ECF-300FF5-16-0130
Revision 0

Calculation of Concentration Trends, Means, and Confidence Limits for cis-1,2-Dichloroethene, Gross Alpha, Nitrate, Trichloroethene, Tritium, and Uranium in the 300-FF-5 Operable Unit through CY 2015

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy
under Contract DE-AC06-08RL14788

P.O. Box 1600
Richland, Washington 99352

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Richland, Washington 99352

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Preparer:	L Scantlebury/Staff Hydro (SSP&A)	[signature]	08/04/2016
Checker:	E DiFilippo/SProjGeochemist (SSP&A)	Erica DiFilippo	08/04/2016
Senior Reviewer:	M Tonkin/Principal (SSP&A)	[signature]	08/09/2016
Responsible Manager:	P. Baynes / Project Manager	Patrick A. Baynes	9-15-16

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	Name /Position	Signature	Date
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Terms

amsl	above mean sea level
AWLN	automated water level network
CHPRC	CH2M HILL Plateau Remediation Company
COC	contaminant of concern
CRAN	Comprehensive R Archive Network
CSV	comma separated value
DCE	dichloroethene
df	degrees of freedom
EA	enhanced attenuation
HEIS	Hanford Environmental Information System
LCL	lower confidence limit
MDA	minimum detectable activity
MDL	method detection limit
MNA	monitored natural attenuation
OLS	ordinary least squares
OU	operable unit
R^2	coefficient of determination
ROD	record of decision
TCE	trichloroethene
UCL	upper confidence limit
USGS	U.S. Geological Survey

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1 Purpose

This brief presents estimates of concentration trends, yearly mean concentrations, and projected time to cleanup for wells used in the 300-FF-5 Operable Unit (OU) to monitor natural attenuation of cis-1,2-dichloroethene (cis-1,2-DCE), nitrate, trichloroethene (TCE), and tritium; and enhanced attenuation (EA) of uranium and gross alpha.

2 Background

The 300-FF-5 OU comprises groundwater contaminated by releases from facilities and waste sites associated with past operation of the 300 Area fuel fabrication facilities. The 300 Area record of decision (ROD) was issued in 2013 (EPA and DOE, 2013, *Hanford Site 300 Area Record of Decision for 300-FF-2 and 300-FF-5, and Record of Decision Amendment for 300-FF-1*). The ROD specifies EA, monitored natural attenuation (MNA), groundwater monitoring, and institutional controls to restrict groundwater use as the final 300-FF-5 OU remedial actions. The remedy is being implemented to address uranium, TCE, cis-1,2-DCE, gross alpha, nitrate, and tritium in 300-FF-5 OU groundwater. Performance monitoring of the remediation of these contaminants of concern (COCs) in the groundwater is a component of the EA and MNA remedies.

This document presents calculated concentration trends, annual mean concentrations, and projected times to cleanup together with associated lower confidence limits (LCLs) and upper confidence limits (UCLs). These statistics were calculated using groundwater concentration and river stage data available through the end of calendar year 2015.

3 Methodology

This section discusses the data and methods used to complete the calculations presented in this document.

3.1 Data Acquisition and Processing Prior to Trend Analysis

This section discusses the acquisition and processing of data prior to undertaking calculations.

3.1.1 Data Acquisition

This section discusses the acquisition of data used in this analysis.

3.1.1.1 Chemistry Data

Groundwater chemistry data were downloaded from the Hanford Environmental Information System (HEIS) database, which is maintained by CH2M HILL Plateau Remediation Company (CHPRC), and exported into a Microsoft Access® database (named HEIS_CHEM_04122016.accdb). The data for this analysis were downloaded from the HEIS database on April 12, 2016. The HEIS database contains one table (HEIS2_ADM_PNLGW_STD_RESULT_MV_2), which contains information on groundwater samples, including laboratory and review data qualifiers, sample medium, sample collection purpose, analytical method, and reporting limits. The fields extracted from the HEIS database for use in calculations described in this document are presented in Table 1.

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Table 1. HEIS Database Fields for Chemistry Data

Field Extracted	Definition
WELL_NAME	Location Identification
SAMP_DATE_TIME	Sampling Date
STD_CON_LONG_NAME	Analyte Name
STD_VALUE_RPTD	Reported Concentration
STD_ANAL_UNITS_RPTD	Units for Concentration Measurement
LAB_QUALIFIER	Lab Data Qualifier
REVIEW_QUALIFIER	Review Data Qualifier
COLLECTION_PURPOSE	Primary Reason for Sample Collection
VALIDATION_QUALIFIER	Validation Qualifier

Notes: 1F = The result is undergoing further review; G = Record has been reviewed and determined to be correct, or the record has been corrected with laboratory confirmation or other supporting information; H = Laboratory holding time exceeded before the sample was analyzed; P = Potential problem. Collection/analysis circumstances makes value questionable; Q = Associated quality control sample is out of limits; R = Do not use. Further review indicates the result is not valid; Y = Result suspect. Review provided insufficient evidence to show result valid or invalid; Z = Miscellaneous circumstances exist. Additional information may be found in the RESULT_COMMENT field for this record.

3.1.1.2 Water Level Data

Groundwater elevation data were downloaded from the HEIS database and exported into a Microsoft Access database (named HEIS_04122016.accdb). The data for this analysis were downloaded from the HEIS database on April 12, 2016. The table in the HEIS_04122016 database pertaining to manual water level measurements is titled HEIS2_ADM_HYDRAULIC_HEAD_MV (Table 2). The data from this table are exported into a text file named qryManHEIS_04122016.txt, which contains data from the HEIS2_ADM_HYDRAULIC_HEAD_MV table together with an additional field ("Type") that identifies these data as manual water level measurements ("MAN").

Table 2. HEIS Database Fields for Manual Water Level Measurements

Field Extracted*	Definition
HEIS2_ADM_HYDRAULIC_HEAD_MV	
WELL_NAME	Location Identification
HYD_DATE_TIME_PST	Measurement Date
HYD_HEAD_METERS_NAVD88	Depth to Water (ft)
REVIEW_QUALIFIER	Measurement Qualifier

* Field codes are defined in HNF-38155, *HEIS Sample, Result, and Sampling Site Data Dictionary*.

Transducer data were obtained directly from CHPRC for the following wells: 399-1-12, 399-1-16A, 399-1-17A, 399-1-2, 399-1-23, 399-1-17, 399-2-2, 399-2-32, and 399-8-1. The data were obtained in several comma separated value (CSV) files and consisted of hourly water level measurements.

3.1.1.3 River Stage Data

River stage data for the 300 Area River Gauge were compiled from three sources in order to have a continuous record from January 1, 1994 through December 31, 2015 (Table 3). Whenever possible, measured river stage data were used in this analysis. River stage data obtained using the convolution method were only used when measured 300 Area river stage data were not available.

Table 3. Data Sources for 300 Area River Gauge Data

Date Range	Data Source
1/1/1994 to 12/31/2003	Convolution of Priest Rapids Dam Measurements*
1/1/2004 to 9/19/2012	AWLN Database
9/20/2012 to 12/31/2015	CHPRC csv files

* ECF-Hanford-13-0028, *Columbia River Stage Correlation for the Hanford Area*.
AWLN = automated water level network
CHPRC = CH2M HILL Plateau Remediation Company

Daily river stage data for U.S. Geological Survey (USGS) Station 12472800, Columbia River below Priest Rapids Dam, Washington, were downloaded from the USGS National Water Information System available at: http://waterdata.usgs.gov/usa/nwis/uv?site_no=12472800. River stage data for the 300 Area River Gauge were calculated using the convolution method presented in ECF-Hanford-13-0028, *Columbia River Stage Correlation for the Hanford Area*. Prior to 2004, only daily river stage data are available from the USGS.

Hourly river stage elevation data for the 300 Area River Gauge were obtained from the automated water level network (AWLN) database, which is maintained by CHPRC, and exported into a Microsoft Access database (named AWLN_04122016.accdb) (Table 4). The database maintains 300 Area River Gauge data from January 1, 2004 to September 19, 2012. The data for this analysis were downloaded on April 12, 2016. The data from this table are exported into a text file named qryAWLNAWLN_04122016_300Gauge.txt, which contains data from the dbo_v_AWLN_ProcessedData table together with an additional field ("Type") that identifies this data as manual water level measurements ("XD").

Table 4. AWLN Database Fields

Field Extracted*	Definition
dbo_v_AWLN_ProcessedData	
Well_Name	Location Identification
procDate	Measurement Date
procWaterElevation	Transducer Reading

* Field codes are defined in HNF-38155, *HEIS Sample, Result, and Sampling Site Data Dictionary*.

Fifteen-minute river stage elevation data for the 300 Area River Gauge from September 20, 2012, through December 31, 2015 were obtained directly from CHPRC in several CSV files.

The final river stage data set for the 300 Area River Gauge is presented in Figure 1.

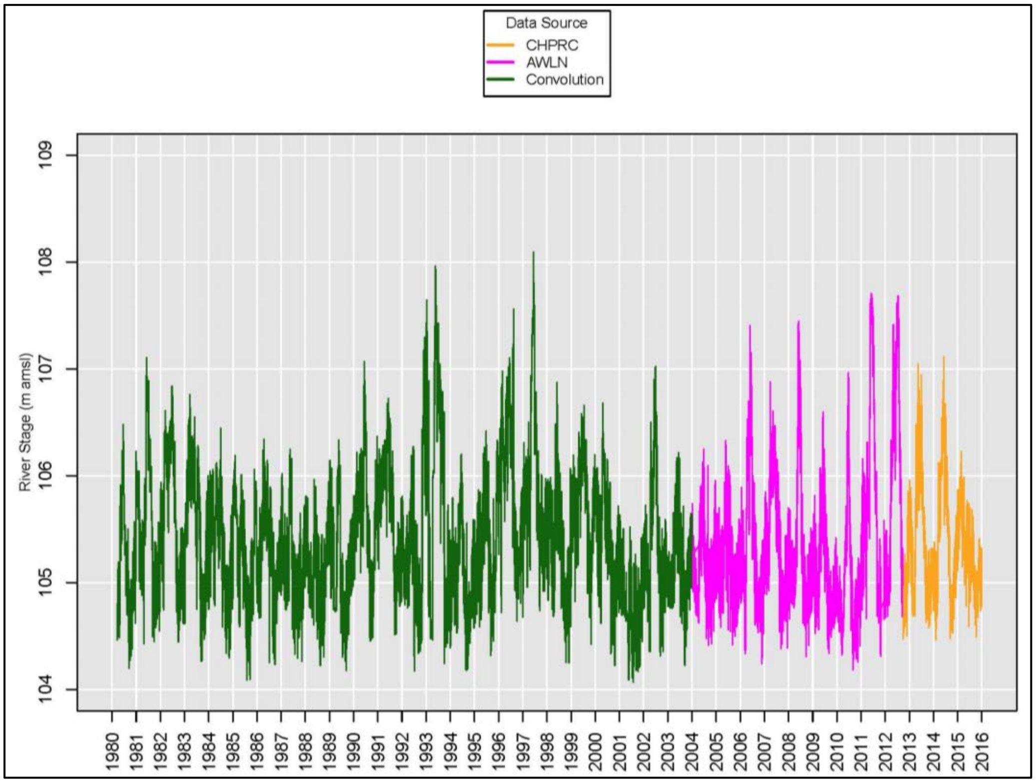


Figure 1. Compiled 300 Area River Stage Data Set

3.1.1.4 Well Coordinates and Screen Data

Well coordinates and screen interval data were downloaded from the HEIS database. Data from this database were downloaded on April 12, 2016, and exported into Microsoft Access databases (HEIS_04122016.accdb). The tables in the database pertaining to well coordinates and screen interval data are titled as follows:

- WELL_ADM_WELL_ATTRIBUTES_MV
- WELL_ADM_WELL_ELEVATION
- WELL_ADM_WELL_SCREEN

The table WELL_ADM_WELL_ATTRIBUTES_MV contains information on well location, OU, well type, well status, and well depth. The WELL_ADM_WELL_ELEVATION table contains the elevation of the manual water level measurement reference point. The WELL_ADM_WELL_SCREEN table contains information on the well screened interval. Table 5 presents the fields extracted from the HEIS database.

Table 5. HEIS Database Fields for Well Coordinates and Screen Interval Data

Field Extracted[a]	Definition
WELL_ADM_WELL_ATTRIBUTES_MV	
Well_Name	Location Identification
WELL_ID	Secondary Identification
WELL_TYPE	Well Type
STATUS	Well Status
DRILL_DEPTH	Total Hole Depth (ft)
DEPTH_TO_BOTTOM	Total Well Depth (ft)
ZCOORDS	Well Elevation[b] (ft amsl)
YCOORDS	Northing[c]
XCOORDS	Easting[c]
GW_AREA_OF_INTEREST	Operable Unit
WELL_ADM_WELL_ELEVATION	
Well_ID	Secondary Identification
DISC_Z	Reference Point Elevation (ft amsl)
WELL_ADM_WELL_SCREEN	
WELL_ID	Secondary Identification
SCREEN_DEPTH_TOP	Top of the Screen
SCREEN_DEPTH_BOTTOM	Bottom of the Screen
SCREEN_DEPTH_UNITS	Screen Interval Units

a. Field codes are defined in HNF-38155, *HEIS Sample, Result, and Sampling Site Data Dictionary*.

b. Elevations are reported in NAVD88, *North American Vertical Datum of 1988*.

c. Eastings and northings are reported in NAD83, *North American Datum of 1983*, State Plane Washington South.

amsl = above mean sea level

ID = identification

The data from these tables are exported into three text (TXT) files: qryWellHWIS, which contains data from the WELL_ADM_WELL_ATTRIBUTES_MV table; qryElev_HWIS, which contains data from the WELL_ADM_WELL_ELEVATION table; and qryScreenHWIS, which contains data from the WELL_ADM_WELL_SCREEN. For this analysis, data from the WELL_ADM_WELL_ATTRIBUTES_MV table are limited to data where the REVIEW_QUALIFIER field is null and data from the WELL_ADM_WELL_SCREEN are limited to data where the SCREEN_DEPTH_UNITS field is “ft.”

3.1.2 Identifying Non-Detects

Non-detects in the chemistry data set were identified using the laboratory qualifier (LAB_QUALIFIER = U). The method detection limit (MDL) was substituted for concentration measurements (cis-1,2-DCE, nitrate, TCE, and uranium) with reported values of zero. The minimum detectable activity (MDA) was substituted for activity measurements (gross alpha and tritium) with reported values less than or equal to zero. If the reported value was less than or equal to zero and an MDL or MDA was not provided, a value of 1 was substituted for concentration or activity. All estimated data (LAB_QUALIFIER=B or J) were treated as detected values.

3.1.3 Review Qualifiers

Some chemistry data were removed from the data set prior to calculation based on their review qualifiers (Table 6). Future analyses should evaluate removal of data based on review qualifiers on a case-by-case basis.

Table 6. Review Qualifiers for Data Removal

Review Qualifier	Definition
Y	Result is suspect. Review had insufficient evidence to show result valid or invalid.
R	Do not use. Further review indicates the result is not valid.
F	Result is undergoing further review.
Q	Associated quality control sample is out of limits.
QH	Associated quality control sample is out of limits. Laboratory holding time was exceeded before the sample was analyzed.

3.1.4 Wells and Contaminants of Concern

The list of wells and COCs for this analysis was based on the data quality objectives report for the 300-FF-5 OU remedy implementation (Appendix A of DOE/RL-2014-42, *300-FF-5 Operable Unit Remedy Implementation Sampling and Analysis Plan*), as listed in Table 7.

Table 7. Wells and Contaminants of Concern

Well Name	Contaminants of Concern
399-1-1	Gross Alpha, Uranium
399-1-2	Gross Alpha, Uranium
399-1-7	Gross Alpha, Uranium
399-1-10A	Gross Alpha, Uranium
399-1-11	Gross Alpha, Uranium
399-1-12	Gross Alpha, Uranium

Table 7. Wells and Contaminants of Concern

Well Name	Contaminants of Concern
399-1-16A	Gross Alpha, Uranium
399-1-16B	cis-1,2-DCE
399-1-17A	Gross Alpha, Uranium
399-1-21A	Gross Alpha, Uranium
399-1-55	Gross Alpha, Uranium
399-1-57	cis-1,2-DCE
399-2-1	Gross Alpha, Uranium
399-2-2	Gross Alpha, Uranium
399-2-32	Gross Alpha, Uranium
399-3-6	Gross Alpha, Uranium
399-3-9	Gross Alpha, Uranium
399-3-12	Gross Alpha, Uranium
399-3-20	Gross Alpha, Uranium
399-4-1	Gross Alpha, Uranium
399-4-7	Gross Alpha, Uranium
399-4-10	Gross Alpha, Uranium
399-4-11	Gross Alpha, Uranium
399-4-12	Gross Alpha, Uranium
399-4-14	TCE
399-4-15	Gross Alpha, Uranium
399-6-3	Gross Alpha, Uranium
399-8-1	Gross Alpha, Uranium
399-8-5A	Gross Alpha, Uranium
699-12-2C	Nitrate, Tritium

Table 7. Wells and Contaminants of Concern

Well Name	Contaminants of Concern
699-13-0A	Tritium
699-13-1E	Nitrate, Tritium
699-13-2D	Nitrate, Tritium
699-13-3A	Nitrate, Tritium
699-S6-E4B	Gross Alpha, Uranium
699-S6-E4E	Gross Alpha, Uranium
699-S6-E4K	Gross Alpha, Uranium
AT-3-7-M	Gross Alpha, Uranium

3.1.5 Time Period of Analysis

This analysis used data obtained between January 1, 1994, (if data were available) and December 31, 2015. If data were not available in 1994, the earliest sample date post-1994 was used as the starting time of the analysis. Shorter time-spans were used for the analyses for specific well/COC pairs based upon knowledge of site activities (Table 8).

Table 8. Time Constraints for Individual Well/COC Pairs

Well	COC	Time Period of Analysis	Basis
399-6-3[a]	Gross Alpha Uranium	7/1/2011 to 12/31/2015	Plume migration
399-4-1[a]	Gross Alpha Uranium	7/1/2011 to 12/31/2015	Plume migration
699-12-2C	Tritium	7/1/2008 to 12/31/2015	Impact of tritium gas release from buried radiological solid waste at the 618-11 Burial Ground
699-13-0A	Tritium	1/1/2009 to 12/31/2015	Impact of tritium gas release from buried radiological solid waste at the 618-11 Burial Ground
699-13-1E	Tritium	1/1/2009 to 12/31/2015	Impact of tritium gas release from buried radiological solid waste at the 618-11 Burial Ground
699-13-2D	Tritium	7/1/2007 to 12/31/2015	Impact of tritium gas release from buried radiological solid waste at the 618-11 Burial Ground

Table 8. Time Constraints for Individual Well/COC Pairs

Well	COC	Time Period of Analysis	Basis
699-13-3A	Tritium	1/1/2007 to 12/31/2015	Impact of tritium gas release from buried radiological solid waste at the 618-11 Burial Ground
399-8-1	Gross Alpha Uranium	1/1/2011 to 12/31/2015	Impact of dust control water prior to 2011
399-8-5A	Gross Alpha Uranium	1/1/2011 to 12/31/2015	Impact of dust control water prior to 2011
699-S6-E4B[b]	Gross Alpha Uranium	1/1/2007 to 1/1/2011	Impact of dust control water from 2003-2005 and in 2011
699-S6-E4E[b]	Gross Alpha Uranium	1/1/2007 to 1/1/2011	Impact of dust control water from 2003-2005 and in 2011
699-S6-E4K[b]	Gross Alpha Uranium	1/1/2007 to 1/1/2011	Impact of dust control water from 2003-2005 and in 2011

a. See Appendix B of this document.

b. See Appendix B of ECF-300FF5-15-0017, *Calculation of Concentration Trends, Means, and Confidence Limits for cis-1,2-Dichloroethene Gross Alpha, Nitrate, Trichloroethene, Tritium, and Uranium in the 300-FF-5 Operable Unit*.

3.1.6 Outliers

The data set was not formally tested for outliers. All available data were used unless otherwise noted (Table 9).

Table 9. Data Outliers Removed from Analysis

Well	COC	Sample Date	Concentration	Basis
399-2-1	Uranium	6/10/2011	0.135 µg/L	Two orders of magnitude lower than all other measured concentrations at this location

3.1.7 Daily Averaging and Linear Interpolation

A daily average was calculated for river stage and chemistry data possessing multiple measurements on the same day. When non-detects were present, a value equal to half of the detection limit (or MDA for gross alpha and tritium) was used to calculate the daily average. Linear interpolation was used to fill in gaps in the river stage data set.

3.2 Trend Analysis

This section discusses the trend analysis methodology.

3.2.1 Tobit Regression Model

Groundwater elevation and concentration data (which in the context of this document refers to both concentration and activity unless otherwise noted) were compared to river stage to determine if groundwater elevation and concentrations showed a relationship to river stage: if a relationship existed, the lag time between observed changes in river stage and observed groundwater elevation or concentration changes in the well was estimated. The relationship between groundwater elevation or chemistry and river stage was defined as follows (see SGW-58883, *Methodology for the Calculation of Concentration Trends, Means and Confidence Limits for Performance and Attainment Monitoring*, for more detail on the basis for this calculation):

$$\ln(WL_i) = \alpha - \beta t_i + \beta_1 x_i \qquad \text{(Equation 3.1a)}$$

$$\ln(C_i) = \alpha - \beta t_i + \beta_1 x_i \qquad \text{(Equation 3.1b)}$$

where:

WL	=	a fitted groundwater level elevation [m amsl]
C	=	a fitted concentration or activity [mg/L, µg/L, or pCi/L]
t	=	the time difference between a particular (daily averaged) groundwater level elevation or concentration and the first concentration of the data set [days]
x	=	the observed river stage [m]
α, β, and β_1	=	fitting parameters corresponding to the equation intercept, date coefficient, and river-stage coefficient, respectively; they are assumed to be constant and are estimated using regression

If, after examining the relationship between measured water level in the well and river stage, it was determined that no relationship existed (see Section 3.2.2), the river stage covariate was removed, and Equation 3.1b reduced to a simple regression over time, shown in Equation 3.2:

$$\ln(C_i) = \alpha - \beta t_i \qquad \text{(Equation 3.2)}$$

A censored regression (Tobit) model was used to estimate the parameters (the basis for use of the Tobit censored regression method is detailed in SGW-58883). The Tobit model estimates linear relationships when there are left- or right-censored data (non-detects are left-censored data) in the dependent variable. When all data are quantified, the Tobit model yields the same parameter estimates as ordinary least squares (OLS) regression. The standard errors of the parameter estimates that it produces tend to be slightly smaller than the OLS standard errors; this difference in standard errors diminishes as the amount of data increases.

Determination of the lag between observed water level or chemistry concentrations and observed river stage was an iterative process. Initially, the linear regression was performed assuming no lag (lag time = 0 days) between the observed water level or concentration data and the river stage. Next, the river stage was lagged by 1 day and the regression was performed again. This lagging process was repeated for 90 iterations. The regression fitting parameters, variance-covariance matrix, degrees of freedom (*df*), and coefficient of determination (R^2) were recorded for each iteration. It is important to note that a high coefficient of determination indicates that the regression achieved a good fit but not necessarily that the well has a strong relationship with the river stage. The optimized lag time was determined by selecting the regression and lag time with the highest coefficient of determination.

Other methods, such as formal convolution techniques (PNNL-19775, *Guide to using Multiple Regression in Excel (MRCX v.1.1) for Removal of River Stage Effects from Well Water Levels*) or determining lag times for all wells simultaneously as a function of distance to the river, can be used to estimate river stage effects and lag times and could be implemented in future analyses, if warranted.

3.2.2 Evaluation of River Stage as Covariate

Tobit regression analysis was performed on measured water levels prior to evaluating chemical trends to determine if the river stage should be used as a covariate in the chemistry trends. River stage was considered to be an appropriate covariate if there was an observed response in water levels that correlated to observed changes in river stage (for example, when river stage rose, water levels in the well rose and when river stage fell, water levels in the well also fell) (Figure 2).

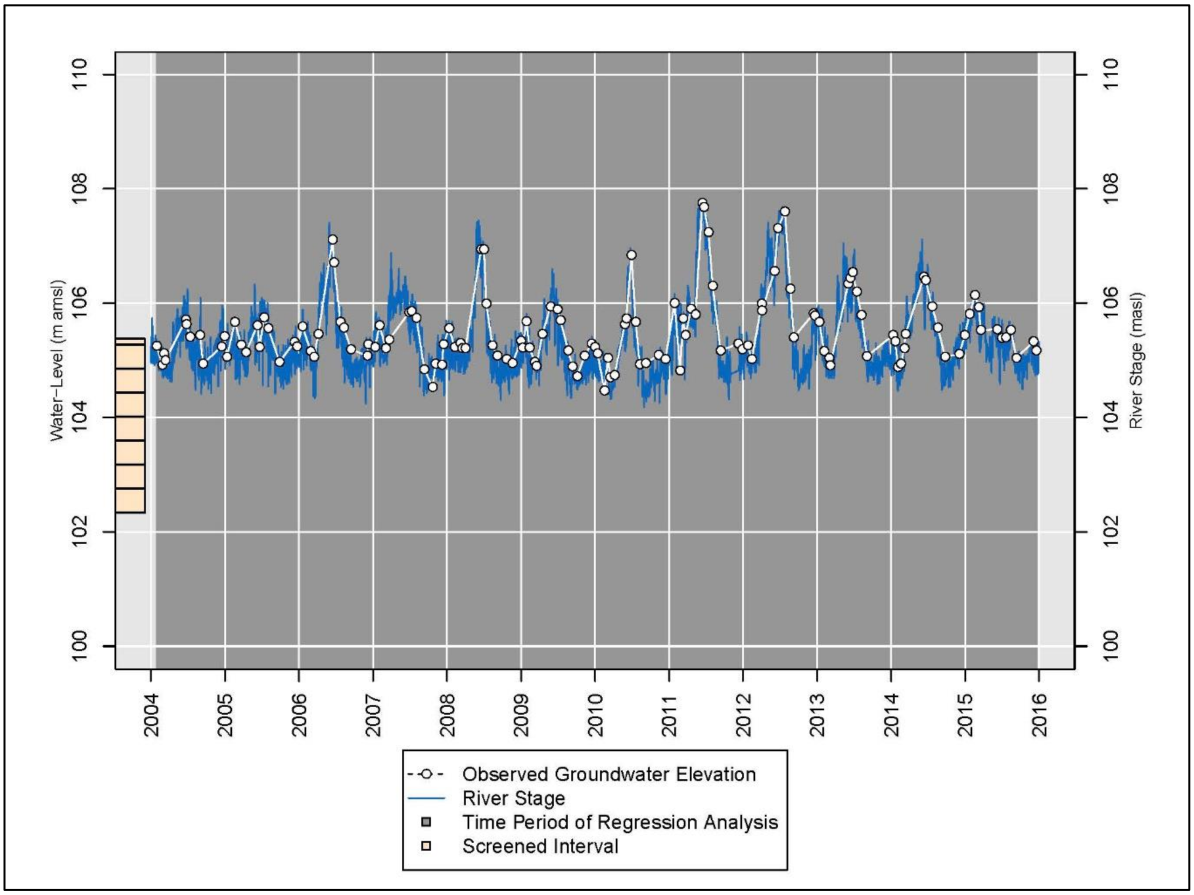


Figure 2. Water Level and River Stage for Well 399-1-10A

If the pattern of water levels in the well did not match observed changes in river stage (i.e., water levels remained relatively constant even though river stage was rising and falling), the river stage was not considered to be an appropriate covariate for the chemistry trend analysis. In addition, the river stage was not used as a covariate for pumping wells (Table 10).

Table 10. Wells Where River Stage Was Not Used as Covariate

Well	Basis
399-4-12	Pumping well
699-12-2C	No observed correlation between water level and river stage
699-13-0A	No observed correlation between water level and river stage
699-13-1E	No observed correlation between water level and river stage
699-13-2D	No observed correlation between water level and river stage
699-13-3A	No observed correlation between water level and river stage
699-S6-E4B	No observed correlation between water level and river stage
699-S6-E4E	No observed correlation between water level and river stage
699-S6-E4K	No observed correlation between water level and river stage

3.2.3 Comparison of Water Level and Analyte Lag Times

The lag times from the water level trend analysis were compared to the lag times from the COC trend analysis. If the COC lag time was larger than the water level lag time, the COC lag time was used in the chemistry trend analysis. If the water level lag time was larger than the COC lag time, the water level lag time was used in the chemistry analysis.

Lag times for uranium and gross alpha were evaluated for consistency because the presence of gross alpha is strongly tied to the presence of uranium. In a given well, differences in lag times for these two analytes could be due to differences in sampling frequency and sample timing. A consistent lag time for gross alpha and uranium was determined using a signal averaging technique. For each well, a weighted average of the R^2 value for each lag time was calculated by weighting each value by the total number of measured data of the corresponding analyte (Equation 3.3).

$$R_{avg}^2 = \frac{\left(R_{GA}^2 n_{GA} + R_U^2 n_U\right)}{n_{GA} + n_U} \qquad \text{(Equation 3.3)}$$

where:

R_{avg}^2 = the weighted averaged R^2 for a specified lag time

R_{GA}^2 = the R^2 for gross alpha for a specified lag time

n_{GA} = the number of measurements of gross alpha used in the regression

R_U^2 = the R^2 for uranium for a specified lag time

n_U = the number of measurements of uranium used in the regression

The optimized lag time for gross alpha and uranium was determined by selecting the regression and lag time with the highest weighted averaged coefficient of determination.

3.3 Calculated Concentrations

Fitted concentrations were determined by lagging the river stage based on the optimized lag time and applying the Tobit regression described in the previous section.

3.4 Yearly Mean and Upper and Lower Confidence Limit Calculation

Yearly mean concentrations (C_{mean}) were estimated from the fitted concentrations as follows:

$$\ln(C_{mean}(t_0, t_1)) = \frac{1}{t_1 - t_0}\int_{t_0}^{t_1}\left(\alpha - \beta t + \beta_1 x(t)\right)dt \quad \text{(Equation 3.4)}$$

where n is the number of concentrations fitted daily for the entire year.

UCLs and LCLs were calculated by first determining a yearly mean river stage. Next, the calculated concentration for the year was determined based on the yearly mean river stage and the Tobit model regression. The UCL and LCL was then calculated as follows:

$$UCL = C_{mean,RS} - \left(t_{df,\alpha/2}\right)(\sigma) \quad \text{(Equation 3.5a)}$$

$$LCL = C_{mean,RS} + \left(t_{df,\alpha/2}\right)(\sigma) \quad \text{(Equation 3.5b)}$$

where:

$C_{mean,RS}$ = the calculated yearly mean concentration based on the yearly mean river stage (µg/L or pCi/L)

$t_{df,\alpha}$ = the upper 100 percent – α quantile of Student's t distribution with df

α = the significance level based on a confidence limit of 95 percent (0.05)

df = the number of data points minus the number of parameters fit by the regression

σ = estimates the standard deviation of the concentration based on the yearly mean river stage and the variance-covariance matrix of the regression coefficients

3.5 Time to Cleanup Calculation

The projected time-to-cleanup (i.e., the expected time required to achieve or demonstrate attainment) was calculated in a similar manner to the yearly mean concentrations and associated UCLs and LCLs. The regression equation that was fit to the measured data values was used to calculate future (post-2015) yearly mean concentrations based upon an assumed future river stage using Equations 3.1 and 3.2. The future yearly average river stage was assumed to be the average river stage of the previous 11 years (2005 to 2015). UCLs and LCLs for future calculated concentrations were calculated using Equations 3.5a and 3.5b. The time to cleanup was calculated by determining when the calculated yearly-average concentration fell below the target cleanup level listed in the ROD (Table 11). The upper and lower confidence interval on the time to cleanup was calculated by determining when the UCL and LCL of the annual average concentration fell below the target cleanup level listed in Table 11.

Table 11. Target Cleanup Levels

Contaminant of Concern	Target Cleanup Level	Target Cleanup Date (from ROD)
cis-1,2-DCE	16 µg/L	-[a]
Gross Alpha	15 pCi/L	2041[b]
Nitrate (as NO_3)	45 mg/L	-[a]
TCE	4 µg/L	-[a]
Tritium	20,000 pCi/L	2031
Uranium	30 µg/L	2041

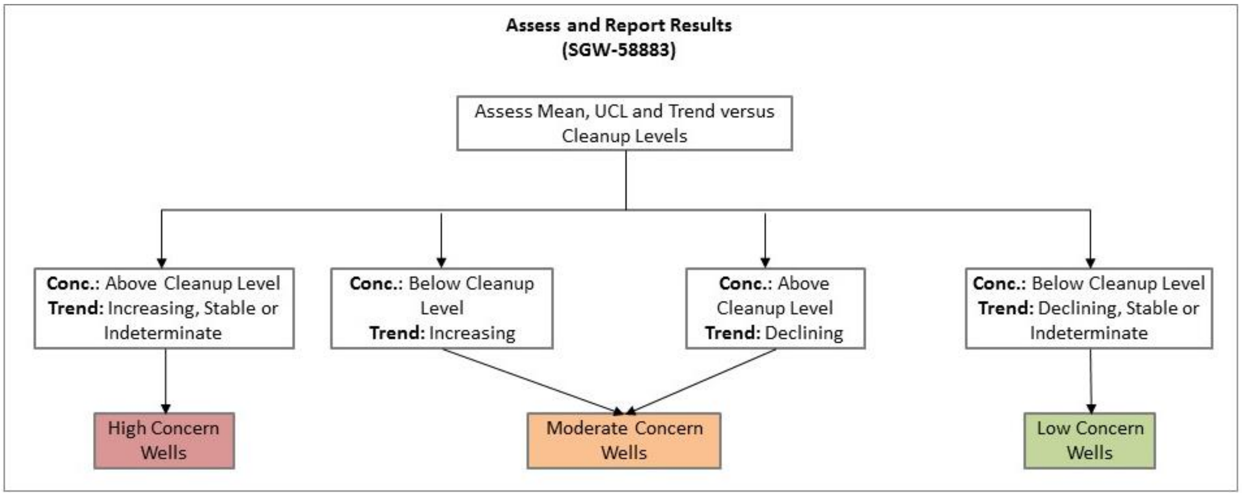
a. Target cleanup date not specified in EPA and DOE, 2013, *Hanford Site 300 Area Record of Decision for 300-FF-2 and 300-FF-5, and Record of Decision Amendment for 300-FF-1*. A date of 2050 was used as a basis for calculations presented in this environmental calculation; however, this date does not constitute a legally binding target cleanup date.

b. Target cleanup date of 2041 was used for calculations with gross alpha to coincide with the target cleanup date specified in the ROD for uranium, the primary alpha-emitting COC in the 300-FF-5 OU.

3.6 Relative Well Assessment

In accordance with SGW-58883, assessment of each COC well pair is based on evaluation of the appropriateness of the regression model (quality of fit), the data/regression model trend, and comparison to the target cleanup level, such as direct comparison of the mean and UCLs with target concentrations and cleanup levels, and identification of increasing (trending up) or decreasing (trending down) concentrations after controlling for covariates. Wells were categorized based on the results of the trend and UCL calculations, as defined in SGW-58883 and Figure 3.

In this analysis, wells were categorized as of "low concern" if the yearly mean, LCL, and UCL were all below the target cleanup level by the target cleanup date and the slope of the regression was decreasing. Wells were categorized as of "moderate concern" where the yearly mean, LCL, and UCL were below the target cleanup level by the target cleanup date but the slope of the regression was increasing or where any of the yearly mean, LCL, or UCL was above the target cleanup level by the target cleanup date but the slope of the regression was decreasing. As such, a well may be categorized as of "moderate concern" because of wide prediction intervals that result from a relatively small number of available sample results, which will typically narrow as the number of available sample results increases. Wells were categorized as of "high concern" if the yearly mean, LCL, and UCL were all above the target cleanup level by the target cleanup date and the slope of the regression was increasing.



Reference: SGW-58883, *Methodology for the Calculation of Concentration Trends, Means and Confidence Limits for Performance and Attainment Monitoring*.

Figure 3. Relative Well Assessment Based on Report Results

4 Assumptions and Inputs

The following is a summary of assumptions made in this analysis:

- The MDL and MDA are independent of concentration and activity.
- Annual average future river stage is not significantly affected by climate change or anthropogenic effects, and the flow regulated by the Priest Rapids Dam will not vary significantly in the future. These assumptions collectively assume that conditions over the last 11 years are reasonably representative of conditions for the period over which calculations of future concentrations are made.
- Concentrations observed at a well are not significantly affected by active remediation activities at the site for the period over which calculations are made. This includes the well/COC pairs listed in Table 7, because start (and end) dates for the regression analyses were chosen to occur when listed site activities are not significantly affecting these wells.

The results presented in this environmental calculation, including the relative ranking of wells as presenting a low, moderate, or high concern, are based on the application of statistical methods to sample data sets of varying size, degree of censoring, and historical coverage, among other factors. Assessments made on the basis of the output of these calculations, such as the assignment of relative ranks to the wells, should be interpreted in light of the number of sample results, the level of censoring (i.e., number of non-detect results), the historical period for which data are available, the historical period over which the Tobit regression was applied, and the fit achieved from the regression (i.e., R^2).

5 Software Applications

Calculations were performed using the public domain computing platform R (version 3.1.3 [published March 9, 2015]). R provides data manipulation, calculation, and graphical display capabilities to support data analysis (Venables et al., 2010, *An Introduction to R, Notes on R: A Programming Environment for Data Analysis and Graphics*). It is freely available to the public and can be compiled and run on a variety of platforms. The base installation of R contains statistical and plotting functions and many more are available for download through the Comprehensive R Archive Network (CRAN). The R routines described previously were independently checked and verified by detailed review as part of the preparation of this calculation. Development of software quality assurance documentation for this set of routines under CHPRC's controlled software management procedure would permit this process to be handled through software acceptance testing, rather than by detailed review and verification of each application of these R routines. Accordingly, preparation of software quality assurance documentation is recommended to support efficient future applications of these R routines.

Several R packages were used for this analysis. These packages were downloaded from CRAN and are listed in Table 12.

Table 12. R Packages Used for Calculations

R Package	Package Description	Version
bdsmatrix	Routines for Block Diagonal Symmetric Matrices	1.3-2
censReg	Censored Regression (Tobit) Models	0.5-20
chron	Chronological Objects that Can Handle Dates and Times	2.3-47
data.table	Extension of data.frame	1.9.4
Formula	Extended Model Formulas	1.2-1
glmmML	Generalized Linear Models with Clustering	1.0
magrittr	A Forward-Pipe Operator for R	1.5
maxLik	Maximum Likelihood Estimation	1.2-4
miscTools	Miscellaneous Tools and Utilities	0.6-16
plm	Linear Models for Panel Data	1.4-0
plyr	Tools for Splitting, Applying, and Combining Data	1.8.3
Rcpp	Seamless R and C++ Integration	0.12.0
reshape2	Restructure and Aggregate Data	1.4.1
sandwich	Robust Covariance Matrix Estimators	2.3-3
stringi	Character String Processing Facilities	0.5-5
stringr	Make It Easier to Work with Strings	1.0.0
zoo	S3 Infrastructure for Regular and Irregular Time Series (Z's Ordered Observations)	1.7-12

In addition to the CRAN packages listed in Table 12, several functions specific to the calculations performed in this document were incorporated into a user-defined R package called "sspaTrendAnalysis." This package, along with those listed in Table 12, was provided in a zip file accompanying this document, which is named "sspaTrendAnalysis.tar.gz".

The calculations were performed with the following series of R scripts:

- 01_ImportData_[DATE].R
- 02_TobitAnalysis_Initial_[DATE].R
- 03_SignalAveraging_[DATE].R
- 04_TobitAnalysis_Final_[DATE].R
- 05_300TrendFigures_Final_[DATE].R

6 Calculation

The following input files were used in the implementation of this analysis:

- *qryChemHeis1.txt* and *qryChemHeis2.txt*: Concentration data from the HEIS database
- *qryAWLNAWLN_300Gauge.txt*: River stage data from the AWLN database
- *300 Gauge - 05022016.csv*: River stage data received from CHPRC
- *qryManHEIS.txt*: Water level data (manual) from the HEIS database
- *PNNL AWLN Data Compiled.csv*: Water level data received from CHPRC
- *CalculatedStage_All_06142016.RData*: River stage determined using convolution method
- *WellList_06142016.csv*: Well/COC pairs, use of River Stage as a covariate, analysis starting date, and minimum lag times based on water level lags
- *DIST.RData*: Table of well distances from the Columbia River
- *SCREEN.RData*: Well screen interval data
- *WELL.RData*: List of well location information including Operable Unit, well status, and well coordinates
- *WeightedLags.csv*: Lag times for each well determined using signal averaging of gross alpha and uranium
- *BASE.RData*: shapefiles for mapping

The calculations were performed with a series of R scripts (listed in Chapter 5 of this document). The first script (*01_ImportData_*[DATE].*R*) imports the concentration, river stage, and well/COC pairs data, subsets the data by COC/well pairs, removes data based on review qualifiers, identifies non-detects, sets the date range for analysis (post January 1, 1994), computes the daily average concentration when necessary, and correlates concentration and river stage data based on date. This script exports an R data file with a data table containing the merged (by date) concentration and river stage data. The second script (*02_TobitAnalysis_Initial_*[DATE].*R*) calculates trends based on Tobit regression model for the initial evaluation of trends. The script *03_SignalAveraging_*[DATE].*R* script was used to conduct the signal averaging for gross alpha and uranium. The script *04_TobitAnalysis_Final_*[DATE].*R* calculates trends based on the Tobit regression model and the lag times determined using signal averaging. The final script (*05_300TrendFigures_Final_*[DATE].*R*) calculates yearly mean concentrations and the LCL/UCL of this mean, calculates time to cleanup and LCL/UCL on the time to cleanup, and produces figures depicting these quantities together with the underlying data.

7 Results

Outputs of the calculations are presented in a series of figures, which are compiled in Appendix A. Examples are presented in each subsection to illustrate the key features of the various figures and tables that are used to depict the outputs of the calculations.

7.1 Tobit Model Regression Results

Example results of the calculations obtained from the Tobit regression analysis for uranium at well 399-1-16A are presented in Figure 4.

The header of the plot presents the approximate distance of the well from the Columbia River, the number of trend analysis periods, and a table displaying the estimated lag time, the coefficient of determination (R^2) when using the estimated lag time, the number of pairs of measured water level and river stage data, and pairs of concentration and river stage data that were used in the regression analysis (number of comparisons). The table also displays the percent of non-detects present in the COC data set.

The plot in the upper left hand corner is a map displaying location of the well.

The plot in the upper right hand corner displays the figure legend.

The first plot of this figure shows a time series of the river stage and the measured water level (when available). On the far left of the plot is the well screen interval. The time period of analysis is highlighted with a dark gray box.

The second plot of this figure shows a time series of the river stage and of the observed uranium concentrations. Measurements that are below the MDL for uranium (non-detects) are highlighted in red triangles. In the example in Figure 4, there are no non-detects present. The time period of analysis is highlighted with a dark gray box.

The third plot of this figure displays a time series of the fitted uranium concentrations (calculated concentrations) and measured uranium concentrations (observed concentrations). The fitted concentrations were determined after lagging the river stage data by the optimized lag time (in this case, 24 days), fitting the Tobit model, and using Equation 3.1. The Tobit parameter estimates are displayed below the plot. Measurements that are below the MDL for uranium (non-detects) are highlighted in red triangles. The time period of analysis is highlighted with a dark gray box.

Some quantities obtained from methods of linear least-squares regression and used for diagnosis of model "fit" do not have direct equivalents in maximum likelihood estimation (the regression analysis performed in this analysis uses maximum likelihood estimation). For example, the R^2 measure and the regression residuals presented in this calculation that are reported from the censReg R package when using Tobit censored regression are not direct equivalents to those obtained using least-squares estimation, even though they are based upon the difference between the measured and predicted values (the quantities obtained from Tobit maximum likelihood models do provide asymptotically unbiased estimates of these diagnostic measures) (Larson et al., 2004, *Development and Application of Watershed Regressions for Pesticides (WARP) for Estimating Atrazine Concentration Distributions in Streams*). These quantities are presented in this report for information purposes and caution is advised when using these quantities for regression diagnostics in analogous fashion to least-squares estimation.

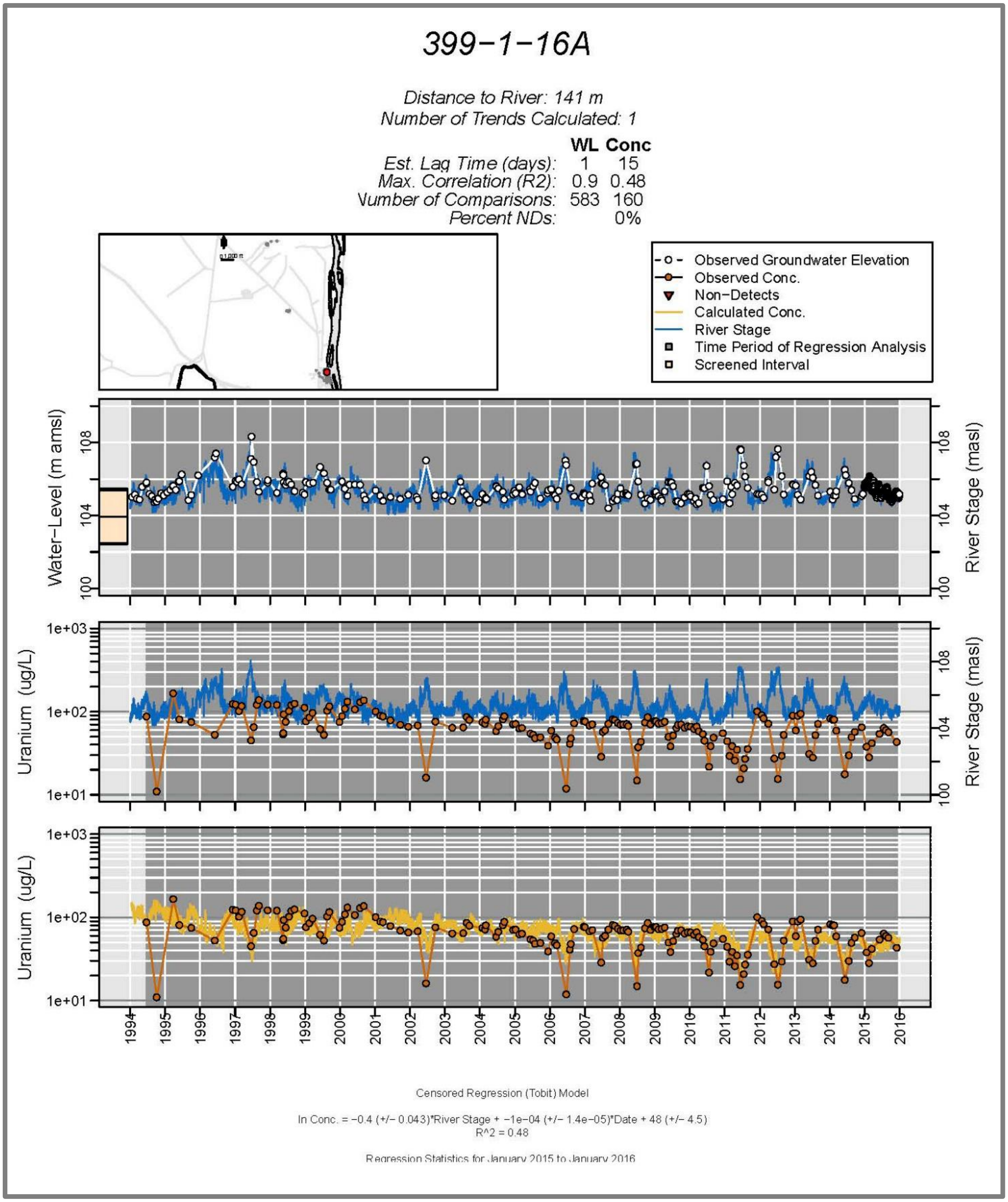


Figure 4. Censored Regression (Tobit) Model Results for Uranium in Well 399-1-16A

7.2 Yearly Mean Concentration and Upper and Lower Confidence Limit Results

Results from the yearly mean concentration, UCL, and LCL calculations for uranium in well 399-1-16A are presented in Figure 5.

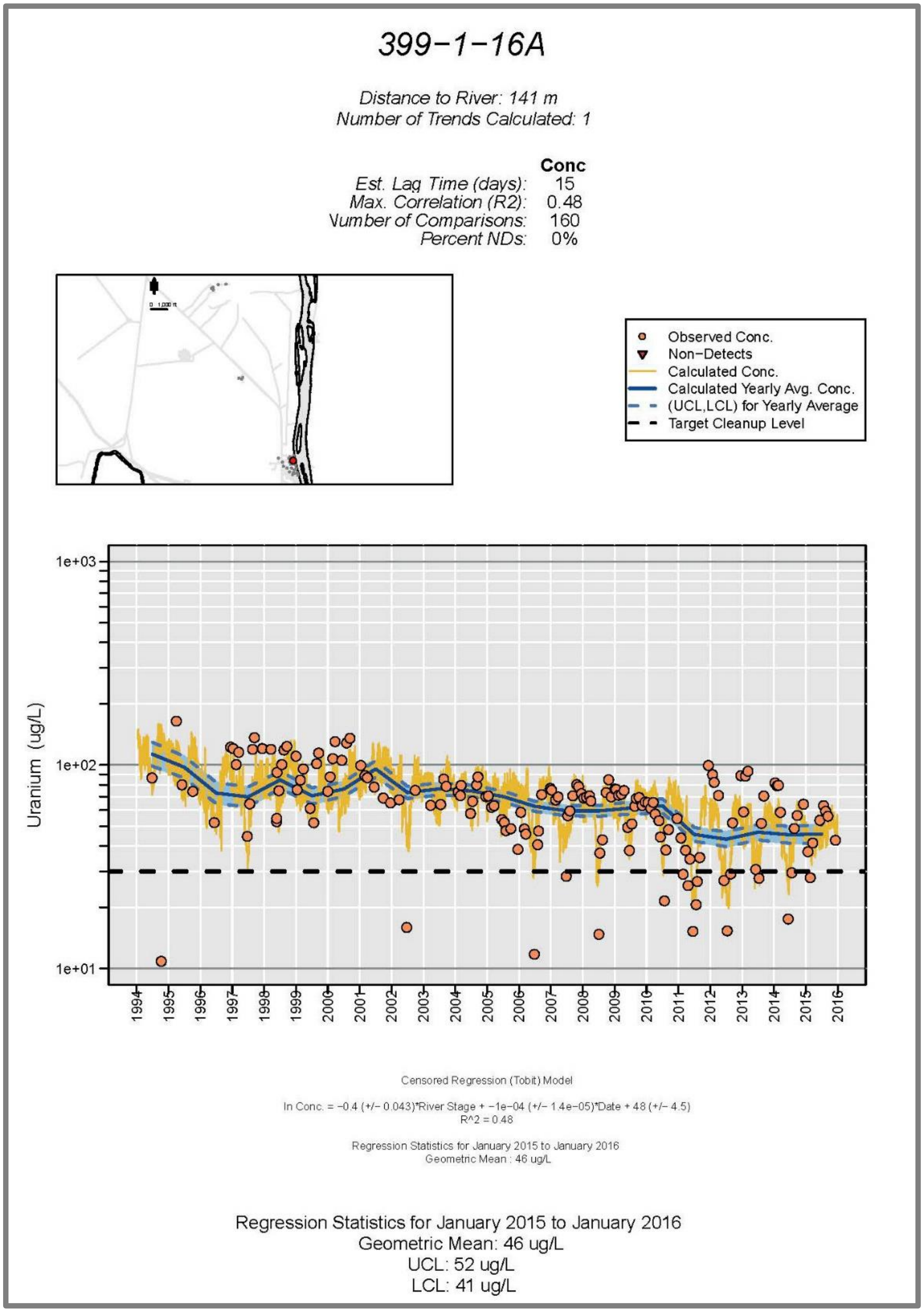


Figure 5. Yearly Mean Concentration and Upper/Lower Confidence Limit Results for Uranium in Well 399-1-16A

The header of the plot presents the approximate distance of the well from the Columbia River, the number of trend analysis periods, and a table displaying the estimated lag time, the coefficient of determination (R^2) when using the estimated lag time, and the number of pairs of measured water level and river stage data and pairs of concentration and river stage data that were used in the regression analysis (number of comparisons) and the percent non-detects for the COC Tobit regression.

The plot in the upper left-hand corner is a map displaying location of the well.

The plot in the upper right hand corner displays the figure legend.

The plot displays a time series of uranium concentration for both the fitted (calculated concentration) and measured data (observed concentration). The fitted concentrations were determined after lagging the river stage data by the optimized lag time (in this case, 24 days) and using Equation 3.1. Measurements that are below the MDL for uranium (non-detects) are highlighted in red triangles. In the example presented in Figure 5, there are no non-detects present. The UCLs and LCLs are displayed with dashed light blue lines and the window between the UCL and LCL (the confidence interval) is highlighted in light blue. The fitted yearly mean is displayed with a solid dark blue line. The target cleanup level is represented with a dashed black line (in the case of uranium the target cleanup level is 30 µg/L). The censored regression used to determine the calculated concentration and yearly mean and UCL/LCL is presented below the graph. Also presented following the graph is the yearly mean for the most recent year along with the UCL and LCL of the yearly mean for the most recent year.

7.3 Time to Cleanup Results

The time to cleanup results for uranium in well 399-1-16A are presented in Figure 6.

The header of the plot presents the approximate distance of the well from the Columbia River, the number of trend analysis periods, and a table displaying the estimated lag time, the coefficient of determination (R^2) when using the estimated lag time, the number of pairs of measured water level and river stage data and pairs of concentration and river stage data that were used in the regression analysis (number of comparisons), and the percent non-detects for the COC Tobit regression.

The plot in the upper left hand corner is a map displaying location of the well.

The plot in the upper right hand corner displays the figure legend.

The plot displays a time series of measured uranium concentrations (observed concentrations). Measurements that are below the MDL for uranium (non-detects) are highlighted in red triangles. In the example shown in Figure 6, there are no non-detects present. The calculated yearly average concentration is displayed with a dark blue line. The model calculated yearly average concentrations for past, current, and future years are displayed. The future concentrations were calculated using the average river stage of the previous 11 years (2005 to 2015). The UCLs and LCLs are displayed with dashed light blue lines and the window between the UCL and LCL (confidence interval) is highlighted in light blue. The target cleanup level is represented with a dashed black line (in the case of uranium the target cleanup level is 30 µg/L). The two vertical red dotted lines indicate the confidence interval of the time to cleanup.
The censored regression used to determine the calculated concentration and yearly mean and UCL/LCL is presented below the graph. Also presented below the graph is the well assessment, in accordance to the procedure established in SGW-58883, along with the rationale for this assessment. In the example presented in Figure 6, the well is determined to be of low concern because the yearly average concentration and LCL and UCL of the yearly average concentration are calculated to be below the target level of 30 µg/L by the targeted cleanup time of 2041 established in the ROD.

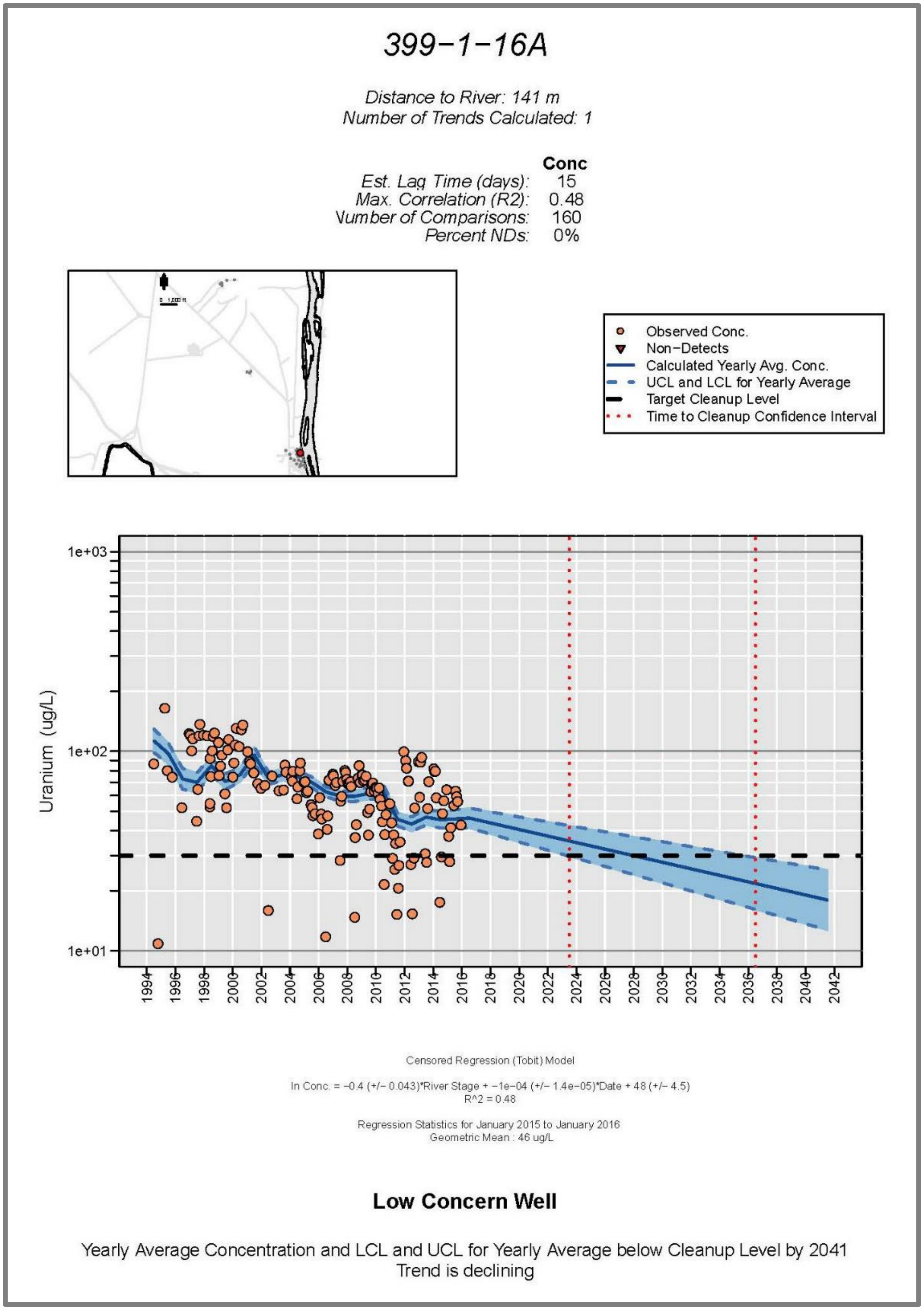


Figure 6. Time to Cleanup Results for Uranium in Well 399-1-16A

7.4 Summary of Results

The results of the analyses are presented in Tables 13 through 18.

Table 13. Calculated Mean, UCL, and Time to Cleanup for cis-1,2-Dichloroethene

Well Name	Cleanup Level (μg/L)	2015		[Relative] Well Assessment	Estimated Time to Cleanup (LCL, UCL)
		Mean (μg/L)	UCL (μg/L)		
399-1-16B	16	170	179	High Concern Well	Cleanup not attained by 2050
399-1-57	16	58	67	Low Concern Well	2025 (2021, 2038)

Table 14. Calculated Mean, UCL, and Time to Cleanup for Gross Alpha

Well Name	Cleanup Level (pCi/L)	2015		[Relative] Well Assessment	Estimated Time to Cleanup (LCL, UCL)
		Mean (pCi/L)	UCL (pCi/L)		
399-1-1	15	14	17	Low Concern Well	2011 (2011, 2027)
399-1-2	15	7	9	High Concern Well	Cleanup not attained by 2041
399-1-7	15	41	62	Moderate Concern Well	Cleanup not attained by 2041
399-1-10A	15	10	13	Low Concern Well	2007 (2005, 2011)
399-1-11	15	6	8	Low Concern Well	2000 (1998, 2001)
399-1-12	15	9	12	Low Concern Well	2003 (2000, 2013)
399-1-16A	15	20	27	Moderate Concern Well	2022 (2014, >2041)
399-1-17A	15	15	28	Low Concern Well	2015 (2013, 2041)
399-1-21A	15	12	15	Moderate Concern Well	2013 (2005, >2041)
399-1-55	15	121	801	Indeterminate No. samples < 8	-
399-2-1	15	37	46	Moderate Concern Well	Cleanup not attained by 2041
399-2-2	15	46	67	Moderate Concern Well	Cleanup not attained by 2041
399-2-32	15	41	96	Indeterminate No. samples < 8	-
399-3-6*	15	18	65	Moderate Concern Well	Cleanup not attained by 2041

Table 14. Calculated Mean, UCL, and Time to Cleanup for Gross Alpha

Well Name	Cleanup Level (pCi/L)	2015		[Relative] Well Assessment	Estimated Time to Cleanup (LCL, UCL)
		Mean (pCi/L)	UCL (pCi/L)		
399-3-9	15	46	61	Moderate Concern Well	Cleanup not attained by 2041
399-3-12	15	19	37	Moderate Concern Well	Cleanup not attained by 2041
399-3-20	15	28	37	Moderate Concern Well	Cleanup not attained by 2041
399-4-1*	15	9	18	Moderate Concern Well	2009 (2009, >2041)
399-4-7	15	26	36	Moderate Concern Well	Cleanup not attained by 2041
399-4-10	15	29	39	Moderate Concern Well	2035 (2020, >2041)
399-4-11	15	9	15	Moderate Concern Well	2010 (2010, >2041)
399-4-12	15	25	101	Indeterminate No. samples < 8	Cleanup not attained by 2041
399-4-15	15	5	10	Low Concern Well	2013 (2013, 2014)
399-6-3	15	17	139	Indeterminate No. samples <8	Cleanup not attained by 2041
399-8-1	15	12	18	Moderate Concern Well	2012 (2011, >2041)
399-8-5A	15	14	41	Moderate Concern Well	2015 (2011, >2041)
699-S6-E4B	15	4	7	Moderate Concern Well	Cleanup not attained by 2041
699-S6-E4E	15	9	48	Moderate Concern Well	Cleanup not attained by 2041
699-S6-E4K	15	5	18	Moderate Concern Well	2007 (2007, >2041)
AT-3-7-M	15	11	28	Moderate Concern Well	Cleanup not attained by 2041

* See Appendix B.

Table 15. Calculated Mean, UCL, and Time to Cleanup for Nitrate

Well Name	Cleanup Level (mg/L)	2015		[Relative] Well Assessment	Estimated Time to Cleanup (LCL, UCL)
		Mean (mg/L)	UCL (mg/L)		
699-12-2C	45	51	61	Low Concern Well	2019 (2014, 2039)
699-13-1E	45	47	50	Moderate Concern Well	2026 (2014, >2050)
699-13-2D	45	43	45	Low Concern Well	2013 (2012, 2016)
699-13-3A	45	91	108	High Concern Well	Cleanup not attained by 2050

Table 16. Calculated Mean, UCL, and Time to Cleanup for TCE

Well Name	Cleanup Level (µg/L)	2015		[Relative] Well Assessment	Estimated Time to Cleanup (LCL, UCL)
		Mean (µg/L)	UCL (µg/L)		
399-4-14	4	3.1	7.0	Moderate Concern Well	Cleanup not attained by 2050

Table 17. Calculated Mean, UCL, and Time to Cleanup for Tritium

Well Name	Cleanup Level (pCi/L)	2015		[Relative] Well Assessment	Estimated Time to Cleanup (LCL, UCL)
		Mean (pCi/L)	UCL (pCi/L)		
699-12-2C	20,000	30,000	31,000	Low Concern Well	2017 (2017, 2017)
699-13-0A	20,000	31,000	38,000	Moderate Concern Well	2021 (2018, >2031)
699-13-1E	20,000	101,000	111,000	Moderate Concern Well	Cleanup not attained by 2031
699-13-2D	20,000	203,000	211,000	Moderate Concern Well	Cleanup not attained by 2031
699-13-3A	20,000	870,000	930,000	Moderate Concern Well	Cleanup not attained by 2031

Table 18. Calculated Mean, UCL, and Time to Cleanup for Uranium

Well Name	Cleanup Level (µg/L)	2015		[Relative] Well Assessment	Estimated Time to Cleanup (LCL, UCL)
		Mean (µg/L)	UCL (µg/L)		
399-1-1	30	37	44	Moderate Concern Well	2039 (2019, >2041)
399-1-2	30	10	12	Low Concern Well	1994 (1994, 1994)
399-1-7	30	87	112	High Concern Well	Cleanup not attained by 2041
399-1-10A	30	24	27	Low Concern Well	2011 (2011, 2011)
399-1-11	30	10	12	Low Concern Well	2000 (1998, 2000)
399-1-12	30	19	22	Low Concern Well	2000 (1998, 2013)
399-1-16A	30	46	51	Low Concern Well	2028 (2023, 2036)
399-1-17A	30	58	69	Moderate Concern Well	Cleanup not attained by 2041
399-1-21A	30	31	36	Moderate Concern Well	Cleanup not attained by 2041
399-1-55	30	214	438	Moderate Concern Well	2039 (2019, >2041)
399-2-1	30	76	93	Moderate Concern Well	Cleanup not attained by 2041
399-2-2	30	93	123	Moderate Concern Well	Cleanup not attained by 2041
399-2-32	30	34	45	Moderate Concern Well	2017 (2015, >2041)
399-3-6*	30	14	17	Low Concern Well	2013 (2012, 2013)
399-3-9	30	131	158	High Concern Well	Cleanup not attained by 2041
399-3-12	30	25	31	Moderate Concern Well	2013 (2013, >2041)
399-3-20	30	49	58	Moderate Concern Well	2027 (2020, >2041)
399-4-1*	30	18	22	Low Concern Well	2013 (2013, 2014)
399-4-7	30	61	71	High Concern Well	Cleanup not attained by 2041
399-4-10	30	87	98	High Concern Well	Cleanup not attained by 2041
399-4-11	30	27	32	Moderate Concern Well	Cleanup not attained by 2041
399-4-12	30	28	32	Moderate Concern Well	Cleanup not attained by 2041

Table 18. Calculated Mean, UCL, and Time to Cleanup for Uranium

Well Name	Cleanup Level (µg/L)	2015		[Relative] Well Assessment	Estimated Time to Cleanup (LCL, UCL)
		Mean (µg/L)	UCL (µg/L)		
399-4-15	30	18	22	Low Concern Well	2014 (2014, 2015)
399-6-3	30	18	22	Low Concern Well	2011 (2011, 2012)
399-8-1	30	20	26	Low Concern Well	2014 (2012, 2014)
399-8-5A	30	35	58	Low Concern Well	2016 (2014, 2031)
699-S6-E4B	30	7	8	Moderate Concern Well	2007 (2007, 2007)
699-S6-E4E	30	12	14	Low Concern Well	2007 (2007, 2007)
699-S6-E4K	30	7	10	Low Concern Well	2007 (2007, 2007)
AT-3-7-M	30	22	34	Moderate Concern Well	Cleanup not attained by 2041

* See Appendix B.

