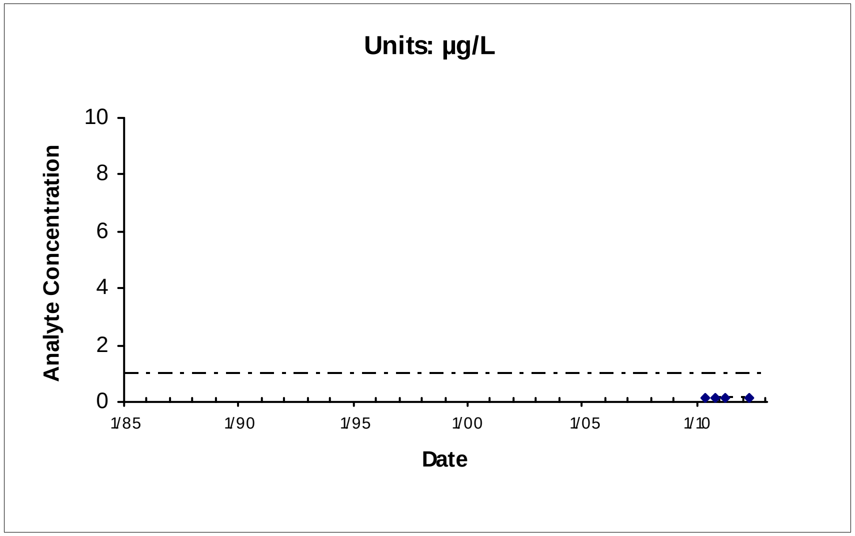
Location: EW1NSx18 Maximum: 0.17



Location: EW2014X18 Maximum: 172



Location: EW2016x18 Maximum: 0.17



Location: EW2019x18 Maximum: 0.17

— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

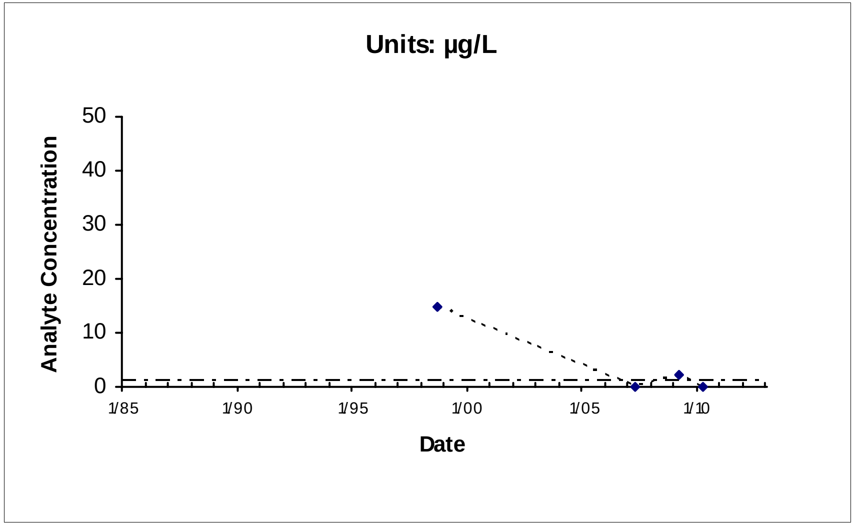
POCO Sites

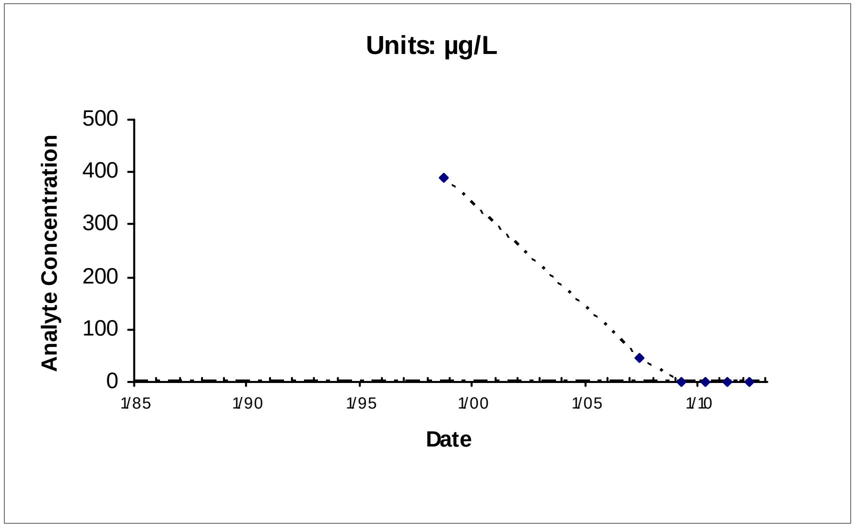
FIGURE 2-32

Site ST018

Benzene

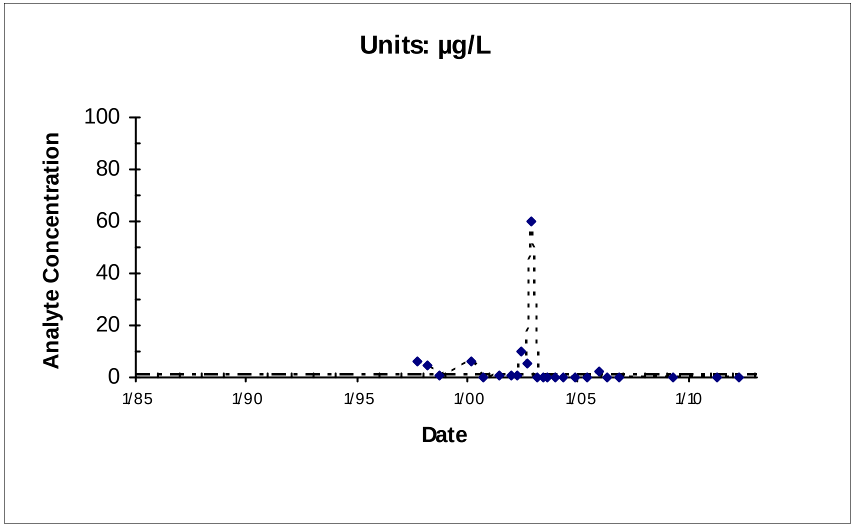
Chemical Time-series Plots

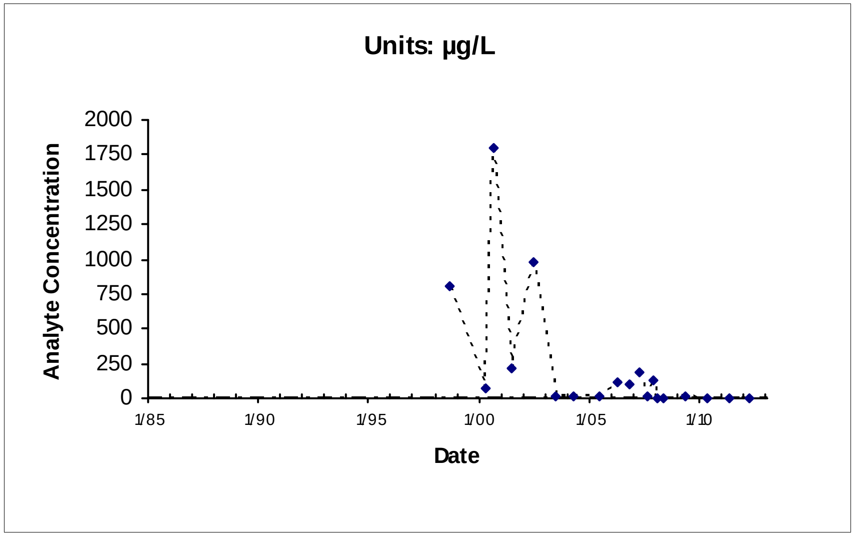




Location: MW136X18 Maximum: 15

Location: MW137X18 Maximum: 390





Location: MW139X18 Maximum: 60

Location: MW206NSX18 Maximum: 1800

— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

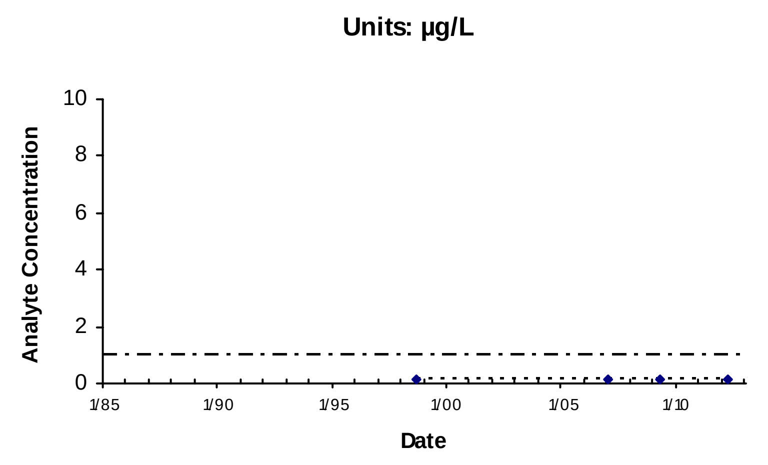
POCO Sites

FIGURE 2-32

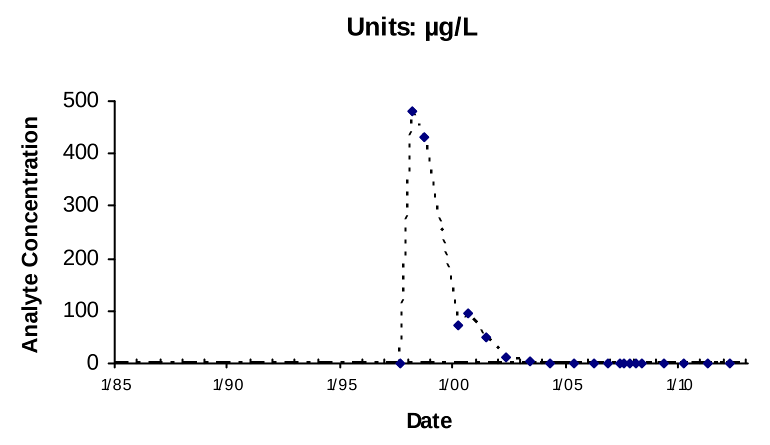
Site ST018

Benzene

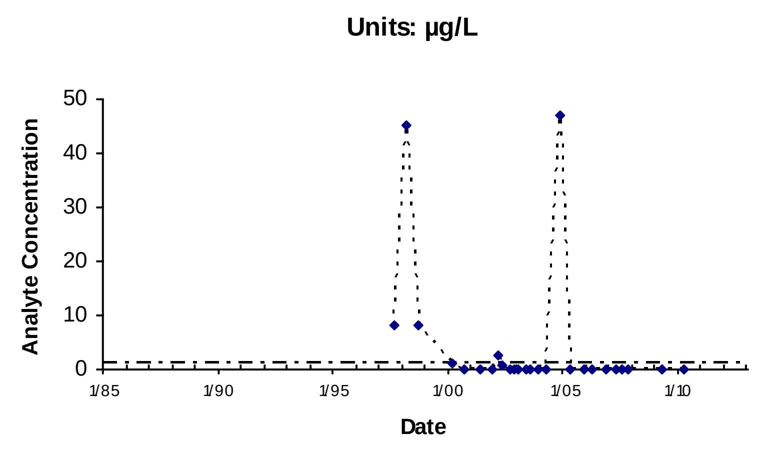
Chemical Time-series Plots



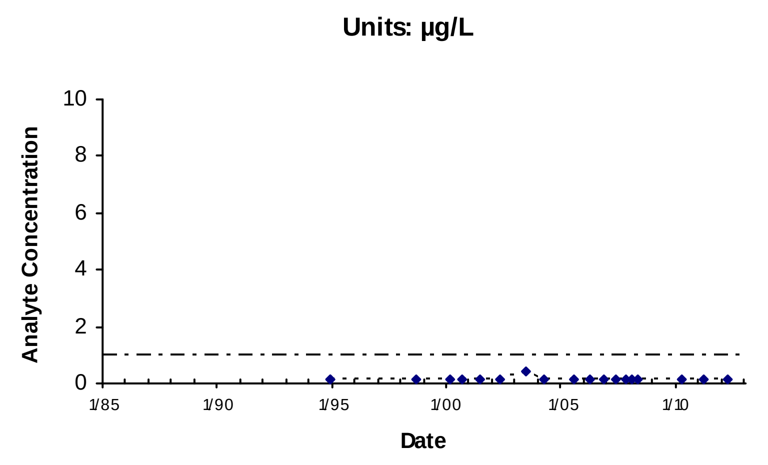
Location: MW208NSX18 Maximum: 0.17



Location: MW210NSX18 Maximum: 480



Location: MW211NSX18 Maximum: 47



Location: MW213NSX18 Maximum: 0.44

— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

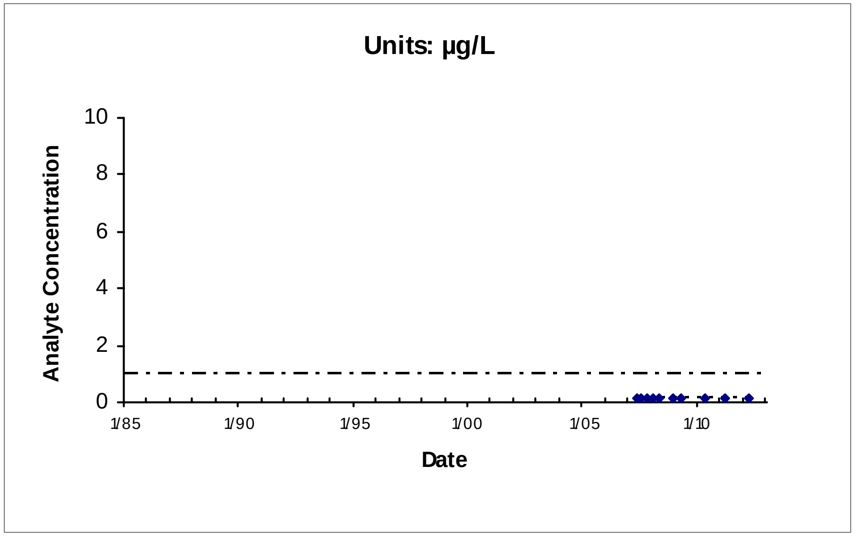
POCO Sites

FIGURE 2-32

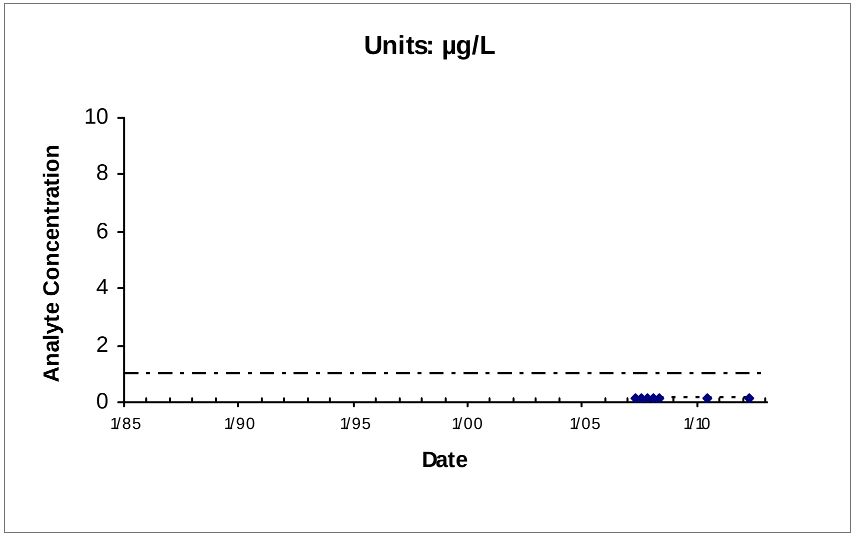
Site ST018

Benzene

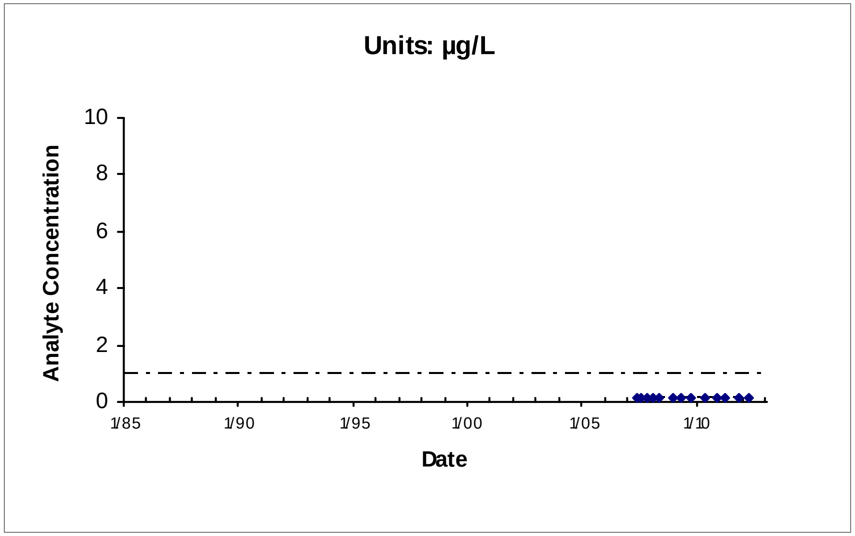
Chemical Time-series Plots



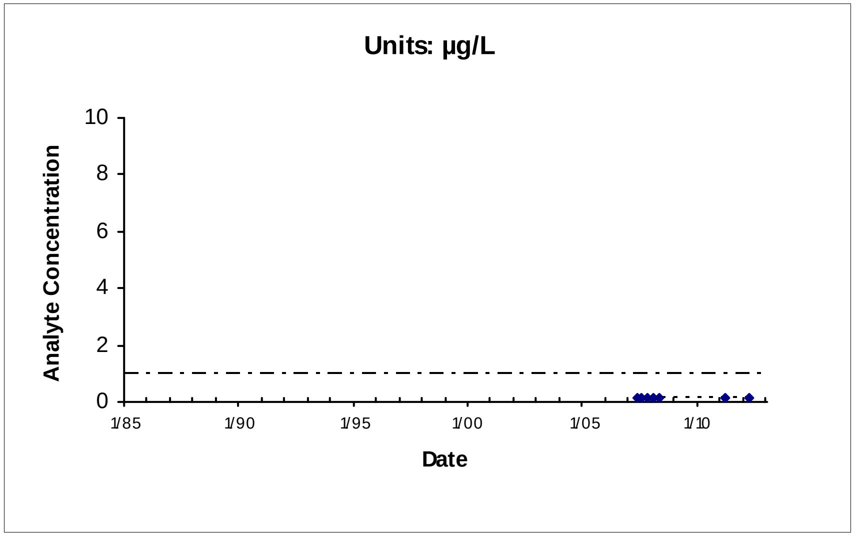
Location: MW786X18 Maximum: 0.17



Location: MW787X18 Maximum: 0.17



Location: MW796X18 Maximum: 0.17



Location: MW797X18 Maximum: 0.17

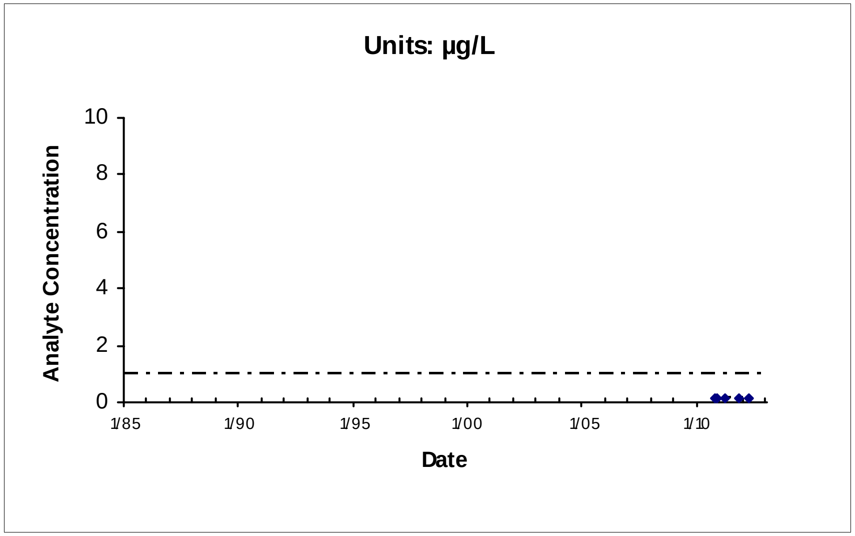
POCO Sites

FIGURE 2-32
Site ST018
Benzene
Chemical Time-series Plots

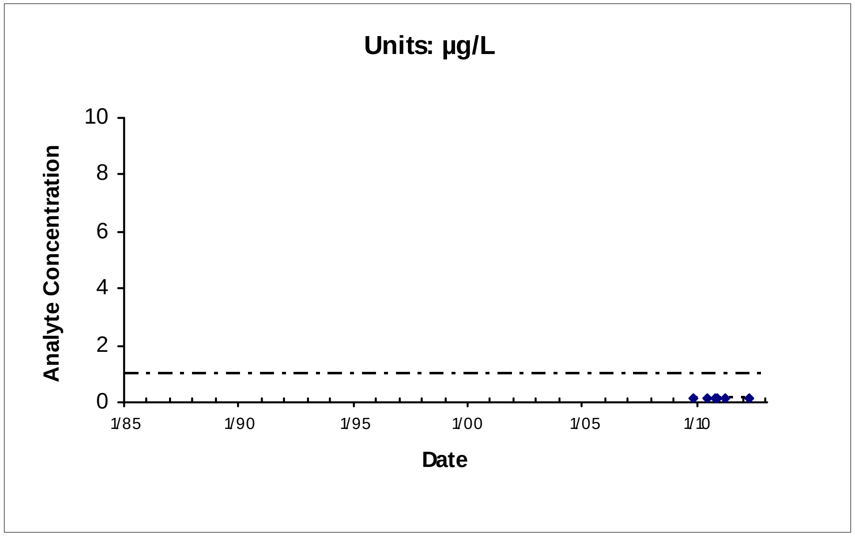
— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



Location: MW2021x18 Maximum: 0.17



Location: MW2044x18 Maximum: 0.17

— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

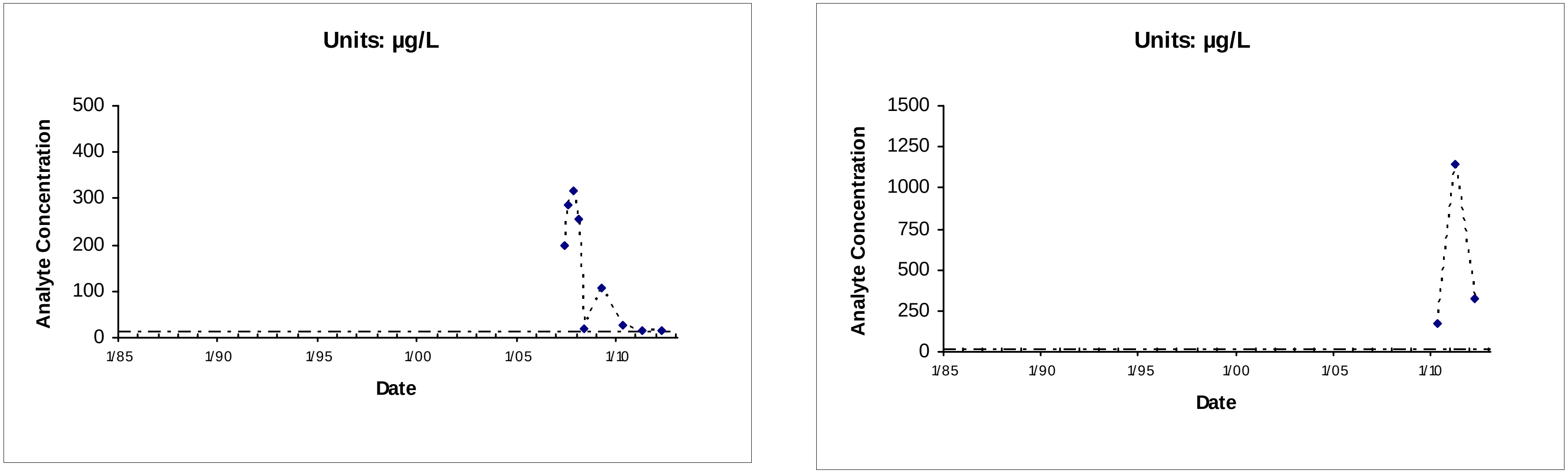
POCO Sites

FIGURE 2-32

Site ST018

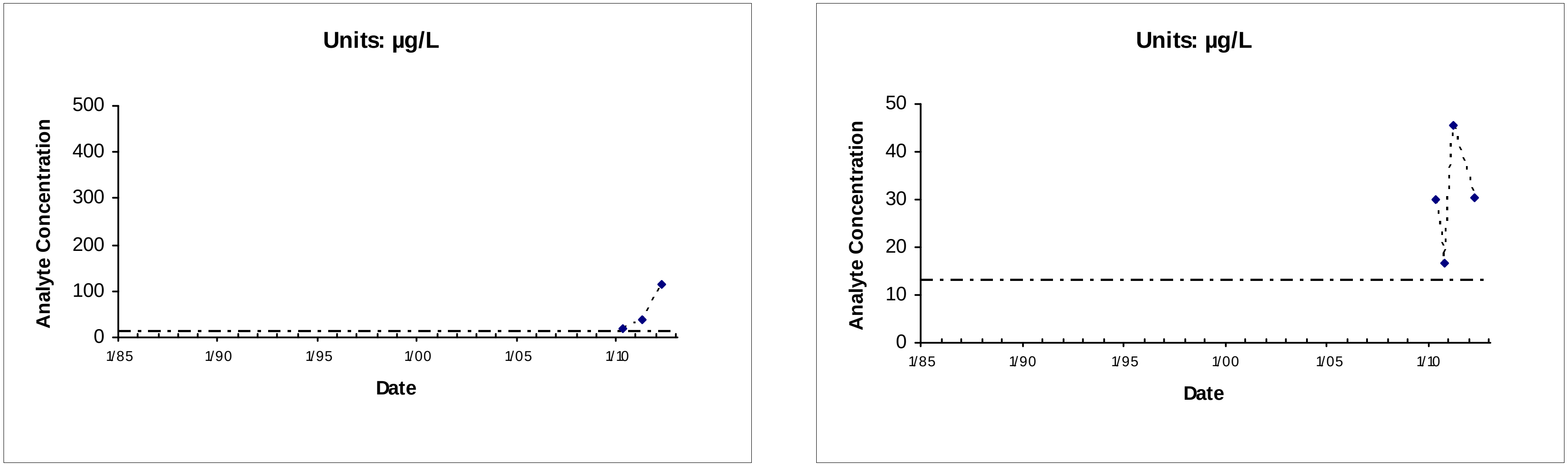
Benzene

Chemical Time-series Plots



Location: EW1NSx18 Maximum: 317

Location: EW2014X18 Maximum: 1140



Location: EW2016x18 Maximum: 114

Location: EW2019x18 Maximum: 45.4

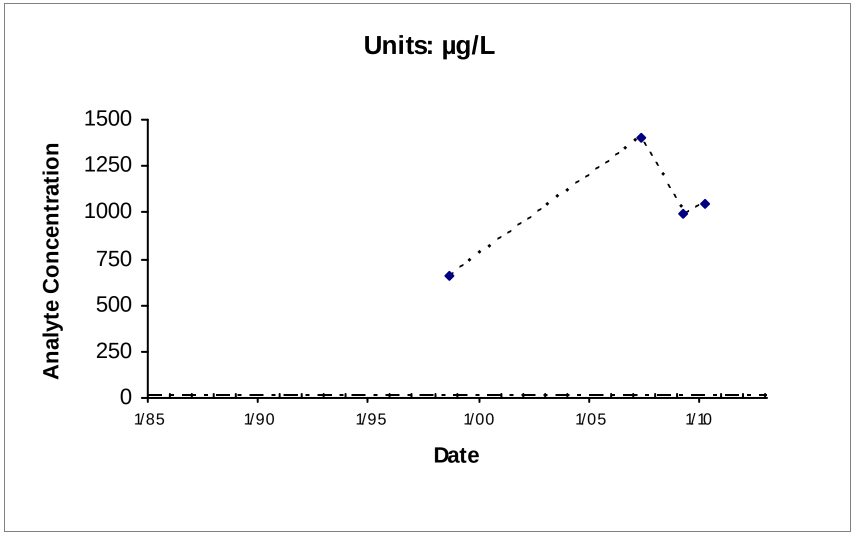
— - — - — IRG (13 µg/L)

*Nondetects shown as the Method Detection Limit (0.5 µg/L)

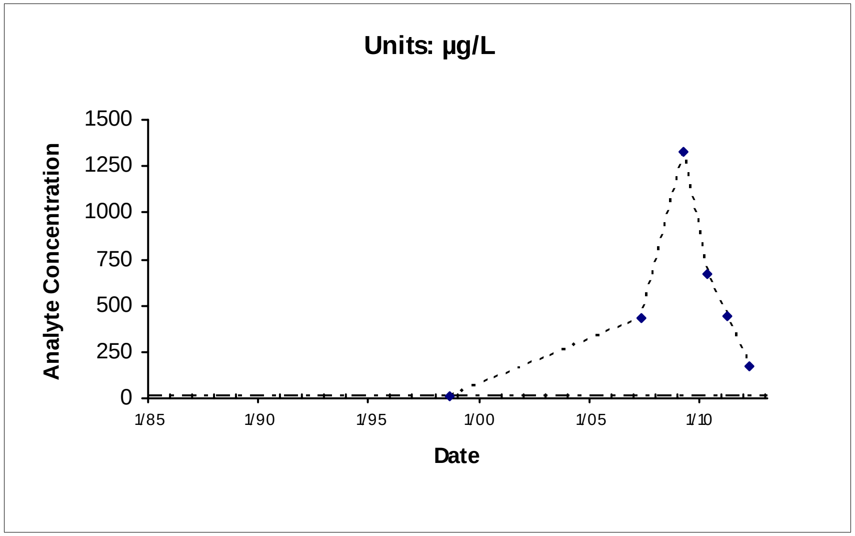
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

POCO Sites

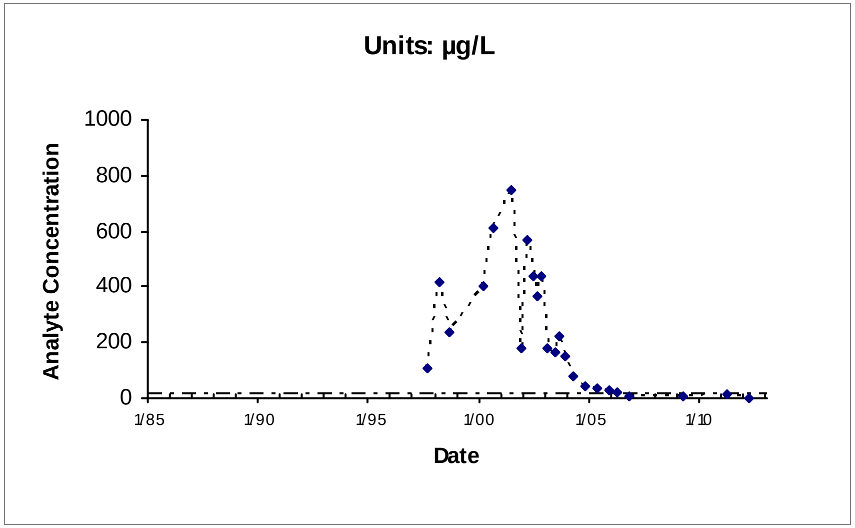
FIGURE 2-33
Site ST018
MTBE
Chemical Time-series Plots



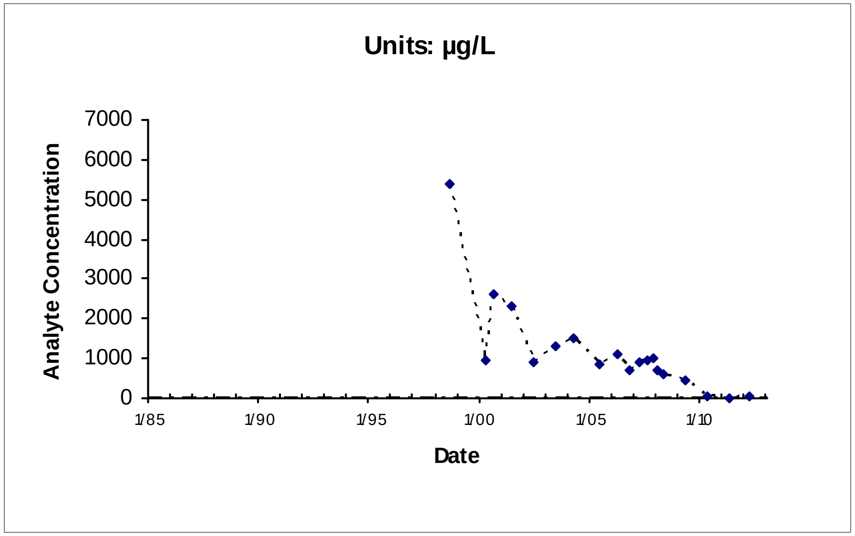
Location: MW136X18 Maximum: 1400



Location: MW137X18 Maximum: 1330



Location: MW139X18 Maximum: 750



Location: MW206NSX18 Maximum: 5400

— - — - — IRG (13 µg/L)

*Nondetects shown as the Method Detection Limit (0.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