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Appendix A

Plots of Results

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Contents

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Tobit Regression Results

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cis-1,2-Dichloroethene (cis-1,2-DCE)

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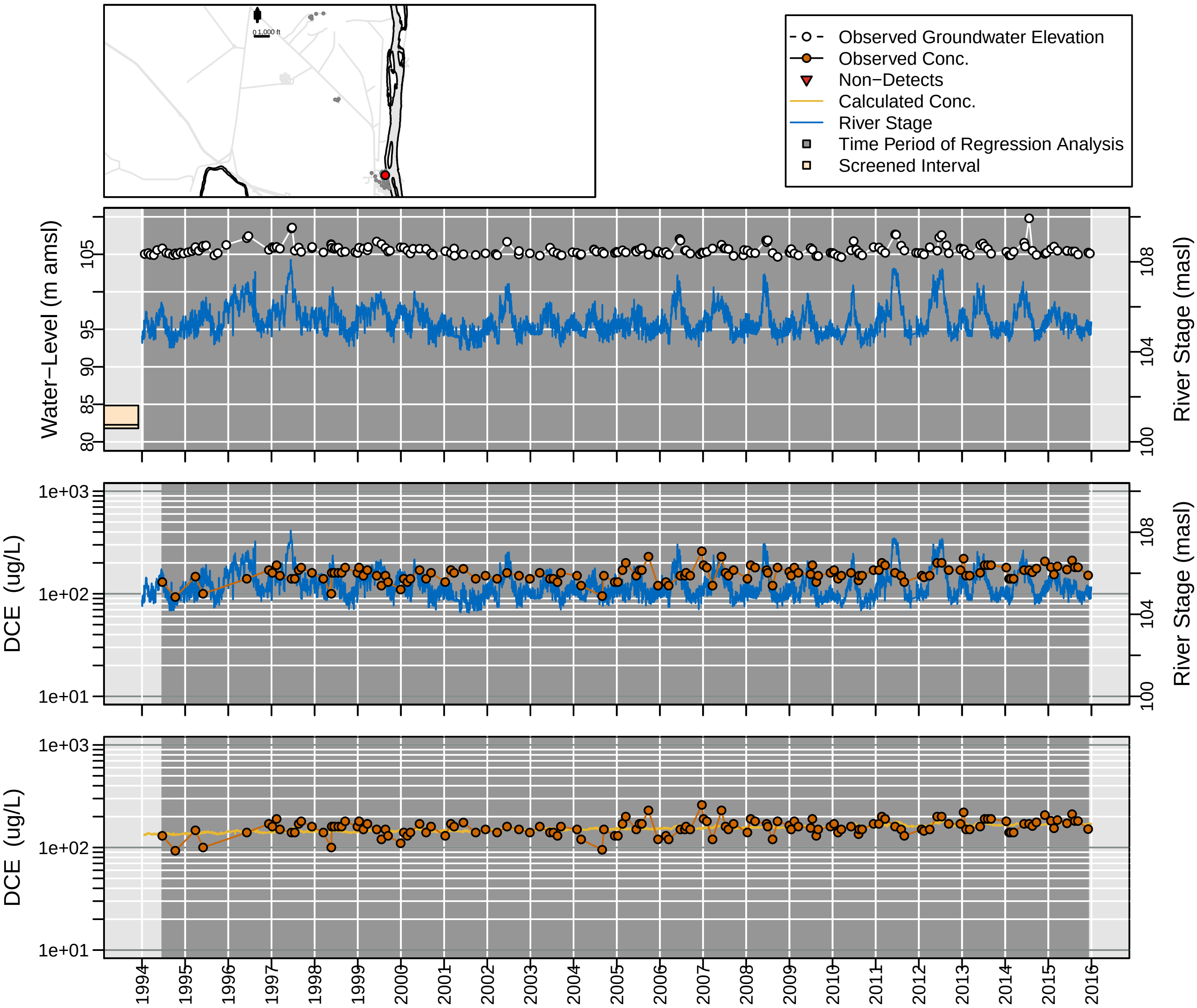
399−1−16B

Distance to River: 135 m
Number of Trends Calculated: 1

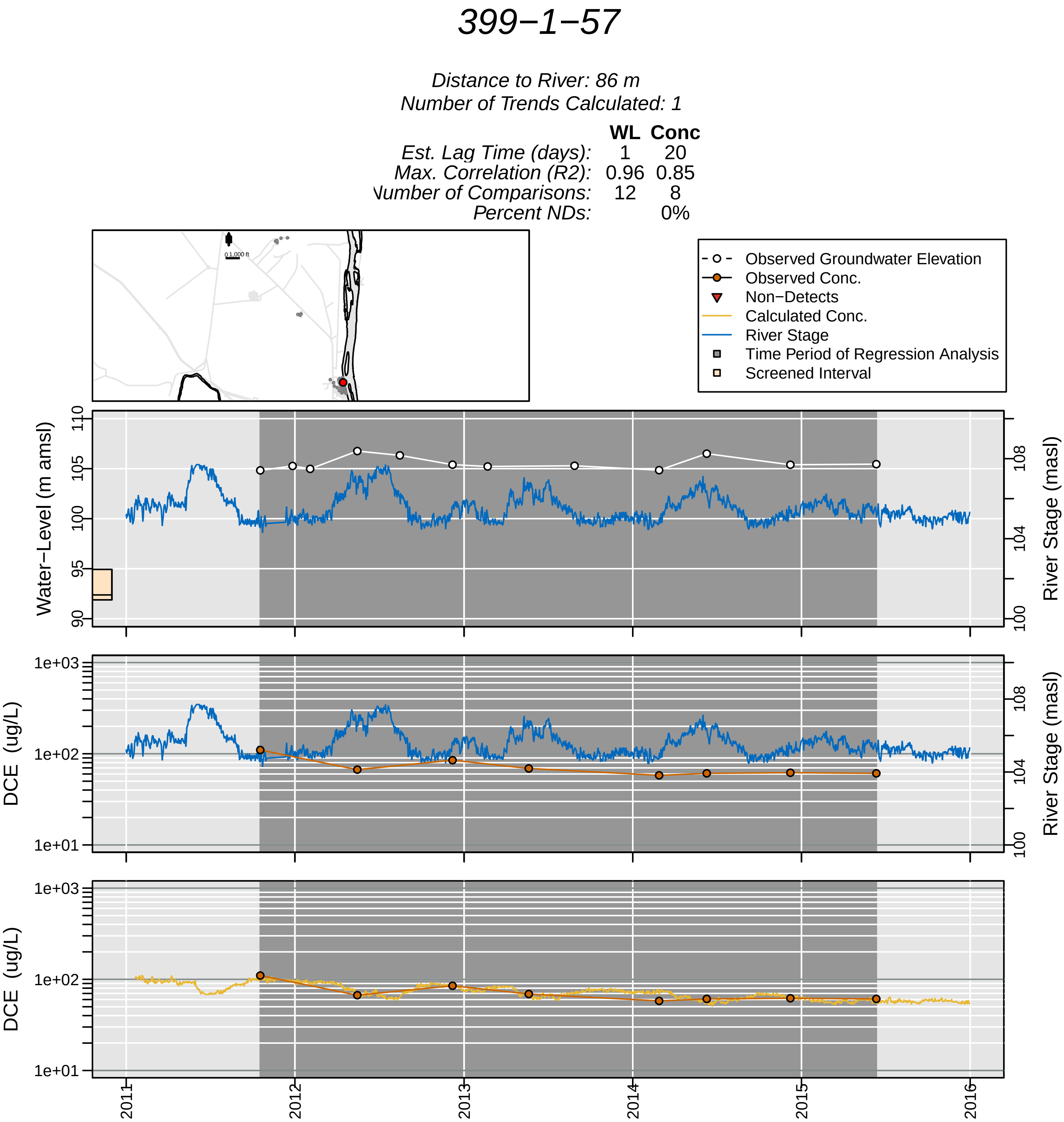
	WL	Conc
Est. Lag Time (days):	1	18
Max. Correlation (R2):	0.73	0.15
Number of Comparisons:	204	139
Percent NDs:		0%



Censored Regression (Tobit) Model

ln Conc. = 0.039 (+/− 0.021)*River Stage + 2.8e−05 (+/− 6e−06)*Date + 0.52 (+/− 2.2)
R^2 = 0.15

Regression Statistics for January 2015 to January 2016



Censored Regression (Tobit) Model

ln Conc. = −0.15 (+/− 0.041)*River Stage + −0.00035 (+/− 6.4e−05)*Date + 25 (+/− 4.4)
R^2 = 0.85

Regression Statistics for January 2015 to January 2016

Gross Alpha

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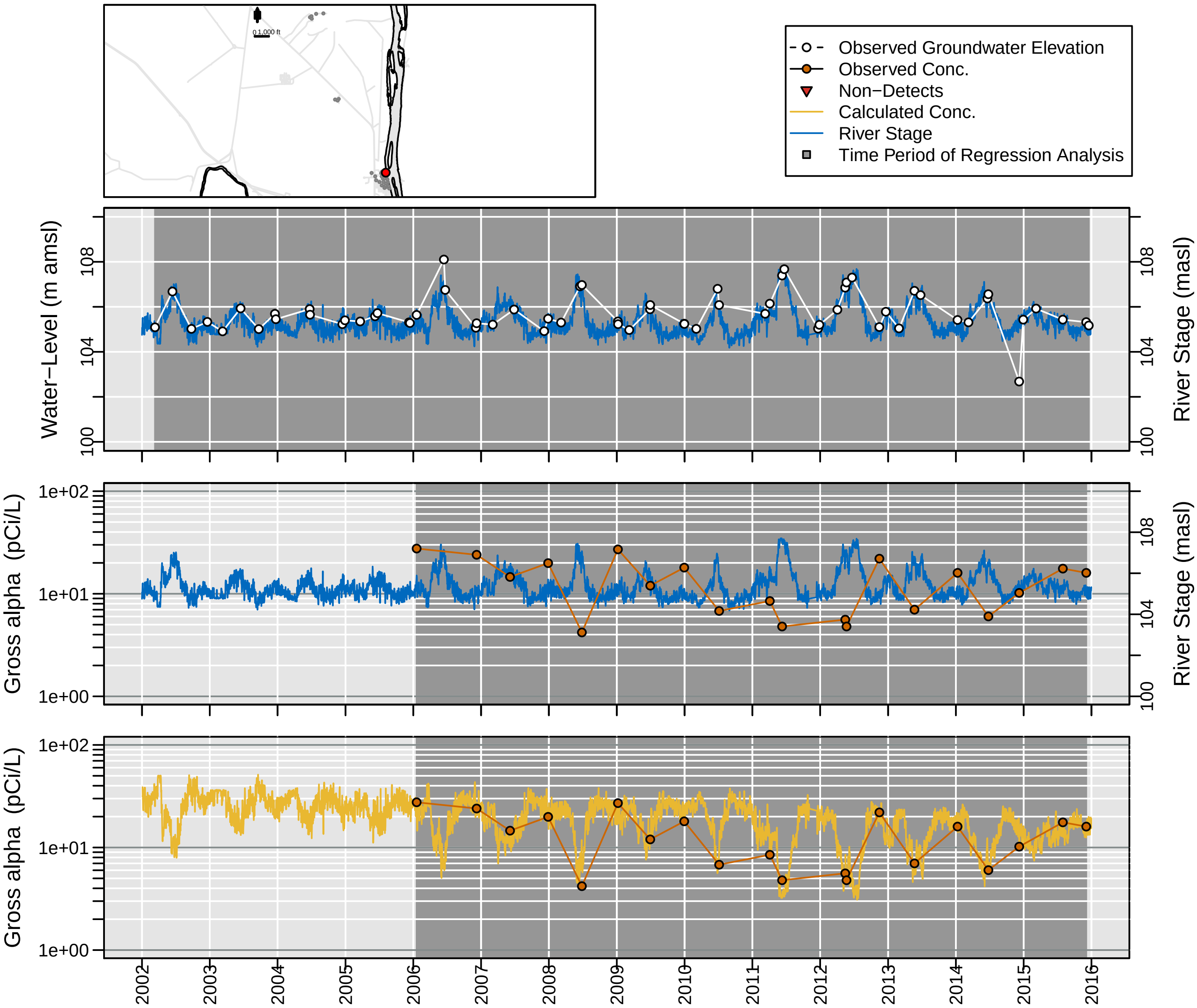
399−1−1

Distance to River: 76 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	3
Max. Correlation (R2):	0.8	0.88
Number of Comparisons:	65	20
Percent NDs:		0%



Censored Regression (Tobit) Model

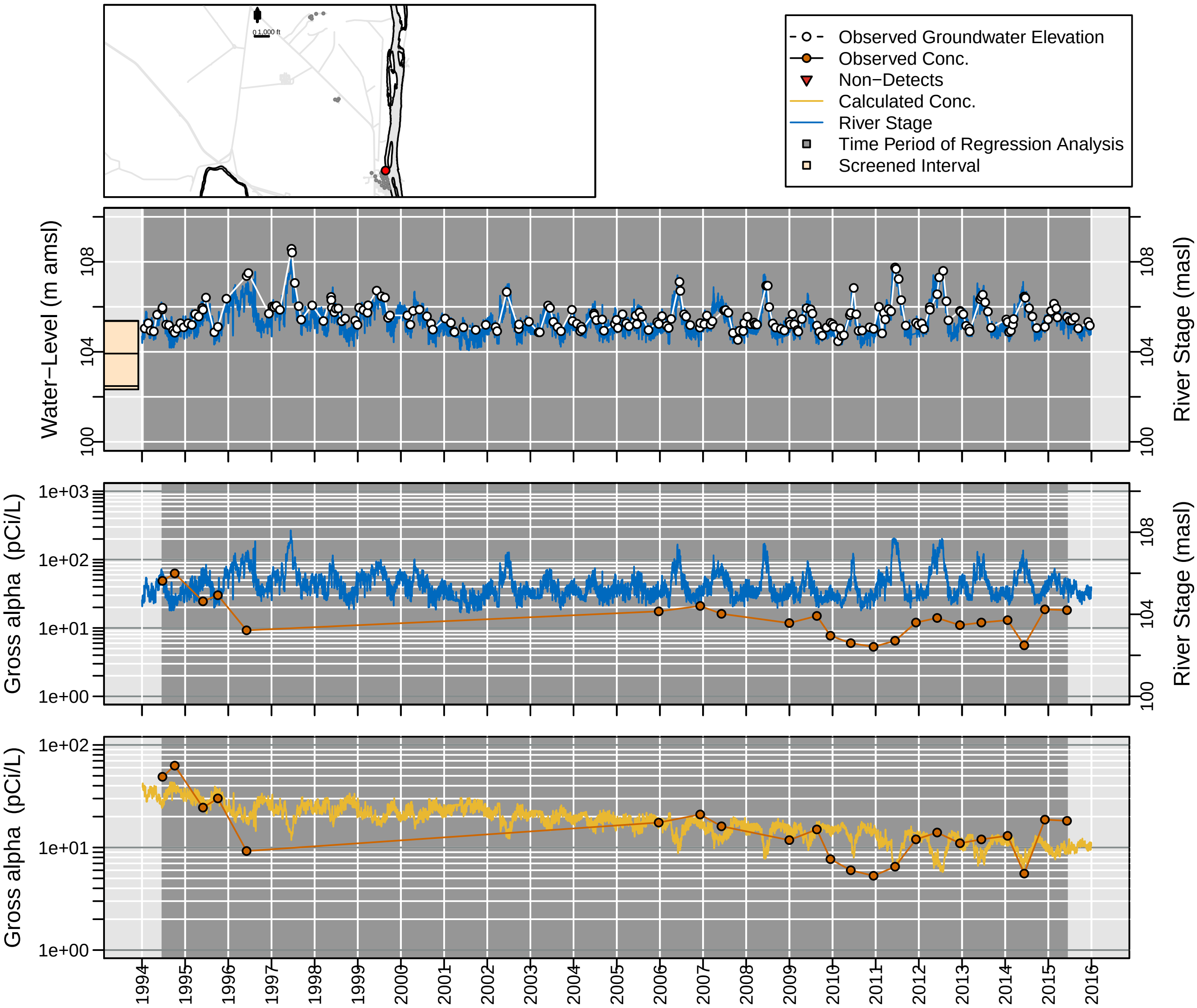
ln Conc. = −0.69 (+/− 0.06)*River Stage + −0.00013 (+/− 4.5e−05)*Date + 77 (+/− 6.4)
R^2 = 0.88

Regression Statistics for January 2015 to January 2016

399−1−10A

Distance to River: 70 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	0	5
Max. Correlation (R2):	0.92	0.54
Number of Comparisons:	230	22
Percent NDs:		0%



Censored Regression (Tobit) Model

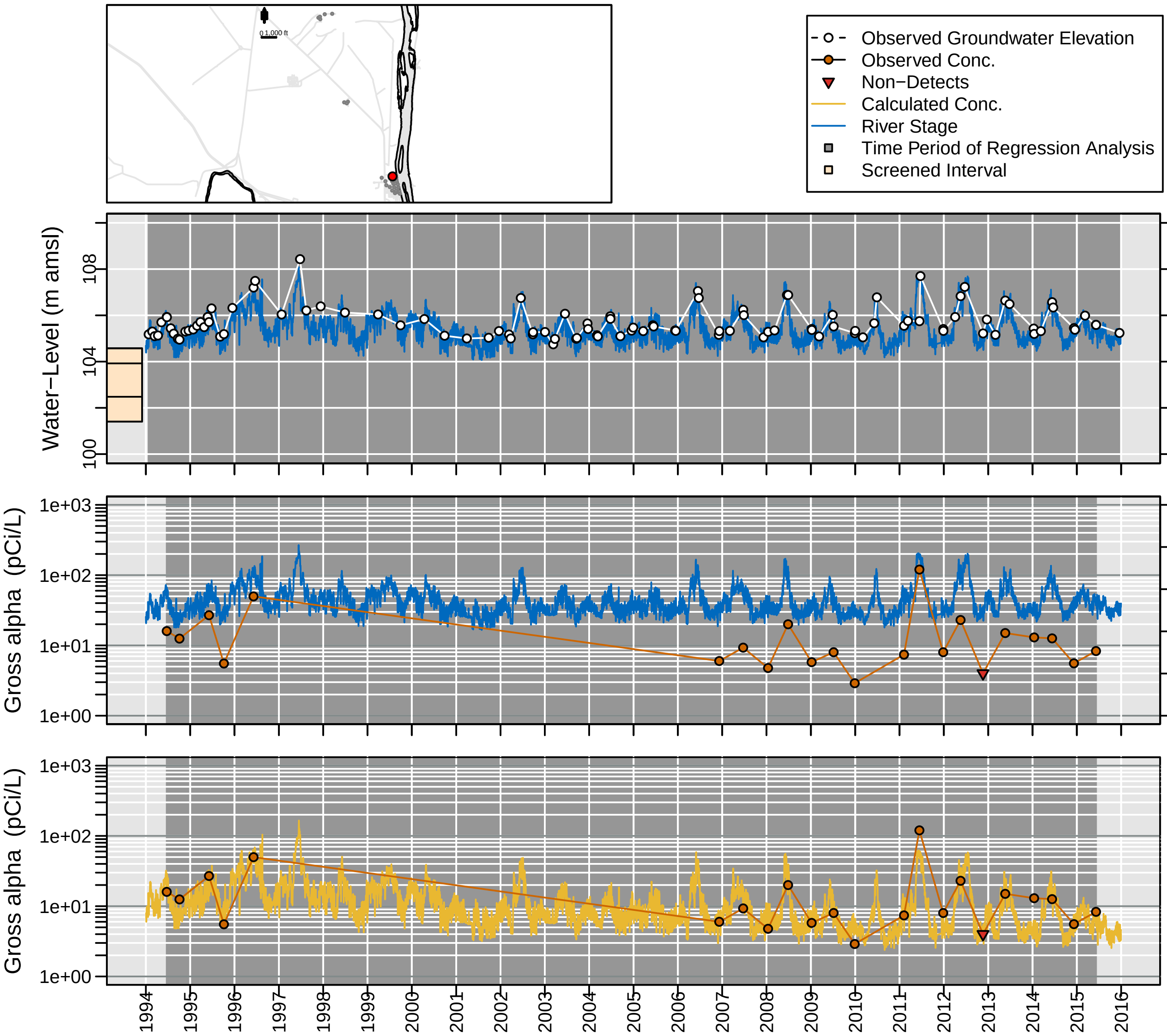
ln Conc. = −0.29 (+/− 0.11)*River Stage + −0.00015 (+/− 3.5e−05)*Date + 36 (+/− 12)
R^2 = 0.54

Regression Statistics for January 2015 to January 2016

399−1−11

Distance to River: 314 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	0	2
Max. Correlation (R2):	0.87	0.74
Number of Comparisons:	109	22
Percent NDs:		5%



Censored Regression (Tobit) Model

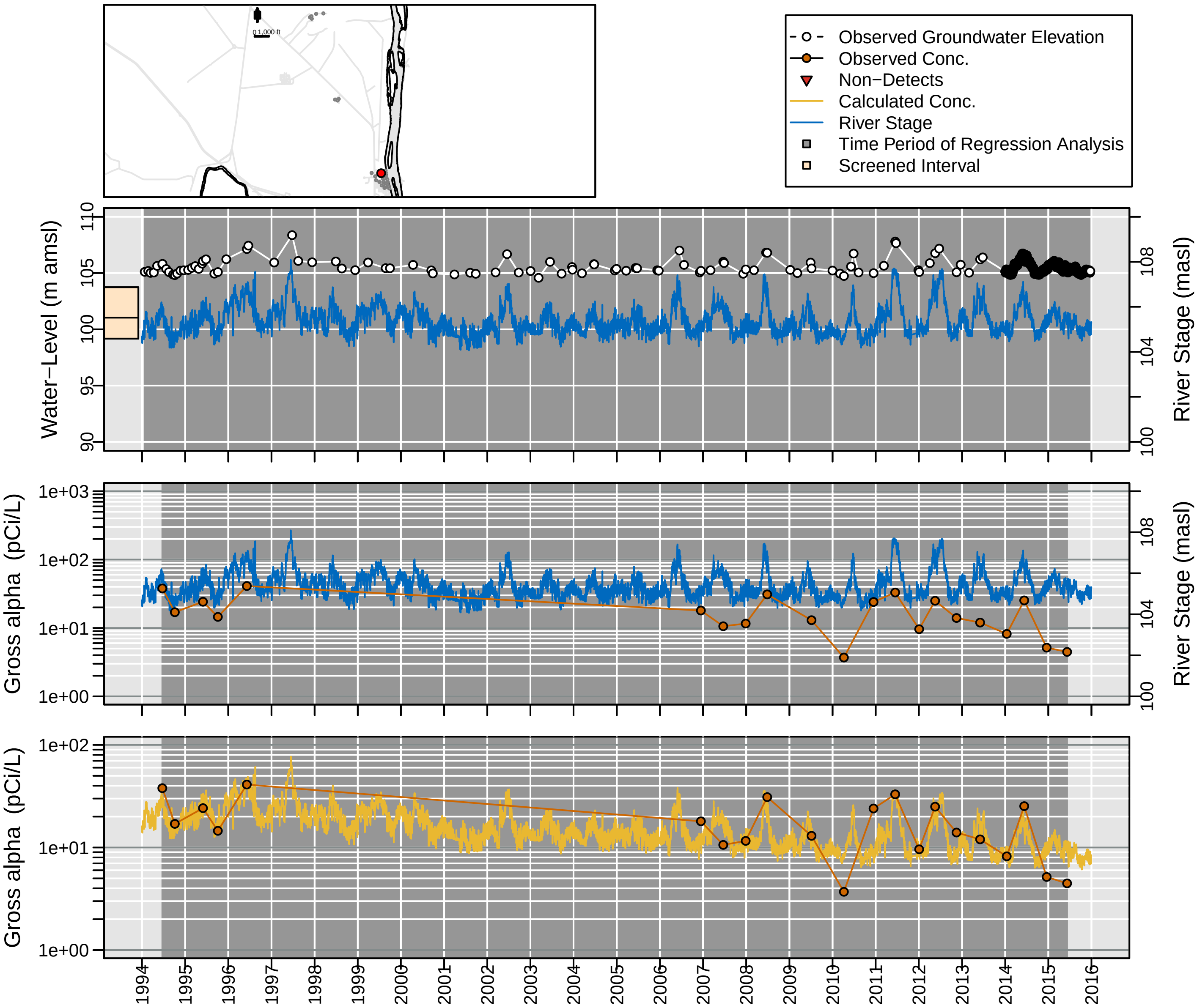
ln Conc. = 0.94 (+/− 0.12)*River Stage + −0.00012 (+/− 3.7e−05)*Date + −95 (+/− 13)
R^2 = 0.74

Regression Statistics for January 2015 to January 2016

399−1−12

Distance to River: 398 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	1
Max. Correlation (R2):	0.92	0.61
\Number of Comparisons:	827	21
Percent NDs:		0%



Censored Regression (Tobit) Model

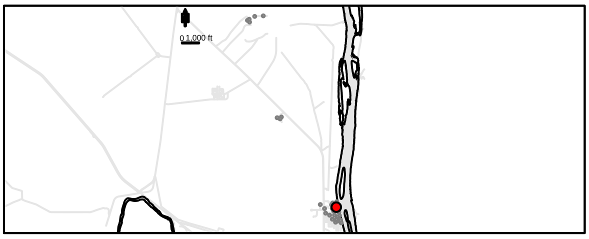
ln Conc. = 0.5 (+/− 0.11)*River Stage + −0.00011 (+/− 3.5e−05)*Date + −48 (+/− 12)
R^2 = 0.61

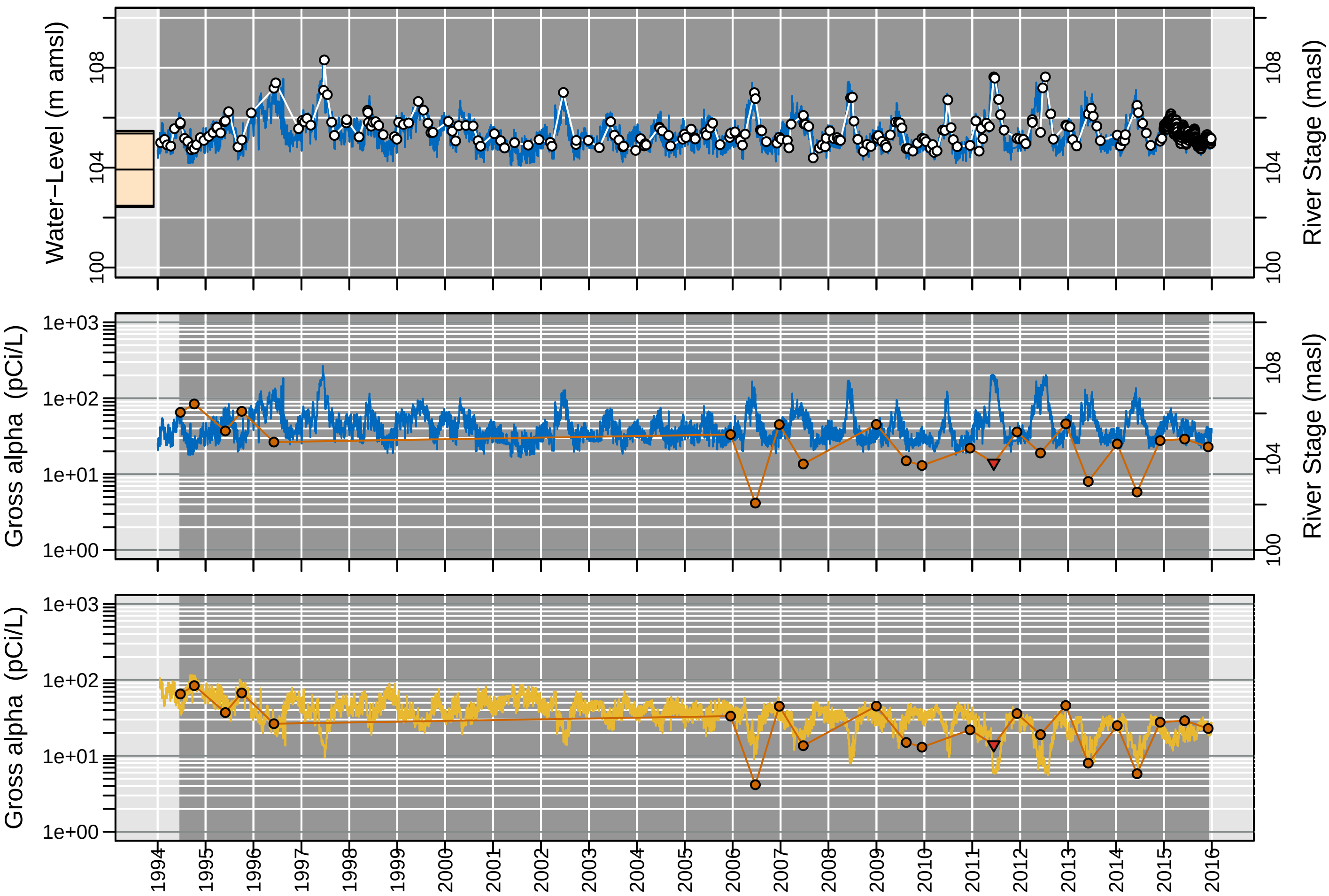
Regression Statistics for January 2015 to January 2016

399−1−16A

Distance to River: 141 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	15
Max. Correlation (R2):	0.9	0.57
Number of Comparisons:	583	23
Percent NDs:		4%





Censored Regression (Tobit) Model

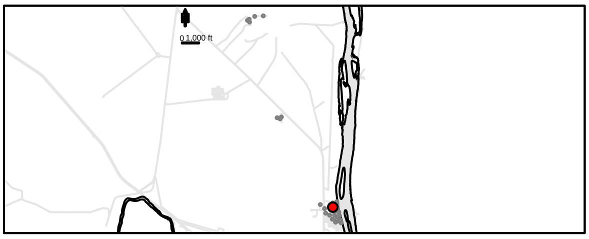
ln Conc. = −0.6 (+/− 0.13)*River Stage + −0.00014 (+/− 3.8e−05)*Date + 69 (+/− 14)
R^2 = 0.57

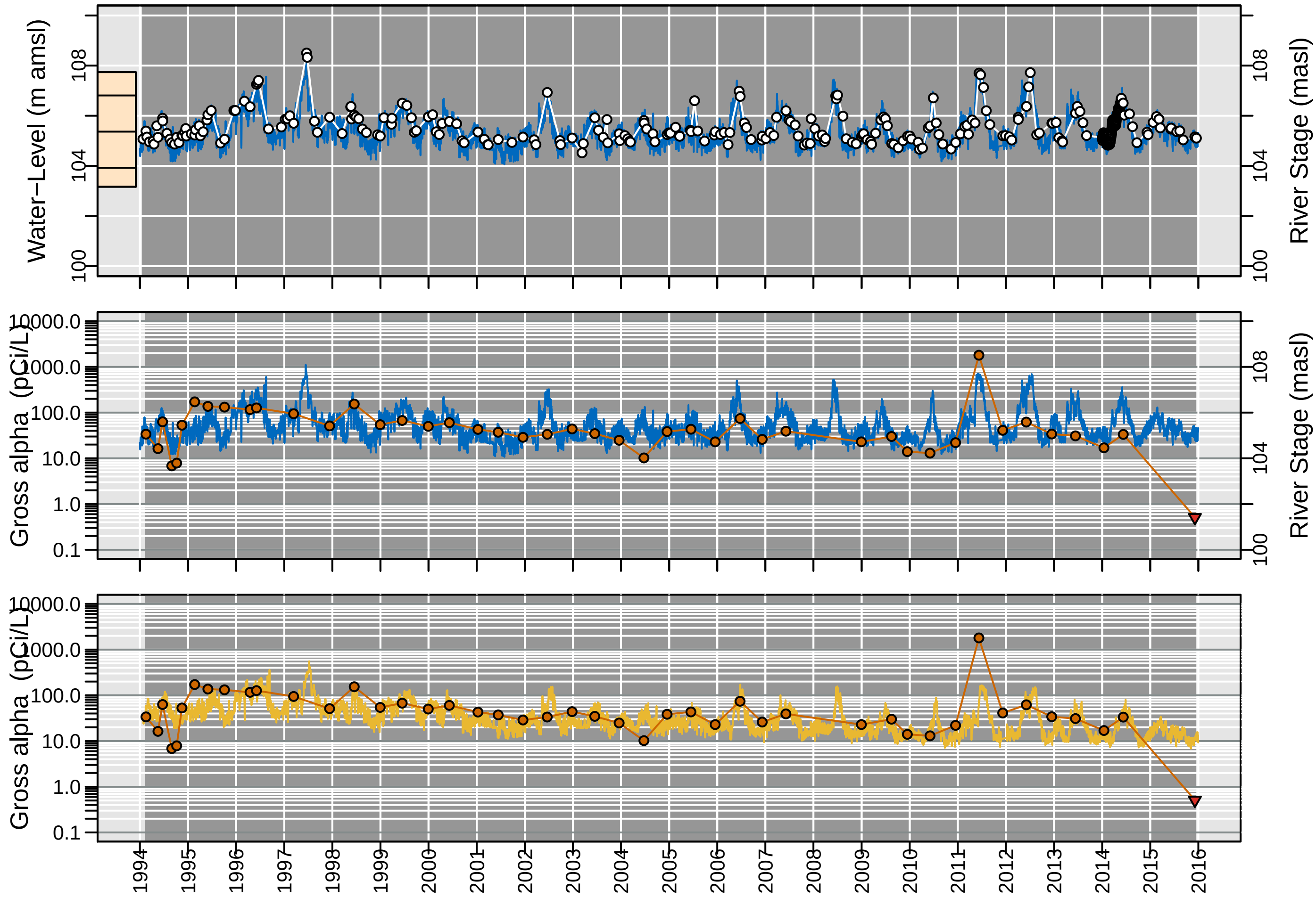
Regression Statistics for January 2015 to January 2016

399−1−17A

Distance to River: 344 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	26
Max. Correlation (R2):	0.89	0.33
Number of Comparisons:	385	45
Percent NDs:		2%





Censored Regression (Tobit) Model

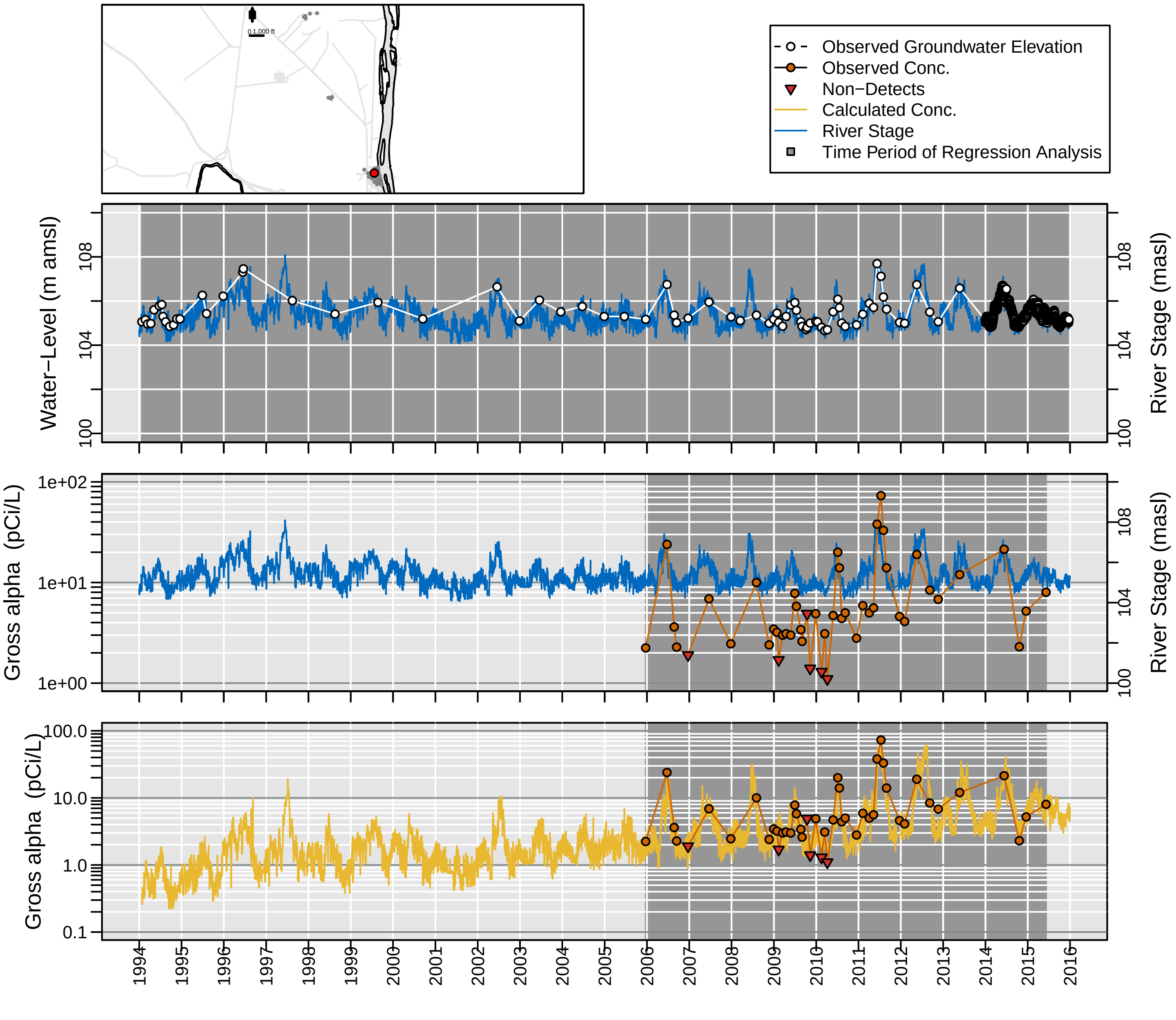
ln Conc. = 0.91 (+/− 0.22)*River Stage + −0.00017 (+/− 5.9e−05)*Date + −90 (+/− 23)
R^2 = 0.33

Regression Statistics for January 2015 to January 2016

399−1−2

Distance to River: 386 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	24
Max. Correlation (R2):	0.93	0.85
Number of Comparisons:	793	48
Percent NDs:		12%



Censored Regression (Tobit) Model

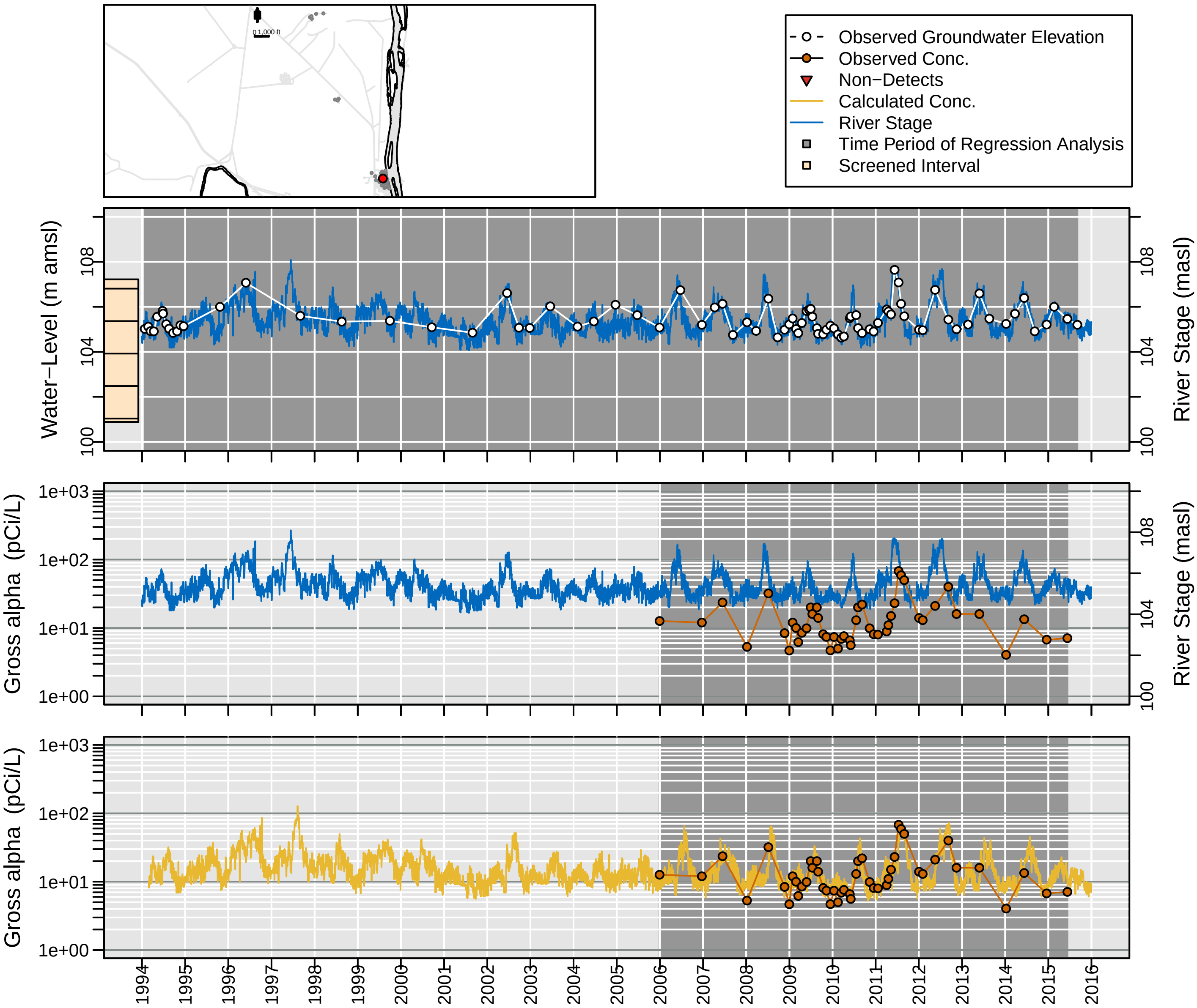
ln Conc. = 1.1 (+/− 0.071)*River Stage + 0.00029 (+/− 6.8e−05)*Date + −110 (+/− 7.4)
R^2 = 0.85

Regression Statistics for January 2015 to January 2016

399−1−21A

Distance to River: 340 m
Number of Trends Calculated: 1

	WL	**Conc**
Est. Lag Time (days):	1	58
Max. Correlation (R2):	0.89	0.72
Number of Comparisons:	89	48
Percent NDs:		0%



Censored Regression (Tobit) Model

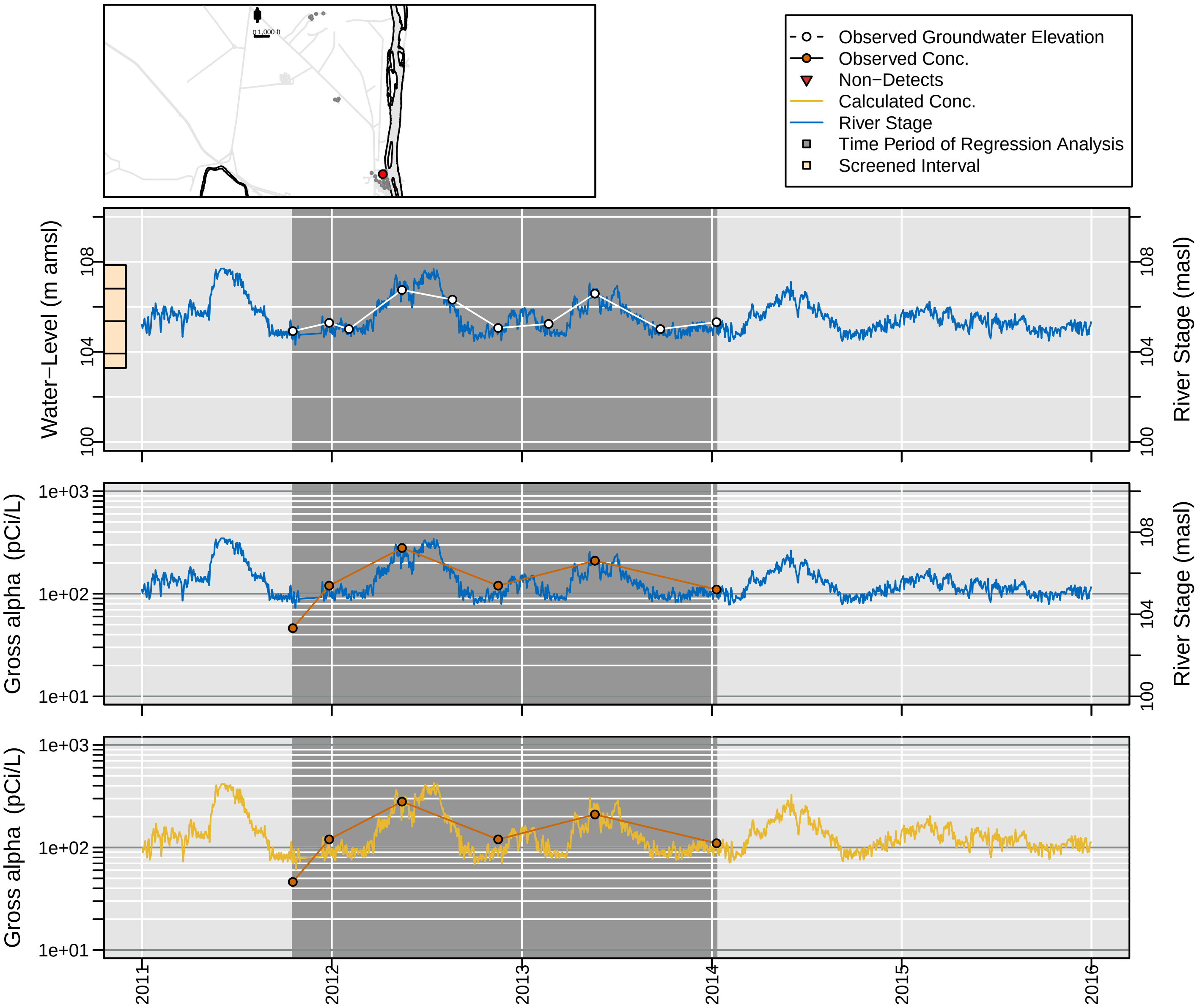
ln Conc. = 0.76 (+/− 0.069)*River Stage + −4.7e−05 (+/− 7.3e−05)*Date + −77 (+/− 7.2)
R^2 = 0.72

Regression Statistics for January 2015 to January 2016

399−1−55

Distance to River: 295 m
Number of Trends Calculated: 1

	WL	**Conc**
Est. Lag Time (days):	1	1
Max. Correlation (R2):	0.98	0.77
Number of Comparisons:	10	6
Percent NDs:		0%



Censored Regression (Tobit) Model

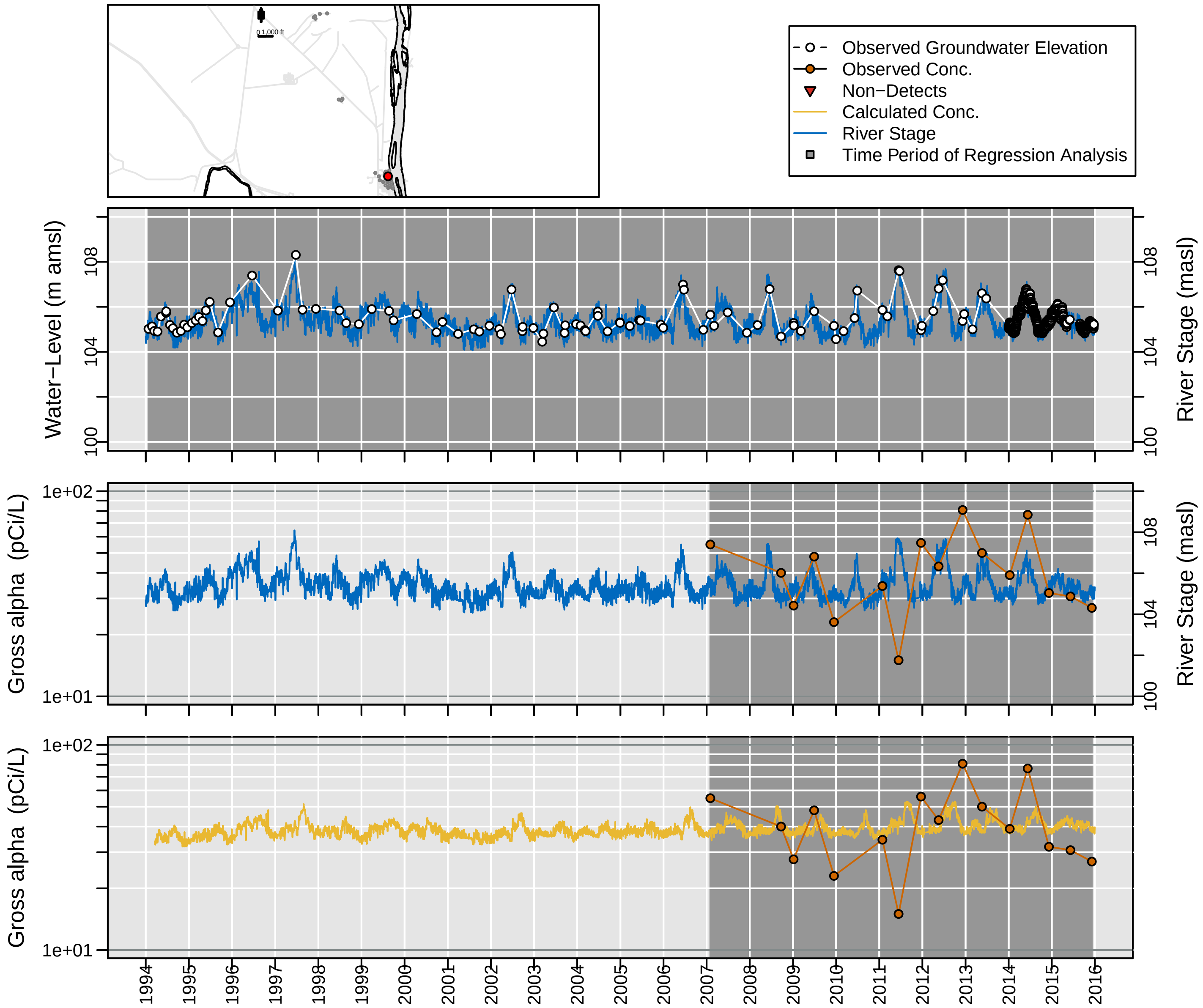
ln Conc. = 0.57 (+/− 0.14)*River Stage + 8.8e−05 (+/− 0.00041)*Date + −57 (+/− 14)
R^2 = 0.77

Regression Statistics for January 2015 to January 2016

399−1−7

Distance to River: 209 m
Number of Trends Calculated: 1

	WL	**Conc**
Est. Lag Time (days):	1	78
Max. Correlation (R2):	0.94	0.015
Number of Comparisons:	715	16
Percent NDs:		0%



Censored Regression (Tobit) Model

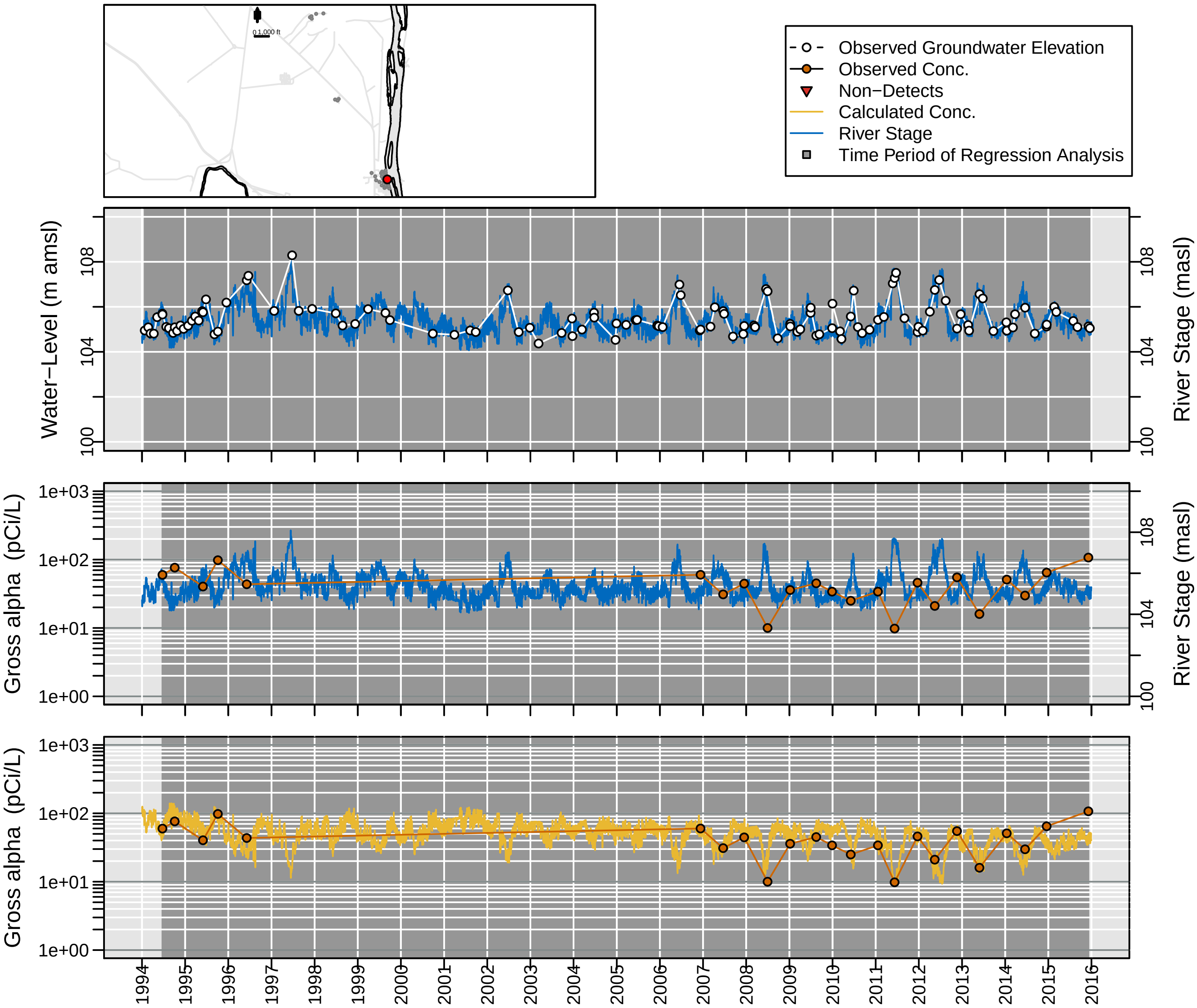
ln Conc. = 0.12 (+/− 0.24)*River Stage + 1.4e−05 (+/− 0.00011)*Date + −9 (+/− 25)
R^2 = 0.015

Regression Statistics for January 2015 to January 2016

399−2−1

Distance to River: 57 m
Number of Trends Calculated: 1

	WL	**Conc**
Est. Lag Time (days):	1	1
Max. Correlation (R2):	0.9	0.74
Number of Comparisons:	125	23
Percent NDs:		0%



Censored Regression (Tobit) Model

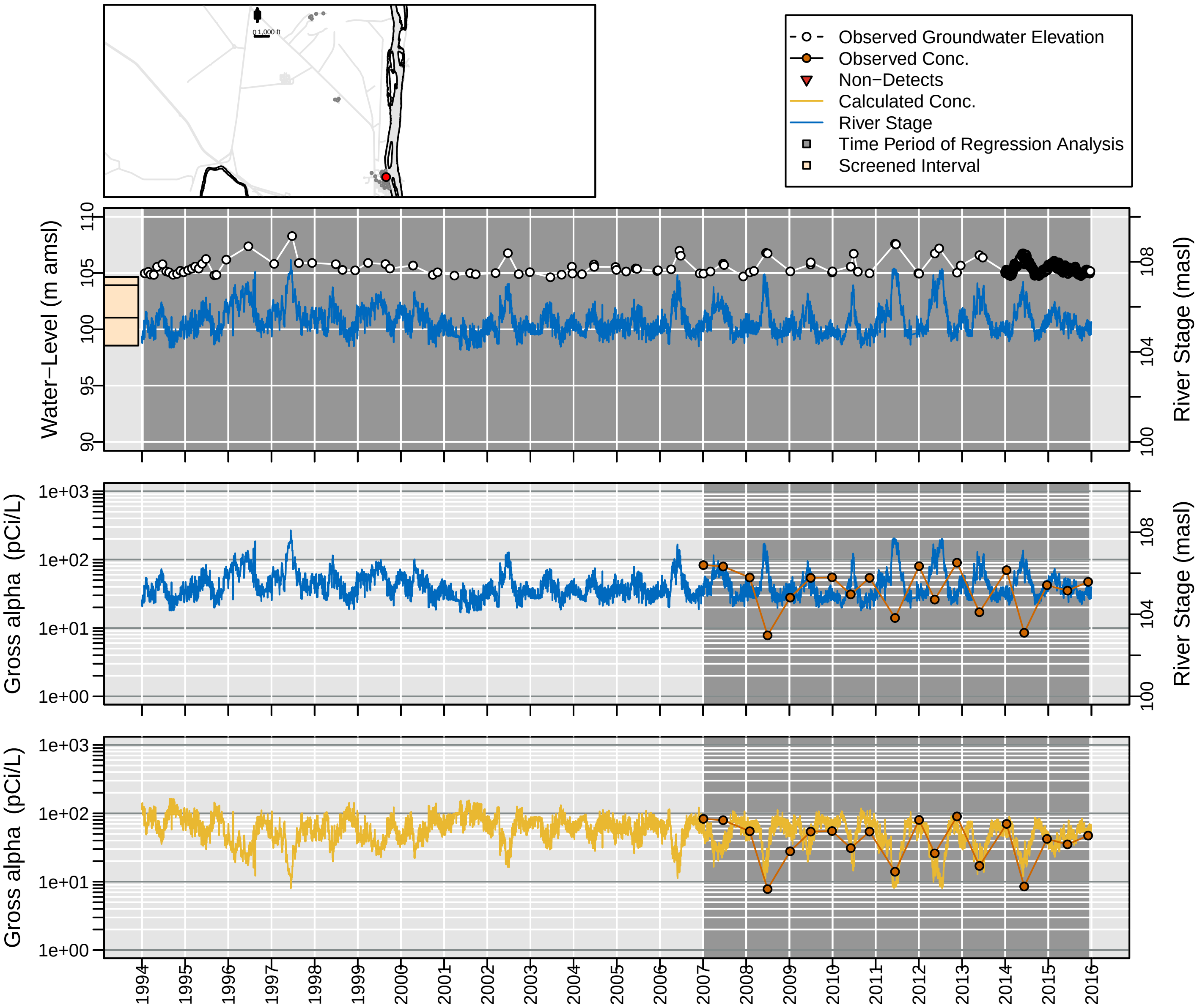
ln Conc. = −0.62 (+/− 0.081)*River Stage + −8.2e−05 (+/− 2.5e−05)*Date + 70 (+/− 8.6)
R^2 = 0.74

Regression Statistics for January 2015 to January 2016

399−2−2

Distance to River: 98 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	1
Max. Correlation (R2):	0.93	0.66
Number of Comparisons:	810	19
Percent NDs:		0%



Censored Regression (Tobit) Model

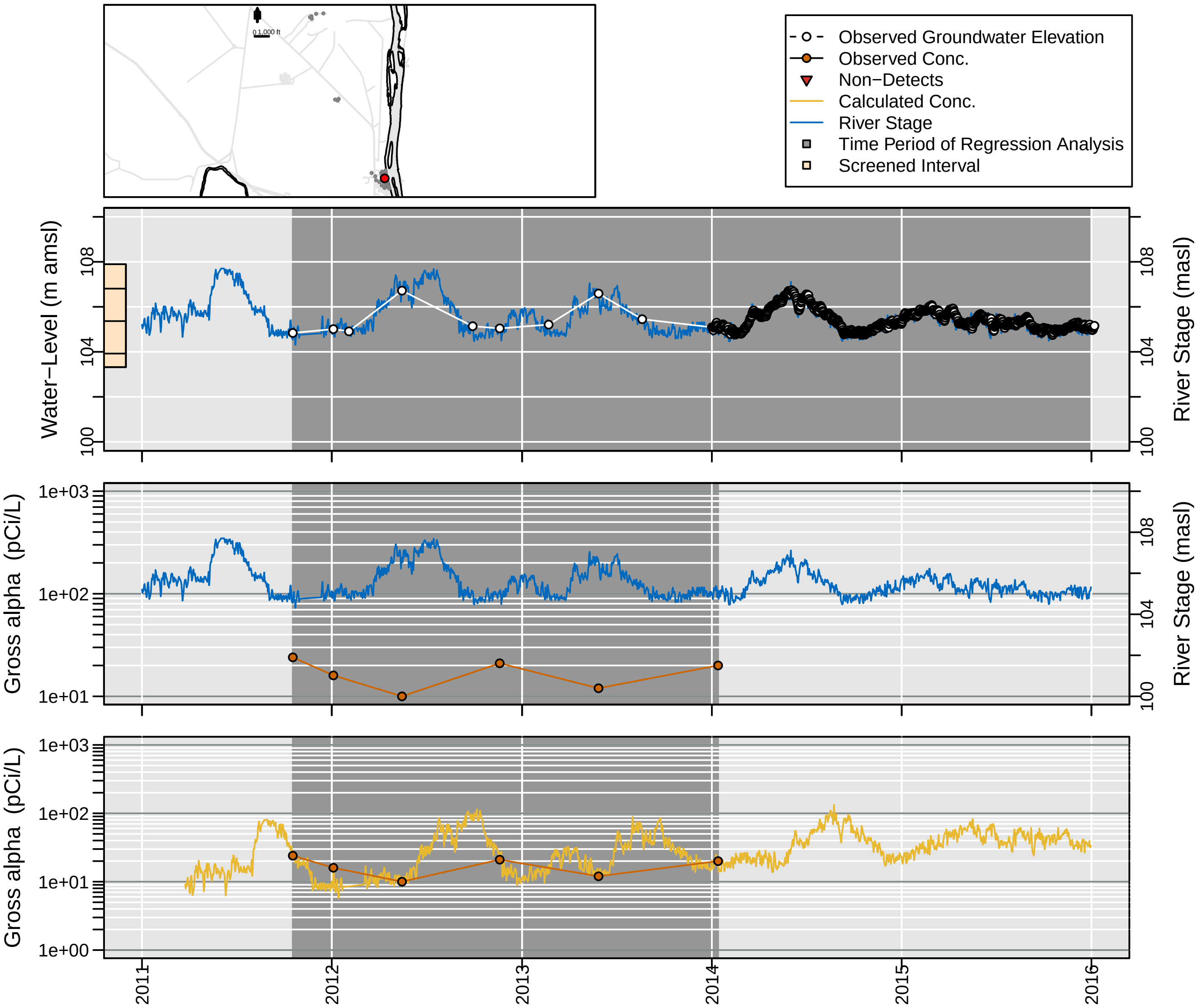
ln Conc. = −0.76 (+/− 0.13)*River Stage + −5.6e−05 (+/− 9.8e−05)*Date + 84 (+/− 13)
R^2 = 0.66

Regression Statistics for January 2015 to January 2016

399−2−32

Distance to River: 217 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	83
Max. Correlation (R2):	0.94	0.9
Number of Comparisons:	739	6
Percent NDs:		0%



Censored Regression (Tobit) Model

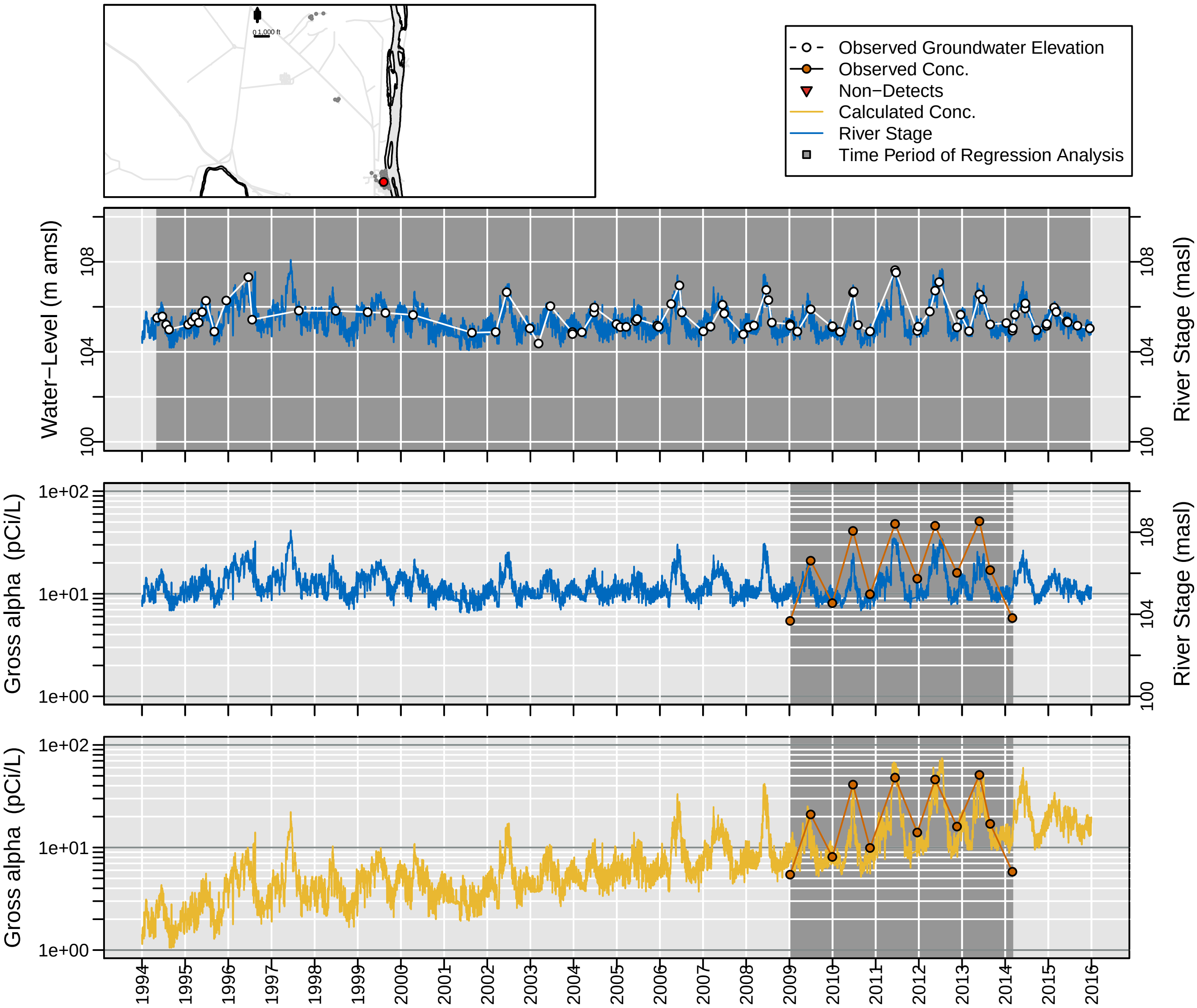
ln Conc. = 0.81 (+/− 0.11)*River Stage + 9e−04 (+/− 0.00019)*Date + −97 (+/− 14)
R^2 = 0.9

Regression Statistics for January 2015 to January 2016

399−3−12

Distance to River: 344 m
Number of Trends Calculated: 1

	WL	**Conc**
Est. Lag Time (days):	1	0
Max. Correlation (R2):	0.92	0.74
Number of Comparisons:	89	12
Percent NDs:		0%



Censored Regression (Tobit) Model

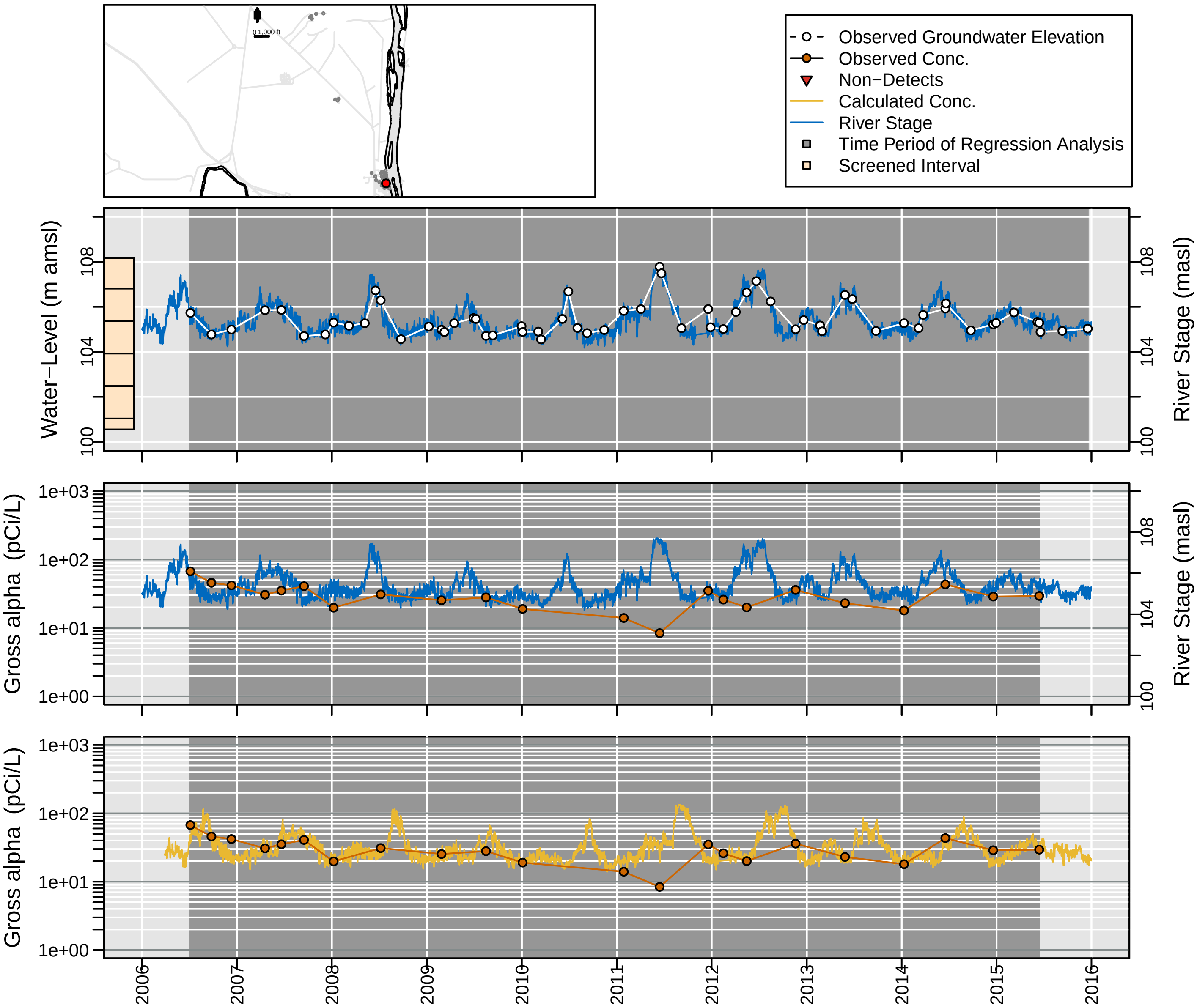
ln Conc. = 0.71 (+/− 0.12)*River Stage + 0.00027 (+/− 0.00019)*Date + −76 (+/− 14)
R^2 = 0.74

Regression Statistics for January 2015 to January 2016

399−3−20

Distance to River: 210 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	0	87
Max. Correlation (R2):	0.92	0.54
Number of Comparisons:	63	22
Percent NDs:		0%



Censored Regression (Tobit) Model

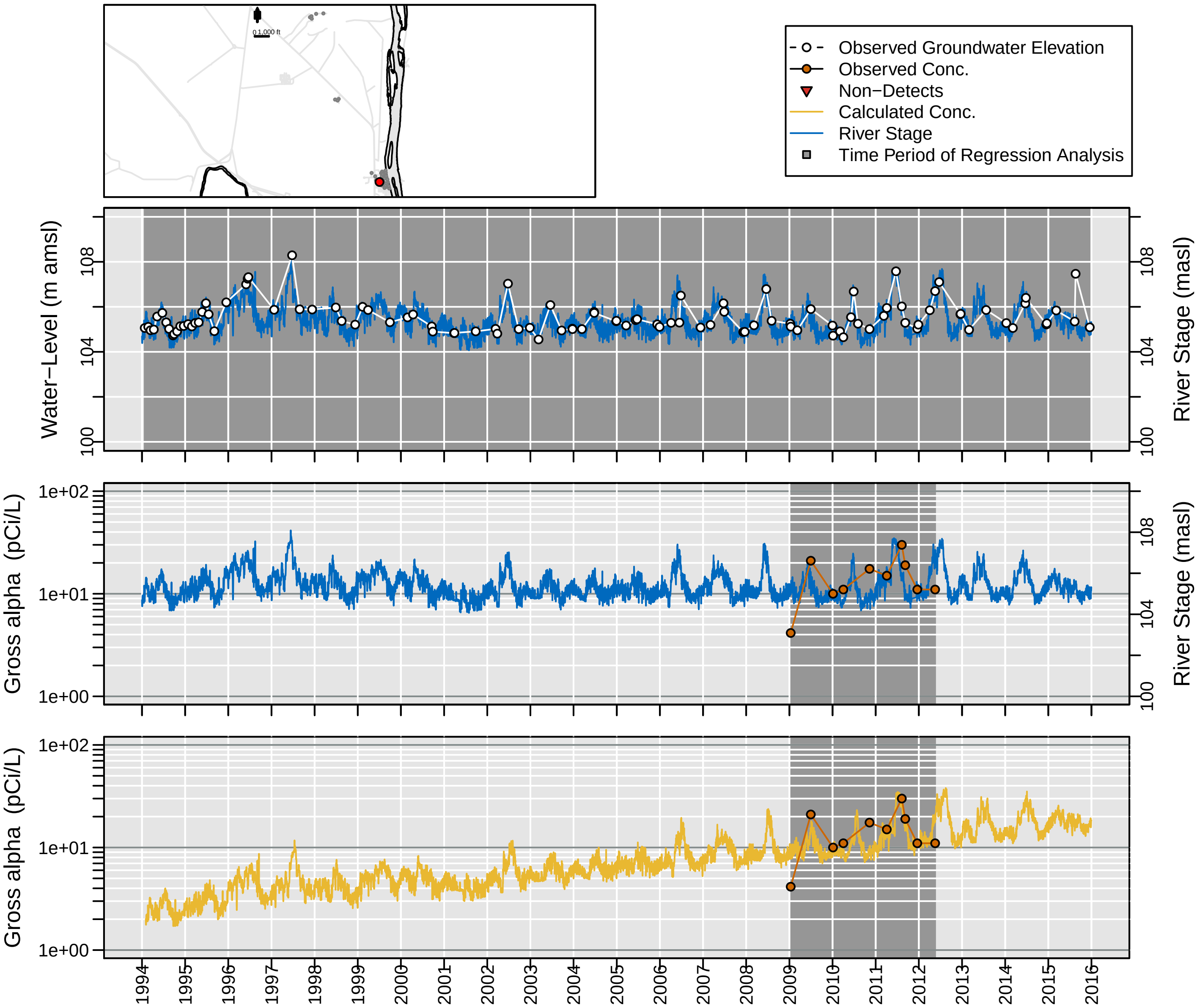
ln Conc. = 0.64 (+/− 0.14)*River Stage + −2.9e−05 (+/− 6.6e−05)*Date + −64 (+/− 15)
R^2 = 0.54

Regression Statistics for January 2015 to January 2016

399−3−6

Distance to River: 623 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	32
Max. Correlation (R2):	0.79	0.57
Number of Comparisons:	110	10
Percent NDs:		0%



Censored Regression (Tobit) Model

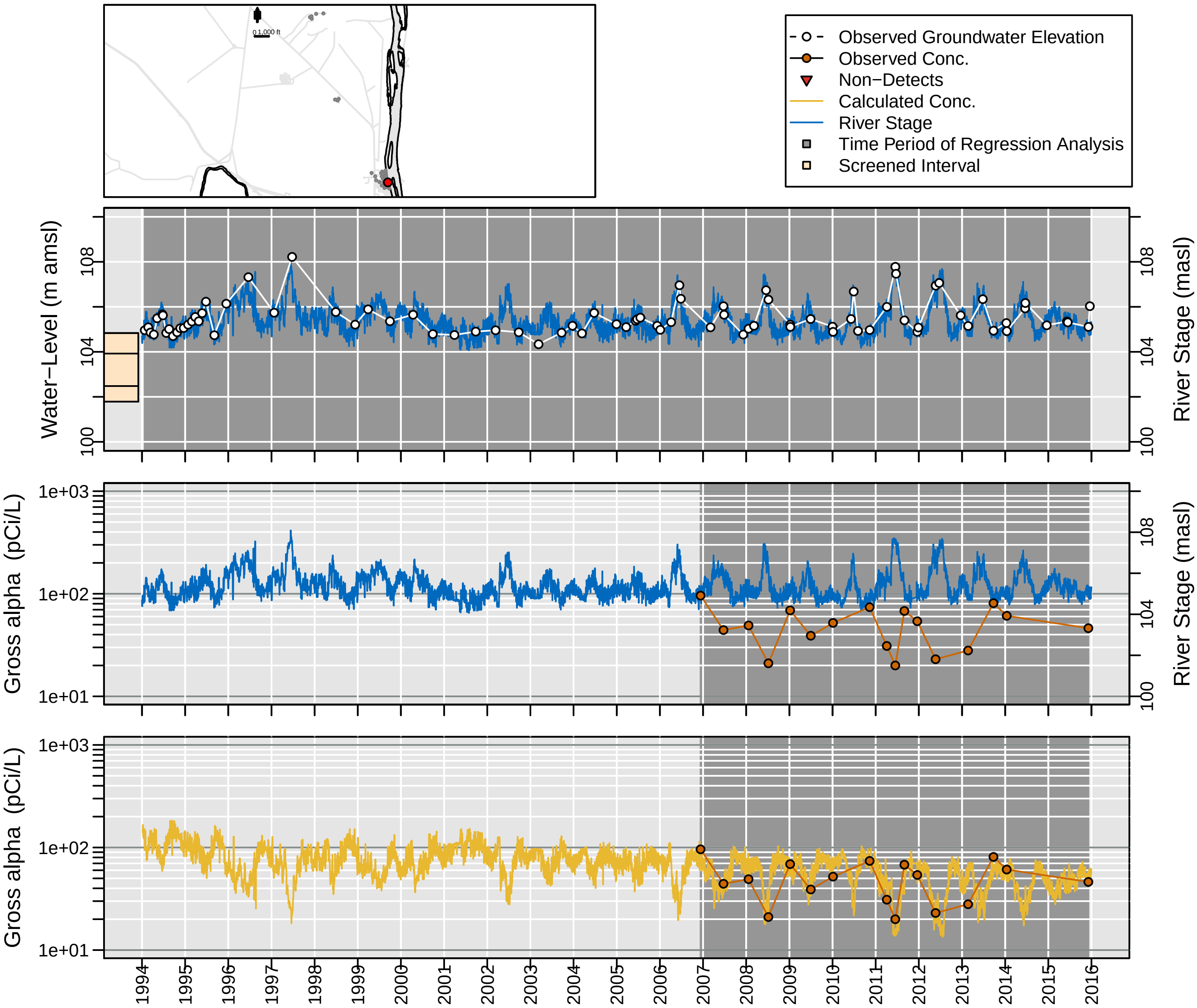
ln Conc. = 0.43 (+/− 0.14)*River Stage + 0.00024 (+/− 0.00029)*Date + −46 (+/− 14)
R^2 = 0.57

Regression Statistics for January 2015 to January 2016

399−3−9

Distance to River: 68 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	0	6
Max. Correlation (R2):	0.92	0.7
Number of Comparisons:	87	17
Percent NDs:		0%



Censored Regression (Tobit) Model

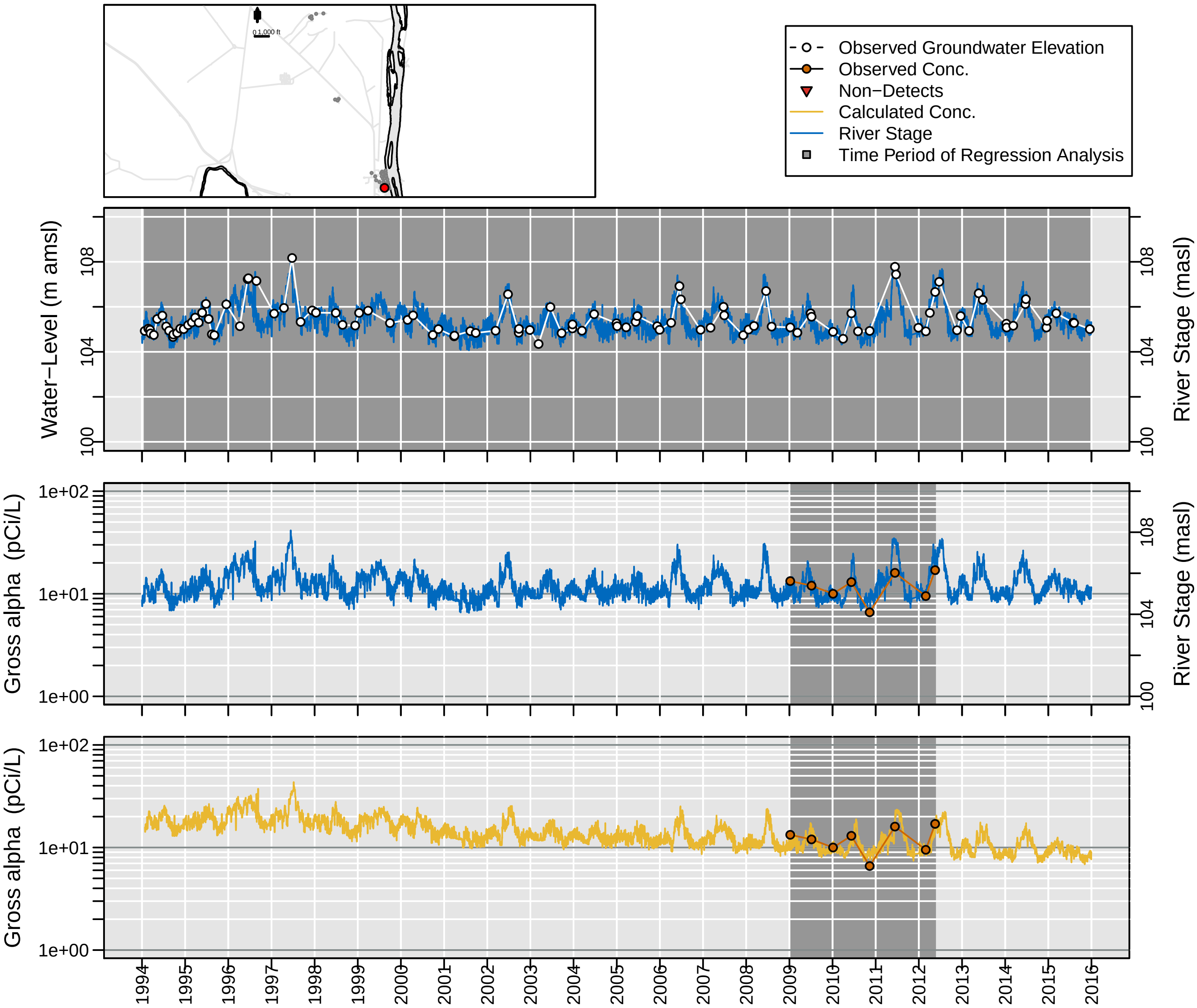
ln Conc. = −0.56 (+/− 0.09)*River Stage + −9.7e−05 (+/− 7.1e−05)*Date + 65 (+/− 9.7)
R^2 = 0.7

Regression Statistics for January 2015 to January 2016

399−4−1

Distance to River: 381 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	25
Max. Correlation (R2):	0.89	0.74
Number of Comparisons:	111	8
Percent NDs:		0%



Censored Regression (Tobit) Model

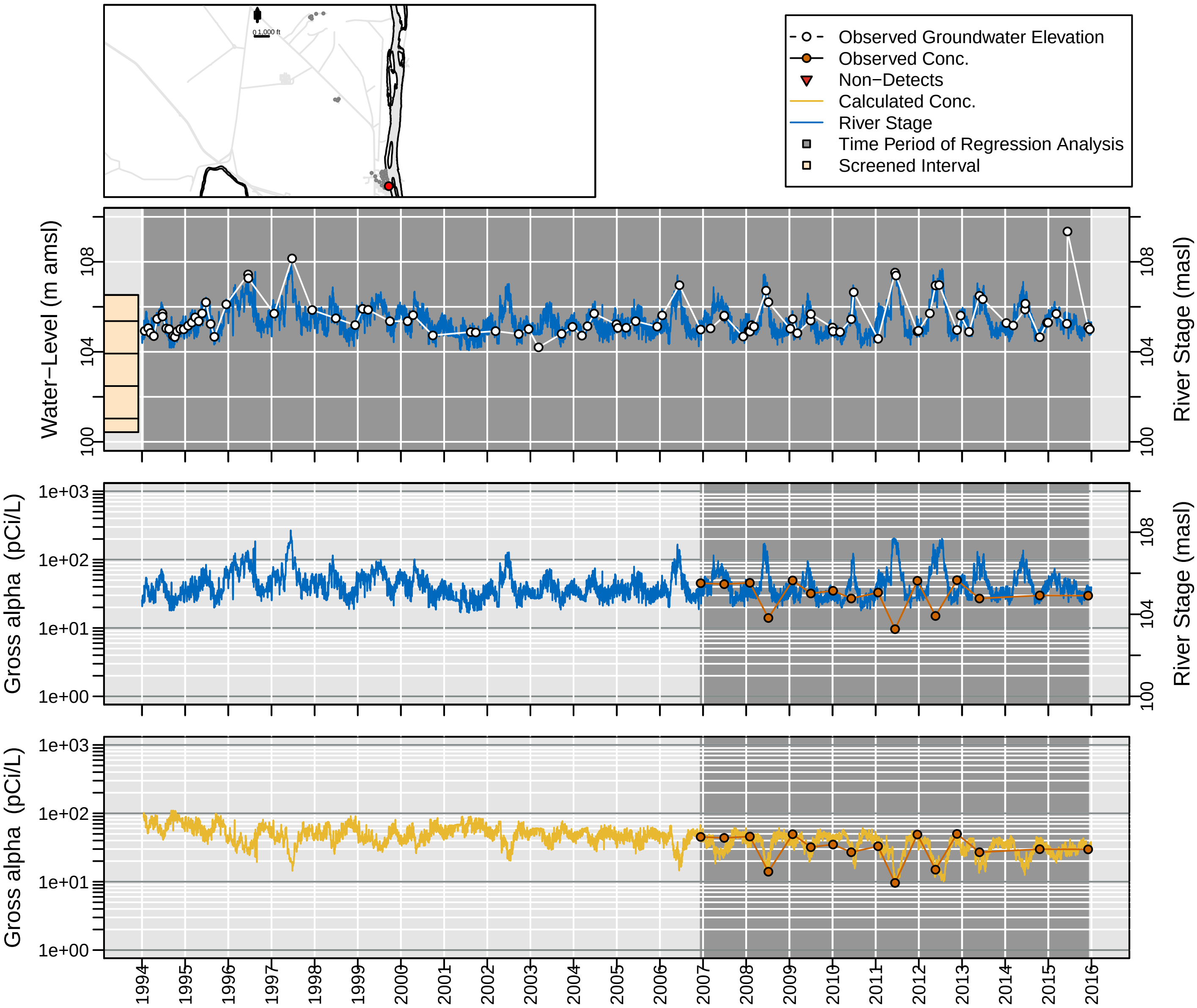
ln Conc. = 0.33 (+/− 0.071)*River Stage + −9.6e−05 (+/− 0.00013)*Date + −31 (+/− 7.1)
R^2 = 0.74

Regression Statistics for January 2015 to January 2016

399−4−10

Distance to River: 69 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	14
Max. Correlation (R2):	0.7	0.7
Number of Comparisons:	101	16
Percent NDs:		0%



Censored Regression (Tobit) Model

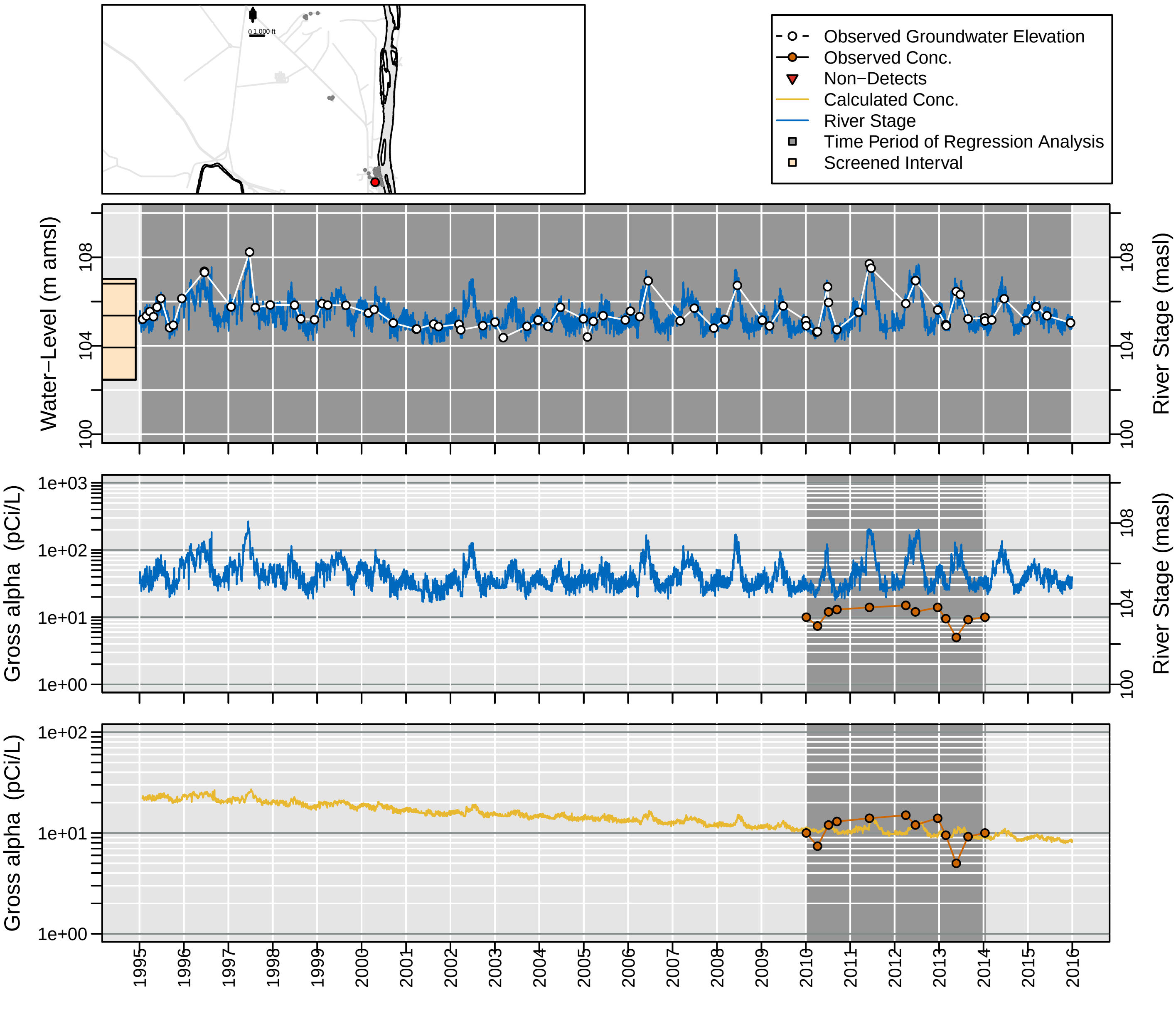
ln Conc. = −0.49 (+/− 0.083)*River Stage + −1e−04 (+/− 7.1e−05)*Date + 57 (+/− 8.8)
R^2 = 0.7

Regression Statistics for January 2015 to January 2016

399−4−11

Distance to River: 522 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	0	24
Max. Correlation (R2):	0.94	0.097
Number of Comparisons:	81	12
Percent NDs:		0%



Censored Regression (Tobit) Model

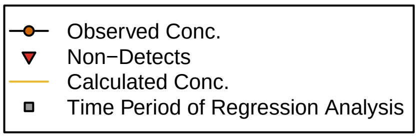
ln Conc. = 0.11 (+/− 0.12)*River Stage + −0.00013 (+/− 0.00017)*Date + −6.8 (+/− 13)
R^2 = 0.097

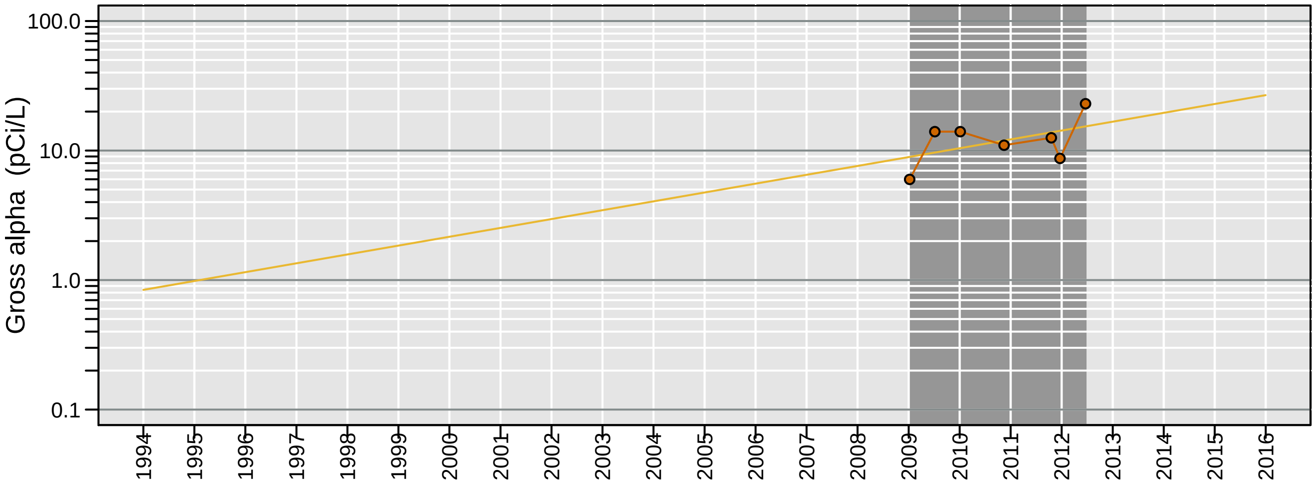
Regression Statistics for January 2015 to January 2016

399−4−12

Number of Trends Calculated: 1

	Trend
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.25
Number of Comparisons:	7
Percent NDs:	0%





Censored Regression (Tobit) Model

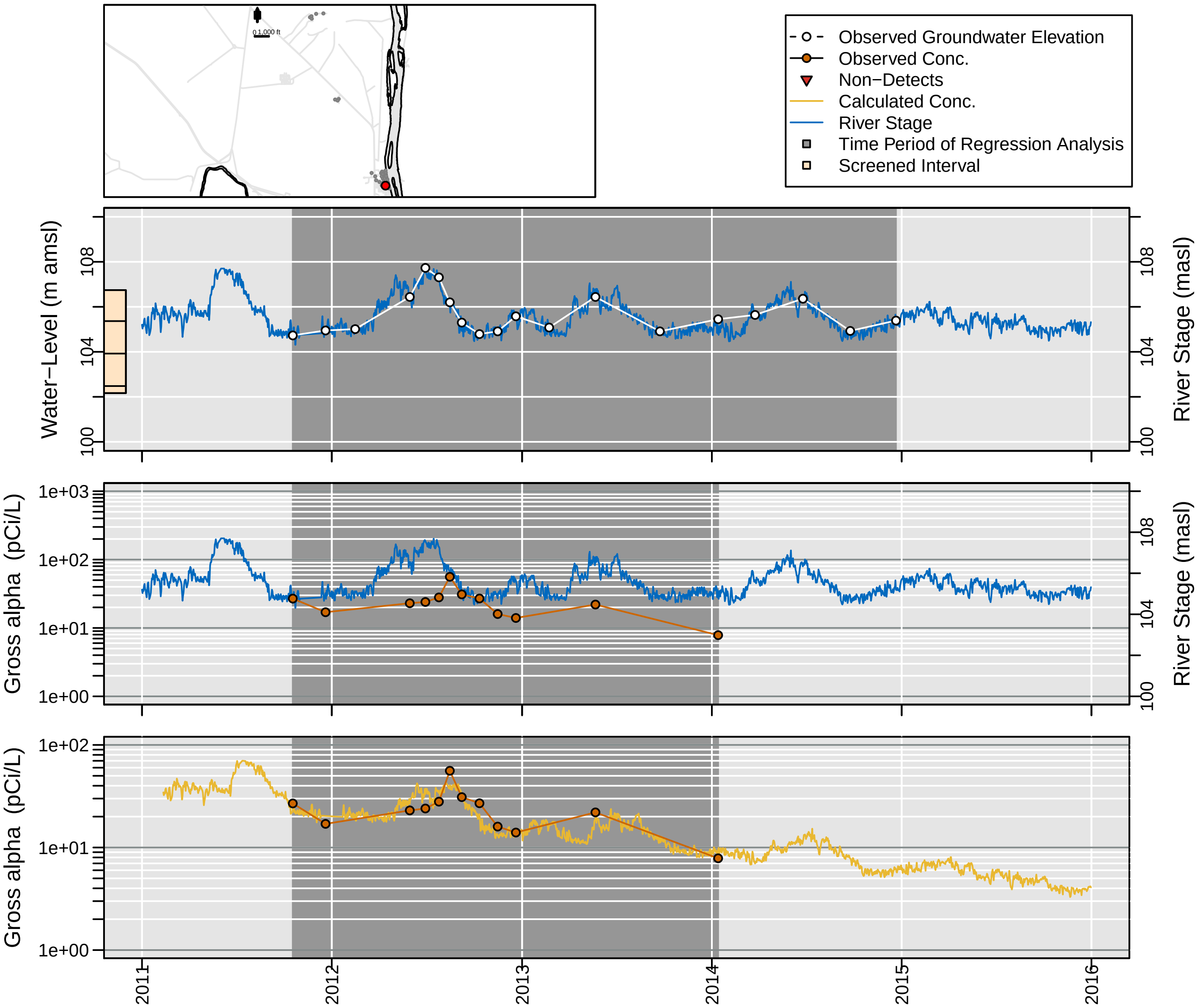
ln Conc. = 0.00043 (+/− 0.00029)*Date + −4 (+/− 4.3)
R^2 = 0.25

Regression Statistics for January 2015 to January 2016

399−4−15

Distance to River: 278 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	41
Max. Correlation (R2):	0.98	0.81
Number of Comparisons:	19	12
Percent NDs:		0%



Censored Regression (Tobit) Model

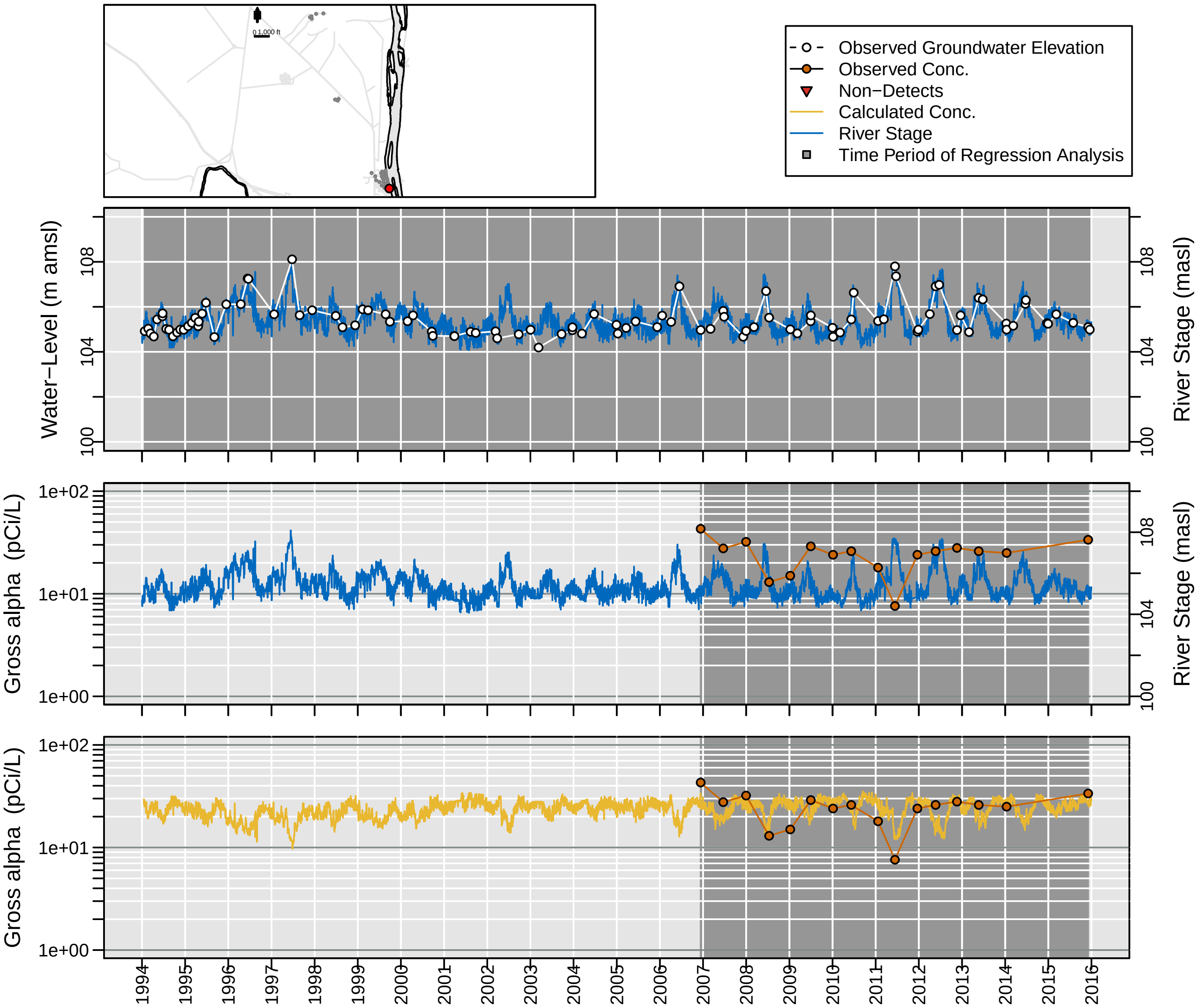
ln Conc. = 0.36 (+/− 0.061)*River Stage + −0.0012 (+/− 0.00028)*Date + −16 (+/− 7.8)
R^2 = 0.81

Regression Statistics for January 2015 to January 2016

399−4−7

Distance to River: 72 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	0	15
Max. Correlation (R2):	0.94	0.48
Number of Comparisons:	106	16
Percent NDs:		0%



Censored Regression (Tobit) Model

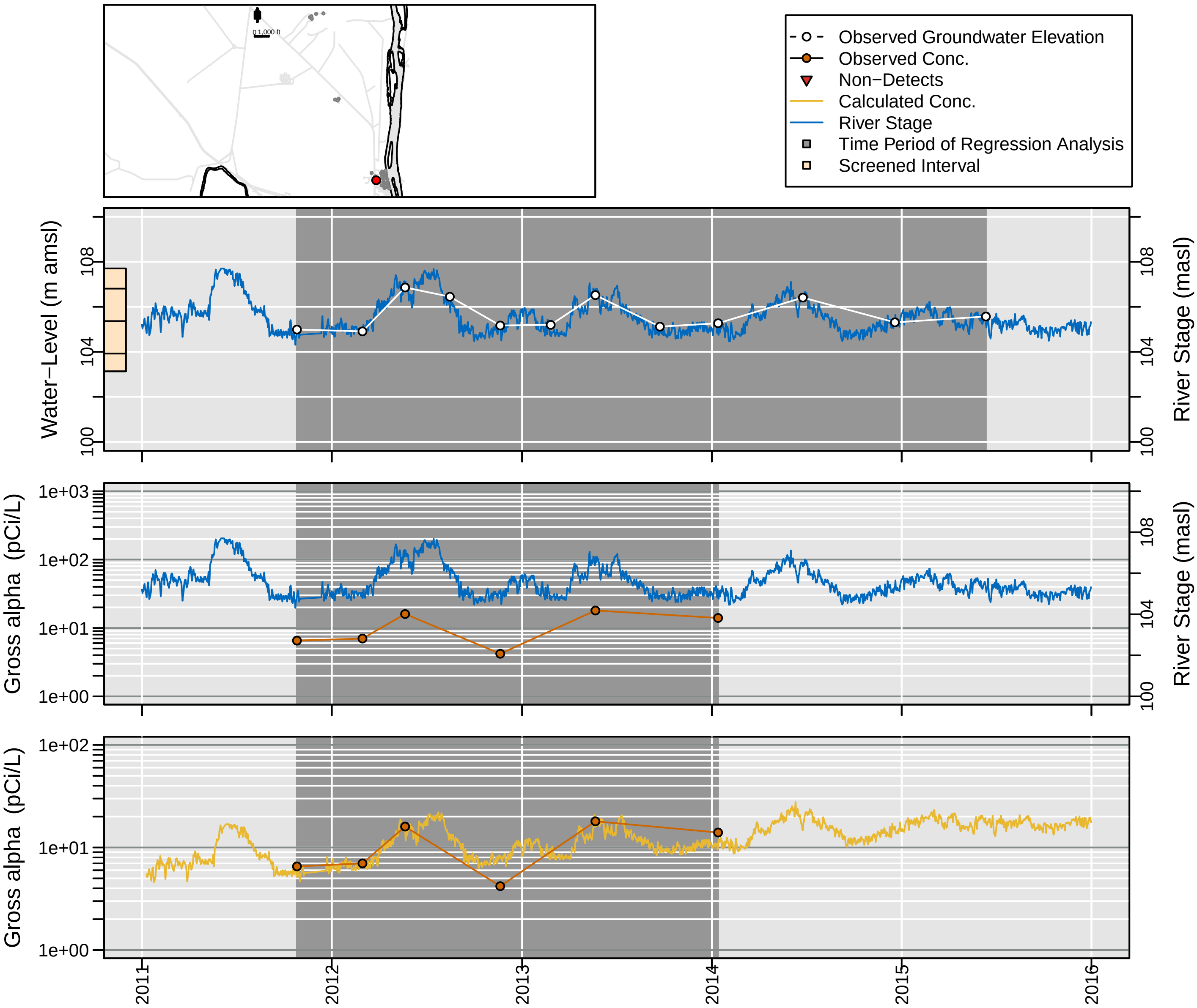
ln Conc. = −0.31 (+/− 0.079)*River Stage + 1.9e−05 (+/− 8.1e−05)*Date + 35 (+/− 8.4)
R^2 = 0.48

Regression Statistics for January 2015 to January 2016

399−6−3

Distance to River: 819 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	3	9
Max. Correlation (R2):	0.96	0.67
Number of Comparisons:	12	6
Percent NDs:		0%



Censored Regression (Tobit) Model

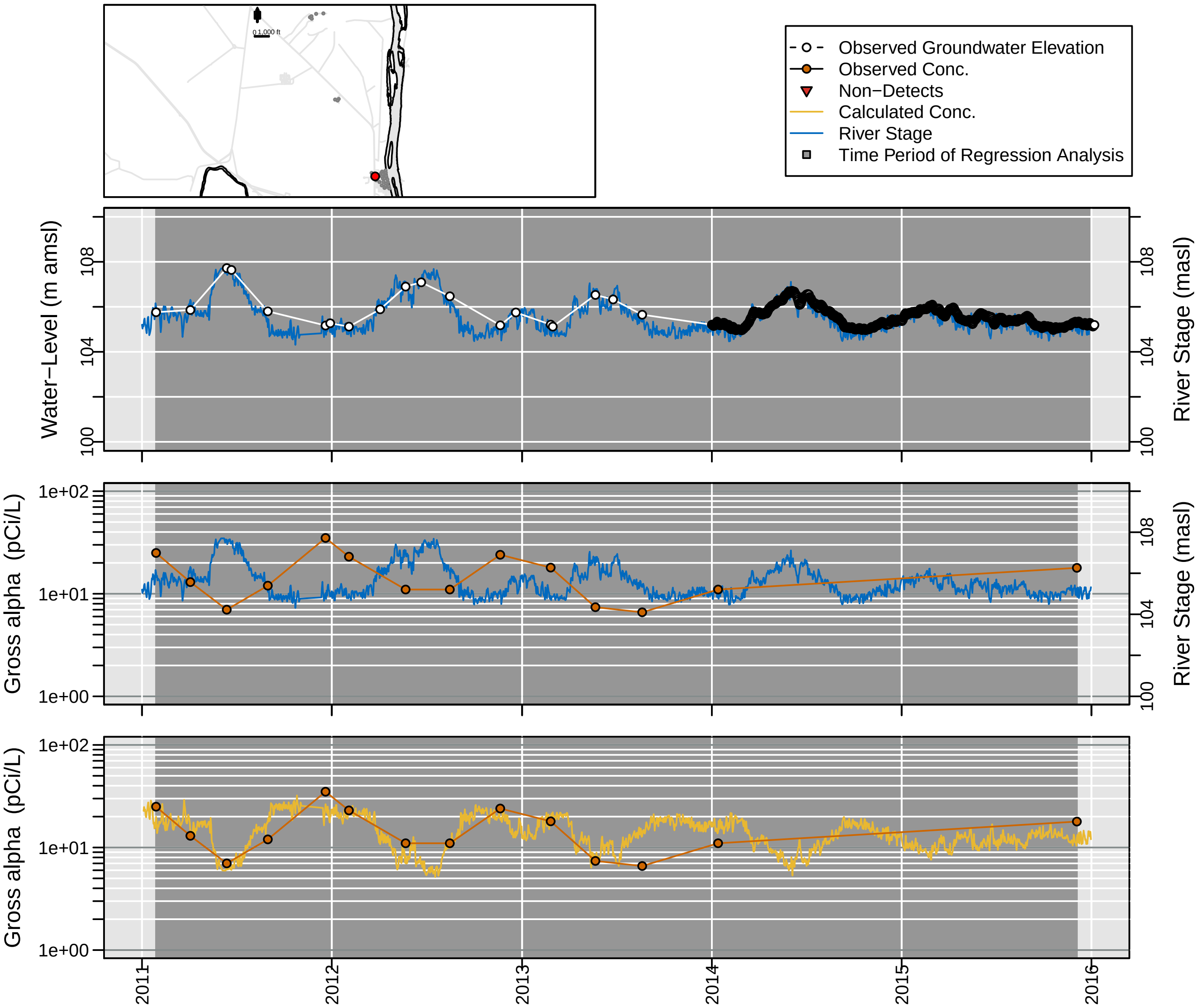
ln Conc. = 0.41 (+/− 0.14)*River Stage + 0.00068 (+/− 0.00046)*Date + −51 (+/− 15)
R^2 = 0.67

Regression Statistics for January 2015 to January 2016

399−8−1

Distance to River: 832 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	3	3
Max. Correlation (R2):	0.91	0.68
Number of Comparisons:	749	14
Percent NDs:		0%



Censored Regression (Tobit) Model

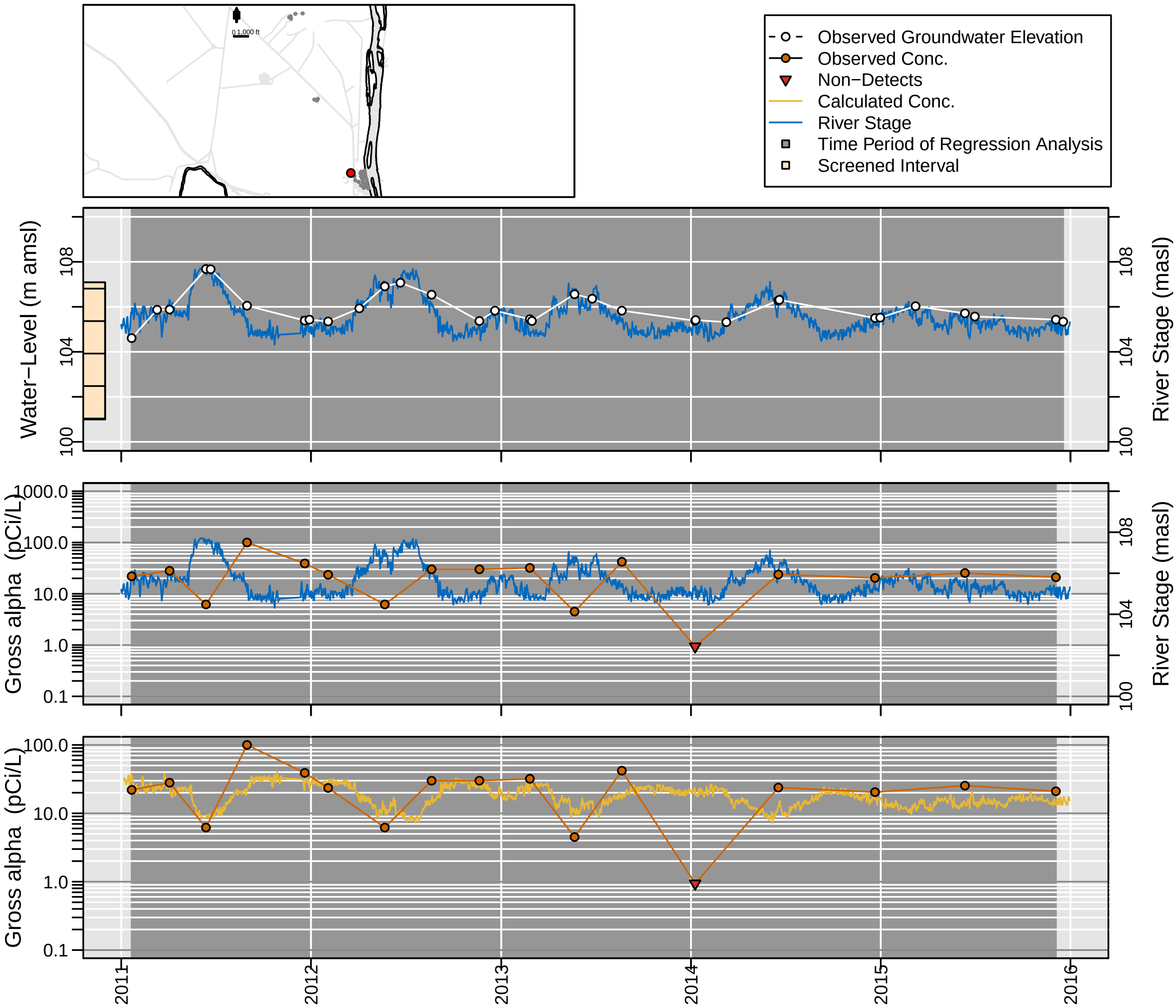
ln Conc. = −0.51 (+/− 0.095)*River Stage + −0.00038 (+/− 0.00017)*Date + 63 (+/− 11)
R^2 = 0.68

Regression Statistics for January 2015 to January 2016

399−8−5A

Distance to River: 1046 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	5	5
Max. Correlation (R2):	0.92	0.14
Number of Comparisons:	32	17
Percent NDs:		6%



Censored Regression (Tobit) Model

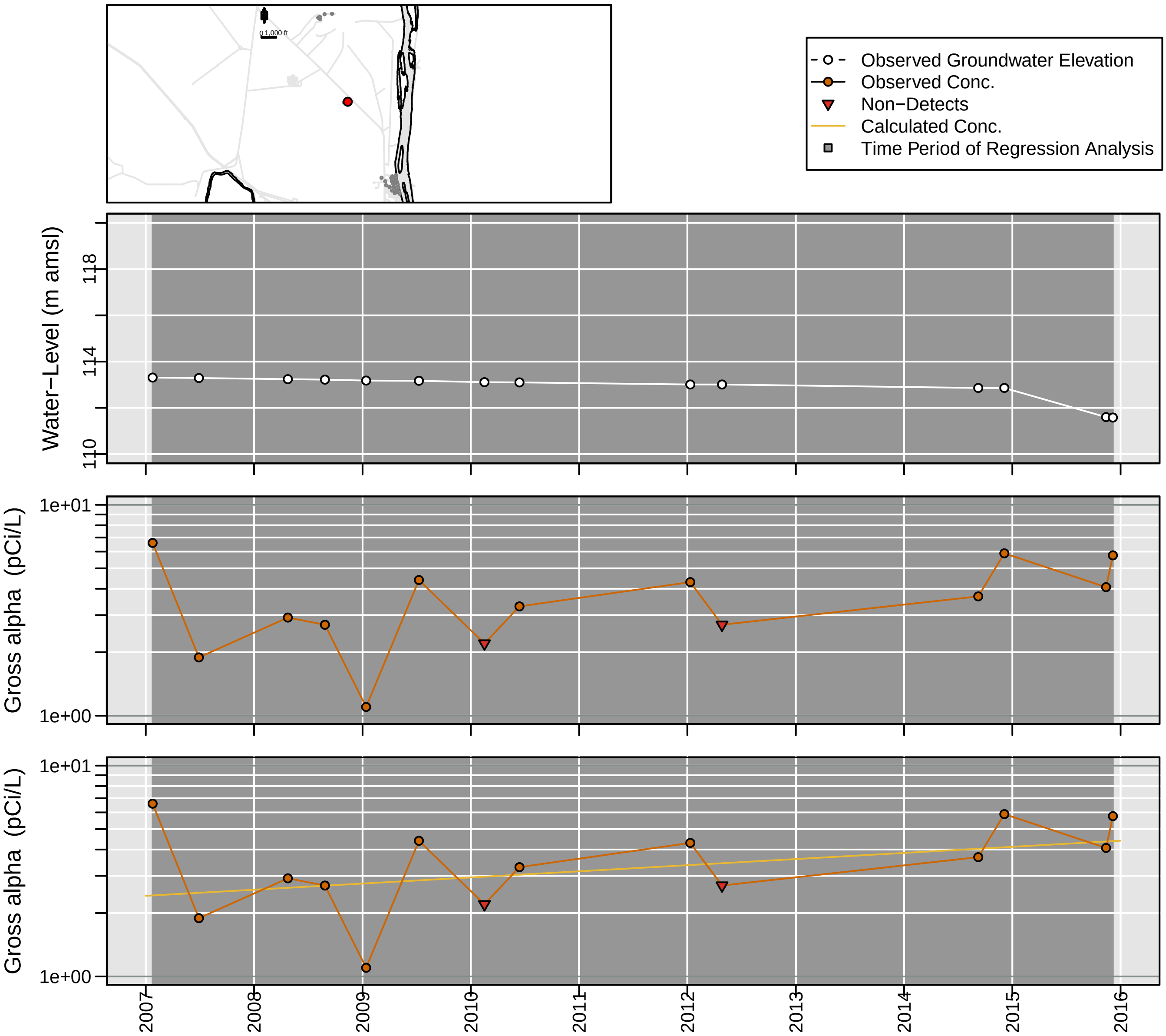
ln Conc. = −0.48 (+/− 0.34)*River Stage + −0.00042 (+/− 0.00048)*Date + 60 (+/− 38)
R^2 = 0.14

Regression Statistics for January 2015 to January 2016

699−S6−E4B

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	11	No RS
Max. Correlation (R2):	0.69	0.18
Number of Comparisons:	14	14
Percent NDs:		14%



Censored Regression (Tobit) Model

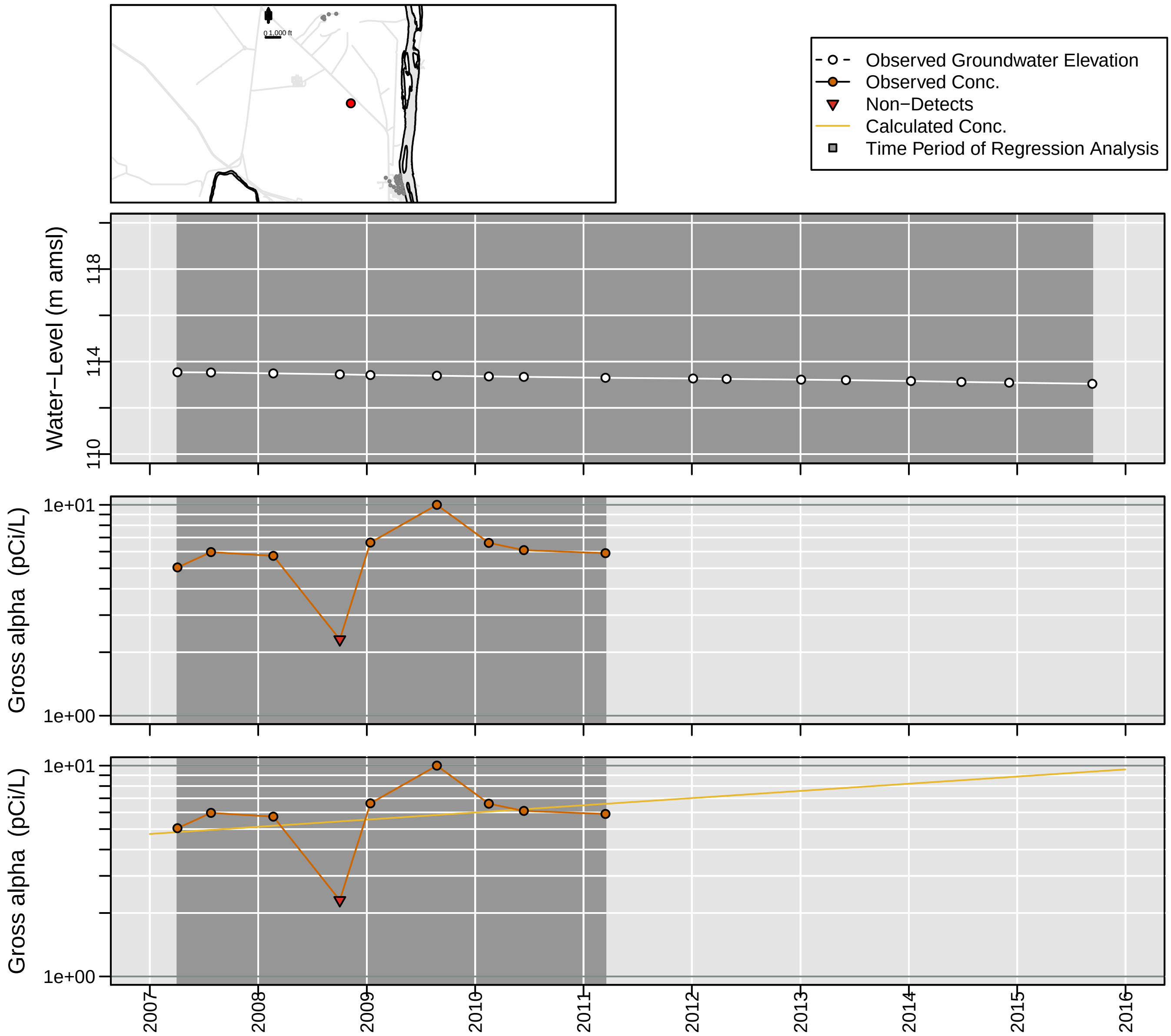
ln Conc. = 0.00018 (+/− 0.00012)*Date + −1.6 (+/− 1.7)
R^2 = 0.18

Regression Statistics for January 2015 to January 2016

699−S6−E4E

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	22	No RS
Max. Correlation (R2):	1	0.067
Number of Comparisons:	17	9
Percent NDs:		11%



Censored Regression (Tobit) Model

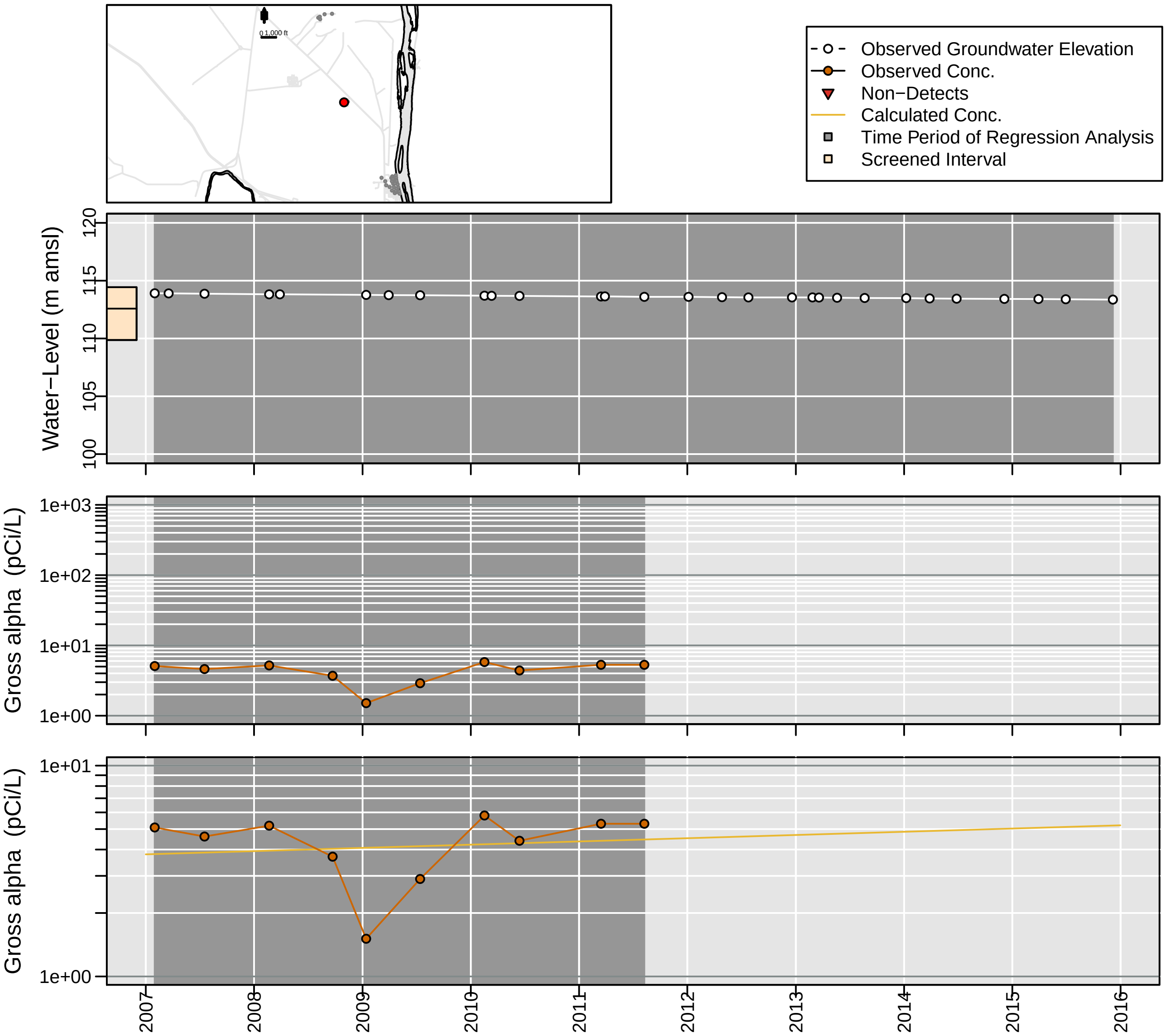
ln Conc. = 0.00021 (+/− 0.00029)*Date + −1.3 (+/− 4.1)
R^2 = 0.067

Regression Statistics for January 2015 to January 2016

699−S6−E4K

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	21	No RS
Max. Correlation (R2):	1	0.017
Number of Comparisons:	29	10
Percent NDs:		0%



Censored Regression (Tobit) Model

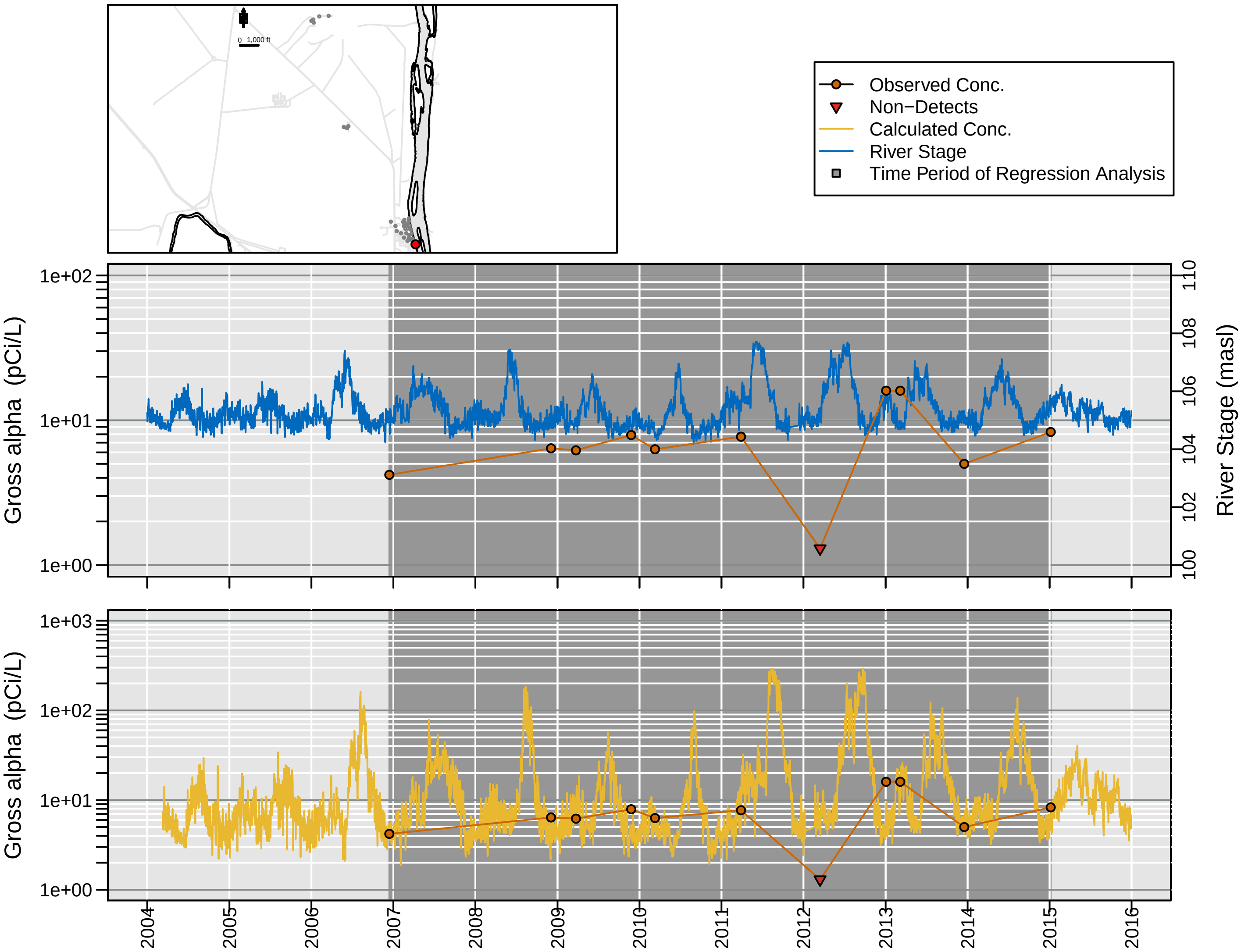
ln Conc. = 9.6e−05 (+/− 0.00023)*Date + 0.031 (+/− 3.3)
R^2 = 0.017

Regression Statistics for January 2015 to January 2016

AT−3−7−M

Distance to River: 5 m
Number of Trends Calculated: 1

	Trend
Est. Lag Time (days):	70
Max. Correlation (R2):	0.37
Number of Comparisons:	11
Percent NDs:	9%



Censored Regression (Tobit) Model

ln Conc. = 1.4 (+/− 0.64)*River Stage + 8.8e−05 (+/− 2e−04)*Date + −150 (+/− 67)
R^2 = 0.37

Regression Statistics for January 2015 to January 2016

Nitrate

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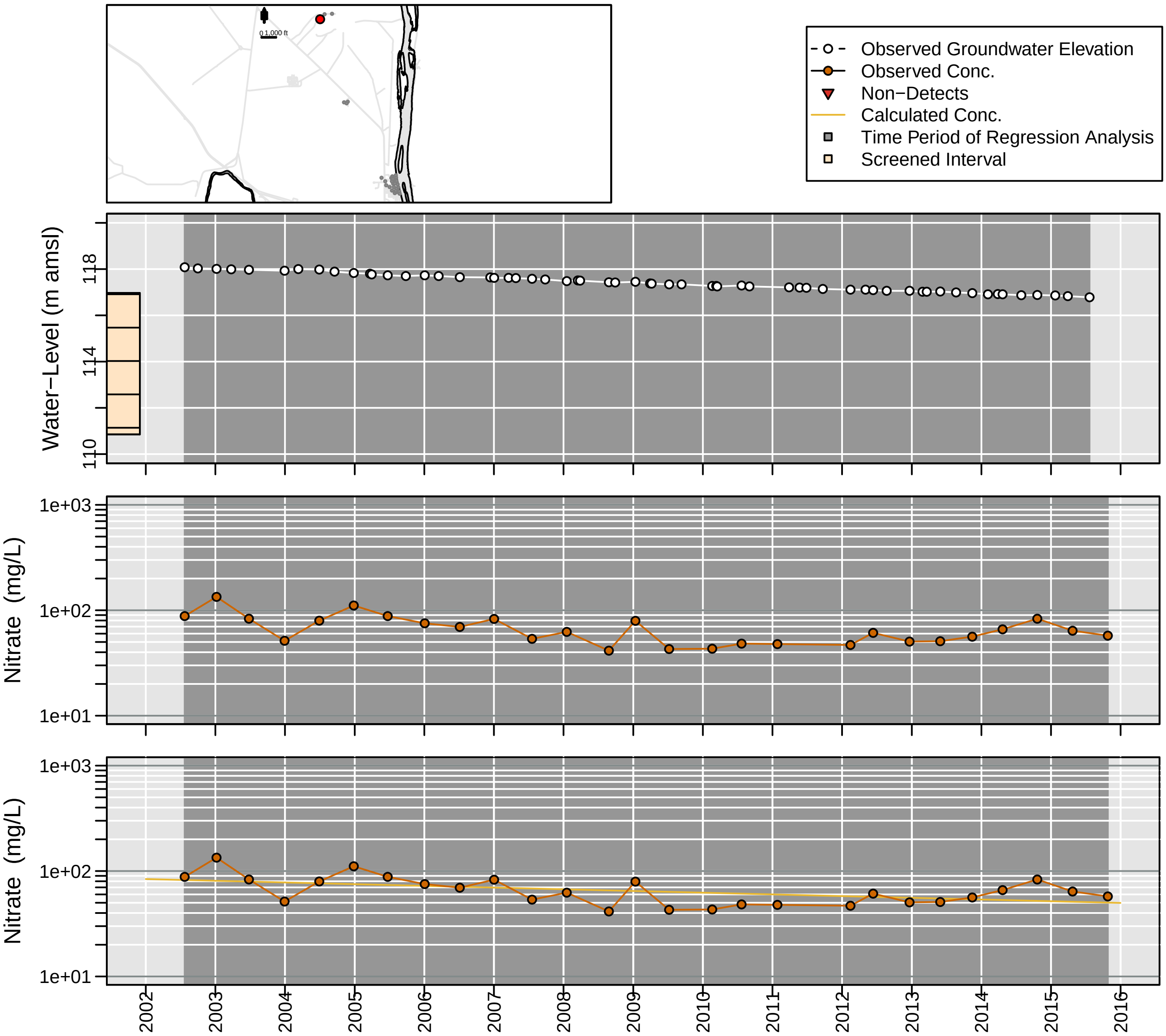
699−12−2C

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	6	No RS
Max. Correlation (R2):	0.99	0.26
Number of Comparisons:	60	27
Percent NDs:		0%



Censored Regression (Tobit) Model

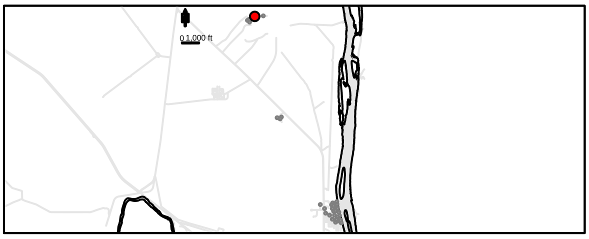
ln Conc. = −1e−04 (+/− 3.3e−05)*Date + 5.6 (+/− 0.48)
R^2 = 0.26

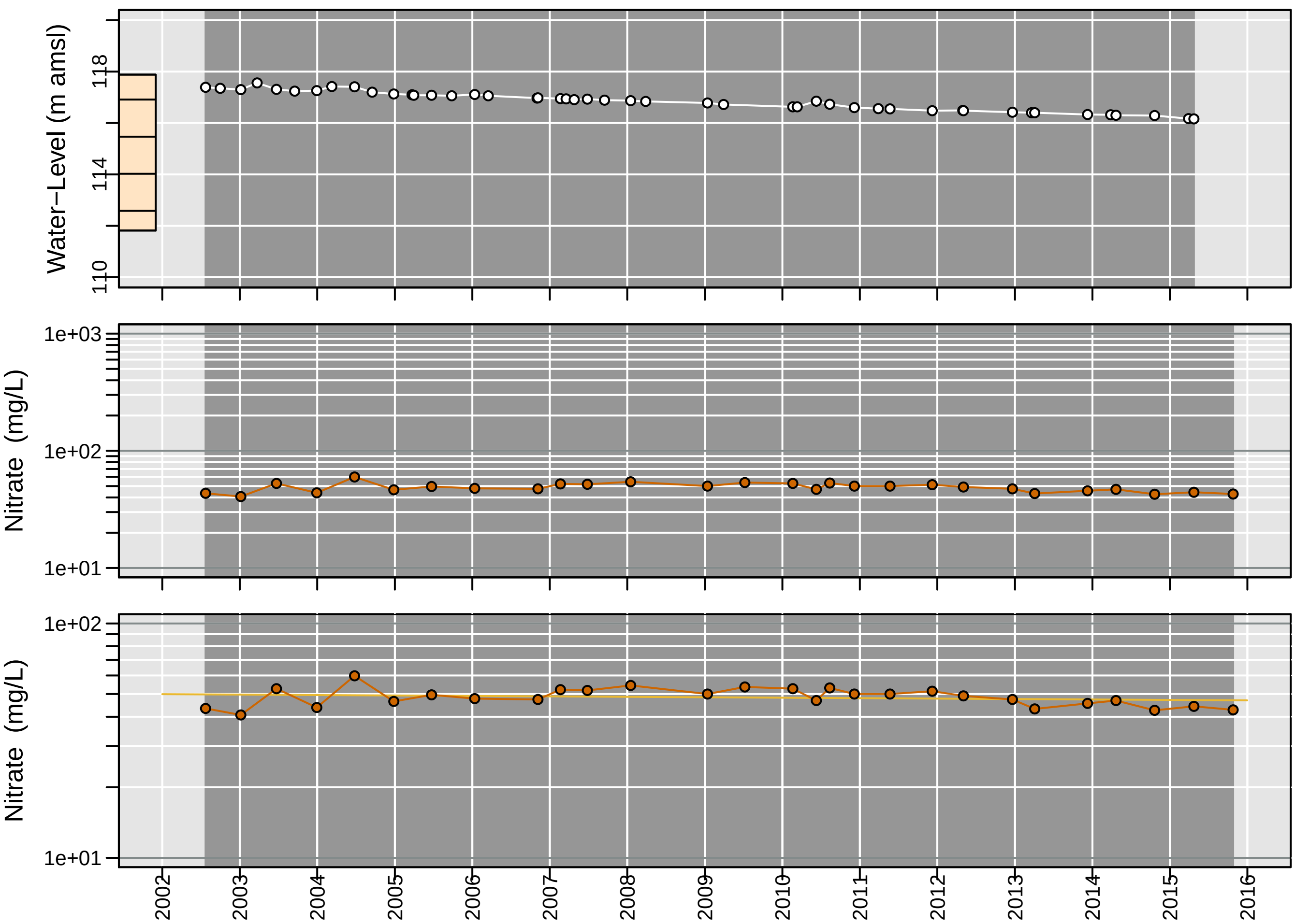
Regression Statistics for January 2015 to January 2016

699−13−1E

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	79	No RS
Max. Correlation (R2):	0.97	0.038
Number of Comparisons:	47	28
Percent NDs:		0%





Censored Regression (Tobit) Model

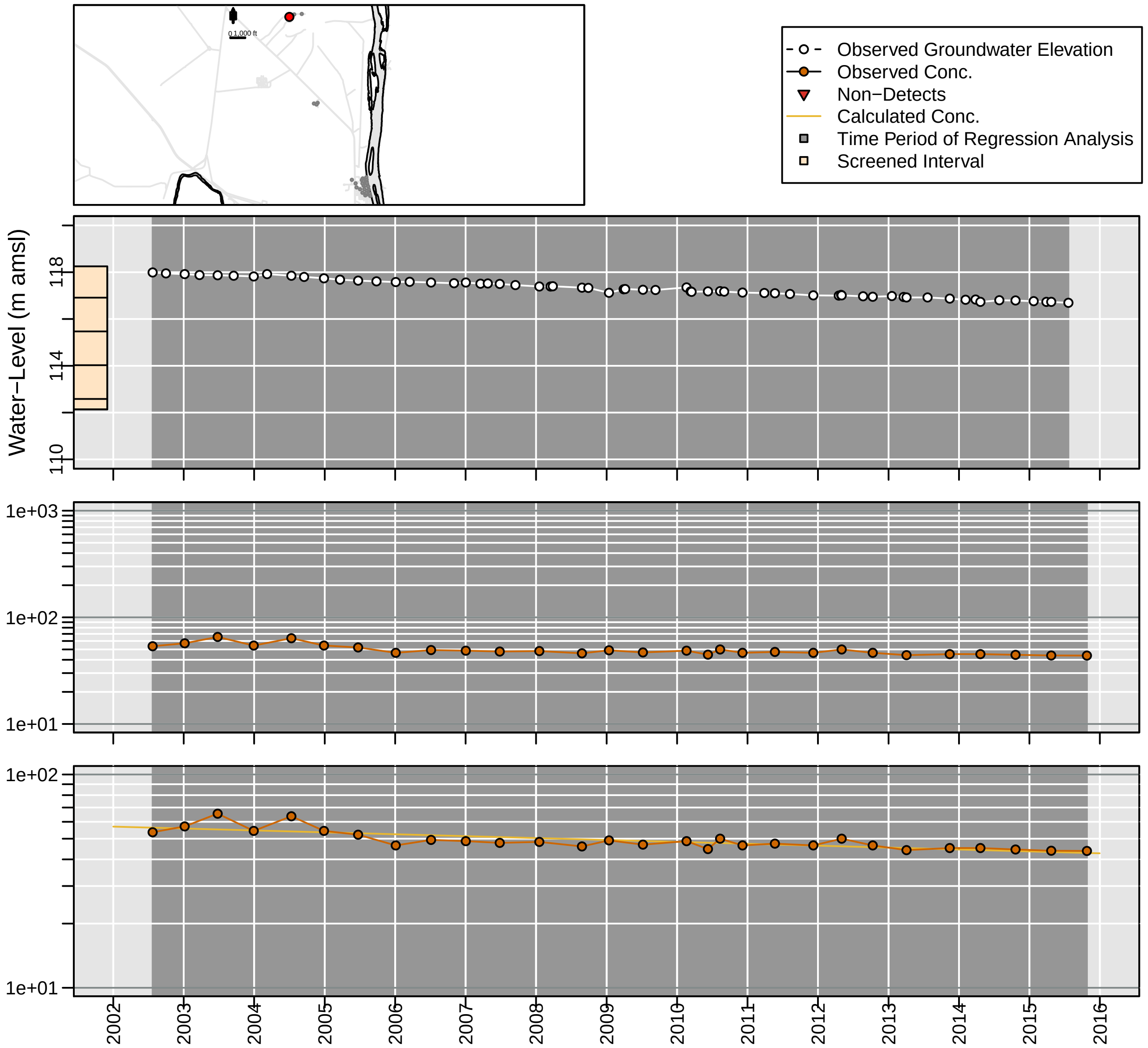
ln Conc. = −1.2e−05 (+/− 1.1e−05)*Date + 4.1 (+/− 0.16)
R^2 = 0.038

Regression Statistics for January 2015 to January 2016

699−13−2D

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	52	No RS
Max. Correlation (R2):	0.99	0.63
Number of Comparisons:	63	29
Percent NDs:		0%