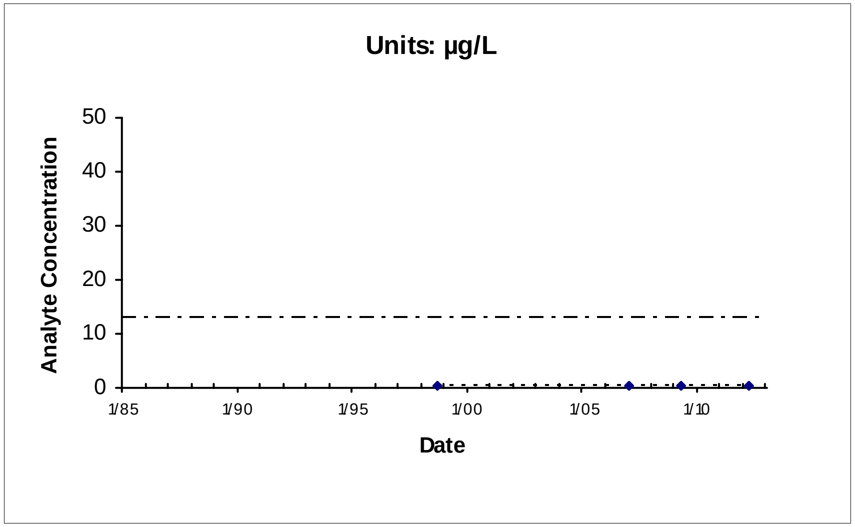
POCO Sites

FIGURE 2-33

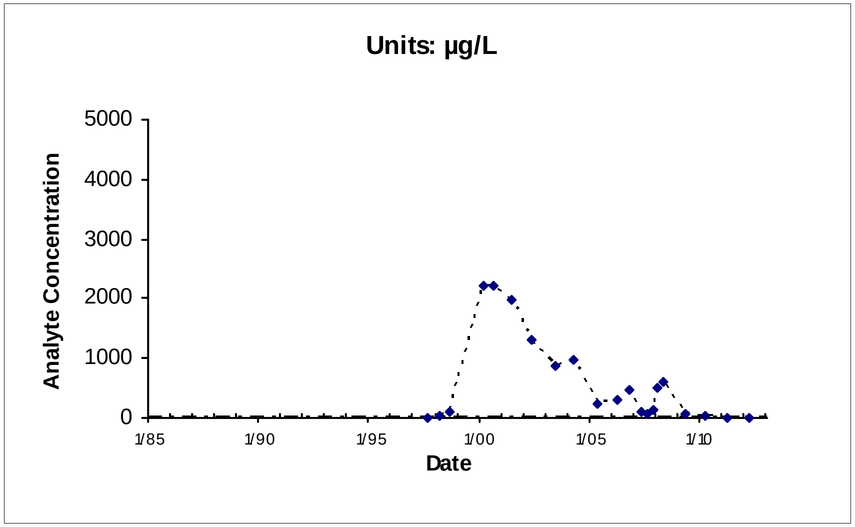
Site ST018

MTBE

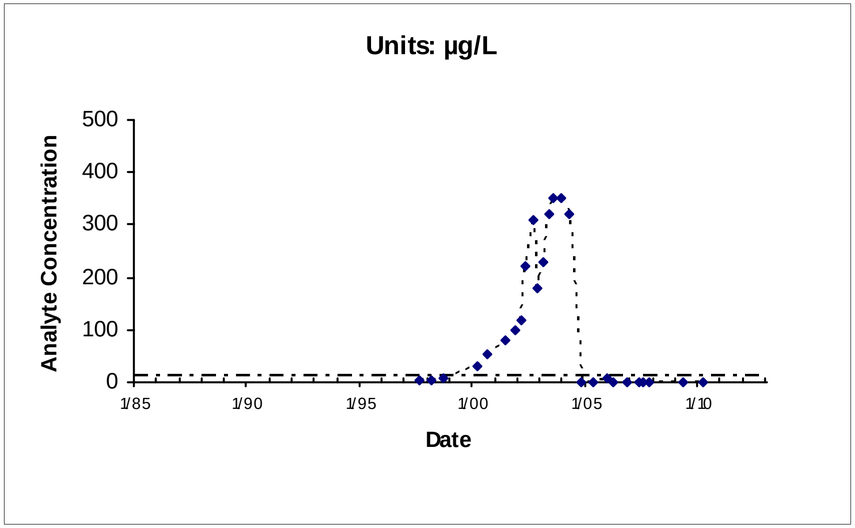
Chemical Time-series Plots



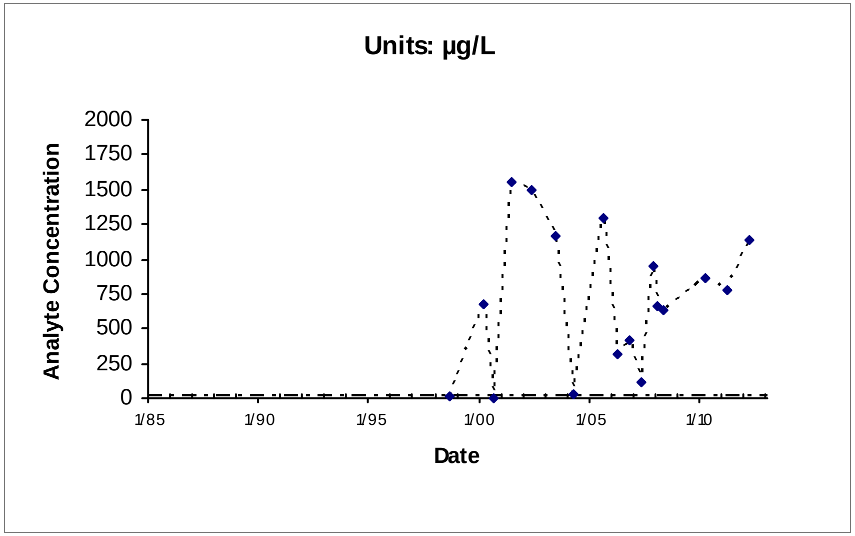
Location: MW208NSX18 Maximum: 0.5



Location: MW210NSX18 Maximum: 2200



Location: MW211NSX18 Maximum: 350



Location: MW213NSX18 Maximum: 1550

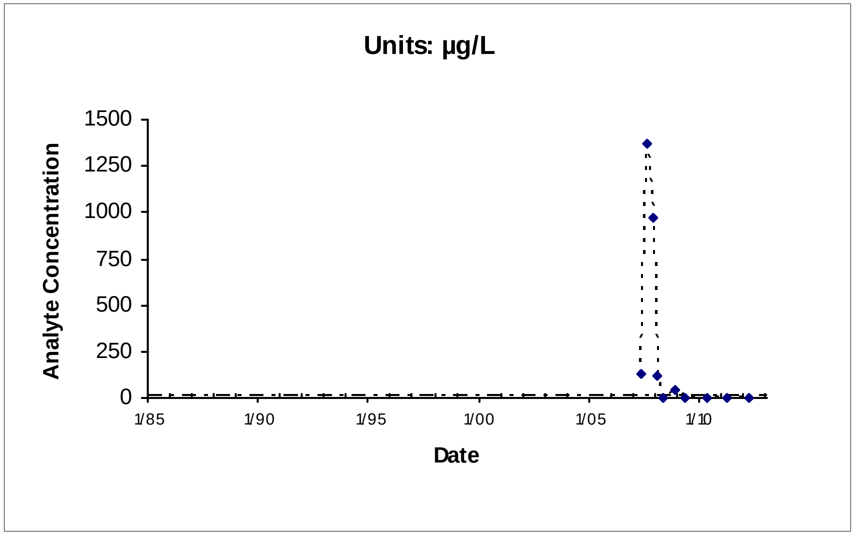
— - — - — IRG (13 µg/L)

*Nondetects shown as the Method Detection Limit (0.5 µg/L)

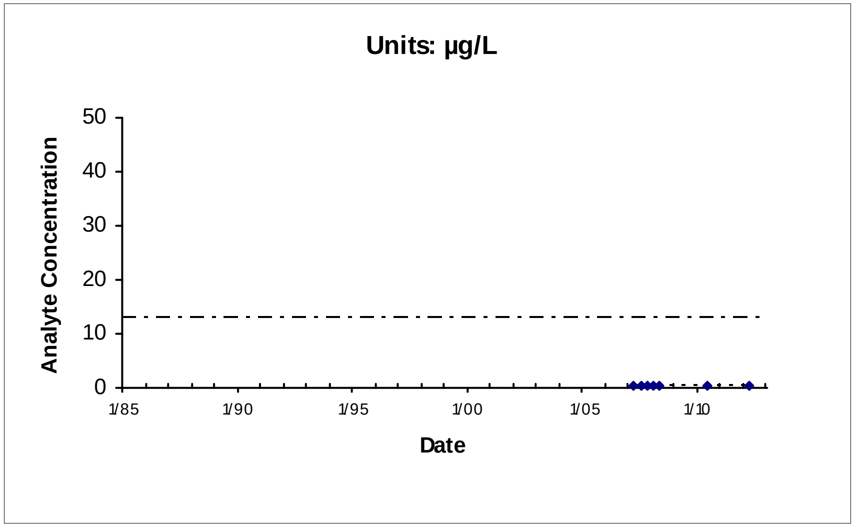
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

POCO Sites

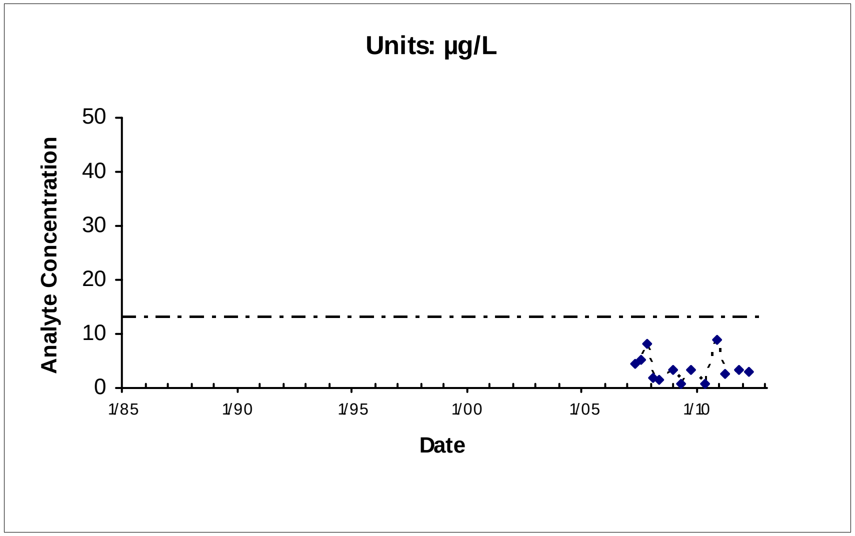
FIGURE 2-33
Site ST018
MTBE
Chemical Time-series Plots



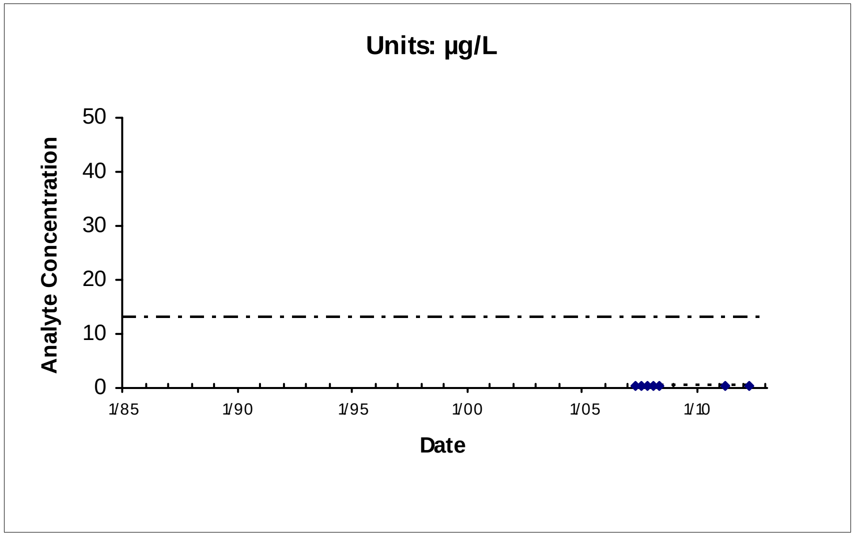
Location: MW786X18 Maximum: 1370



Location: MW787X18 Maximum: 0.5



Location: MW796X18 Maximum: 8.9

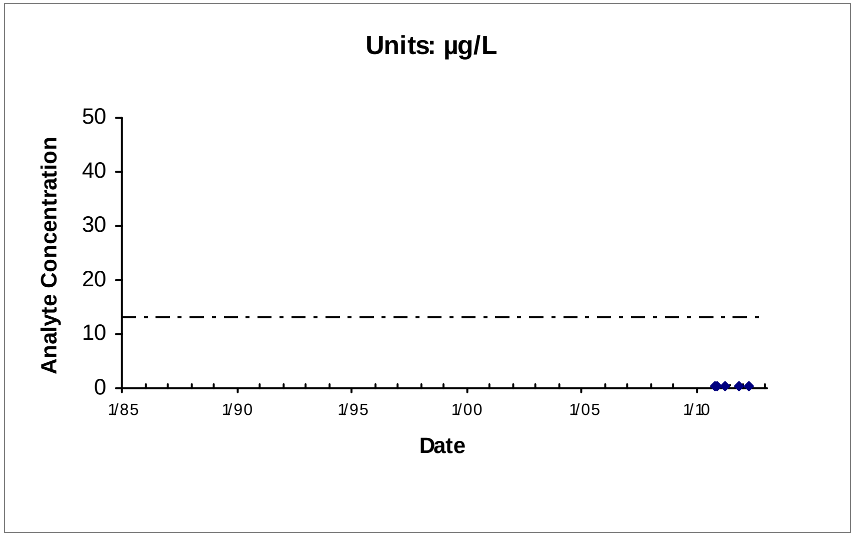


Location: MW797X18 Maximum: 0.5

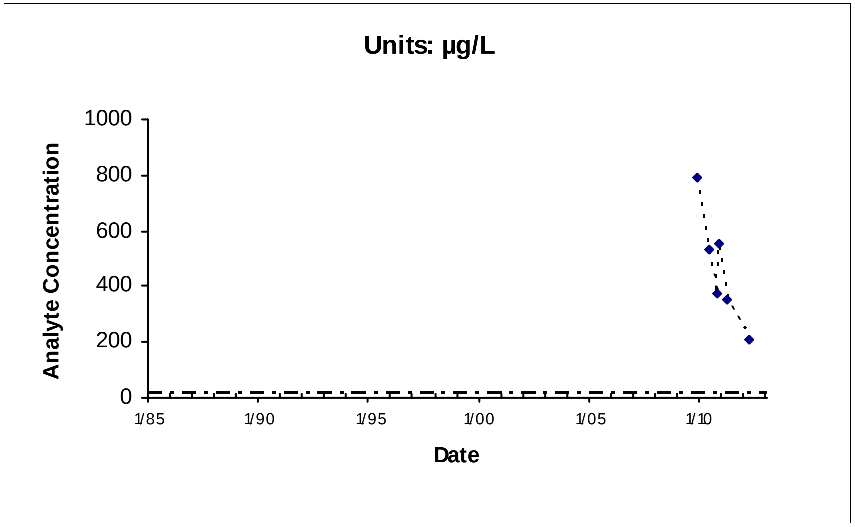
— - — - — IRG (13 µg/L)

*Nondetects shown as the Method Detection Limit (0.5 µg/L)

POCO Sites
FIGURE 2-33
Site ST018
MTBE
Chemical Time-series Plots



Location: MW2021x18 Maximum: 0.5



Location: MW2044x18 Maximum: 790

— - — - — IRG (13 µg/L)

*Nondetects shown as the Method Detection Limit (0.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

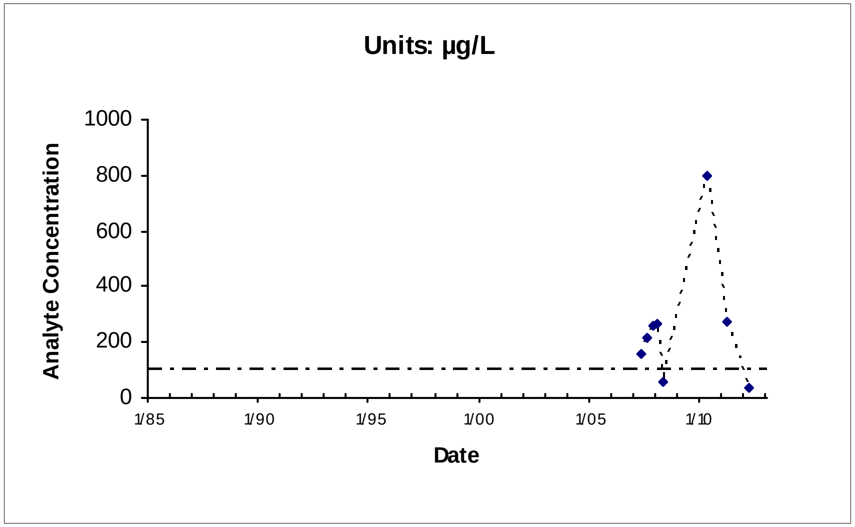
POCO Sites

FIGURE 2-33

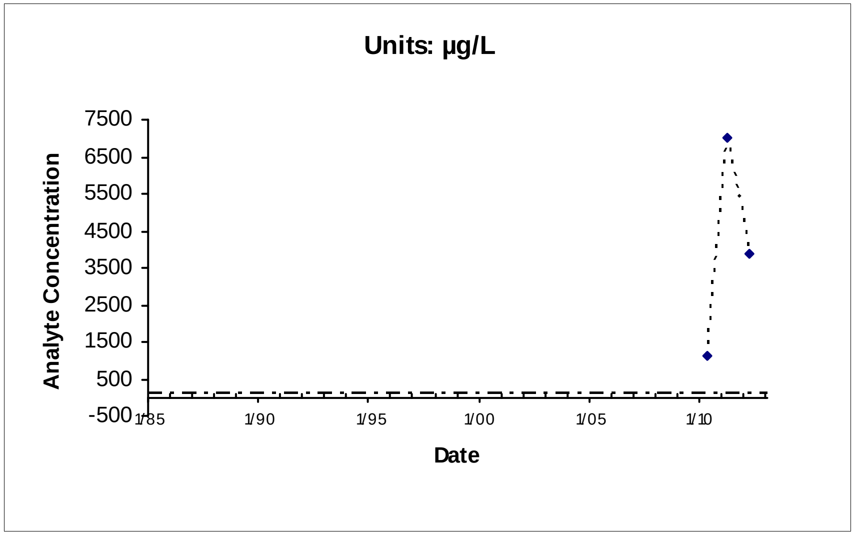
Site ST018

MTBE

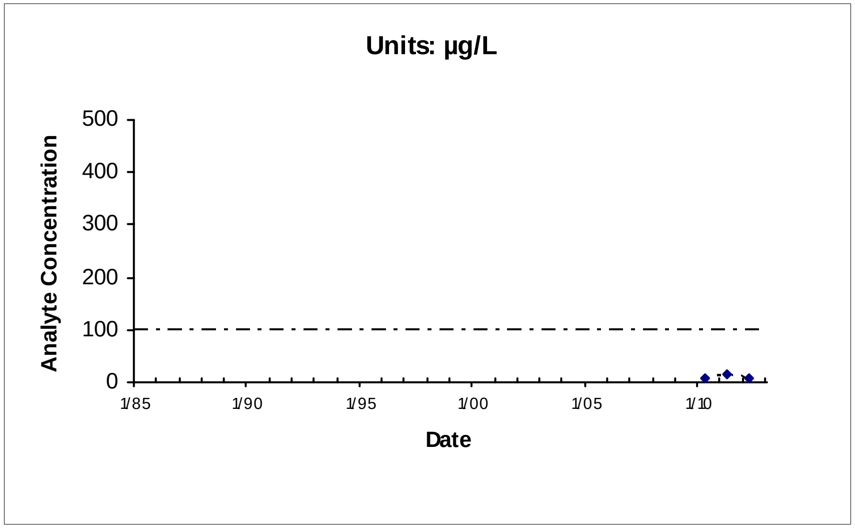
Chemical Time-series Plots



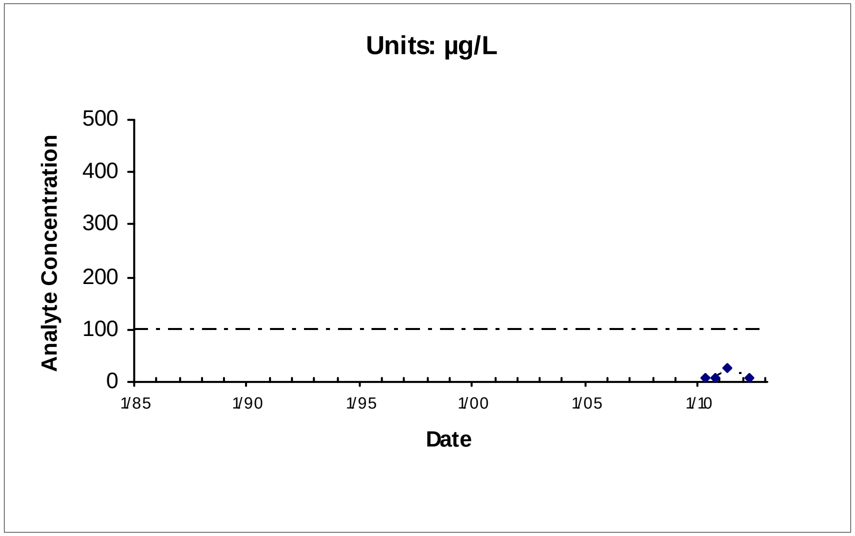
Location: EW1NSx18 Maximum: 800



Location: EW2014X18 Maximum: 7000



Location: EW2016x18 Maximum: 17



Location: EW2019x18 Maximum: 28

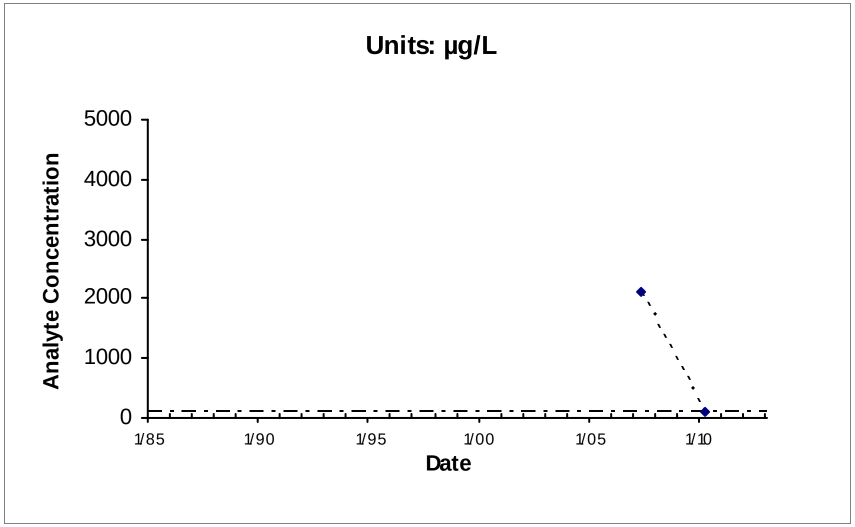
— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (8.5 µg/L)

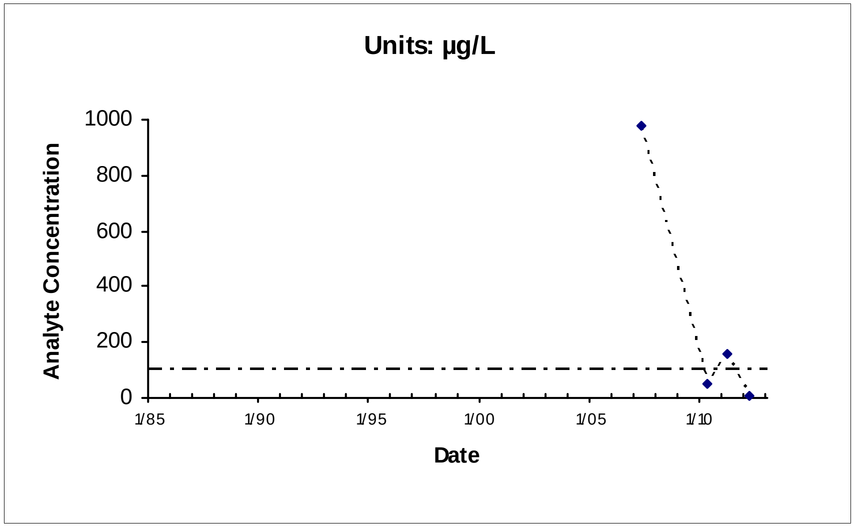
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

POCO Sites

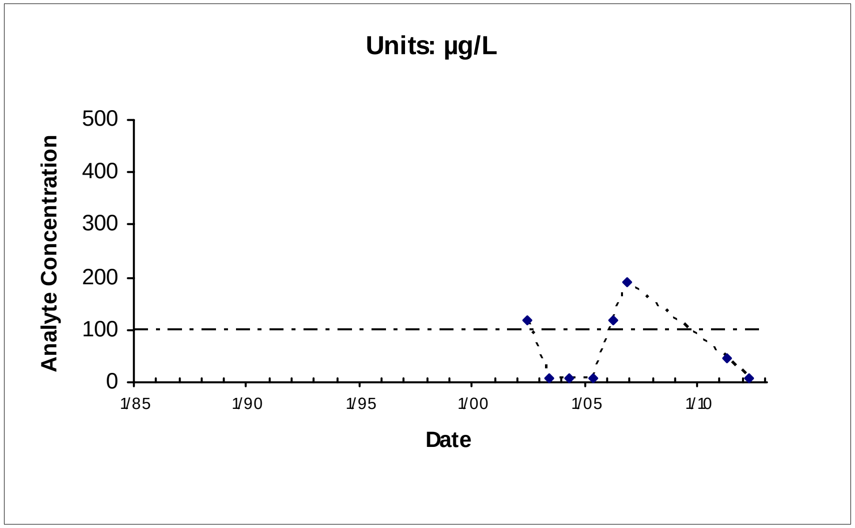
FIGURE 2-34
Site ST018
TPH-G
Chemical Time-series Plots



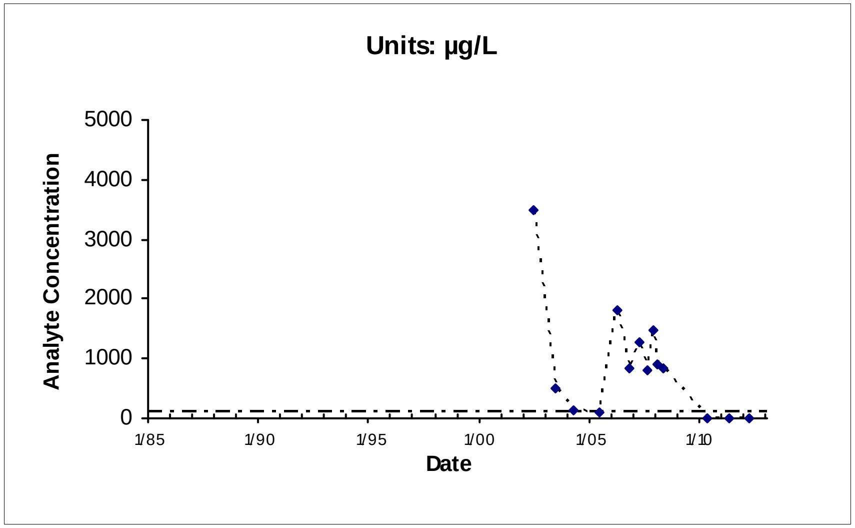
Location: MW136X18 Maximum: 2100



Location: MW137X18 Maximum: 980



Location: MW139X18 Maximum: 190



Location: MW206NSX18 Maximum: 3500

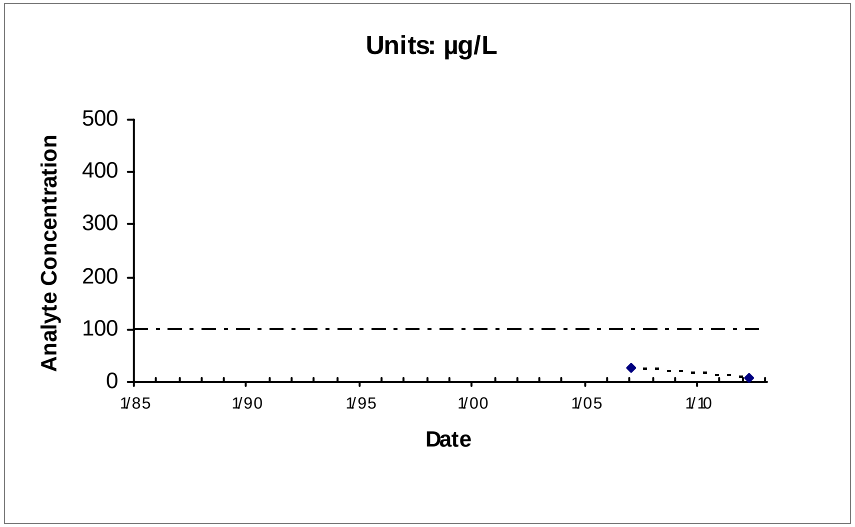
POCO Sites

FIGURE 2-34
Site ST018
TPH-G
Chemical Time-series Plots
Page 2 of 5

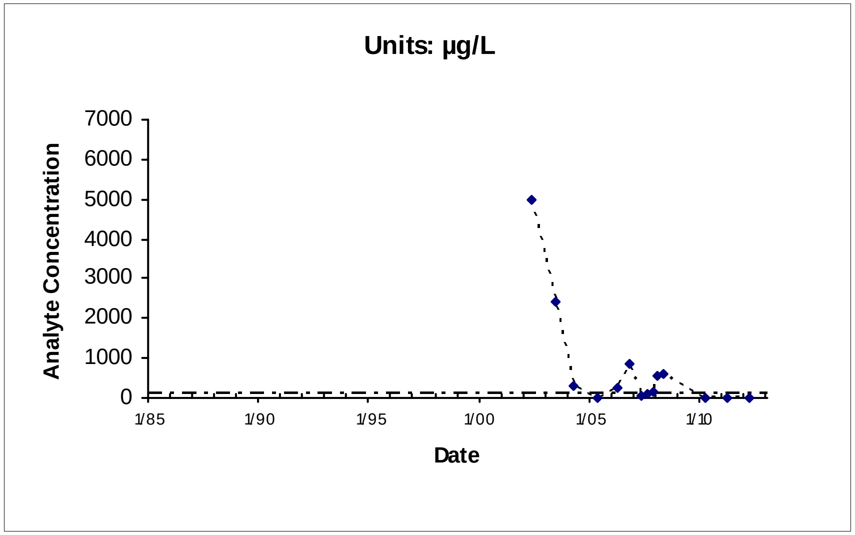
— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (8.5 µg/L)

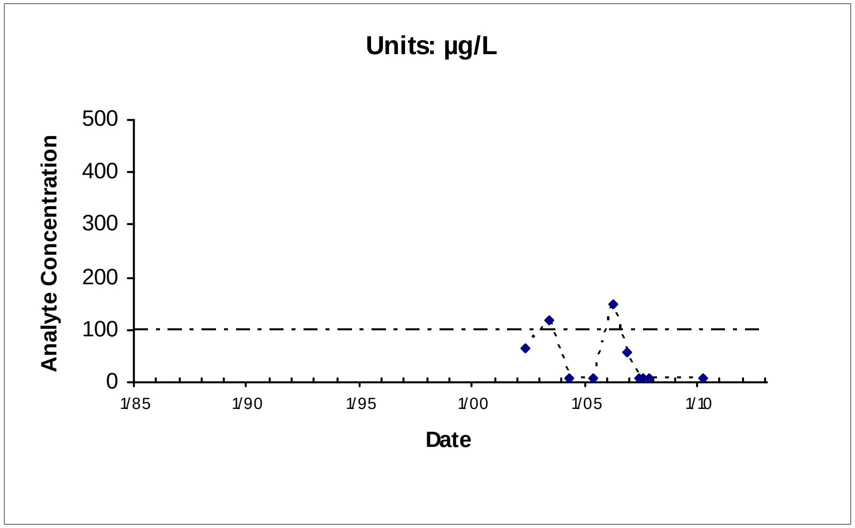
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



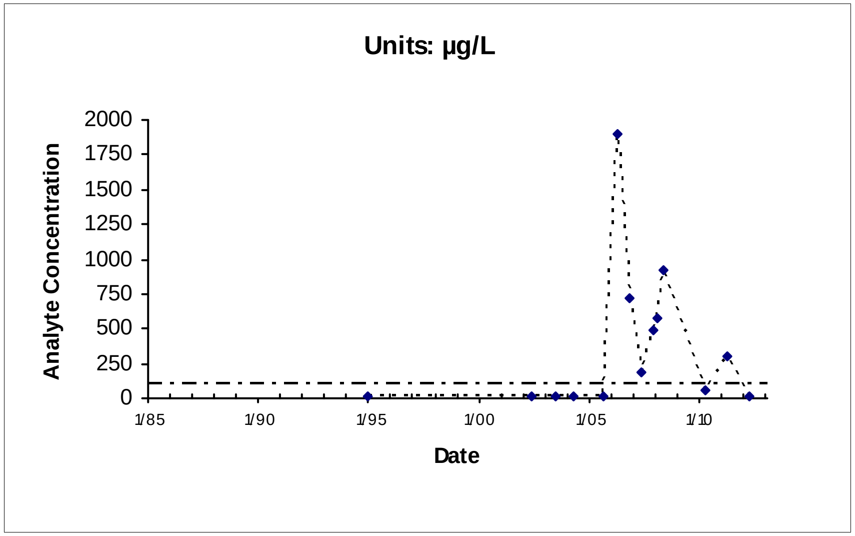
Location: MW208NSX18 Maximum: 26.6



Location: MW210NSX18 Maximum: 5000



Location: MW211NSX18 Maximum: 150



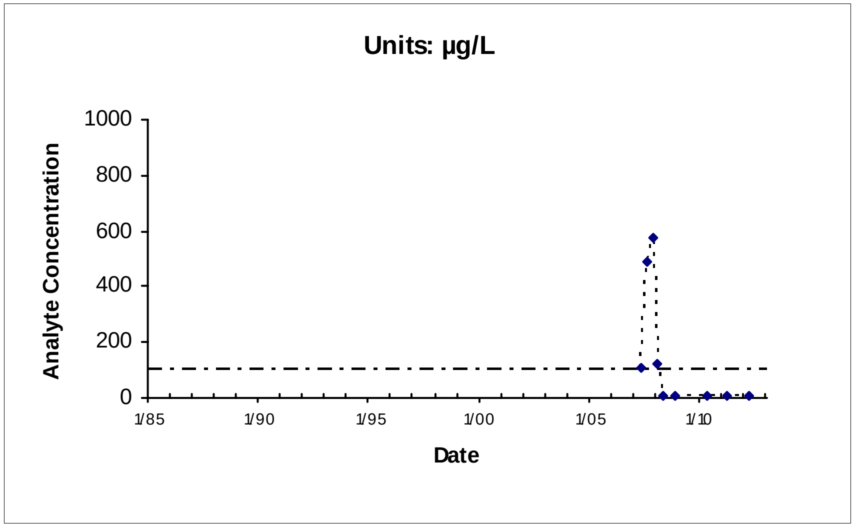
Location: MW213NSX18 Maximum: 1900

— - — - — IRG (100 µg/L)

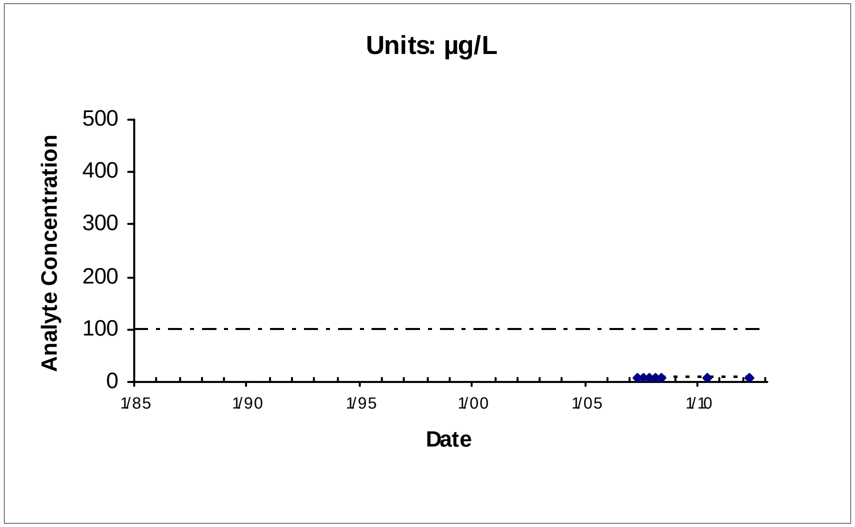
*Nondetects shown as the Method Detection Limit (8.5 µg/L)