Censored Regression (Tobit) Model

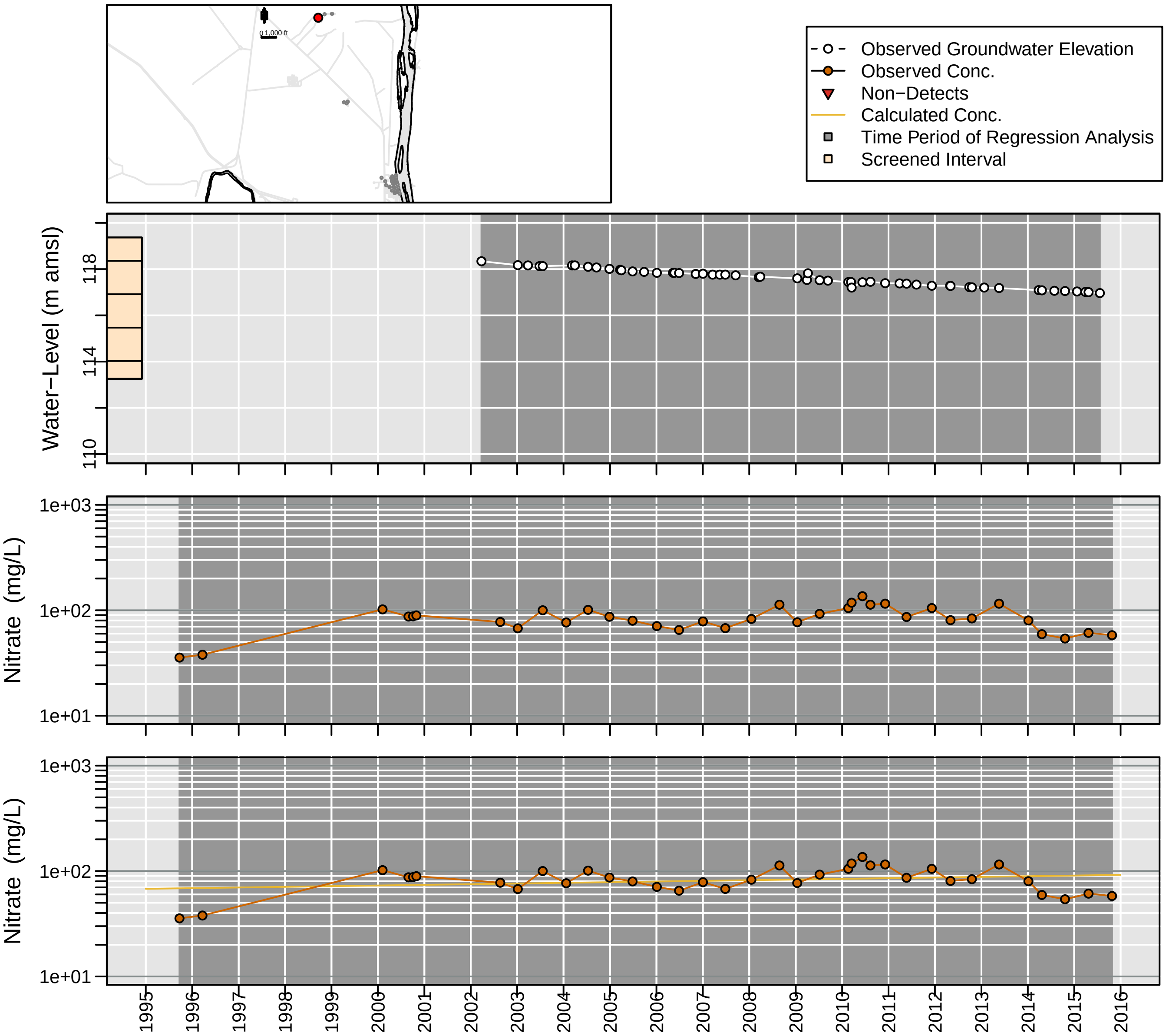
ln Conc. = −5.6e−05 (+/− 8e−06)*Date + 4.7 (+/− 0.12)
R^2 = 0.63

Regression Statistics for January 2015 to January 2016

699−13−3A

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	81	No RS
Max. Correlation (R2):	0.98	0.068
Number of Comparisons:	55	36
Percent NDs:		0%



Censored Regression (Tobit) Model

ln Conc. = 4e−05 (+/− 2.4e−05)*Date + 3.9 (+/− 0.34)
R^2 = 0.068

Regression Statistics for January 2015 to January 2016

Trichloroethene (TCE)

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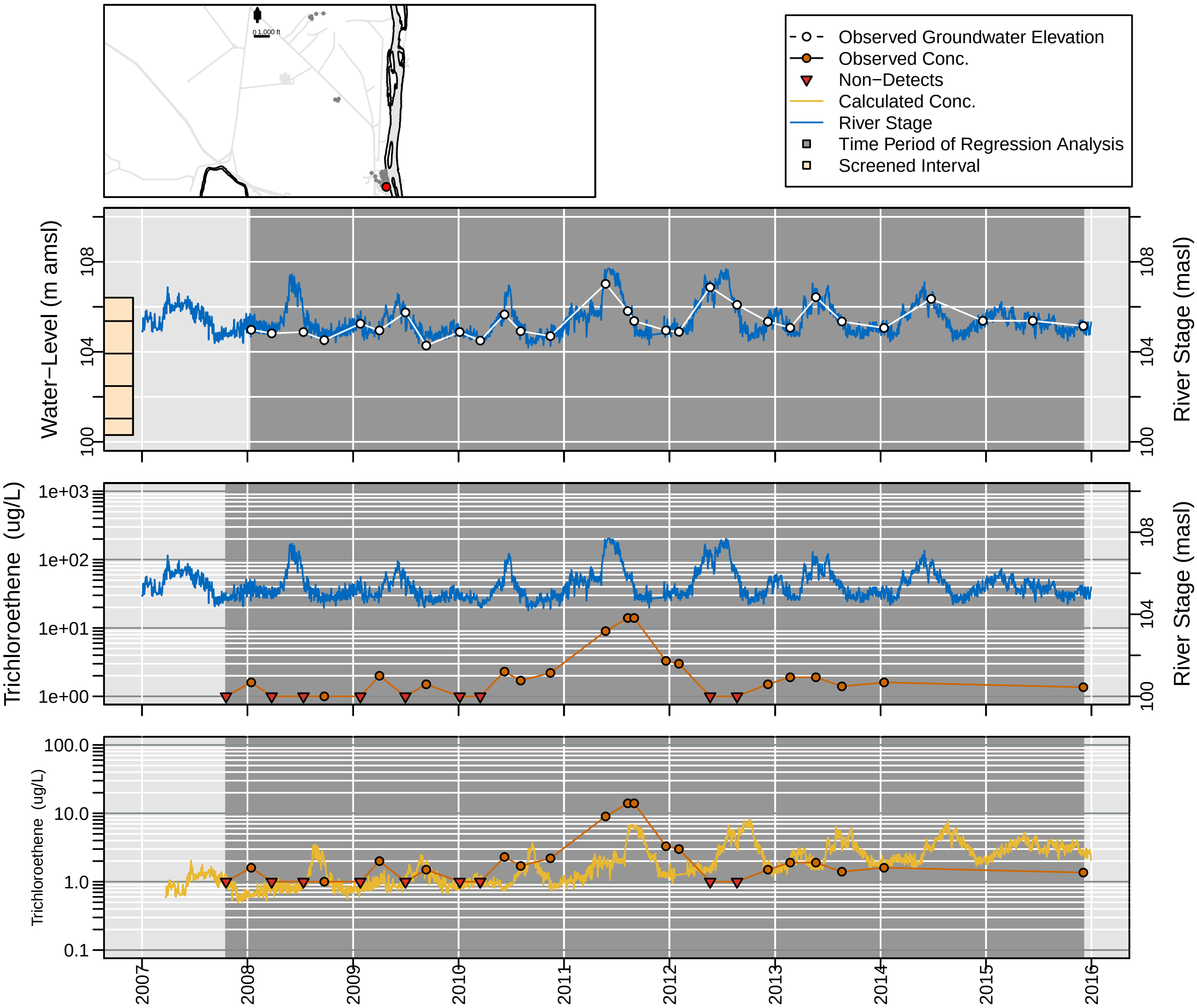
399−4−14

Distance to River: 247 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	0	81
Max. Correlation (R2):	0.91	0.35
Number of Comparisons:	29	27
Percent NDs:		33%



Censored Regression (Tobit) Model

ln Conc. = 0.6 (+/− 0.21)*River Stage + 0.00046 (+/− 0.00023)*Date + −70 (+/− 22)
R^2 = 0.35

Regression Statistics for January 2015 to January 2016

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Tritium

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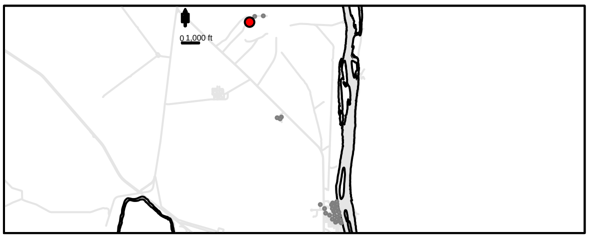
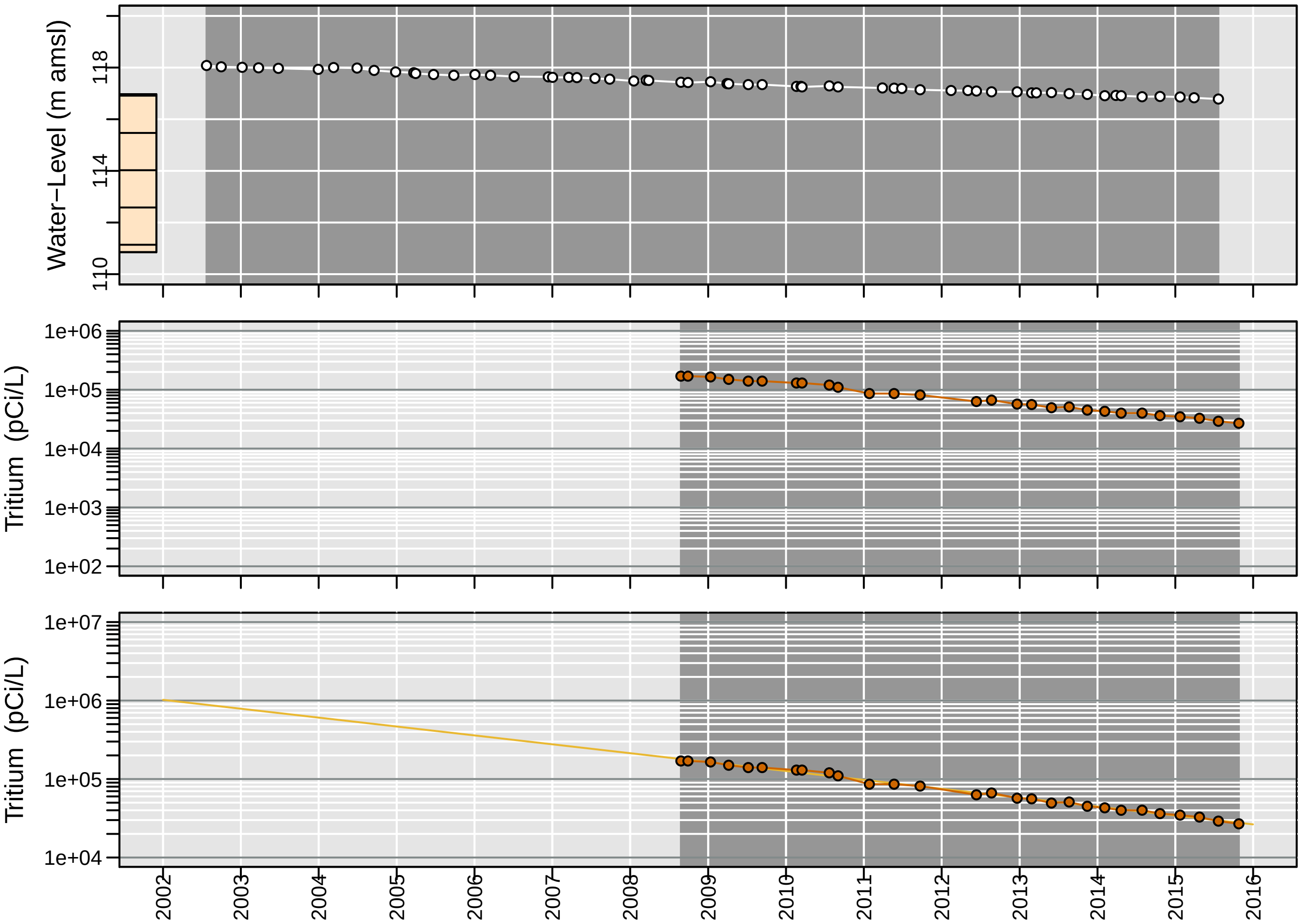
699−12−2C

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	6	No RS
Max. Correlation (R2):	0.99	0.99
Number of Comparisons:	60	28
Percent NDs:		0%





Censored Regression (Tobit) Model

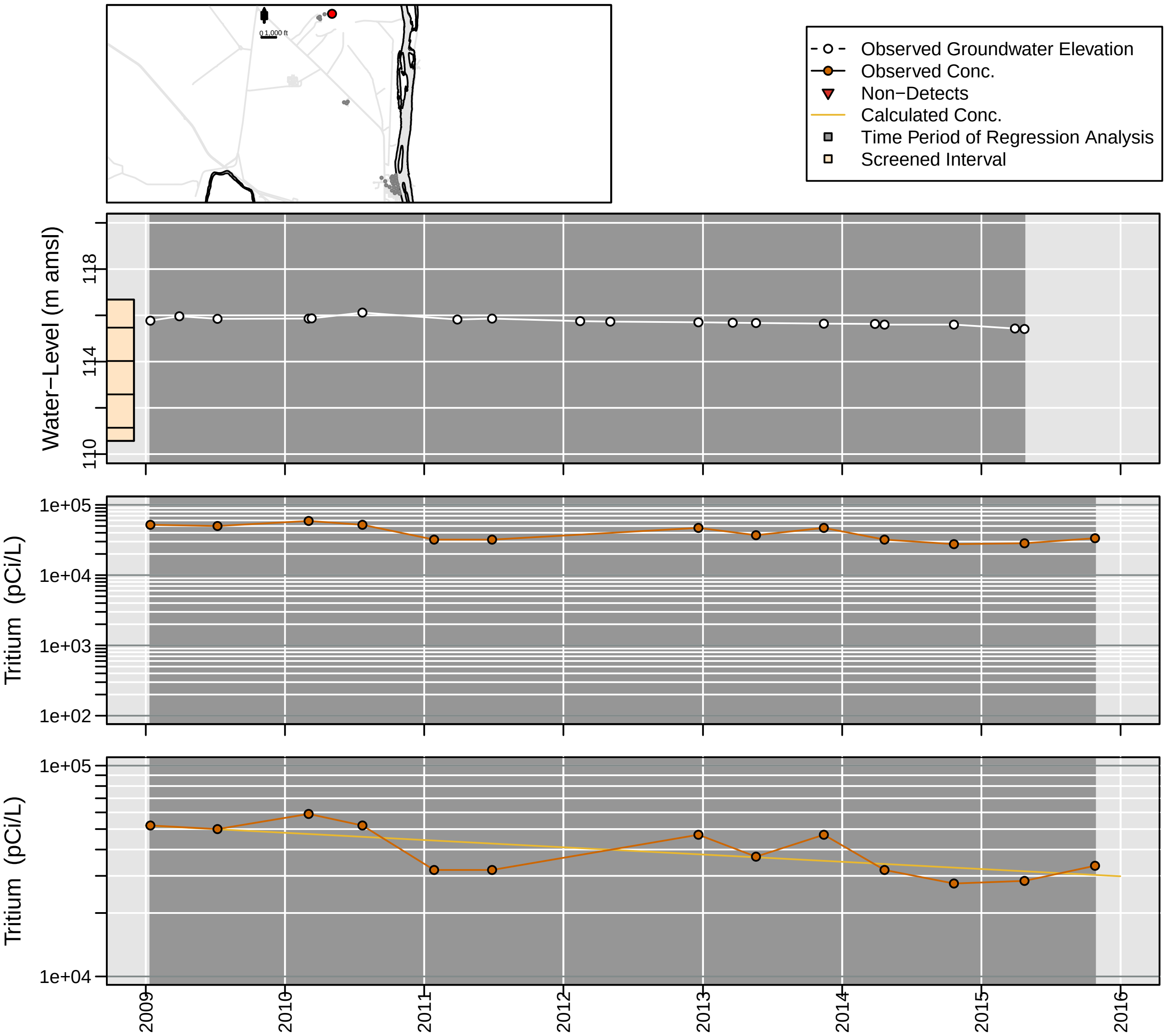
ln Conc. = −0.00071 (+/− 1e−05)*Date + 22 (+/− 0.16)
R^2 = 0.99

Regression Statistics for January 2015 to January 2016

699−13−0A

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	27	No RS
Max. Correlation (R2):	0.84	0.48
Number of Comparisons:	19	13
Percent NDs:		0%



Censored Regression (Tobit) Model

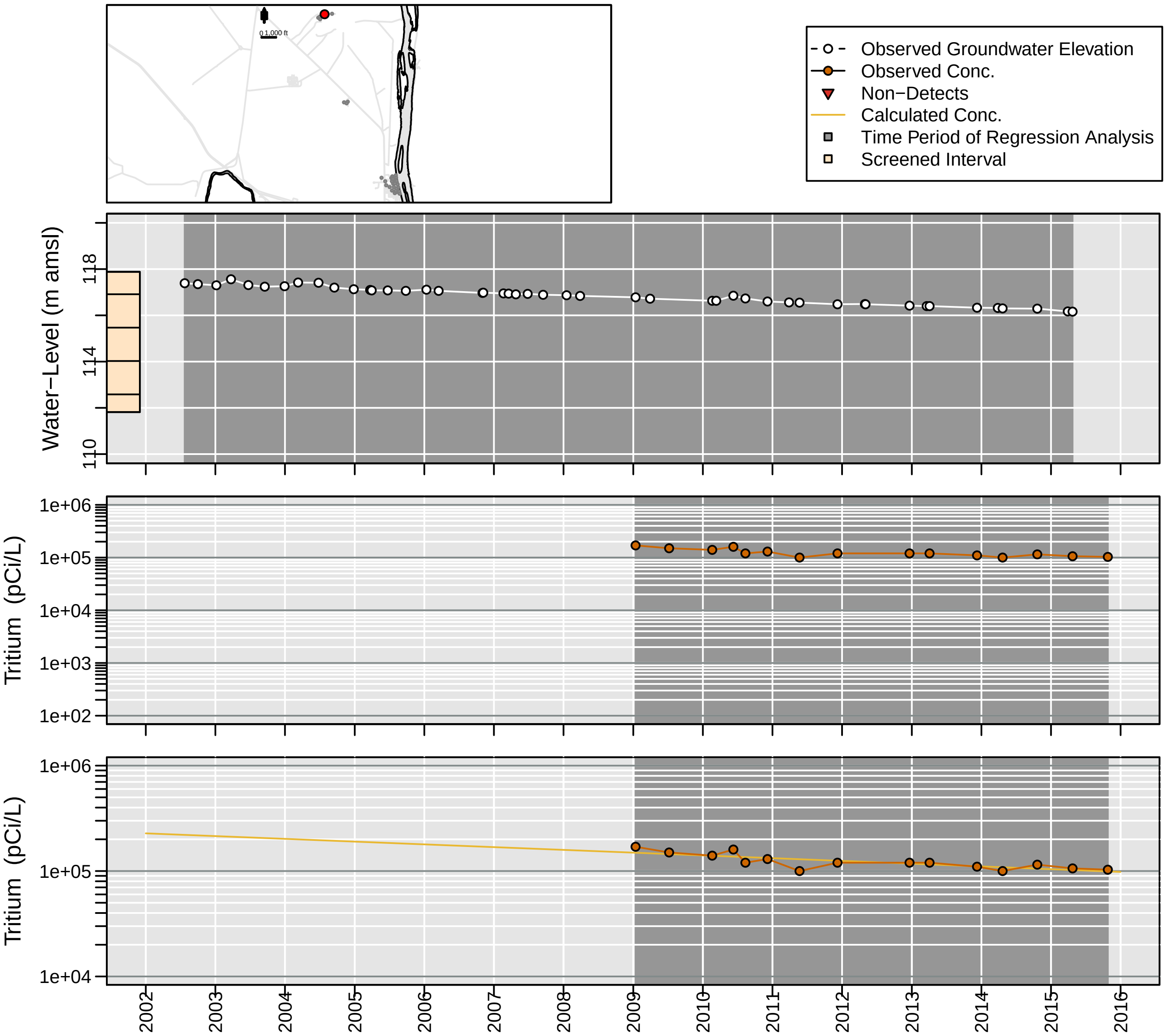
ln Conc. = −0.00022 (+/− 6.3e−05)*Date + 14 (+/− 0.97)
R^2 = 0.48

Regression Statistics for January 2015 to January 2016

699−13−1E

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	79	No RS
Max. Correlation (R2):	0.97	0.63
Number of Comparisons:	47	15
Percent NDs:		0%



Censored Regression (Tobit) Model

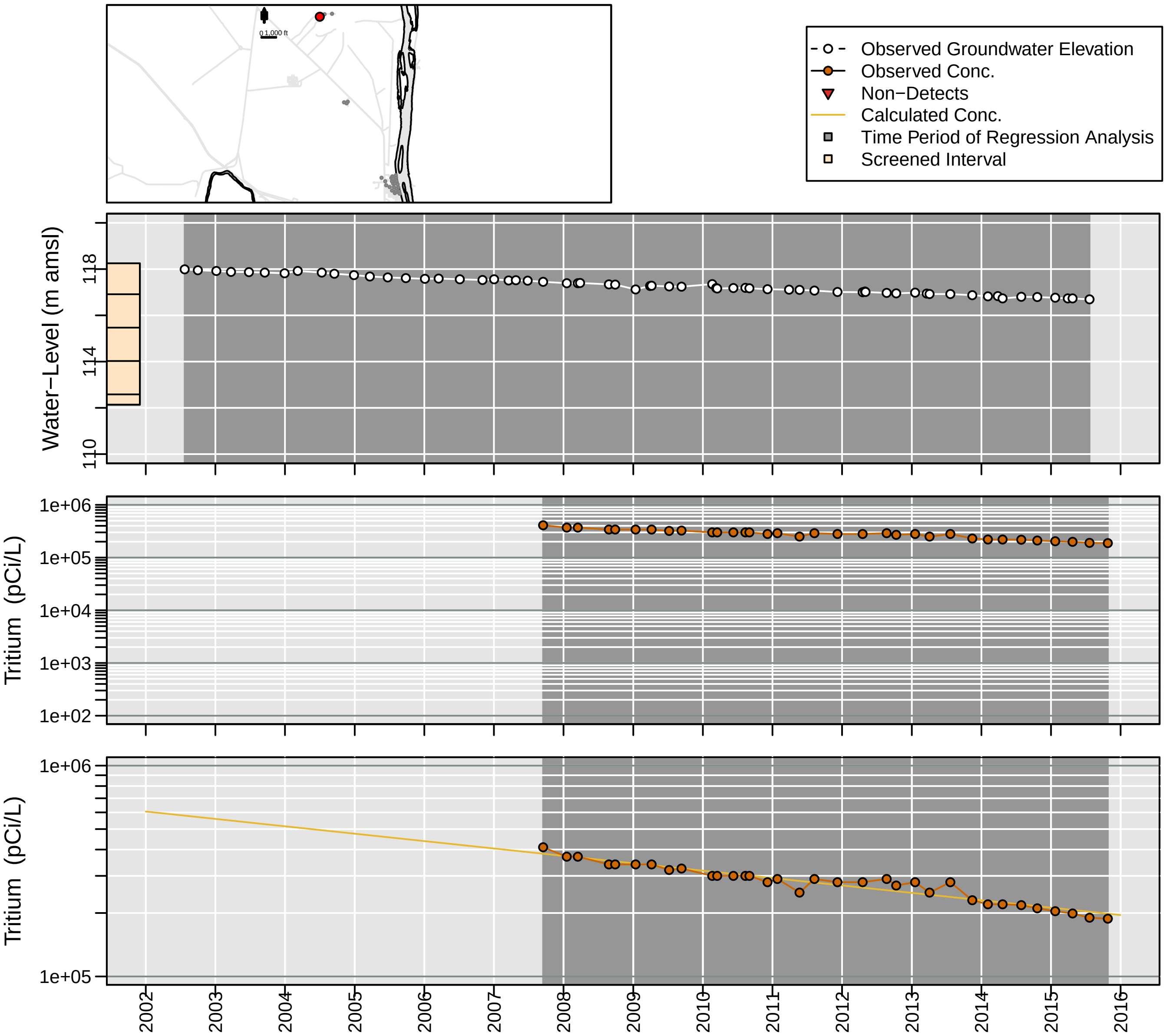
ln Conc. = −0.00016 (+/− 3.3e−05)*Date + 14 (+/− 0.51)
R^2 = 0.63

Regression Statistics for January 2015 to January 2016

699−13−2D

Number of Trends Calculated: 1

	WL	**Conc**
Est. Lag Time (days):	52	No RS
Max. Correlation (R2):	0.99	0.92
Number of Comparisons:	63	34
Percent NDs:		0%



Censored Regression (Tobit) Model

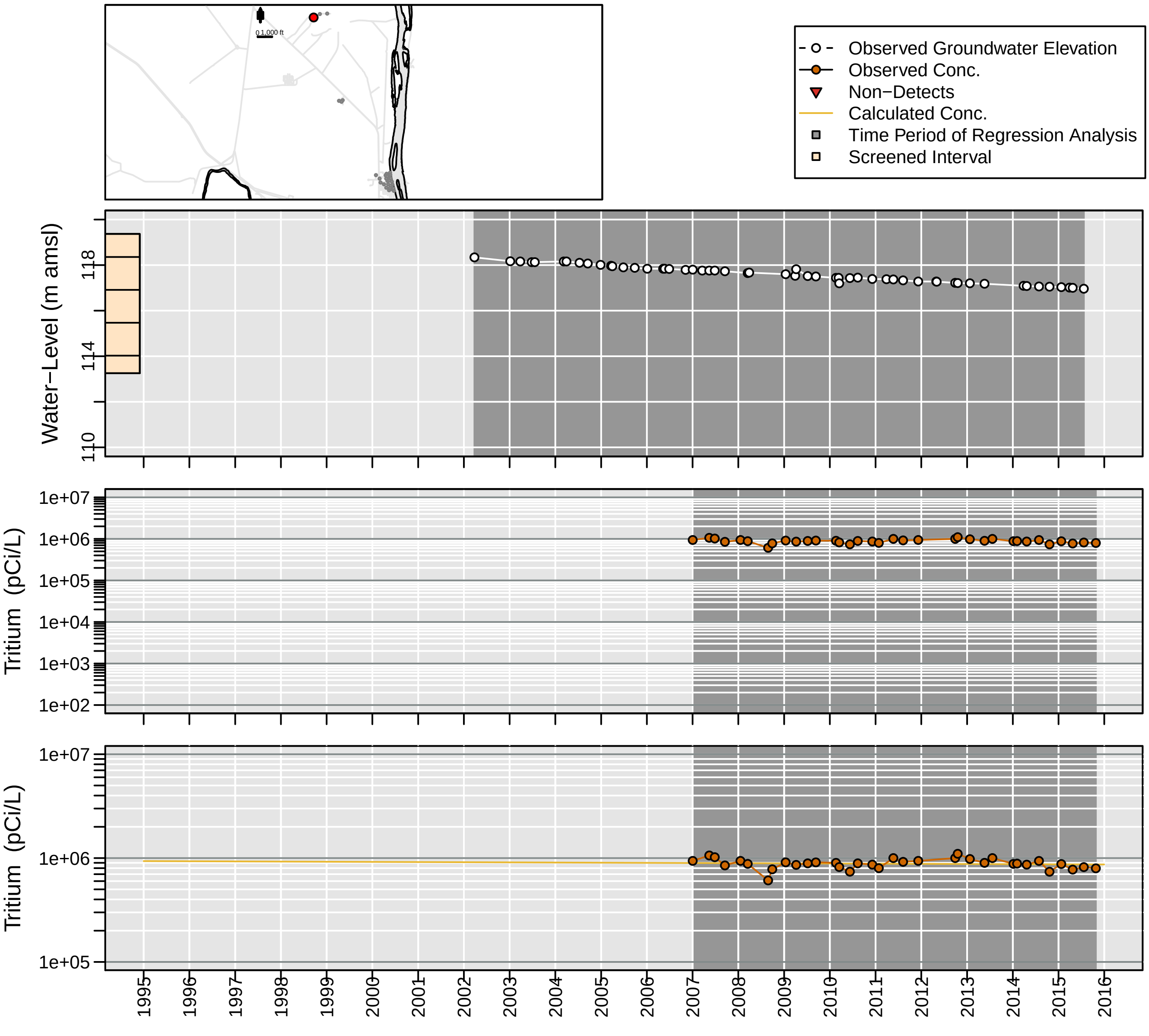
ln Conc. = −0.00022 (+/− 1.1e−05)*Date + 16 (+/− 0.17)
R^2 = 0.92

Regression Statistics for January 2015 to January 2016

699−13−3A

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	81	No RS
Max. Correlation (R2):	0.98	0.0071
Number of Comparisons:	55	35
Percent NDs:		0%



Censored Regression (Tobit) Model

ln Conc. = −9.8e−06 (+/− 2e−05)*Date + 14 (+/− 0.3)
R^2 = 0.0071

Regression Statistics for January 2015 to January 2016

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Uranium

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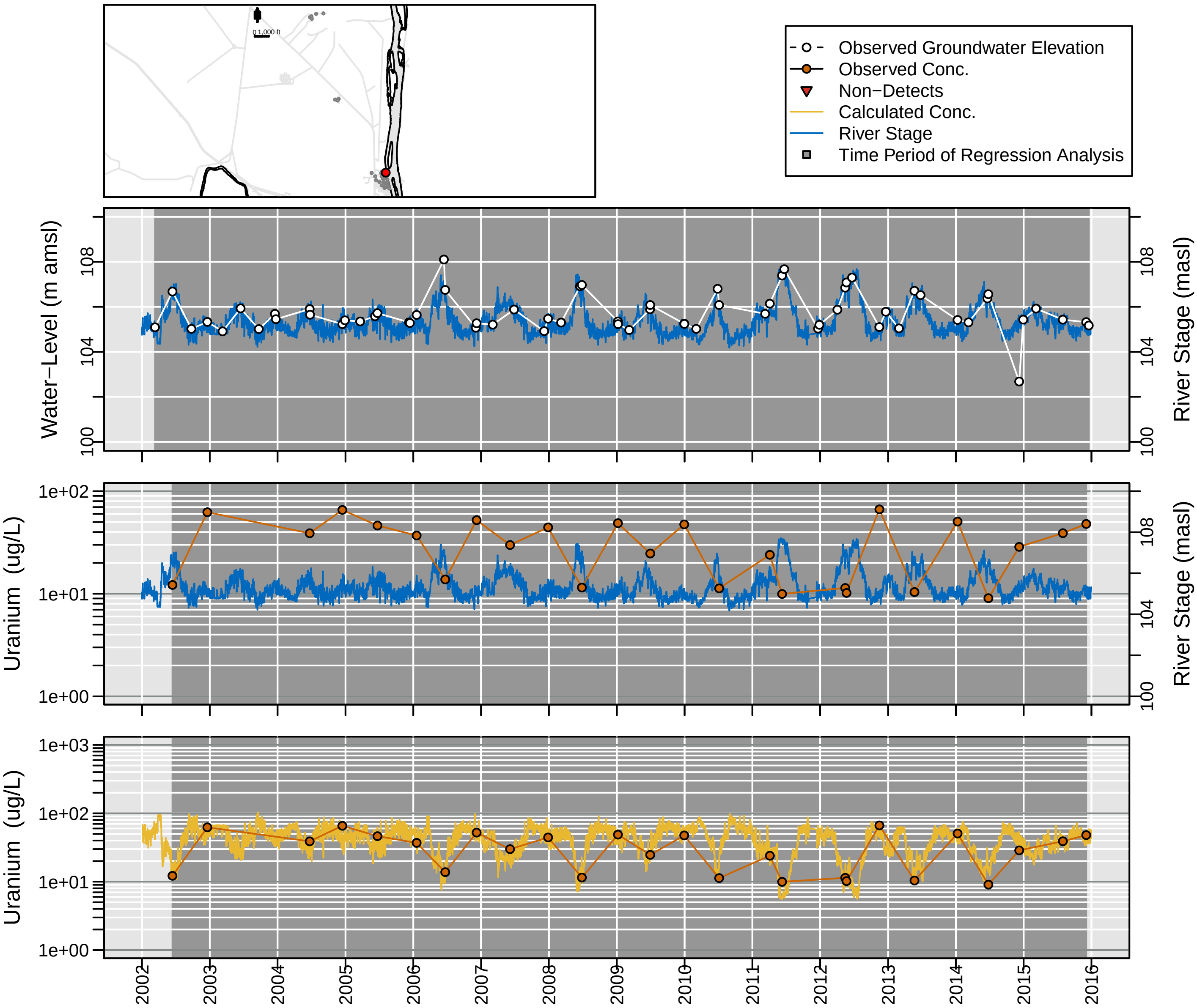
399−1−1

Distance to River: 76 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	3
Max. Correlation (R2):	0.8	0.9
Number of Comparisons:	65	26
Percent NDs:		0%



Censored Regression (Tobit) Model

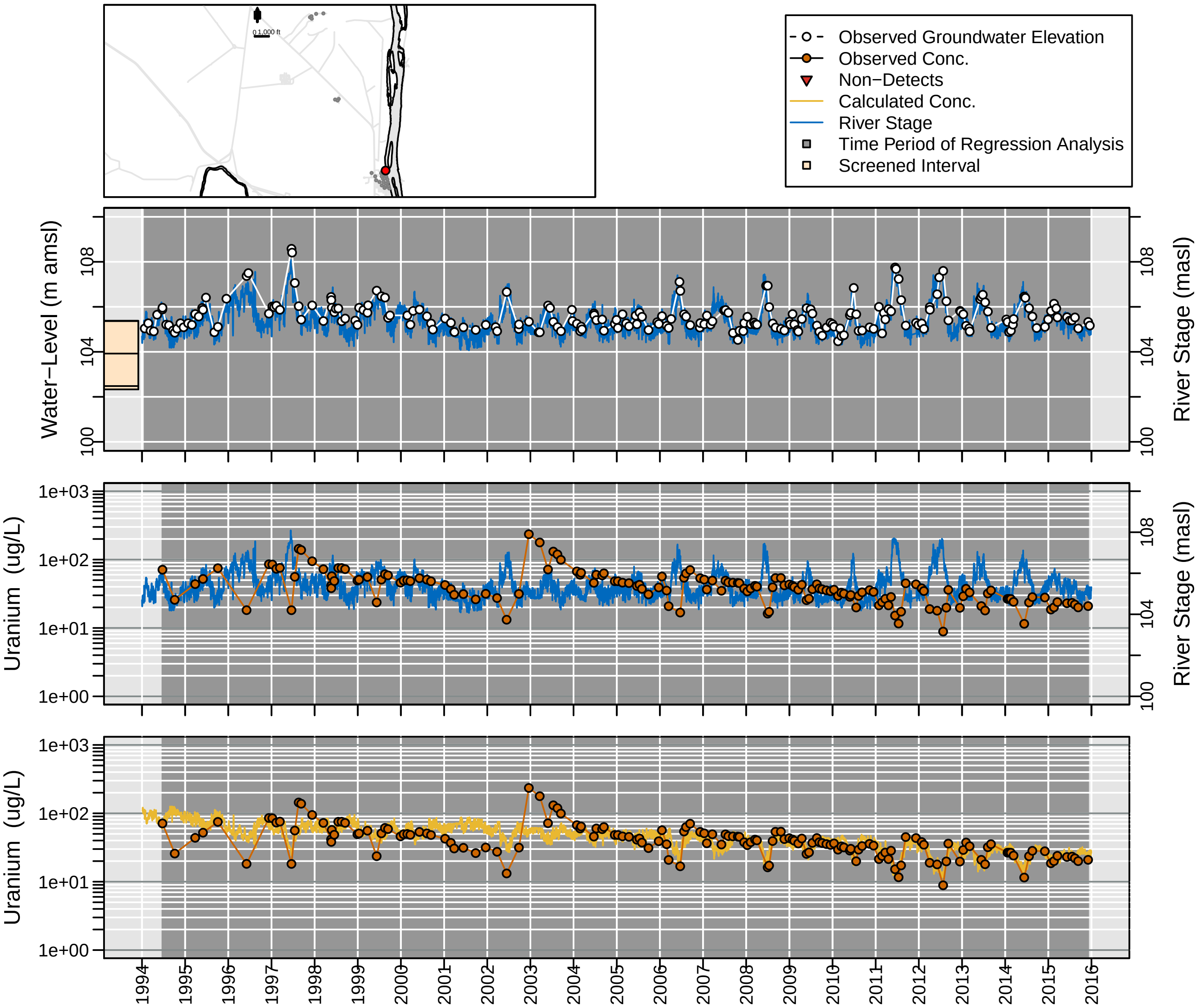
ln Conc. = −0.81 (+/− 0.055)*River Stage + −3.4e−05 (+/− 3.1e−05)*Date + 90 (+/− 5.7)
R^2 = 0.9

Regression Statistics for January 2015 to January 2016

399−1−10A

Distance to River: 70 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	0	5
Max. Correlation (R2):	0.92	0.54
Number of Comparisons:	230	161
Percent NDs:		0%



Censored Regression (Tobit) Model

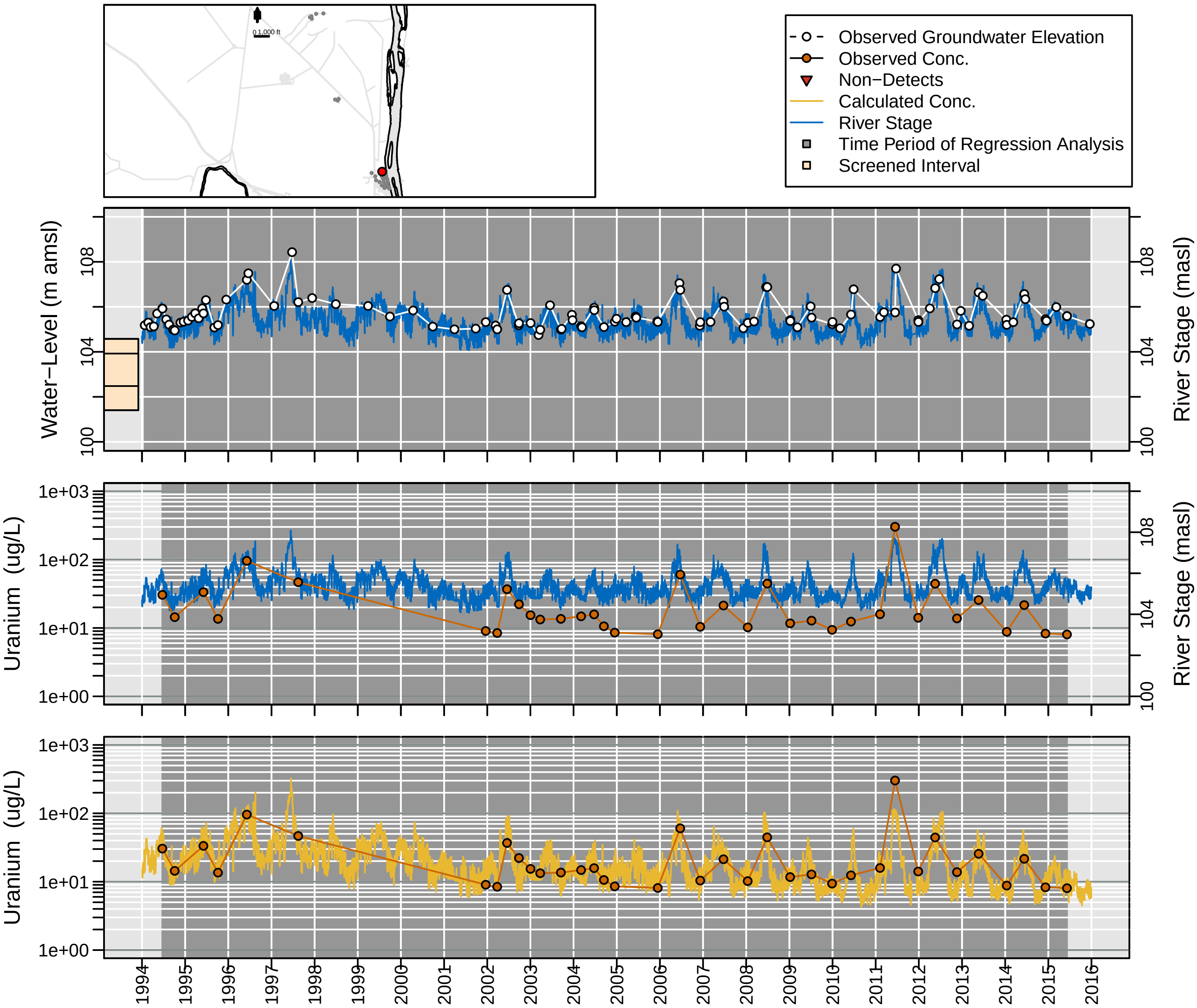
ln Conc. = −0.38 (+/− 0.044)*River Stage + −0.00016 (+/− 1.4e−05)*Date + 46 (+/− 4.7)
R^2 = 0.54

Regression Statistics for January 2015 to January 2016

399−1−11

Distance to River: 314 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	0	2
Max. Correlation (R2):	0.87	0.83
Number of Comparisons:	109	37
Percent NDs:		0%



Censored Regression (Tobit) Model

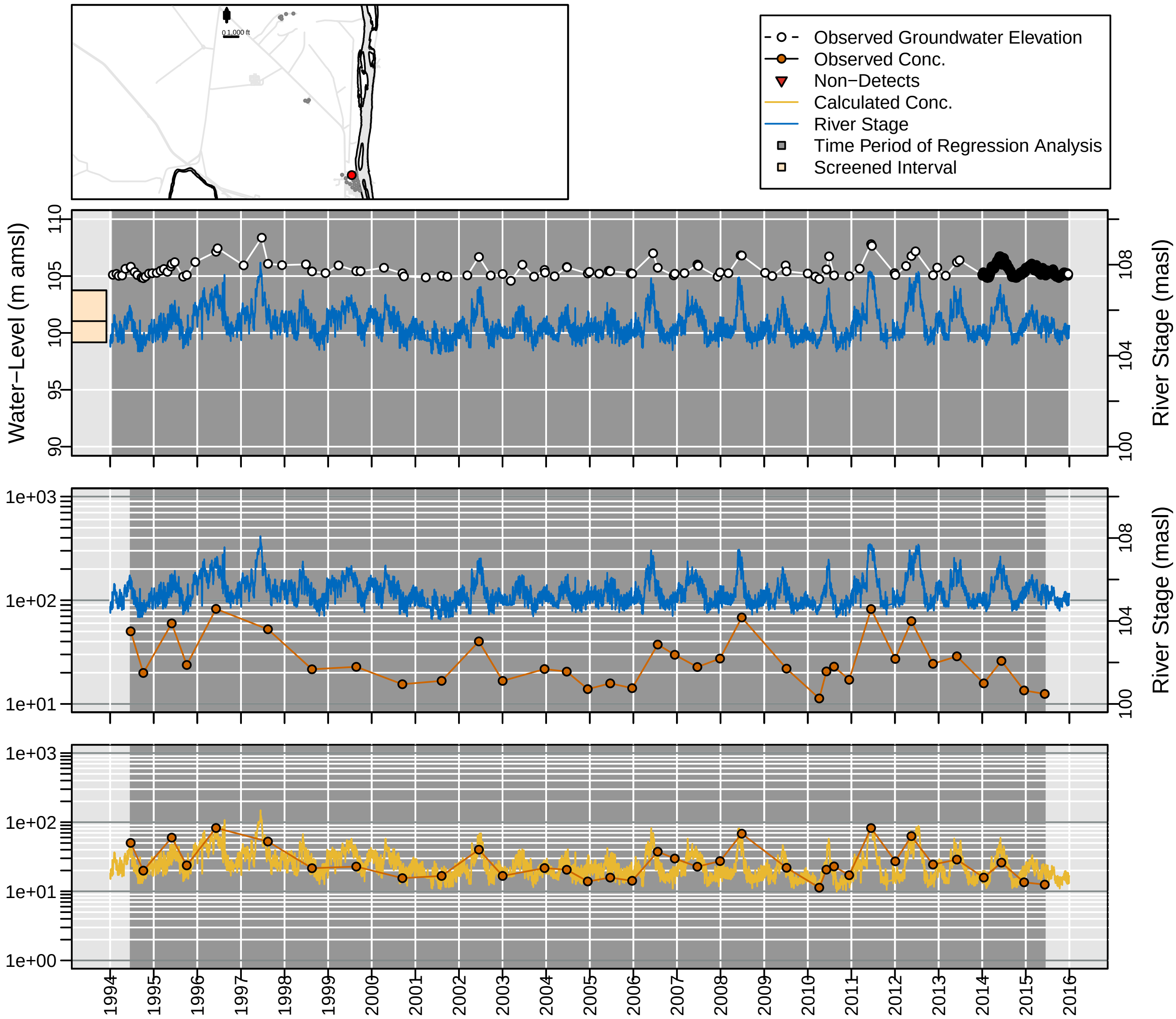
ln Conc. = 0.95 (+/− 0.071)*River Stage + −0.00013 (+/− 2.4e−05)*Date + −95 (+/− 7.4)
R^2 = 0.83

Regression Statistics for January 2015 to January 2016

399−1−12

Distance to River: 398 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	1
Max. Correlation (R2):	0.92	0.73
Number of Comparisons:	827	36
Percent NDs:		0%



Censored Regression (Tobit) Model

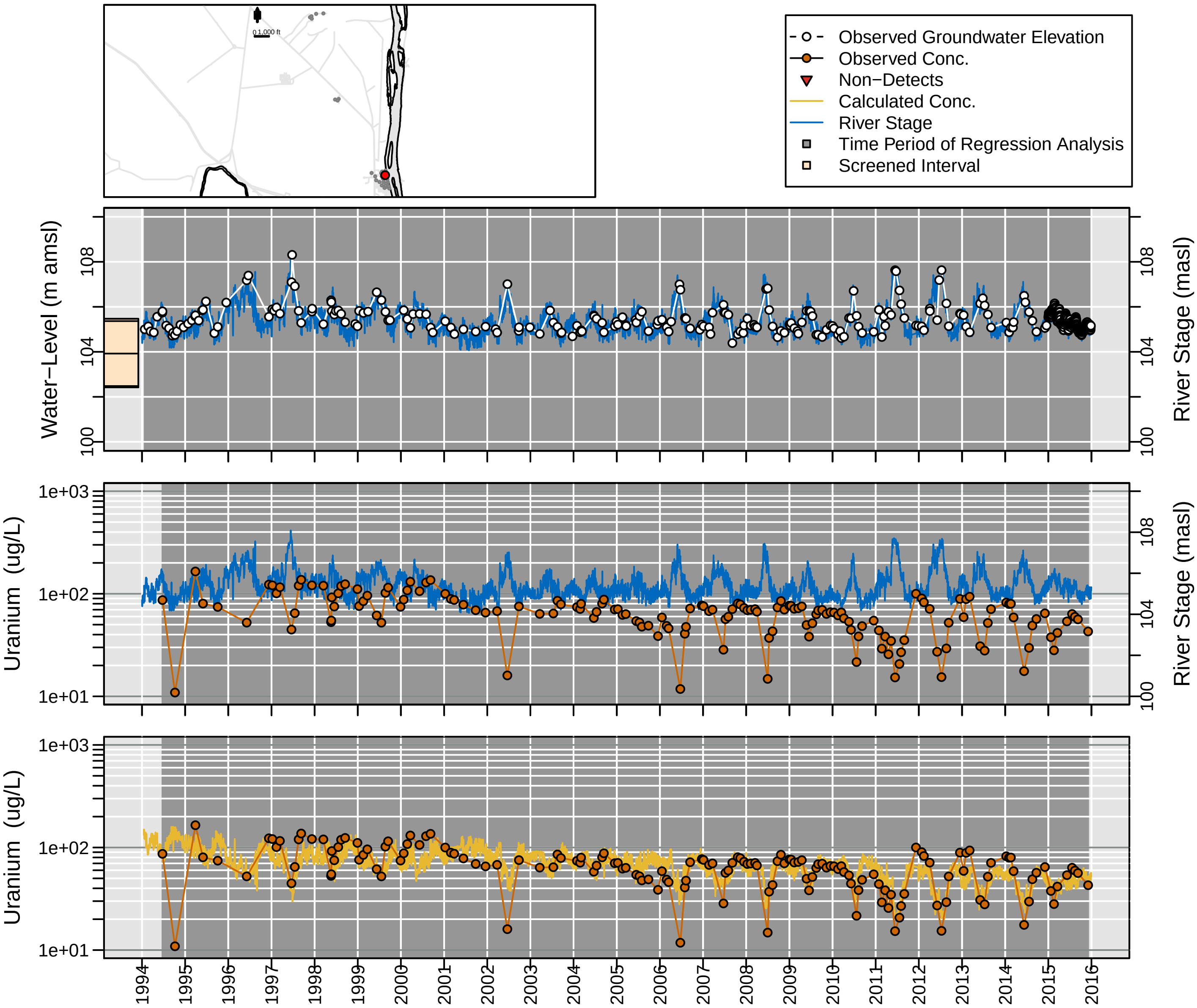
ln Conc. = 0.64 (+/− 0.067)*River Stage + −4.8e−05 (+/− 2e−05)*Date + −63 (+/− 7.1)
R^2 = 0.73

Regression Statistics for January 2015 to January 2016

399−1−16A

Distance to River: 141 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	15
Max. Correlation (R2):	0.9	0.48
Number of Comparisons:	583	160
Percent NDs:		0%



Censored Regression (Tobit) Model

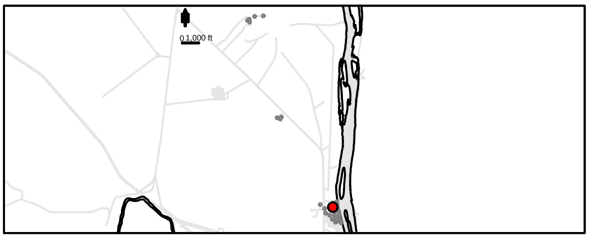
In Conc. = −0.4 (+/− 0.043)*River Stage + −1e−04 (+/− 1.4e−05)*Date + 48 (+/− 4.5)
R^2 = 0.48

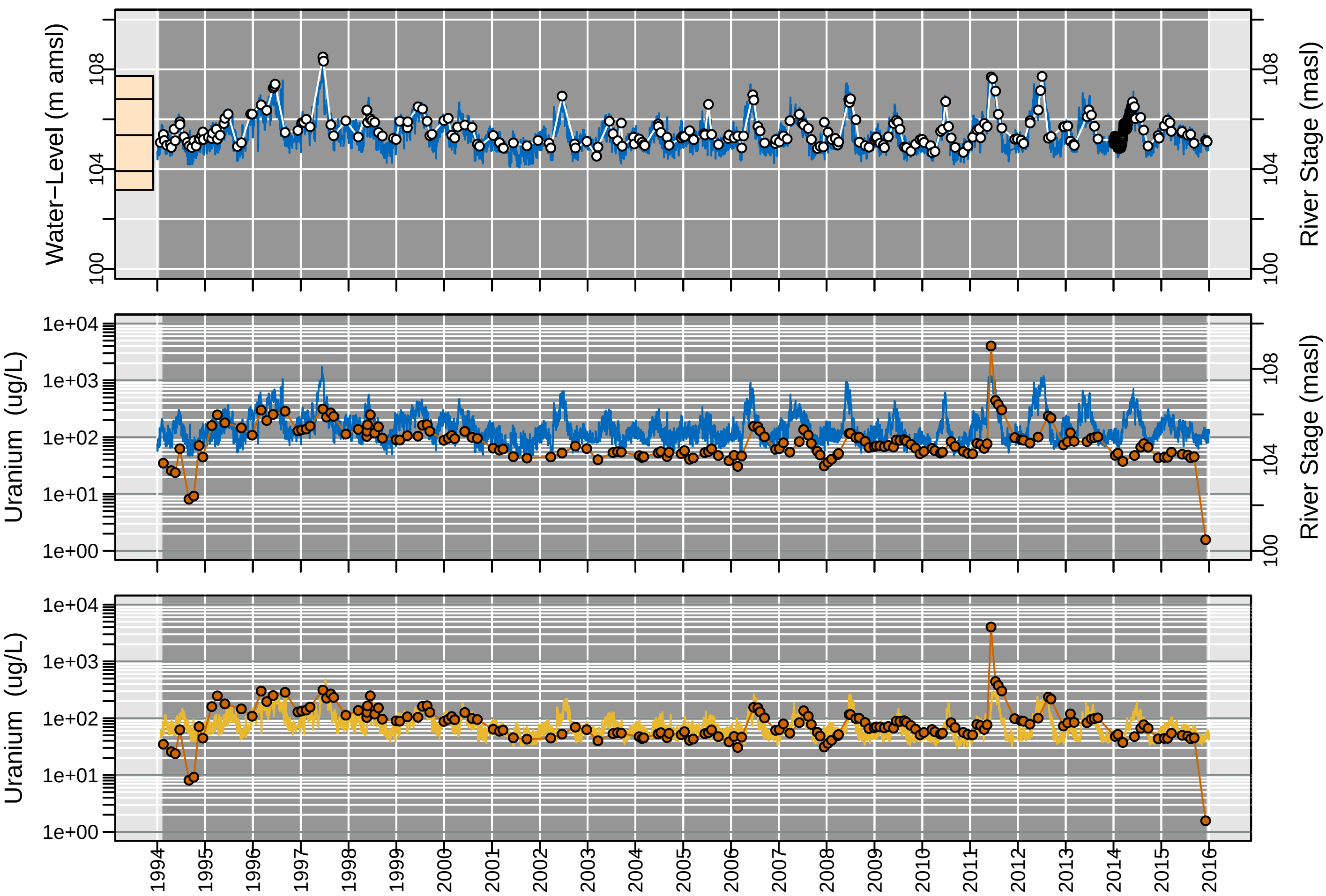
Regression Statistics for January 2015 to January 2016

399−1−17A

Distance to River: 344 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	26
Max. Correlation (R2):	0.89	0.37
\umber of Comparisons:	385	167
Percent NDs:		0%





Censored Regression (Tobit) Model

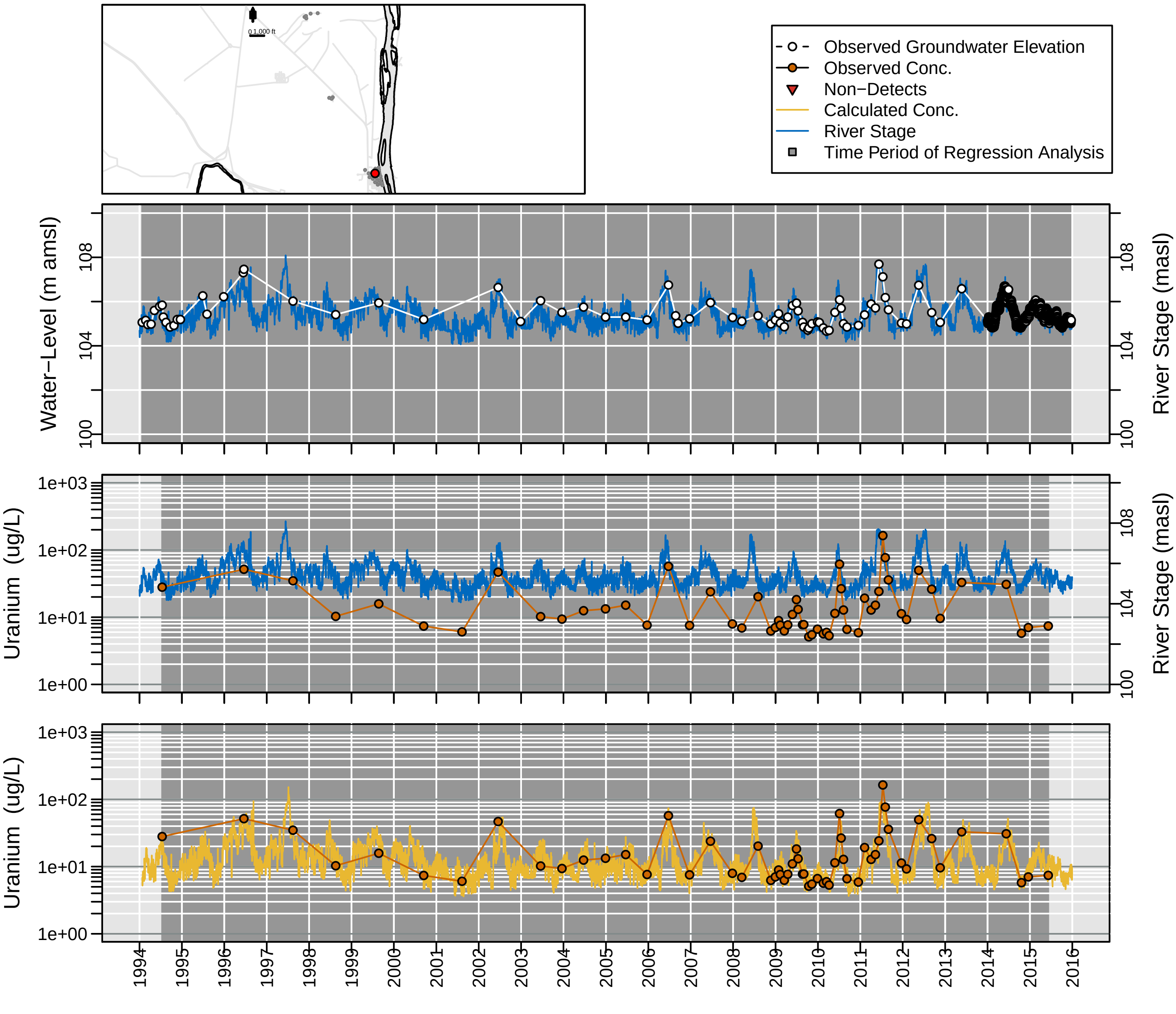
ln Conc. = 0.66 (+/− 0.069)*River Stage + −4.6e−05 (+/− 2e−05)*Date + −64 (+/− 7.3)
R^2 = 0.37

Regression Statistics for January 2015 to January 2016

399−1−2

Distance to River: 386 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	24
Max. Correlation (R2):	0.93	0.81
Number of Comparisons:	793	60
Percent NDs:		0%



Censored Regression (Tobit) Model

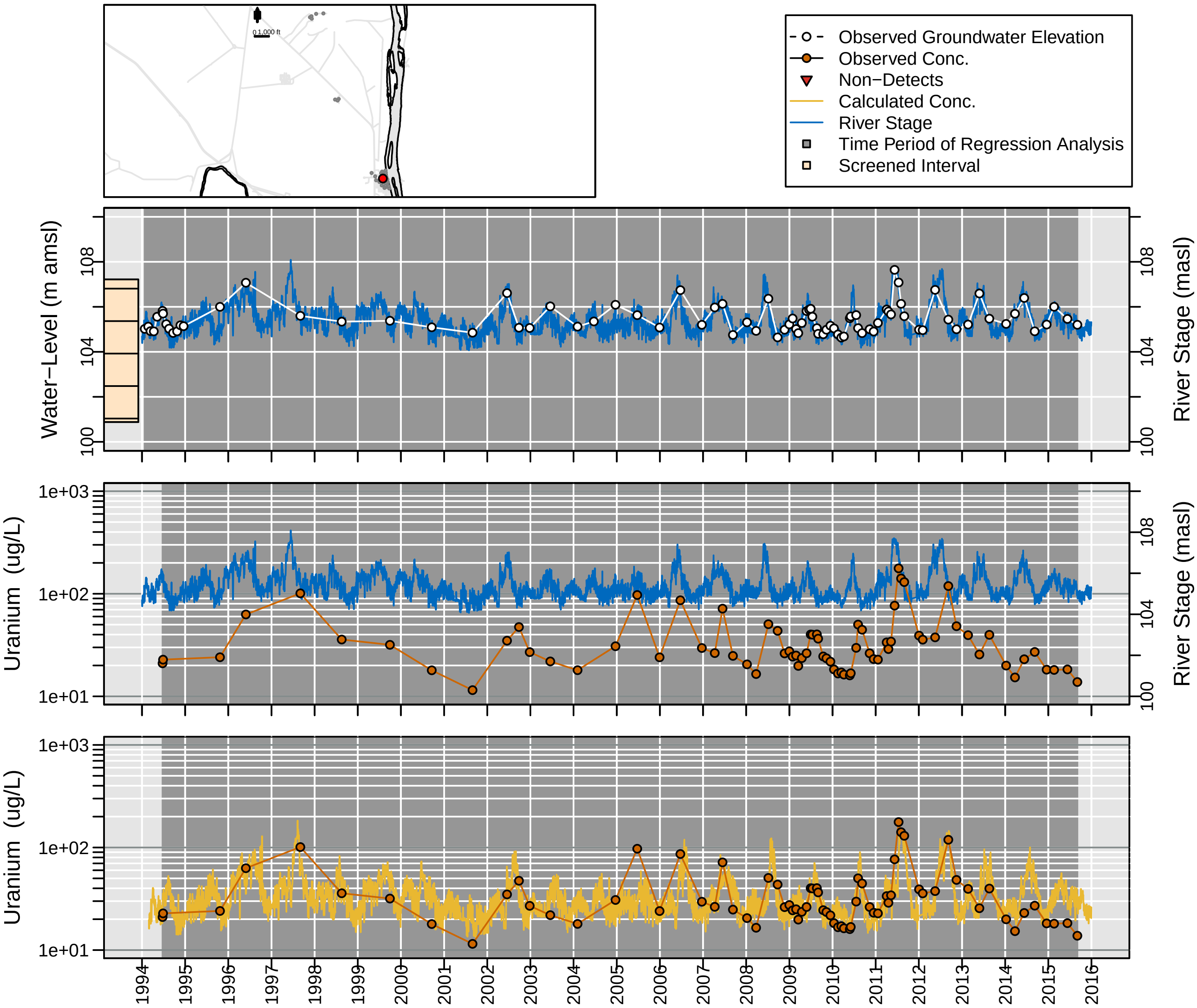
ln Conc. = 0.92 (+/− 0.058)*River Stage + −2.8e−05 (+/− 2.7e−05)*Date + −94 (+/− 6.1)
R^2 = 0.81

Regression Statistics for January 2015 to January 2016

399−1−21A

Distance to River: 340 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	58
Max. Correlation (R2):	0.89	0.59
Number of Comparisons:	89	75
Percent NDs:		0%



Censored Regression (Tobit) Model

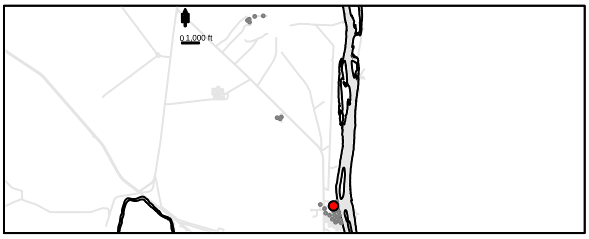
ln Conc. = 0.65 (+/− 0.063)*River Stage + 6.3e−06 (+/− 2.3e−05)*Date + −65 (+/− 6.6)
R^2 = 0.59

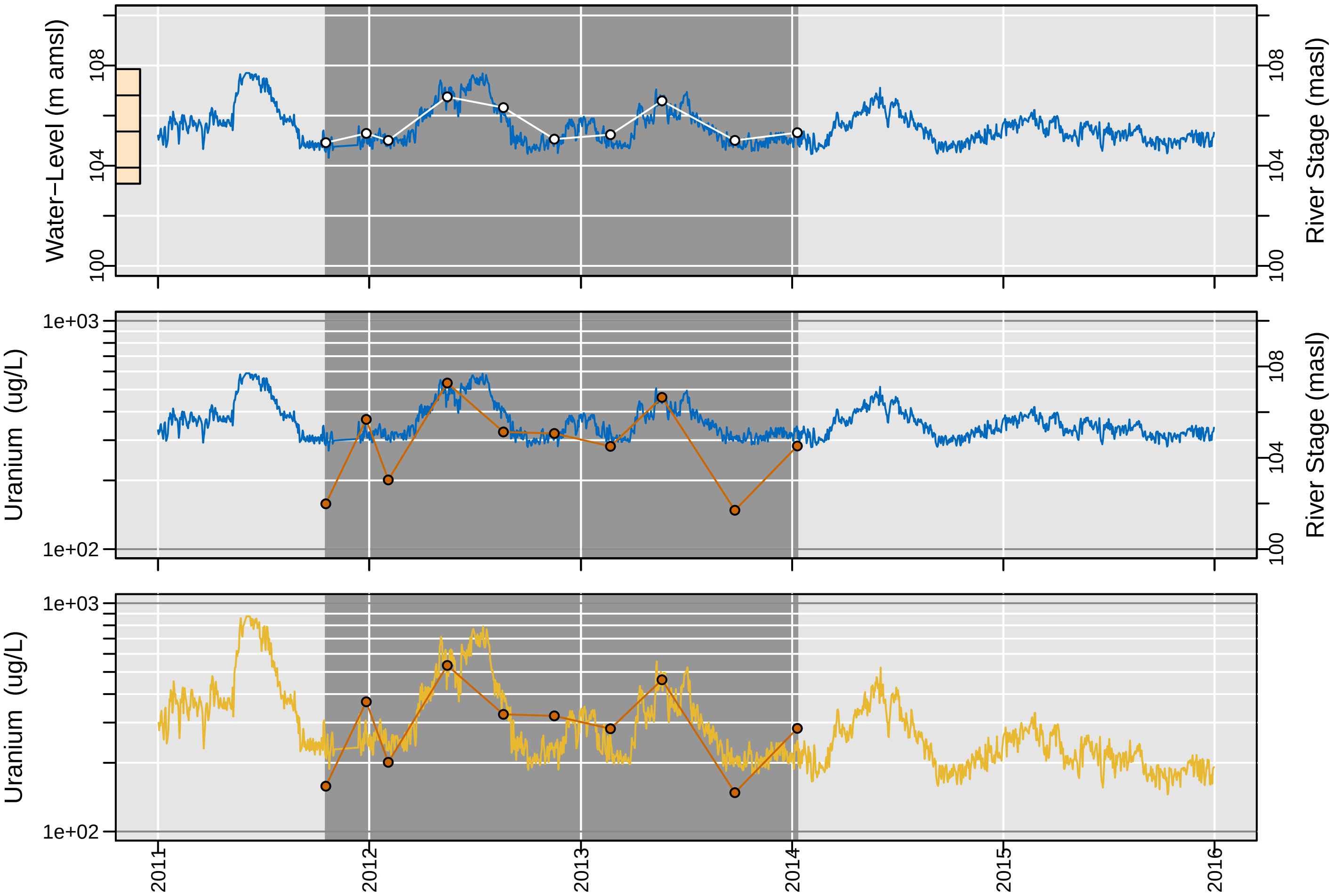
Regression Statistics for January 2015 to January 2016

399−1−55

Distance to River: 295 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	1
Max. Correlation (R2):	0.98	0.67
Number of Comparisons:	10	10
Percent NDs:		0%





Censored Regression (Tobit) Model

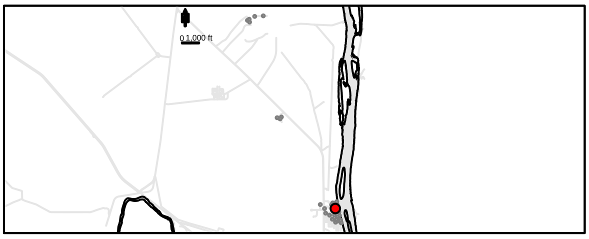
ln Conc. = 0.44 (+/− 0.099)*River Stage + −0.00023 (+/− 0.00028)*Date + −38 (+/− 11)
R^2 = 0.67

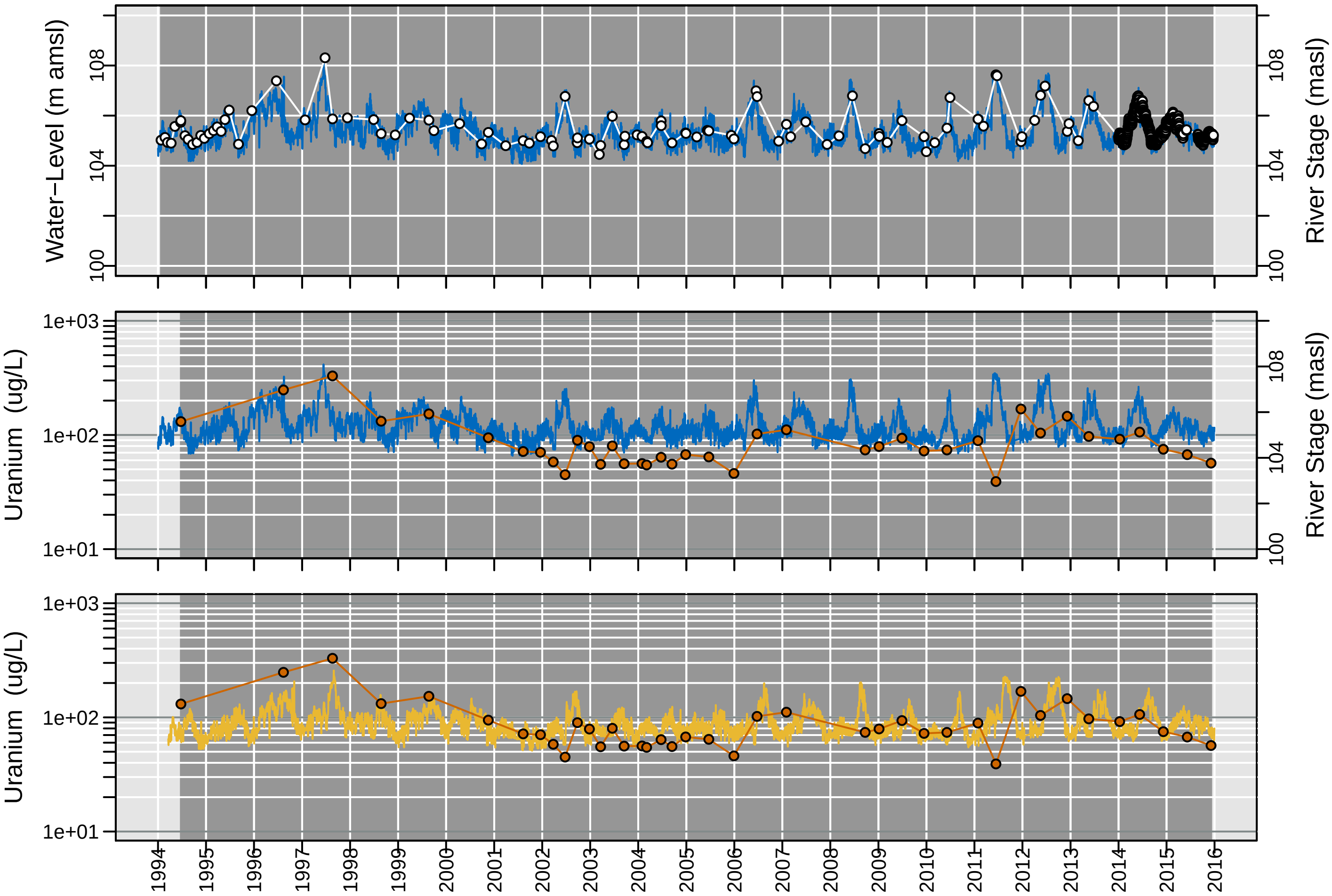
Regression Statistics for January 2015 to January 2016

399−1−7

Distance to River: 209 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	78
Max. Correlation (R2):	0.94	0.34
Number of Comparisons:	715	40
Percent NDs:		0%





Censored Regression (Tobit) Model

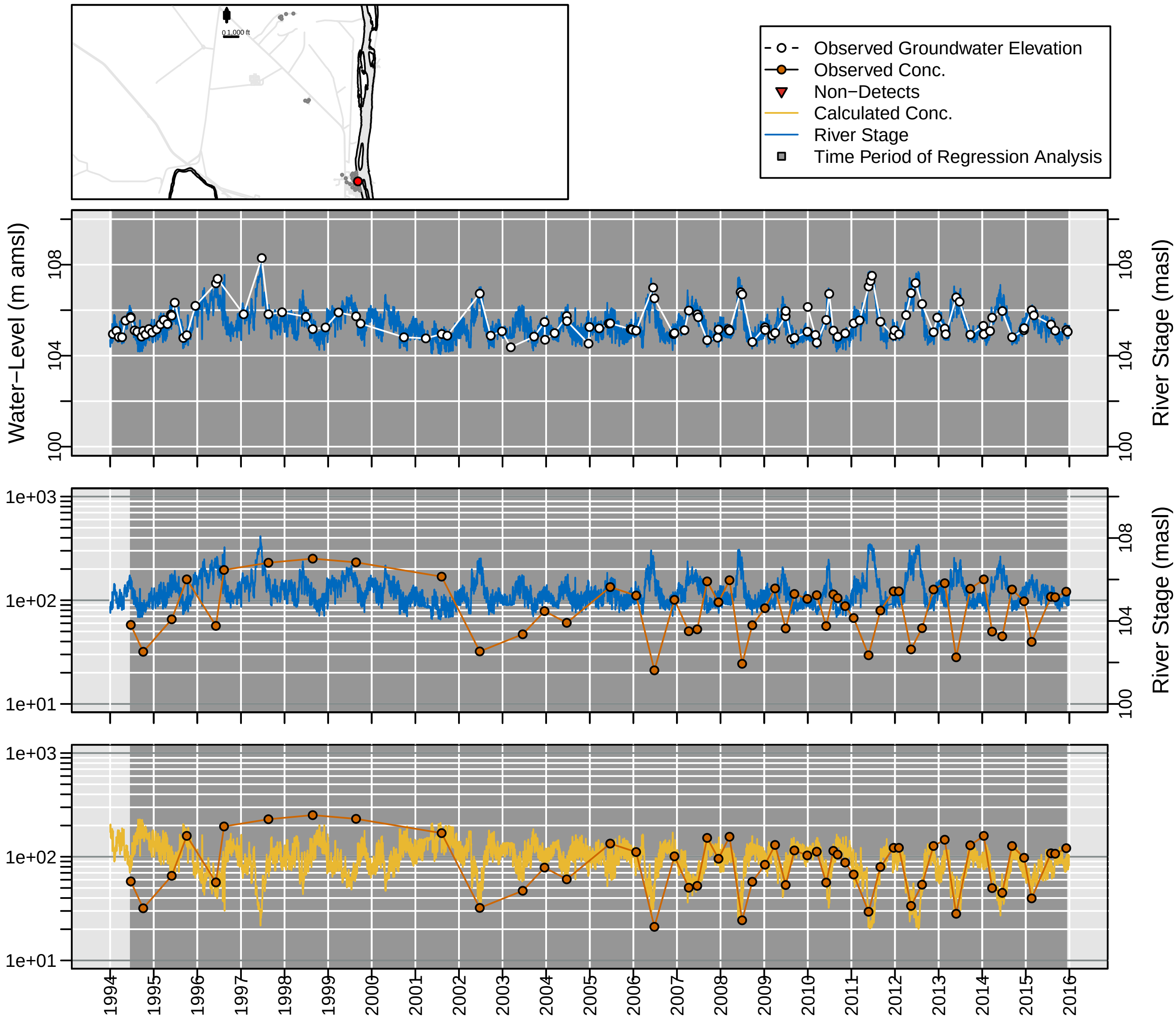
In Conc. = 0.4 (+/− 0.099)*River Stage + 6.1e−06 (+/− 3.1e−05)*Date + −38 (+/− 11)
R^2 = 0.34

Regression Statistics for January 2015 to January 2016

399−2−1

Distance to River: 57 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	1
Max. Correlation (R2):	0.9	0.45
Number of Comparisons:	125	55
Percent NDs:		0%



Censored Regression (Tobit) Model

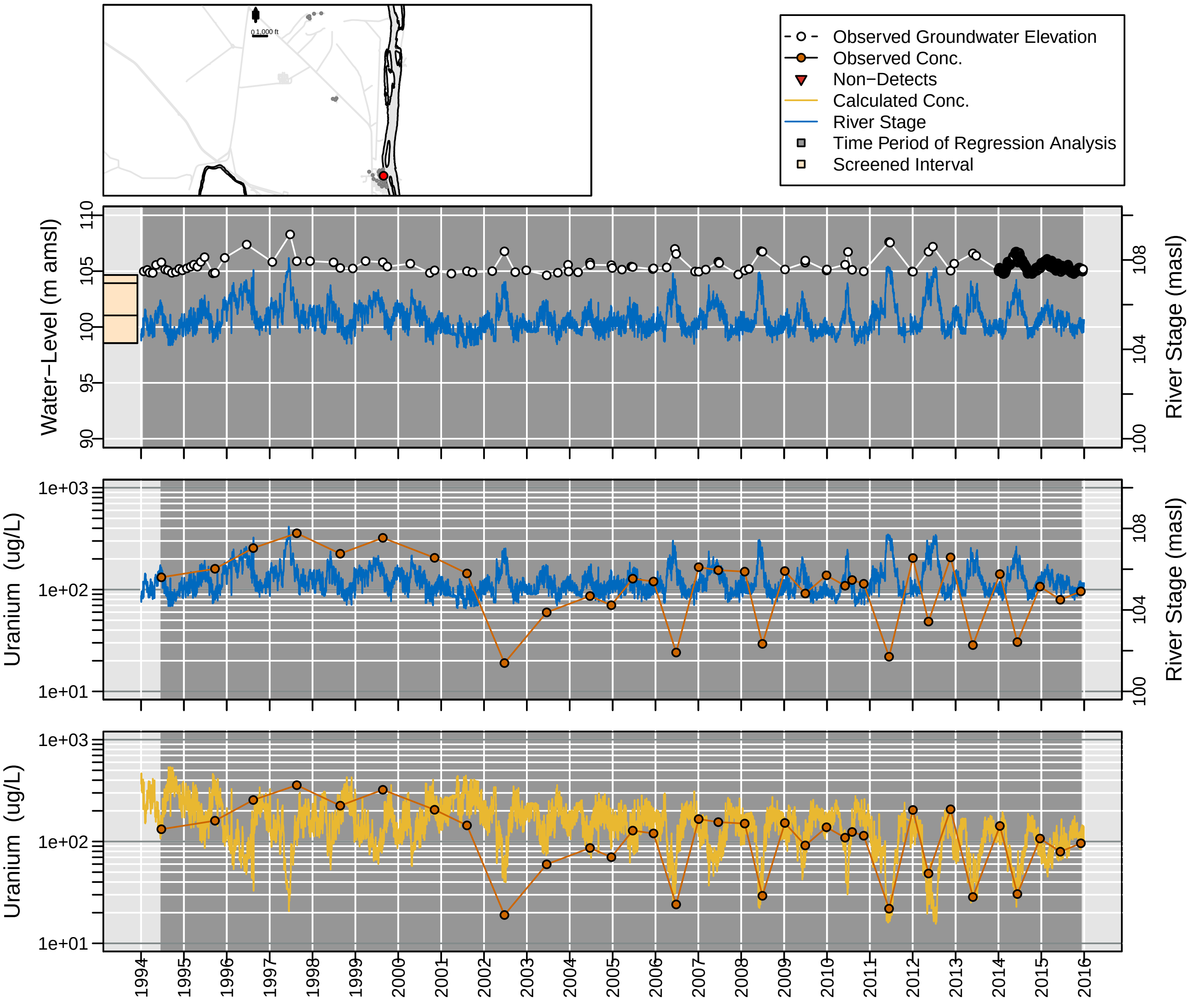
ln Conc. = −0.59 (+/− 0.088)*River Stage + −5.7e−05 (+/− 2.7e−05)*Date + 67 (+/− 9.3)
R^2 = 0.45

Regression Statistics for January 2015 to January 2016

399−2−2

Distance to River: 98 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	1
Max. Correlation (R2):	0.93	0.65
Number of Comparisons:	810	35
Percent NDs:		0%



Censored Regression (Tobit) Model

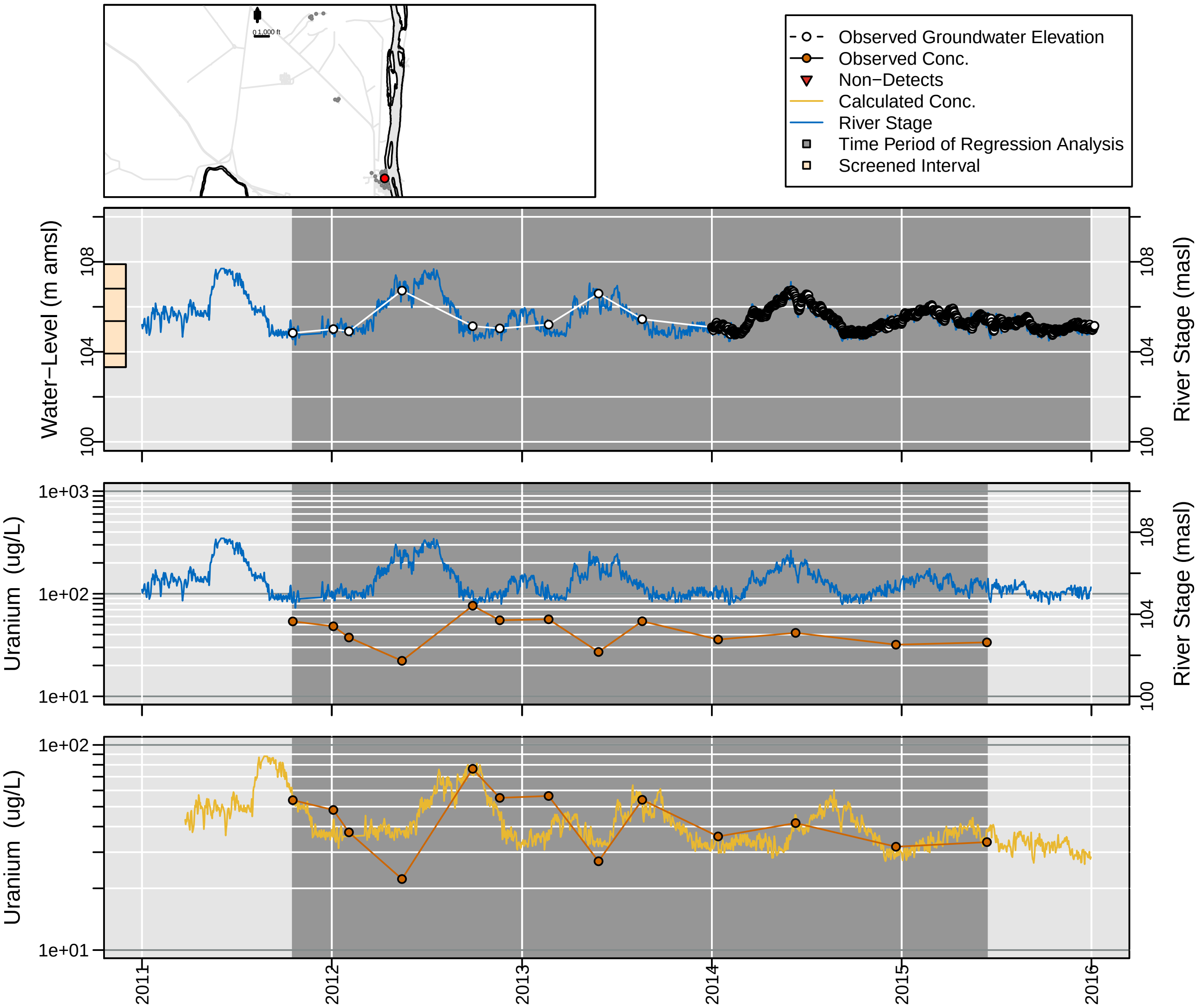
ln Conc. = −0.8 (+/− 0.11)*River Stage + −0.00011 (+/− 3.5e−05)*Date + 91 (+/− 12)
R^2 = 0.65

Regression Statistics for January 2015 to January 2016

399−2−32

Distance to River: 217 m
Number of Trends Calculated: 1

	WL	**Conc**
Est. Lag Time (days):	1	83
Max. Correlation (R2):	0.94	0.59
Number of Comparisons:	739	13
Percent NDs:		0%



Censored Regression (Tobit) Model

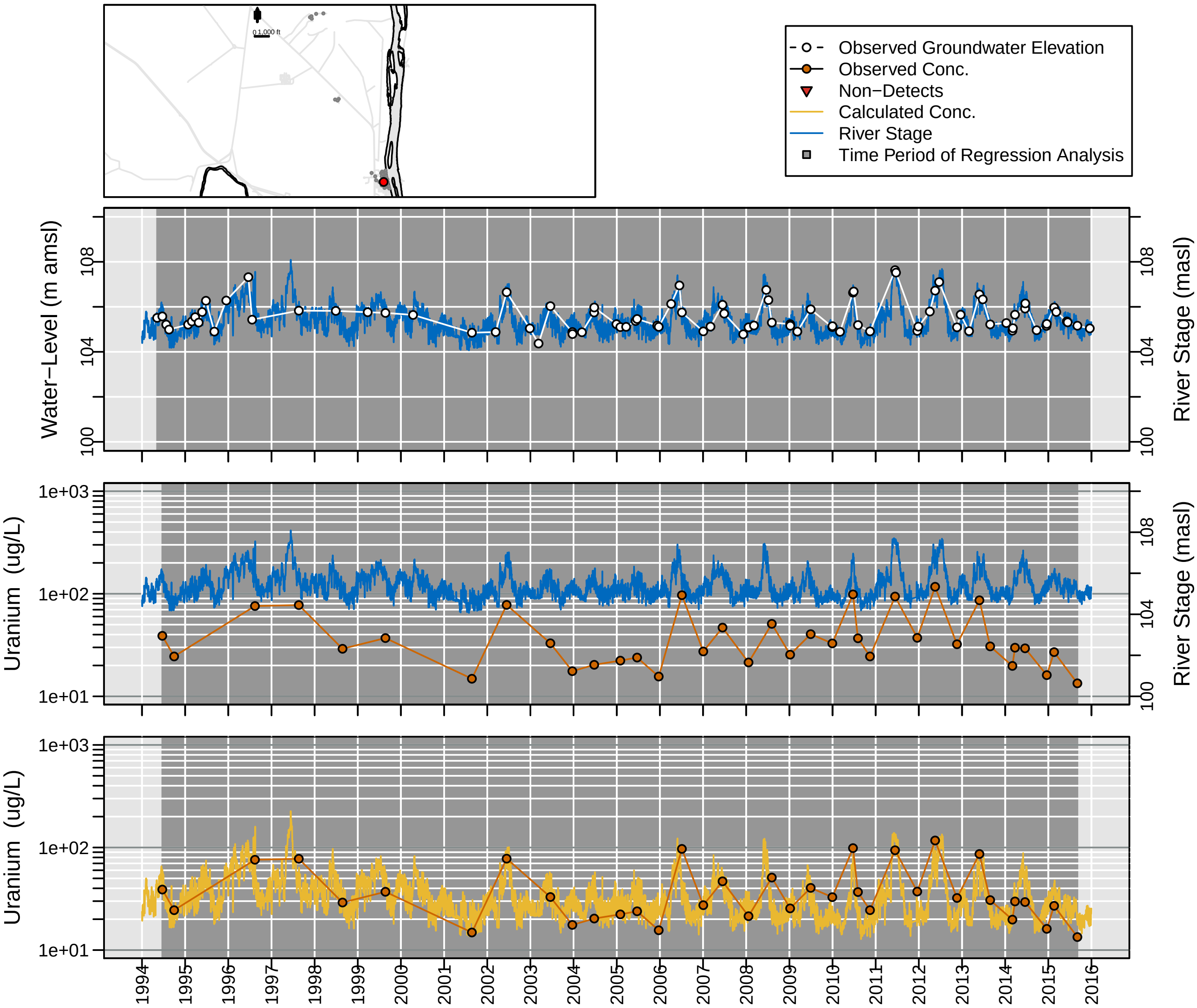
ln Conc. = 0.3 (+/− 0.074)*River Stage + −0.00018 (+/− 0.00015)*Date + −25 (+/− 8.3)
R^2 = 0.59

Regression Statistics for January 2015 to January 2016

399−3−12

Distance to River: 344 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	0
Max. Correlation (R2):	0.92	0.64
Number of Comparisons:	89	37
Percent NDs:		0%



Censored Regression (Tobit) Model

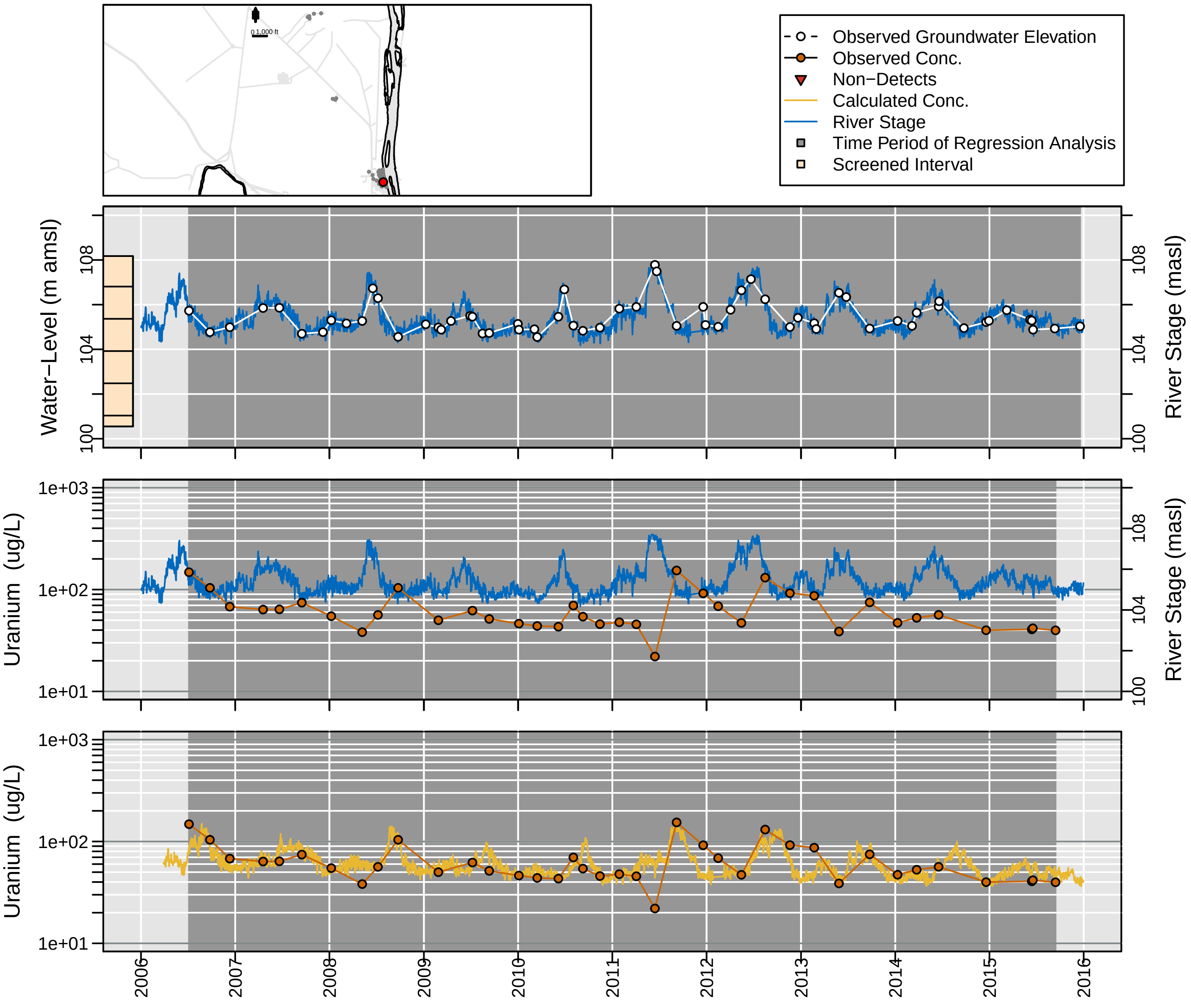
ln Conc. = 0.68 (+/− 0.084)*River Stage + −4.5e−05 (+/− 2.7e−05)*Date + −68 (+/− 8.8)
R^2 = 0.64

Regression Statistics for January 2015 to January 2016

399−3−20

Distance to River: 210 m
Number of Trends Calculated: 1

	WL	**Conc**
Est. Lag Time (days):	0	87
Max. Correlation (R2):	0.92	0.57
Number of Comparisons:	63	38
Percent NDs:		0%



Censored Regression (Tobit) Model

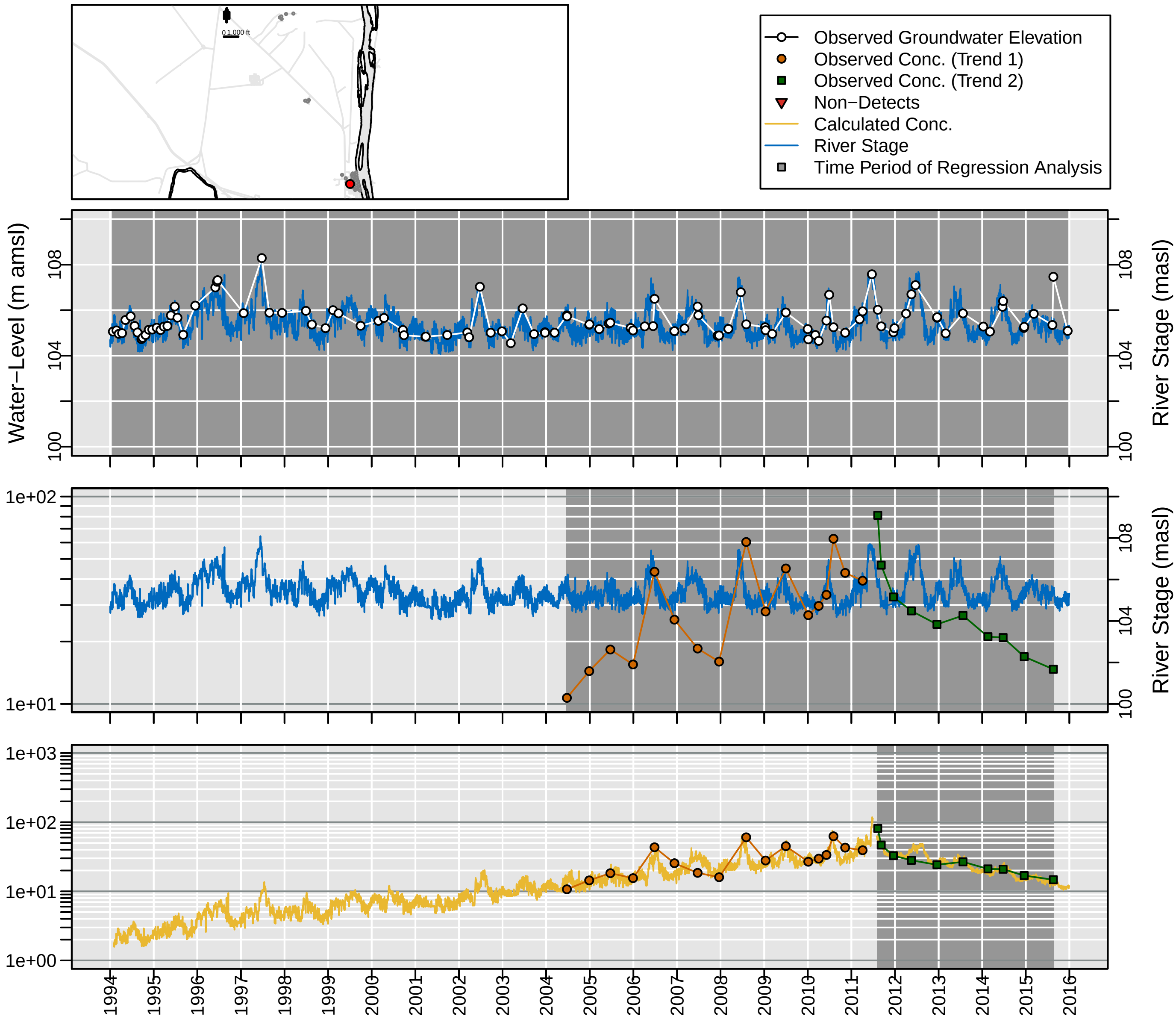
ln Conc. = 0.38 (+/− 0.058)*River Stage + −1e−04 (+/− 4.5e−05)*Date + −35 (+/− 6.2)
R^2 = 0.57

Regression Statistics for January 2015 to January 2016

399−3−6

Distance to River: 623 m
Number of Trends Calculated: 2

	WL	Conc. 1	Conc. 2
Est. Lag Time (days):	1	32	32
Max. Correlation (R2):	0.79	0.82	0.89
Number of Comparisons:	110	17	10
Percent NDs:		0%	0%



Censored Regression (Tobit) Model

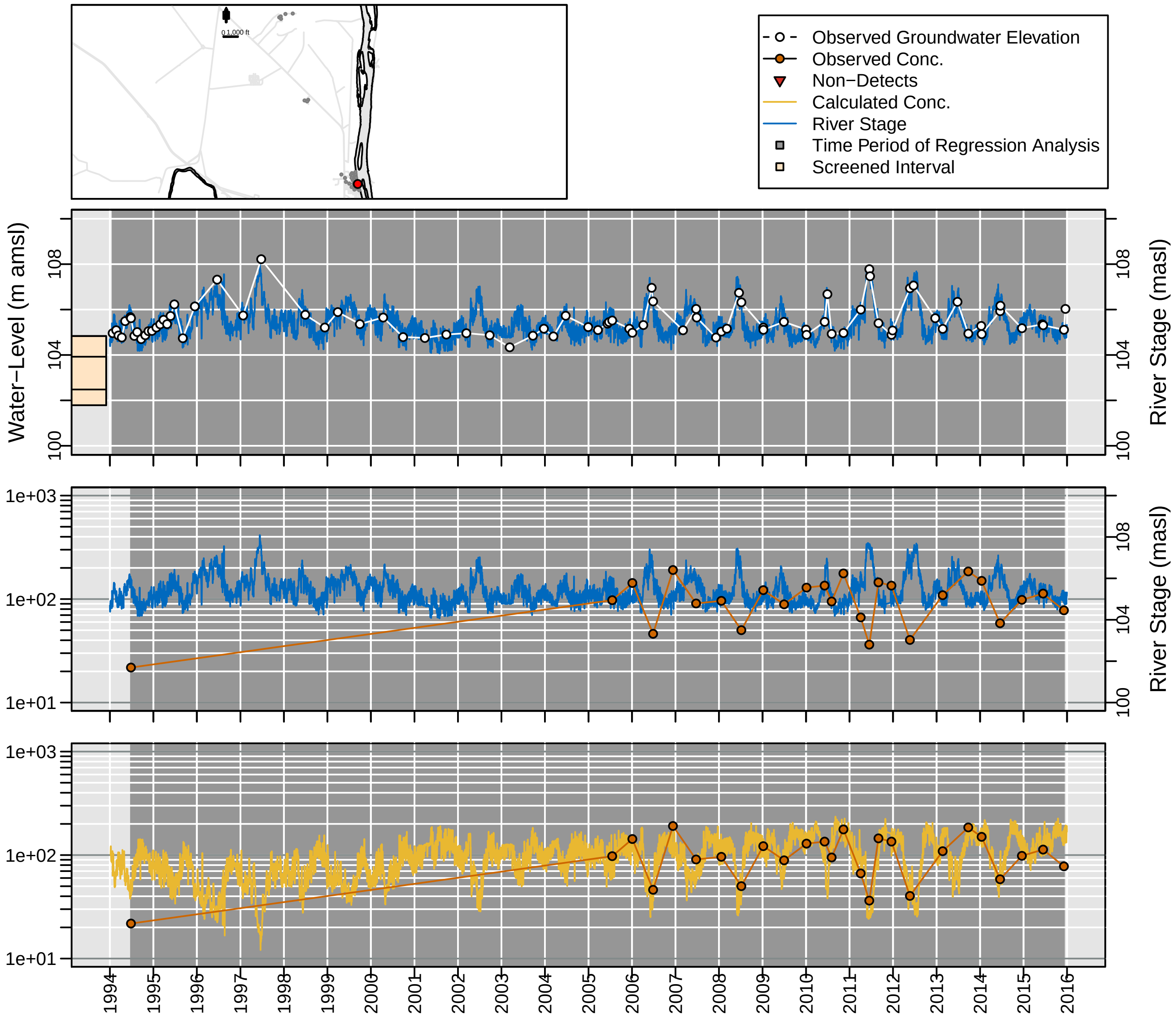
Trend 1
ln Conc. = 0.43 (+/− 0.081)*River Stage + 0.00046 (+/− 6.7e−05)*Date + −48 (+/− 8.6)
R^2 = 0.82
Trend 2
ln Conc. = 0.2*River Stage + 0.063)*River Stage + −0.00076 (+/− 1e−04)*Date + −5.9 (+/− 7.3)
R^2 = 0.89

Regression Statistics for January 2015 to January 2016

399−3−9

Distance to River: 68 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	0	6
Max. Correlation (R2):	0.92	0.72
Number of Comparisons:	87	26
Percent NDs:		0%



Censored Regression (Tobit) Model

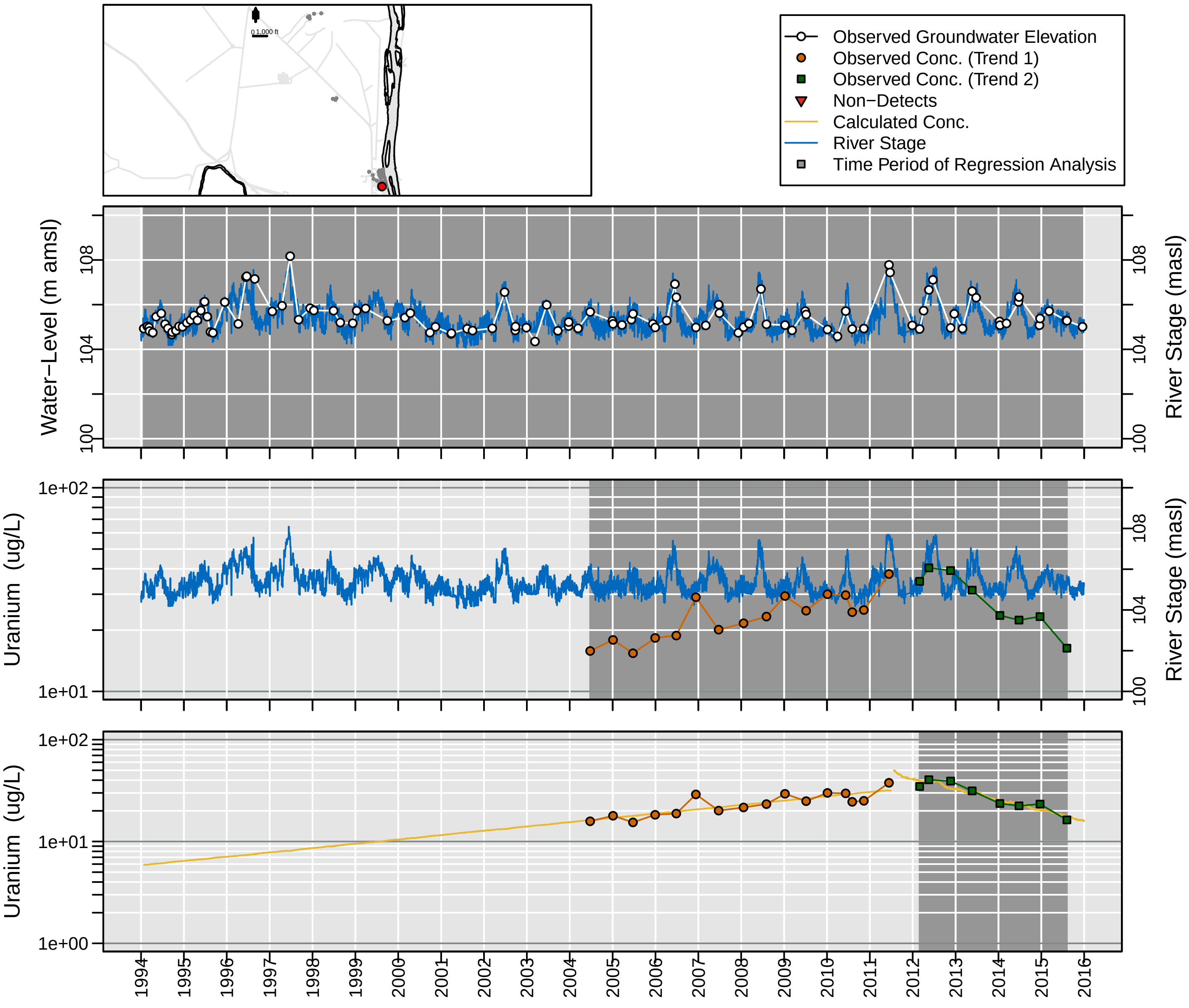
ln Conc. = −0.65 (+/− 0.091)*River Stage + 8.6e−05 (+/− 3.6e−05)*Date + 72 (+/− 9.7)
R^2 = 0.72

Regression Statistics for January 2015 to January 2016

399−4−1

Distance to River: 381 m
Number of Trends Calculated: 2

	WL	Conc. 1	Conc. 2
Est. Lag Time (days):	1	25	25
Max. Correlation (R2):	0.89	0.71	0.89
Number of Comparisons:	111	16	8
Percent NDs:		0%	0%



Censored Regression (Tobit) Model

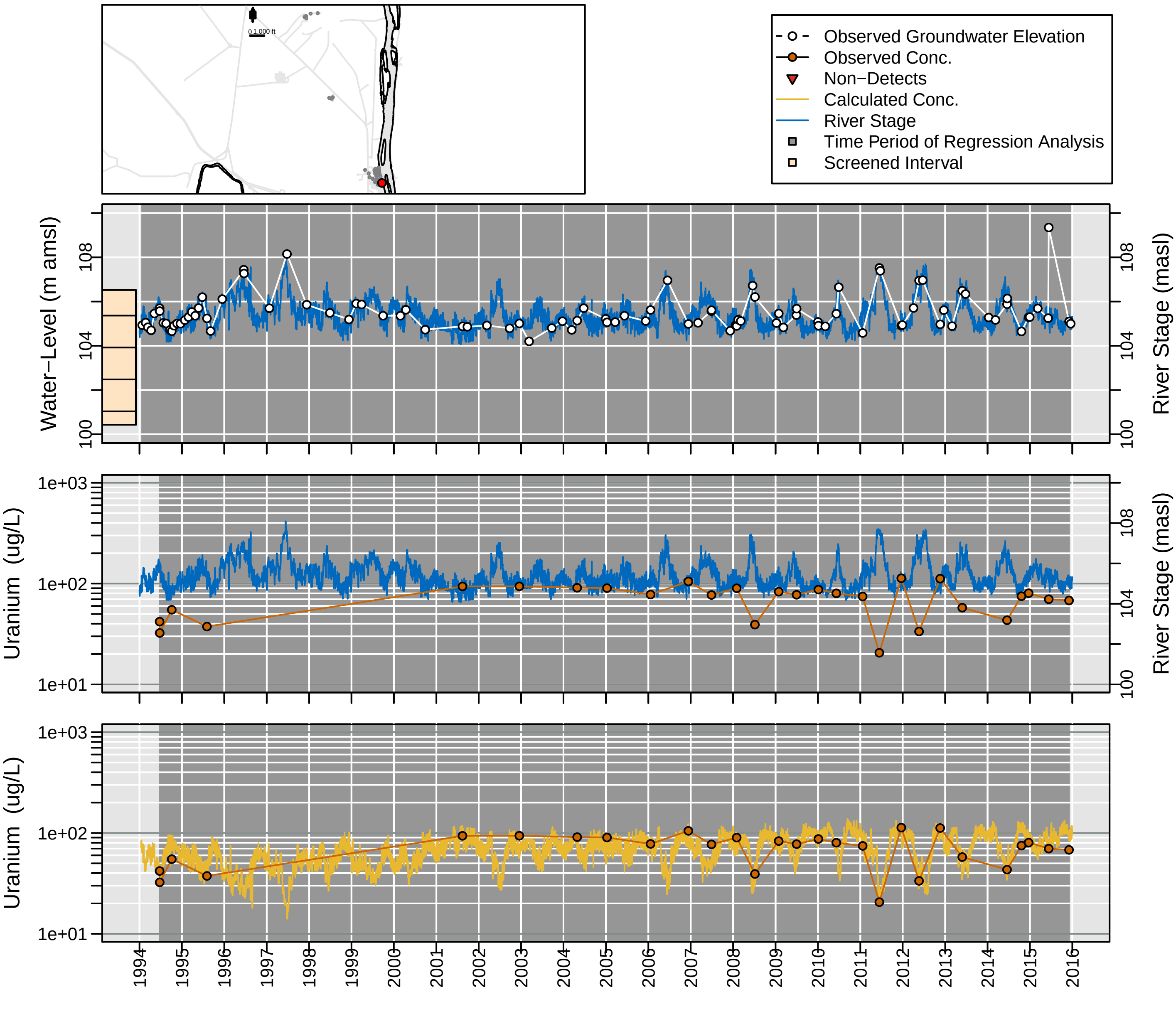
Trend 1
ln Conc. = −0.0062 (+/− 0.056)*River Stage + 0.00027 (+/− 4.3e−05)*Date + 0.08 (+/− 5.8)
R^2 = 0.71
Trend 2
ln Conc. = 0.038*River Stage + 0.058)*River Stage + −0.00065 (+/− 8.3e−05)*Date + 9.6 (+/− 6.6)
R^2 = 0.89

Regression Statistics for January 2015 to January 2016

399−4−10

Distance to River: 69 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	14
Max. Correlation (R2):	0.7	0.78
Number of Comparisons:	101	28
Percent NDs:		0%



Censored Regression (Tobit) Model

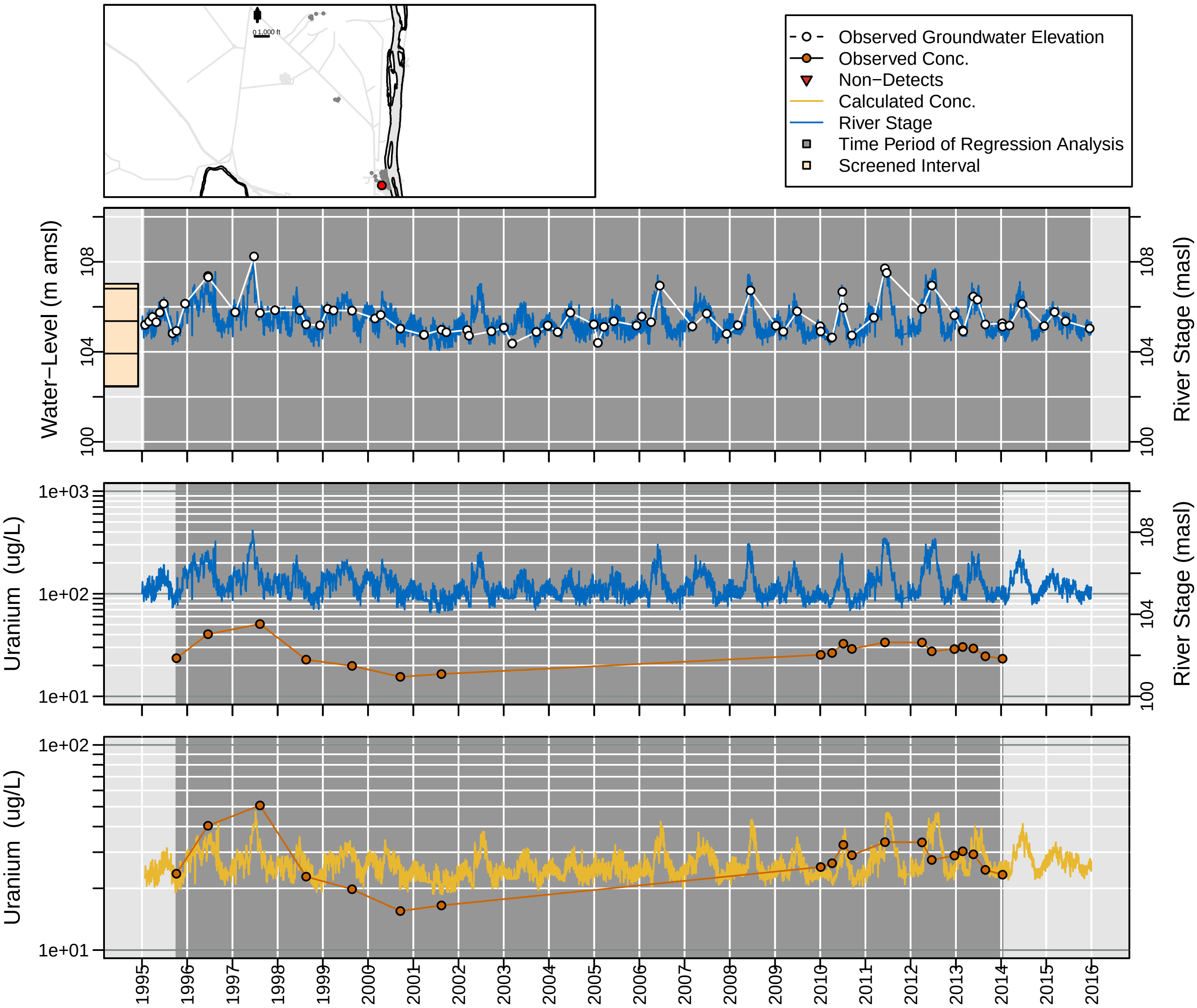
ln Conc. = −0.5 (+/− 0.052)*River Stage + 6.3e−05 (+/− 1.6e−05)*Date + 57 (+/− 5.5)
R^2 = 0.78

Regression Statistics for January 2015 to January 2016

399−4−11

Distance to River: 522 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	0	24
Max. Correlation (R2):	0.94	0.47
Number of Comparisons:	81	19
Percent NDs:		0%



Censored Regression (Tobit) Model

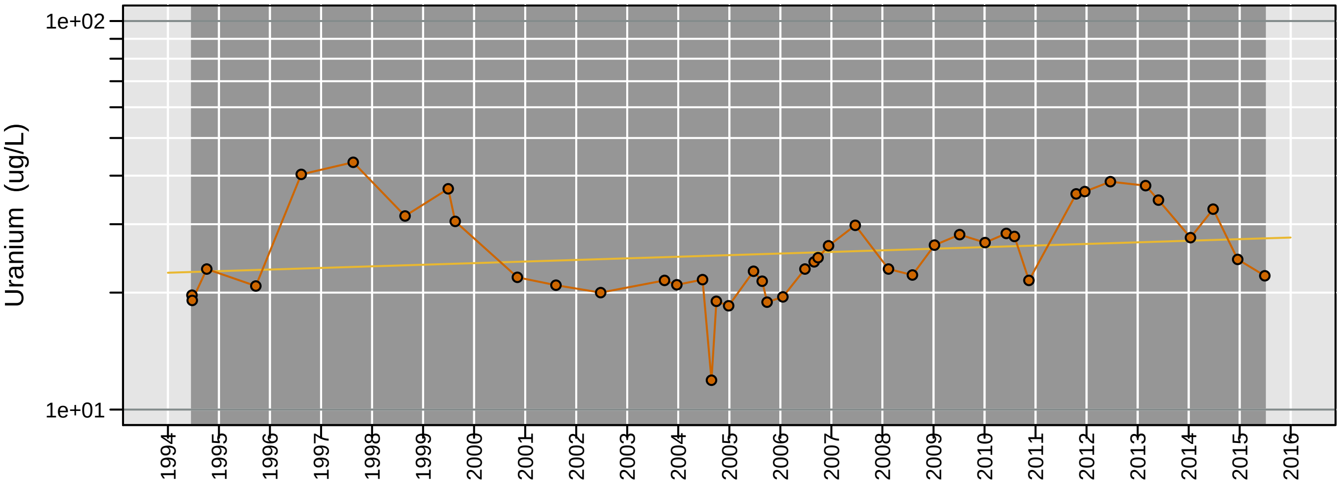
ln Conc. = 0.24 (+/− 0.058)*River Stage + 1.5e−05 (+/− 1.9e−05)*Date + −22 (+/− 6.2)
R^2 = 0.47

Regression Statistics for January 2015 to January 2016

399−4−12

Number of Trends Calculated: 1

	Trend
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.045
Number of Comparisons:	44
Percent NDs:	0%



Censored Regression (Tobit) Model

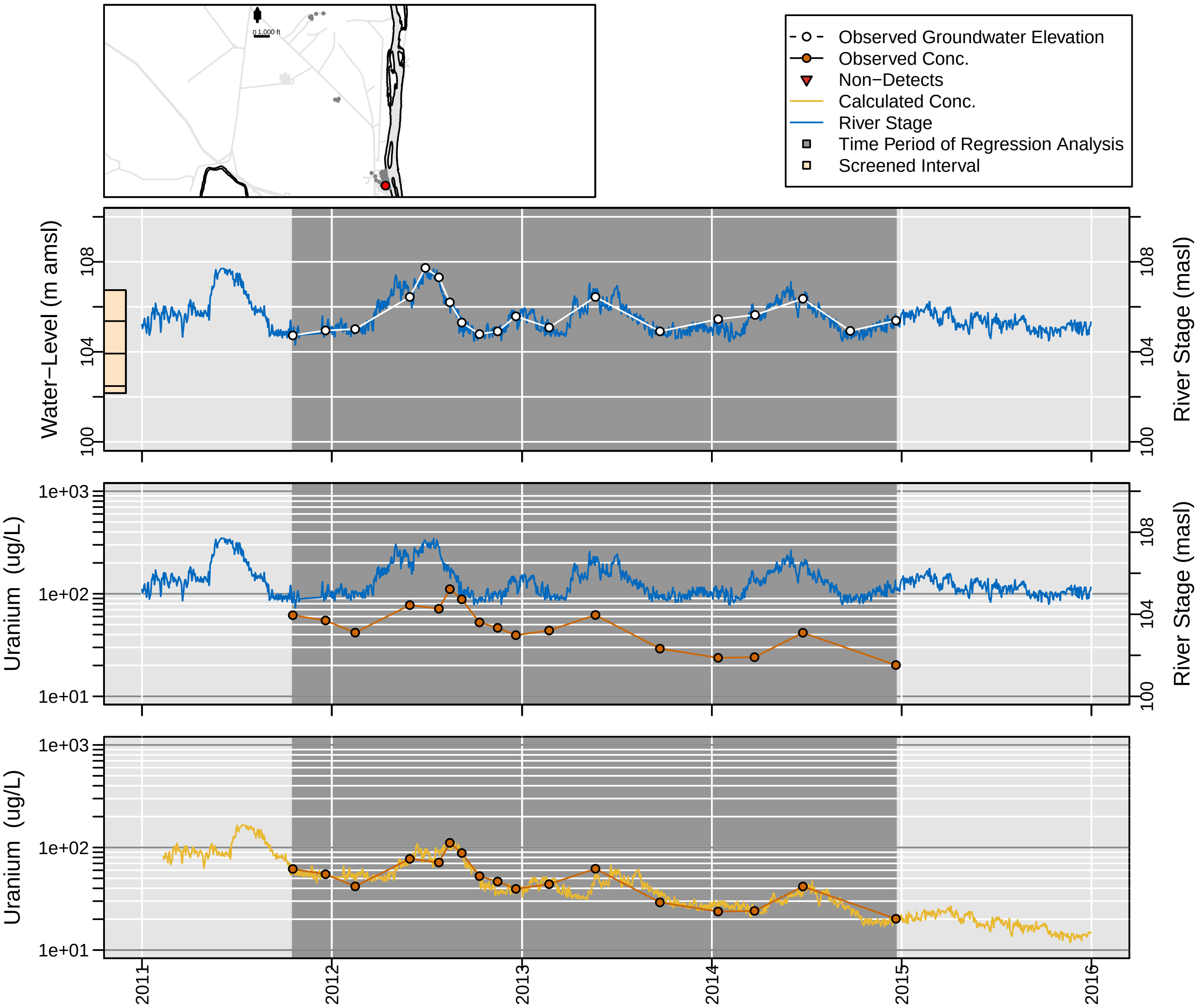
ln Conc. = 2.6e−05 (+/− 1.8e−05)*Date + 2.9 (+/− 0.24)
R^2 = 0.045

Regression Statistics for January 2015 to January 2016

399−4−15

Distance to River: 278 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	1	41
Max. Correlation (R2):	0.98	0.91
Number of Comparisons:	19	17
Percent NDs:		0%



Censored Regression (Tobit) Model

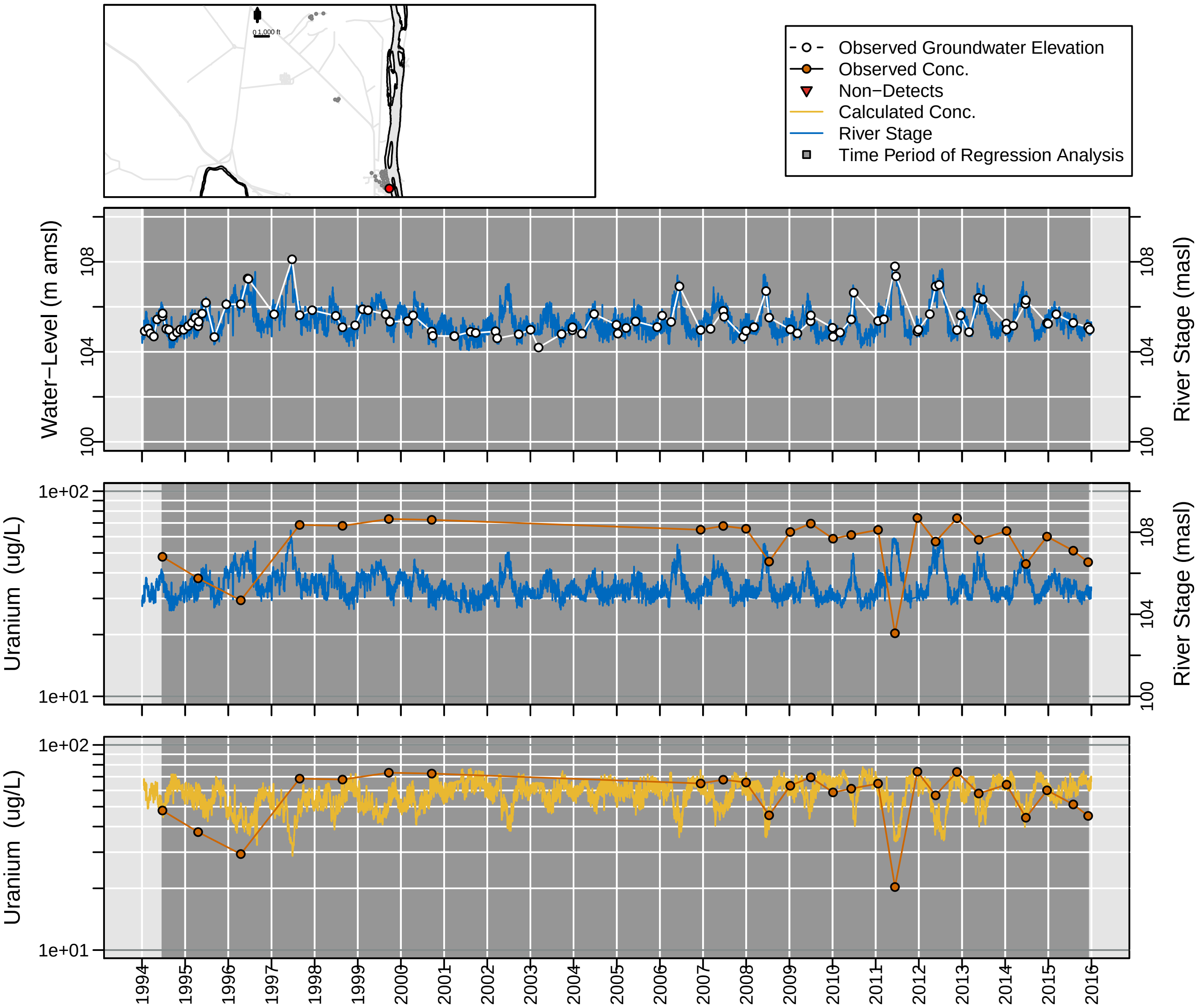
ln Conc. = 0.34 (+/− 0.039)*River Stage + −0.00097 (+/− 1e−04)*Date + −17 (+/− 4.5)
R^2 = 0.91

Regression Statistics for January 2015 to January 2016

399−4−7

Distance to River: 72 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	0	15
Max. Correlation (R2):	0.94	0.38
Number of Comparisons:	106	26
Percent NDs:		0%



Censored Regression (Tobit) Model

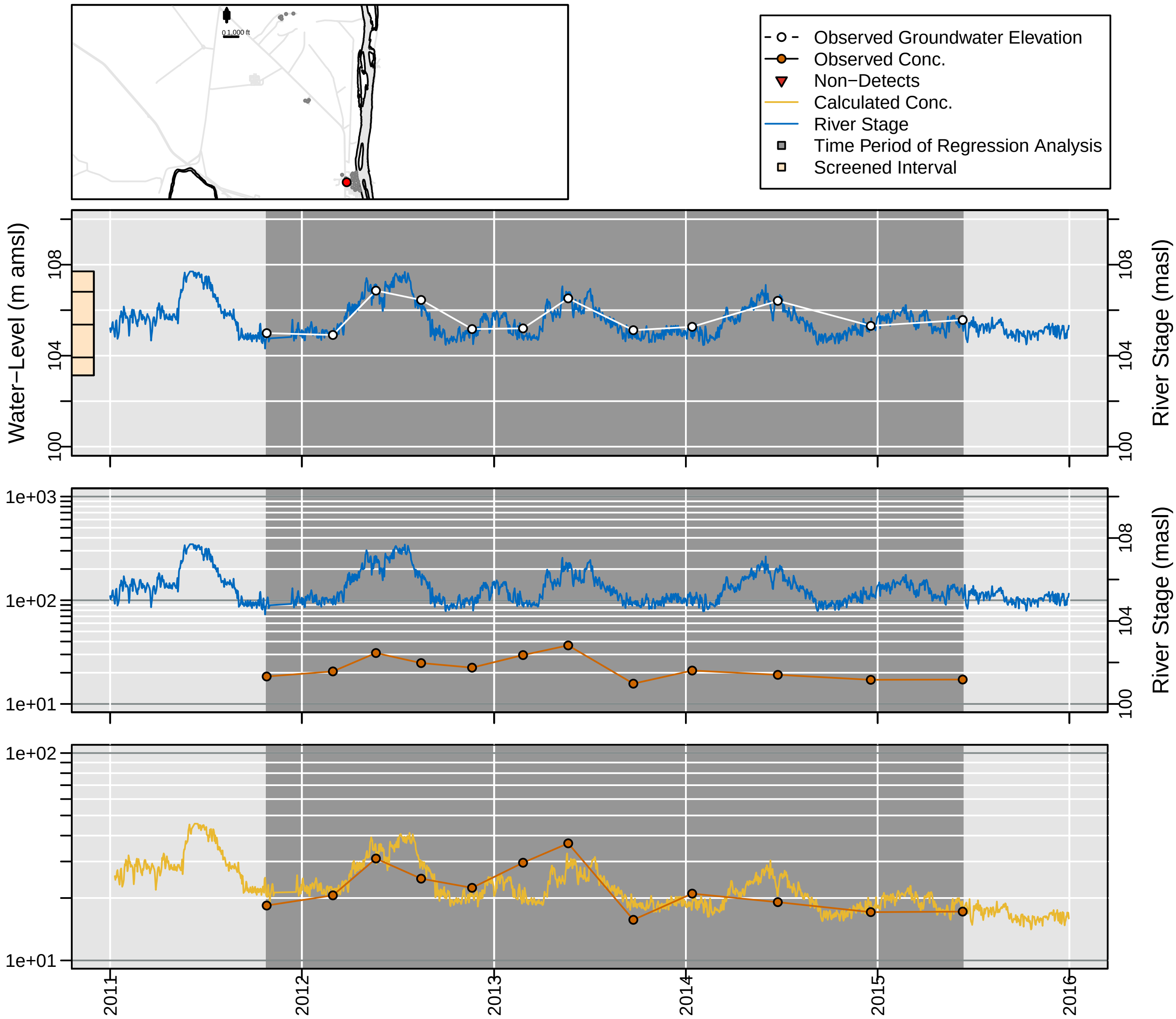
ln Conc. = −0.24 (+/− 0.06)*River Stage + 1.4e−05 (+/− 1.9e−05)*Date + 29 (+/− 6.3)
R^2 = 0.38

Regression Statistics for January 2015 to January 2016

399−6−3

Distance to River: 819 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	3	9
Max. Correlation (R2):	0.96	0.64
Number of Comparisons:	12	12
Percent NDs:		0%



Censored Regression (Tobit) Model

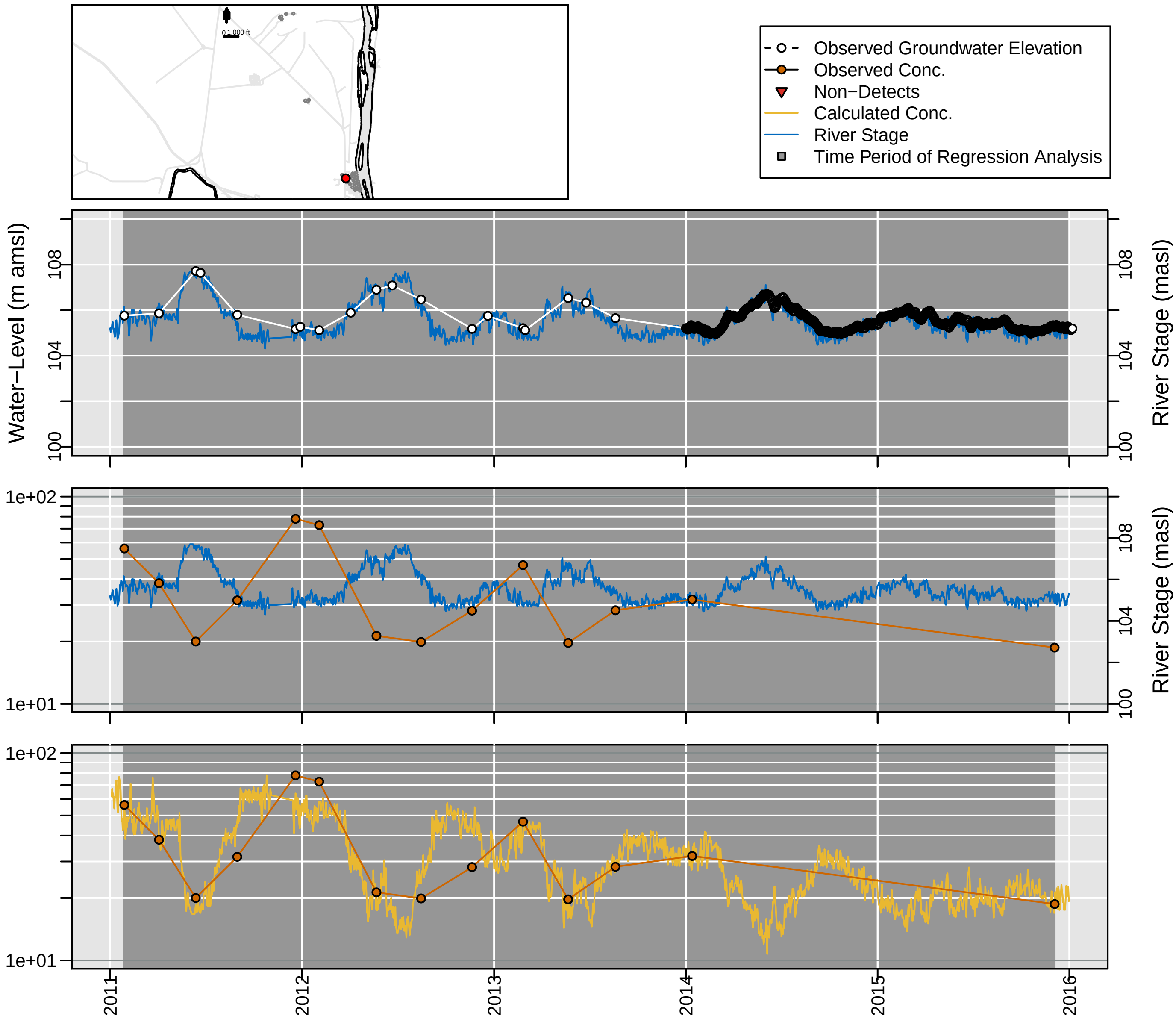
ln Conc. = 0.25 (+/− 0.062)*River Stage + −0.00024 (+/− 0.00011)*Date + −19 (+/− 6.8)
R^2 = 0.64

Regression Statistics for January 2015 to January 2016

399−8−1

Distance to River: 832 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	3	3
Max. Correlation (R2):	0.91	0.84
Number of Comparisons:	749	14
Percent NDs:		0%



Censored Regression (Tobit) Model

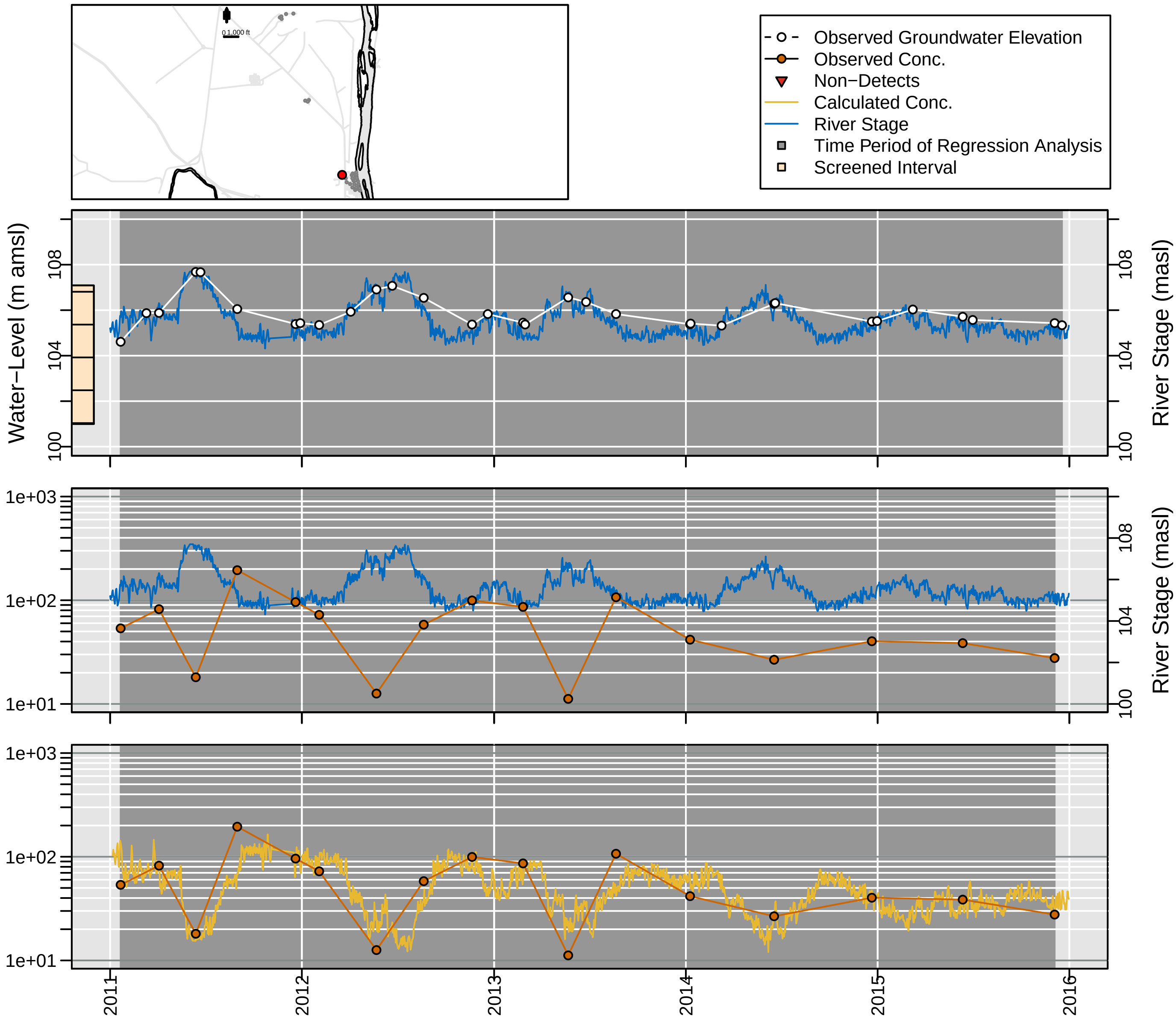
ln Conc. = −0.48 (+/− 0.064)*River Stage + −0.00067 (+/− 0.00011)*Date + 65 (+/− 7.5)
R^2 = 0.84

Regression Statistics for January 2015 to January 2016

399−8−5A

Distance to River: 1046 m
Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	5	5
Max. Correlation (R2):	0.92	0.55
Number of Comparisons:	32	17
Percent NDs:		0%



Censored Regression (Tobit) Model

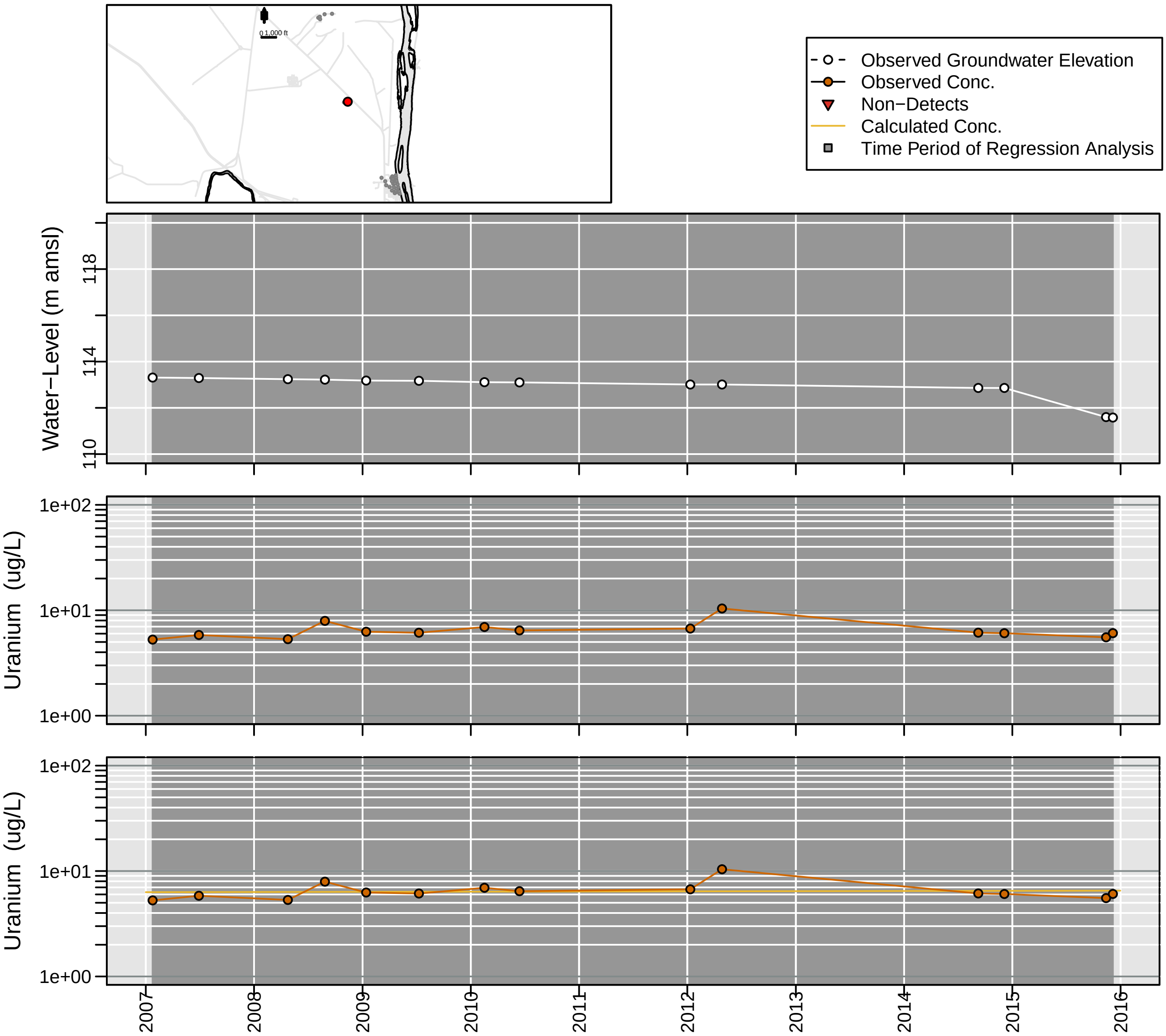
ln Conc. = −0.72 (+/− 0.17)*River Stage + −0.00062 (+/− 0.00024)*Date + 90 (+/− 19)
R^2 = 0.55

Regression Statistics for January 2015 to January 2016

699−S6−E4B

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	11	No RS
Max. Correlation (R2):	0.69	0.0044
Number of Comparisons:	14	14
Percent NDs:		0%



Censored Regression (Tobit) Model

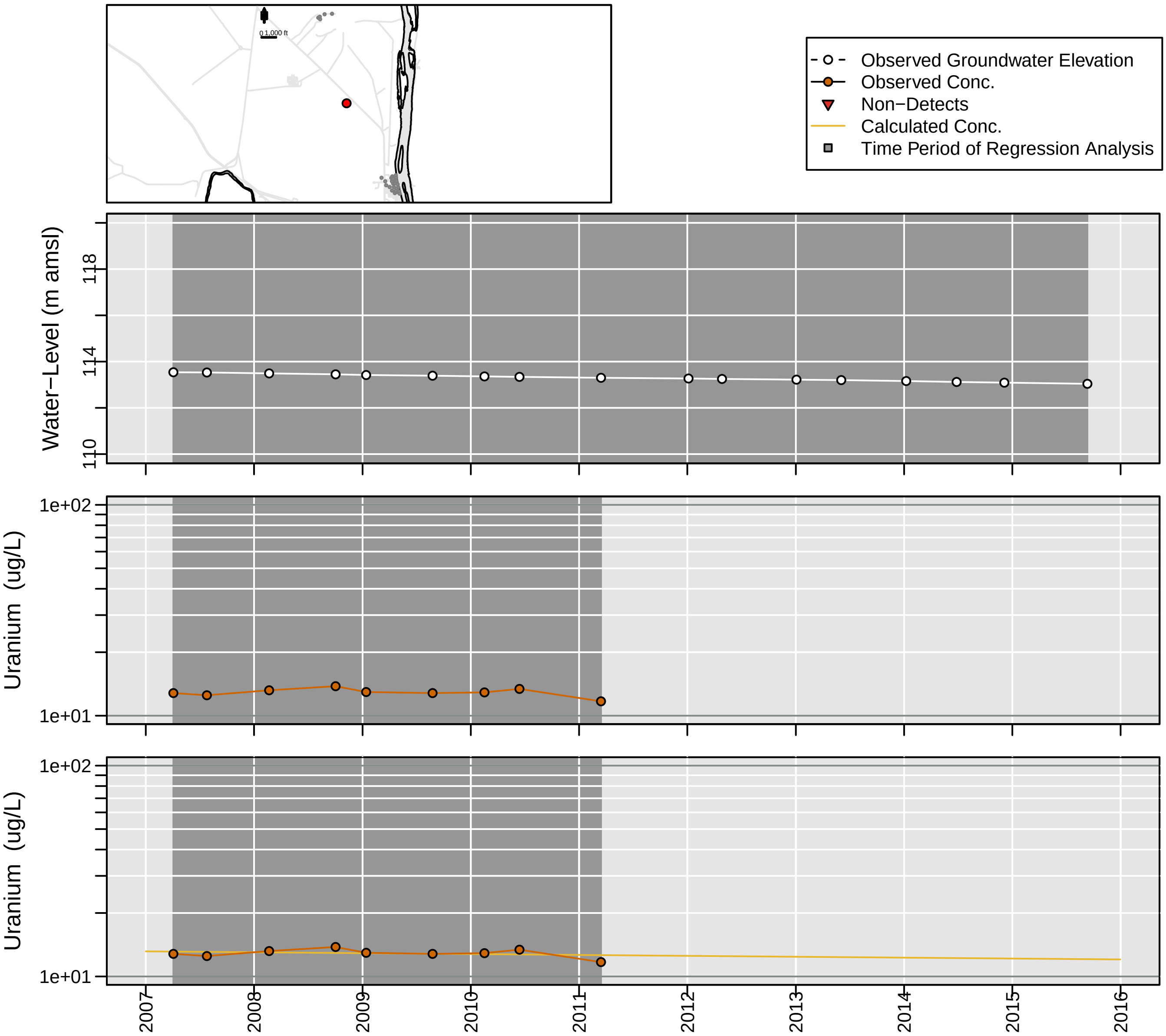
ln Conc. = 1e−05 (+/− 4.1e−05)*Date + 1.7 (+/− 0.62)
R^2 = 0.0044