POCO Sites

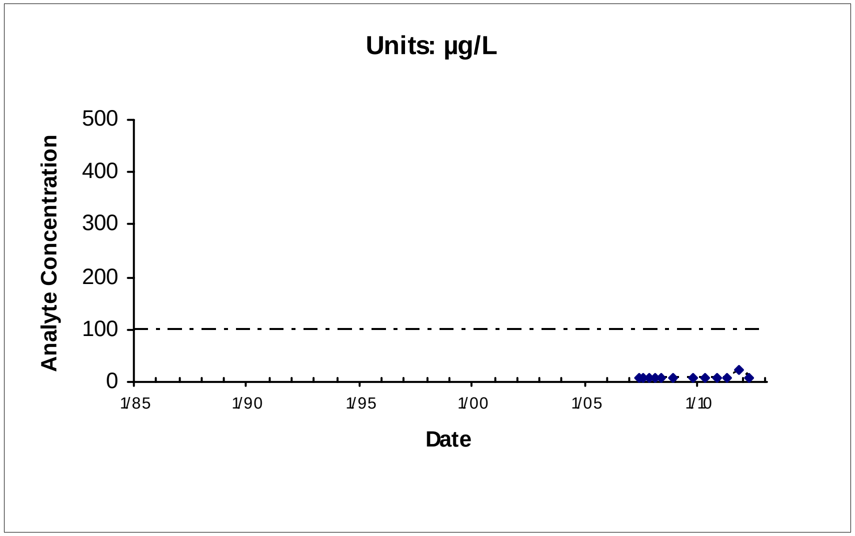
FIGURE 2-34
Site ST018
TPH-G
Chemical Time-series Plots



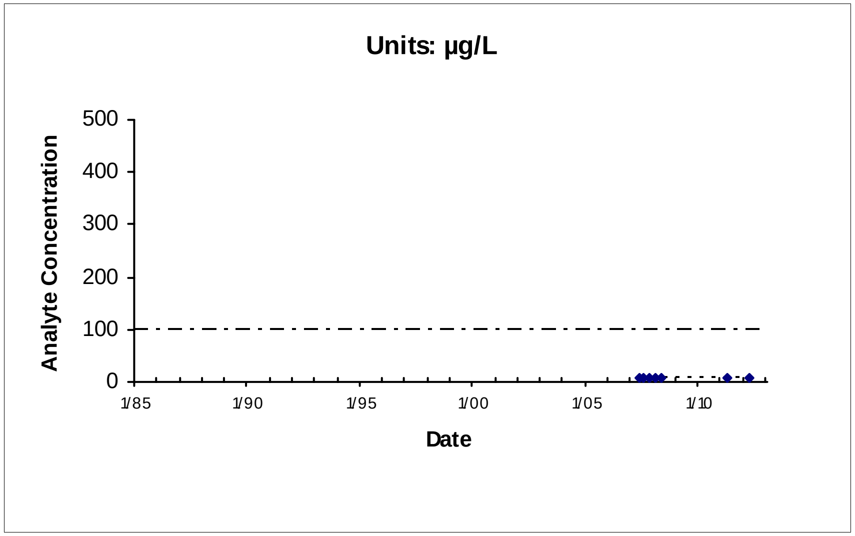
Location: MW786X18 Maximum: 573



Location: MW787X18 Maximum: 8.5



Location: MW796X18 Maximum: 24



Location: MW797X18 Maximum: 8.5

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (8.5 µg/L)

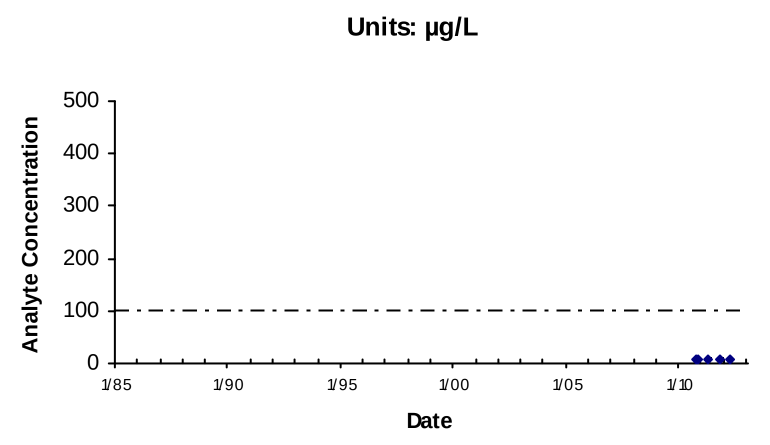
POCO Sites

FIGURE 2-34

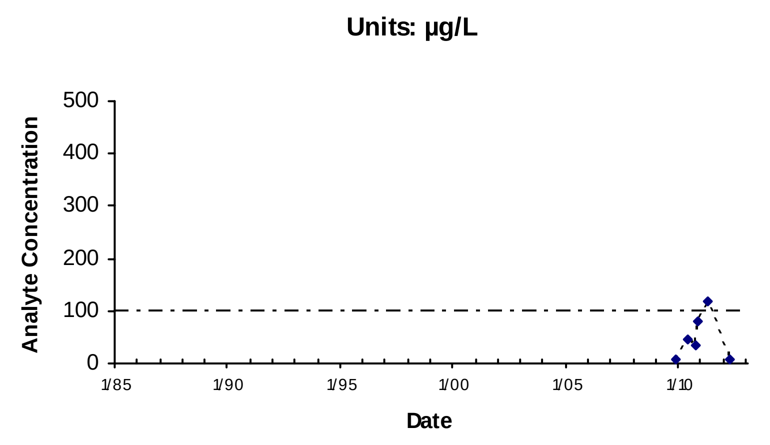
Site ST018

TPH-G

Chemical Time-series Plots



Location: MW2021x18 Maximum: 8.5



Location: MW2044x18 Maximum: 120

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (8.5 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

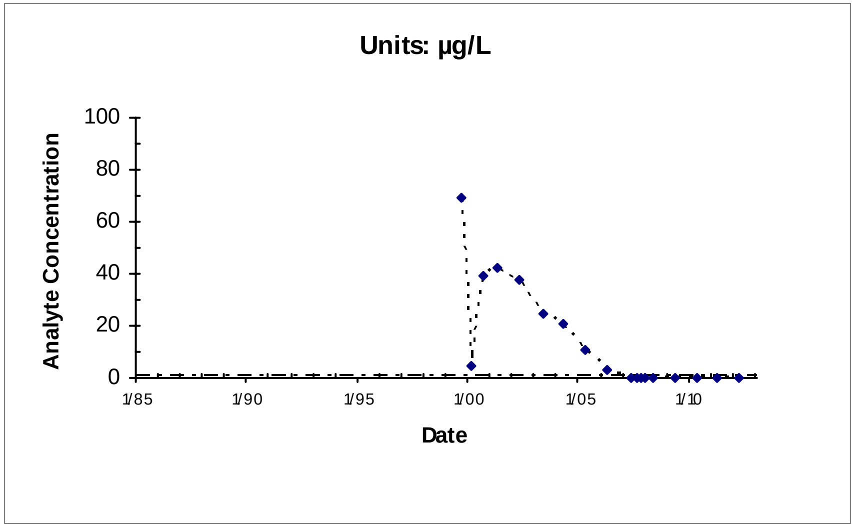
POCO Sites

FIGURE 2-34

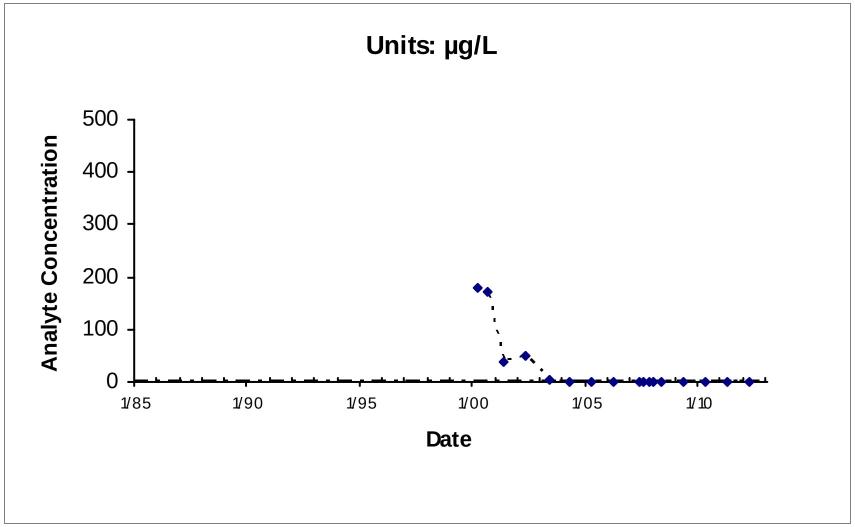
Site ST018

TPH-G

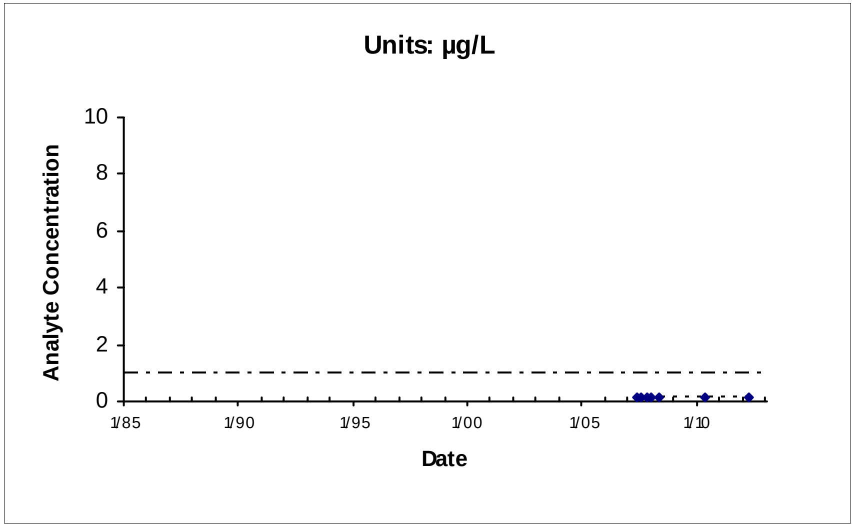
Chemical Time-series Plots



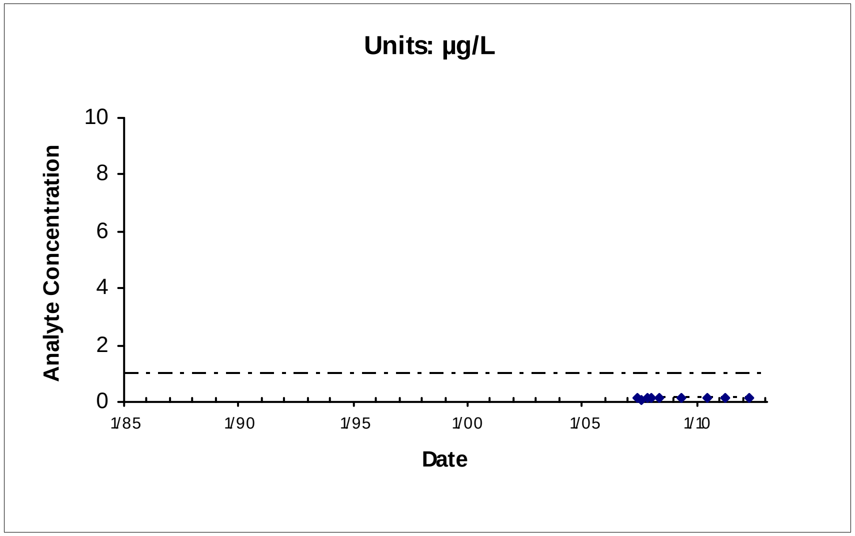
Location: MW365M1X28 Maximum: 69



Location: MW365M3X28 Maximum: 180



Location: MW788X28 Maximum: 0.17

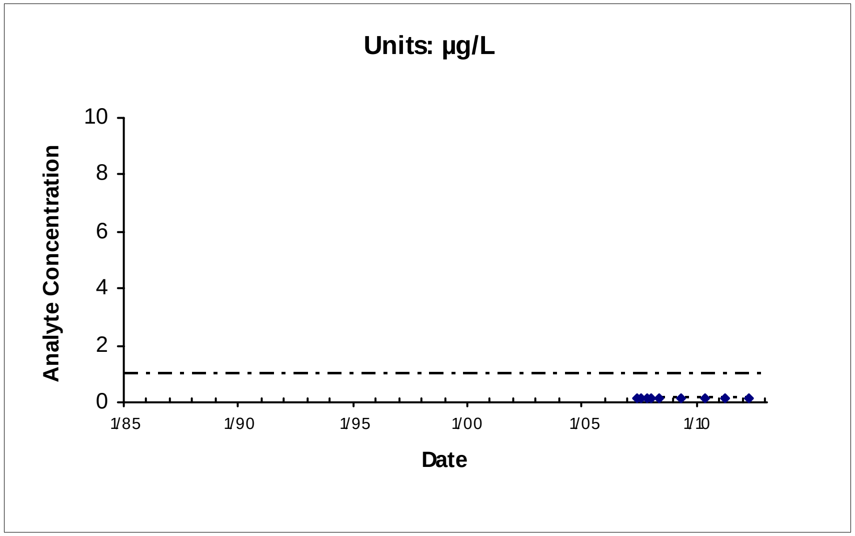


Location: MW789X28 Maximum: 0.17

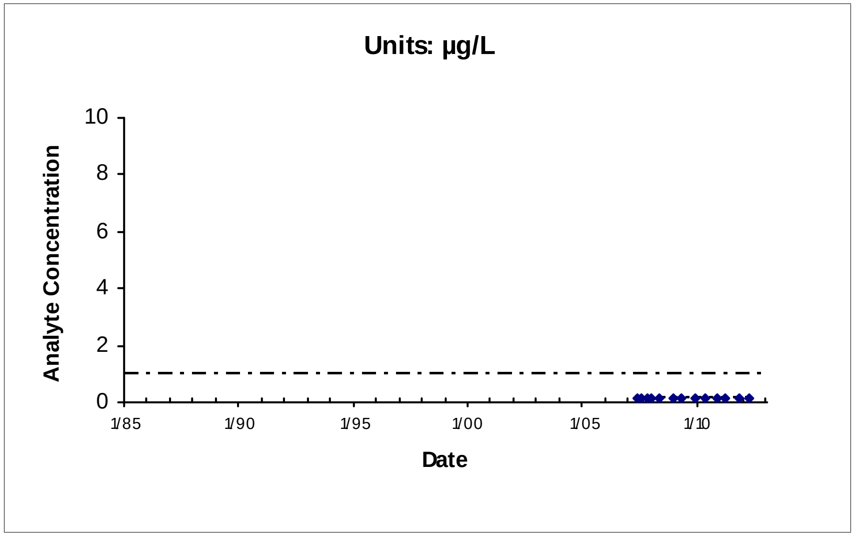
— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

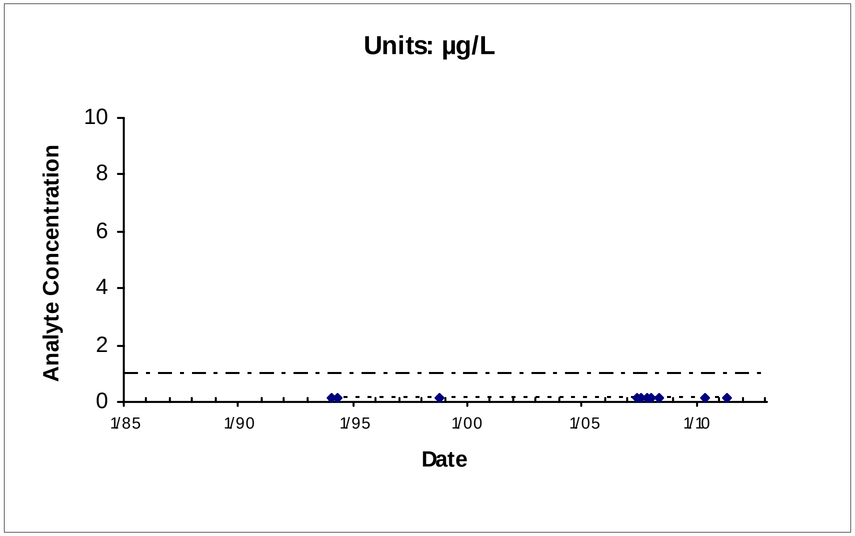
POCO Sites
FIGURE 2-35
Site ST028
Benzene
Chemical Time-series Plots



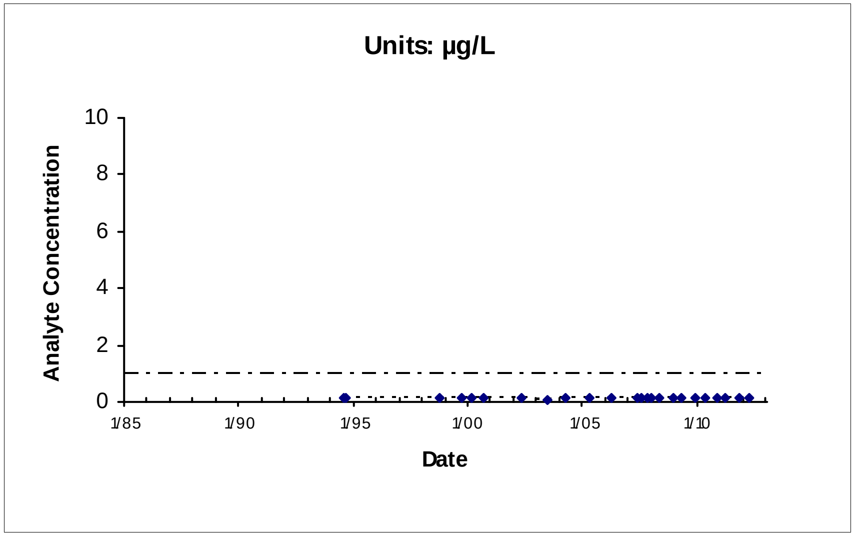
Location: MW790X28 Maximum: 0.17



Location: MW798X28 Maximum: 0.17



Location: MW1204X28 Maximum: 0.17



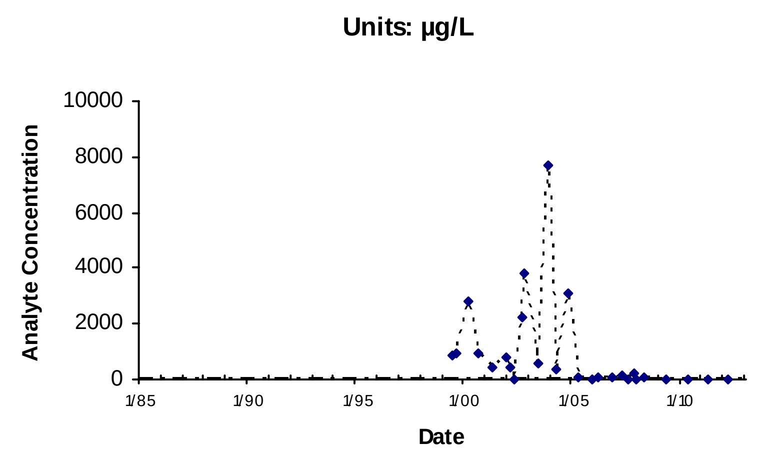
Location: MW1744X28 Maximum: 0.17

— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

POCO Sites
FIGURE 2-35
Site ST028
Benzene
Chemical Time-series Plots

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



Location: MW1771M1X28 Maximum: 7700

— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

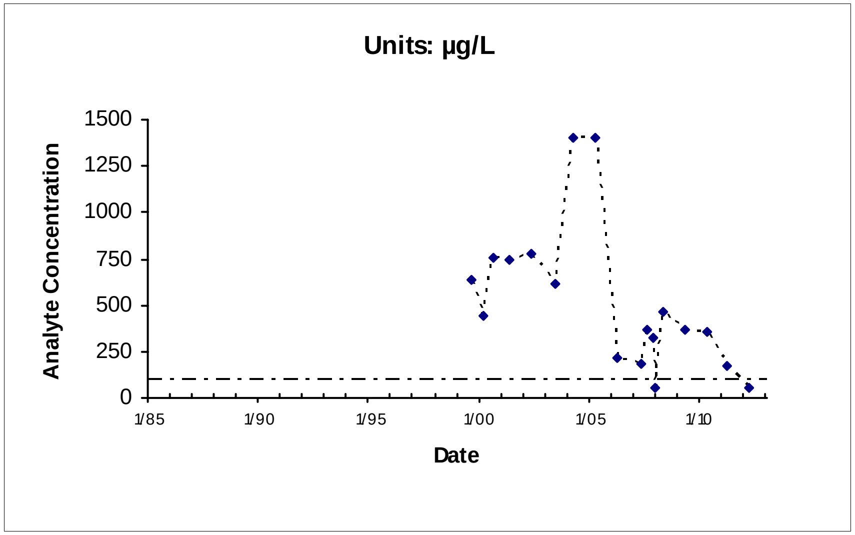
POCO Sites

FIGURE 2-35

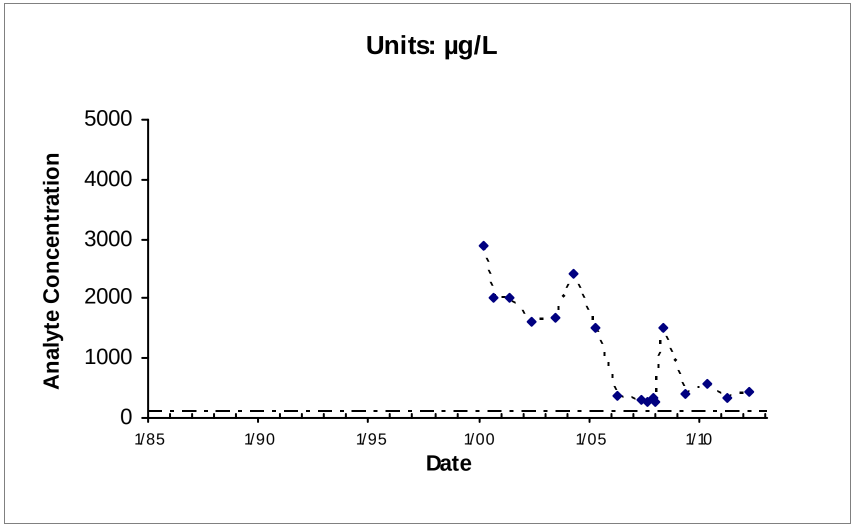
Site ST028

Benzene

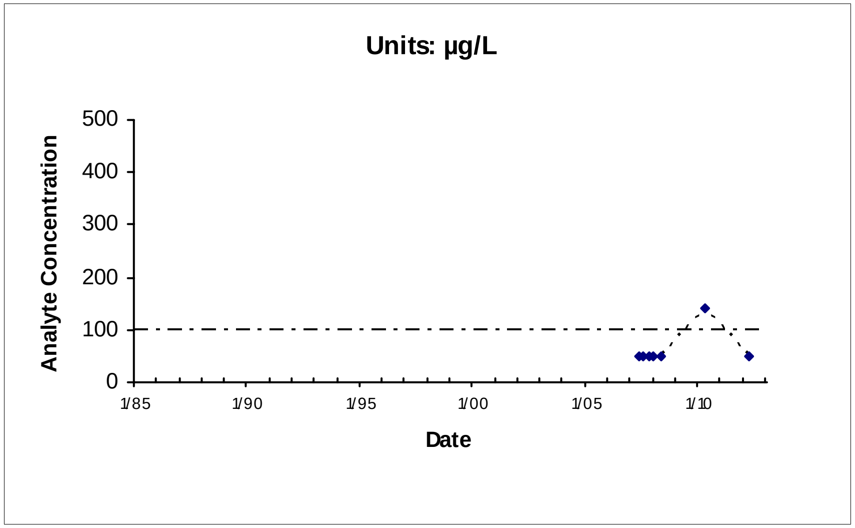
Chemical Time-series Plots



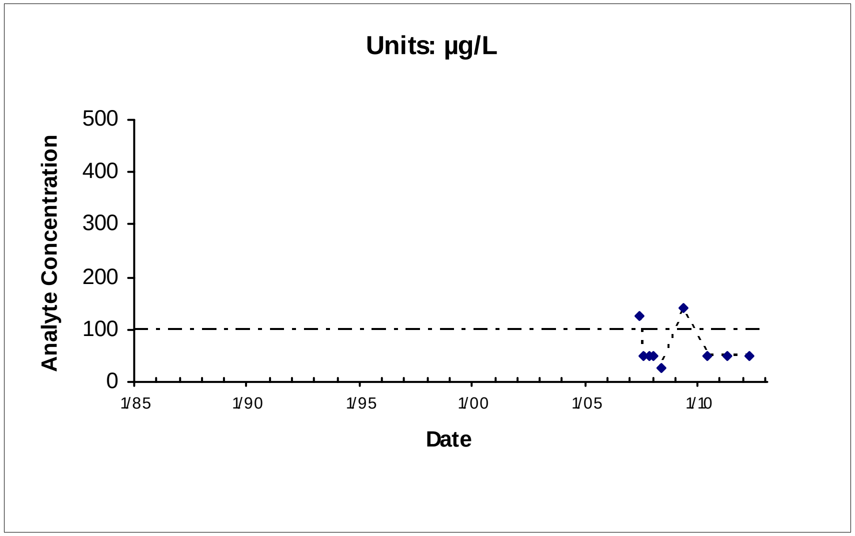
Location: MW365M1X28 Maximum: 1400



Location: MW365M3X28 Maximum: 2900



Location: MW788X28 Maximum: 140



Location: MW789X28 Maximum: 140

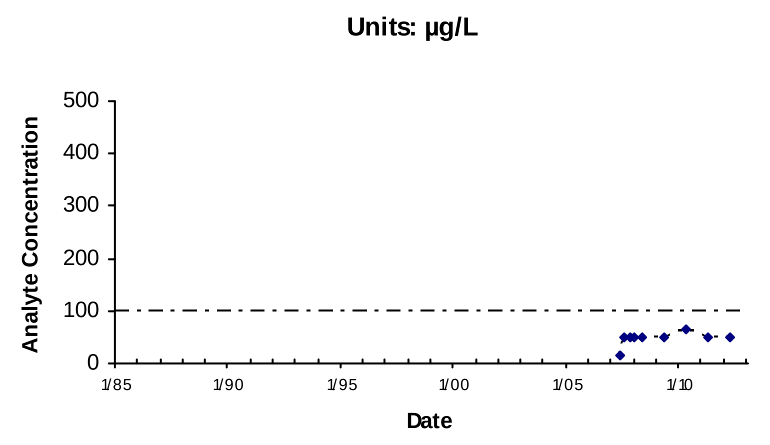
POCO Sites

FIGURE 2-36
Site ST028
TPH-D
Chemical Time-series Plots

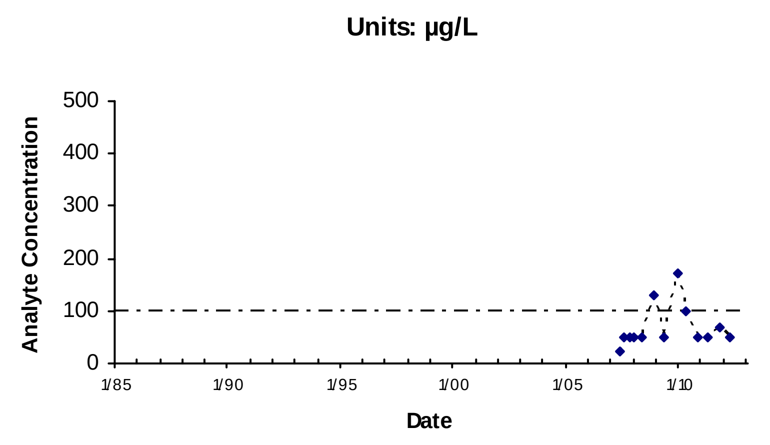
— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (50 µg/L)

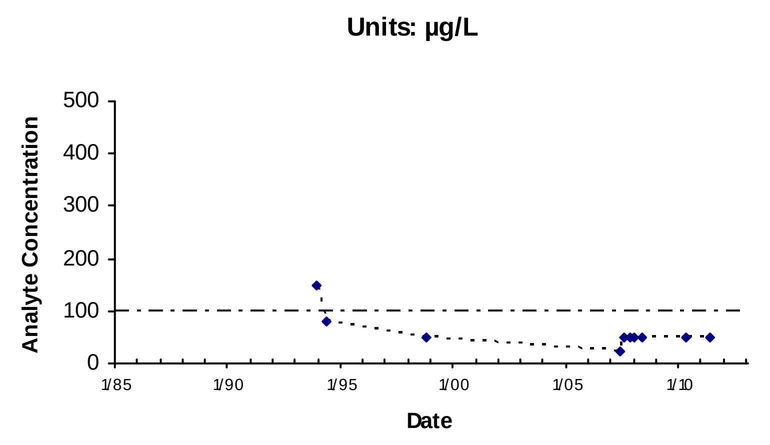
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



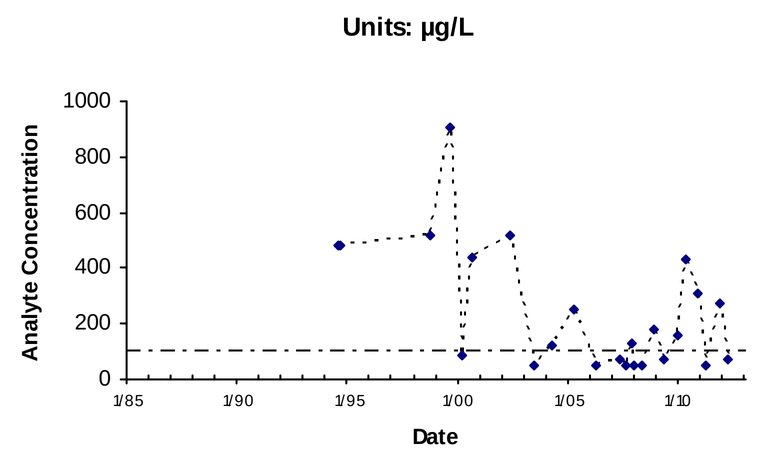
Location: MW790X28 Maximum: 64



Location: MW798X28 Maximum: 170



Location: MW1204X28 Maximum: 150



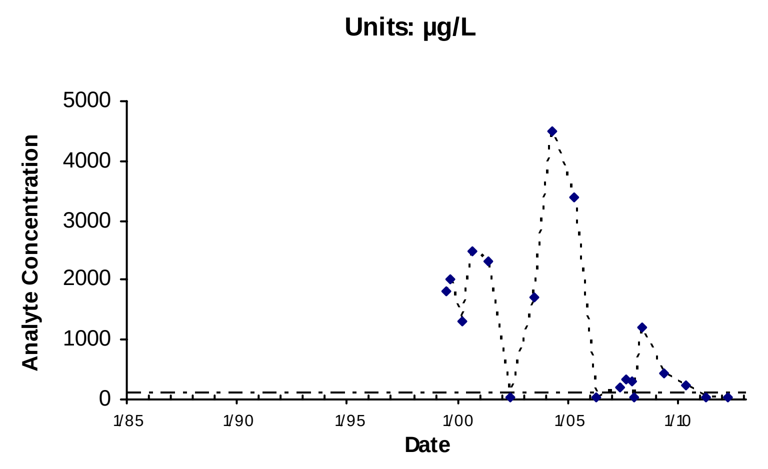
Location: MW1744X28 Maximum: 910

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (50 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

POCO Sites
FIGURE 2-36
Site ST028
TPH-D
Chemical Time-series Plots



Location: MW1771M1X28 Maximum: 4500

— - — - — IRG (100 µg/L)

*Nondetects shown as the Method Detection Limit (50 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

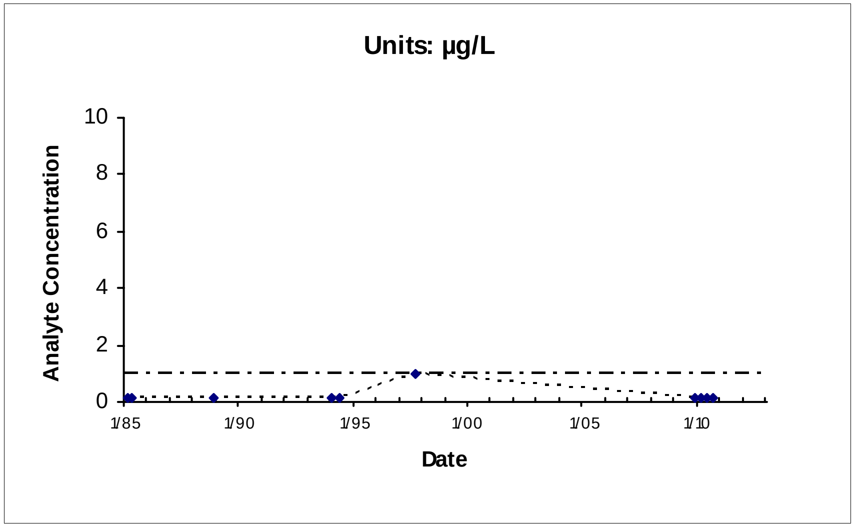
POCO Sites

FIGURE 2-36

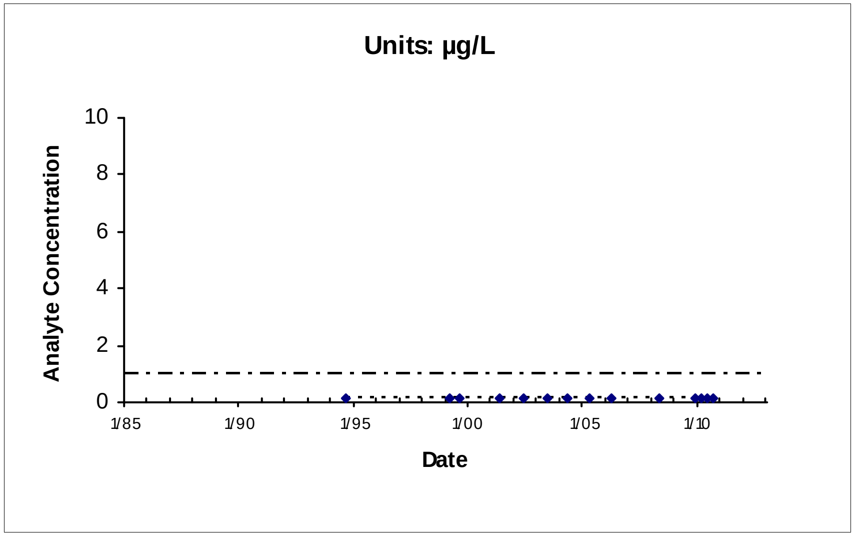
Site ST028

TPH-D

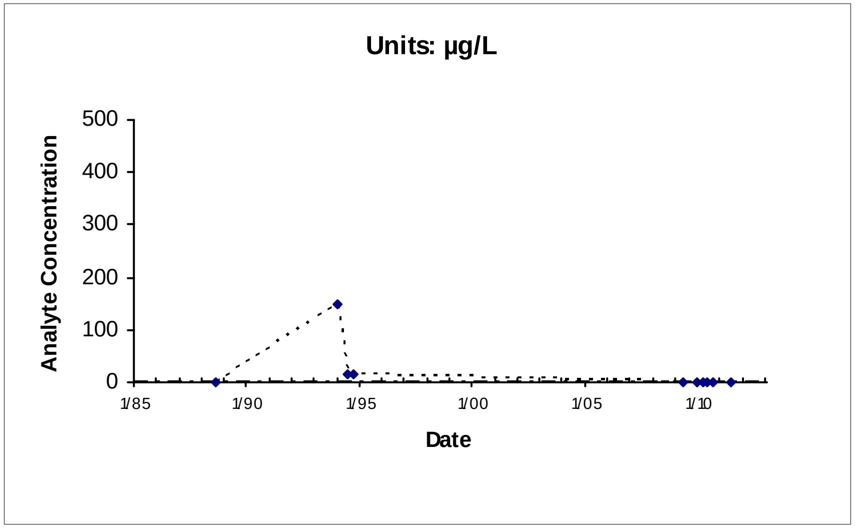
Chemical Time-series Plots



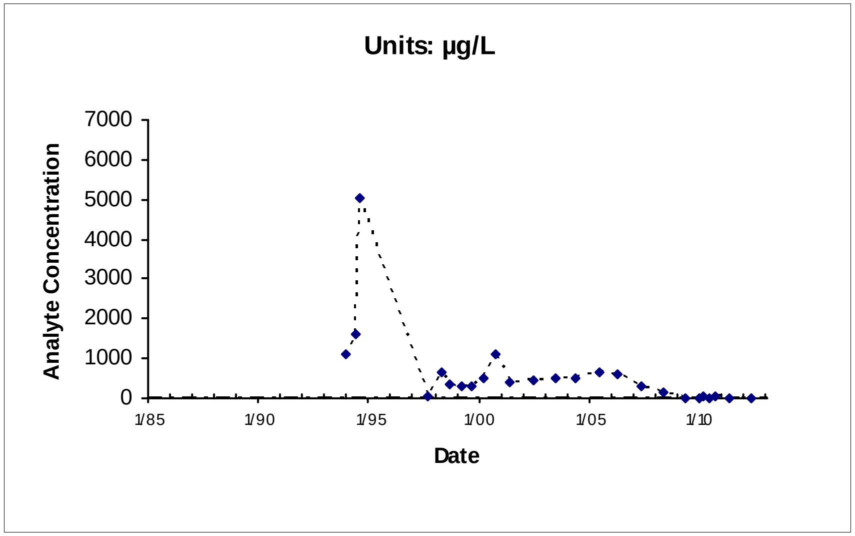
Location: MW108X16 Maximum: 1



Location: MW1734X16 Maximum: 0.17



Location: MW107X32 Maximum: 150



Location: MW246X32 Maximum: 5040

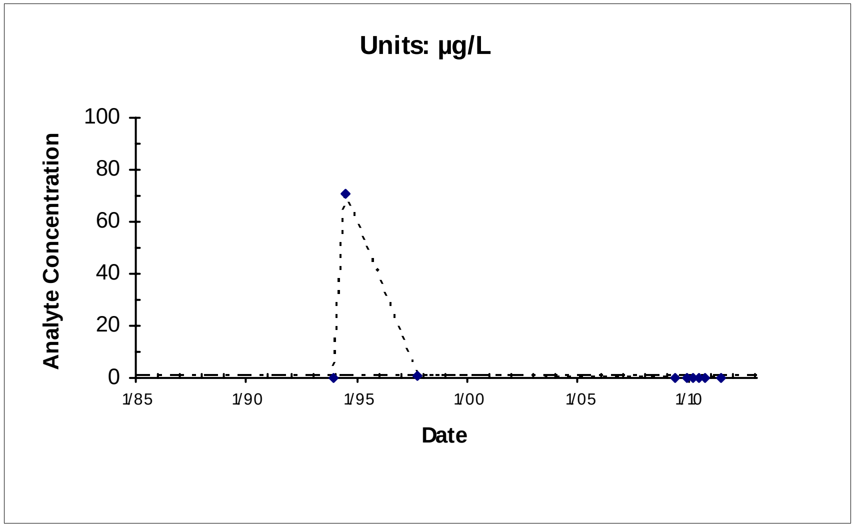
POCO Sites

FIGURE 2-37
Site ST032
Benzene
Chemical Time-series Plots
Page 1 of 3

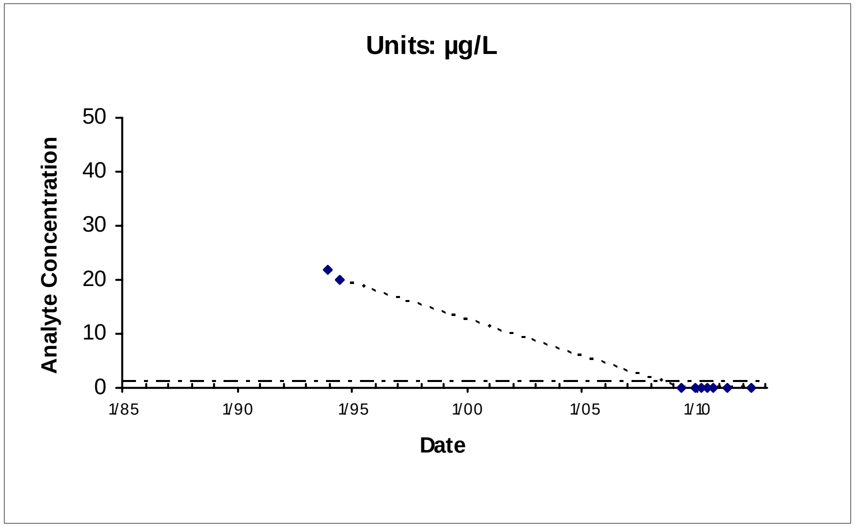
— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

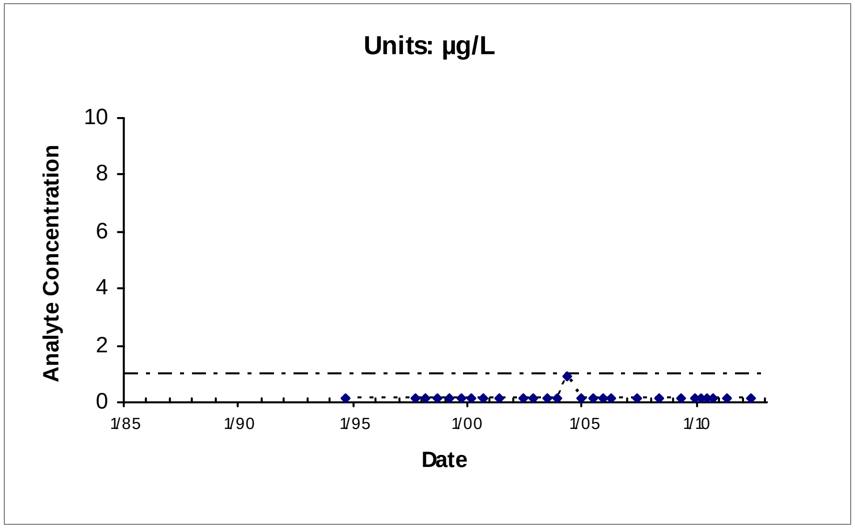
E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries



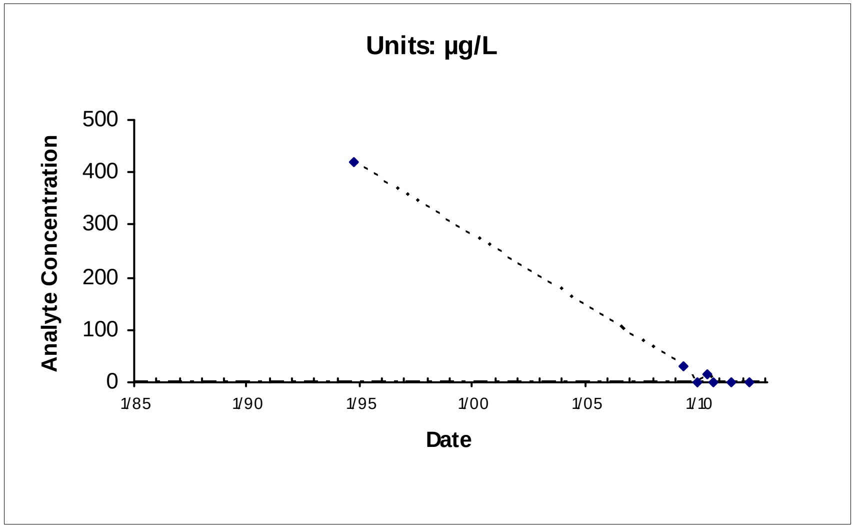
Location: MW1013X32 Maximum: 71



Location: MW1020X32 Maximum: 22



Location: MW1024X32 Maximum: 0.9



Location: MW1027X32 Maximum: 421

— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

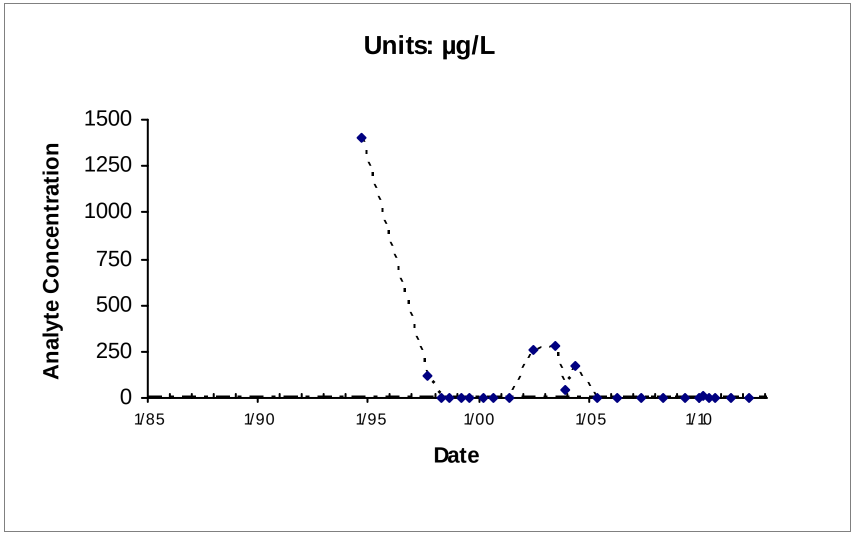
POCO Sites

FIGURE 2-37

Site ST032

Benzene

Chemical Time-series Plots



Location: MW1028X32 Maximum: 1400

— - — - — IRG (1 µg/L)

*Nondetects shown as the Method Detection Limit (0.17 µg/L)

E:\DataValidation\DV\Travis_AFB\Reports\GSAP_Annual_06282012\ChemicalTimeSeries\TravisLandscapeLinearTimeplots_09042010.mdb; rptTimeSeries

POCO Sites

FIGURE 2-37

Site ST032

Benzene

Chemical Time-series Plots

Attachment 3

Mann-Kendall Trend Analysis Results

Location	Analyte	Count	S-Statistic	p-Value	Trend
North IRA					
Sites FT004/SD031/LF007					
Site: Site FT004					
EW576X04	1,1-DCE	23	-93	0.01	DECREASING
	cis-1,2-DCE	23	-114	0.00	DECREASING
	TCE	23	-220	0.00	DECREASING
EW577X04	TCE	20	-99	0.00	DECREASING
EW578X04	1,1-DCE	23	-75	0.03	DECREASING
	cis-1,2-DCE	23	128	0.00	INCREASING
	TCE	23	-144	0.00	DECREASING
	Vinyl chloride	23	90	0.01	INCREASING
EW579X04	TCE	23	-199	0.00	DECREASING
EW580X04	TCE	24	-188	0.00	DECREASING
EW621X04	cis-1,2-DCE	18	-105	0.00	DECREASING
	TCE	18	-124	0.00	DECREASING
EW623X04	1,1-DCE	16	-41	0.04	DECREASING
	1,2-DCA	16	-65	0.00	DECREASING
	Benzene	16	-65	0.00	DECREASING
	Chloroform	16	-66	0.00	DECREASING
	cis-1,2-DCE	16	-95	0.00	DECREASING
	TCE	16	-110	0.00	DECREASING
MW131X04	TCE	28	-98	0.03	DECREASING
MW134X04	TCE	19	117	0.00	INCREASING
MW202X04	1,1-DCE	23	-129	0.00	DECREASING
	cis-1,2-DCE	23	-159	0.00	DECREASING
	TCE	23	-184	0.00	DECREASING
MW266X04	1,1-DCE	27	-82	0.05	DECREASING
	cis-1,2-DCE	27	-156	0.00	DECREASING
	TCE	27	-334	0.00	DECREASING
MW581X04	cis-1,2-DCE	21	77	0.01	INCREASING
MW584X04	1,1-DCE	18	-74	0.00	DECREASING
	cis-1,2-DCE	18	-61	0.01	DECREASING
	TCE	20	-118	0.00	DECREASING
MW585X04	Chloroform	20	58	0.03	INCREASING
	cis-1,2-DCE	20	55	0.04	INCREASING
	TCE	22	-82	0.01	DECREASING
MW591X04	Bromodichloromethane	24	86	0.02	INCREASING
	Chloroform	24	105	0.00	INCREASING
	TCE	26	161	0.00	INCREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
North IRA					
Sites FT004/SD031/LF007					
Site: Site FT004					
MW757X04	cis-1,2-DCE	18	57	0.02	INCREASING
	PCE	18	50	0.03	INCREASING
Site: Site LF007					
EW614X07	cis-1,2-DCE	9	-20	0.02	DECREASING
	TCE	9	-25	0.01	DECREASING
EW615X07	TCE	10	-23	0.02	DECREASING
MW261X07	1,4-DCB	22	-76	0.02	DECREASING
	Chlorobenzene	22	79	0.01	INCREASING
MW612X07	1,2-Dichloropropane	13	-34	0.02	DECREASING
MW617X07	TCE	12	-36	0.01	DECREASING
MW619X07	1,2-Dichloropropane	14	-35	0.03	DECREASING
MWBX07	1,4-DCB	17	-84	0.00	DECREASING
	Chlorobenzene	17	-73	0.00	DECREASING
MWCX07	1,4-DCB	15	-46	0.01	DECREASING
	Chlorobenzene	15	-44	0.02	DECREASING
Site: Site SD031					
EW565X31	1,1,1-Trichloroethane	25	-155	0.00	DECREASING
	1,1-DCE	25	-157	0.00	DECREASING
	Benzene	25	-115	0.00	DECREASING
	cis-1,2-DCE	25	-163	0.00	DECREASING
	TCE	25	-159	0.00	DECREASING
EW566X31	1,1,1-Trichloroethane	24	-104	0.01	DECREASING
	1,1-DCE	24	-108	0.00	DECREASING
	Benzene	24	-108	0.00	DECREASING
	cis-1,2-DCE	24	-195	0.00	DECREASING
	TCE	24	-208	0.00	DECREASING
EW567X31	cis-1,2-DCE	24	-87	0.02	DECREASING
	Freon 113	6	15	0.00	INCREASING
	TCE	24	-106	0.00	DECREASING
MW571X31	1,1-DCE	20	97	0.00	INCREASING
	Freon 113	8	18	0.02	INCREASING
	PCE	20	107	0.00	INCREASING
MW574X31	cis-1,2-DCE	24	75	0.03	INCREASING
	Freon 113	10	37	0.00	INCREASING
	TCE	24	-147	0.00	DECREASING
MW1729X31	cis-1,2-DCE	27	-244	0.00	DECREASING
	TCE	27	-159	0.00	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
North IRA					
Sites FT004/SD031/LF007					
Site: Site SD031					
MW1729X31	TPH-G	21	-59	0.04	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
North IRA					
Site LF006					
Site: Site LF006					
MW208DX06	cis-1,2-DCE	22	-85	0.01	DECREASING
	TCE	22	-144	0.00	DECREASING
MW208X06	cis-1,2-DCE	26	-190	0.00	DECREASING
	TCE	26	-216	0.00	DECREASING
MW259X06	cis-1,2-DCE	24	-129	0.00	DECREASING
	TCE	24	-127	0.00	DECREASING
Site: Site SD031					
MW1729X31	cis-1,2-DCE	27	-244	0.00	DECREASING
	TCE	27	-159	0.00	DECREASING
	TPH-G	21	-59	0.04	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
South IRA					
Sites FT005/SS029/SS030					
Site: Site FT005					
EW01X05	cis-1,2-DCE	33	170	0.00	INCREASING
	TCE	33	226	0.00	INCREASING
EW03X05	1,2-DCA	31	-136	0.01	DECREASING
EW731X05	1,2-DCA	21	-103	0.00	DECREASING
EW732X05	1,2-DCA	20	-105	0.00	DECREASING
EW733X05	1,2-DCA	19	-87	0.00	DECREASING
EW734X05	1,2-DCA	15	-76	0.00	DECREASING
EW743X05	1,2-DCA	18	-70	0.00	DECREASING
EW744X05	1,2-DCA	18	-63	0.01	DECREASING
MW119X05	Chloroform	22	93	0.00	INCREASING
	cis-1,2-DCE	20	-162	0.00	DECREASING
	TCE	20	-164	0.00	DECREASING
MW747X05	1,2-DCA	15	-53	0.00	DECREASING
MW774X05	1,2-DCA	17	-51	0.02	DECREASING
Site: Site SS029					
EW01X29	1,1-DCE	24	-76	0.03	DECREASING
	cis-1,2-DCE	24	-129	0.00	DECREASING
	TCE	24	-115	0.00	DECREASING
	Vinyl chloride	24	-70	0.04	DECREASING
EW02X29	cis-1,2-DCE	24	172	0.00	INCREASING
	TCE	24	184	0.00	INCREASING
EW03X29	cis-1,2-DCE	28	98	0.03	INCREASING
EW05X29	cis-1,2-DCE	24	91	0.01	INCREASING
	TCE	24	144	0.00	INCREASING
EW06X29	cis-1,2-DCE	24	79	0.03	INCREASING
	TCE	24	121	0.00	INCREASING
MW329X29	1,1-DCE	30	-109	0.03	DECREASING
	Benzene	30	-101	0.04	DECREASING
	cis-1,2-DCE	30	-107	0.03	DECREASING
	TCE	32	-151	0.01	DECREASING
MW1031X29	cis-1,2-DCE	23	192	0.00	INCREASING
	TCE	23	210	0.00	INCREASING
MW1032X29	1,1-DCE	21	59	0.04	INCREASING
	cis-1,2-DCE	21	122	0.00	INCREASING
	TCE	21	137	0.00	INCREASING
MW1044X29	TCE	20	-77	0.01	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
South IRA					
Sites FT005/SS029/SS030					
Site: Site SS029					
PZ01DX29	cis-1,2-DCE	23	100	0.00	INCREASING
PZ01SX29	cis-1,2-DCE	27	176	0.00	INCREASING
	TCE	27	169	0.00	INCREASING
SWPZ01X29	Chloroform	10	-22	0.03	DECREASING
Site: Site SS030					
EW01X30	TCE	26	-290	0.00	DECREASING
EW02X30	TCE	24	-229	0.00	DECREASING
EW03X30	TCE	29	-149	0.00	DECREASING
EW04X30	Chloroform	27	-83	0.04	DECREASING
	TCE	27	-235	0.00	DECREASING
EW05X30	TCE	26	-173	0.00	DECREASING
EW06X30	cis-1,2-DCE	27	-144	0.00	DECREASING
	TCE	27	-232	0.00	DECREASING
EW711X30	TCE	16	-65	0.00	DECREASING
MW03X30	TCE	38	164	0.02	INCREASING
MW04X30	TCE	14	-60	0.00	DECREASING
MW05X30	TCE	31	241	0.00	INCREASING
MW10X30	TCE	19	-105	0.00	DECREASING
MW269X30	TCE	24	-233	0.00	DECREASING
MW2001BX30	TCE	6	-11	0.03	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
Central IRA					
Site SS016					
Site: Site SS016					
EW001X16	1,1-DCE	63	-294	0.04	DECREASING
	cis-1,2-DCE	63	-752	0.00	DECREASING
	MTBE	29	96	0.04	INCREASING
	TCE	63	-819	0.00	DECREASING
	Vinyl chloride	63	-748	0.00	DECREASING
EW002X16	1,4-DCB	59	-508	0.00	DECREASING
	cis-1,2-DCE	59	-702	0.00	DECREASING
	PCE	59	-711	0.00	DECREASING
	TCE	59	-891	0.00	DECREASING
	Vinyl chloride	59	-347	0.01	DECREASING
EW003X16	cis-1,2-DCE	28	-160	0.00	DECREASING
	TCE	28	-93	0.03	DECREASING
	Vinyl chloride	28	-224	0.00	DECREASING
EW605X16	cis-1,2-DCE	13	-50	0.00	DECREASING
	TCE	13	-54	0.00	DECREASING
EW610X16	1,2-DCA	13	-31	0.04	DECREASING
	cis-1,2-DCE	13	-44	0.00	DECREASING
	TCE	13	-48	0.00	DECREASING
MW102X16	1,1-DCE	27	112	0.01	INCREASING
MW108X16	cis-1,2-DCE	4	-6	0.04	DECREASING
MW109X16	cis-1,2-DCE	21	-66	0.02	DECREASING
MW213X16	cis-1,2-DCE	6	-13	0.01	DECREASING
	TCE	6	-13	0.01	DECREASING
MW214X16	1,4-DCB	21	-74	0.01	DECREASING
	cis-1,2-DCE	21	-132	0.00	DECREASING
	PCE	21	-101	0.00	DECREASING
	TCE	21	-173	0.00	DECREASING
MW241X16	cis-1,2-DCE	21	-151	0.00	DECREASING
	PCE	21	-124	0.00	DECREASING
	TCE	21	-188	0.00	DECREASING
MW244X16	cis-1,2-DCE	15	-41	0.02	DECREASING
	TCE	15	-51	0.01	DECREASING
MW245X16	cis-1,2-DCE	23	-217	0.00	DECREASING
	TCE	25	-206	0.00	DECREASING
MW316X16	cis-1,2-DCE	24	-157	0.00	DECREASING
	MTBE	17	48	0.03	INCREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
Central IRA					
Site SS016					
Site: Site SS016					
MW316X16	TCE	25	-146	0.00	DECREASING
MW327X16	cis-1,2-DCE	12	-30	0.02	DECREASING
MW328X16	cis-1,2-DCE	24	-207	0.00	DECREASING
	TCE	24	-190	0.00	DECREASING
MW603X16	cis-1,2-DCE	19	-97	0.00	DECREASING
	PCE	19	-49	0.05	DECREASING
	TCE	20	-137	0.00	DECREASING
MW604X16	TCE	24	-134	0.00	DECREASING
	Vinyl chloride	23	-81	0.02	DECREASING
MW606X16	1,2-DCA	17	-61	0.01	DECREASING
	cis-1,2-DCE	17	-71	0.00	DECREASING
	TCE	18	-119	0.00	DECREASING
MW607X16	1,1-DCE	15	39	0.03	INCREASING
	cis-1,2-DCE	15	46	0.01	INCREASING
MW608X16	1,1-DCE	17	-99	0.00	DECREASING
MW609X16	cis-1,2-DCE	19	-51	0.04	DECREASING
	TCE	20	-66	0.02	DECREASING
MW611X16	cis-1,2-DCE	19	-78	0.00	DECREASING
	TCE	20	-162	0.00	DECREASING
MW1022X16	cis-1,2-DCE	22	-185	0.00	DECREASING
	TCE	24	-185	0.00	DECREASING
MW1701X16	1,1-DCE	13	-40	0.01	DECREASING
	cis-1,2-DCE	13	-51	0.00	DECREASING
	TCE	13	-68	0.00	DECREASING
MW1706X16	Benzene	21	-75	0.01	DECREASING
	cis-1,2-DCE	21	-169	0.00	DECREASING
	TCE	21	-166	0.00	DECREASING
MW1708X16	Chloroform	22	131	0.00	INCREASING
MW1710X16	cis-1,2-DCE	20	-152	0.00	DECREASING
	MTBE	14	-34	0.04	DECREASING
	TCE	20	-173	0.00	DECREASING
MW1712X16	cis-1,2-DCE	24	148	0.00	INCREASING
	TCE	25	166	0.00	INCREASING
MW1714X16	1,1-DCE	21	-109	0.00	DECREASING
	1,4-DCB	21	-77	0.01	DECREASING
	Benzene	21	-124	0.00	DECREASING

Central IRA

Site SS016

Site: Site SS016

Location	Analyte	Count	S-Statistic	p-Value	Trend
MW1714X16	cis-1,2-DCE	21	-173	0.00	DECREASING
	TCE	21	-186	0.00	DECREASING
	Vinyl chloride	21	-126	0.00	DECREASING
MW1734X16	Chloroform	11	28	0.02	INCREASING
MW1739X16	cis-1,2-DCE	12	-60	0.00	DECREASING
	TCE	12	-63	0.00	DECREASING
MW2020AX16	1,4-DCB	5	-10	0.01	DECREASING
	cis-1,2-DCE	5	-10	0.01	DECREASING
	TCE	5	-8	0.04	DECREASING
MW2022X16	cis-1,2-DCE	5	8	0.04	INCREASING
	TCE	5	10	0.01	INCREASING
MW2023X16	cis-1,2-DCE	5	8	0.04	INCREASING
MW2026X16	cis-1,2-DCE	6	-15	0.00	DECREASING
	TCE	6	-11	0.03	DECREASING
MW2028X16	PCE	5	8	0.04	INCREASING
MW2109X16	cis-1,2-DCE	5	10	0.01	INCREASING
MW2112AX16	Vinyl chloride	5	8	0.04	INCREASING
PZAX16	Vinyl chloride	5	-8	0.04	DECREASING
TPE-WX16	Vinyl chloride	5	8	0.04	INCREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
Central IRA					
Site ST027					
Site: Site SS016					
MW328X16	cis-1,2-DCE	24	-207	0.00	DECREASING
	TCE	24	-190	0.00	DECREASING
Site: Site ST027					
MW791X27	1,1-DCE	11	26	0.03	INCREASING
	Benzene	13	44	0.00	INCREASING
MW794X27	cis-1,2-DCE	10	-29	0.00	DECREASING
MW795X27	TPH-G	8	-18	0.02	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
West IRA					
the WIOU					
Site: Site SS014					
MW05X14	Benzene	28	-279	0.00	DECREASING
	Ethylbenzene	22	-87	0.01	DECREASING
	TPH-G	21	-82	0.01	DECREASING
Site: Site SD033					
EW501X33	cis-1,2-DCE	17	43	0.04	INCREASING
	PCE	17	55	0.01	INCREASING
	TCE	17	60	0.01	INCREASING
EW503X33	1,1-DCE	17	-68	0.00	DECREASING
	cis-1,2-DCE	17	-79	0.00	DECREASING
	MTBE	16	-52	0.01	DECREASING
	TCE	17	-87	0.00	DECREASING
MW504X33	PCE	21	-88	0.00	DECREASING
	TCE	23	-90	0.01	DECREASING
MW509X33	TCE	16	57	0.01	INCREASING
WBUC-4	TCE	16	-51	0.01	DECREASING
Site: Site SD034					
EW01X34	Benzene	17	-76	0.00	DECREASING
	cis-1,2-DCE	17	-97	0.00	DECREASING
	MTBE	14	-44	0.01	DECREASING
	TCE	17	-45	0.04	DECREASING
	TPH-D	4	-6	0.04	DECREASING
	Vinyl chloride	17	-75	0.00	DECREASING
EW03X34	cis-1,2-DCE	17	-73	0.00	DECREASING
MW02X34	Benzene	22	-78	0.02	DECREASING
	cis-1,2-DCE	22	-84	0.01	DECREASING
	MTBE	19	-123	0.00	DECREASING
	PCE	22	-84	0.01	DECREASING
	TCE	22	-132	0.00	DECREASING
	TPH-G	18	-87	0.00	DECREASING
MW04X34	cis-1,2-DCE	22	-157	0.00	DECREASING
	PCE	22	-102	0.00	DECREASING
	TCE	24	-124	0.00	DECREASING
	TPH-D	17	-61	0.01	DECREASING
Site: Site SD036					
EW593X36	Benzene	17	-45	0.04	DECREASING
	cis-1,2-DCE	17	-110	0.00	DECREASING
	PCE	17	-53	0.02	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
West IRA					
the WIOU					
Site: Site SD036					
EW593X36	TCE	17	-42	0.05	DECREASING
	Vinyl chloride	17	-77	0.00	DECREASING
EW594X36	Benzene	18	-46	0.04	DECREASING
	cis-1,2-DCE	20	-78	0.01	DECREASING
	PCE	20	-126	0.00	DECREASING
MW873M2X36	1,1-DCE	16	46	0.02	INCREASING
MW2031AX36	PCE	7	-18	0.00	DECREASING
	TCE	7	-19	0.00	DECREASING
	Vinyl chloride	7	13	0.03	INCREASING
MW2031BX36	cis-1,2-DCE	7	19	0.00	INCREASING
	TCE	7	-15	0.02	DECREASING
	Vinyl chloride	7	16	0.01	INCREASING
MW2033AX36	1,1-DCE	7	15	0.02	INCREASING
	cis-1,2-DCE	7	17	0.01	INCREASING
MW2034BX36	TCE	7	-17	0.01	DECREASING
MW2064AX36	1,1-DCE	8	-16	0.03	DECREASING
	cis-1,2-DCE	8	22	0.00	INCREASING
	TCE	8	16	0.03	INCREASING
MW2064BX36	TCE	8	-21	0.01	DECREASING
MW2065X36	1,1-DCE	6	12	0.02	INCREASING
	cis-1,2-DCE	6	11	0.03	INCREASING
MW2075AX36	PCE	6	12	0.02	INCREASING
	TCE	6	15	0.00	INCREASING
MW2075BX36	cis-1,2-DCE	6	-14	0.00	DECREASING
	TCE	6	-15	0.00	DECREASING
MW2107AX36	TCE	5	-10	0.01	DECREASING
MW2107BX36	cis-1,2-DCE	5	-10	0.01	DECREASING
	TCE	5	-10	0.01	DECREASING
PZ03X36	TCE	11	-25	0.03	DECREASING
PZ12SX36	1,2-DCA	14	-66	0.00	DECREASING
	Vinyl chloride	14	-32	0.05	DECREASING
PZ550CX36	Benzene	6	12	0.02	INCREASING
	Vinyl chloride	6	10	0.05	INCREASING
Site: Site SD037					
EW510X37	TCE	17	-42	0.05	DECREASING
EW511X37	MTBE	15	-49	0.01	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
West IRA					
the WIOU					
Site: Site SD037					
EW511X37	PCE	15	-52	0.00	DECREASING
	TCE	15	-53	0.00	DECREASING
	Vinyl chloride	15	-37	0.04	DECREASING
EW599X37	TCE	18	-71	0.00	DECREASING
	Vinyl chloride	18	-48	0.04	DECREASING
EW700X37	Benzene	19	-93	0.00	DECREASING
EW701X37	cis-1,2-DCE	19	-56	0.03	DECREASING
	PCE	19	-106	0.00	DECREASING
	TCE	19	-101	0.00	DECREASING
EW702X37	PCE	17	-98	0.00	DECREASING
	TCE	17	-92	0.00	DECREASING
EW703X37	cis-1,2-DCE	17	-63	0.01	DECREASING
	PCE	17	-50	0.02	DECREASING
	TCE	17	-88	0.00	DECREASING
EW704X37	TCE	16	-49	0.02	DECREASING
EW706X37	cis-1,2-DCE	16	81	0.00	INCREASING
	TCE	16	48	0.02	INCREASING
	Vinyl chloride	16	52	0.01	INCREASING
EW707X37	cis-1,2-DCE	18	-50	0.03	DECREASING
	TCE	18	-45	0.05	DECREASING
IW2094X37	TCE	6	-15	0.00	DECREASING
IW2096X37	TCE	6	-15	0.00	DECREASING
MW116X37	MTBE	27	-142	0.00	DECREASING
MW500X37	Carbon tetrachloride	15	-60	0.00	DECREASING
	cis-1,2-DCE	15	-62	0.00	DECREASING
	MTBE	13	-42	0.01	DECREASING
	TCE	15	-79	0.00	DECREASING
MW513X37	cis-1,2-DCE	23	-131	0.00	DECREASING
	TCE	23	-86	0.01	DECREASING
MW514X37	MTBE	14	-62	0.00	DECREASING
MW518X37	MTBE	29	170	0.00	INCREASING
	PCE	30	232	0.00	INCREASING
MW520X37	PCE	17	-65	0.00	DECREASING
MW524X37	cis-1,2-DCE	22	102	0.00	INCREASING
	PCE	22	-66	0.03	DECREASING
MW525X37	1,1-DCE	17	-43	0.04	DECREASING