Regression Statistics for January 2015 to January 2016

699−S6−E4E

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	22	No RS
Max. Correlation (R2):	1	0.08
Number of Comparisons:	17	9
Percent NDs:		0%



Censored Regression (Tobit) Model

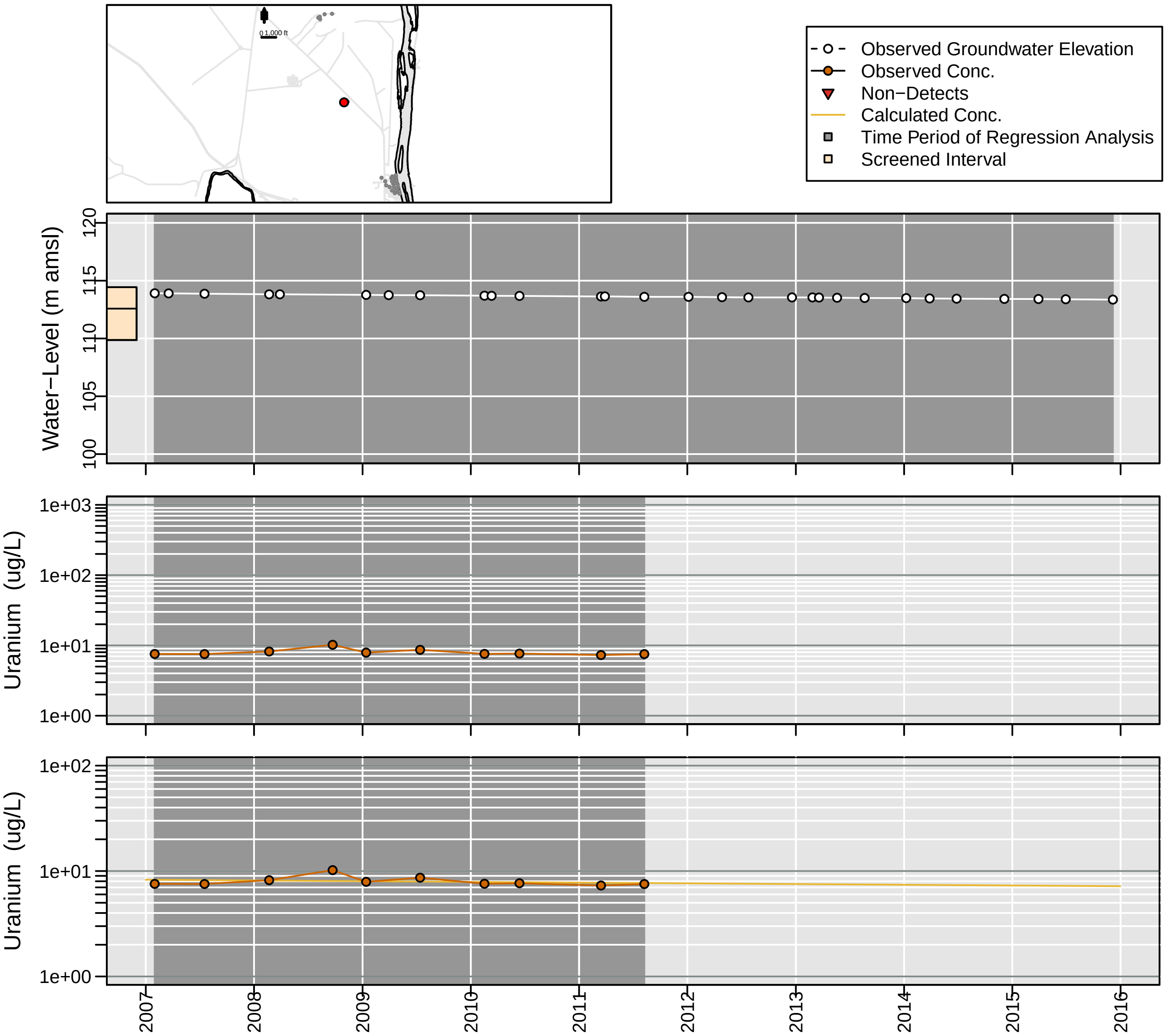
ln Conc. = −2.7e−05 (+/− 3e−05)*Date + 2.9 (+/− 0.43)
R^2 = 0.08

Regression Statistics for January 2015 to January 2016

699−S6−E4K

Number of Trends Calculated: 1

	WL	Conc
Est. Lag Time (days):	21	No RS
Max. Correlation (R2):	1	0.057
Number of Comparisons:	29	10
Percent NDs:		0%



Censored Regression (Tobit) Model

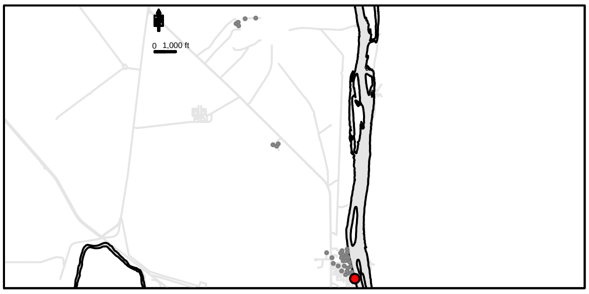
ln Conc. = −4.3e−05 (+/− 5.5e−05)*Date + 2.7 (+/− 0.79)
R^2 = 0.057

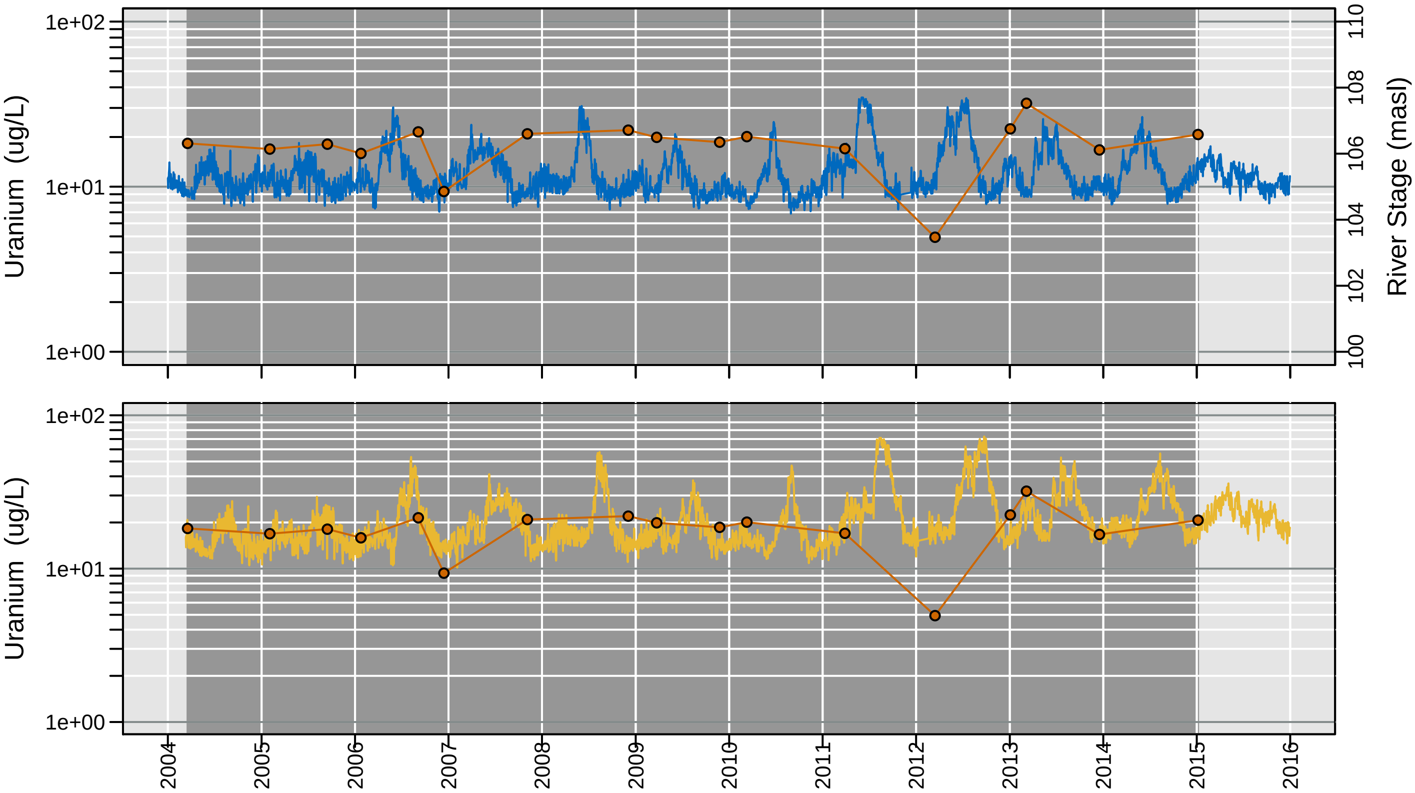
Regression Statistics for January 2015 to January 2016

AT−3−7−M

Distance to River: 5 m
Number of Trends Calculated: 1

	Trend
Est. Lag Time (days):	70
Max. Correlation (R2):	0.25
Number of Comparisons:	17
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.53 (+/− 0.22)*River Stage + 7.1e−05 (+/− 7.3e−05)*Date + −54 (+/− 24)
R^2 = 0.25

Regression Statistics for January 2015 to January 2016

Confidence Level Results

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cis-1,2-Dichloroethene (cis-1,2-DCE)

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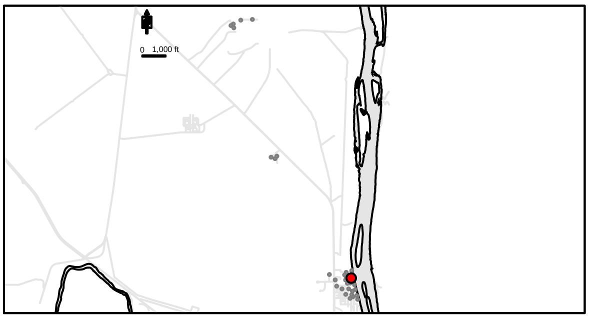
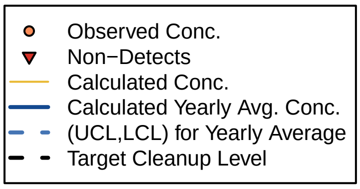
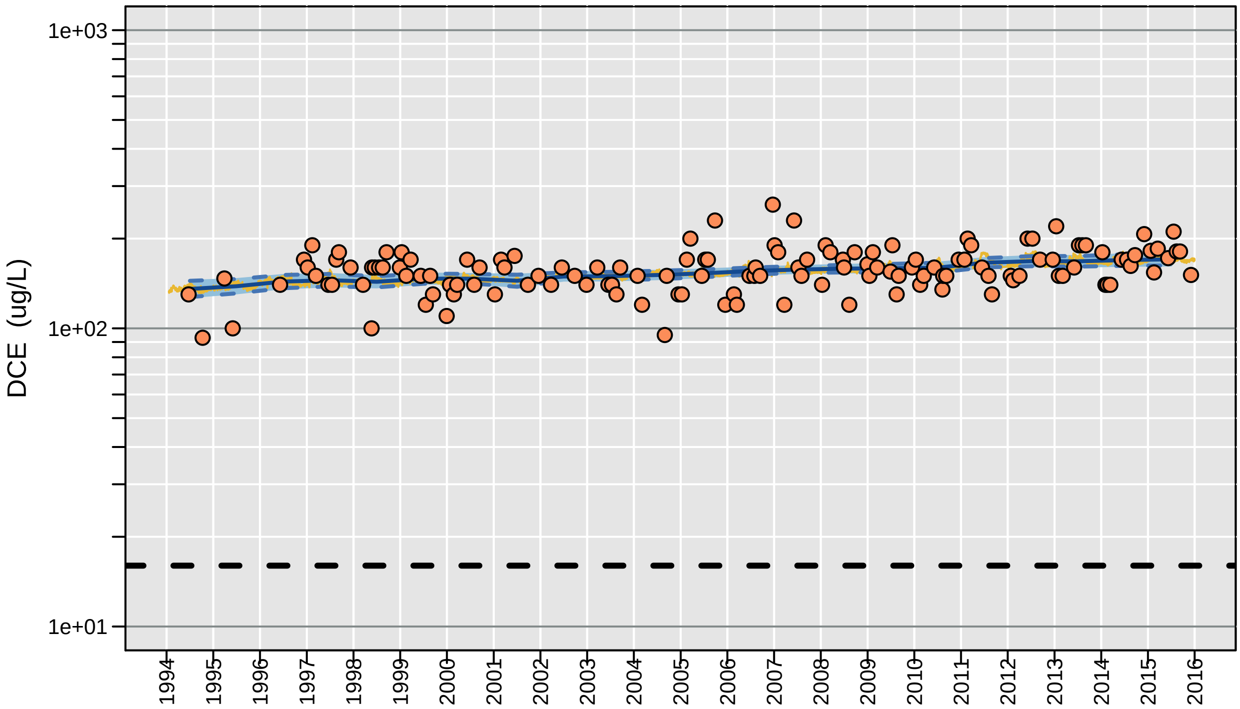
399−1−16B

Distance to River: 135 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	18
Max. Correlation (R2):	0.15
Number of Comparisons:	139
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.039 (+/− 0.021)*River Stage + 2.8e−05 (+/− 6e−06)*Date + 0.52 (+/− 2.2)
R^2 = 0.15

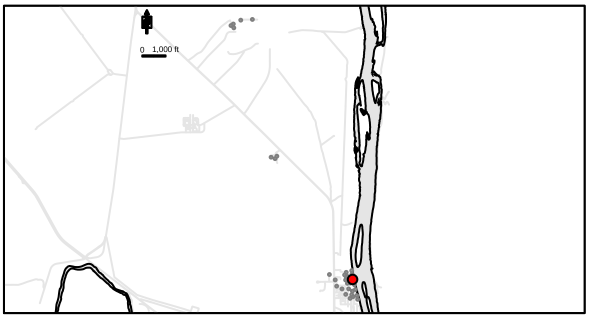
Regression Statistics for January 2015 to January 2016
Geometric Mean : 170 ug/L

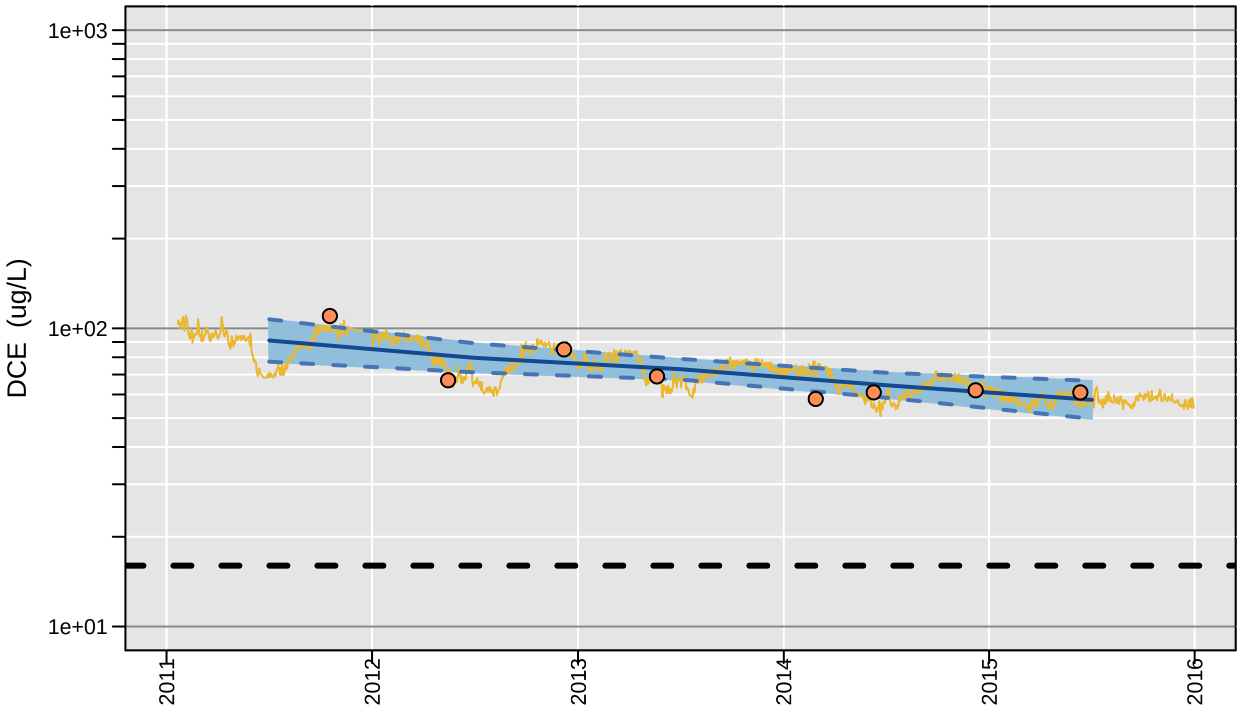
Regression Statistics for January 2015 to January 2016
Geometric Mean: 170 ug/L
UCL: 180 ug/L
LCL: 160 ug/L

399−1−57

Distance to River: 86 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	20
Max. Correlation (R2):	0.85
Number of Comparisons:	8
Percent NDs:	0%





Censored Regression (Tobit) Model

In Conc. = −0.15 (+/− 0.041)*River Stage + −0.00035 (+/− 6.4e−05)*Date + 25 (+/− 4.4)
R^2 = 0.85

Regression Statistics for January 2015 to January 2016
Geometric Mean : 58 ug/L

Regression Statistics for January 2015 to January 2016
Geometric Mean: 58 ug/L
UCL: 69 ug/L
LCL: 48 ug/L

Gross Alpha

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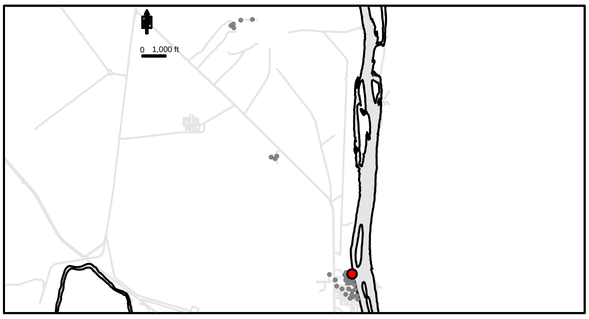
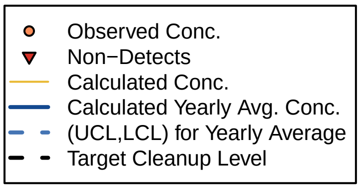
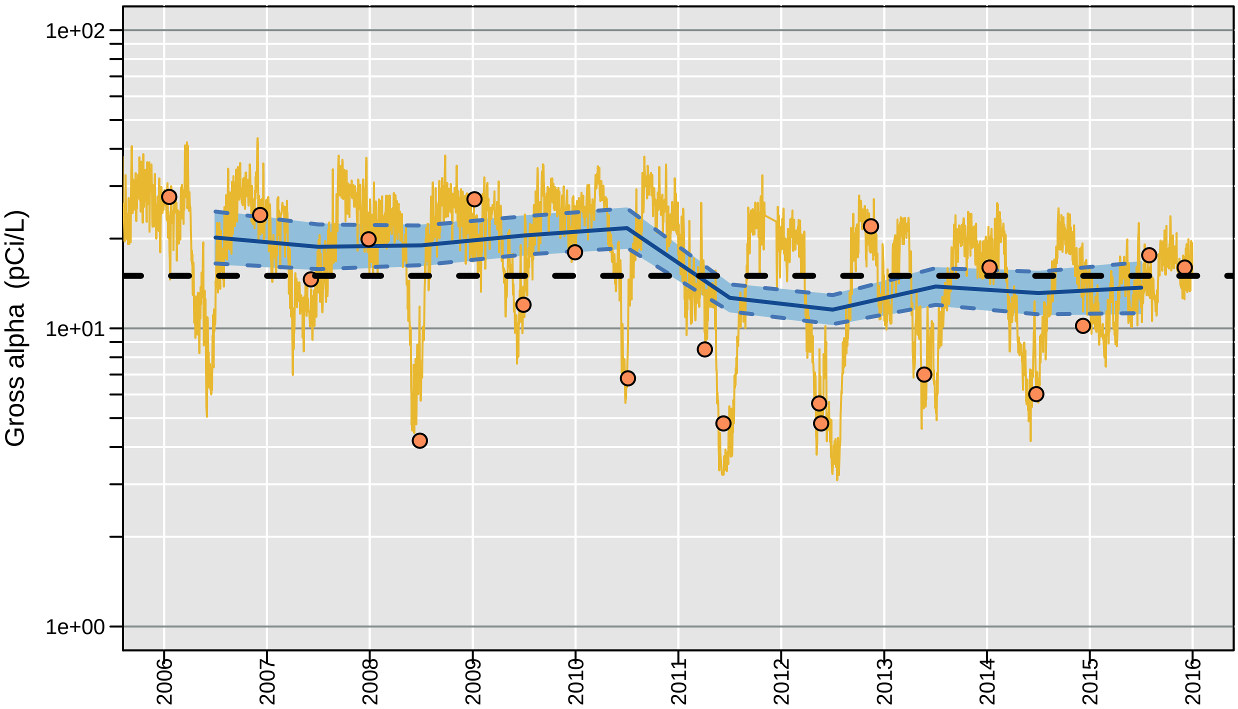
399−1−1

Distance to River: 76 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	3
Max. Correlation (R2):	0.88
Number of Comparisons:	20
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = −0.69 (+/− 0.06)*River Stage + −0.00013 (+/− 4.5e−05)*Date + 77 (+/− 6.4)
R^2 = 0.88

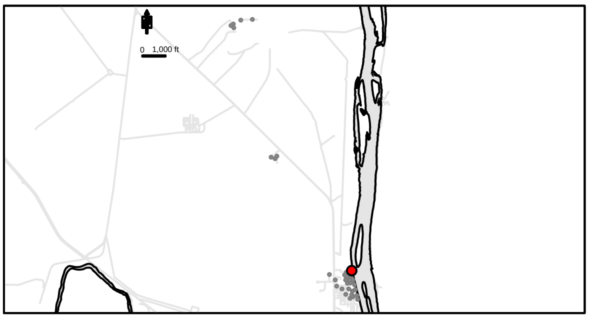
Regression Statistics for January 2015 to January 2016
Geometric Mean : 14 pCi/L

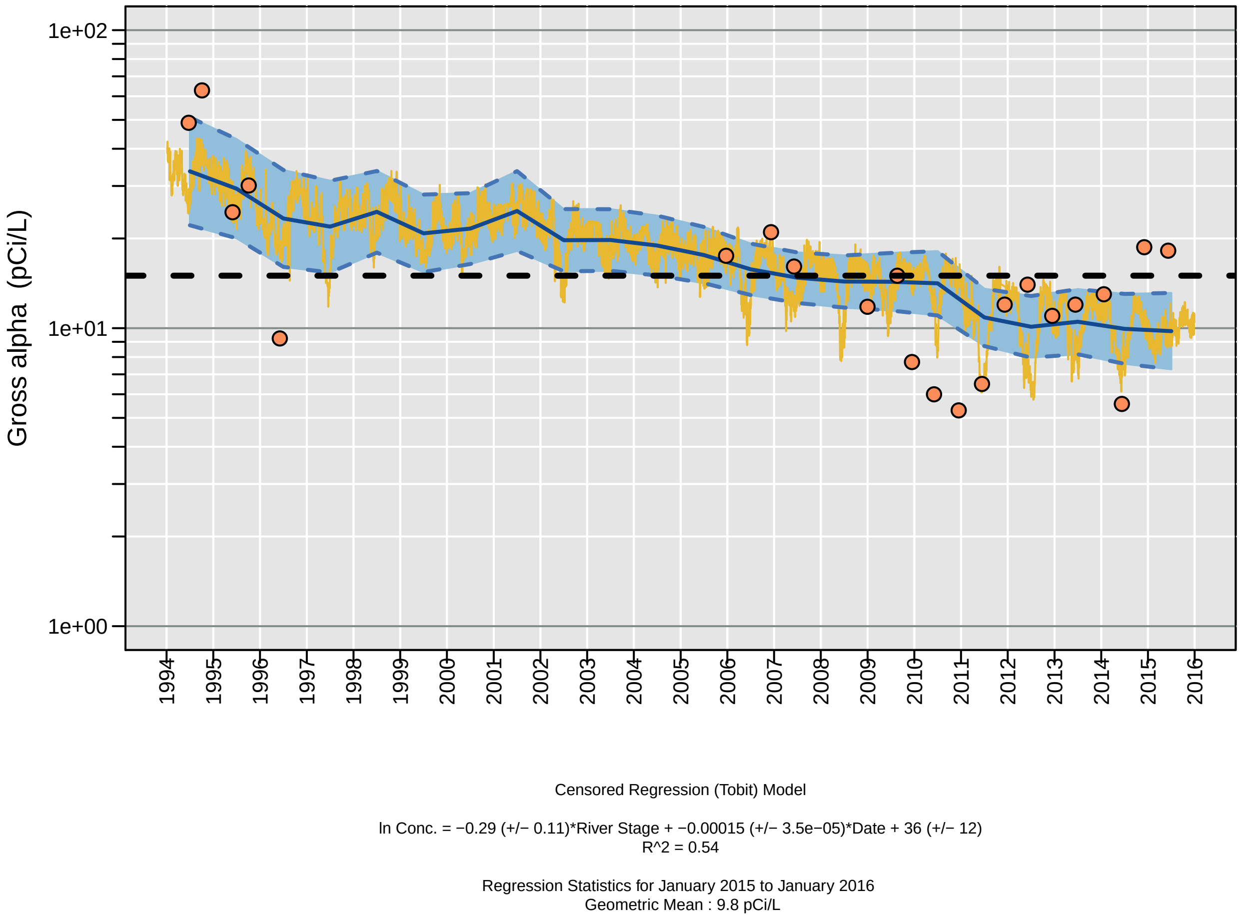
Regression Statistics for January 2015 to January 2016
Geometric Mean: 14 pCi/L
UCL: 17 pCi/L
LCL: 11 pCi/L

399−1−10A

Distance to River: 70 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	5
Max. Correlation (R2):	0.54
Number of Comparisons:	22
Percent NDs:	0%



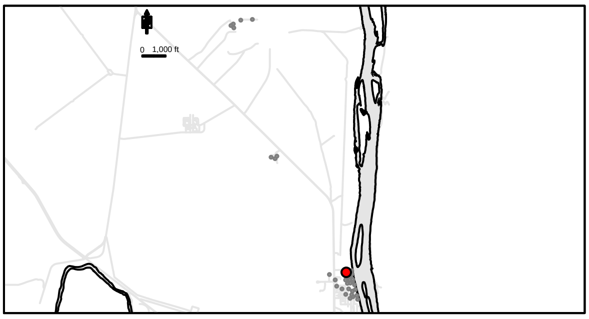


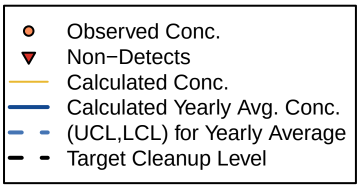
Regression Statistics for January 2015 to January 2016
Geometric Mean: 9.8 pCi/L
UCL: 14 pCi/L
LCL: 6.9 pCi/L

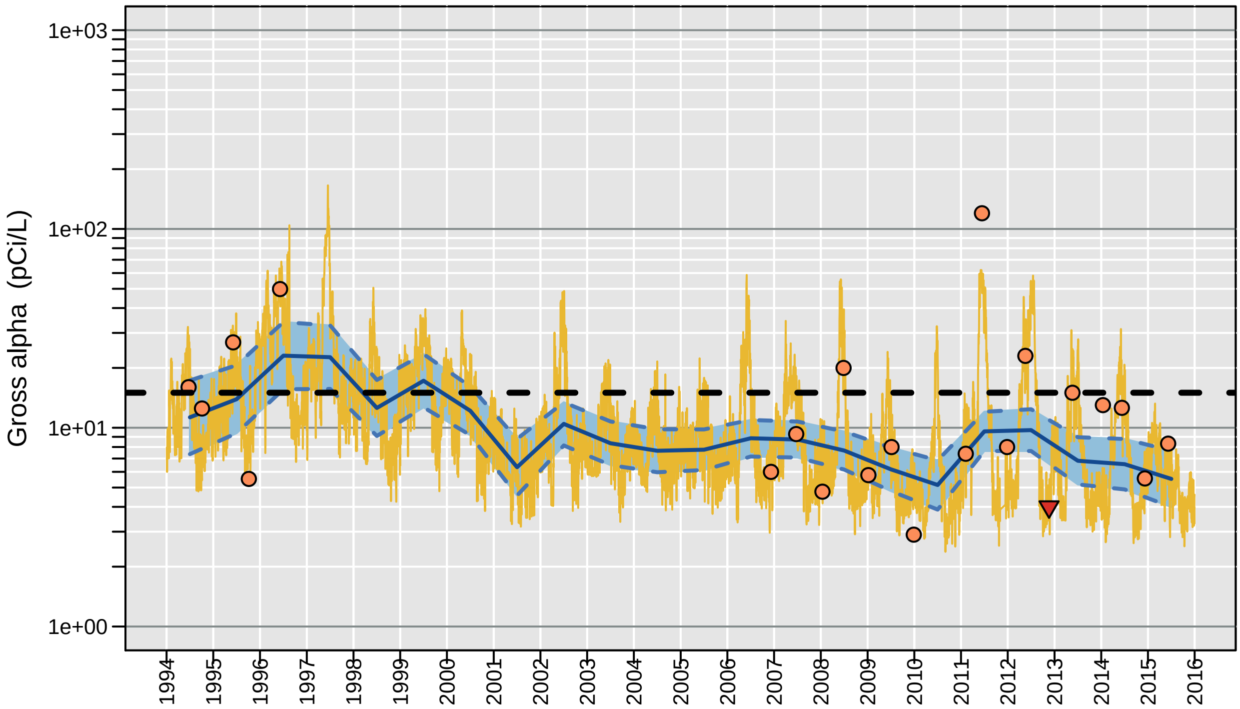
399−1−11

Distance to River: 314 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	2
Max. Correlation (R2):	0.74
Number of Comparisons:	22
Percent NDs:	5%







Censored Regression (Tobit) Model

ln Conc. = 0.94 (+/− 0.12)*River Stage + −0.00012 (+/− 3.7e−05)*Date + −95 (+/− 13)
R^2 = 0.74

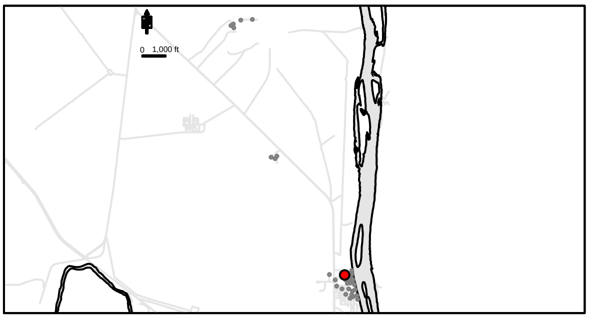
Regression Statistics for January 2015 to January 2016
Geometric Mean : 5.5 pCi/L

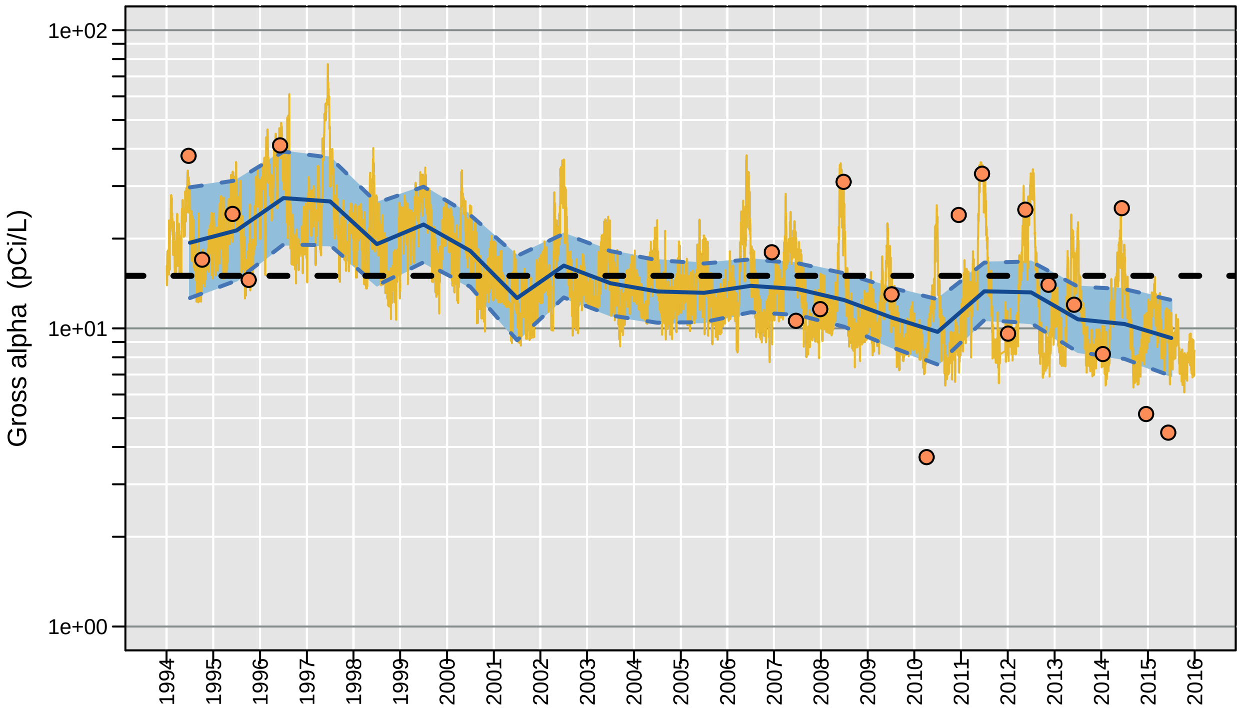
Regression Statistics for January 2015 to January 2016
Geometric Mean: 5.5 pCi/L
UCL: 8.1 pCi/L
LCL: 3.8 pCi/L

399−1−12

Distance to River: 398 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.61
Number of Comparisons:	21
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.5 (+/− 0.11)*River Stage + −0.00011 (+/− 3.5e−05)*Date + −48 (+/− 12)
R^2 = 0.61

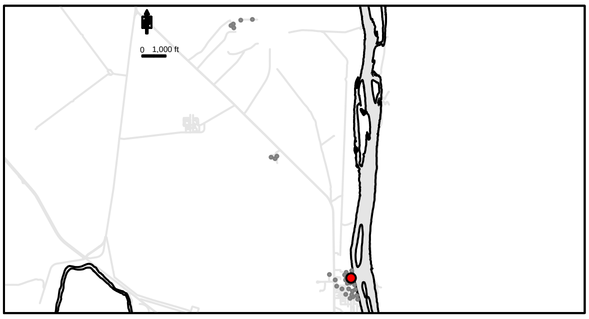
Regression Statistics for January 2015 to January 2016
Geometric Mean : 9.3 pCi/L

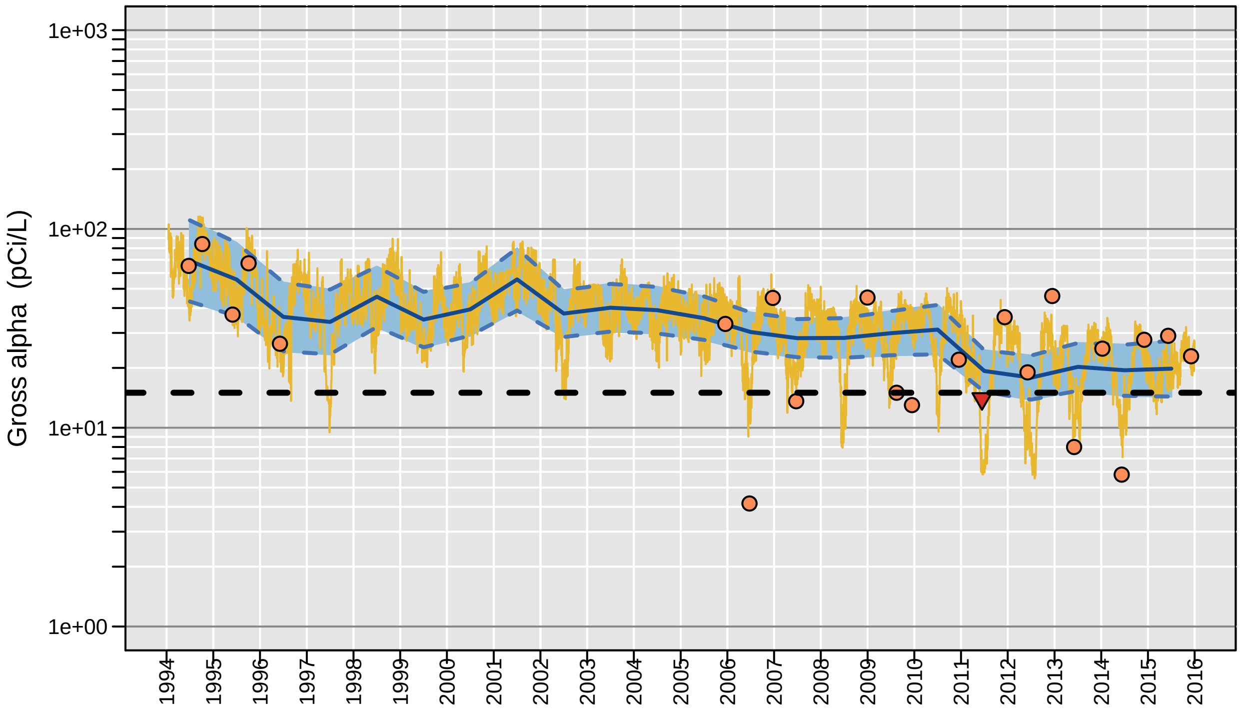
Regression Statistics for January 2015 to January 2016
Geometric Mean: 9.3 pCi/L
UCL: 13 pCi/L
LCL: 6.6 pCi/L

399−1−16A

Distance to River: 141 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	15
Max. Correlation (R2):	0.57
Number of Comparisons:	23
Percent NDs:	4%





Censored Regression (Tobit) Model

ln Conc. = −0.6 (+/− 0.13)*River Stage + −0.00014 (+/− 3.8e−05)*Date + 69 (+/− 14)
R^2 = 0.57

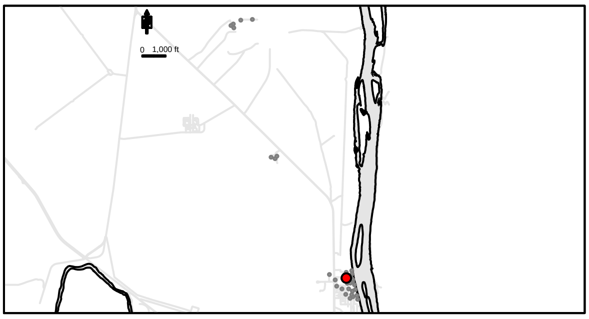
Regression Statistics for January 2015 to January 2016
Geometric Mean : 20 pCi/L

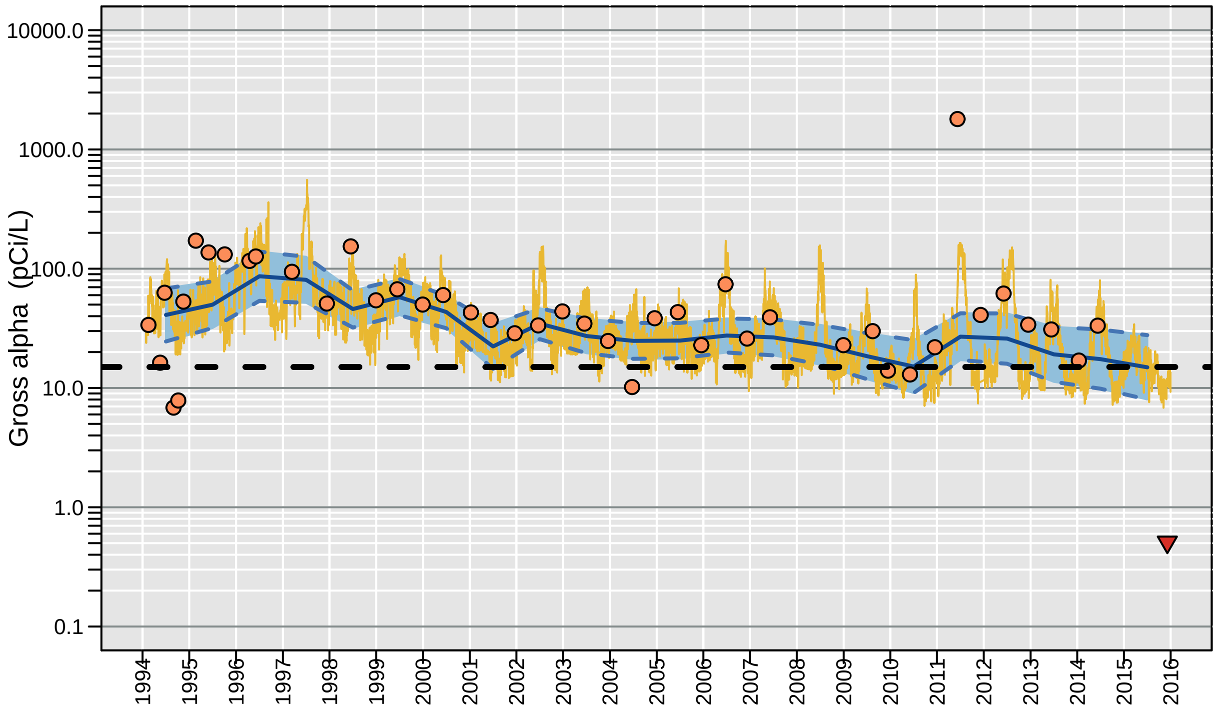
Regression Statistics for January 2015 to January 2016
Geometric Mean: 20 pCi/L
UCL: 29 pCi/L
LCL: 14 pCi/L

399−1−17A

Distance to River: 344 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	26
Max. Correlation (R2):	0.33
Number of Comparisons:	45
Percent NDs:	2%





Censored Regression (Tobit) Model

ln Conc. = 0.91 (+/− 0.22)*River Stage + −0.00017 (+/− 5.9e−05)*Date + −90 (+/− 23)
R^2 = 0.33

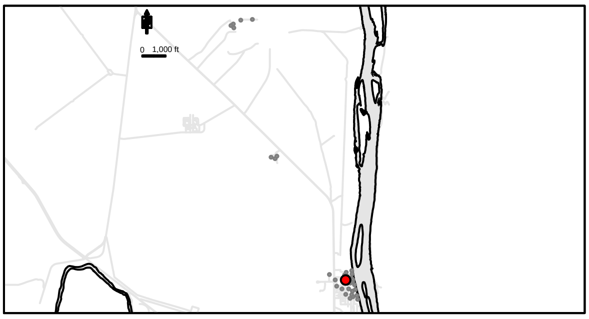
Regression Statistics for January 2015 to January 2016
Geometric Mean : 15 pCi/L

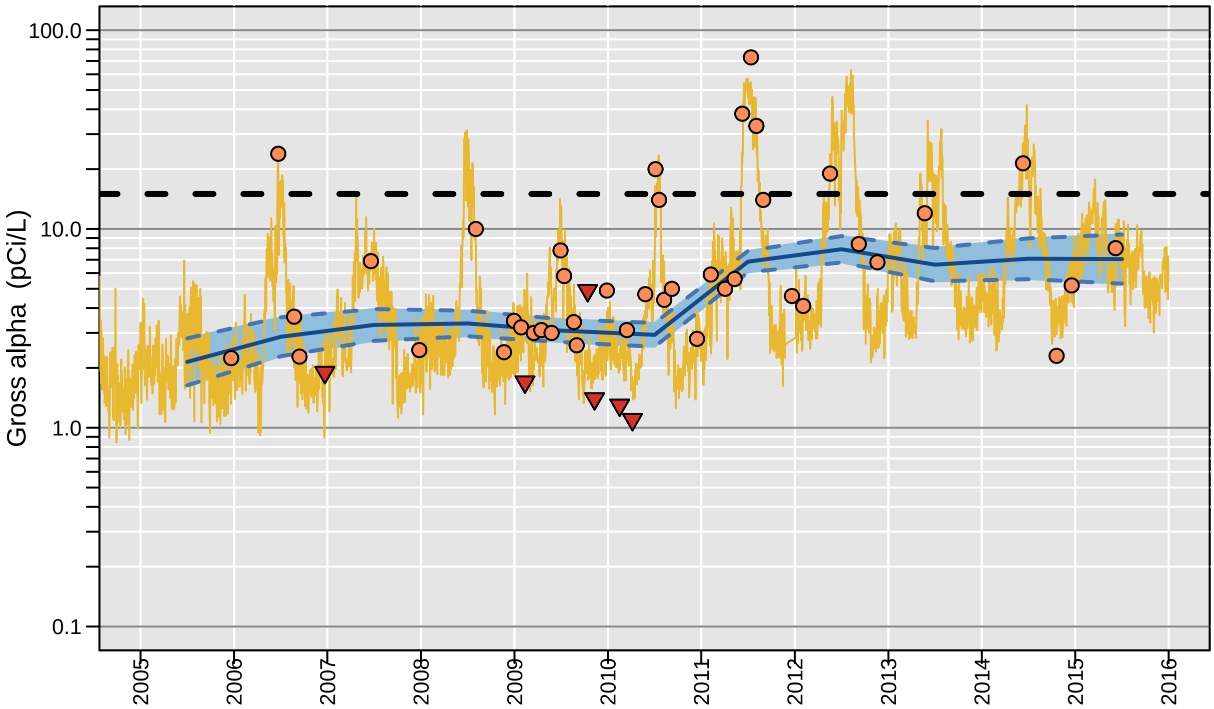
Regression Statistics for January 2015 to January 2016
Geometric Mean: 15 pCi/L
UCL: 30 pCi/L
LCL: 7.3 pCi/L

399−1−2

Distance to River: 386 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	24
Max. Correlation (R2):	0.85
Number of Comparisons:	48
Percent NDs:	12%





Censored Regression (Tobit) Model

ln Conc. = 1.1 (+/− 0.071)*River Stage + 0.00029 (+/− 6.8e−05)*Date + −110 (+/− 7.4)
R^2 = 0.85

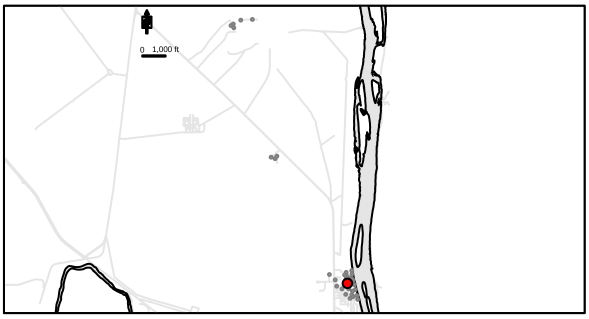
Regression Statistics for January 2015 to January 2016
Geometric Mean : 7.1 pCi/L

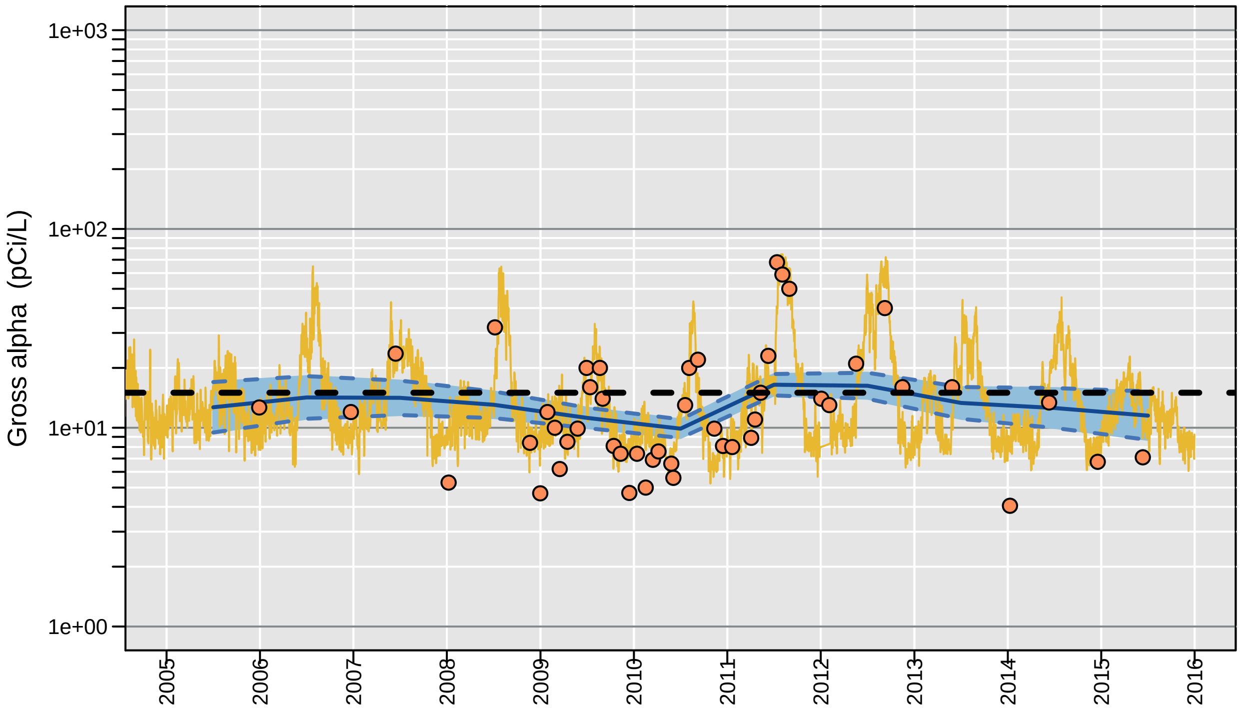
Regression Statistics for January 2015 to January 2016
Geometric Mean: 7.1 pCi/L
UCL: 9.8 pCi/L
LCL: 5.1 pCi/L

399−1−21A

Distance to River: 340 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	58
Max. Correlation (R2):	0.72
Number of Comparisons:	48
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.76 (+/− 0.069)*River Stage + −4.7e−05 (+/− 7.3e−05)*Date + −77 (+/− 7.2)
R^2 = 0.72

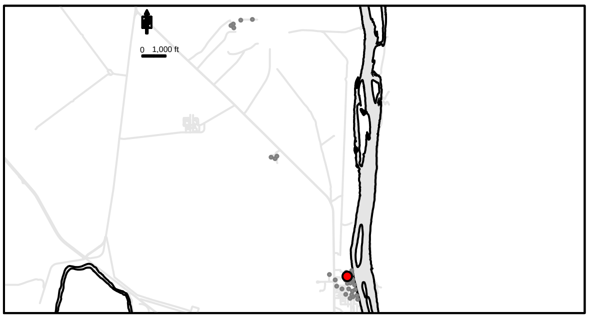
Regression Statistics for January 2015 to January 2016
Geometric Mean : 12 pCi/L

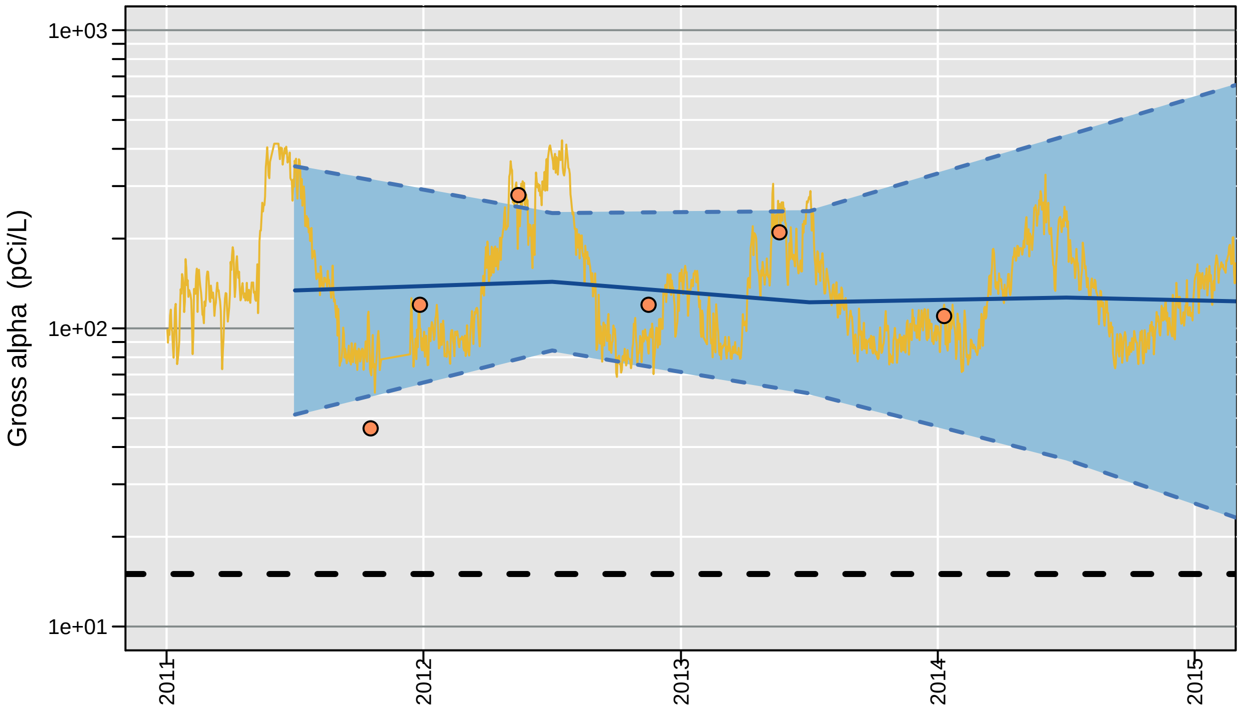
Regression Statistics for January 2015 to January 2016
Geometric Mean: 12 pCi/L
UCL: 16 pCi/L
LCL: 8.3 pCi/L

399−1−55

Distance to River: 295 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.77
Number of Comparisons:	6
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.57 (+/− 0.14)*River Stage + 8.8e−05 (+/− 0.00041)*Date + −57 (+/− 14)
R^2 = 0.77

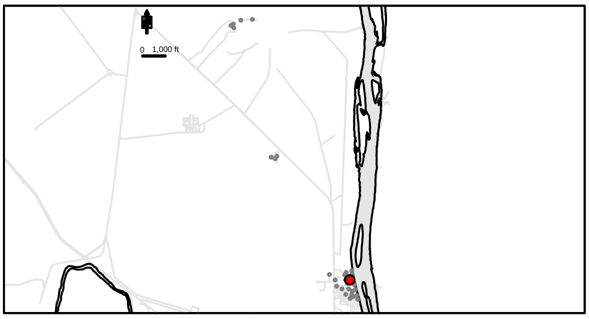
Regression Statistics for January 2015 to January 2016
Geometric Mean : 120 pCi/L

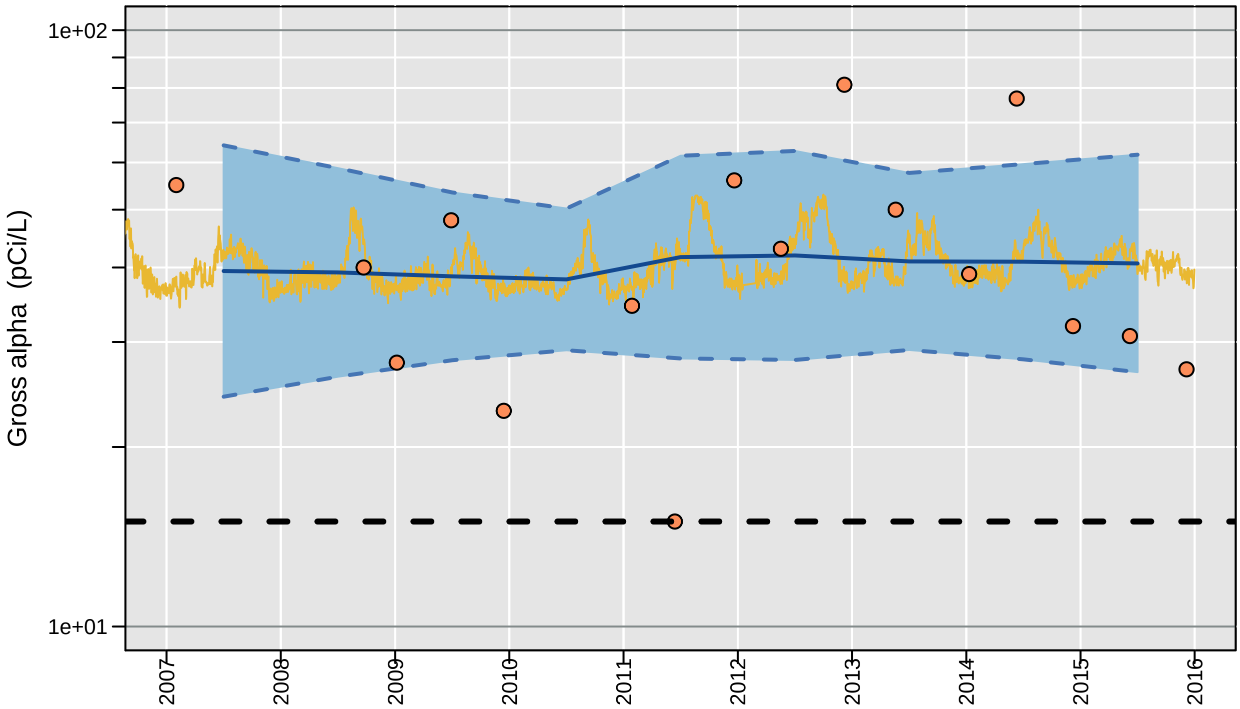
Regression Statistics for January 2015 to January 2016
Geometric Mean: 120 pCi/L
UCL: 1,800 pCi/L
LCL: 8 pCi/L

399−1−7

Distance to River: 209 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	78
Max. Correlation (R2):	0.015
Number of Comparisons:	16
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.12 (+/− 0.24)*River Stage + 1.4e−05 (+/− 0.00011)*Date + −9 (+/− 25)
R^2 = 0.015

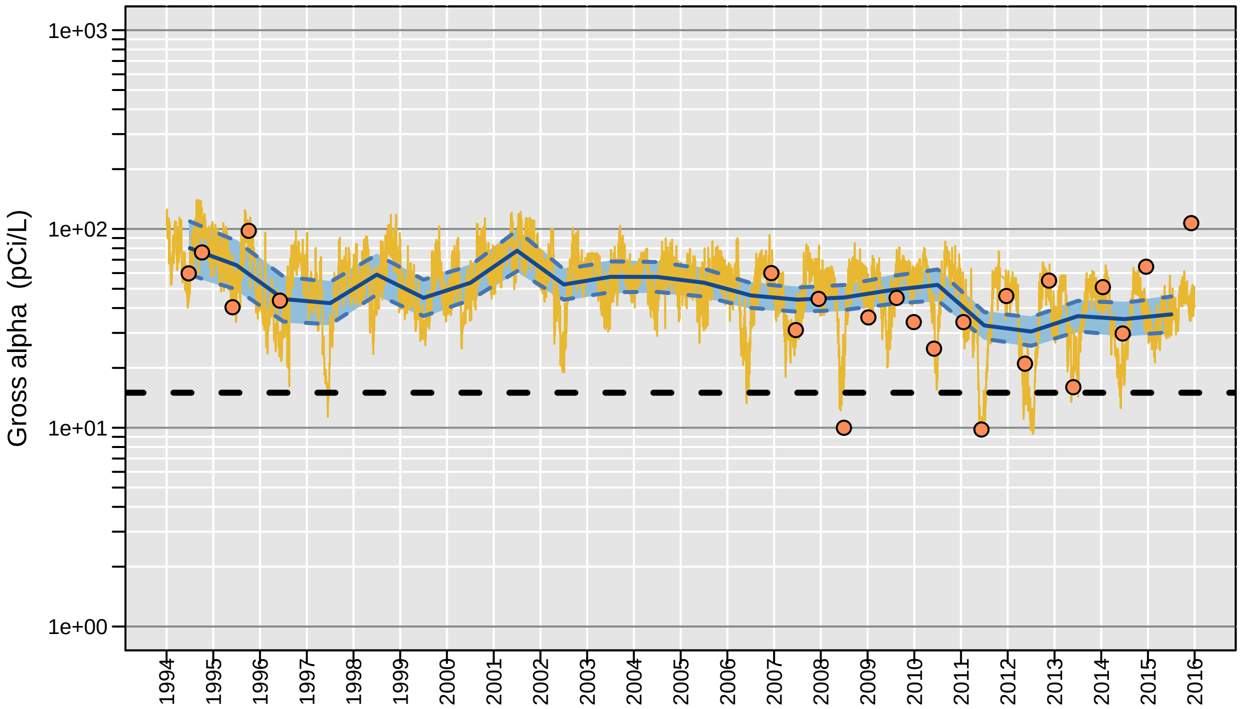
Regression Statistics for January 2015 to January 2016
Geometric Mean : 41 pCi/L

Regression Statistics for January 2015 to January 2016
Geometric Mean: 41 pCi/L
UCL: 67 pCi/L
LCL: 25 pCi/L

399−2−1

Distance to River: 57 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.74
Number of Comparisons:	23
Percent NDs:	0%



Censored Regression (Tobit) Model

ln Conc. = −0.62 (+/− 0.081)*River Stage + −8.2e−05 (+/− 2.5e−05)*Date + 70 (+/− 8.6)
R^2 = 0.74

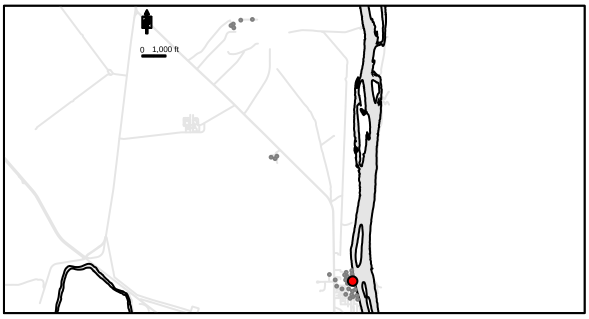
Regression Statistics for January 2015 to January 2016
Geometric Mean : 37 pCi/L

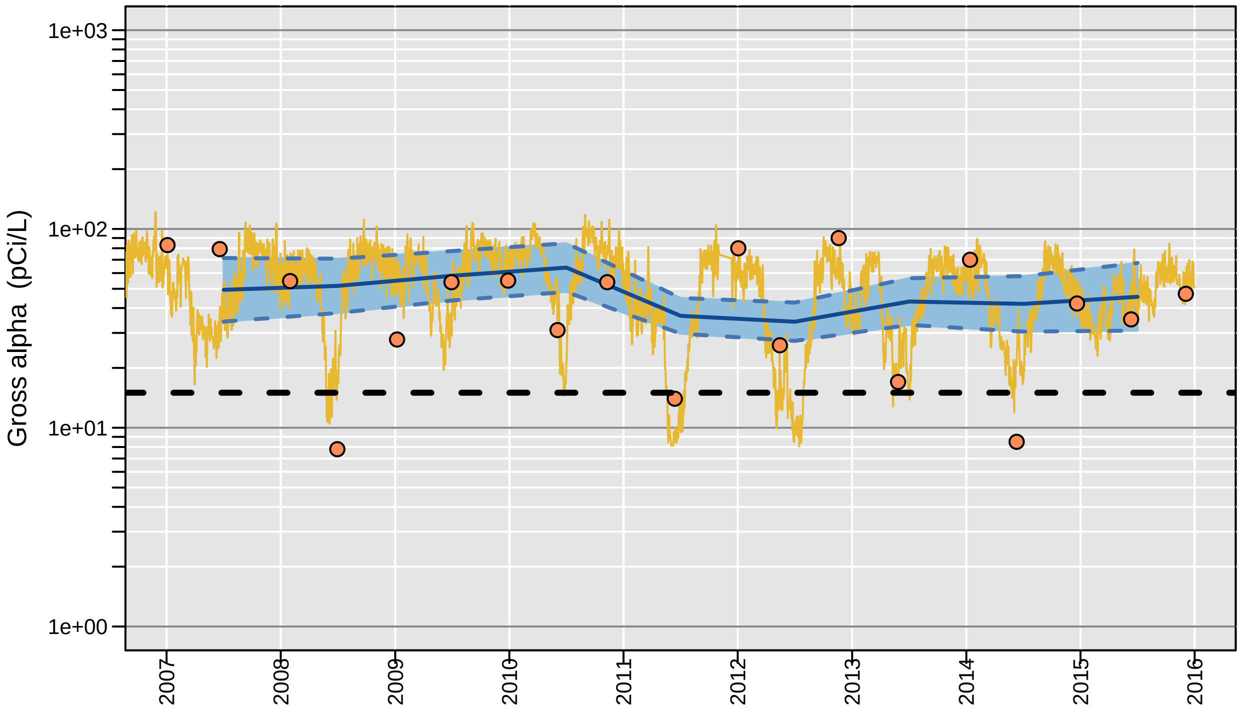
Regression Statistics for January 2015 to January 2016
Geometric Mean: 37 pCi/L
UCL: 47 pCi/L
LCL: 29 pCi/L

399−2−2

Distance to River: 98 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.66
Number of Comparisons:	19
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.76 (+/− 0.13)*River Stage + −5.6e−05 (+/− 9.8e−05)*Date + 84 (+/− 13)
R^2 = 0.66

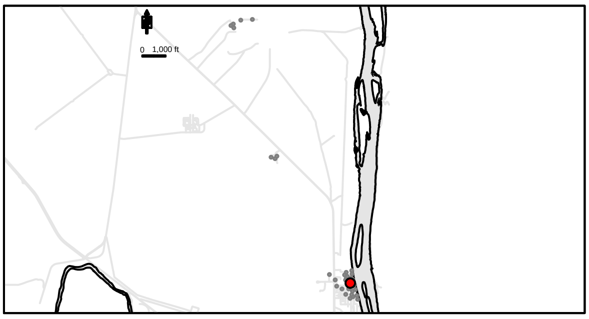
Regression Statistics for January 2015 to January 2016
Geometric Mean : 46 pCi/L

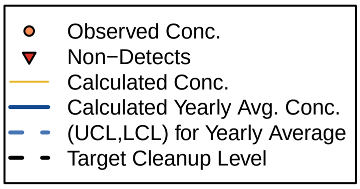
Regression Statistics for January 2015 to January 2016
Geometric Mean: 46 pCi/L
UCL: 72 pCi/L
LCL: 29 pCi/L

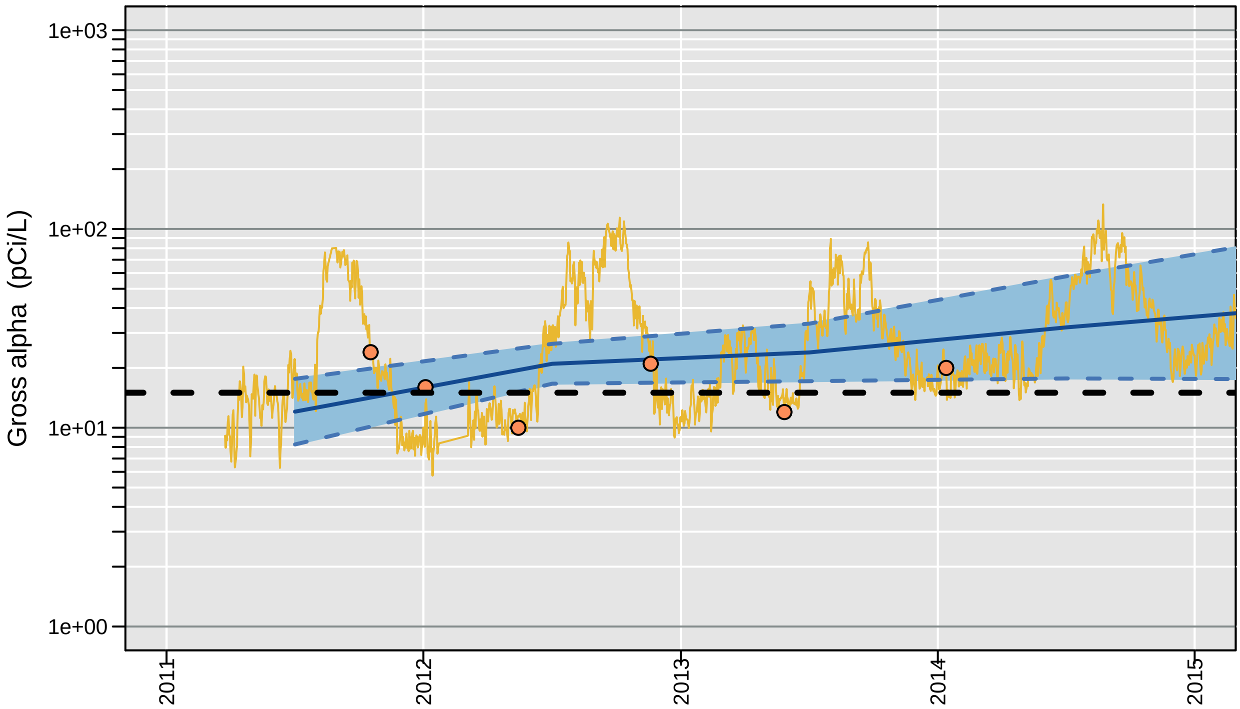
399−2−32

Distance to River: 217 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	83
Max. Correlation (R2):	0.9
Number of Comparisons:	6
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.81 (+/− 0.11)*River Stage + 9e−04 (+/− 0.00019)*Date + −97 (+/− 14)
R^2 = 0.9

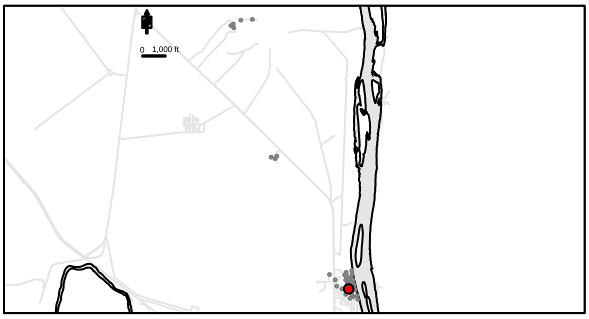
Regression Statistics for January 2015 to January 2016
Geometric Mean : 41 pCi/L

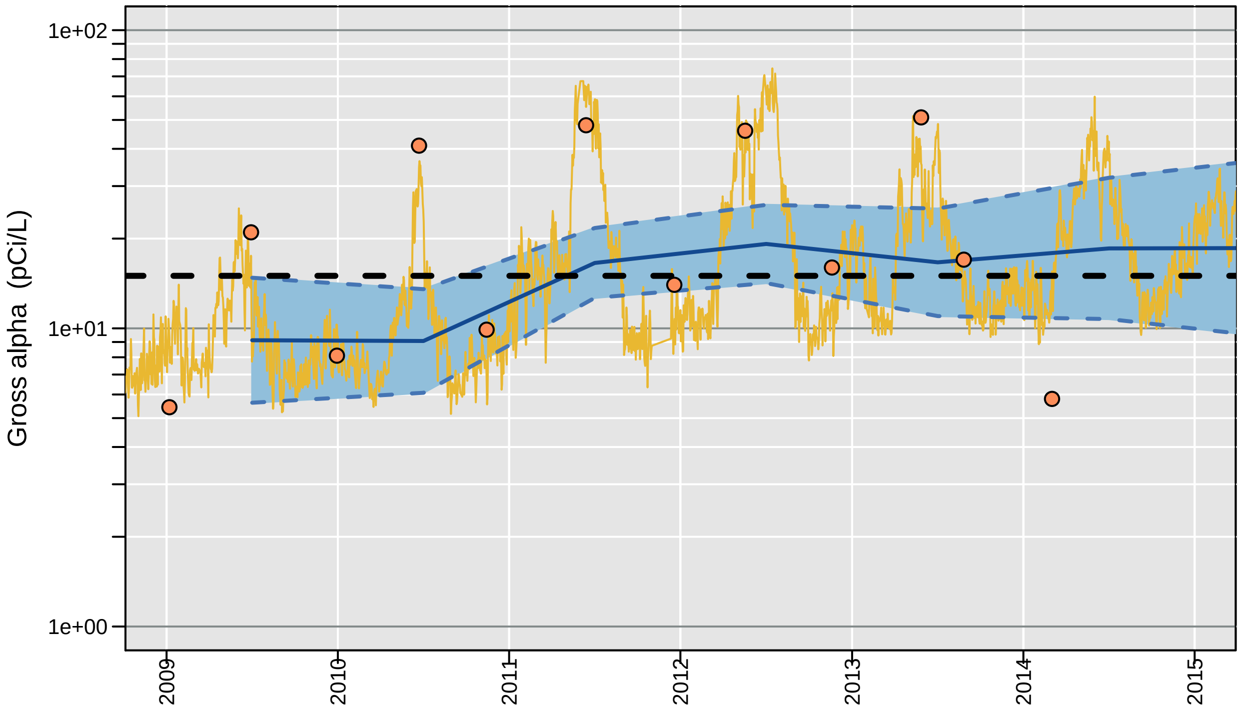
Regression Statistics for January 2015 to January 2016
Geometric Mean: 41 pCi/L
UCL: 140 pCi/L
LCL: 12 pCi/L

399−3−12

Distance to River: 344 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	0
Max. Correlation (R2):	0.74
Number of Comparisons:	12
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.71 (+/− 0.12)*River Stage + 0.00027 (+/− 0.00019)*Date + −76 (+/− 14)
R^2 = 0.74

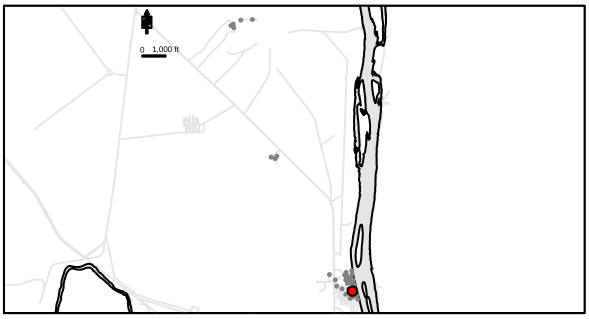
Regression Statistics for January 2015 to January 2016
Geometric Mean : 19 pCi/L

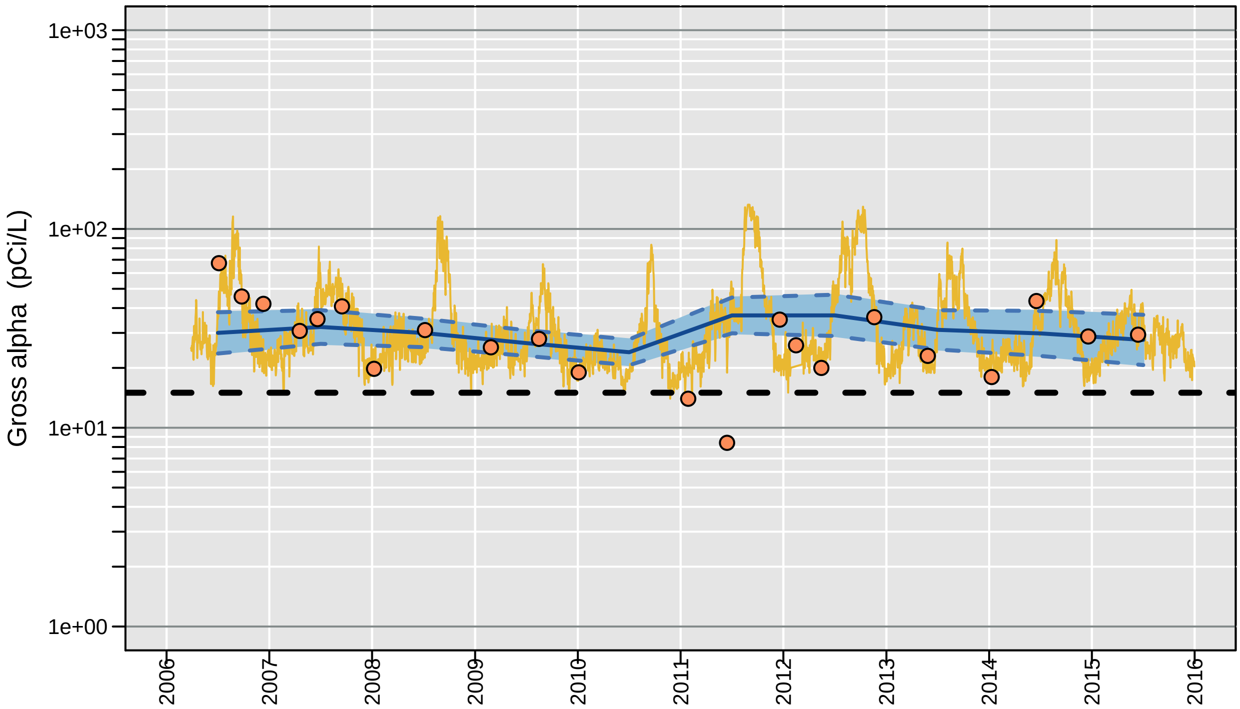
Regression Statistics for January 2015 to January 2016
Geometric Mean: 19 pCi/L
UCL: 43 pCi/L
LCL: 8.1 pCi/L

399−3−20

Distance to River: 210 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	87
Max. Correlation (R2):	0.54
Number of Comparisons:	22
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.64 (+/− 0.14)*River Stage + −2.9e−05 (+/− 6.6e−05)*Date + −64 (+/− 15)
R^2 = 0.54

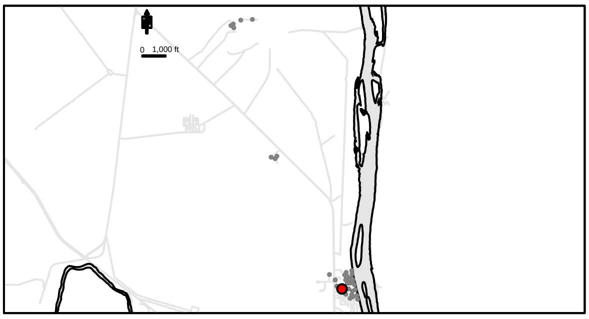
Regression Statistics for January 2015 to January 2016
Geometric Mean : 28 pCi/L

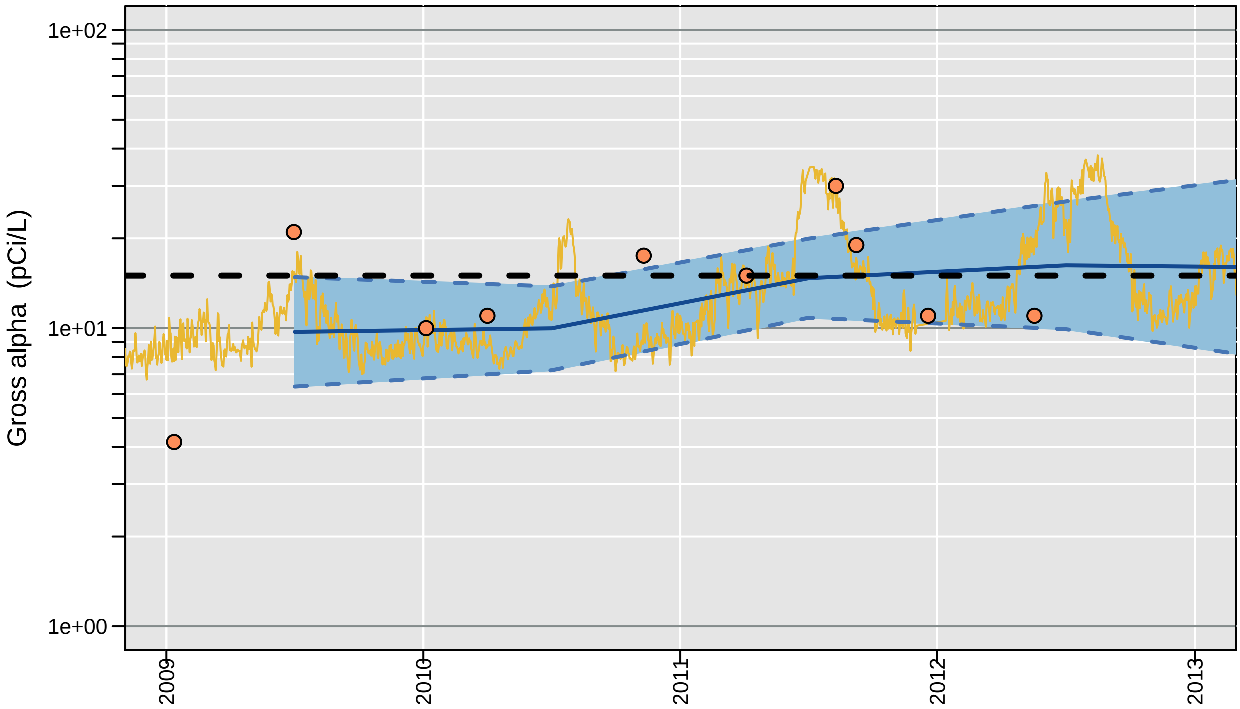
Regression Statistics for January 2015 to January 2016
Geometric Mean: 28 pCi/L
UCL: 39 pCi/L
LCL: 20 pCi/L

399−3−6

Distance to River: 623 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	32
Max. Correlation (R2):	0.57
Number of Comparisons:	10
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.43 (+/− 0.14)*River Stage + 0.00024 (+/− 0.00029)*Date + −46 (+/− 14)
R^2 = 0.57

Regression Statistics for January 2015 to January 2016
Geometric Mean : 18 pCi/L

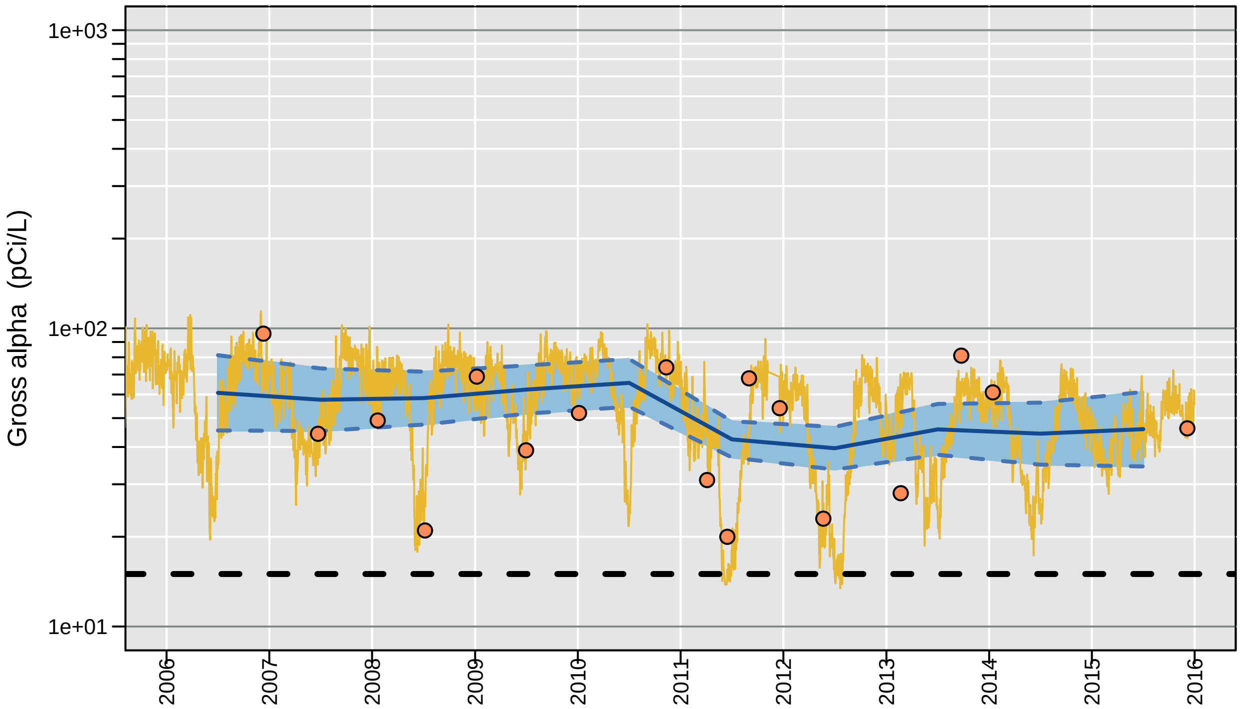
Regression Statistics for January 2015 to January 2016
Geometric Mean: 18 pCi/L
UCL: 85 pCi/L
LCL: 3.8 pCi/L

399−3−9

Distance to River: 68 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	6
Max. Correlation (R2):	0.7
Number of Comparisons:	17
Percent NDs:	0%

Observed Conc.
Non−Detects
Calculated Conc.
Calculated Yearly Avg. Conc.
(UCL,LCL) for Yearly Average
Target Cleanup Level



Censored Regression (Tobit) Model

ln Conc. = −0.56 (+/− 0.09)*River Stage + −9.7e−05 (+/− 7.1e−05)*Date + 65 (+/− 9.7)
R^2 = 0.7

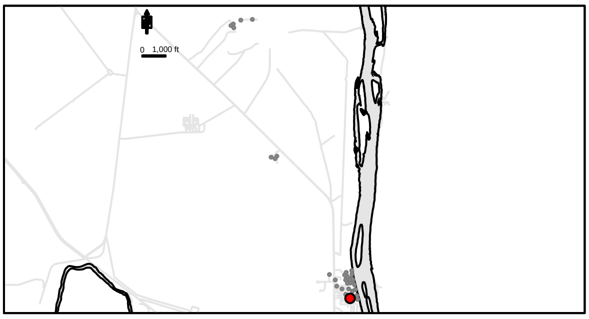
Regression Statistics for January 2015 to January 2016
Geometric Mean : 46 pCi/L

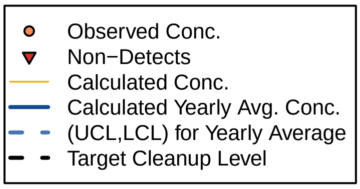
Regression Statistics for January 2015 to January 2016
Geometric Mean: 46 pCi/L
UCL: 64 pCi/L
LCL: 33 pCi/L

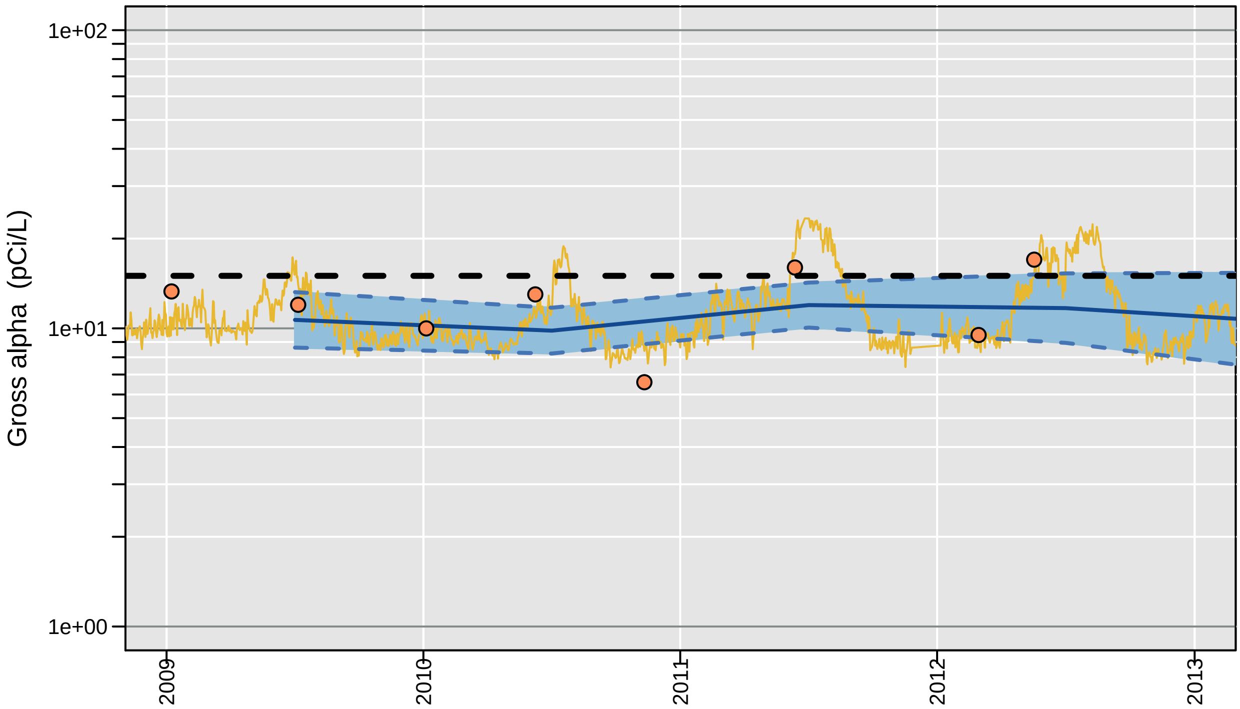
399−4−1

Distance to River: 381 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	25
Max. Correlation (R2):	0.74
Number of Comparisons:	8
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.33 (+/− 0.071)*River Stage + −9.6e−05 (+/− 0.00013)*Date + −31 (+/− 7.1)
R^2 = 0.74

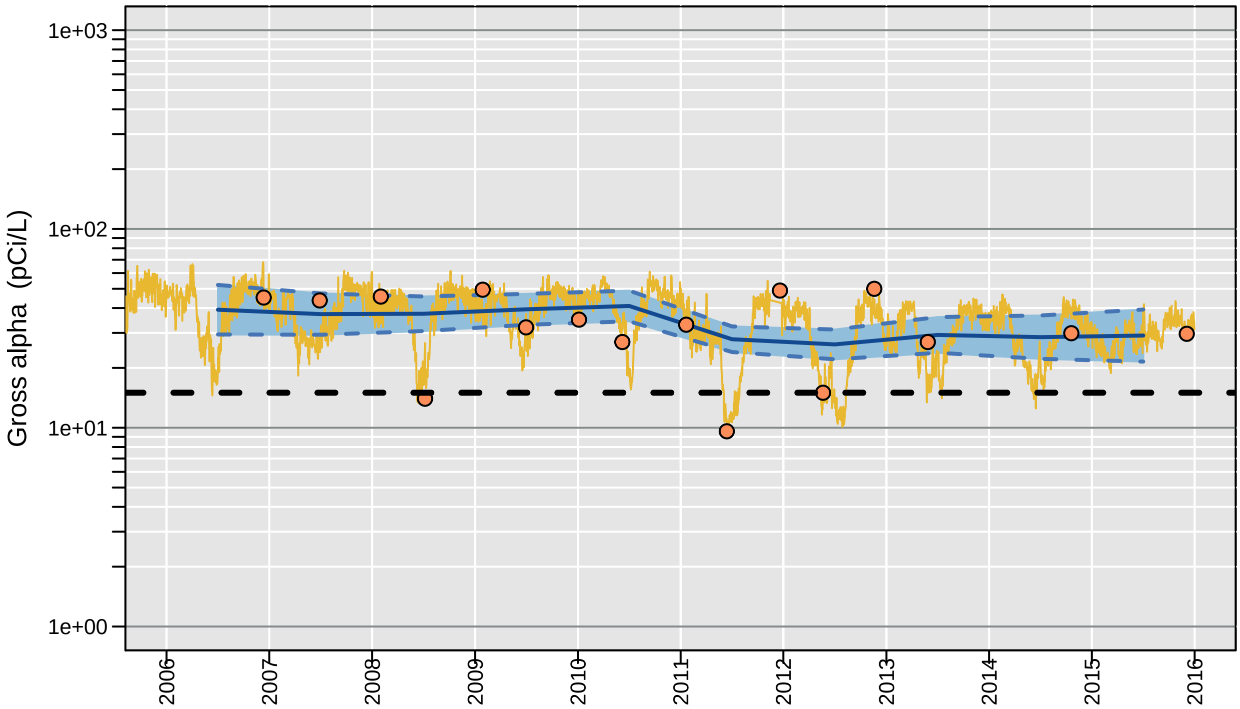
Regression Statistics for January 2015 to January 2016
Geometric Mean : 9.2 pCi/L

Regression Statistics for January 2015 to January 2016
Geometric Mean: 9.2 pCi/L
UCL: 21 pCi/L
LCL: 4 pCi/L

399−4−10

Distance to River: 69 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	14
Max. Correlation (R2):	0.7
Number of Comparisons:	16
Percent NDs:	0%



Censored Regression (Tobit) Model

ln Conc. = −0.49 (+/− 0.083)*River Stage + −1e−04 (+/− 7.1e−05)*Date + 57 (+/− 8.8)
R^2 = 0.7

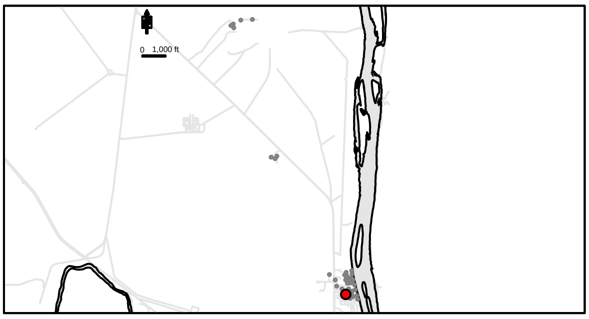
Regression Statistics for January 2015 to January 2016
Geometric Mean : 29 pCi/L

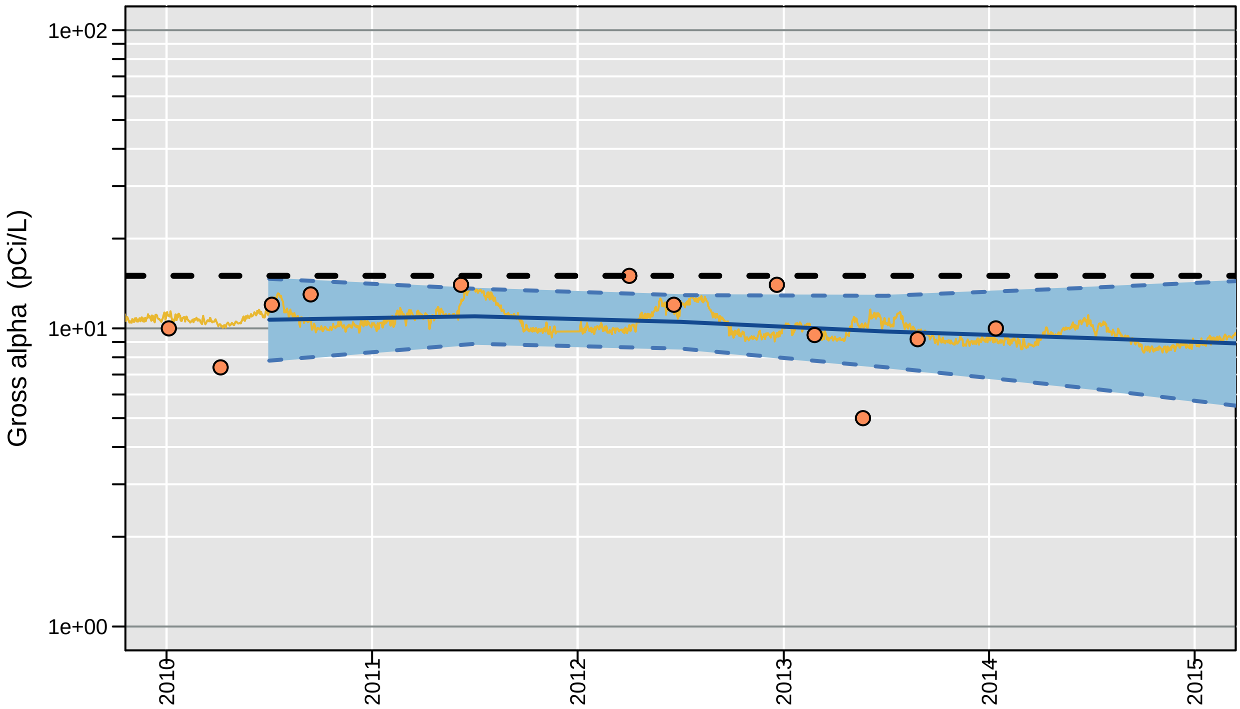
Regression Statistics for January 2015 to January 2016
Geometric Mean: 29 pCi/L
UCL: 41 pCi/L
LCL: 20 pCi/L

399−4−11

Distance to River: 522 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	24
Max. Correlation (R2):	0.097
Number of Comparisons:	12
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.11 (+/− 0.12)*River Stage + −0.00013 (+/− 0.00017)*Date + −6.8 (+/− 13)
R^2 = 0.097

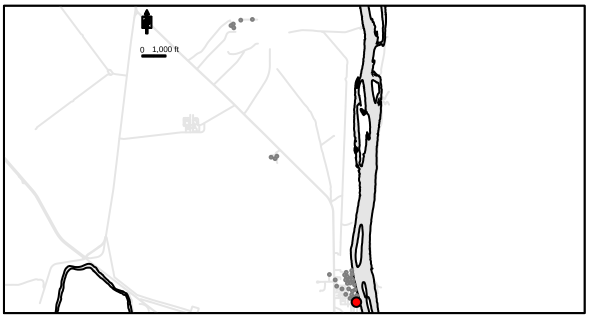
Regression Statistics for January 2015 to January 2016
Geometric Mean : 8.8 pCi/L

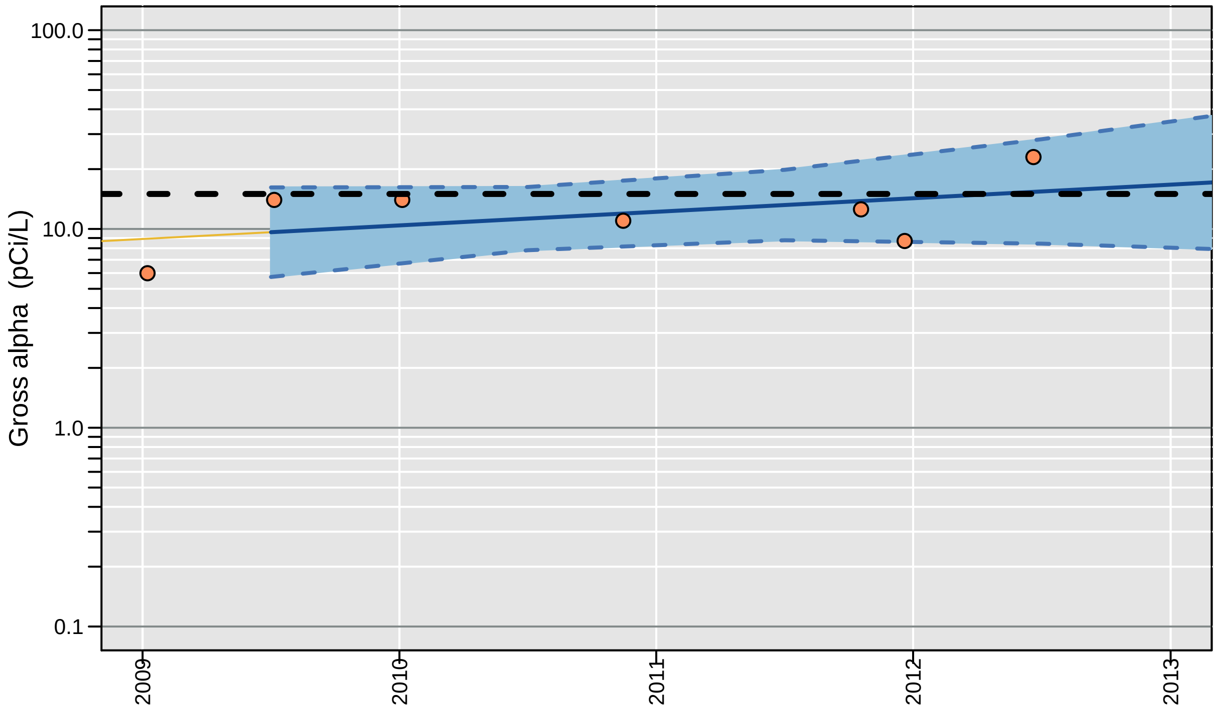
Regression Statistics for January 2015 to January 2016
Geometric Mean: 8.8 pCi/L
UCL: 16 pCi/L
LCL: 4.7 pCi/L

399−4−12

Distance to River: 153 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.25
Number of Comparisons:	7
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.00043 (+/− 0.00029)*Date + −4 (+/− 4.3)
R^2 = 0.25

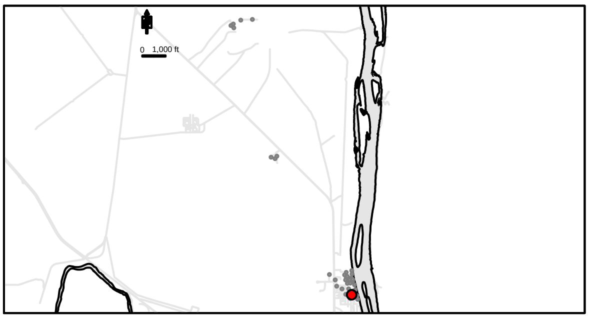
Regression Statistics for January 2015 to January 2016
Geometric Mean : 25 pCi/L

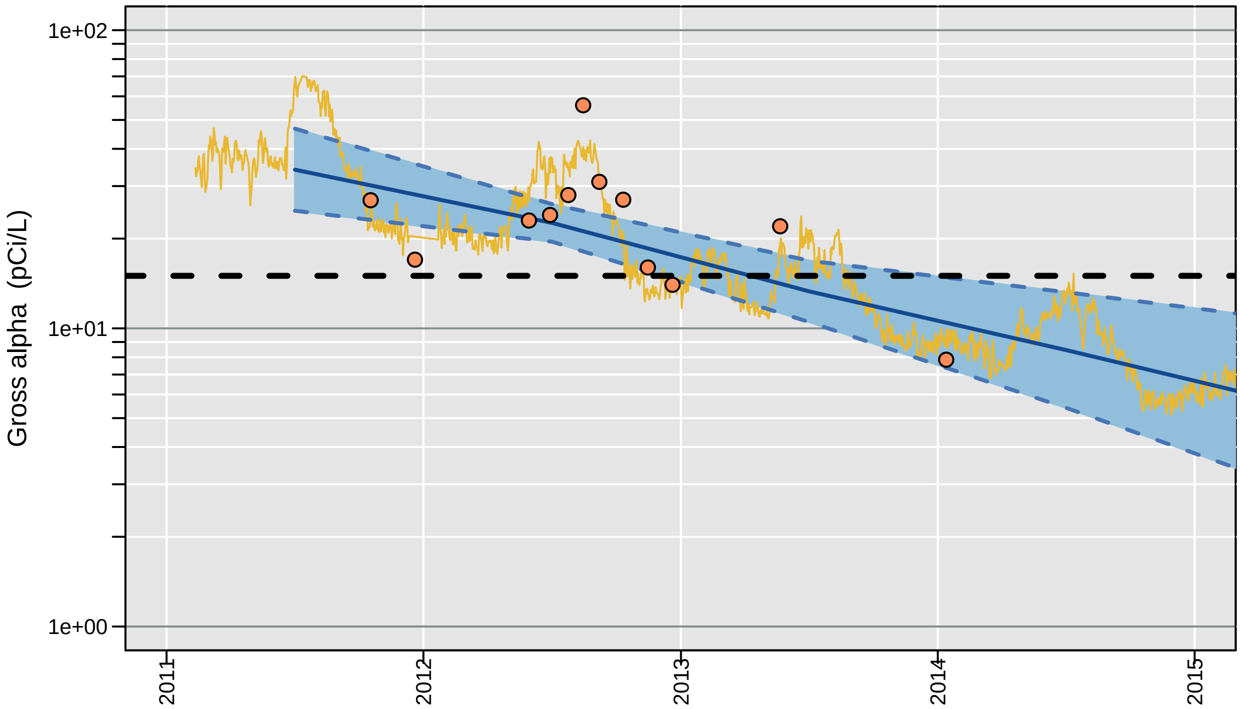
Regression Statistics for January 2015 to January 2016
Geometric Mean: 25 pCi/L
UCL: 140 pCi/L
LCL: 4.2 pCi/L

399−4−15

Distance to River: 278 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	41
Max. Correlation (R2):	0.81
Number of Comparisons:	12
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.36 (+/− 0.061)*River Stage + −0.0012 (+/− 0.00028)*Date + −16 (+/− 7.8)
R^2 = 0.81

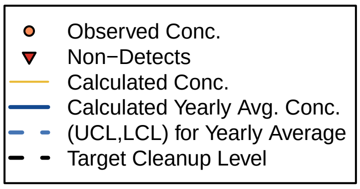
Regression Statistics for January 2015 to January 2016
Geometric Mean : 5.3 pCi/L

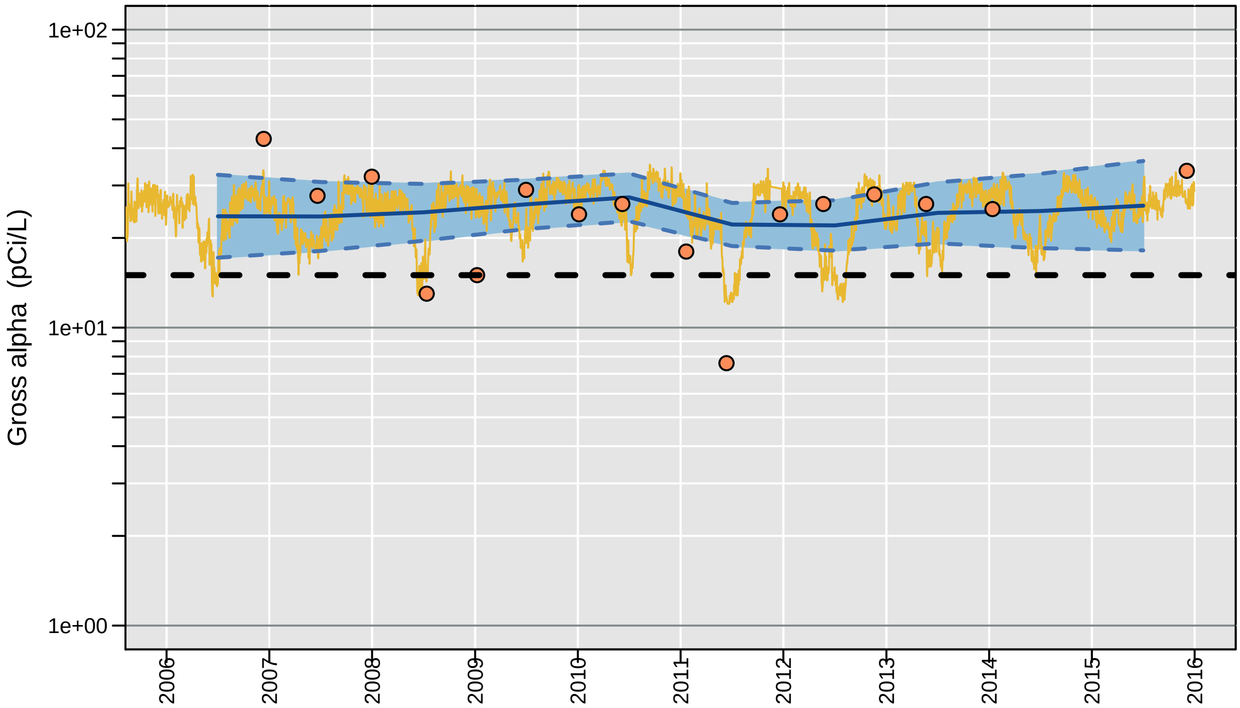
Regression Statistics for January 2015 to January 2016
Geometric Mean: 5.3 pCi/L
UCL: 12 pCi/L
LCL: 2.4 pCi/L

399−4−7

Distance to River: 72 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	15
Max. Correlation (R2):	0.48
Number of Comparisons:	16
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.31 (+/− 0.079)*River Stage + 1.9e−05 (+/− 8.1e−05)*Date + 35 (+/− 8.4)
R^2 = 0.48

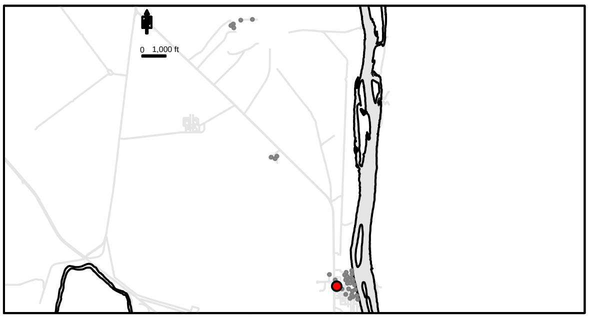
Regression Statistics for January 2015 to January 2016
Geometric Mean : 26 pCi/L

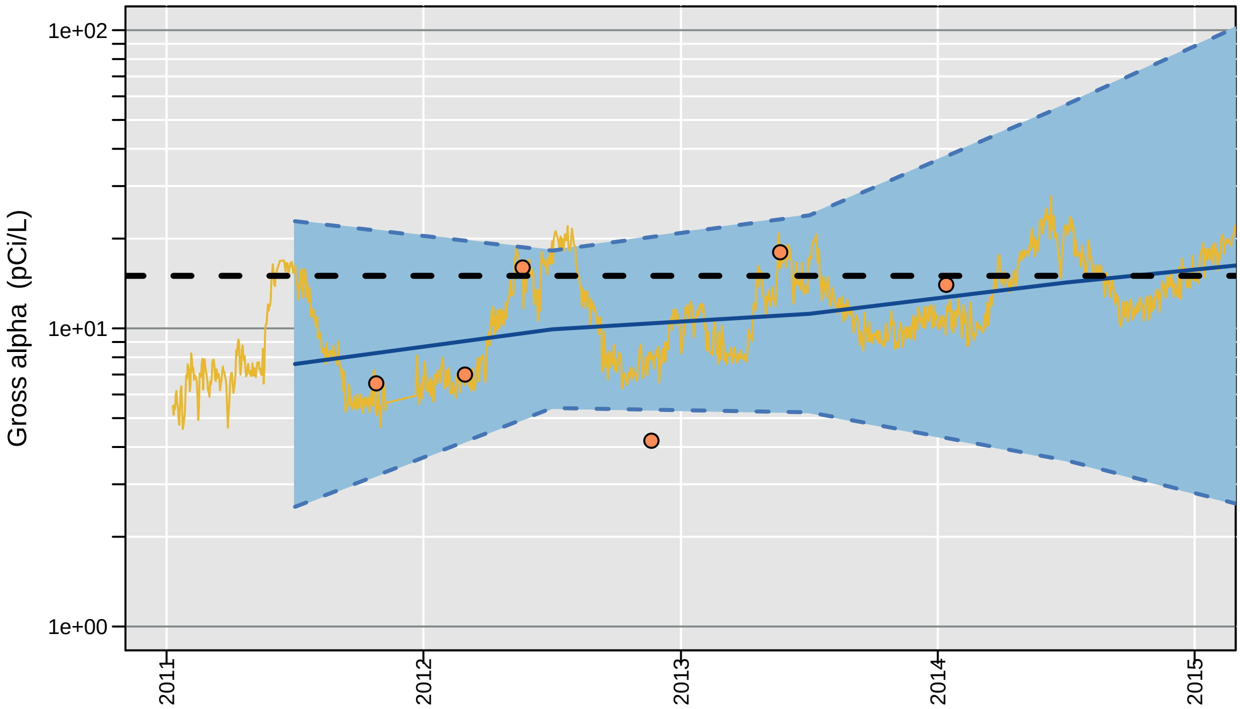
Regression Statistics for January 2015 to January 2016
Geometric Mean: 26 pCi/L
UCL: 38 pCi/L
LCL: 17 pCi/L

399−6−3

Distance to River: 819 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	9
Max. Correlation (R2):	0.67
Number of Comparisons:	6
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.41 (+/− 0.14)*River Stage + 0.00068 (+/− 0.00046)*Date + −51 (+/− 15)
R^2 = 0.67

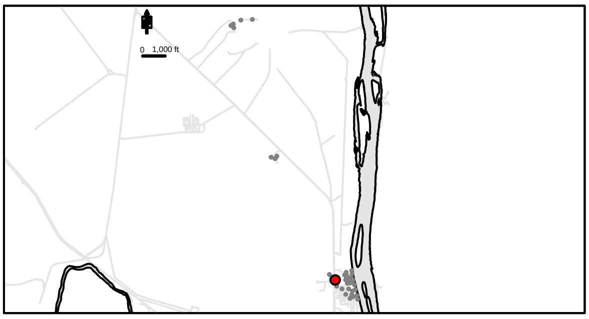
Regression Statistics for January 2015 to January 2016
Geometric Mean : 17 pCi/L

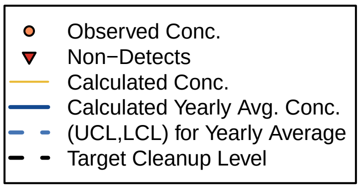
Regression Statistics for January 2015 to January 2016
Geometric Mean: 17 pCi/L
UCL: 350 pCi/L
LCL: 0.87 pCi/L

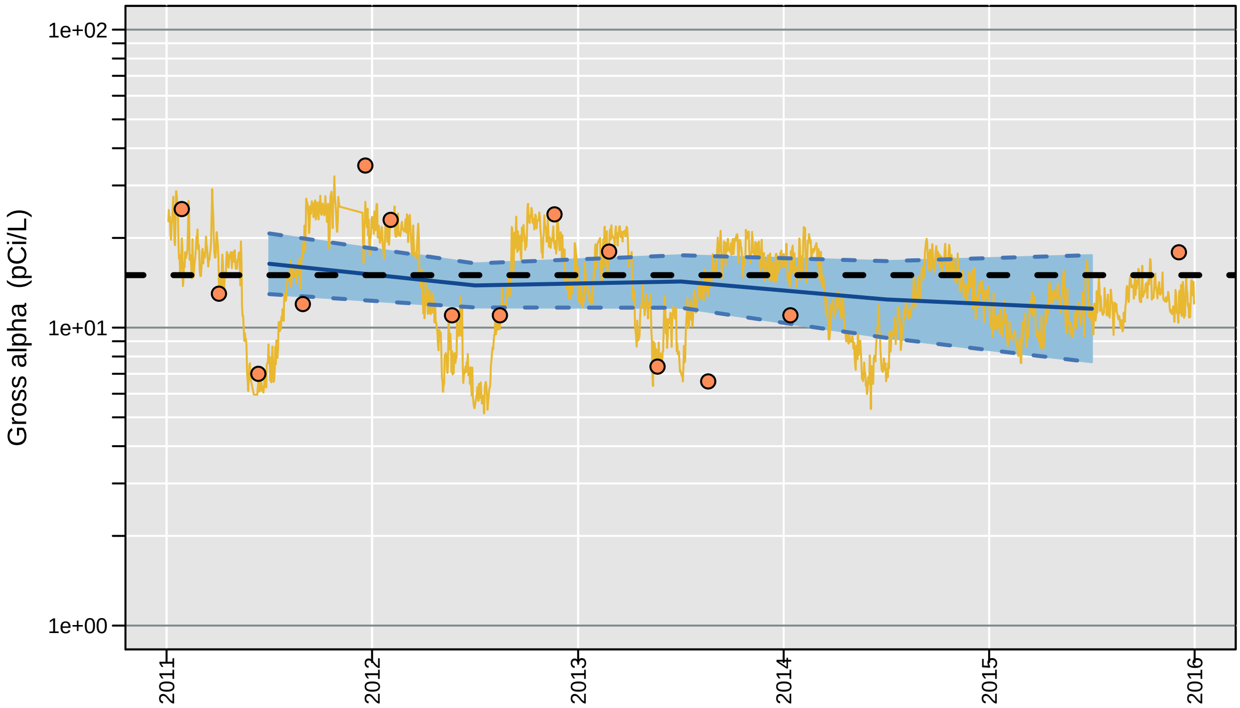
399−8−1

Distance to River: 832 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	3
Max. Correlation (R2):	0.68
Number of Comparisons:	14
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = −0.51 (+/− 0.095)*River Stage + −0.00038 (+/− 0.00017)*Date + 63 (+/− 11)
R^2 = 0.68

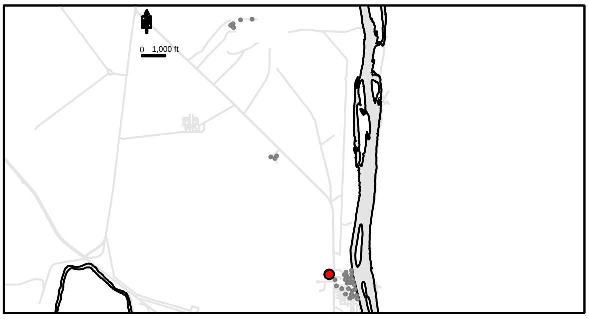
Regression Statistics for January 2015 to January 2016
Geometric Mean : 12 pCi/L

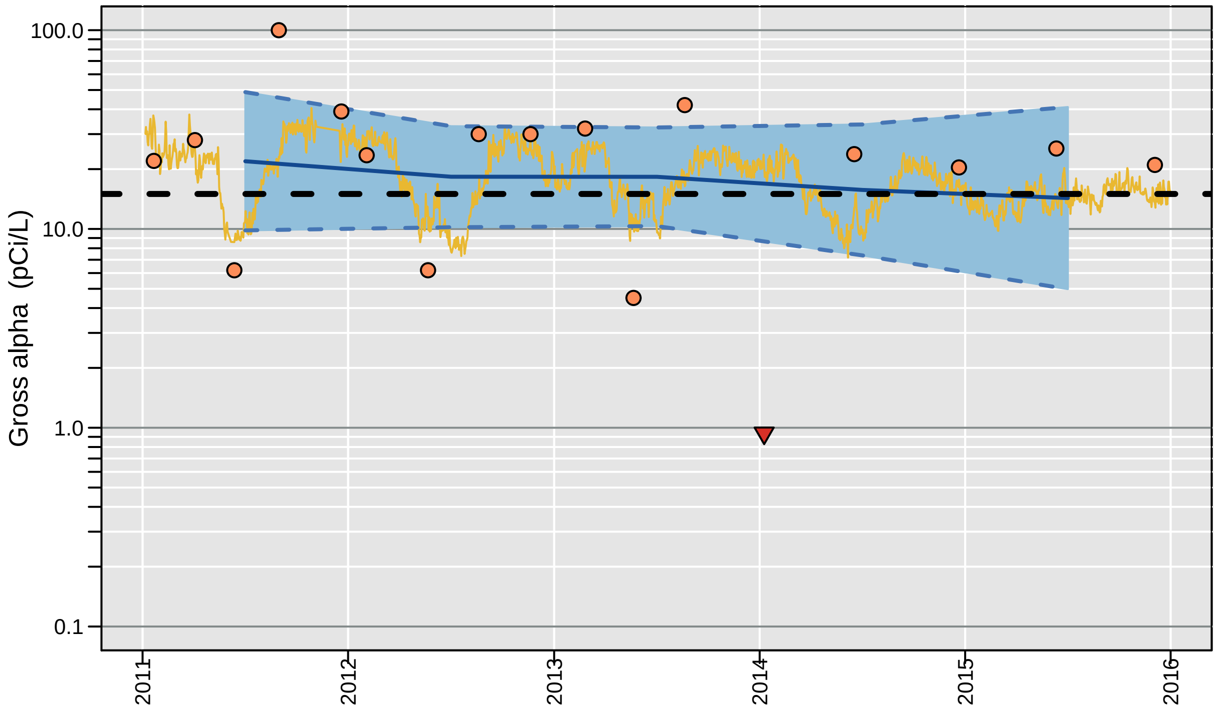
Regression Statistics for January 2015 to January 2016
Geometric Mean: 12 pCi/L
UCL: 19 pCi/L
LCL: 7.1 pCi/L

399−8−5A

Distance to River: 1046 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	5
Max. Correlation (R2):	0.14
Number of Comparisons:	17
Percent NDs:	6%





Censored Regression (Tobit) Model

ln Conc. = −0.48 (+/− 0.34)*River Stage + −0.00042 (+/− 0.00048)*Date + 60 (+/− 38)
R^2 = 0.14

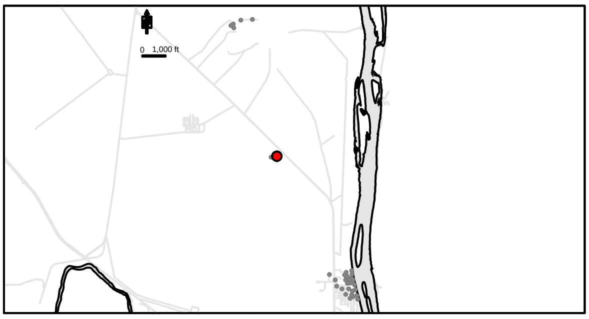
Regression Statistics for January 2015 to January 2016
Geometric Mean : 14 pCi/L

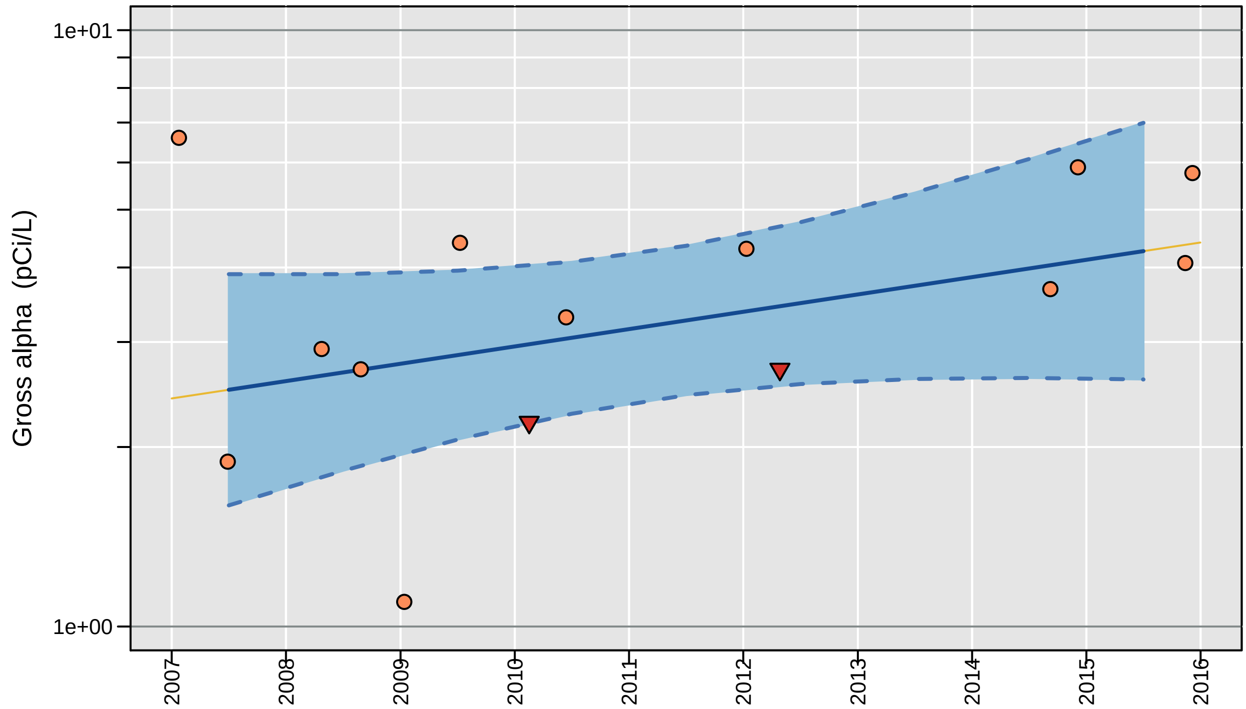
Regression Statistics for January 2015 to January 2016
Geometric Mean: 14 pCi/L
UCL: 49 pCi/L
LCL: 4.2 pCi/L

699−S6−E4B

Distance to River: 3438 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.18
Number of Comparisons:	14
Percent NDs:	14%





Censored Regression (Tobit) Model

ln Conc. = 0.00018 (+/− 0.00012)*Date + −1.6 (+/− 1.7)
R^2 = 0.18

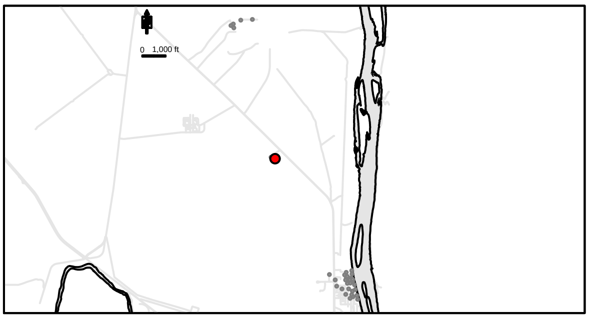
Regression Statistics for January 2015 to January 2016
Geometric Mean : 4.3 pCi/L

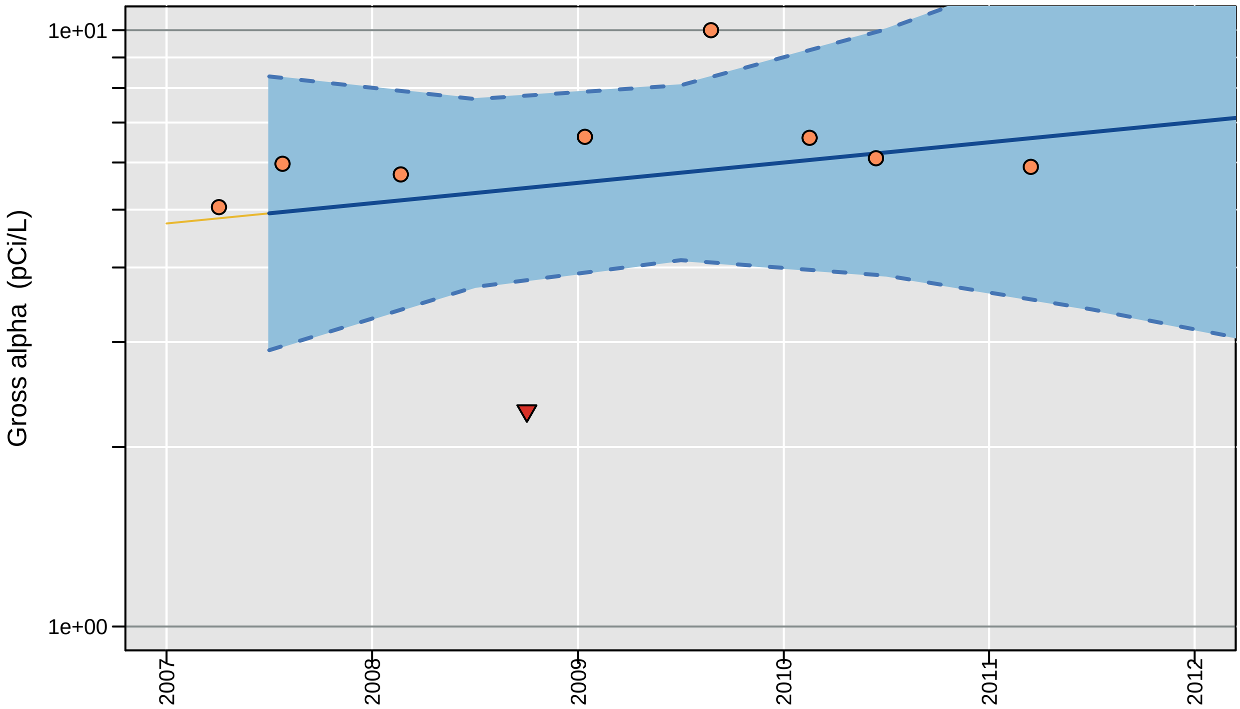
Regression Statistics for January 2015 to January 2016
Geometric Mean: 4.3 pCi/L
UCL: 7.6 pCi/L
LCL: 2.4 pCi/L

699−S6−E4E

Distance to River: 3518 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.067
Number of Comparisons:	9
Percent NDs:	11%





Censored Regression (Tobit) Model

ln Conc. = 0.00021 (+/− 0.00029)*Date + −1.3 (+/− 4.1)
R^2 = 0.067

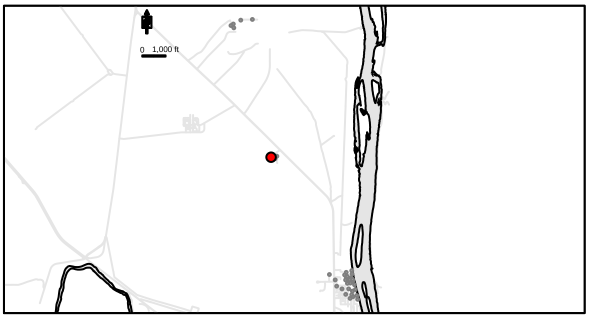
Regression Statistics for January 2015 to January 2016
Geometric Mean : 9.2 pCi/L

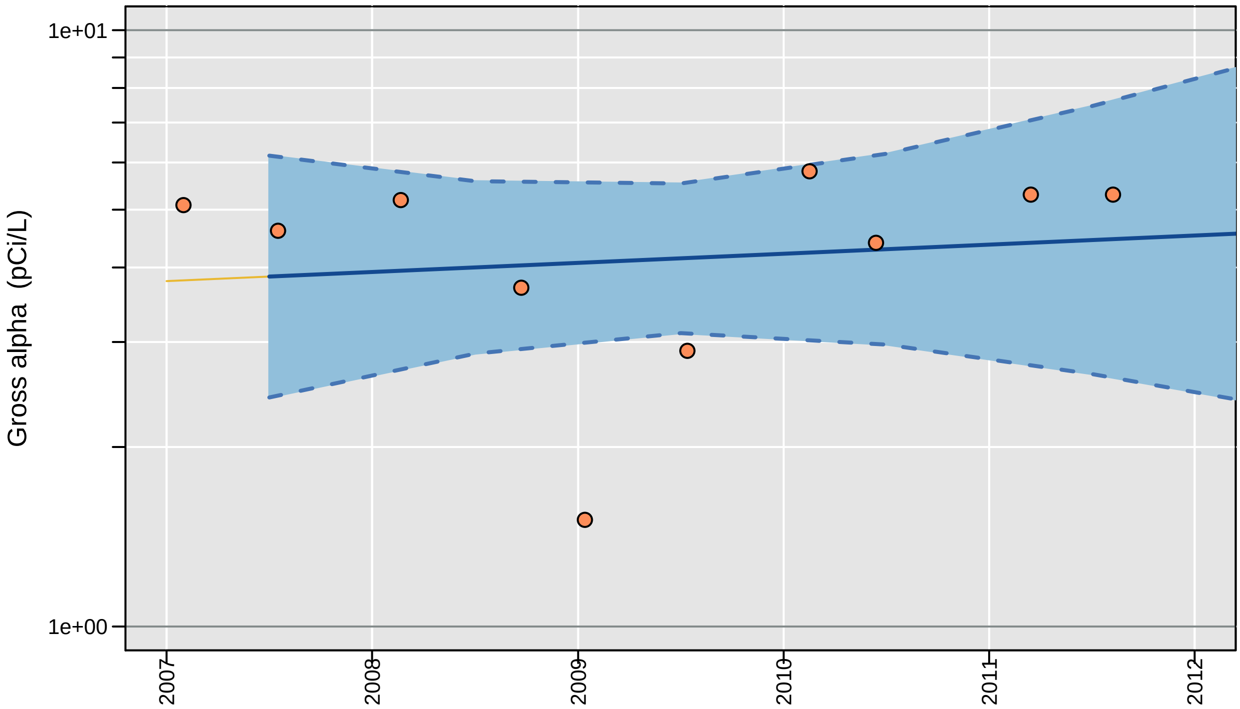
Regression Statistics for January 2015 to January 2016
Geometric Mean: 9.2 pCi/L
UCL: 69 pCi/L
LCL: 1.2 pCi/L

699−S6−E4K

Distance to River: 3689 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.017
Number of Comparisons:	10
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 9.6e−05 (+/− 0.00023)*Date + 0.031 (+/− 3.3)
R^2 = 0.017

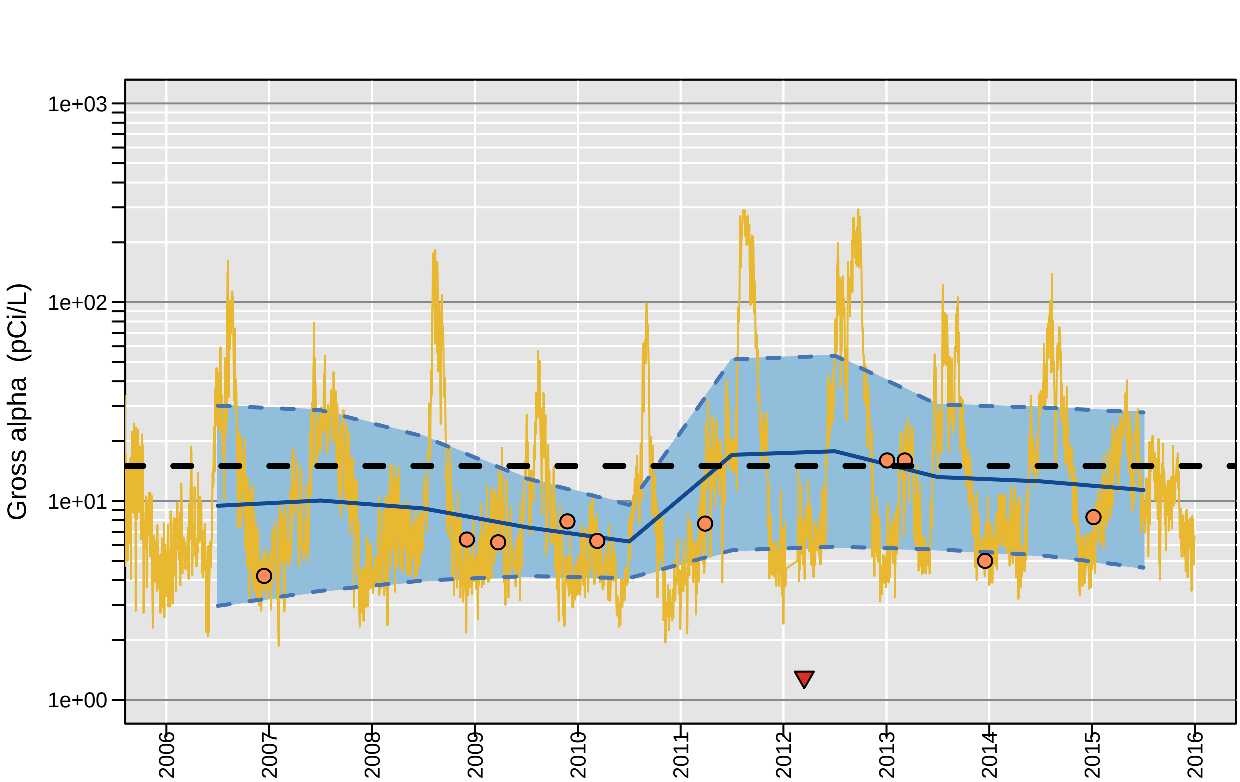
Regression Statistics for January 2015 to January 2016
Geometric Mean : 5.1 pCi/L

Regression Statistics for January 2015 to January 2016
Geometric Mean: 5.1 pCi/L
UCL: 23 pCi/L
LCL: 1.1 pCi/L

AT−3−7−M

Distance to River: 5 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	70
Max. Correlation (R2):	0.37
Number of Comparisons:	11
Percent NDs:	9%



Censored Regression (Tobit) Model

ln Conc. = 1.4 (+/− 0.64)*River Stage + 8.8e−05 (+/− 2e−04)*Date + −150 (+/− 67)
R^2 = 0.37

Regression Statistics for January 2015 to January 2016
Geometric Mean : 11 pCi/L

Regression Statistics for January 2015 to January 2016
Geometric Mean: 11 pCi/L
UCL: 33 pCi/L
LCL: 3.9 pCi/L

Nitrate

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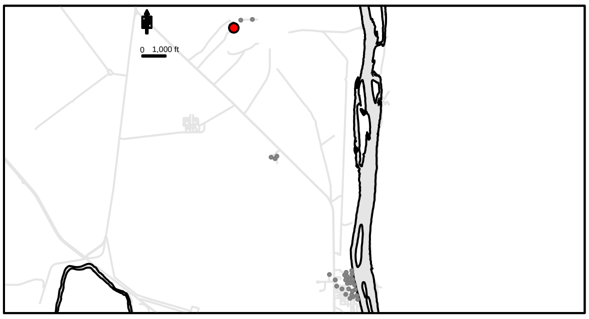
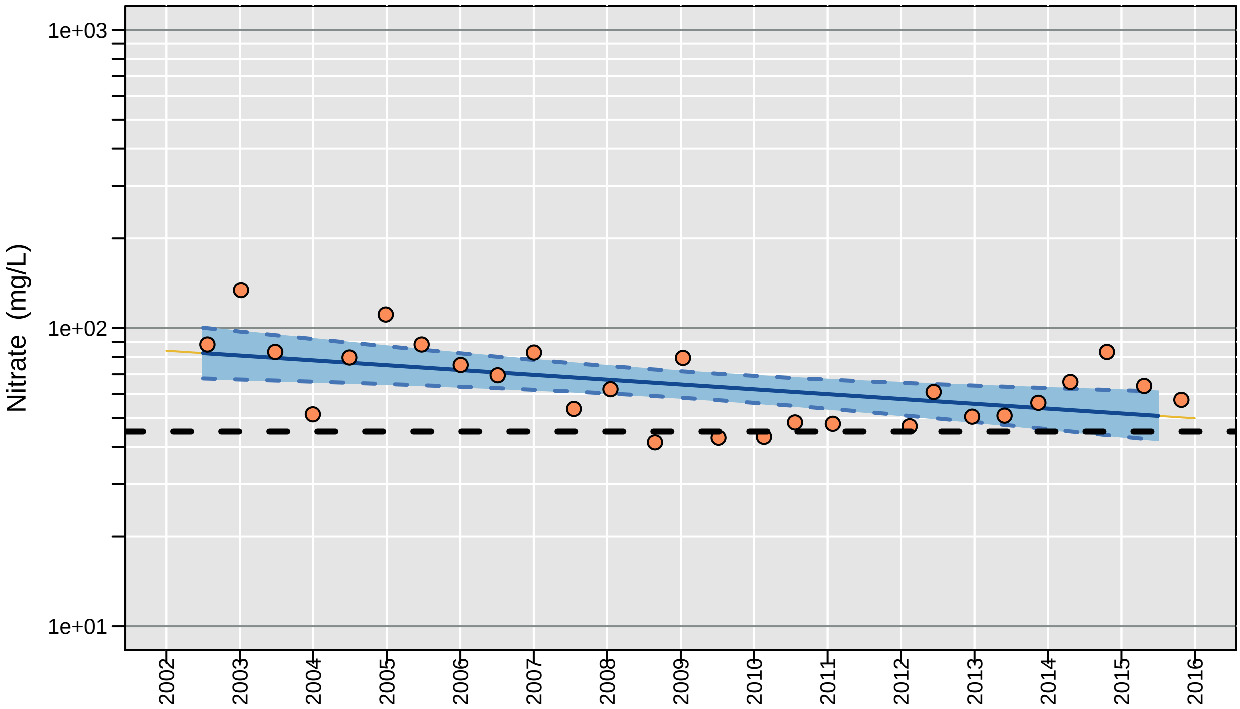
699−12−2C

Distance to River: 5526 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.26
Number of Comparisons:	27
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −1e−04 (+/− 3.3e−05)*Date + 5.6 (+/− 0.48)
R^2 = 0.26

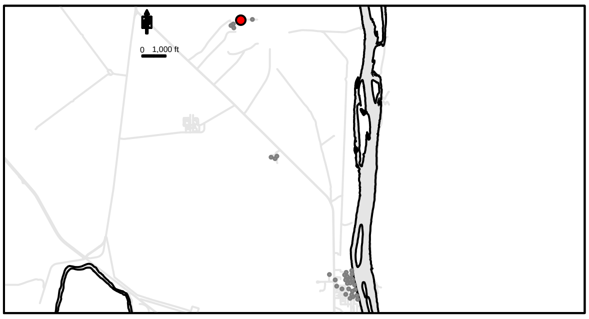
Regression Statistics for January 2015 to January 2016
Geometric Mean : 51 mg/L