Location	**Analyte**	**Count**	**S-Statistic**	**p-Value**	**Trend**
West IRA					
the WIOU					
Site: Site SD037					
MW525X37	cis-1,2-DCE	17	-81	0.00	DECREASING
	TCE	17	-88	0.00	DECREASING
	Vinyl chloride	17	-59	0.01	DECREASING
MW526X37	cis-1,2-DCE	22	124	0.00	INCREASING
	MTBE	21	-58	0.04	DECREASING
	PCE	22	-115	0.00	DECREASING
	TCE	22	-63	0.04	DECREASING
MW528X37	TCE	17	-112	0.00	DECREASING
MW529X37	cis-1,2-DCE	19	-121	0.00	DECREASING
	PCE	19	-88	0.00	DECREASING
	TCE	21	-113	0.00	DECREASING
MW532X37	cis-1,2-DCE	7	13	0.03	INCREASING
MW537X37	TCE	19	-152	0.00	DECREASING
MW541X37	cis-1,2-DCE	6	-13	0.01	DECREASING
MW722X37	1,1-DCE	18	-74	0.00	DECREASING
	cis-1,2-DCE	18	-108	0.00	DECREASING
	TCE	18	-99	0.00	DECREASING
MW723X37	TCE	19	69	0.01	INCREASING
MW1205X37	cis-1,2-DCE	18	-84	0.00	DECREASING
	PCE	18	-45	0.05	DECREASING
	TCE	18	-111	0.00	DECREASING
MW1208X37	TCE	29	-146	0.00	DECREASING
MW2039AX37	Vinyl chloride	7	18	0.00	INCREASING
MW2101BX37	TCE	8	-20	0.01	DECREASING
MW2102AX37	cis-1,2-DCE	6	13	0.01	INCREASING
	TCE	6	11	0.03	INCREASING
MWS3M3X37	Benzene	18	-80	0.00	DECREASING
	Benzene	18	-80	0.00	DECREASING
	TPH-D	14	32	0.05	INCREASING
	TPH-D	14	32	0.05	INCREASING
	TPH-G	14	-44	0.01	DECREASING
	TPH-G	14	-44	0.01	DECREASING
MWSNSM1X37	PCE	10	24	0.02	INCREASING
MWSNSM3X37	Benzene	14	-32	0.05	DECREASING
	TCE	14	-42	0.01	DECREASING
MWSNSM4X37	cis-1,2-DCE	22	-72	0.02	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
West IRA					
the WIOU					
Site: Site SD037					
MWSNSM4X37	TCE	22	-105	0.00	DECREASING
MWSNSM5X37	1,1-DCE	16	-44	0.03	DECREASING
	1,2-DCA	16	-38	0.05	DECREASING
	cis-1,2-DCE	16	-42	0.03	DECREASING
	PCE	16	-76	0.00	DECREASING
	TCE	16	-56	0.01	DECREASING
	Vinyl chloride	16	-44	0.03	DECREASING
MWSSBM1X37	TCE	11	-51	0.00	DECREASING
Site: Site SD043					
EW555X43	cis-1,2-DCE	24	-201	0.00	DECREASING
	PCE	24	-141	0.00	DECREASING
	TCE	24	-143	0.00	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
West IRA					
Site SS015					
Site: Site SS015					
IW2126X15	cis-1,2-DCE	5	-10	0.01	DECREASING
IW2127X15	cis-1,2-DCE	5	-8	0.04	DECREASING
	Vinyl chloride	5	-8	0.04	DECREASING
IW2128X15	cis-1,2-DCE	5	-10	0.01	DECREASING
MW105X15	MTBE	19	64	0.01	INCREASING
MW216X15	1,1-DCE	34	264	0.00	INCREASING
	Benzene	35	378	0.00	INCREASING
	cis-1,2-DCE	34	194	0.00	INCREASING
	MTBE	29	-106	0.02	DECREASING
	Vinyl chloride	34	214	0.00	INCREASING
MW625X15	1,1-DCE	21	100	0.00	INCREASING
	cis-1,2-DCE	21	140	0.00	INCREASING
	MTBE	21	138	0.00	INCREASING
	PCE	21	125	0.00	INCREASING
	TCE	21	147	0.00	INCREASING
	Vinyl chloride	21	95	0.00	INCREASING
MW2103X15	cis-1,2-DCE	6	-13	0.01	DECREASING
	PCE	6	-13	0.01	DECREASING
	TCE	6	-13	0.01	DECREASING
MW2118X15	Vinyl chloride	5	-8	0.04	DECREASING
MW2124X15	Benzene	8	-24	0.00	DECREASING
	TCE	8	-18	0.02	DECREASING
MW2129X15	cis-1,2-DCE	5	-10	0.01	DECREASING
MW2132X15	cis-1,2-DCE	5	-8	0.04	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
West IRA					
Site DP039					
Site: Site DP039					
EW563X39	1,1,1-Trichloroethane	20	-119	0.00	DECREASING
	1,1,2-Trichloroethane	20	-60	0.03	DECREASING
	1,1-DCE	20	-132	0.00	DECREASING
	TCE	20	-132	0.00	DECREASING
	Vinyl chloride	20	80	0.01	INCREASING
EW782X39	cis-1,2-DCE	16	72	0.00	INCREASING
	Vinyl chloride	16	55	0.01	INCREASING
IW2081X39	TCE	6	-11	0.03	DECREASING
IW2085X39	1,1-DCE	6	-12	0.02	DECREASING
	TCE	6	-12	0.02	DECREASING
IW2090X39	1,1-DCE	6	-12	0.02	DECREASING
	TCE	6	-14	0.00	DECREASING
MW02X39	1,1-DCE	30	310	0.00	INCREASING
	TCE	31	389	0.00	INCREASING
MW04X39	1,1-DCE	26	78	0.04	INCREASING
	cis-1,2-DCE	26	128	0.00	INCREASING
	TCE	26	104	0.01	INCREASING
MW750X39	1,1,1-Trichloroethane	22	-79	0.01	DECREASING
	cis-1,2-DCE	22	74	0.02	INCREASING
MW751X39	1,1,1-Trichloroethane	21	-151	0.00	DECREASING
	1,1-DCE	21	-120	0.00	DECREASING
	TCE	22	-145	0.00	DECREASING
MW758X39	TCE	21	123	0.00	INCREASING
MW759X39	1,1-DCE	20	-63	0.02	DECREASING
	cis-1,2-DCE	20	-63	0.02	DECREASING
	TCE	21	-84	0.01	DECREASING
MW760X39	TCE	21	142	0.00	INCREASING
MW762X39	TCE	19	-55	0.03	DECREASING
MW777X39	1,1,1-Trichloroethane	13	-56	0.00	DECREASING
	1,1,2-Trichloroethane	13	-35	0.02	DECREASING
	1,1-DCE	13	-34	0.02	DECREASING
	1,2-DCA	13	-34	0.02	DECREASING
	cis-1,2-DCE	13	-42	0.01	DECREASING
	PCE	13	-38	0.01	DECREASING
	TCE	13	-44	0.00	DECREASING
MW778X39	1,1,1-Trichloroethane	13	-36	0.02	DECREASING

West IRA

Site DP039

Site: Site DP039

Location	Analyte	Count	S-Statistic	p-Value	Trend
MW778X39	cis-1,2-DCE	13	40	0.01	INCREASING
	TCE	13	-32	0.03	DECREASING
	Vinyl chloride	13	53	0.00	INCREASING
MW779X39	TCE	11	-29	0.01	DECREASING
MW780X39	TCE	8	-16	0.03	DECREASING
MW781X39	cis-1,2-DCE	13	32	0.03	INCREASING
	TCE	13	46	0.00	INCREASING
MW783DX39	TCE	11	-23	0.04	DECREASING
MW785X39	1,1-DCE	14	54	0.00	INCREASING
	Acetone	14	-36	0.03	DECREASING
	TCE	14	33	0.04	INCREASING
MW787X39	TCE	6	-15	0.00	DECREASING
MW791X39	1,1-DCE	7	-17	0.01	DECREASING
	cis-1,2-DCE	7	-19	0.00	DECREASING
	TCE	7	-19	0.00	DECREASING
	Vinyl chloride	7	16	0.01	INCREASING
MW792X39	cis-1,2-DCE	7	13	0.03	INCREASING
MW793X39	1,1-DCE	7	-15	0.02	DECREASING
	TCE	7	-15	0.02	DECREASING
MW2042BX39	cis-1,2-DCE	5	8	0.04	INCREASING
	TCE	5	8	0.04	INCREASING
MW2092AX39	cis-1,2-DCE	6	12	0.02	INCREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
West IRA					
Site LF008					
Site: Site LF008					
EW719X08	alpha-Chlordane	13	-37	0.02	DECREASING
MW712X08	alpha-Chlordane	18	-84	0.00	DECREASING

Location	**Analyte**	**Count**	**S-Statistic**	**p-Value**	**Trend**
Surface Water					
Site SD001					
Site: Site SD001					
OUTFALL1	TCE	19	-59	0.02	DECREASING
OUTFALL2	cis-1,2-DCE	21	-86	0.01	DECREASING
	TCE	23	-109	0.00	DECREASING
Site: Site SS029					
SWPZ01X29	Chloroform	10	-22	0.03	DECREASING
Site: Site SD033					
WBUC-4	TCE	16	-51	0.01	DECREASING

Location	**Analyte**	**Count**	**S-Statistic**	**p-Value**	**Trend**
POCO Sites					
Site SS014					
Site: Site SS014					
MW01X14	m,p-Xylene	7	-15	0.02	DECREASING
MW02X14	o-Xylene	11	-31	0.01	DECREASING
	Toluene	11	-34	0.00	DECREASING
MW05X14	Benzene	28	-279	0.00	DECREASING
	Ethylbenzene	22	-87	0.01	DECREASING
	TPH-G	21	-82	0.01	DECREASING
Site: Site SD037					
MW04X37	TPH-D	10	-27	0.01	DECREASING
	TPH-G	7	-15	0.02	DECREASING
MW116X37	MTBE	27	-142	0.00	DECREASING
MWS3M2X37	Benzene	10	-34	0.00	DECREASING
MWSSBM1X37	TCE	11	-51	0.00	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
POCO Sites					
Site ST018					
Site: Site ST018					
EW1NSX18	MTBE	9	-22	0.01	DECREASING
MW139X18	1,2-DCA	24	-117	0.00	DECREASING
	Benzene	24	-130	0.00	DECREASING
	Ethylbenzene	20	-101	0.00	DECREASING
	MTBE	24	-187	0.00	DECREASING
MW206NSX18	Benzene	19	-100	0.00	DECREASING
	Ethylbenzene	17	-71	0.00	DECREASING
	m,p-Xylene	19	-101	0.00	DECREASING
	MTBE	19	-119	0.00	DECREASING
	o-Xylene	19	-62	0.02	DECREASING
	Toluene	17	-42	0.05	DECREASING
MW210NSX18	Benzene	21	-109	0.00	DECREASING
	Ethylbenzene	19	-89	0.00	DECREASING
	m,p-Xylene	21	-107	0.00	DECREASING
	MTBE	21	-73	0.01	DECREASING
	o-Xylene	21	-96	0.00	DECREASING
	Toluene	19	-72	0.01	DECREASING
	TPH-G	13	-31	0.04	DECREASING
MW211NSX18	1,2-DCA	24	-145	0.00	DECREASING
	Benzene	26	-121	0.00	DECREASING
	Ethylbenzene	22	-74	0.02	DECREASING
	m,p-Xylene	26	-85	0.03	DECREASING
	o-Xylene	26	-82	0.04	DECREASING
MW213NSX18	1,2-DCA	15	-41	0.02	DECREASING
MW786X18	MTBE	12	-31	0.03	DECREASING
MW2021X18	TCE	5	-10	0.01	DECREASING
MW2044X18	MTBE	6	-11	0.03	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend
POCO Sites					
Site ST028					
Site: Site ST028					
MW365M1X28	Benzene	18	-119	0.00	DECREASING
	Ethylbenzene	16	-89	0.00	DECREASING
	TPH-D	18	-69	0.01	DECREASING
	TPH-G	16	-70	0.00	DECREASING
MW365M3X28	Benzene	17	-88	0.00	DECREASING
	Ethylbenzene	15	-62	0.00	DECREASING
	TPH-D	17	-68	0.00	DECREASING
	TPH-G	15	-67	0.00	DECREASING
MW1204X28	TPH-D	10	-22	0.03	DECREASING
	TPH-G	9	-21	0.03	DECREASING
MW1744X28	TPH-D	24	-71	0.04	DECREASING
MW1771M1X28	Benzene	27	-173	0.00	DECREASING
	Ethylbenzene	23	-141	0.00	DECREASING
	m,p-Xylene	26	-143	0.00	DECREASING
	o-Xylene	26	-127	0.00	DECREASING
	Toluene	23	-161	0.00	DECREASING
	TPH-D	19	-69	0.01	DECREASING
	TPH-G	25	-135	0.00	DECREASING

Location	**Analyte**	**Count**	**S-Statistic**	**p-Value**	**Trend**
POCO Sites					
Site ST032					
Site: Site SS016					
MW108X16	cis-1,2-DCE	4	-6	0.04	DECREASING
MW1734X16	Chloroform	11	28	0.02	INCREASING
Site: Site ST032					
MW246X32	Benzene	25	-163	0.00	DECREASING
	Ethylbenzene	23	-166	0.00	DECREASING
	m,p-Xylene	25	-249	0.00	DECREASING
	o-Xylene	25	-178	0.00	DECREASING
	TPH-D	10	-25	0.01	DECREASING
	TPH-G	21	-141	0.00	DECREASING
MW1020X32	TPH-G	7	-13	0.03	DECREASING
MW1024X32	cis-1,2-DCE	23	-133	0.00	DECREASING
	TCE	23	-119	0.00	DECREASING
MW1027X32	Benzene	7	-16	0.01	DECREASING
MW1028X32	MTBE	16	-81	0.00	DECREASING

Location	Analyte	Count	S-Statistic	p-Value	Trend

Note: Grouped by Site and Location, sorted by Analyte

Attachment 4
Historical Site LF007 TOC Data

ATTACHMENT 4

Summary of TOC Concentrations Historically Detected at Site LF007D

2012 GSAP Technical Memorandum, Travis Air Force Base, California

Location Name	Sample Date	Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Type	Sample Name	Analytical Method	Result Value (mg/L)	Result Flag	Method Detection Limit (mg/L)	Reporting Limit (mg/L)
MW125X07	19-Mar-85	Groundwater	17	37	Normal	TRN	E415.1	3	T	1	
	09-May-85	Groundwater	17	37	Normal	TRN	E415.1	5	T	1	
	10-Sep-97	Groundwater	17	37	Normal	MW-125-101	SW9060	5.4		1	2
	09-Apr-98	Groundwater	17	37	Normal	MW-125-300	SW9060	2.9		0.5	1
	16-Sep-98	Groundwater	17	37	Normal	MW-125-310	SW9060	4		0.1045	1
					Field duplicate	MW-125-311	SW9060	4		0.1045	1
	02-Mar-99	Groundwater	17	37	Normal	MW-125-03	SW9060	3.1		1	2
	14-Sep-99	Groundwater	17	37	Normal	MW-125-09	SW9060	4.3		0.07	0.5
MW126X07	19-Mar-85	Groundwater	8	28	Normal	TRN	E415.1	16	T	1	
	09-May-85	Groundwater	8	28	Normal	TRN	E415.1	22	T	1	
MW-127	19-Mar-85	Groundwater	20	40	Normal	TRN	E415.1	11	T	1	
	09-May-85	Groundwater	20	40	Normal	TRN	E415.1	30	T	1	
MW128X07	19-Mar-85	Groundwater	6	26	Normal	TRN	E415.1	2	T	1	
	09-May-85	Groundwater	6	26	Normal	TRN	E415.1	12	T	1	
	12-Sep-97	Groundwater	6	26	Normal	MW-128-101	SW9060	8.3		1	2
	06-Apr-98	Groundwater	6	26	Normal	MW-128-300	SW9060	4.2		0.5	1
	16-Sep-98	Groundwater	6	26	Normal	MW-128-310	SW9060	3.8		0.1045	1
	02-Mar-99	Groundwater	6	26	Normal	MW-128-03	SW9060	5.8		1	2
	14-Sep-99	Groundwater	6	26	Normal	MW-128-09	SW9060	3.7		0.07	0.5
MW129X07	19-Mar-85	Groundwater	10	30	Normal	TRN	E415.1	10	T	1	
	08-May-85	Groundwater	10	30	Normal	TRN	E415.1	8	T	1	
	18-Jun-98	Groundwater	10	30	Normal	MW-129-1	SW9060	1.9		0.1045	1
	04-Dec-08	Groundwater	10	30	Normal	MW129X07-101	A5310B	2.56		0.5	1

ATTACHMENT 4

Summary of TOC Concentrations Historically Detected at Site LF007D

2012 GSAP Technical Memorandum, Travis Air Force Base, California

Location Name	Sample Date	Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Type	Sample Name	Analytical Method	Result Value (mg/L)	Result Flag	Method Detection Limit (mg/L)	Reporting Limit (mg/L)
MW261X07	11-Sep-97	Groundwater	8.5	18.5	Normal	MW-261-101	SW9060	259		1	2
	10-Apr-98	Groundwater	8.5	18.5	Normal	MW-261-300	SW9060	9.5		0.5	1
	17-Sep-98	Groundwater	8.5	18.5	Normal	MW-261-310	SW9060	151		0.1045	10
	04-Mar-99	Groundwater	8.5	18.5	Normal	MW-261-03	SW9060	79.1	J	2	2
					Field duplicate	MW-261-04	SW9060	41.5	J	2	2
	14-Sep-99	Groundwater	8.5	18.5	Normal	MW-261-09	SW9060	149		0.07	0.5
	28-Mar-00	Groundwater	8.5	18.5	Normal	MW261X07-01	SW9060	120		2	2
	13-Sep-00	Groundwater	8.5	18.5	Normal	MW261X07-03	SW9060	150		1	1
					Field duplicate	MW261X07-03B	SW9060	151		1	1
	24-Nov-08	Groundwater	8.5	18.5	Normal	MW261X07-101	A5310B	211		5	10
MW284X07	28-Mar-00	Groundwater	6.9	16.9	Normal	MW284X07-01	SW9060	1.5		0.1	0.1
					Field duplicate	MW284X07-01B	SW9060	1.3		0.1	0.1
MW303X07	12-Sep-97	Groundwater	54.8	64.8	Normal	MW-303-101	SW9060	18.7		1	2
	06-Apr-98	Groundwater	54.8	64.8	Normal	MW-303-300	SW9060	18.1		0.5	1
	15-Sep-98	Groundwater	54.8	64.8	Normal	MW-303-310	SW9060	19.6		0.1045	1
	02-Mar-99	Groundwater	54.8	64.8	Normal	MW-303-03	SW9060	10		2	2
	14-Sep-99	Groundwater	54.8	64.8	Normal	MW-303-09	SW9060	20.5		0.07	0.5
MW600X07	10-Dec-08	Groundwater	5.5	25.5	Normal	MW600X07-101	A5310B	5.63		0.5	1
					Field duplicate	MW600X07-101B	A5310B	4.48		0.5	1
MW601X07	29-Mar-00	Groundwater	5	25	Normal	MW601X07-1	SW9060	4.6		0.1	0.1
	13-Sep-00	Groundwater	5	25	Normal	MW601X07-03	SW9060	4.7		0.1	0.1
					Field duplicate	MW601X07-03B	SW9060	4.6		0.1	0.1
	09-Dec-08	Groundwater	5	25	Normal	MW601X07-101	A5310B	10.8		1	2
MW602X07	29-Mar-00	Groundwater	5.5	20	Normal	MW602X07-01	SW9060	0.1	U	0.1	0.1

ATTACHMENT 4

Summary of TOC Concentrations Historically Detected at Site LF007D

2012 GSAP Technical Memorandum, Travis Air Force Base, California

Location Name	Sample Date	Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Type	Sample Name	Analytical Method	Result Value (mg/L)	Result Flag	Method Detection Limit (mg/L)	Reporting Limit (mg/L)
MW612X07	04-Dec-08	Groundwater	10	20	Normal	MW612X07-101	A5310B	9		0.5	1
MW613X07	04-Dec-08	Groundwater	50	60	Normal	MW613X07-101	A5310B	2.41		0.5	1
MWAX07	09-Dec-08	Groundwater	12	27	Normal	MWAX07-101	A5310B	25.7		1	2
MWCX07	28-Mar-00	Groundwater	7.1	17.1	Normal	MWCX07-01	SW9060	10.7		0.1	0.1
	13-Sep-00	Groundwater	7.1	17.1	Normal	MWCX07-03	SW9060	11.1		0.2	0.2
	24-Nov-08	Groundwater	7.1	17.1	Normal	MWCX07-101	A5310B	20.2		2.5	5
MWFX07	24-Nov-08	Groundwater	18	28	Normal	MWFX07-101	A5310B	8.42		0.5	1
MWGX07	21-Nov-08	Groundwater	6.9	16.9	Normal	MWGX07-101	A5310B	3.9		0.5	1

Note:

mg/L = milligram(s) per liter

Attachment 5
Site LF007D and Site ST032 Boring Logs

Borehole Log

ROY F. WESTON, Inc.

CLIENT : TRAVIS AFB
SITE NAME : LF-2
WELL ID : 04-0261
NORTHING : 222364.0700 surveyed
EASTING : 2024030.9200 surveyed
ELEVATION : 77.000 surveyed

TOTAL DEPTH : 46.50
LOGGER : MARK DOMINICK
DRILLING COMPANY : WDC
DRILLING RIG : CME 750 (HSA)
DATE STARTED : 03/29/91
DATE COMPLETED : 03/29/91

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				No Sample Recovered				50 0 0 0		
76	1									
				Interval Not Sampled						
75	2									
74	3									
73	4									
72	5	▩	100	Fill	BLACK	SFT	WET	2 0 0 0	OVM 0.0	PAPER SHREDS PRESENT:FILL IS 60% SAND, 30% SILT, 10% CLAY. 10YR - 2/1.
		▩	100	Fill	DK GREY	SFT	WET	6 8 0 0	OVM 1.3	PAPER AND PLASTIC PRESENT COMPOSITION 10% GRAVEL, 60% SAND, & 30% CLAY. 10YR - 4/1.
71	6									
				Interval Not Sampled						
70	7									
69	8									
68	9									
67	10		100	Fill	BLACK	SFT	SAT	6 8 6 0	OVM 0.4	FILL COMPRISED OF 60% WOOD, PAPER & DEBRIS, 40% SAND & CLAY. 10YR-2/1.

Borehole Log

ROY F. WESTON, Inc.

CLIENT : TRAVIS AFB
SITE NAME : LF-2
WELL ID : 04-0261
NORTHING : 222364.0700 surveyed
EASTING : 2024030.9200 surveyed
ELEVATION : 77.000 surveyed

TOTAL DEPTH : 46.50
LOGGER : MARK DOMINICK
DRILLING COMPANY : WDC
DRILLING RIG : CME 750 (HSA)
DATE STARTED : 03/29/91
DATE COMPLETED : 03/29/91

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
		▩		Fill	BLACK	SFT	SAT		OVM 0.4	FILL COMPRISED OF 60% WOOD, PAPER & DEBRIS, 40% SAND & CLAY. 10YR-2/1.
66	11	▩								
				Interval Not Sampled						
65	12									
64	13									
63	14									
62	15	░	100	Lean clay, CL	GREY	STF	DRY	7 9 12 0	OVM 0.4	PLASTIC SHEETING AND IRON OXIDES PRESENT. POSSIBLE FILL OR FILL/SOIL CONTACT 10YR - 5/1.
61	16	░								
				Interval Not Sampled						
60	17									
59	18									
58	19									
57	20		100	Lean clay, CL	BROWNISH YELLOW	STF	DRY		OVM 0.0	IRON OXIDE MOTTLING PRESENT. 10YR - 6/6.

Borehole Log

ROY F. WESTON, Inc.

CLIENT : TRAVIS AFB
SITE NAME : LF-2
WELL ID : 04-0261
NORTHING : 222364.0700 surveyed
EASTING : 2024030.9200 surveyed
ELEVATION : 77.000 surveyed

TOTAL DEPTH : 46.50
LOGGER : MARK DOMINICK
DRILLING COMPANY : WDC
DRILLING RIG : CME 750 (HSA)
DATE STARTED : 03/29/91
DATE COMPLETED : 03/29/91

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
		▨		Lean clay, CL	BROWNISH YELLOW	STF	DRY		OVM 0.0	IRON OXIDE MOTTLING PRESENT. 10YR - 6/6.
56	21	▨								
				Interval Not Sampled						
55	22									
54	23									
53	24									
52	25	▨	100	Lean clay, CL	YELLOWISH BROWN	STF	DRY	9 11 15 0	OVM 0.0	IRON OXIDE MOTTLING PRESENT. 10YR - 5/4.
51	26	▨								
				Interval Not Sampled						
50	27									
49	28									
48	29									
47	30		100	Lean clay, CL	BROWNISH YELLOW	STF	DRY	8 16 19 0	OVM 0.0	IRON OXIDE MOTTLING PRESENT. 10YR - 6/6.

Borehole Log **ROY F. WESTON, Inc.**

CLIENT : TRAVIS AFB
SITE NAME : LF-2
WELL ID : 04-0261
NORTHING : 222364.0700 surveyed
EASTING : 2024030.9200 surveyed
ELEVATION : 77.000 surveyed

TOTAL DEPTH : 46.50
LOGGER : MARK DOMINICK
DRILLING COMPANY : WDC
DRILLING RIG : CME 750 (HSA)
DATE STARTED : 03/29/91
DATE COMPLETED : 03/29/91

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Lean clay, CL	BROWNISH YELLOW	STF	DRY		OVM 0.0	IRON OXIDE MOTTLING PRESENT. 10YR - 6/6.
46	31									
				Interval Not Sampled						
45	32									
44	33									
43	34									
42	35		100	Lean clay, CL	GREYISH BROWN	STF	DRY	10 14 23 0	OVM 0.0	IRON OXIDE MOTTLING PRESENT. 10YR - 5/2.
41	36									
				Interval Not Sampled						
40	37									
39	38									
38	39									
37	40		100	Lean clay, CL	DK GREY	STF	DRY	8 11 14 0		IRON OXIDE MOTTLING & GREY STRINGERS PRESENT. 10YR - 4/1.

ROY F. WESTON, Inc.

Borehole Log

CLIENT : TRAVIS AFB
SITE NAME : LF-2
WELL ID : 04-0261
NORTHING : 222364.0700 surveyed
EASTING : 2024030.9200 surveyed
ELEVATION : 77.000 surveyed

TOTAL DEPTH : 46.50
LOGGER : MARK DOMINICK
DRILLING COMPANY : WDC
DRILLING RIG : CME 750 (HSA)
DATE STARTED : 03/29/91
DATE COMPLETED : 03/29/91

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
		▨		Lean clay, CL	DK GREY	STF	DRY			IRON OXIDE MOTTLING & GREY STRINGERS PRESENT. 10YR - 4/1.
36	41	▨								
				Interval Not Sampled						
35	42									
34	43									
33	44									
				No Sample Recovered				40 0 0 0		BORING COMPLETED TO 46.5" BGS. BACKFILLED WITH BENT HOLEPLUG TO 20.1 PRIOR TO WELL INSTALLATION.
32	45									
31	46									
30	47									
29	48									
28	49									
27	50									

CLIENT : TRAVIS AFB
SITE NAME : LF-2
WELL ID : 04-0284
NORTHING : 222167.3400 surveyed
EASTING : 2024343.0000 surveyed
ELEVATION : 75.500 surveyed

TOTAL DEPTH : 15.50
LOGGER : R.MARION
DRILLING COMPANY : CCK
DRILLING RIG : B61
DATE STARTED : 04/28/82
DATE COMPLETED : 04/29/92

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Interval Not Sampled						
74	1									
73	2									
			46	Silty sand, SM	LT YELLOW BROWN	SFT	MST	7 50 0 0	HNU 0.0	2.5Y-6/4
				Lean clay, CL	DK OLIVE BROWN	FRM	MST		HNU 0.0	2.5Y-3/3 AND 2.5Y-6/4 MOTTLED
72	3									
				No Sample Recovered						
				No Sample Recovered						
71	4			Interval Not Sampled						
70	5		46	Silt, ML	LT YELLOW BROWN	SFT	MST		HNU 0.0	2.5Y-6/4
				No Sample Recovered						
69	6									
				Interval Not Sampled						
68	7									
			26	Silt, ML	LT YELLOW BROWN	SFT	MST	50 0 0 0	HNU 0.0	2.5Y-6/4
				No Sample Recovered						
67	8									
66	9			Interval Not Sampled						
65	10		33	Silt, ML	LT YELLOW BROWN	SFT	MST	40 0 0 0	HNU 0.0	2.5Y-6/4

Borehole Log

ROY F. WESTON, Inc.

CLIENT	:	TRAVIS AFB	TOTAL DEPTH	:	15.50
SITE NAME	:	LF-2	LOGGER	:	R.MARION
WELL ID	:	04-0284	DRILLING COMPANY	:	CCK
NORTHING	:	222167.3400 surveyed	DRILLING RIG	:	B61
EASTING	:	2024343.0000 surveyed	DATE STARTED	:	04/28/82
ELEVATION	:	75.500 surveyed	DATE COMPLETED	:	04/29/92

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Silt, ML	LT YELLOW BROWN	SFT	MST		HNU 0.0	2.5Y-6/4
				No Sample Recovered						
64	11									
				Interval Not Sampled						
63	12									
			33	Sandy silt, ML	LT YELLOW BROWN	SFT	DRY	50 0 0 0	HNU 0.0	2.5Y-6/4
				No Sample Recovered						
62	13									
61	14			Interval Not Sampled						INTERVAL NOT SAMPLED
60	15		33	Sandstone	LY OLIVE BROWN	STR			HNU 0.0	2.5Y-5/6 SANDSTONE ROCK FRAGMENTS, SATURATED.
			33	Silt, ML	LT OLIVE BROWN	SFT	WET	52 0 0 0	HNU 0.0	2.5Y-5/6 WET.
59	16									
58	17									
57	18									
56	19									
55	20									

Groundwater Technology, Inc.

Drilling Log

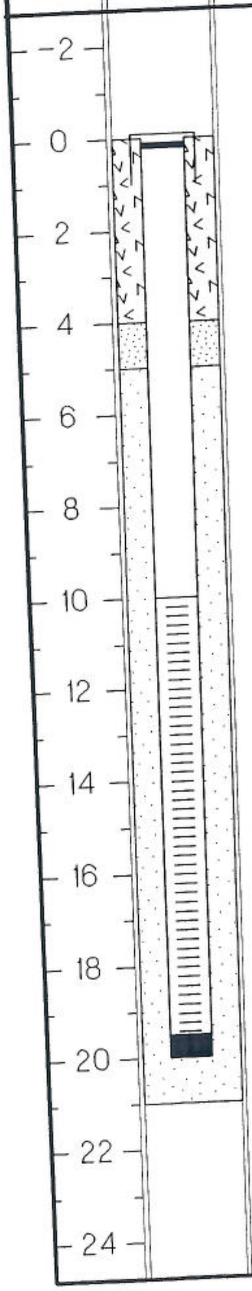
Monitoring Well **MW612x07**

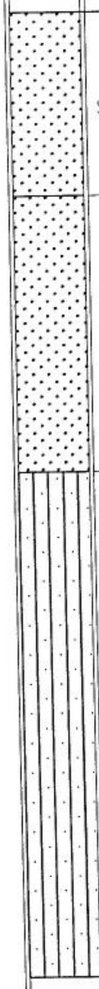
Project *Travis Air Force Base/DO 66* Owner *AFCEE*
Location *MW603X07 - Remedial Action for Site LF007* Proj. No. *820959*
Surface Elev. ______ Total Hole Depth *21 ft.* Diameter *10 in.*
Top of Casing ______ Water Level Initial ______ Static *7.05 ft.*
Screen: Dia *4 in.* Length *10 ft.* Type/Size *Sch. 40 PVC, slot 0.020 in.*
Casing: Dia *6 in.* Length *10 ft.* Type *Sch. 40 PVC*
Fill Material *#3 Sand* Rig/Core *D-17 & S23*
Drill Co. *Gregg Drilling* Method *Auger*
Driller *D. Kirsinis* Log By *R. Gonzales* Date *10/02/02* Permit # ______
Checked By ______ License No. ______

See Site Map For Boring Location

COMMENTS:

Previous well number: 1) MW603x07





Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
				11 14 21		SP	Gravelly, clay, silty SAND (5,15,20,55): dark brown/brown, subrounded to subangular, non-plastic, semi-plastic, poorly graded, loose, dry, no odor.
				8 9 10		SP/SM ▼	Fine gravelly clay, silty SAND (5,15,30,50): light brown-yellowish, subrounded to subangular, seni-plastic, medium to poor grading, moist, no odor.
				9 11 15			
				30 50		SM	Very fine clayey SILT (30,50): light gray-brown with yellowish light brown parts/linsation, subrounded, semi-plastic, medium graded, moderately dense, moist, no odor.
							Very fine clay, silty SAND (10,30,60): light brown-brown, subrounded to subangular, semi-plastic, well to medium grading, dense to very dense, moist, no odor.

Groundwater Technology, Inc.

Drilling Log

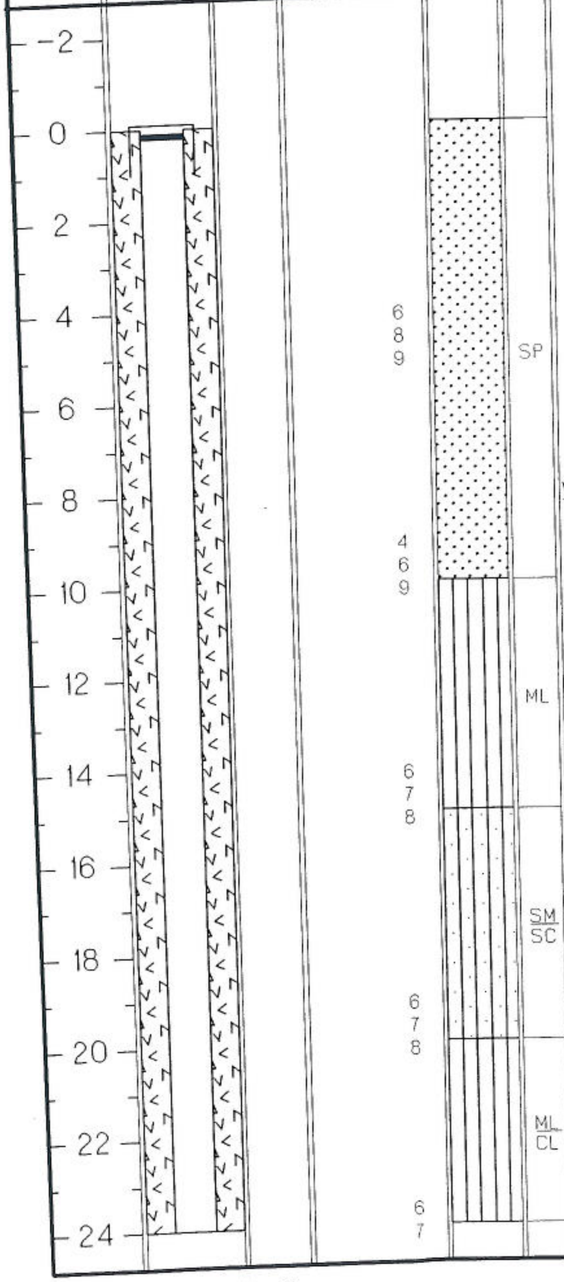
Monitoring Well **MW613x07**

Project *Travis Air Force Base/DO 66* Owner *AFCEE*
Location *MW603X07 - Remedial Action for Site LF007* Proj. No. *820959*
Surface Elev. ______ Total Hole Depth *61.5 ft.* Diameter *10 in.*
Top of Casing ______ Water Level Initial ______ Static *8.30 ft.*
Screen: Dia *4 in.* Length *10 ft.* Type/Size *Sch. 40 PVC, slot 0.020 in.*
Casing: Dia *4 in.* Length *50 ft.* Type *Sch. 40 PVC*
Fill Material *#3 Sand* Rig/Core *D-17 & S23*
Drill Co. *Gregg Drilling* Method *Auger*
Driller *D. Kirsinis* Log By *R. Gonzales* Date *10/01/02* Permit # ______
Checked By ______ License No. ______

See Site Map
For Boring Location

COMMENTS:

Previous well number: 1) MW604x07



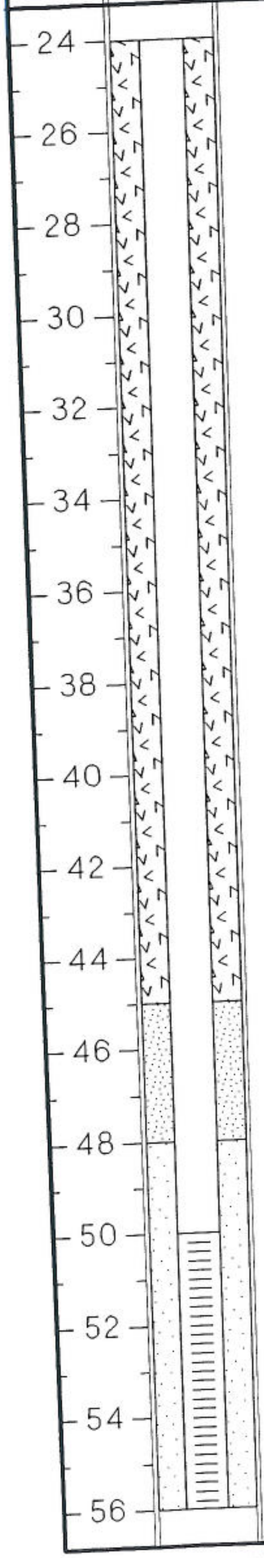
Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
				6 8 9		SP	Very loose gravelly, clayey, silty SAND (5,15,25,55): dark brown-brown, subrounded to subangular, semi-plastic, poor graded, loose, dry, no odor.
				4 6 9			Gravelly clay, silty SAND (5,10,30,50): light brown, common white/buff, subrounded to subangular, semi-plastic, medium graded, moderately stiff, moist, no odor.
				6 7 8		ML	
				6 7 8		SM/SC	Very fine to fine gravelly clay, silty SAND (10,35,50): brown-light brown (yellowish), non-plastic, well graded, moderately dense to dense, wet, no odor.
				6 7		ML/CL	

Groundwater Technology, Inc.

Drilling Log

Monitoring Well **MW613x07**

Project *Travis Air Force Base/DO 66* Owner *AFCEE*
Location *MW603X07 – Remedial Action for Site LF007* Proj. No. *820959*



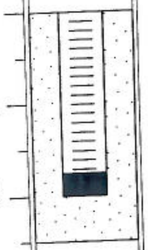
PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
		7 8		ML/CL	Very fine silty SAND (10,30,60): light gray-white/buff, semi-plastic to plastic, well to medium grading, moderately stiff, dry, no odor.
		11 15 22		ML/CL	
		11 15 21			Clay, silty SAND (20,20,60): gray spotted light brown, subrounded to subangular, semi-plastic, medium graded, moderately dense, stiff, dry, no odor.
		11 15 19			Silty, clayey SAND (10,40,50): light brown/yellowish brown, subrounded to subangular, semi-plastic, well graded, stiff to very stiff, dry, no odor.
		11 15 20		ML/CL	Silty, clayey SAND (10,40,50): light brown/yellowish brown, semi-plastic, well graded, moderately dense, dry, no odor.
		13 18 25			Silty, clayey SAND (10,40,50): light gray/light bluish gray, semi-plastic, well graded, dense, dry, no odor.
		18 26 29			Sand, clayey SILT (5,45,50): light gray/bluish gray, semi-plastic, medium graded, dense, dry, no odor.
				CL	
		18 25 29		SM	Silty CLAY (40,60): gray-dark gray, semi-plastic, well graded, dense to very dense, dry, no odor.

Groundwater Technology, Inc.

Drilling Log

Monitoring Well **MW613x07**

Project *Travis Air Force Base/DO 66* Owner *AFCEE*
Location *MW603X07 - Remedial Action for Site LF007* Proj. No. *820959*

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
56							
58						SM	Fine to coarse silty SAND (10,30,60): dark brown, subrounded to subangular, dry, very dense.
60				22 54 56			
62							
64							
66							
68							
70							
72							
74							
76							
78							
80							
82							
84							
86							
88							

MWBx07

RADIAN CORPORATION

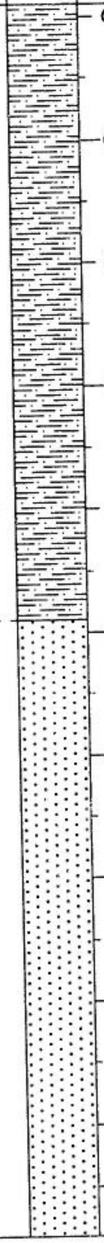
Monitoring Well #: **NLF02M0B**

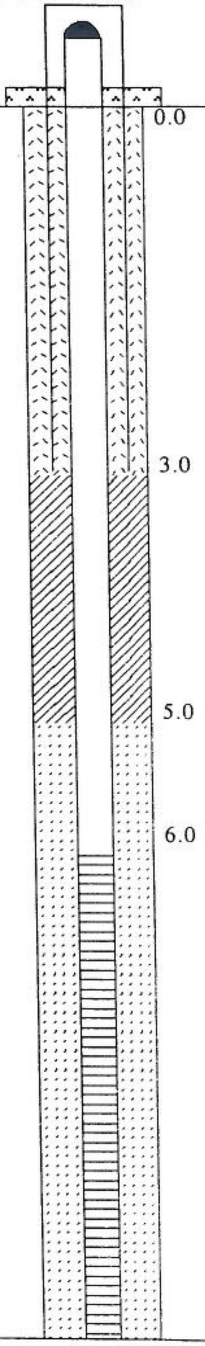
LOG OF DRILLING OPERATIONS

Page 1 of 2

PROJECT **North Operable Unit** LOCATION **Travis AFB, Fairfield CA**
TOTAL DEPTH **17.00** START DATE **6/29/94** FINISH DATE **7/8/94**
GEOLOGIST **D.S. Wright** APPROVED BY R.G.# 6130
DRILLING COMPANY **Water Development Corp** DRILLER **Gary Whitely**
DRILLING METHOD **Hollow Stem Auger** EQUIPMENT **CME 75**
DRILL BIT TYPE AND SIZE **Bullet/8" Diameter**
BORING LOCATION (ST. ADDRESS OR DESCRIPTION) **Approximately 600' West and 500' South of Northeast corner on NOU Boundary.**

Depth Below Surface (ft)	Lithologic Description Color, Texture, Moisture, etc.	Elevation (ft MSL)	Drilling Notes/Well Details
		69.10	Casing elevation=71.46
0	SANDY SILT light olive brown (2.5 Y 5/3), secondary porosity, grass at surface, trace sand from 0.0' - 1.5', moderate root bores and rootlets from 0.0' - 1.5', minor white evaporite, minor iron stained material, dry, (ML).	69	Grass at surface Soil Sample: NLF02M0BS1N (0.0' - 0.3') Neat cement grout interval: 0.0' - 3.0'
1		68	
2		67	
3		66	Bentonite seal interval: 3.0' - 5.0'
4		65	
5	SANDSTONE grey (2.5 Y 5/1), minor silt; very fine to fine grained; poorly graded, subrounded; 90% quartz, 10% mafic; minor white evaporite, minor iron staining, trace black staining, trace siltstone nodules up to 1.0 cm in diameter; siltstone units at 11.5' - 12.0' and 12.5' - 13.0' in sharp contact with sandstone, dry.	64	LEL = 0% 0 ppm BH; 0 ppm BZ Soil Sample: NLF02M0BS2N (5.0' - 6.5') Filter pack sand (#0/30) interval: 5.0' - 17.0' PVC (0.01" slot) screen interval: 6.0' - 16.4'
6		63	
7		62	
8		61	
9		60	
10			





NOTES
PPM = parts per million
BH = at the borehole
BZ = in the breathing zone

MWBX07

RADIAN CORPORATION

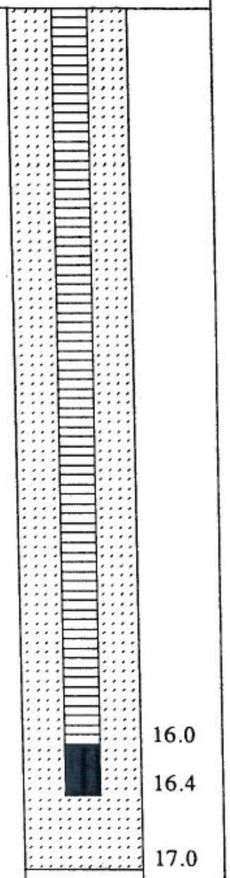
Monitoring Well #: **NLF02M0B**

Page 2 of 2

LOG OF DRILLING OPERATIONS

PROJECT **North Operable Unit** LOCATION **Travis AFB, Fairfield CA**

Depth Below Surface (ft)	Lithologic Description Color, Texture, Moisture, etc.	Graphic Log	Elevation (ft MSL)	Drilling Notes/Well Details
10			59	LEL = 0% 0 ppm BH; 0 ppm BZ
11			58	
12			57	LEL = 0% 0 ppm BH; 0 ppm BZ
13			56	
14			55	
15			54	LEL = 0% 0 ppm BH; 0 ppm BZ
16			53	Bottom of end cap: 16.4' LEL = 0% 0 ppm BH; 0 ppm BZ Total Depth = 17.0'
17				



MWCX07

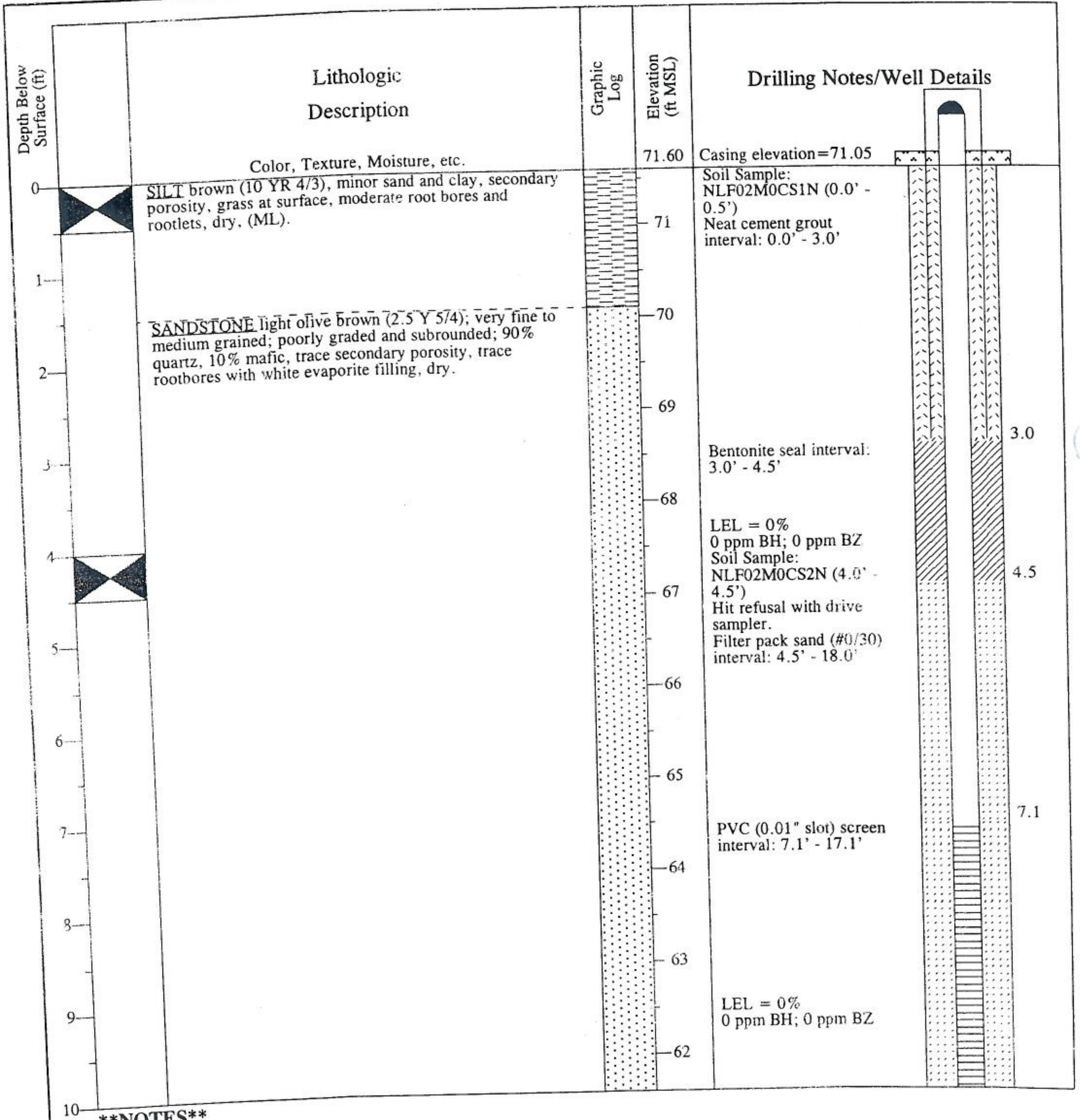
RADIAN
CORPORATION

Monitering Well #: **NLF02M0C**

Page 1 of 2

LOG OF DRILLING OPERATIONS

PROJECT **North Operable Unit** LOCATION **Travis AFB, Fairfield CA**
TOTAL DEPTH **18.00** START DATE **7/11/94** FINISH DATE **7/14/94**
GEOLOGIST **D.S. Wright** APPROVED BY R.G.# 6130
DRILLING COMPANY **Water Development Corp.** DRILLER **Gary Whitely**
DRILLING METHOD **Hollow Stem Auger** EQUIPMENT **CME 75**
DRILL BIT TYPE AND SIZE **Bullet/8" Diameter**
BORING LOCATION (ST. ADDRESS OR DESCRIPTION) **Approximately 25' East of MW-261.**



Color, Texture, Moisture, etc.

SILT brown (10 YR 4/3), minor sand and clay, secondary porosity, grass at surface, moderate root bores and rootlets, dry, (ML).

SANDSTONE light olive brown (2.5 Y 5/4); very fine to medium grained; poorly graded and subrounded; 90% quartz, 10% mafic, trace secondary porosity, trace rootbores with white evaporite filling, dry.

Casing elevation=71.05

Soil Sample:
NLF02M0CS1N (0.0' - 0.5')
Neat cement grout interval: 0.0' - 3.0'

Bentonite seal interval: 3.0' - 4.5'

LEL = 0%
0 ppm BH; 0 ppm BZ
Soil Sample:
NLF02M0CS2N (4.0' - 4.5')
Hit refusal with drive sampler.
Filter pack sand (#0/30) interval: 4.5' - 18.0'

PVC (0.01" slot) screen interval: 7.1' - 17.1'

LEL = 0%
0 ppm BH; 0 ppm BZ

****NOTES****
PPM = parts per million
BH = at the borehole
BZ = in the breathing zone

RADIAN CORPORATION

MWCx07

Monitering Well #: **NLF02M0C**

Page 2 of 2

LOG OF DRILLING OPERATIONS

PROJECT **North Operable Unit** LOCATION **Travis AFB, Fairfield CA**

Depth Below Surface (ft)

Lithologic Description

Color, Texture, Moisture, etc.

Graphic Log

Elevation (ft MSL)

Drilling Notes/Well Details

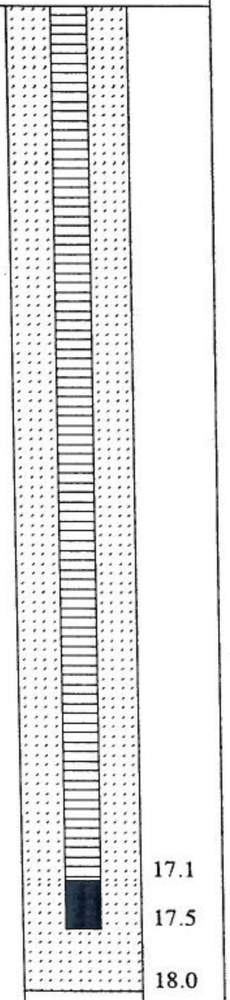
Depth Below Surface (ft): 10, 11, 12, 13, 14, 15, 16, 17, 18

Elevation (ft MSL): 61, 60, 59, 58, 57, 56, 55, 54

NO RECOVERY

LEL = 94%
0 ppm BH; 0 ppm BZ
Stop drilling 7/13/94
Resume drilling 7/14/94

Bottom of end cap:
17.5'
0 ppm BH; 0 ppm BZ
LEL = 0%
Total Depth = 18.0'



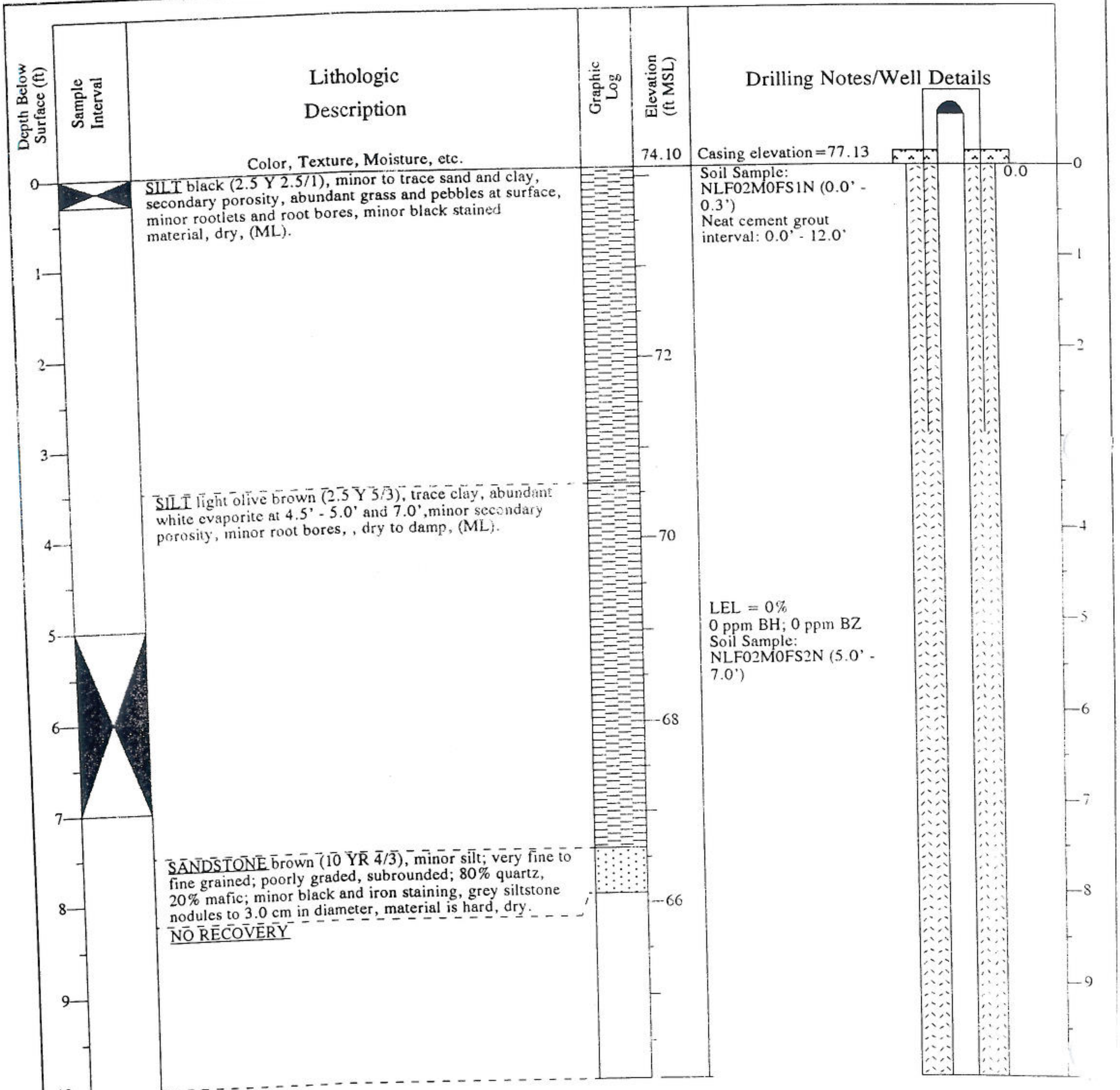
RADIAN
CORPORATION

MWFx07

LOG OF DRILLING OPERATIONS

Monitoring Well #: **NLF02M0F**
Page 1 of 3

PROJECT **North Operable Unit** LOCATION **Travis AFB, Fairfield CA**
TOTAL DEPTH **30.00** START DATE **6/30/94** FINISH DATE **7/14/94**
GEOLOGIST **D.S. Wright** APPROVED BY Steven P. R.G.# 6130
DRILLING COMPANY **Water Development Corp** DRILLER **Gary Whitely**
DRILLING METHOD **Hollow Stem Auger** EQUIPMENT **CME 75**
DRILL BIT TYPE AND SIZE **Bullet/8" Diameter**
BORING LOCATION (ST. ADDRESS OR DESCRIPTION) **Approximately 800' North and 50' West of Southeast corner of the NOU Boundary**



Lithologic Description

Color, Texture, Moisture, etc.

SILT black (2.5 Y 2.5/1), minor to trace sand and clay, secondary porosity, abundant grass and pebbles at surface, minor rootlets and root bores, minor black stained material, dry, (ML).

SILT light olive brown (2.5 Y 5/3), trace clay, abundant white evaporite at 4.5' - 5.0' and 7.0',minor secondary porosity, minor root bores, , dry to damp, (ML).

SANDSTONE brown (10 YR 4/3), minor silt; very fine to fine grained; poorly graded, subrounded; 80% quartz, 20% mafic; minor black and iron staining, grey siltstone nodules to 3.0 cm in diameter, material is hard, dry.

NO RECOVERY

Drilling Notes/Well Details

Casing elevation=77.13

Soil Sample:
NLF02M0FS1N (0.0' - 0.3')
Neat cement grout interval: 0.0' - 12.0'

LEL = 0%
0 ppm BH; 0 ppm BZ
Soil Sample:
NLF02M0FS2N (5.0' - 7.0')

NOTES
PPM = parts per million
BH = at the Borehole
BZ = in the Breathing Zone

RADIAN
CORPORATION

MWFx07

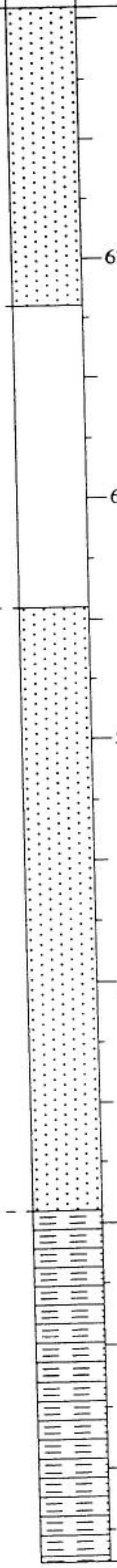
LOG OF DRILLING OPERATIONS

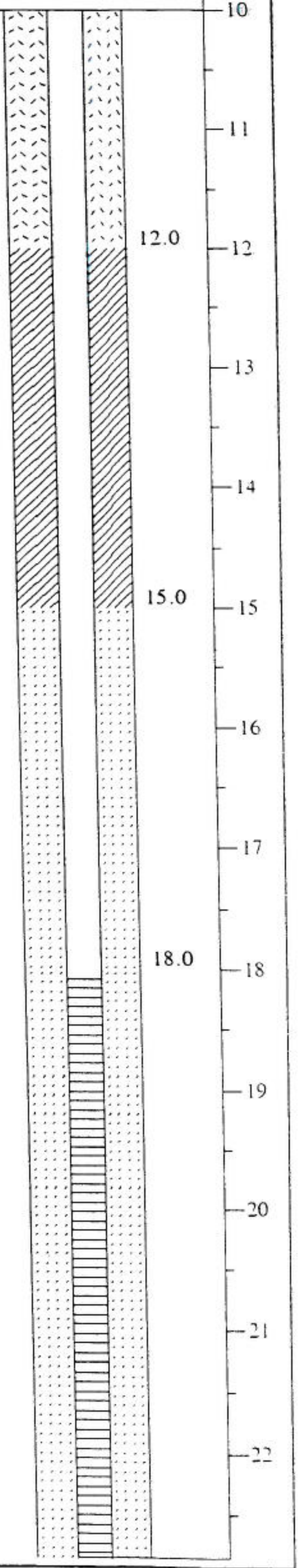
Monitoring Well #: **NLF02M0F**

Page 2 of 3

PROJECT **North Operable Unit** LOCATION **Travis AFB, Fairfield CA**

Depth Below Surface (ft)	Sample Interval	Lithologic Description Color, Texture, Moisture, etc.	Graphic Log	Elevation (ft MSL)	Drilling Notes/Well Details
10		SANDSTONE brown (10 YR 4/3) minor silt; very fine and fine grained; poorly graded, subrounded; 80% quartz, 20% mafic; minor black and iron staining, grey siltstone nodules to 3.0 cm in diameter, dry.			LEL = 0% 0 ppm BH; 0 ppm BZ
11					
12				62	Bentonite seal interval: 12.0' - 15.0'
		NO RECOVERY			
13					
14				60	
15		SANDSTONE brown (10 YR 4/3) minor silt; very fine and fine grained; poorly graded, subrounded; 80% quartz, 20% mafic; minor black and iron staining, grey siltstone nodules to 3.0 cm in diameter, dry.			LEL = 2% 3 ppm BH; 0 ppm BZ Filter pack sand (#0/30) interval: 15.0' - 29.0'
16				58	
17					
18				56	PVC (0.01" slot) screen interval: 18.0' - 28.0'
19					
20		SILTSTONE grey (2.5 Y 5/1), no secondary porosity, abundant iron staining, minor to moderate black staining, moderately indurated, slightly fissile, dry (moist to wet 20.0' - 21.0').		54	LEL = 0% 0 ppm BH; 0 ppm BZ Stop drilling 6/30/94 Resume drilling 7/13/94
21					
22				52	





MWFx07

RADIAN CORPORATION

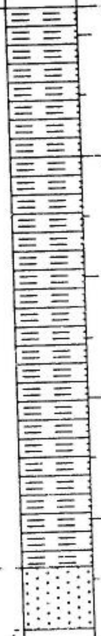
Monitoring Well #: **NLF02M0F**

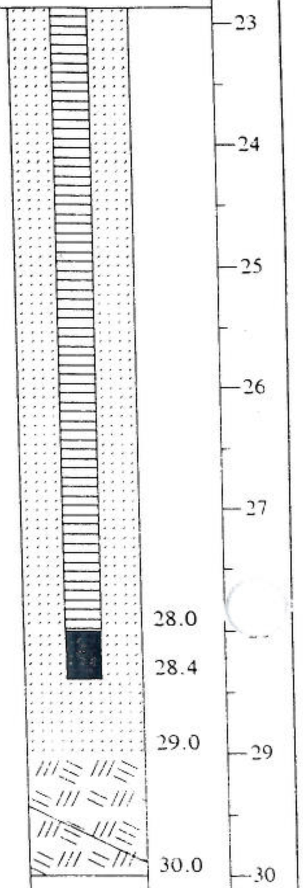
Page 3 of 3

LOG OF DRILLING OPERATIONS

PROJECT **North Operable Unit** LOCATION **Travis AFB, Fairfield CA**

Depth Below Surface (ft)	Sample Interval	Lithologic Description Color, Texture, Moisture, etc.	Graphic Log	Elevation (ft MSL)	Drilling Notes/Well Details
23					
24				50	
25					LEL = 0% 0 ppm BH; 0 ppm BZ
26				48	
27		SANDSTONE grayish brown (2.5 Y 5/2); very fine to fine grained; poorly sorted, subrounded grains; 90% quartz, 10% mafic; no secondary porosity, minor iron staining, dry.			
28		NO RECOVERY		46	LEL = 0% 0 ppm BH; 0 ppm BZ Bottom of end cap: 28.4'
29					Slough below well from 29.0' - 30.0' --->
30					LEL = 0% 0 ppm BH; 0 ppm BZ Total Depth = 30.0'





WESTON

DRILLING LOG

WELL NUMBER: MW-107
LOCATION: Storm Sewer Zone
Sewer Right of Way

SURFACE ELEVATION:
DRILLING COMPANY: Datum Exploration
DRILLER: A. Pratt

LOG BY: G. D. Witmer

OWNER: USAF (Travis)
ADDRESS: Fairfield, CA
94533
TOTAL DEPTH 41.5'
WATER LEVEL: 17.0'
DRILLING METHOD: Hollow Auger
DATE DRILLED: 12-18-84
HELPER: T. Condrey

SKETCH MAP

NOTES

DEPTH (FEET)	HNU OVA	SAMPLE NUMBER	% RECOVERY	SAMPLE BLOWS*		DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
0	0	1	70	2 5 9	0-1.5'	Very dark gray (10 yr 3/1) sandy SILT loam, high in organics with some clay, grading to silty CLAY.
		2	70	9 13 17	6.5-8.0'	Very dark grayish brown (10 yr 3/2) silty CLAY with trace very fine sand, cohesive, ribbons nicely, moist.
0	0	3	100	3 3 3	11.5-13.0'	Light yellowish brown (10 yr 6/4) sandy CLAY, very moist, ribbons slightly.
		4	100	3 4 7	16.5-18.0'	Light yellowish brown (10 yr 6/4) sandy CLAY grading to clayey SAND.
20	0	5	100	5 5 11	21.5-23.0'	Dark grayish brown (10 yr 4/2) clayey SAND, medium texture, very wet, mottled.
		6	100	5 12 50	26.5-28.0'	Dark grayish brown (10 yr 4/2) & gray (10 yr 5/1) clayey SAND grading to dense, dry and crumbly CLAY with mottles.
30	0	7	10	50/ 1"	31.5-33.0'	Gray (10 yr 5/1) medium texture SAND, grading to dense dry CLAY, platy structure.
		8	10	70/ 1"	36.5-38.0	Gray (10 yr 5/1) hard shaley CLAY, blue tint, platy structure.
		9	30	8,35 50/2"	41.5-43.0'	Grey (10 yr 5/1) dense CLAY moist but crumbly, bluish, multi-colored.
40						

* A.S.T.M. D1586

SHEET 1 OF 1

-End of Boring-

B-477

WESTON

DRILLING LOG

WELL NUMBER: MW-111
LOCATION: Storm Sewer Zone
Sewer Right of Way
SURFACE ELEVATION:
DRILLING COMPANY: Datum Exploration
DRILLER: A. Pratt
LOG BY: G. D. Witmer

OWNER: USAF (Travis)
ADDRESS: Fairfield, CA
94533
TOTAL DEPTH: 36.5'
WATER LEVEL: 15.0'
DRILLING METHOD: Hollow Auger
DATE DRILLED: 12-20-84
HELPER: T. Condrey

SKETCH MAP

NOTES

DEPTH (FEET)	HNU / OVA	SAMPLE NUMBER	% RECOVERY	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
0	75	1	100	7 7 7	0-1.5' Dark grayish brown (10 yr 4/2) clayey SILT loam with some fine sands, high organics.
	0	2	100	15 13 15	6.5-8.0' Brownish yellow (10 yr 6/6) silty CLAY crumb structure, cohesive, ribbons nicely.
10	0	3	20	2 7 9	11.5-13.0' Brownish yellow (10 yr 6/6) silty CLAY, crumb structure, moist, ribbons, faint mottles.
	0	4	100	7 8 11	16.5-18.0' Dark yellowish brown (10 yr 4/6) silty fine SAND with some clay, will not ribbon, mottles, moist, crumbly.
20	0	5	100	5 19 25	21.5-23.0' Dark yellowish brown (10 yr 4/6) Med. Texture SAND, some clay, moist, will not ribbon but is cohesive.
	0	6	100	14 15 20	26.5-28.0' Dark yellowish brown (10 yr 4/6) Med. textured SAND with some clay. Will not ribbon, moist.
30	5	7	50	7 25 48	31.5-33.0' Gray (10 yr 6/1) dense, platy, dry, crumbly CLAY
	0	8	70	44 20/3"	36.5-38.0' Gray (10 yr 6/1) dry, platy, dense, CLAY, bluish tint.
					- End of Boring -

* A S T M D1586

SHEET 1 OF 1

WESTON

DRILLING LOG

WELL NUMBER: MW-112
LOCATION: Storm Sewer Zone
SURFACE ELEVATION:
DRILLING COMPANY: Datum Exploration
DRILLER:
LOG BY: B. Benyish

OWNER: USAF (Travis)
ADDRESS: Fairfield, CA
94533
TOTAL DEPTH: 33.5'
WATER LEVEL: 14.0'
DRILLING METHOD: Hollow Auger
DATE DRILLED: 12-20-84
HELPER:

SKETCH MAP

NOTES

DEPTH (FEET)	HNU OVA	SAMPLE NUMBER	% RECOVERY	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
0		1		3 4 4	0-1.5' Very dark grayish brown (10 yr 3/2) silty CLAY highly plastic moist, slight fuel smell.
	1	2		3 5 6	8.5-10' Dark yellowish brown (10 yr 4/6) silty CLAY highly plastic moist, tr. sand with some black streaks, faint mottles.
10					
	1	3		7 8 13	13.5-15' Dark, yellowish brown (10 yr 4/6) clayey SILT. low plasticity, mottled, saturated.
20	1	4		3 6 6	18.5-20.0' Dark yellowish brown (10 yr 4/4) fine sandy SILT, some clay low plasticity, saturated.
	1	5	100	14 10 11	23.5-25.0' Dark yellowish brown (10 yr 4/4) clayey fine SAND, moist to wet, low plasticity, some fine sand.
30	1	6	100	7 10 14	28.5-30.0' Pale olive (5 y 6/3) silty CLAY, highly plastic, moist, rust brown fine sand.
	0	7	100	18 21 40	33.5-35.0' Dark gray (5 y 4/1) clay, highly plastic, dry to moist, brown silty clay.
					- End of Boring -
40					

* A S T M D1586

SHEET 1 OF 1

Borehole Log

CLIENT : TRAVIS AFB
SITE NAME : SSRW
WELL ID : 17-0246
NORTHING : 216328.8562 surveyed
EASTING : 2019943.0070 surveyed
ELEVATION : 47.800 surveyed

TOTAL DEPTH : 21.50
LOGGER : MARK DOMINICK
DRILLING COMPANY : WDC
DRILLING RIG : CME 750 (HSA)
DATE STARTED : 04/15/91
DATE COMPLETED : 04/15/91

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
			100	Lean clay with sand, CL	DARK BROWN	STF	DRY	6 10 14 0	OVM 0.0	FEW ROOTS PRESENT. 10YR - 3/3.
46	1									
				Interval Not Sampled						
45	2									
44	3									
43	4									
			100	Lean clay, CL	V DARK BROWN	STF	DRY	4 6 11 0	OVM 0.0	10YR - 2/2.
42	5									
41	6									
				Interval Not Sampled						
40	7									
39	8									
38	9									
37	10		100	Lean clay, CL	DARK GREY	STF	DRY	5 8 13 0	OVM 0.0	IRON OXIDES PRESENT. 10YR - 4/1.

Borehole Log

ROY F. WESTON, Inc.

CLIENT : TRAVIS AFB
SITE NAME : SSRW
WELL ID : 17-0246
NORTHING : 216328.8562 surveyed
EASTING : 2019943.0070 surveyed
ELEVATION : 47.800 surveyed

TOTAL DEPTH : 21.50
LOGGER : MARK DOMINICK
DRILLING COMPANY : WDC
DRILLING RIG : CME 750 (HSA)
DATE STARTED : 04/15/91
DATE COMPLETED : 04/15/91

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
		▨		Lean clay, CL	DARK GREY	STF	DRY		OVM 0.0	IRON OXIDES PRESENT. 10YR - 4/1.
36	11	▨								
				Interval Not Sampled						
35	12									
34	13									
33	14									
32	15	▨	100	Lean clay, CL	DARK GREY	FRM	MST	3 3 5 0	OVM 0.0	IRON OXIDES PRESENT. 10YR - 4/1.
31	16	▨								
				Interval Not Sampled						
30	17									
29	18									
28	19									
27	20		100	Sandy lean clay, CL	DK YEL. BROWN	NA	SAT		OVM 0.0	10YR - 3/4.

Borehole Log

ROY F. WESTON, Inc.

CLIENT : TRAVIS AFB
SITE NAME : SSRW
WELL ID : 17-0246
NORTHING : 216328.8562 surveyed
EASTING : 2019943.0070 surveyed
ELEVATION : 47.800 surveyed

TOTAL DEPTH : 21.50
LOGGER : MARK DOMINICK
DRILLING COMPANY : WDC
DRILLING RIG : CME 750 (HSA)
DATE STARTED : 04/15/91
DATE COMPLETED : 04/15/91

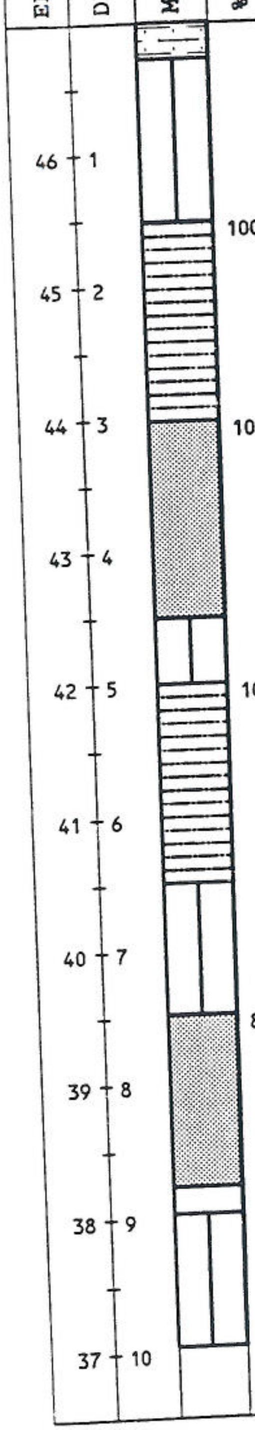
ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
		▨		Sandy lean clay, CL	DK YEL. BROWN	NA	SAT		OVM 0.0	10YR - 3/4.
26	21	▨								
25	22									
24	23									
23	24									
22	25									
21	26									
20	27									
19	28									
18	29									
17	30									

Borehole Log

Roy F. WESTON, Inc.

CLIENT : TRAVIS- RND 7 (93-94)
SITE NAME : STORM SEWER RIGHT OF WAY
WELL ID : 17-1012
NORTHING : 216216.5300 surveyed
EASTING : 2020113.1900 surveyed
ELEVATION : 47.800 surveyed

TOTAL DEPTH : 22.50
LOGGER : D. MARKS
DRILLING COMPANY : LAYNE WESTERN
DRILLING RIG : FAILING F-10
DATE STARTED : 12/15/93
DATE COMPLETED : 12/15/93

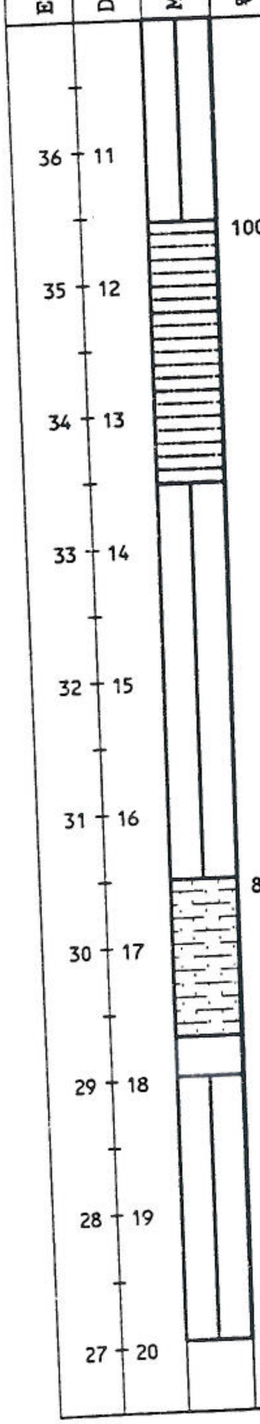


ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Silt with sand, ML	DK GRAY	SFT	SAT		HNU 0.0	10 YR 3/1
				Interval Not Sampled						
			100	Elastic silt, MH	DK YELLOW BROWN	FRM	DRY	7 15 20 0	HNU 0.0	10 YR 3/4
			100	Lean clay, CL	DK YELLOW BROWN	STF	DRY	23 37 50 0	HNU 0.0	10 YR 4/6
				Interval Not Sampled						
			100	Silt, ML	DK YELLOW BROWN	FRM	DRY	22 30 36 0	HNU 0.0	10 YR 4/4
				Interval Not Sampled						
			86	Lean clay, CL	DK YELLOW BROWN	FRM	DRY	13 22 29 0	HNU 0.0	10 YR 4/4
				No Sample Recovered						
				Interval Not Sampled						

Borehole Log

CLIENT : TRAVIS- RND 7 (93-94)
SITE NAME : STORM SEWER RIGHT OF WAY
WELL ID : 17-1012
NORTHING : 216216.5300 surveyed
EASTING : 2020113.1900 surveyed
ELEVATION : 47.800 surveyed

TOTAL DEPTH : 22.50
LOGGER : D. MARKS
DRILLING COMPANY : LAYNE WESTERN
DRILLING RIG : FAILING F-10
DATE STARTED : 12/15/93
DATE COMPLETED : 12/15/93



% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
	Interval Not Sampled						
100	Silt, ML	OLIVE	FRM	WET	12 16 20 22	HNU 475.0	5 Y 5/3. 1645
	Interval Not Sampled						
80	Sandy silt, ML	DK YLLWSH BROWN	SFT	MST	10 12 15 0	HNU 4.0	10 YR 4/6. Sand is very fine. Some black deposit.
	No Sample Recovered						
	Interval Not Sampled						

Borehole Log

CLIENT : TRAVIS- RND 7 (93-94)
SITE NAME : STORM SEWER RIGHT OF WAY
WELL ID : 17-1012
NORTHING : 216216.5300 surveyed
EASTING : 2020113.1900 surveyed
ELEVATION : 47.800 surveyed

TOTAL DEPTH : 22.50
LOGGER : D. MARKS
DRILLING COMPANY : LAYNE WESTERN
DRILLING RIG : FAILING F-10
DATE STARTED : 12/15/93
DATE COMPLETED : 12/15/93

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Interval Not Sampled						
26	21		100	Sandy elastic silt, MH	YELLOWISH BROWN	FRM	SAT	8 12 15 0	HNU 0.5	10 YR 5/8. Sand is very fine.
25	22									
24	23									
23	24									
22	25									
21	26									
20	27									
19	28									
18	29									
17	30									

Borehole Log

Roy F. WESTON, Inc.

CLIENT : TRAVIS- RND 7 (93-94)
SITE NAME : STORM SEWER RIGHT OF WAY
WELL ID : 17-1013
NORTHING : 216404.5200 surveyed
EASTING : 2019984.1800 surveyed
ELEVATION : 47.600 surveyed

TOTAL DEPTH : 21.00
LOGGER : D. MARKS
DRILLING COMPANY : LAYNE WESTERN
DRILLING RIG :
DATE STARTED : 12/15/93
DATE COMPLETED : 12/15/93

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Silt, ML	DK GRAY	SFT	SAT		HNU 0.0	10 YR 3/1, Soil saturated from previous nights rain
				Interval Not Sampled						
46	1									
			100	Elastic silt, MH	DK YLLWSH BROWN	FRM	MST	8 16 18 0	HNU 0.0	10 YR 3/4
45	2									
44	3			Interval Not Sampled						
43	4									
42	5		66	Fat clay, CH	V DK GRYSH BRN	FRM	MST	6 11 15 0	HNU 0.0	10 YR 3/2
41	6			No Sample Recovered						
				Interval Not Sampled						
40	7									
39	8									
38	9		66	Elastic silt, MH	V DK GRYSH BRN	FRM	MST	7 11 19 0	HNU 0.0	2.5 Y 3/2
37	10									

Borehole Log

Roy F. WESTON, Inc.

CLIENT	:	TRAVIS- RND 7 (93-94)	TOTAL DEPTH	:	21.00
SITE NAME	:	STORM SEWER RIGHT OF WAY	LOGGER	:	D. MARKS
WELL ID	:	17-1013	DRILLING COMPANY	:	LAYNE WESTERN
NORTHING	:	216404.5200 surveyed	DRILLING RIG	:	
EASTING	:	2019984.1800 surveyed	DATE STARTED	:	12/15/93
ELEVATION	:	47.600 surveyed	DATE COMPLETED	:	12/15/93

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
		▤		Elastic silt, MH	V DK GRYSH BRN	FRM	MST		HNU 0.0	2.5 Y 3/2
		▤	100	Elastic silt, MH	DK OLIVE GRAY	FRM	DRY	12 14 25 0	HNU 0.0	5 Y 3/2. Gypsum nodules.
36	11	▤								
35	12	▒	100	Lean clay, CL	OLIVE GRAY	SFT	MST	5 8 10 0	HNU 80.0	5 Y 4/2
34	13	▒								
				Interval Not Sampled						
33	14									
32	15	▒	100	Fat clay, CH	DK GRN-GRY	SFT	WET	7 7 8 0	HNU 250.0	5 BG 4/1
31	16	▒								
				Interval Not Sampled						
30	17									
29	18									
28	19	▤	100	Elastic silt, MH	GRY YLLWSH BRN	SFT	MST	4 4 8 0	HNU 7.0	5 Y 5/1, 10 YR 5/6. Trace rock frags. (black).
27	20	▤								

Borehole Log

CLIENT	:	TRAVIS- RND 7 (93-94)	TOTAL DEPTH	:	21.00
SITE NAME	:	STORM SEWER RIGHT OF WAY	LOGGER	:	D. MARKS
WELL ID	:	17-1013	DRILLING COMPANY	:	LAYNE WESTERN
NORTHING	:	216404.5200 surveyed	DRILLING RIG	:	
EASTING	:	2019984.1800 surveyed	DATE STARTED	:	12/15/93
ELEVATION	:	47.600 surveyed	DATE COMPLETED	:	12/15/93

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Elastic silt, MH	GRY YLLWSH BRN	SFT	MST		HNU 7.0	5 Y 5/1, 10 YR 5/6. Trace rock frags. (black).
				Interval Not Sampled						
26	21									
25	22									
24	23									
23	24									
22	25									
21	26									
20	27									
19	28									
18	29									
17	30									

Borehole Log

Roy F. WESTON, Inc.

CLIENT : TRAVIS- RND 7 (93-94)
SITE NAME : STORM SEWER RIGHT OF WAY
WELL ID : 17-1020
NORTHING : 216218.1300 surveyed
EASTING : 2020040.8600 surveyed
ELEVATION : 47.700 surveyed

TOTAL DEPTH : 21.00
LOGGER : B. JAKUB
DRILLING COMPANY : LAYNE WESTERN
DRILLING RIG : MOBILE B61
DATE STARTED : 12/16/93
DATE COMPLETED : 12/16/93

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Interval Not Sampled						
46	1									
			100	Silt with sand, ML	BROWN	STF	DRY	18 20 20 0	HNU 0.0	10 YR 4/3
45	2									
44	3			Interval Not Sampled						
43	4									
42	5		100	Silt with sand, ML	DK YLWSH BRN,BL	FRM	MST	10 16 24 0	HNU 0.0	10 Y 4/4. Black spots.
41	6									
				Interval Not Sampled						
40	7									
39	8									
38	9		100	Silt, ML	YELLOWISH BROWN	SFT	MST	3 6 9 0	HNU 0.0	10 YR 5/6. Greener at base, mottled throughout (mottled blue green at base).
37	10									

Borehole Log

Roy F. WESTON, Inc.

CLIENT : TRAVIS- RND 7 (93-94)
SITE NAME : STORM SEWER RIGHT OF WAY
WELL ID : 17-1020
NORTHING : 216218.1300 surveyed
EASTING : 2020040.8600 surveyed
ELEVATION : 47.700 surveyed

TOTAL DEPTH : 21.00
LOGGER : B. JAKUB
DRILLING COMPANY : LAYNE WESTERN
DRILLING RIG : MOBILE B61
DATE STARTED : 12/16/93
DATE COMPLETED : 12/16/93

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Silt, ML	YELLOWISH BROWN	SFT	MST		HNU 0.0	10 YR 5/6. Greener at base, mottled throughout (mottled blue green at base).
			100	Sandy silt, ML	OLV BRN,D GN GY	FRM	MST	5 10 14 0	HNU 0.0	2.5 Y 4/4, 5 G 4/1. Coarsens downward black sand grains.
36	11									
35	12		100	Silty sand, SM	OLIVE GRAY	FRM	MST	5 8 20 0	HNU 140.0	5 Y 4/2
34	13									
				Interval Not Sampled						
33	14									
32	15			Silty sand, SM	OLIVE GRAY	LSE	SAT	4 5 8 0		5 Y 4/2, 2.5 Y 5/3. Clay lens at 16 feet. Soil less stained in last .2 ft.
31	16									
				Interval Not Sampled						
30	17									
29	18									
28	19		100	Elastic silt with sand, MH	LT OLIVE BROWN	SFT	WET	5 6 6 0		2.5 Y 5/4. 1/2 inch thick sand lense at 19.5. Clay lense (3 inches) with carbon stringers below.
27	20									

Borehole Log

CLIENT	TRAVIS- RND 7 (93-94)	TOTAL DEPTH	21.00
SITE NAME	STORM SEWER RIGHT OF WAY	LOGGER	B. JAKUB
WELL ID	17-1020	DRILLING COMPANY	LAYNE WESTERN
NORTHING	216218.1300 surveyed	DRILLING RIG	MOBILE B61
EASTING	2020040.8600 surveyed	DATE STARTED	12/16/93
ELEVATION	47.700 surveyed	DATE COMPLETED	12/16/93

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Elastic silt with sand, MH	LT OLIVE BROWN	SFT	WET			2.5 Y 5/4. 1/2 inch thick sand lense at 19.5. Clay lense (3 inches) with carbon stringers below.
				Interval Not Sampled						
26	21									
25	22									
24	23									
23	24									
22	25									
21	26									
20	27									
19	28									
18	29									
17	30									

Borehole Log

CLIENT : TRAVIS AFB
SITE NAME : MW-246 AREA
WELL ID : 17-1024
NORTHING : 216208.4100 surveyed
EASTING : 2019827.8200 surveyed
ELEVATION : 47.420 surveyed

TOTAL DEPTH : 28.00
LOGGER : MARK DOMINICK/WESTON
DRILLING COMPANY : WEST HAZMAT
DRILLING RIG : MOBILE DRILL B-61
DATE STARTED : 08/18/94
DATE COMPLETED : 08/19/94

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Silty sand, SM	BROWN	LSE	DRY		HNU 0.0	10YR5/3
46	1									
			100	Silt with sand, ML	YEL BROWN	FRM	DRY	12 17 24 20	HNU 0.0	10YR5/6
45	2									
44	3									
			100	Lean clay with sand, CL	GRAY	FRM	DRY	23 25 27 21		10YR5/1
43	4									
42	5									
				Interval Not Sampled						
41	6									
40	7									
			100	Elastic silt, MH	DK GRY BROWN	FRM	MST	8 17 21 28	HNU 0.0	10YR4/2
39	8									
38	9									
				Elastic silt, MH	DK YEL BROWN	FRM	MST	6 12 15 23	HNU 0.0	10YR4/4
37	10									

Borehole Log

Roy F. WESTON, Inc.

CLIENT : TRAVIS AFB
SITE NAME : MW-246 AREA
WELL ID : 17-1024
NORTHING : 216208.4100 surveyed
EASTING : 2019827.8200 surveyed
ELEVATION : 47.420 surveyed

TOTAL DEPTH : 28.00
LOGGER : MARK DOMINICK/WESTON
DRILLING COMPANY : WEST HAZMAT
DRILLING RIG : MOBILE DRILL B-61
DATE STARTED : 08/18/94
DATE COMPLETED : 08/19/94

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Elastic silt, MH	DK YEL BROWN	FRM	MST		HNU 0.0	10YR4/4
36	11									
35	12			Interval Not Sampled						
34	13		100	Fat clay, CH	DK YEL BROWN	FRM	MST	3 7 9 10	HNU 0.0	10YR4/4
33	14									
32	15			Lean clay with sand, CL	DK YEL BROWN	SFT	WET	3 5 6 9	HNU 0.0	10YR4/4
31	16									
30	17			Interval Not Sampled						
29	18		100	Silt with sand, ML	DK YEL BROWN	SFT	SAT	2 4 5 8	HNU 0.0	10YR4/4
28	19									
27	20			Interval Not Sampled						

Borehole Log

CLIENT : TRAVIS AFB
SITE NAME : MW-246 AREA
WELL ID : 17-1024
NORTHING : 216208.4100 surveyed
EASTING : 2019827.8200 surveyed
ELEVATION : 47.420 surveyed

TOTAL DEPTH : 28.00
LOGGER : MARK DOMINICK/WESTON
DRILLING COMPANY : WEST HAZMAT
DRILLING RIG : MOBILE DRILL B-61
DATE STARTED : 08/18/94
DATE COMPLETED : 08/19/94

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Interval Not Sampled						
26	21		100	Silty sand, SM	DK YEL BROWN	SFT	SAT	3 5 5 5	HNU 0.0	2.5Y4/2
25	22									
24	23		100	Silty sand, SM	DK YEL BROWN	SFT	SAT	3 8 20 20	HNU 0.0	10YR4/4
23	24									
22	25			Interval Not Sampled						
21	26		100	Silty sand, SM	DK YEL BROWN	SFT	SAT	2 7 12 17	HNU 0.0	10YR4/4
20	27									
				Fat clay, CH	GRAY	STF	MST		HNU 0.0	10YR5/1; END 17-1024 AT 28 FEET
19	28									
18	29									
17	30									

Borehole Log

Roy F. WESTON, Inc.

CLIENT : TRAVIS AFB
SITE NAME : MW-246 AREA
WELL ID : 17-1025
NORTHING : 216007.7100 surveyed
EASTING : 2020048.8300 surveyed
ELEVATION : 47.440 surveyed

TOTAL DEPTH : 25.00
LOGGER : MARK DOMINICK/WESTON
DRILLING COMPANY : WEST HAZMAT
DRILLING RIG : CME-75
DATE STARTED : 08/22/94
DATE COMPLETED : 08/22/94

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Silty gravel with sand, GM	GRY SL BROWN	LSE	DRY		HNU 0.0	10YR5/2
46	1									
			66	Lean clay, CL	DK GRAY	STF	MST	10 16 14 0	HNU 0.0	10YR4/1
45	2									
				No Sample Recovered						
44	3		66	Lean clay, CL	DK GRAY	STF	MST	10 16 14 0	HNU 0.0	10YR4/1
43	4			No Sample Recovered						
				Interval Not Sampled						
42	5									
			100	Silt with sand, ML	YEL BROWN	FRM	MST	6 11 21 0	HNU 0.0	10YR5/6
41	6									
40	7		100	Lean clay, CL	DK YEL BROWN	FRM	MST	6 12 13 0	HNU 0.0	
39	8									
				Interval Not Sampled						
38	9									
			100	Fat clay, CH	DK YEL BROWN	FRM	MST	7 8 11 0	HNU 0.0	10YR4/6
37	10									

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Borehole Log

CLIENT : TRAVIS AFB
SITE NAME : MW-246 AREA
WELL ID : 17-1025
NORTHING : 216007.7100 surveyed
EASTING : 2020048.8300 surveyed
ELEVATION : 47.440 surveyed

TOTAL DEPTH : 25.00
LOGGER : MARK DOMINICK/WESTON
DRILLING COMPANY : WEST HAZMAT
DRILLING RIG : CME-75
DATE STARTED : 08/22/94
DATE COMPLETED : 08/22/94

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Fat clay, CH	DK YEL BROWN	FRM	MST		HNU 0.0	10YR4/6
36	11		100	Lean clay with sand, CL	DK YEL BROWN	FRM	MST	7 13 16 0	HNU 0.0	10YR4/6
35	12									
				Interval Not Sampled						
34	13									
				No Sample Recovered				10 10 15 0	HNU 0.0	NO RECOVERY, SPLIT SPOON WAS WET
33	14									
32	15			Interval Not Sampled						
31	16		100	Lean clay with sand, CL	BROWN	FRM	SAT	9 14 18 0	HNU 0.0	10YR4/3
30	17									
				Interval Not Sampled						
29	18									
			100	Fat clay, CH	BROWN	FRM	WET	8 10 14 0	HNU 0.0	10YR4/3; SOIL APPEARS A BIT SANDIER AND SATURATED IN TOP 6 INCH OF SPOON
28	19									
27	20			Interval Not Sampled						

Borehole Log

Roy F. WESTON, Inc.

CLIENT : TRAVIS AFB
SITE NAME : MW-246 AREA
WELL ID : 17-1025
NORTHING : 216007.7100 surveyed
EASTING : 2020048.8300 surveyed
ELEVATION : 47.440 surveyed

TOTAL DEPTH : 25.00
LOGGER : MARK DOMINICK/WESTON
DRILLING COMPANY : WEST HAZMAT
DRILLING RIG : CME-75
DATE STARTED : 08/22/94
DATE COMPLETED : 08/22/94

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Interval Not Sampled						
26	21	▨	100	Lean clay, CL	YEL BROWN	STF	MST	7 14 22 0	HNU 0.0	10YR5/4
25	22	▨								
				Interval Not Sampled						
24	23									
		▨	100	Lean clay, CL	YEL BROWN	STF	MST	4 8 10 0	HNU 0.0	10YR5/4; END 17-1025 AT 25 FEET. WILL SCREEN FROM 14 TO 19 FEET. WILL USE 0.006 SLOT WITH 0/30 SAND
23	24	▨								
22	25									
21	26									
20	27									
19	28									
18	29									
17	30									

Borehole Log

Roy F. WESTON, Inc.

CLIENT : TRAVIS AFB
SITE NAME : MW-107 AREA
WELL ID : 17-1026
NORTHING : 217123.5500 surveyed
EASTING : 2019975.5700 surveyed
ELEVATION : 46.990 surveyed

TOTAL DEPTH : 24.00
LOGGER : KD HOLLIWAY/WESTON
DRILLING COMPANY : WEST HAZMAT
DRILLING RIG : CME-75
DATE STARTED : 08/30/94
DATE COMPLETED : 08/30/94

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
		▩		Fill					HNU 0.0	ASPHALT SURFACE
45	1									
		▤	60	Silty sand, SM	LT YEL BROWN	LSE	MST	12 17 20 0	HNU 0.0	2.5Y6/4, DARK YELLOW BROWN, OLIVE MOTTLING, MASSIVE
44	2									
43	3		70	Silty sand, SM	LT YEL BROWN	LSE	DRY	20 18 17 20	HNU 0.0	2.5Y6/4, DARK YELLOW BROWN, OLIVE MOTTLING
42	4	▒		Lean clay, CL	V DK GRAY	STF	DRY		HNU 0.0	10YR3/1
41	5	▒	93	Fat clay, CH	V DK GRAY	FRM	DRY	8 18 25 0	HNU 0.0	10YR3/1, LIGHT OLIVE, RUST MOTTLING, MASSIVE
40	6									
		▒	100	Fat clay, CH	V DK GRY BROWN	FRM	DRY	12 17 24 30	HNU 100.0	2.5Y3/2, DARK YELLOW BROWN, OLIVE GRAY MOTTLING, MASSIVE
39	7									
38	8									
		☐	26	No Sample Recovered				7 15 19 0	HNU 0.0	SLOUGH FROM ABOVE, SAND AND GRAVEL
37	9									
36	10		100	Lean clay, CL	OLV GRAY		MST	7 9 11 14	HNU 0.6	5Y4/2, RUST, OLIVE GRAY MOTTLING, MASSIVE

Borehole Log

CLIENT	: TRAVIS AFB		TOTAL DEPTH	:	24.00
SITE NAME	: MW-107 AREA		LOGGER	:	KD HOLLIWAY/WESTON
WELL ID	: 17-1026		DRILLING COMPANY	:	WEST HAZMAT
NORTHING	: 217123.5500 surveyed		DRILLING RIG	:	CME-75
EASTING	: 2019975.5700 surveyed		DATE STARTED	:	08/30/94
ELEVATION	: 46.990 surveyed		DATE COMPLETED	:	08/30/94

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
		▒		Lean clay, CL	OLV GRAY		MST		HNU 0.6	5Y4/2, RUST, OLIVE GRAY MOTTLING, MASSIVE
35	11	▒								
34	12	▤	100	Silt, ML	OLV GRAY	SFT	MST	7 9 11 0	HNU 0.0	5Y4/2, RUST, OLIVE GRAY MOTTLING, MASSIVE
33	13	▤								
		▤	100	Silty sand, SM	DK YEL BROWN	SFT	WET	8 11 15 18	HNU 0.0	10YR4/4, MASSIVE, BLACK FeO2 MOTTLING
32	14	▤								
31	15	▤								
		▤	100	Silty sand, SM	DK YEL BROWN	SFT	WET	7 11 15 0	HNU 0.0	10YR4/4, QUARTZ, FELDSPAR GRAINS, FeO2 MOTTLING, MASSIVE
30	16	▤								
29	17	▤	100	Silty sand, SM	DK YEL BROWN	SFT	SAT	11 16 27 30	HNU 0.0	10YR4/4, QUARTZ, FELDSPAR GRAINS, FINER DOWN CORE, 15% C/30% M/35% F
28	18	▤		Silty sand, SM	DK YEL BROWN	SFT	WET		HNU 0.0	
27	19	☐		Interval Not Sampled						
26	20									

Roy F. WESTON, Inc.

Borehole Log

CLIENT	:	TRAVIS AFB	TOTAL DEPTH	:	24.00
SITE NAME	:	MW-107 AREA	LOGGER	:	KD HOLLIWAY/WESTON
WELL ID	:	17-1026	DRILLING COMPANY	:	WEST HAZMAT
NORTHING	:	217123.5500 surveyed	DRILLING RIG	:	CME-75
EASTING	:	2019975.5700 surveyed	DATE STARTED	:	08/30/94
ELEVATION	:	46.990 surveyed	DATE COMPLETED	:	08/30/94

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Interval Not Sampled						
25	21									
24	22									
23	23									
22	24									
21	25									
20	26									
19	27									
18	28									
17	29									
16	30									

Borehole Log

Roy F. WESTON, Inc.

CLIENT : TRAVIS AFB
SITE NAME : MW-107 AREA
WELL ID : 17-1027
NORTHING : 217274.4200 surveyed
EASTING : 2019924.9800 surveyed
ELEVATION : 45.170 surveyed

TOTAL DEPTH : 18.00
LOGGER : KD HOLLIWAY/WESTON
DRILLING COMPANY : WEST HAZMAT
DRILLING RIG : CME-75
DATE STARTED : 08/23/94
DATE COMPLETED : 08/23/94

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
		▤		Silt, ML	BROWN	LSE	DRY		HNU 0.0	10YR5/3; HAND AUGER
44	1	▤								
		▤	80	Silt, ML	BROWN	STF	DRY	14 21 22 33	HNU 0.0	10YR5/3; CALICHE NODULES
		▤		Silt, ML	DK OLIVE GRAY	STF	DRY		HNU 150.0	5Y3/2; CALICHE
43	2	▤								
42	3	▤								
		▤	100	Silt, ML	DK OLIVE GRAY	STF	DRY	9 22 38 0	HNU 0.0	5Y3/2
41	4	▤								
		▤	80	Elastic silt, MH	DK OLIVE GRAY	STF	DRY	9 20 28 40	HNU 30.0	5Y3/2; MOTTLING - YELLOW BROWN
40	5	▤								
39	6	▤								
		▤	100	Elastic silt, MH	DK OLIVE GRAY	FRM	DRY	7 10 14 0	HNU 100.0	5Y3/2
38	7	▤								
37	8	▤								
		▒	100	Lean clay, CL	DK YEL BROWN	FRM	MST	9 7 12 20	HNU 30.0	10YR4/4; STAINING - OLIVE AND GRAY MOIST TO WET
36	9	▒								
35	10									

Roy F. WESTON, Inc.

Borehole Log

CLIENT : TRAVIS AFB
SITE NAME : MW-107 AREA
WELL ID : 17-1027
NORTHING : 217274.4200 surveyed
EASTING : 2019924.9800 surveyed
ELEVATION : 45.170 surveyed

TOTAL DEPTH : 18.00
LOGGER : KD HOLLIWAY/WESTON
DRILLING COMPANY : WEST HAZMAT
DRILLING RIG : CME-75
DATE STARTED : 08/23/94
DATE COMPLETED : 08/23/94

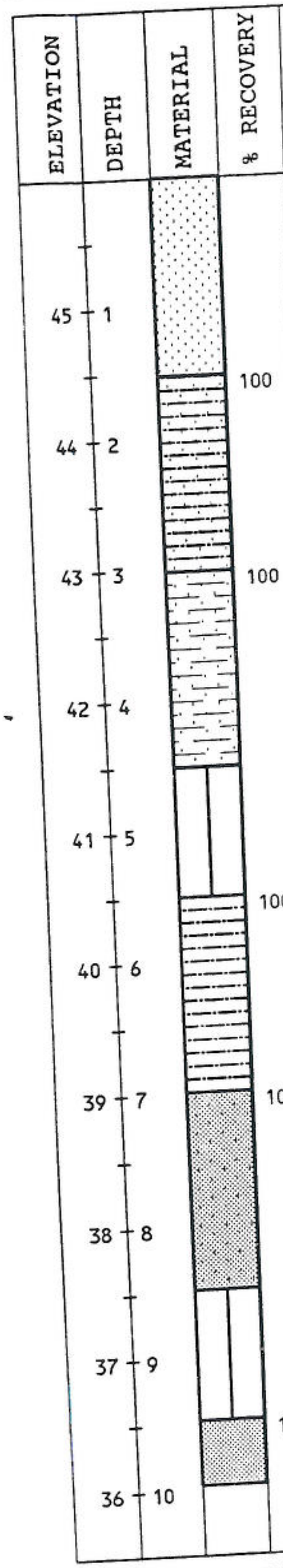
ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
				Lean clay, CL	DK YEL BROWN	FRM	MST		HNU 30.0	10YR4/4; STAINING - OLIVE AND GRAY MOIST TO WET
			100	Fat clay, CH	DK OLIVE GRAY	FRM	MST	9 10 12 16	HNU 125.0	5Y3/2; STAINED GRAY AND BLACK, HC ODOR
34	11			Silty sand, SM	DK YEL BROWN	SFT	SAT		HNU 0.0	10YR4/4; STAINING, SLIGHT GRAY, NO ODOR
33	12									
				Interval Not Sampled						
32	13									
31	14									
30	15			Silty sand, SM	DK YEL BROWN	SFT	WET	6 7 13 17	HNU 0.0	10YR4/4
			100	Silt, ML	DK YEL BROWN	SFT	WET			2.5Y4/2; 10YR4/4
29	16									
				Silty sand with gravel, SM	DK YEL BROWN	LSE	SAT		HNU 0.0	10YR4/4
28	17			Interval Not Sampled						
27	18									
26	19									
25	20									

Borehole Log

Roy F. WESTON, Inc.

CLIENT : TRAVIS AFB
SITE NAME : MW-107 AREA
WELL ID : 17-1028
NORTHING : 217133.6300 surveyed
EASTING : 2019860.7800 surveyed
ELEVATION : 46.730 surveyed

TOTAL DEPTH : 24.00
LOGGER : MARK DOMINICK
DRILLING COMPANY : WEST HAZMAT
DRILLING RIG : CME-75
DATE STARTED : 08/30/94
DATE COMPLETED : 08/31/94



% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
	Poorly graded sand, SP	BROWN	LSE	MST		HNU 0.0	10YR5/3
100	Silty sand, SM	GRAY	FRM	MST	8 10 11 0	HNU 0.0	10YR6/1
100	Silt with sand, ML	DK GRAY	FRM	MST	7 9 16 0	HNU 0.0	10YR4/1
	Interval Not Sampled						
100	Elastic silt, MH	V DK GRAY	STF	MST	6 8 10 0	HNU 20.0	10YR3/1
100	Lean clay with sand, CL	DK YEL BROWN	FRM	MST	6 10 12 0	HNU 5.0	10YR4/2
	Interval Not Sampled						
100	Fat clay, CH	BLACK	FRM	SAT	6 8 9 0	HNU 160.0	10YR2/1

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Borehole Log

Roy F. WESTON, Inc.

CLIENT : TRAVIS AFB
SITE NAME : MW-107 AREA
WELL ID : 17-1028
NORTHING : 217133.6300 surveyed
EASTING : 2019860.7800 surveyed
ELEVATION : 46.730 surveyed

TOTAL DEPTH : 24.00
LOGGER : MARK DOMINICK
DRILLING COMPANY : WEST HAZMAT
DRILLING RIG : CME-75
DATE STARTED : 08/30/94
DATE COMPLETED : 08/31/94

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
		▨		Fat clay, CH	BLACK	FRM	SAT		HNU 160.0	10YR2/1
35	11			No Sample Recovered				3 5 8 0		NO RECOVERY
34	12									
				Interval Not Sampled						
33	13									
		▨	100	Fat clay, CH	DK GRAY	FRM	SAT	4 8 11 0	HNU 1.0	10YR4/1
32	14									
31	15			Interval Not Sampled						
30	16									
29	17									
		▨	100	Fat clay, CH	DK YEL BROWN	FRM	SAT	5 9 14 0	HNU 0.0	
28	18									
27	19			Interval Not Sampled						
26	20		100	Lean clay, CL	DK YEL BROWN	FRM	SAT	4 8 10 0	HNU 0.0	10YR4/4

Roy F. WESTON, Inc.

Borehole Log

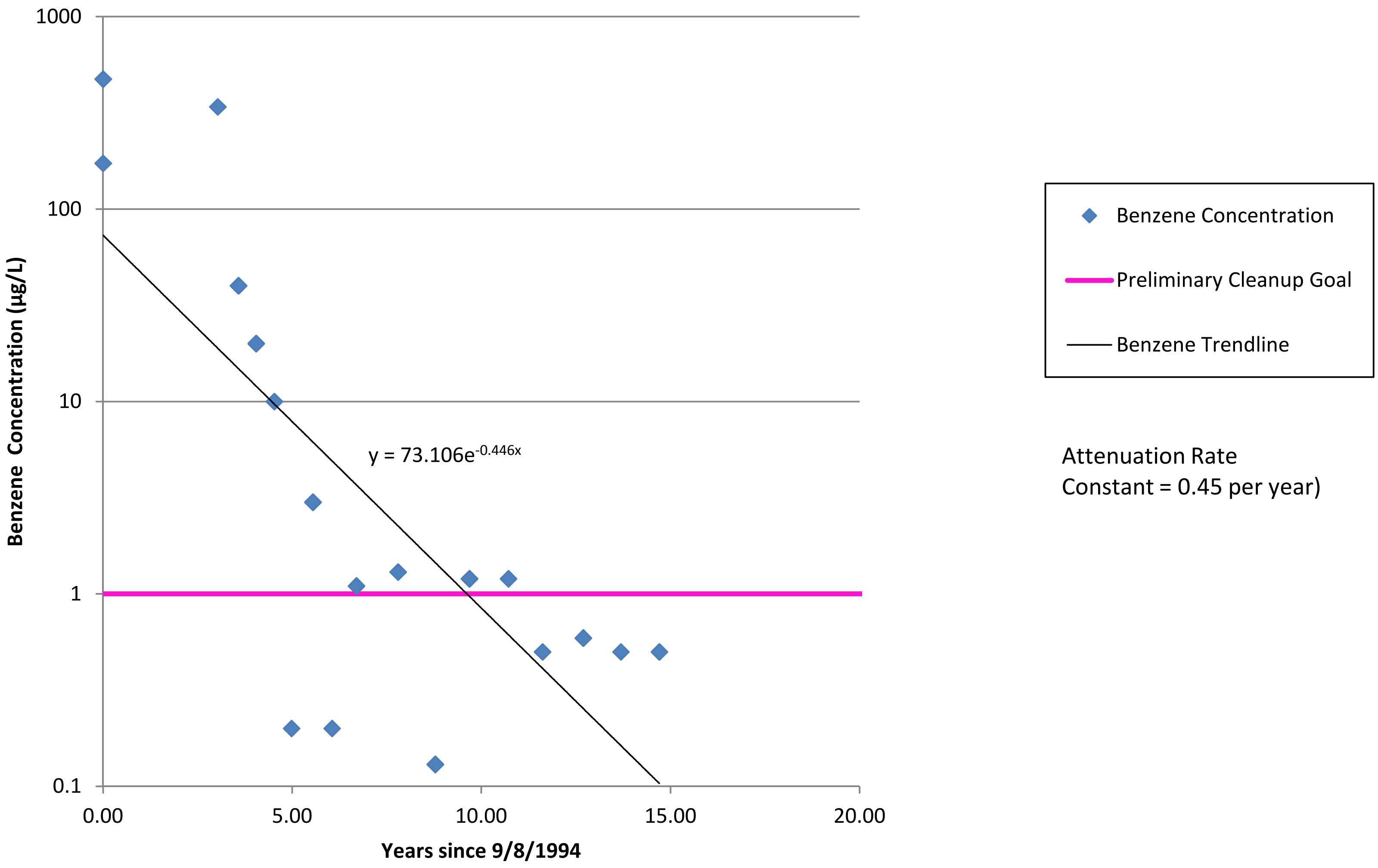
CLIENT : TRAVIS AFB
SITE NAME : MW-107 AREA
WELL ID : 17-1028
NORTHING : 217133.6300 surveyed
EASTING : 2019860.7800 surveyed
ELEVATION : 46.730 surveyed

TOTAL DEPTH : 24.00
LOGGER : MARK DOMINICK
DRILLING COMPANY : WEST HAZMAT
DRILLING RIG : CME-75
DATE STARTED : 08/30/94
DATE COMPLETED : 08/31/94

ELEVATION	DEPTH	MATERIAL	% RECOVERY	CLASSIFICATION	COLOR	STRENGTH	MOISTURE	BLOW COUNT	FIELD INSTRUMENT READING	COMMENTS
25	21			Lean clay, CL	DK YEL BROWN	FRM	SAT		HNU 0.0	10YR4/4
24	22			Interval Not Sampled						
23	23		100	Clayey sand, SC	DK YEL BROWN	SFT	SAT	4 12 14 0	HNU 0.0	
22	24			Lean clay, CL	DK YEL BROWN	FRM	MST		HNU 0.0	10YR4/4; END 17-1028 AT 24 FEET
21	25									
20	26									
19	27									
18	28									
17	29									
16	30									

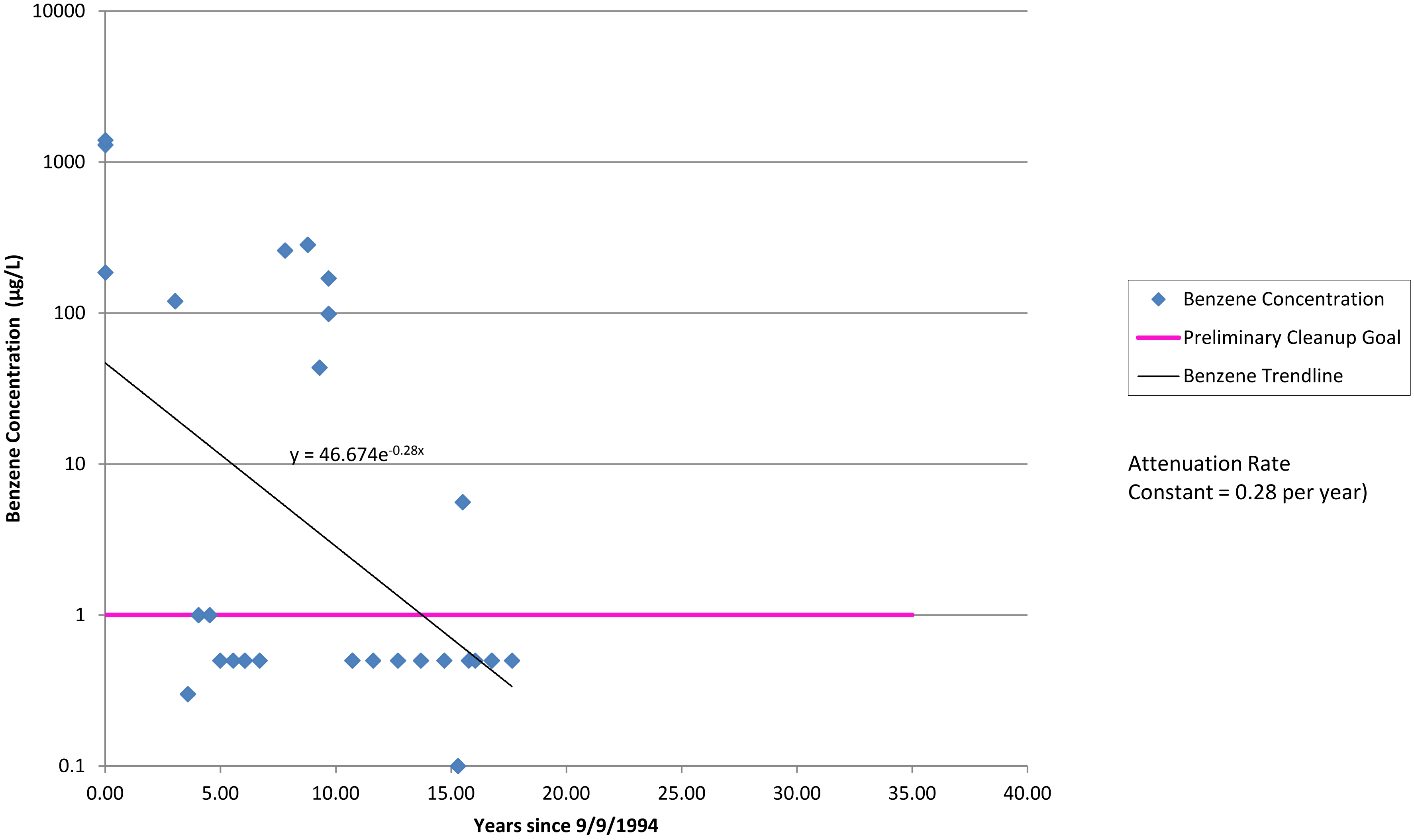
Attachment 6
Attenuation Rate Constants for Benzene at Wells MW1026x32 and MW1028x32 and 1,4-DCB at Well MW261x07

Attenuation Rate Constant for Benzene at Well MW1026x32



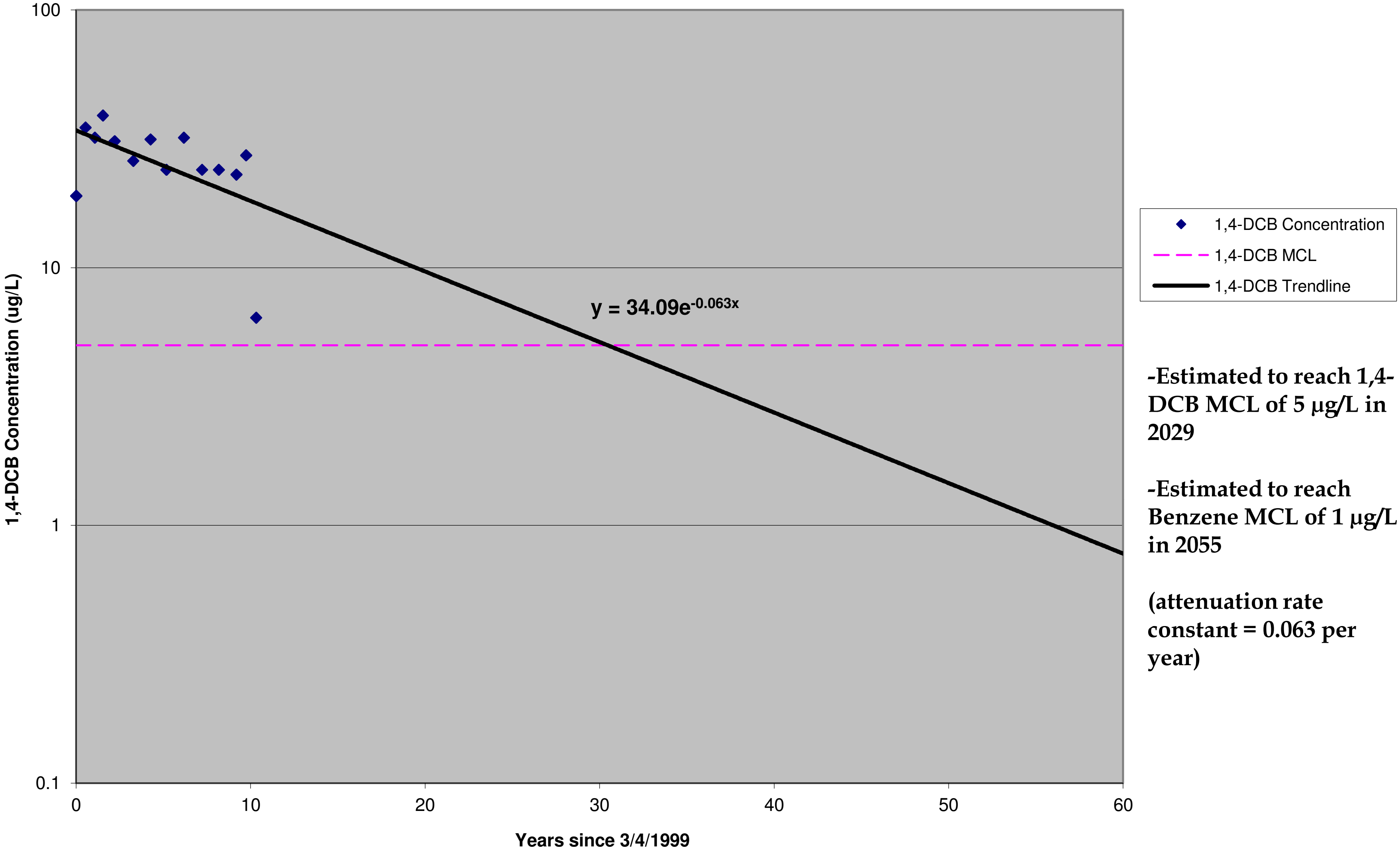
Attenuation Rate
Constant = 0.45 per year)

Attenuation Rate Constant for Benzene at Well MW1028x32



Attenuation Rate
Constant = 0.28 per year)

Concentration vs Time Attenuation Rate Constant MW261x07



-Estimated to reach 1,4-DCB MCL of 5 µg/L in 2029

-Estimated to reach Benzene MCL of 1 µg/L in 2055

(attenuation rate constant = 0.063 per year)

Attachment 7
Response to Comments

Responses to Comments on the Draft 2012 Groundwater Sampling and Analysis Program Technical Memorandum
Travis Air Force Base, California
EPA Region IX

No.	Comments	Responses
REVIEW COMMENTS – Nadia Hollan Burke, EPA Region IX dated October 23, 2012, with additional comments dated November 14, 2012		
GENERAL COMMENTS		
1.	A figure or plate should be provided that has the plume and well locations, as some of the information used to determine the sampling frequency of the wells is the proximity of the well to a plume. In order to evaluate the recommendation in the Tech Memo, please include a figure with the well and plume locations.	Plate 1 has been added to the technical memorandum. Plate 1 shows the names and location of all of the monitoring wells and 2011groundwater contaminant plumes for the primary site contaminants of concern are also shown. Plate 1 can be used to determine the location of the monitoring wells in relation to the site groundwater plumes.
2.	The Tech Memo does not contain and acronym list. Please provide a list of acronyms.	The standard format for a technical memorandum does not include an acronym list. We did not include an acronym list, to remain consistent with the established technical memorandum format. However, each acronym is defined with the first use of the word.
SPECIFIC COMMENTS		
1.	**Introduction, Page 1:** It appears that sampling results, time series plots and Mann-Kendall analysis are part of the first bullet point under scope. Please consider clarifying the scope to add the specific presentation of this type of data/information.	We have added the following text to the first bullet under the Scope section: “Data and tools used to support well selection (the 2Q12 GSAP event analytical results, chemical-time series plots for primary site COCs, and Mann-Kendall trend analyses) are included in this technical memorandum.”
2.	**Nature of Site LF008 Pesticide Contamination, Pages 3-4**: The following conclusion has not been adequately supported by the information in the Draft 2012 Groundwater Sampling and Analysis Program Technical Memorandum (Tech Memo), “[t]he results of this study indicate that pesticides are bound to the fine-grained sediments at Site LF008 rather than dissolved in the groundwater.” Additional information should be provided to substantiate this conclusion. For example, the Tech Memo does not discuss turbidity, nor does it provide turbidity measurements that can be correlated to the samples. Turbidity may be the source of the differences between filtered and unfiltered alpha-chlordane concentrations. It is unclear what sampling technique (low flow, micro purge, hydrosleeve, and/or passive diffusion bags) was used to collect these samples or if significant drawdown occurred during sampling. Information on drawdown should be provided if a purging sampling methodology was	We have added the following text to first paragraph of the “Study” section of page 4: “Groundwater samples were collected using low-flow purging and sampling technique, in accordance with, and met all quality metrics contained in, the Travis AFB *Field Sampling Plan* (CH2M HILL, 2009a). Sampling and analytical procedures followed and met all quality metrics contained in the *Analytical Quality Assurance Project Plan for Remedial Design/Remedial Action, Long-term Monitoring, and Long-term Operation Programs, Revision 2* (CH2M HILL, 2009b) and are consistent with those historically employed at Site LF008. The low-flow sampling technique, also referred to as micro-purging, was selected for the following reasons: • it is consistent with the method historically used at the site and therefore supports data comparability • it causes minimal disturbance to the aquifer, allowing collection of a representative groundwater sample

No.	Comments	Responses
	employed, as excessive drawdown can contribute to the amount of turbidity or entrain material that is not considered representative of the aquifer. It is uncertain if a different sampling technique would have a similar concentration disparity between filtered and unfiltered samples. Additional concerns related to this study include but are not limited to: • Filtered samples are not necessarily representative of groundwater exposure that may occur if groundwater is somehow accessed. • Data Quality Objectives (DQOs) and Quality Assurance Project Plan (QAPP) for this study were not provided to the Regulatory Agencies, and therefore it is unclear if they have been met. Please provide additional detail and supporting information such as turbidity and drawdown measurements. Sampling methodology utilized for this study, representativeness of the filter samples to groundwater exposures, and DQOs/QAPP.	• it is most representative of the only route of exposure (extracting groundwater for drinking water use). " The turbidity measurements and the percentage of drawdown of the water column during purging were added to the in-text table on page 5 which lists the alpha-chlordane analytical results. We have added the following text at the end of the "Study" section on page 5: "The filtered sample results demonstrate that the pesticides are not dissolved in the groundwater at concentrations exceeding IRGs. The only difference between the filtered and non-filtered groundwater samples was the presence of fine, suspended solids in the unfiltered samples. Thus, the difference in pesticide concentrations detected between the filtered and non-filtered samples detections is due to the presence of suspended solids in the non-filtered samples. As indicated by alpha-chlordane's high K_{oc}, the pesticide is more likely to bind to soil particles than dissolve in groundwater. Turbidity was one of the field parameters monitored during well purging; the turbidity measurements recorded are listed above, along with the alpha-chlordane analytical results. Turbidity was low (less than 10 nephelometric turbidity units [NTUs]) at all but two wells sampled (EW719x08 and EW721x08). Comparison of turbidity to the non-filtered alpha-chlordane results does not indicate a clear relationship between turbidity and alpha-chlordane concentrations detected. Well EW721x08, with the highest turbidity measurement (222 NTU) had a non-filtered alpha-chlordane concentration of 0.2 µg/L detected (above the IRG). However, alpha-chlordane was not detected at EW119x08, where the turbidity measured was 109 NTU. The only other well with non-filtered alpha-chlordane concentrations exceeding the IRG was EW720x08, where the turbidity measured was low (7.4 NTU). The lack of correlation between the turbidity measurements and the non-filtered sample results indicate sample location (proximity to pesticide source) as well as the amount of suspended sediment in the samples collected affects the non-filtered sampling results. The objective of low-flow sampling is to minimize disturbance of the aquifer during sampling collection to obtain a representative groundwater sample. Drawdown, in addition to other field parameters is measured to monitor stress to the aquifer while purging. The amount of drawdown recorded during purging for each of the monitoring wells is listed above, along with the turbidity measurements. Measured drawdown ranged from 0.01 to 3.27 feet. Turbidity measurements of less than 10 NTUs at these wells indicate the aquifer was not overstressed during sampling. Drawdown could not be measured in the extraction wells, which do not have a port for the water level meter."

No.	Comments	Responses
		The Air Force agrees that if no restrictions were placed on groundwater use at Site LF008, there is potential for exposure to pesticide contamination exceeding IRGs if unfiltered groundwater were consumed. This scenario and planned remedial approach is described on page 5 under the "remedial approach" section: "The only route of exposure to pesticides at this site is consuming unfiltered groundwater. The potential for exposure can be eliminated by imposing land use controls (LUCs) requiring extracted groundwater to be filtered prior to use. LUCs will not be difficult to maintain at Site LF008 because the site is fenced in and a military escort is required for site access. In addition to the physical barriers to site access, the hydraulic conductivity at the site is so low that it is highly unlikely to be used as a drinking water source." Groundwater samples were collected using low-flow purging and sampling technique, in accordance with, and met all quality metrics contained in, the Travis AFB *Field Sampling Plan* (CH2M HILL, 2009a). Sampling and analytical procedures followed the *Analytical Quality Assurance Project Plan for Remedial Design/Remedial Action, Long-term Monitoring, and Long-term Operation Programs, Revision 2* (CH2M HILL, 2009b. References to these two documents have been added to the technical memorandum.
(11/14/12)	**Response to Specific Comment 2:** The response partially addressed the comment. The supporting information in the response provide a plausible explanation for the difference in filtered and unfiltered results; however, the original data quality objectives (DQO's) of the filtered/unfiltered comparison have not been specifically discussed. Please provide details on the original DQOs. Additionally, filtered and unfiltered sampling should continue at LF008 in the wells with historical exceedant concentrations as well as wells down gradient to further substantiate the conclusion that particulate material in the aquifer is the source of the alpha chlordane. Please continue both filtered and unfiltered sampling at LF008.	We have added the following text to the "Study" subsection: "The Data Quality Objective for this study is as follows: • Collect representative filtered and unfiltered groundwater samples to determine if there is a difference in pesticide concentrations detected in filtered versus unfiltered groundwater." The Air Force does not agree that it is necessary to continue to collect filtered samples at Site LF008. Nine (9) monitoring wells were sampled as part of this study; and the sampling results were consistent at all nine (9) sampling locations. At monitoring wells where alpha-chlordane was detected in the non-filtered samples, it was not detected, or detected at trace concentrations, in the filtered samples. These sampling results are also consistent with the physical properties of alpha-chlordane. As described on page 4 under the subsection "Study", the organic carbon/water partition coefficient is extremely high 86,650 mL/g (approximately 1,000 times higher than that of TCE), therefore alpha-chlordane is much more likely to adhere to the soil than dissolve in groundwater. The sampling results are also consistent with the observed ineffectiveness of the groundwater extraction system and the reduction in the extent of the alpha-chlordane when groundwater extraction ceased. Unfiltered samples provide a more conservative data set for determining contamination stability and when site remediation goals have been met; therefore for long-term monitoring purposes, the Air Force will continue to rely on data from unfiltered samples.

No.	Comments	Responses
		However, the Air Force will collect one additional round of filtered and unfiltered samples at Site LF008 during the 4Q12 GSAP event, to provide the EPA with an additional data set and further support the refining of the site conceptual model. The same nine (9) monitoring wells sampled in 2Q12 will be sampled again in 4Q12.
3.	**Nature of Site LF008 Pesticide Contamination, Study and Inset Table, Page 4**: The text and table appear to reference the same information for a well with different identification, i.e. MW717x08 or MW7171x08. Please resolve this discrepancy.	The well name in the text has been corrected to MW717x08.
4.	**Estimated Time to Achieve Preliminary Cleanup Goals at Site LF007D, Pages 5-7:** The evidence to support the mechanism for the groundwater conditions to transition from anaerobic to aerobic at LF007D is not discussed. It is understood that the current anaerobic conditions in the vicinity of well MW261x07 are disparate from the rest of the base, but the mechanism for the transition at this location is not clearly stated. Please describe the mechanism and locations for the evidence of naturally occurring transition, if available. If the evidence for a naturally occurring transition from anaerobic to aerobic groundwater conditions is not sufficient, or it is unknown, enhanced attenuation should be considered as part of the treatment strategy to ensure transition to aerobic conditions.	We have revised the second bullet in the “Revised Time Estimate” subsection as follows: • “Conditions near MW261x07 will become aerobic, consistent with conditions across the rest of Site LF007D. An anaerobic zone in the vicinity of MW261x07 has developed due to the presence of relatively high total organic carbon (TOC) near this well. TOC was detected at a concentration of 211 mg/L in 2008; TOC concentrations at the rest of the Site LF007D wells were less than 30 mg/L (CH2M HILL, 2010). TOC provides a carbon source for the anaerobic bacteria and drives the dechlorination process. However, TOC is consumed by the anaerobic bacteria and once the TOC has been depleted to levels similar to the rest of Site LF007D (less than 20 mg/L), insufficient carbon will remain to support the anaerobic bacteria and conditions will revert to aerobic. Changes between aerobic and anaerobic conditions, driven by the presence or lack of TOC, has been demonstrated at Travis AFB sites DP039, SS016, SS015, SD036, and SD037 where TOC has been artificially increased by injection of emulsified vegetable oil (EVO) and/or installation of a bioreactor. Elevated TOC has resulted in anaerobic conditions developing, but where TOC is depleted, aerobic conditions predominate.” Evaluation of the selected site remedy will be performed annually, and in five-year reviews. If the remedy does not perform as designed, or is determined to be no longer protective, then optimizations to the remedy will be considered under the ongoing long-term operation and monitoring program.
(11/14/12)	**Response to Specific Comment 4:** The response partially addresses the comment. The potential mechanism for the transition from anaerobic to aerobic is presented in the response; however, site-specific evidence is not included to support the conclusion that this transition is likely to occur at LF007D. Declining total organic carbon (TOC) measurements over time should be provided to support the conclusions. Please provide TOC measurements at LF007D.	TOC is not routinely monitored, therefore the TOC data set is limited. However, the elevated TOC concentrations detected are restricted to well MW261x07, where conditions are anaerobic. The TOC concentrations at the other site LF007 monitoring wells are below 30 mg/L and stable (no increasing or decreasing trends). We have added Table 2 “Summary of TOC Concentrations Historically Detected at MW261x07” and new Attachment 4 “Summary of TOC Concentrations Historically Detected at Site LF007” (the existing Attachment 4 was moved to Attachment 6) and further revised the second bullet in the “Revised Time Estimate” subsection as follows:

No.	Comments	Responses
		• "Conditions near MW261x07 will become aerobic, consistent with conditions across the rest of Site LF007D. An anaerobic zone in the vicinity of MW261x07 has developed due to the presence of relatively high total organic carbon (TOC) near this well. TOC was detected at a concentration of 211 mg/L in 2008; TOC concentrations at the rest of the Site LF007D wells were less than 30 mg/L (CH2M HILL, 2010). TOC provides a carbon source for the anaerobic bacteria and drives the dechlorination process. However, TOC is consumed by the anaerobic bacteria and once the TOC has been depleted to levels similar to the rest of Site LF007D (less than 20 mg/L), insufficient carbon will remain to support the anaerobic bacteria and conditions will revert to aerobic. Historical detections of TOC at MW261x07 are provided in Table 2. There is not an extensive record of TOC data for MW261x07, but available data indicates that the TOC concentrations measured at MW261x07, although variable, are consistently higher than those detected in other areas of the site (all historical TOC data for Site LF007 monitoring wells are provided in Attachment 4). While available data do not indicate a clear declining TOC trend at MW261x07, the TOC concentration detected in the most recent sample (211 mg/L in November 2008) is lower than the initial TOC concentration detected at the well in September 1997 (251 mg/L). Changes between aerobic and anaerobic conditions, driven by the presence or lack of TOC, has been demonstrated at Travis AFB sites DP039, SS016, SS015, SD036, and SD037 where TOC has been artificially increased by injection of emulsified vegetable oil (EVO) and/or installation of a bioreactor. Elevated TOC has resulted in anaerobic conditions developing, but where TOC is depleted, aerobic conditions predominate." We have also added the following text to the end of the second paragraph: "During the 1,4-DCB biodegradation process; 1,4-DCB degrades to chlorobenzene and chlorobenzene degrades to benzene. This degradation pathway is likely contributing to the relatively constant concentrations of benzene observed in the site groundwater. Once the 1,4-DCB source has been depleted, benzene concentrations are expected to decline through either biological or physical attenuation processes, or a combination of both." We have added the following text below the first paragraph of the "Total Estimated Time to Achieve Cleanup Goals" subsection: "If conditions at well MW261x07 do not change from anaerobic to aerobic once 1,4-DCB has been degraded and benzene biodegradation does not occur as assumed in the estimate above, the benzene physical attenuation rate can be estimated using the same flushing calculation used in the FFS time to cleanup estimates. The flushing calculation estimates the amount of time required to flush sufficient amounts of clean groundwater through the plume before the cleanup goal can be met.

No.	Comments	Responses
		The time for benzene concentrations to achieve cleanup goals at MW261x07 can be estimated using the formula (van der Molen, 1973): $t=\frac{-\text{LN}\left({}^{Ct}/_{Co}\right)}{\left({}^{f}/_{T}+k\right)}$ Where: Ct = benzene preliminary cleanup goal (1 µg/L) Co = initial (i.e., recent) COC concentration at MW261x07 f = flushing efficiency (a function of aquifer permeability) T = time to flush one pore volume of clean water through the groundwater plume (distance between MW261x07 and clean water/groundwater velocity) k = first-order biodegradation rate constant (assumed to be zero if biodegradation is not occurring) t = time required to reduce a *Co* to *Ct* at MW261x07 Assuming a benzene starting concentration of 3 µg/L, a flushing efficiency of 0.4 (consistent with those used in the FFS estimates for sites with lower permeability aquifers), a distance of 150 feet between clean groundwater (benzene concentrations less than 1 µg/L) and well MW261x07, a groundwater velocity of 150 feet per year (CH2M HILL, 2010), and a biodegradation rate constant of zero, the estimated time for benzene to reach the preliminary cleanup goal at MW261x07 is approximately 4 years. Because the biodegradation of 1,4-DCB is likely contributing to the stable benzene concentrations at MW261x07, 1,4-DCB concentrations must decrease to 1 µg/L (the benzene MCL) before benzene concentrations can be expected to achieve the MCL. Using the same attenuation rate constant calculated for 1,4-DCB in the NAAR, the estimated time for 1,4-DCB concentrations to reach the benzene MCL of 1 µg/L is 45 years. Derivation of the 1,4-DCB time to cleanup estimate is provided in Attachment 6. Therefore, in the absence of aerobic biodegradation of benzene, the estimated time frame to achieve preliminary cleanup goals for both 1,4-DCB and benzene is 49 years (45 years for 1,4-DCB and 4 years for benzene). The estimated time to achieve preliminary cleanup goals at Site LF007D can be bracketed in the range of approximately 23 to 49 years, dependent upon the natural attenuation mechanisms active at the site.

No.	Comments	Responses
5.	**Estimated Time to Achieve Preliminary Cleanup Goals at Site LF007D, Page 6-7:** There is no hydrogeological evidence presented in the Tech Memo to support the use of data from ST032 as a reasonable surrogate to the hydrogeological conditions at LF007D. Please discuss specific hydrogeological attributes that support the assumption that the use of an attenuation rate at ST032 can approximate those at LF007D.	We have revised the fourth bullet in the “Revised Time Estimate” subsection as follows: • “Benzene attenuation rates will be similar to those at aerobic Site ST032. This assumption is considered reasonable due to the similarities in the hydrogeology at both sites. The near surface geology at both sites consists of fine-grained alluvium overlying sedimentary bedrock. The alluvium at both sites consists primarily of silts and clays that are low in permeability and do not transmit groundwater readily. Lenses of more permeable sands occur within the primarily fine-grained matrix. Groundwater conditions at both sites are primarily aerobic. At Site LF007C, the only monitoring well to currently exhibit anaerobic conditions is MW261x07.”
(11/14/12)	**Response to Specific Comment 5:** The text indicates that the conditions are similar at the site; however, boring logs and/or cross sections should be provided to demonstrate that site hydrogeology, e.g. permeability, is comparable between ST032 and LF007D. Please provide specific evidence to support the assumption that the attenuation rate at ST032 is a suitable surrogate for LF007D.	We have added the boring logs for Site ST032 and LF007D as Attachment 5. We have further revised the fourth bullet in the “Revised Time Estimate” subsection as follows: • “Benzene attenuation rates will be similar to those at aerobic Site ST032. This assumption is considered reasonable due to the similarities in the hydrogeology at both sites (soil boring logs for both sites are provided in Attachment 5). The near surface geology at both sites consists of fine-grained alluvium overlying sedimentary bedrock. The alluvium at both sites consists primarily of silts and clays that are low in permeability and do not transmit groundwater readily. Lenses of more permeable sands occur within the primarily fine-grained matrix. Groundwater conditions at both sites are primarily aerobic. At Site LF007C, the only monitoring well to currently exhibit anaerobic conditions is MW261x07.”
6.	**Table 2, Summary of Changes in Sampling Frequency; Figure 1, Groundwater Monitoring Frequency Decision Tree; Figure 4, Site LF007 Map; and Attachment 3 Mann-Kendall Trend Analysis Results:** Monitoring well MW620x07 has been selected for a reduction in the sampling frequency from semiannual to annual, but a Mann-Kendall analysis was not provided to support this change. As the current concentrations are at the maximum contaminant level (MCL) for trichloroethene (TCE), and this location appears to delineate a plume, this recommendation does not appear consistent with the decision tree. Therefore, please maintain a semi-annual sampling frequency for MW620x07.	As described on page 2 of the technical memorandum, “Attachment 3 provides the Mann-Kendall trend analyses for the COCs at each site; wells with statistically significant trends in COC concentrations are listed.” Wells and analyses without statistically significant trends are not listed. We have expanded the description as follows: “The Mann-Kendall statistical analysis was performed on the current and historical analytical data for all site COCs detected at each monitoring well routinely sampled in the GSAP. Attachment 3 provides the Mann-Kendall trend analyses for the COCs at each site; wells with statistically significant trends in COC concentrations are listed. Wells for which no statistically significant trends were identified for any site COC are not listed in the attachment.” There are no statistically significant trends in the analytical results for MW620x07, therefore it is not listed in Attachment 3. However, the TCE chemical time-series plot shows that TCE concentrations have decreased in this monitoring well from 2009 through 2012. The decline evident over the last 3 years indicates it is appropriate to reduce the sampling frequency of this monitoring well from semiannual to annual.

No.	Comments	Responses
		The semiannual data are not used to define the groundwater plumes, the data from the larger annual event are used to define the groundwater plumes. Monitoring wells are included in the semiannual events because more frequent data are required to evaluate increasing trends, variable data, or establish baseline concentrations for new monitoring wells. Well MW620x07 is a plume well, and according to the decision tree should be sampled annually unless there is a specific need for more frequent sampling. This well had previously been sampled semiannually because, at the time, it was the furthest downgradient well at Site LF007C. Now that the data gaps investigation has been performed and the monitoring well network has been greatly expanded at the site, the understanding of the distribution of groundwater contamination at the site is much improved. Continued semiannual sampling of this plume well is no longer necessary. The analytical results for MW620x07 do not indicate a need for continued semiannual sampling at this time.
(11/14/12)	**Response to Specific Comment 6:** It is unclear from the response if some other well, identified as "the furthest downgradient well at Site LF007C," is sampled semiannually. Please clarify if a well other than MW620x07 has been identified as the "furthest downgradient well" and if it is being sampled semiannually.	Now that the offbase portion of the plume has been defined, MW620x07 is considered a plume well. The downgradient extent of contamination is defined by the three new downgradient wells MW2163x07, MW2169x07, MW2171x07. These three wells are currently being sampled semiannually and are included in the 4Q12 sampling event.
7.	**Table 2, Summary of Changes in Sampling Frequency; and Attachment 3 Mann-Kendall Trend Analysis Results**: Monitoring wells MW2105x15 and MW2118x15 have been selected for a reduction in the sampling frequency from semiannual to annual, but the current concentrations are above the MCL for TCE and/or vinyl chloride and a Mann-Kendall analysis was not provided to support this change in sampling frequency. Please consider maintaining a semi-annual sampling frequency for wells MW2105x15 and MW2118x15 or provide Mann-Kendall analyses for these wells to support the change in sampling frequency.	There was no statistically significant trend identified by the Mann-Kendall analysis for well MW2105x15, so it is not listed in Attachment 3. The Mann-Kendall analysis did identify a statistically significant decreasing vinyl chloride trend at MW2118x15 (page 16 of Attachment 3). The chemical time series plots for TCE and vinyl chloride for these wells presented in Attachment 2 show that TCE concentrations have declined slightly since the initial sampling event. Vinyl chloride concentrations have declined at MW2118x15, and have remained non-detect at well MW2105x15. These two monitoring wells were new monitoring wells and therefore had been sampled semiannually to establish baseline concentrations. These wells are plume wells and, according to the decision tree, now that the baseline sampling has been completed, they should be sampled annually unless there is a specific need for more frequent sampling. Data collected to date from these monitoring wells indicates an annual sampling frequency is appropriate.

No.	Comments	Responses
8.	**Table 2, Summary of Changes in Sampling Frequency; and Attachment 3 Mann-Kendall Trend Analysis Results:** Monitoring well MW2111Bx16 has been selected for a reduction in the sampling frequency from semiannual to annual, but the current concentrations are above the MCL for TCE and a Mann-Kendall analysis was not provided to support this change in sampling frequency. Please consider maintaining a semi-annual sampling frequency for well MW2111Bx16 or provide Mann-Kendall analyses for this well to support the change in sampling frequency.	There was no statistically significant trend identified by the Mann-Kendall analysis for well MW2111Bx36, so it is not listed in Attachment 3. However, the TCE, cis-1,2-DCE, and vinyl chloride concentration time-series plots illustrate the decline in all three (3) chemicals since monitoring began at this well. This monitoring well was a new monitoring well and therefore had been sampled semiannually to establish baseline concentrations. This well is a plume well and, according to the decision tree, now that the baseline sampling has been completed, it should be sampled annually unless there is a specific need for more frequent sampling. Data collected to date from this monitoring well indicates an annual sampling frequency is appropriate.
9.	**Table 2, Summary of Changes in Sampling Frequency; and Attachment 3 Mann-Kendall Trend Analysis Results**: Monitoring well MW781x39 has been selected for a reduction in the sampling frequency from semiannual to annual, but the current concentrations are above the MCL for TCE and cis-1,2-dichloroethene (DCE) and a Mann-Kendall analysis indicates that both of these volatile organic compounds have an increasing trend. Please maintain a semi-annual sampling frequency for well MW781x39.	Well MW781x39 is a plume well where the sampling frequency had previously been increased from annual to semiannual because of the increasing TCE concentrations detected at this well. However, as illustrated on the chemical-time series plot, TCE concentrations declined at this well over the last three sampling events. The chemical time-series plots also indicate that cis-1,2-DCE has only been detected at trace concentrations at this well. Section 3.3 of the 2010-2011 Annual GSAP Report provides a full description of the decision rules applied to sampling frequency and states that in the case of a "*Trend of decreasing COC concentrations or non-detections over three (3) or more sampling events:* Evaluate annually whether to decrease the sampling frequency." The sampling frequency was reduced because: (a) it is a plume well, with several monitoring wells downgradient of it, (b) TCE concentrations have declined over the last three (3) sampling events, and (c) cis-1,2-DCE has been detected at only trace concentrations (less than 1 µg/L). If 2013 monitoring results indicate the TCE concentrations are rising again at this monitoring well, the sampling frequency will be increased to semiannual.
10.	**Figure 3, Site LF008 Historical and Current Alpha-Chlordane Groundwater Concentrations and Figure 5, Site LF007D Historical And Current 1,4 DCB [dichlorobenzene] Groundwater Contamination:** The wells potted on this figure are not labeled, also relevant alpha-chlordane concentrations have not been provided. Please label the wells and provide alpha-chlordane concentrations.	Figure 3 has been revised to show the well names and alpha-chlordane concentrations.