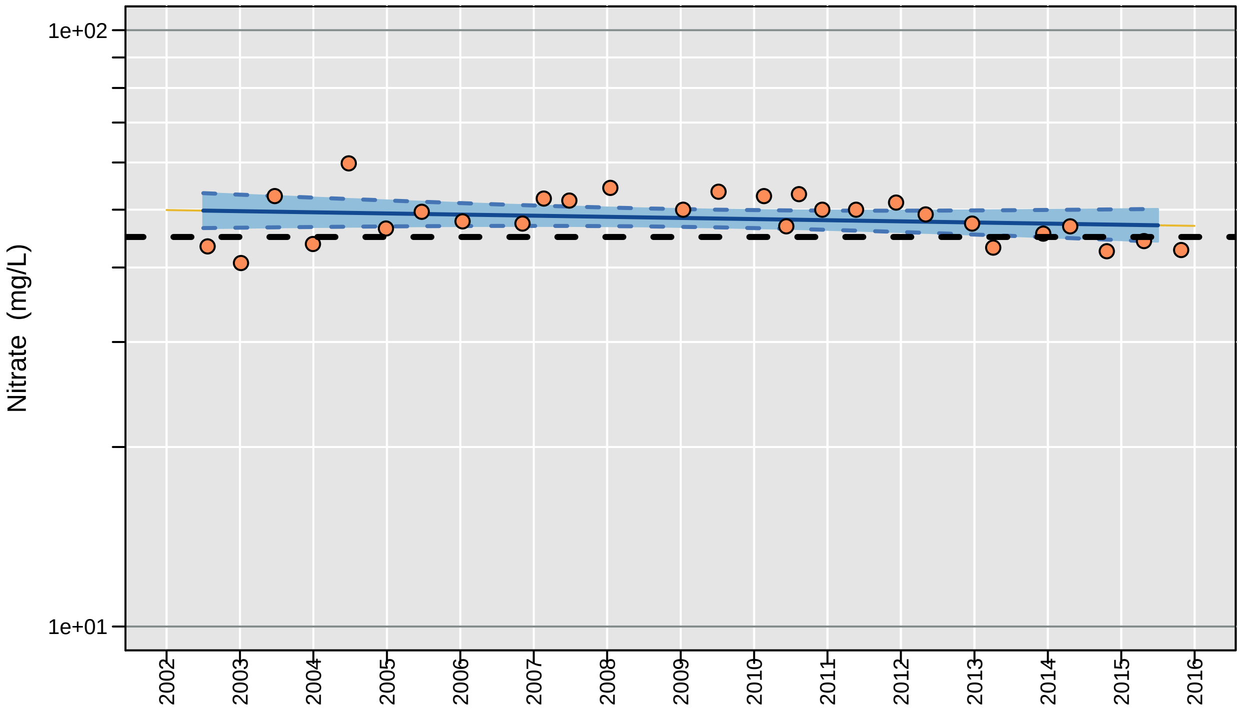
Regression Statistics for January 2015 to January 2016
Geometric Mean: 51 mg/L
UCL: 63 mg/L
LCL: 41 mg/L

699−13−1E

Distance to River: 5173 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.038
Number of Comparisons:	28
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −1.2e−05 (+/− 1.1e−05)*Date + 4.1 (+/− 0.16)
R^2 = 0.038

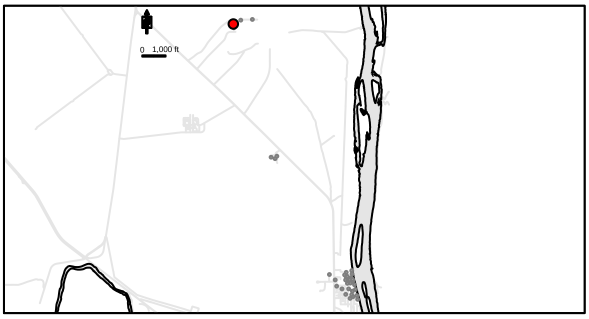
Regression Statistics for January 2015 to January 2016
Geometric Mean : 47 mg/L

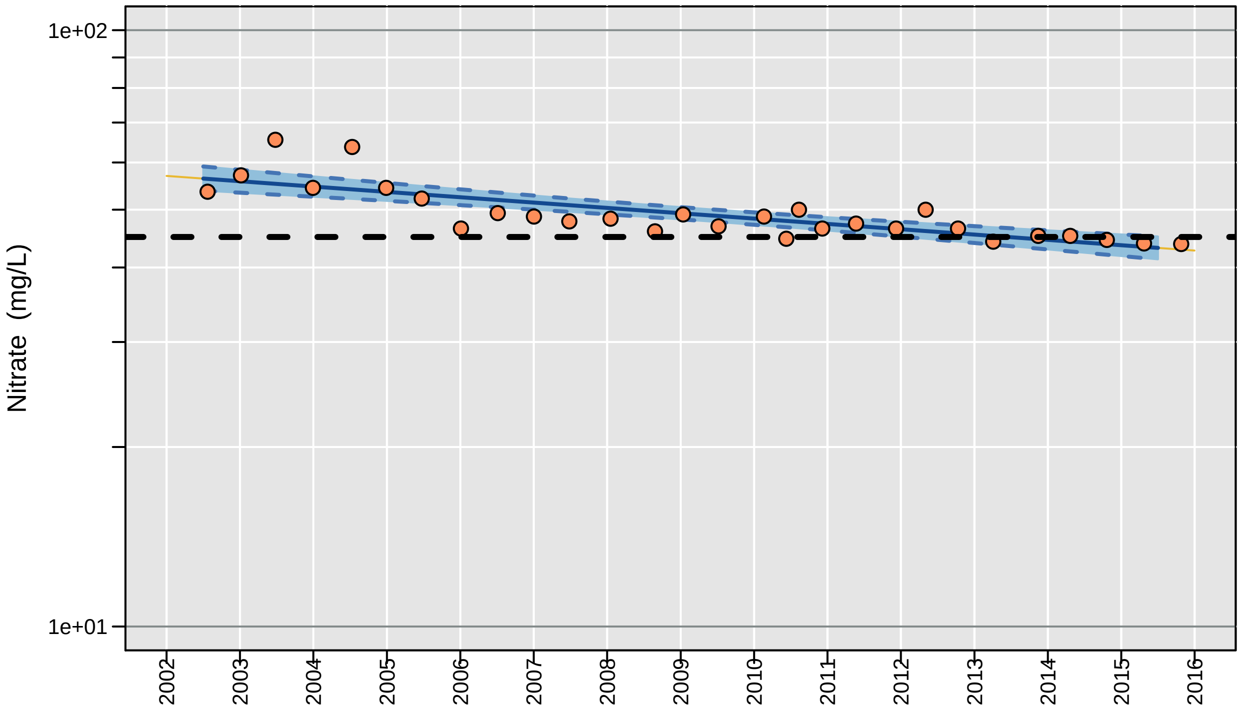
Regression Statistics for January 2015 to January 2016
Geometric Mean: 47 mg/L
UCL: 51 mg/L
LCL: 44 mg/L

699−13−2D

Distance to River: 5519 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.63
Number of Comparisons:	29
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −5.6e−05 (+/− 8e−06)*Date + 4.7 (+/− 0.12)
R^2 = 0.63

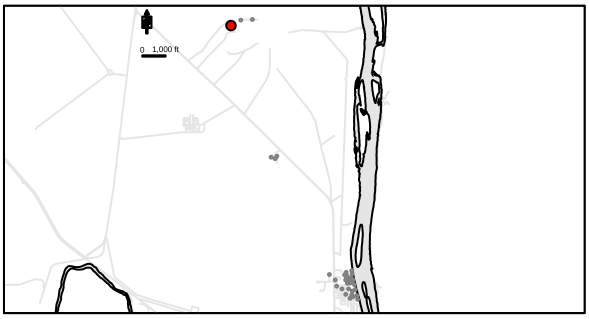
Regression Statistics for January 2015 to January 2016
Geometric Mean : 43 mg/L

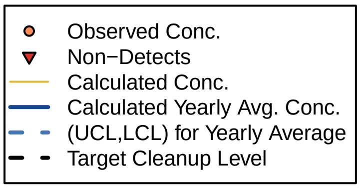
Regression Statistics for January 2015 to January 2016
Geometric Mean: 43 mg/L
UCL: 45 mg/L
LCL: 41 mg/L

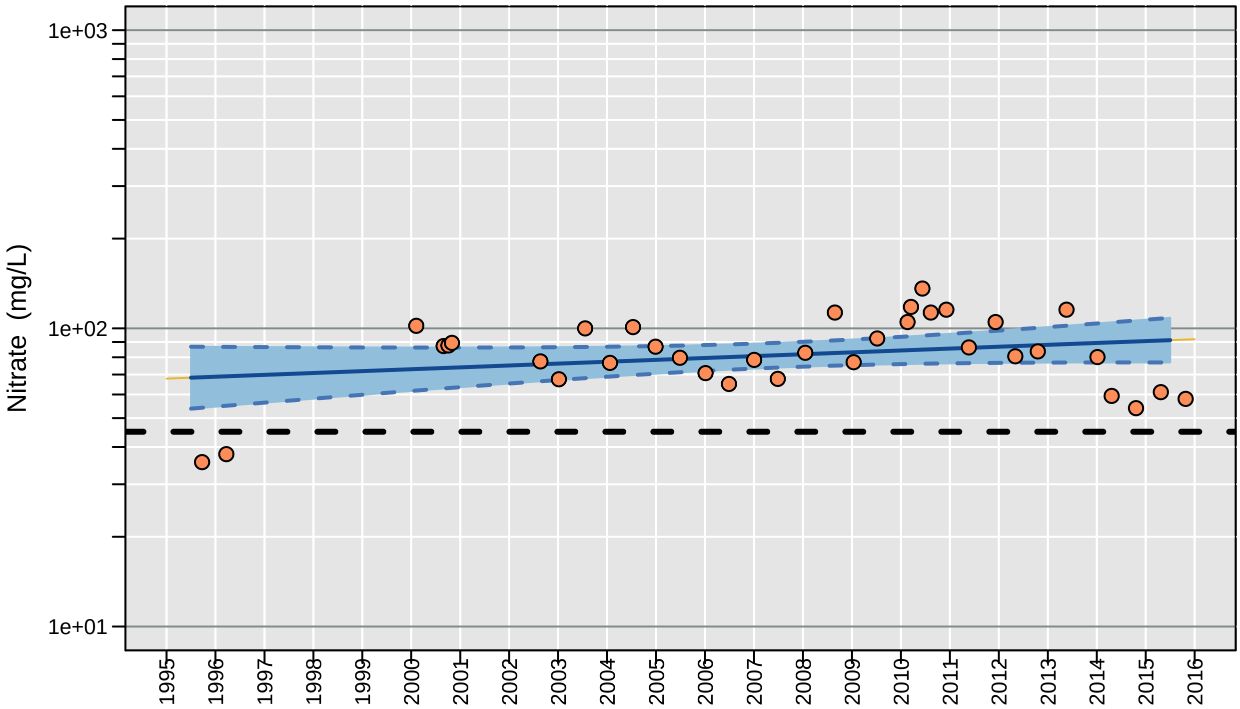
699−13−3A

Distance to River: 5630 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.068
Number of Comparisons:	36
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 4e−05 (+/− 2.4e−05)*Date + 3.9 (+/− 0.34)
R^2 = 0.068

Regression Statistics for January 2015 to January 2016
Geometric Mean : 91 mg/L

Regression Statistics for January 2015 to January 2016
Geometric Mean: 91 mg/L
UCL: 110 mg/L
LCL: 75 mg/L

Trichloroethene (TCE)

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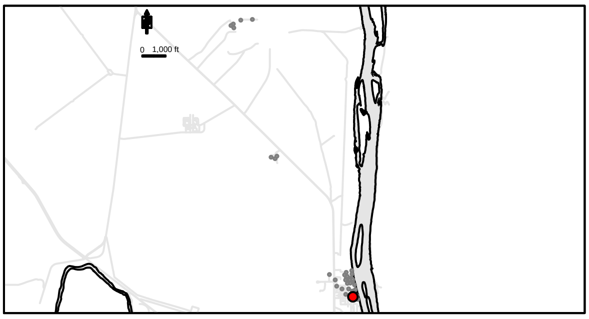
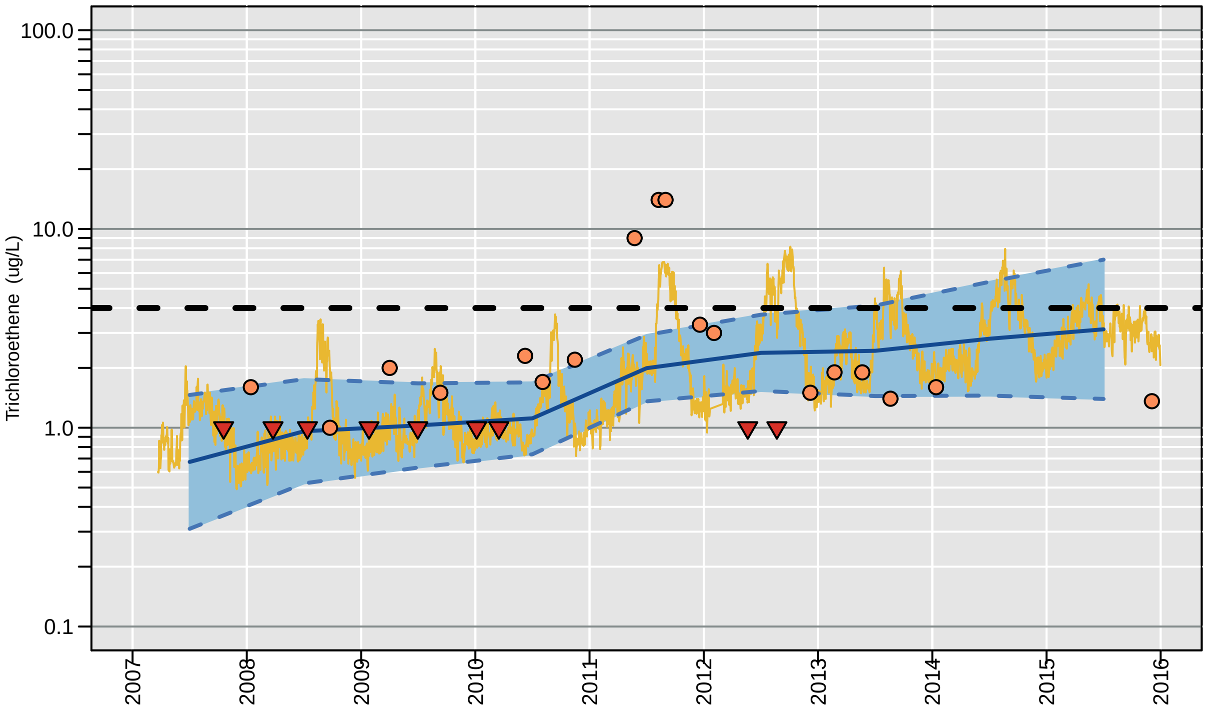
399−4−14

Distance to River: 247 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	81
Max. Correlation (R2):	0.35
Number of Comparisons:	27
Percent NDs:	33%





Censored Regression (Tobit) Model

ln Conc. = 0.6 (+/− 0.21)*River Stage + 0.00046 (+/− 0.00023)*Date + −70 (+/− 22)
R^2 = 0.35

Regression Statistics for January 2015 to January 2016
Geometric Mean : 3.1 ug/L

Regression Statistics for January 2015 to January 2016
Geometric Mean: 3.1 ug/L
UCL: 8 ug/L
LCL: 1.2 ug/L

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Tritium

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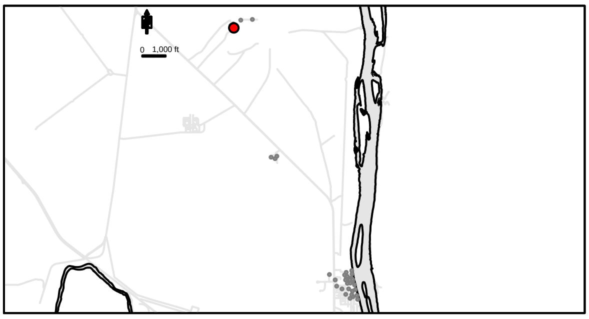
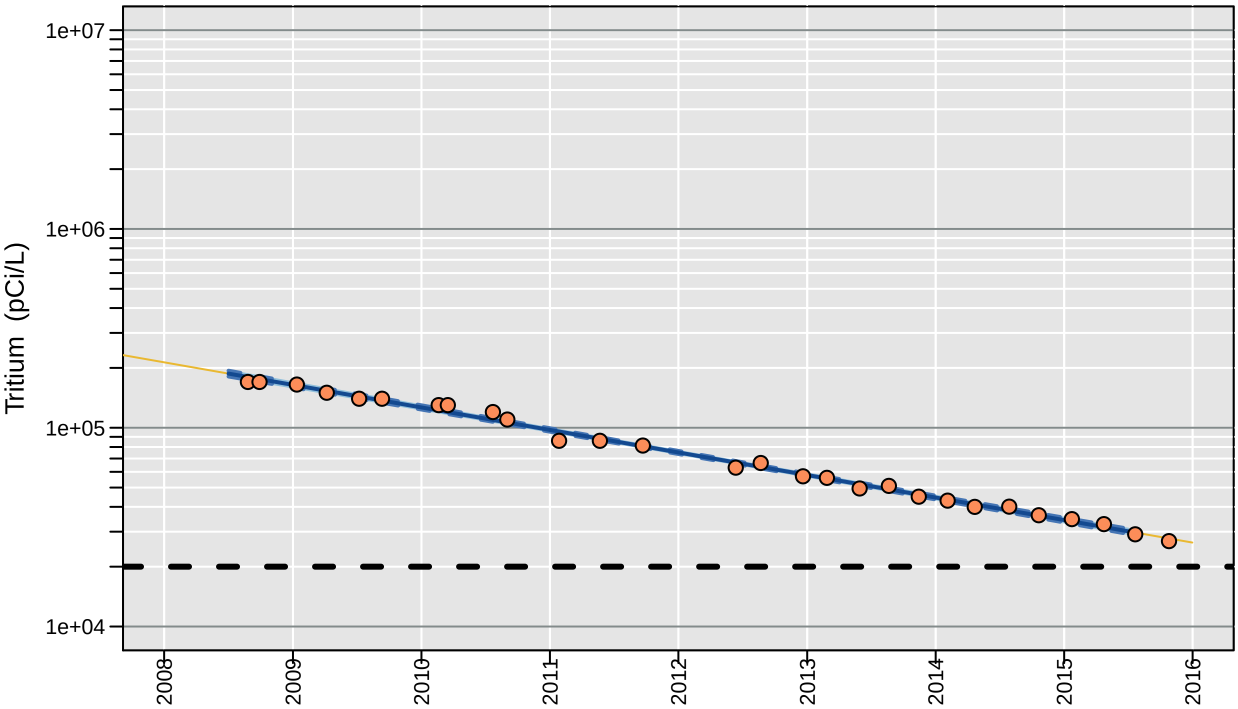
699−12−2C

Distance to River: 5526 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.99
Number of Comparisons:	28
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.00071 (+/− 1e−05)*Date + 22 (+/− 0.16)
R^2 = 0.99

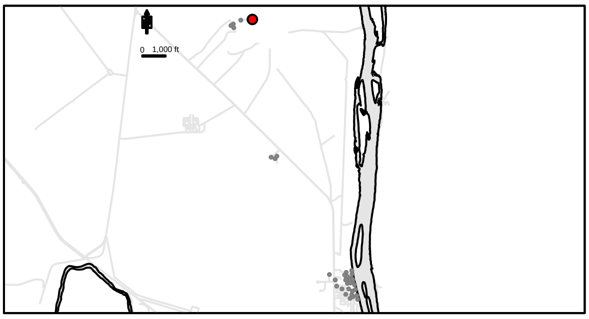
Regression Statistics for January 2015 to January 2016
Geometric Mean : 30,000 pCi/L

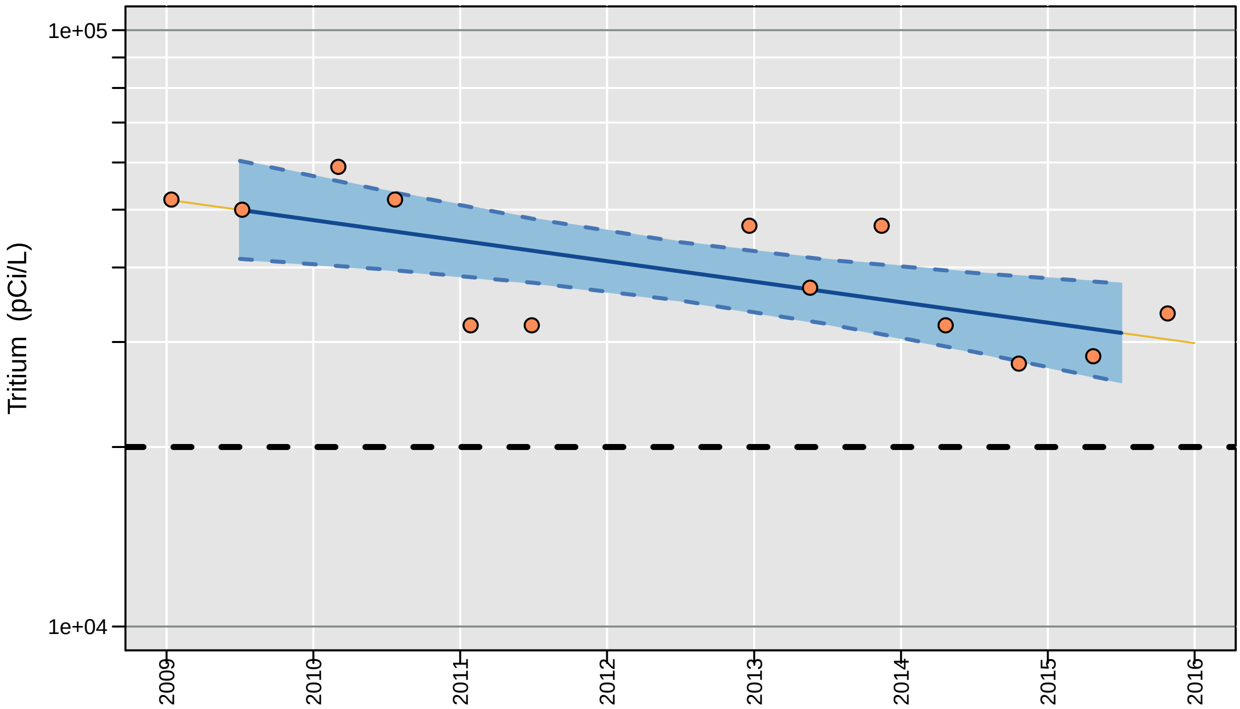
Regression Statistics for January 2015 to January 2016
Geometric Mean: 30,000 pCi/L
UCL: 31,000 pCi/L
LCL: 29,000 pCi/L

699−13−0A

Distance to River: 4675 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.48
Number of Comparisons:	13
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.00022 (+/− 6.3e−05)*Date + 14 (+/− 0.97)
R^2 = 0.48

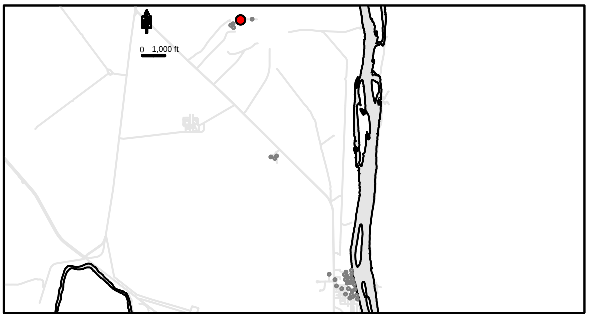
Regression Statistics for January 2015 to January 2016
Geometric Mean : 31,000 pCi/L

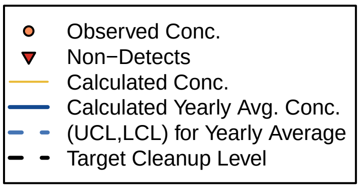
Regression Statistics for January 2015 to January 2016
Geometric Mean: 31,000 pCi/L
UCL: 39,000 pCi/L
LCL: 25,000 pCi/L

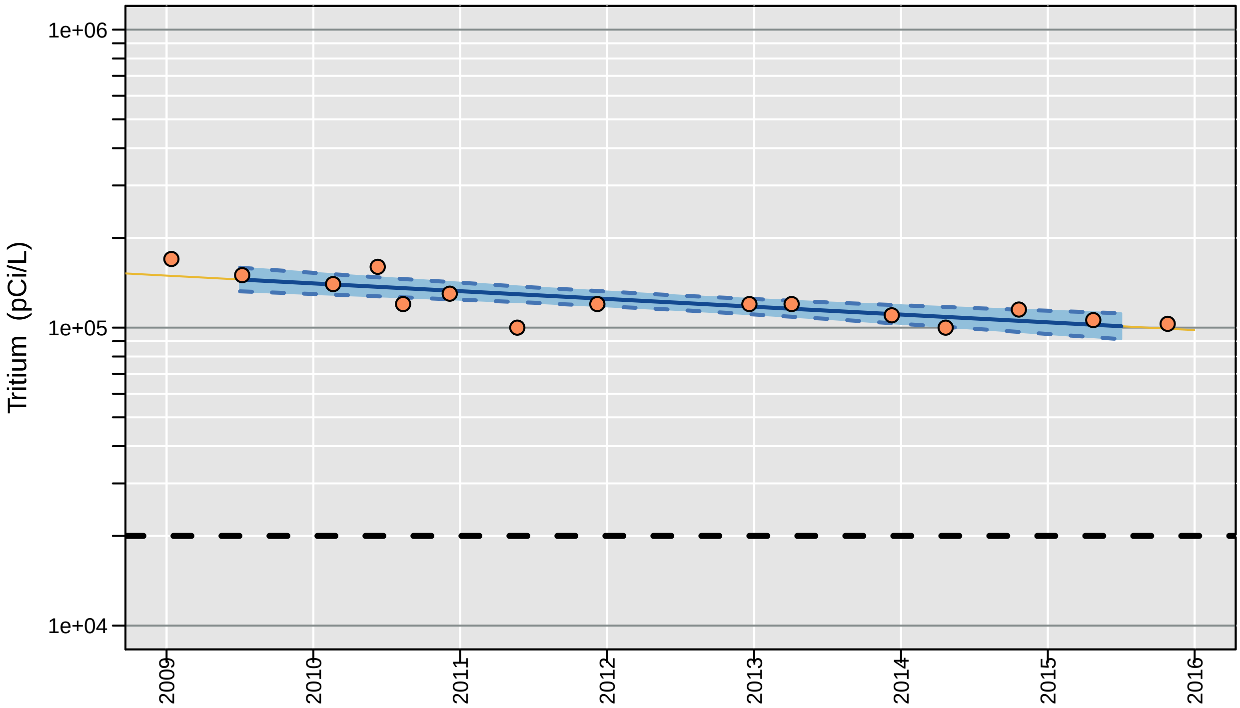
699−13−1E

Distance to River: 5173 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.63
Number of Comparisons:	15
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = −0.00016 (+/− 3.3e−05)*Date + 14 (+/− 0.51)
R^2 = 0.63

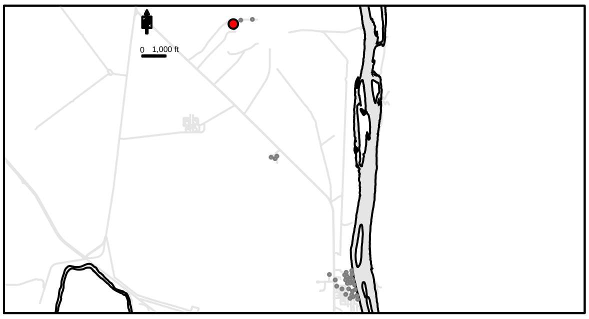
Regression Statistics for January 2015 to January 2016
Geometric Mean : 1e+05 pCi/L

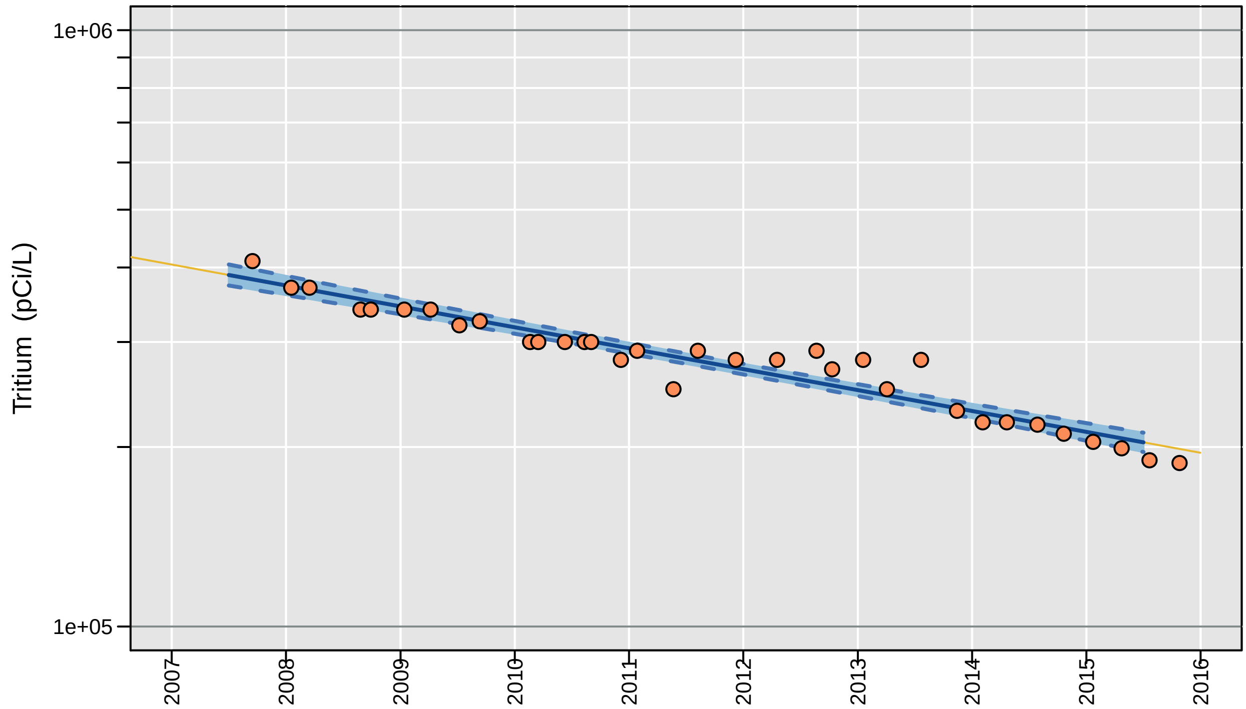
Regression Statistics for January 2015 to January 2016
Geometric Mean: 1e+05 pCi/L
UCL: 110,000 pCi/L
LCL: 90,000 pCi/L

699−13−2D

Distance to River: 5519 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.92
Number of Comparisons:	34
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.00022 (+/− 1.1e−05)*Date + 16 (+/− 0.17)
R^2 = 0.92

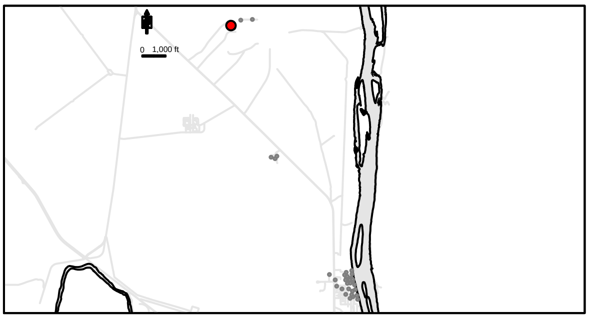
Regression Statistics for January 2015 to January 2016
Geometric Mean : 2e+05 pCi/L

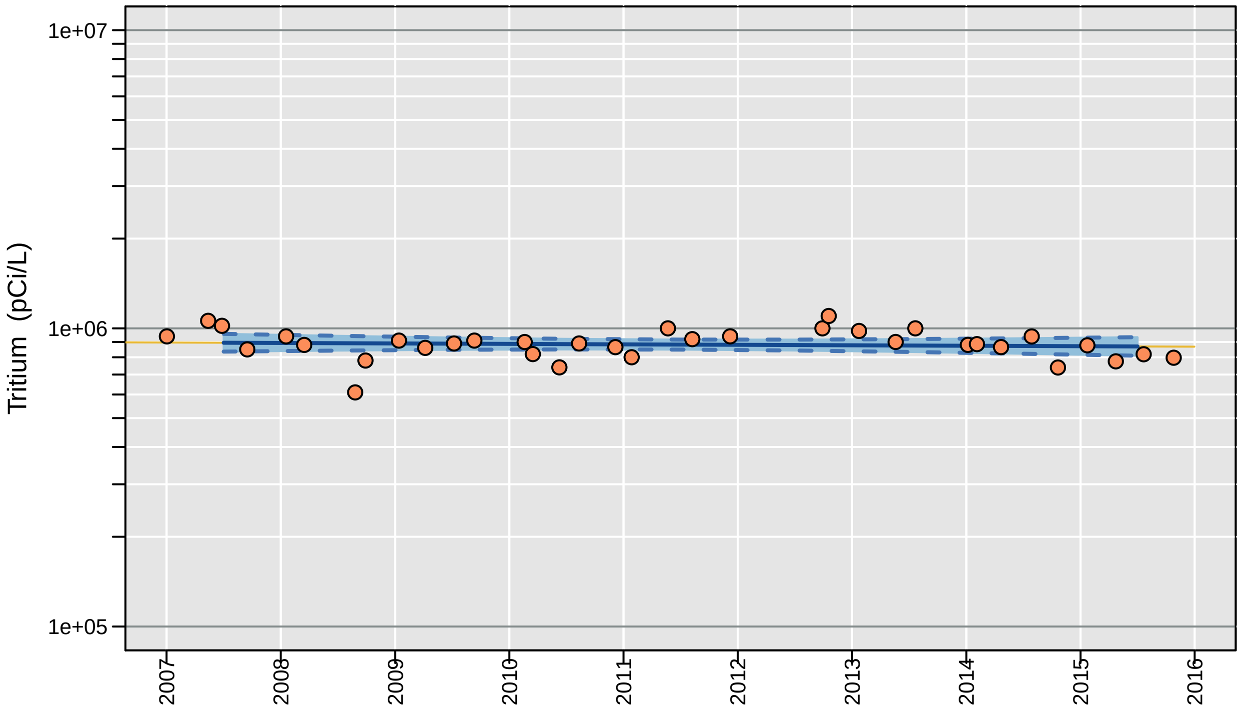
Regression Statistics for January 2015 to January 2016
Geometric Mean: 2e+05 pCi/L
UCL: 210,000 pCi/L
LCL: 2e+05 pCi/L

699−13−3A

Distance to River: 5630 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.0071
Number of Comparisons:	35
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −9.8e−06 (+/− 2e−05)*Date + 14 (+/− 0.3)
R^2 = 0.0071

Regression Statistics for January 2015 to January 2016
Geometric Mean : 870,000 pCi/L

Regression Statistics for January 2015 to January 2016
Geometric Mean: 870,000 pCi/L
UCL: 940,000 pCi/L
LCL: 8e+05 pCi/L

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Uranium

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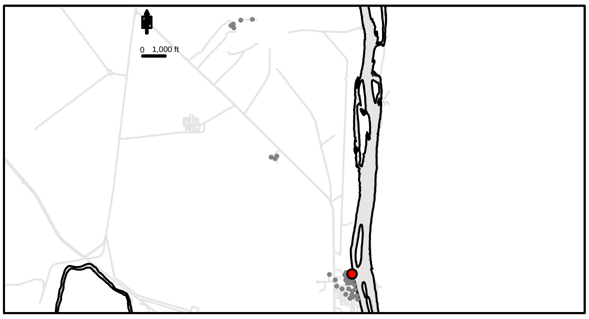
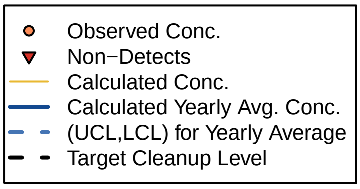
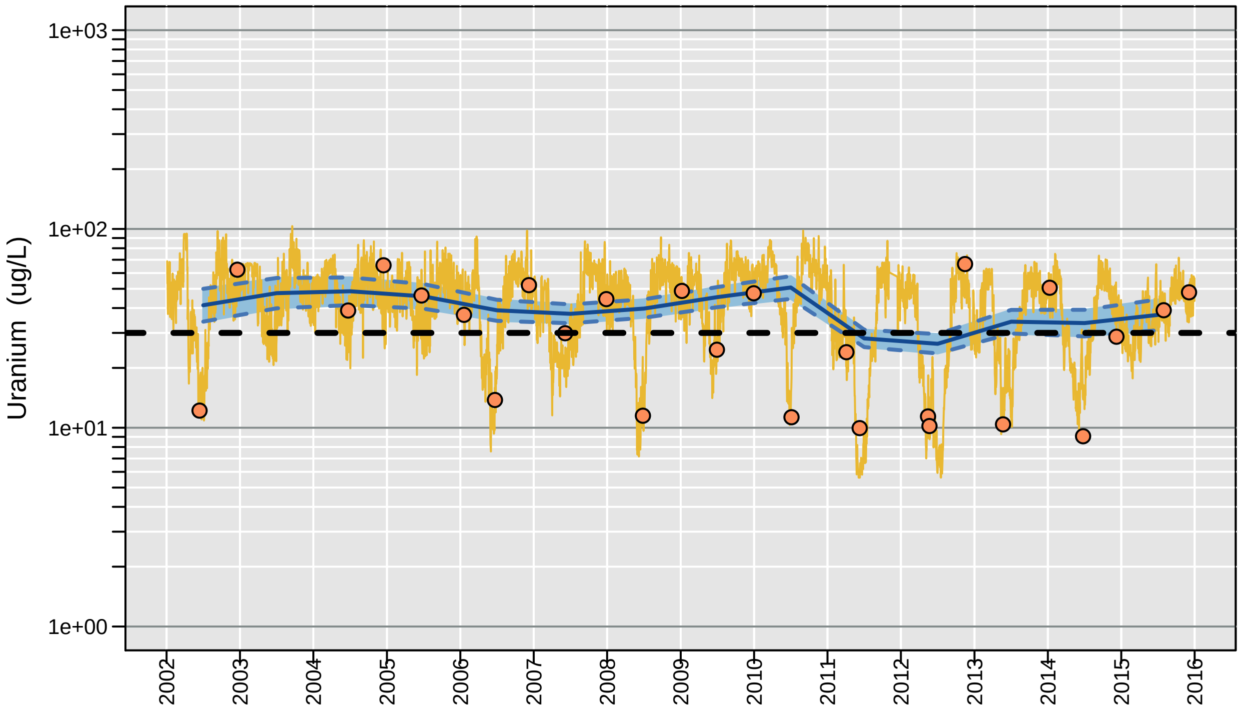
399−1−1

Distance to River: 76 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	3
Max. Correlation (R2):	0.9
Number of Comparisons:	26
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = −0.81 (+/− 0.055)*River Stage + −3.4e−05 (+/− 3.1e−05)*Date + 90 (+/− 5.7)
R^2 = 0.9

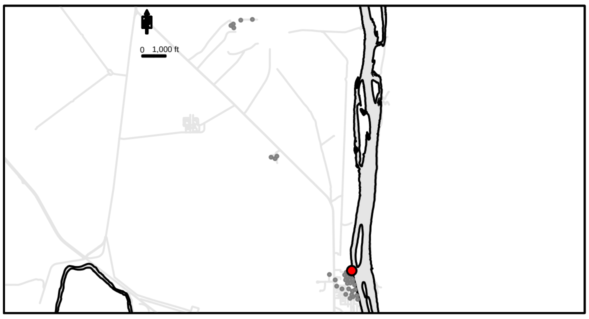
Regression Statistics for January 2015 to January 2016
Geometric Mean : 37 ug/L

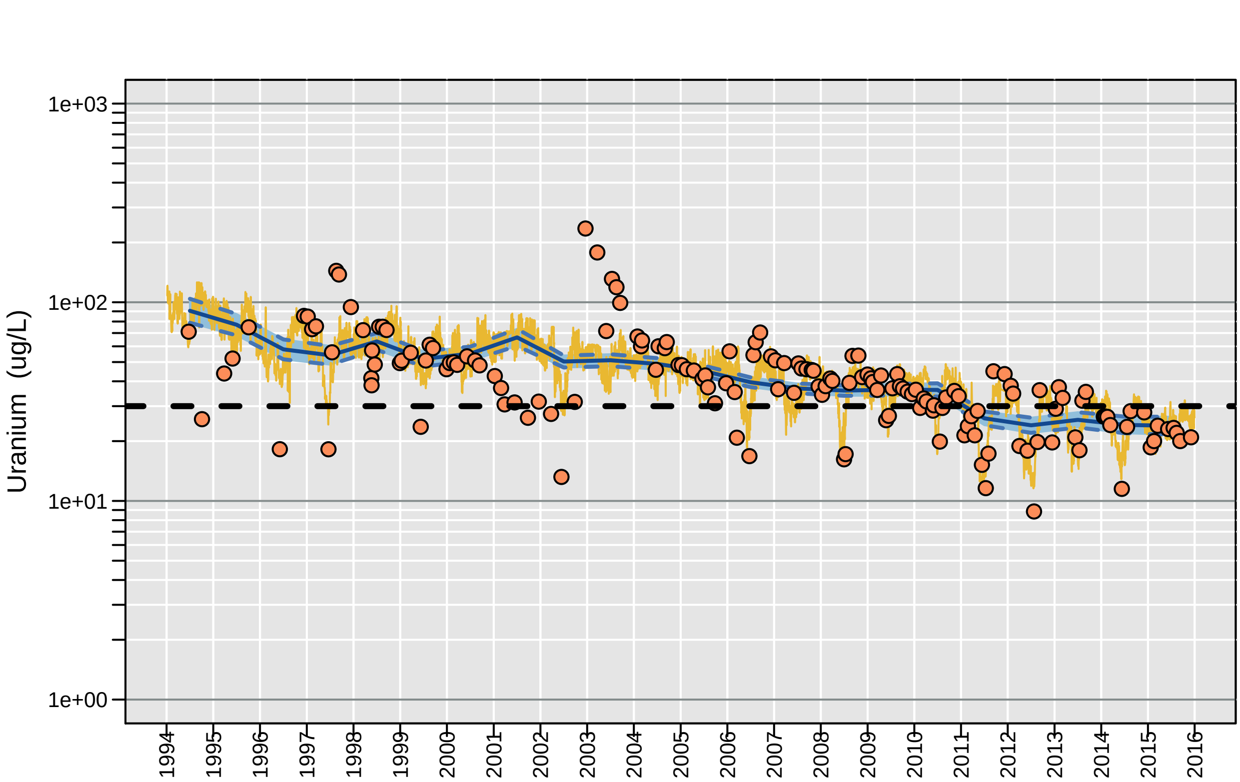
Regression Statistics for January 2015 to January 2016
Geometric Mean: 37 ug/L
UCL: 45 ug/L
LCL: 30 ug/L

399−1−10A

Distance to River: 70 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	5
Max. Correlation (R2):	0.54
Number of Comparisons:	161
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.38 (+/− 0.044)*River Stage + −0.00016 (+/− 1.4e−05)*Date + 46 (+/− 4.7)
R^2 = 0.54

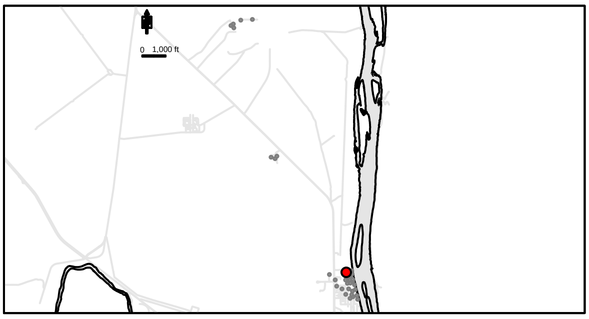
Regression Statistics for January 2015 to January 2016
Geometric Mean : 24 ug/L

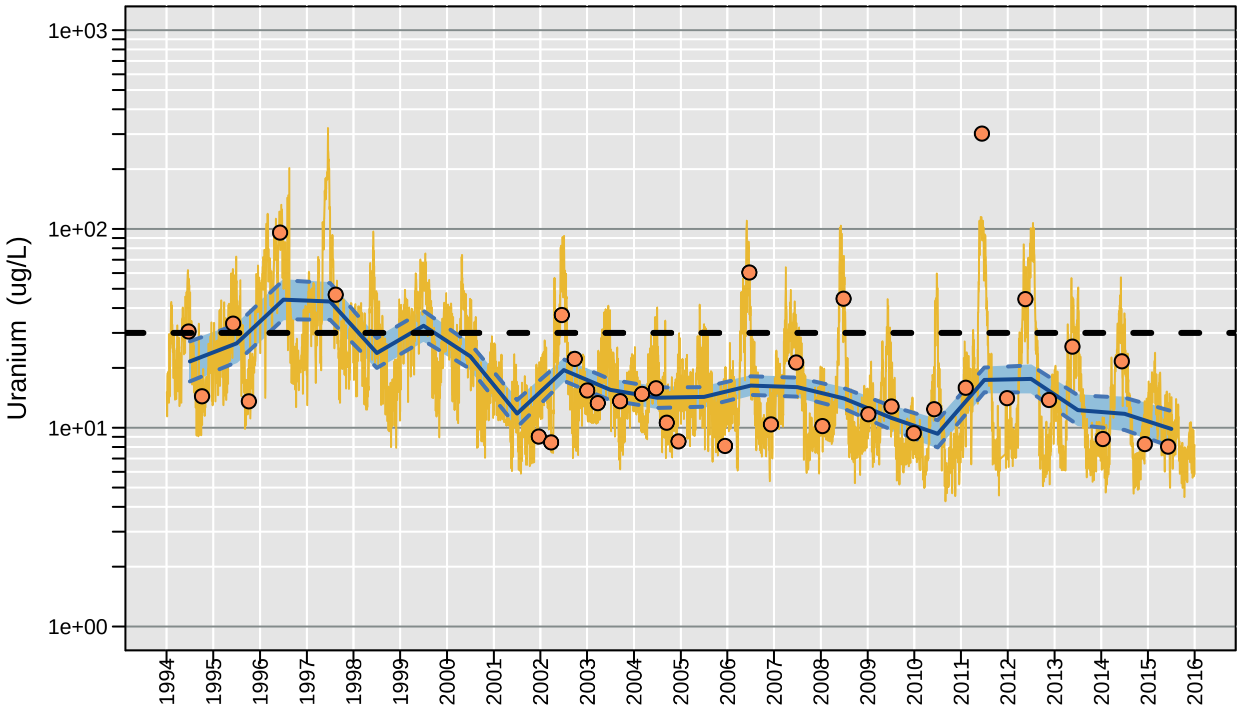
Regression Statistics for January 2015 to January 2016
Geometric Mean: 24 ug/L
UCL: 27 ug/L
LCL: 21 ug/L

399−1−11

Distance to River: 314 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	2
Max. Correlation (R2):	0.83
Number of Comparisons:	37
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.95 (+/− 0.071)*River Stage + −0.00013 (+/− 2.4e−05)*Date + −95 (+/− 7.4)
R^2 = 0.83

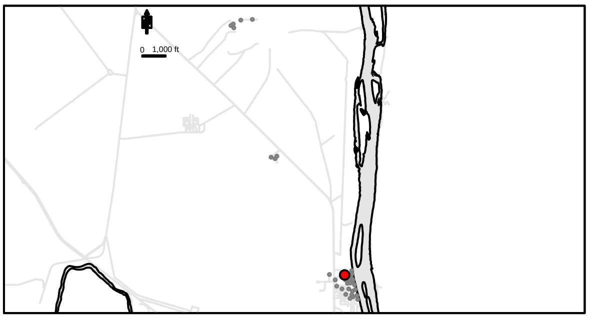
Regression Statistics for January 2015 to January 2016
Geometric Mean : 9.9 ug/L

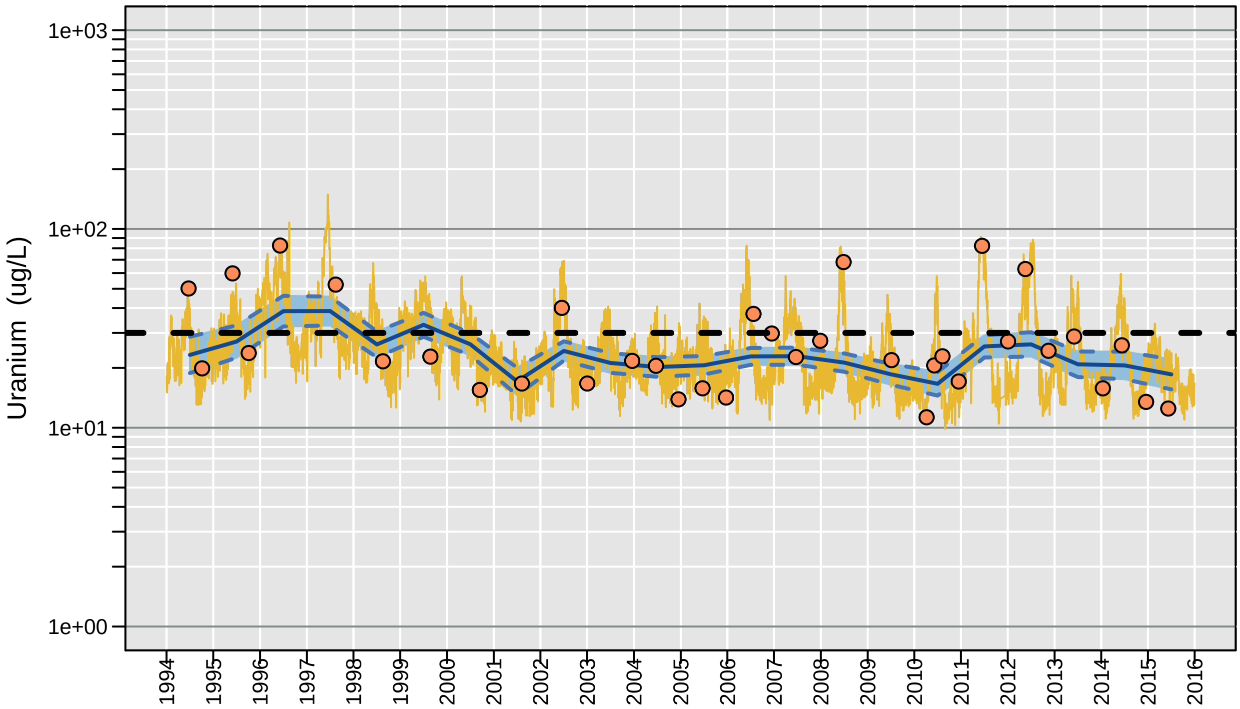
Regression Statistics for January 2015 to January 2016
Geometric Mean: 9.9 ug/L
UCL: 13 ug/L
LCL: 7.8 ug/L

399−1−12

Distance to River: 398 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.73
Number of Comparisons:	36
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.64 (+/− 0.067)*River Stage + −4.8e−05 (+/− 2e−05)*Date + −63 (+/− 7.1)
R^2 = 0.73

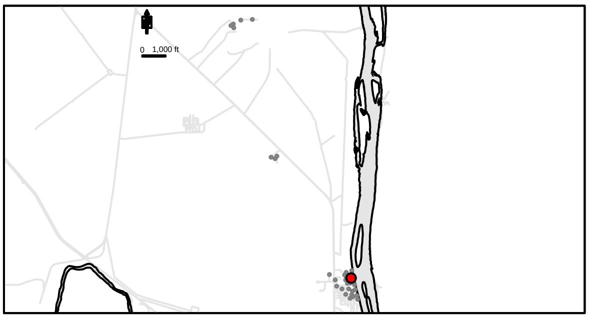
Regression Statistics for January 2015 to January 2016
Geometric Mean : 19 ug/L

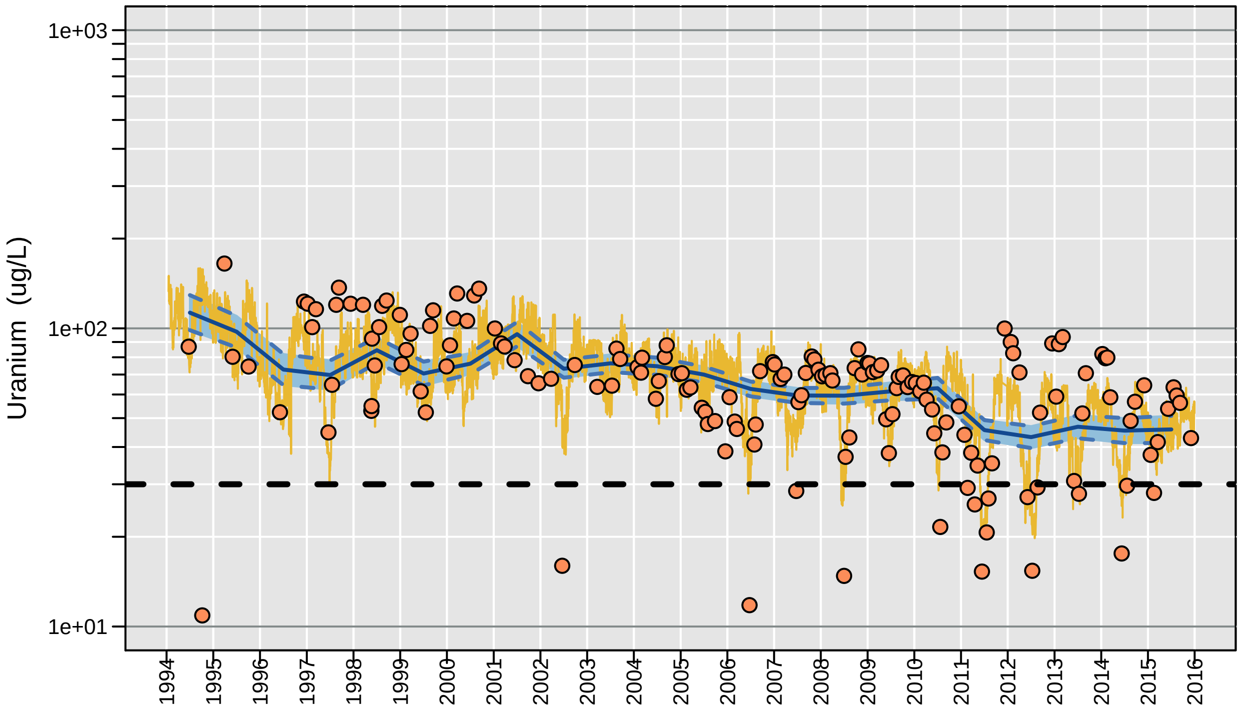
Regression Statistics for January 2015 to January 2016
Geometric Mean: 19 ug/L
UCL: 23 ug/L
LCL: 15 ug/L

399−1−16A

Distance to River: 141 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	15
Max. Correlation (R2):	0.48
Number of Comparisons:	160
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.4 (+/− 0.043)*River Stage + −1e−04 (+/− 1.4e−05)*Date + 48 (+/− 4.5)
R^2 = 0.48

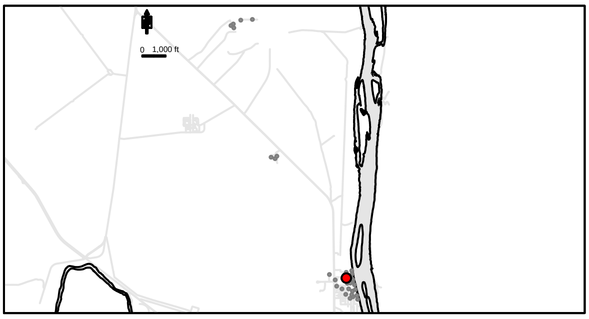
Regression Statistics for January 2015 to January 2016
Geometric Mean : 46 ug/L

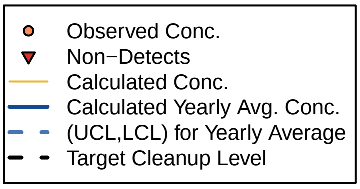
Regression Statistics for January 2015 to January 2016
Geometric Mean: 46 ug/L
UCL: 52 ug/L
LCL: 41 ug/L

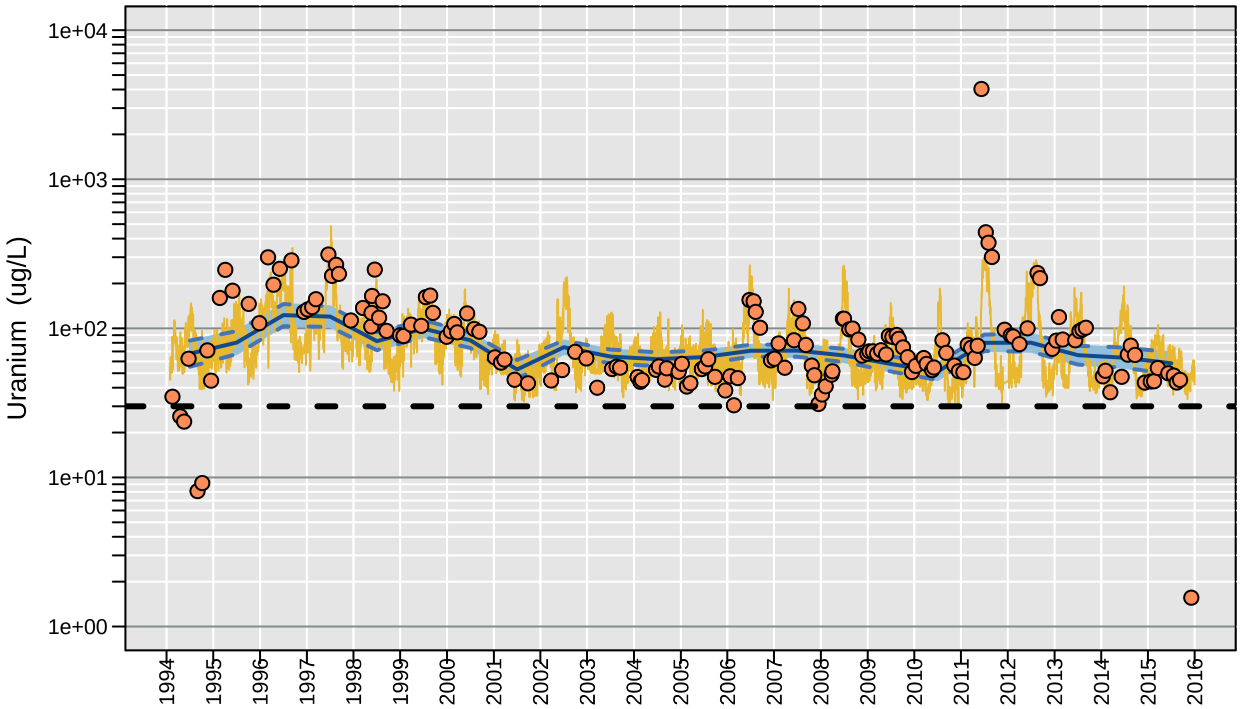
399−1−17A

Distance to River: 344 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	26
Max. Correlation (R2):	0.37
Number of Comparisons:	167
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.66 (+/− 0.069)*River Stage + −4.6e−05 (+/− 2e−05)*Date + −64 (+/− 7.3)
R^2 = 0.37

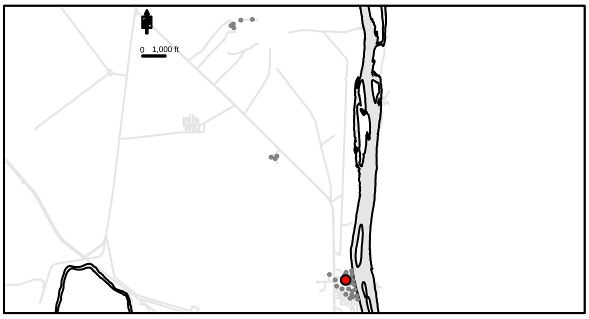
Regression Statistics for January 2015 to January 2016
Geometric Mean : 58 ug/L

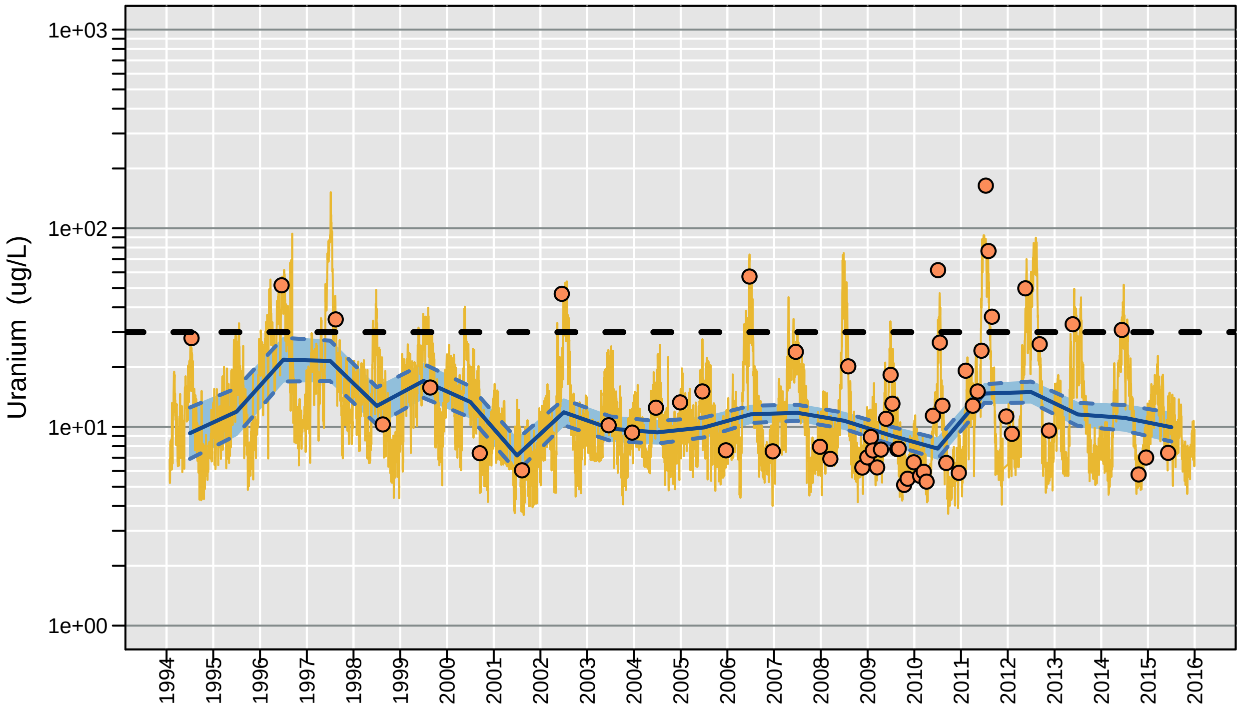
Regression Statistics for January 2015 to January 2016
Geometric Mean: 58 ug/L
UCL: 71 ug/L
LCL: 48 ug/L

399−1−2

Distance to River: 386 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	24
Max. Correlation (R2):	0.81
Number of Comparisons:	60
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.92 (+/− 0.058)*River Stage + −2.8e−05 (+/− 2.7e−05)*Date + −94 (+/− 6.1)
R^2 = 0.81

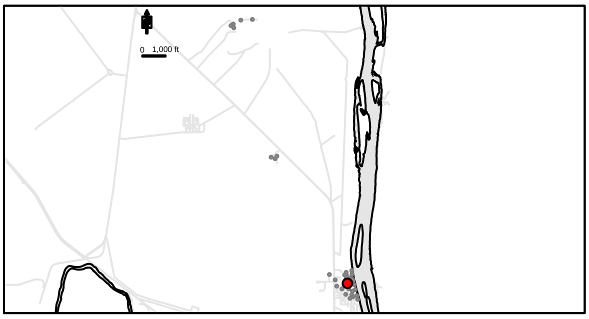
Regression Statistics for January 2015 to January 2016
Geometric Mean : 10 ug/L

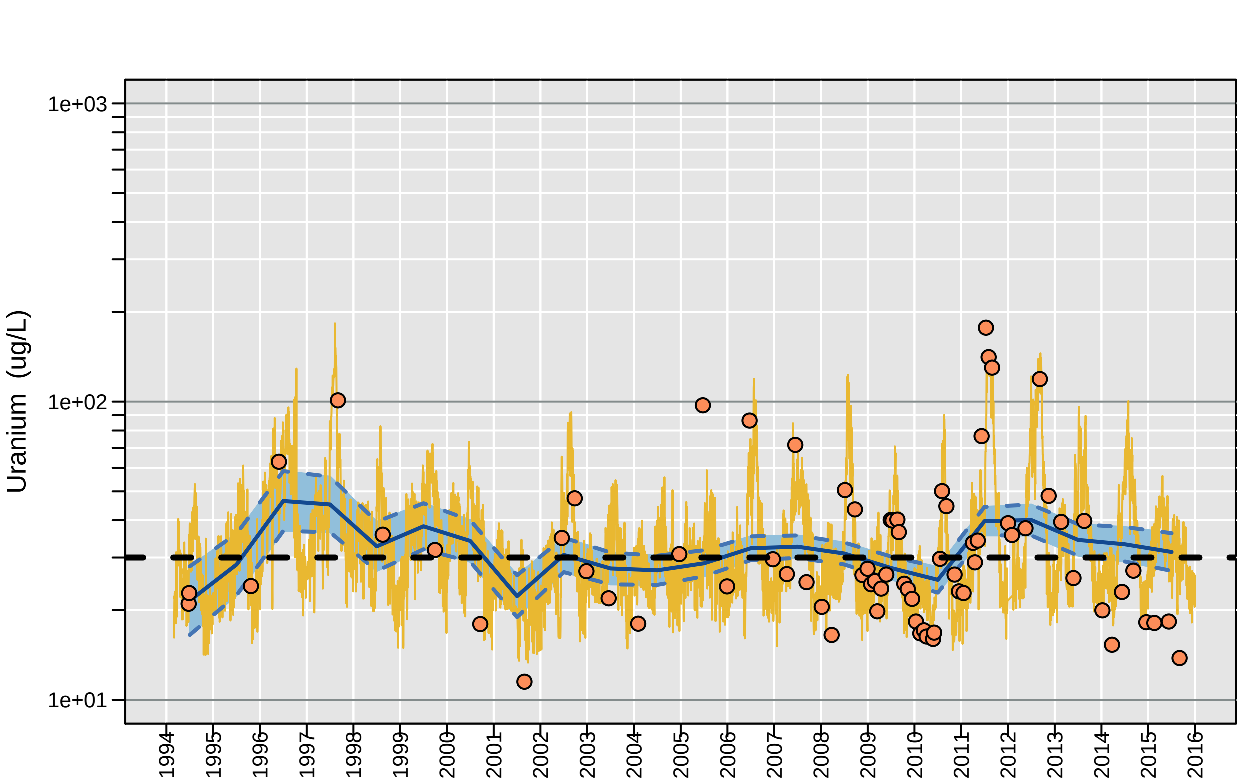
Regression Statistics for January 2015 to January 2016
Geometric Mean: 10 ug/L
UCL: 12 ug/L
LCL: 8.2 ug/L

399−1−21A

Distance to River: 340 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	58
Max. Correlation (R2):	0.59
Number of Comparisons:	75
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.65 (+/− 0.063)*River Stage + 6.3e−06 (+/− 2.3e−05)*Date + −65 (+/− 6.6)
R^2 = 0.59

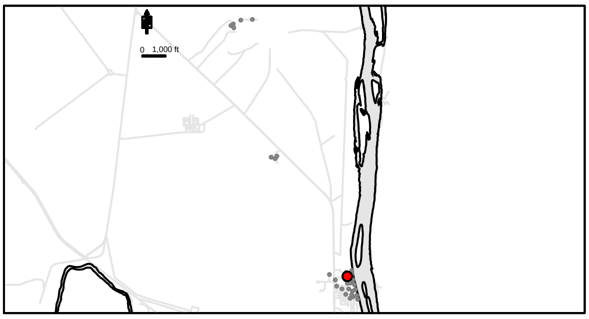
Regression Statistics for January 2015 to January 2016
Geometric Mean : 31 ug/L

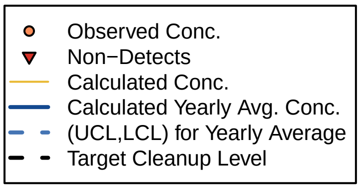
Regression Statistics for January 2015 to January 2016
Geometric Mean: 31 ug/L
UCL: 37 ug/L
LCL: 27 ug/L

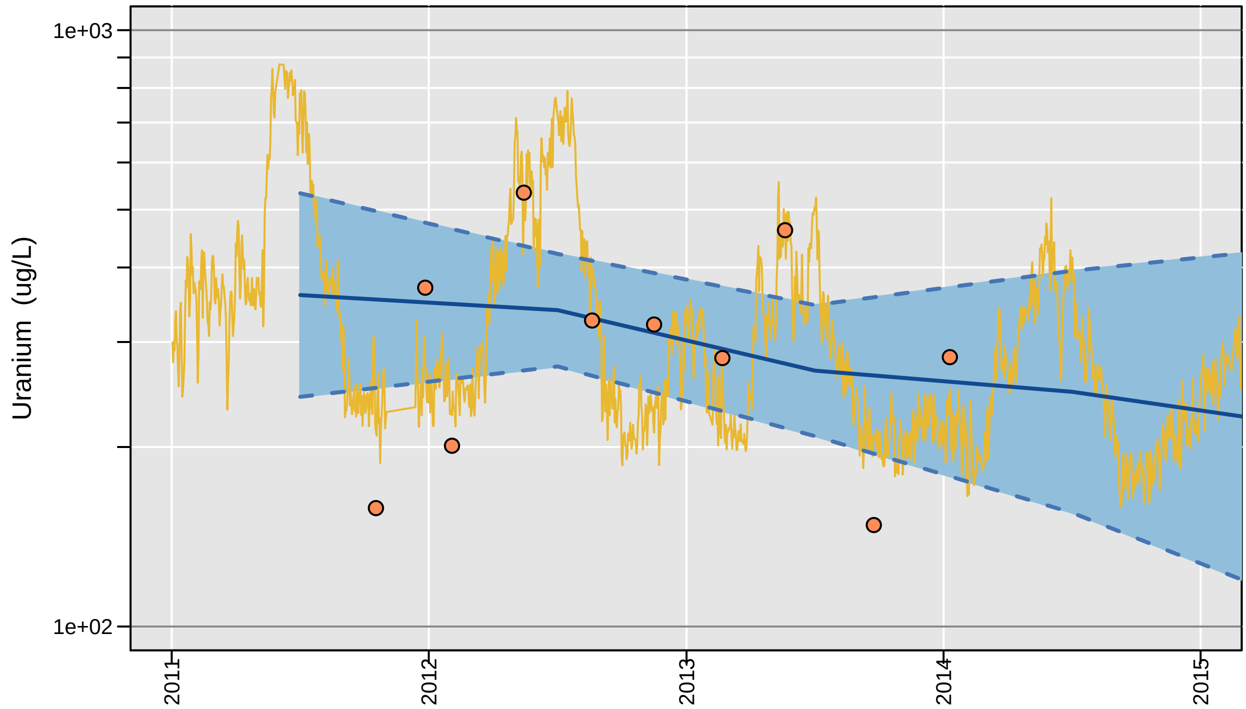
399−1−55

Distance to River: 295 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.67
Number of Comparisons:	10
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.44 (+/− 0.099)*River Stage + −0.00023 (+/− 0.00028)*Date + −38 (+/− 11)
R^2 = 0.67

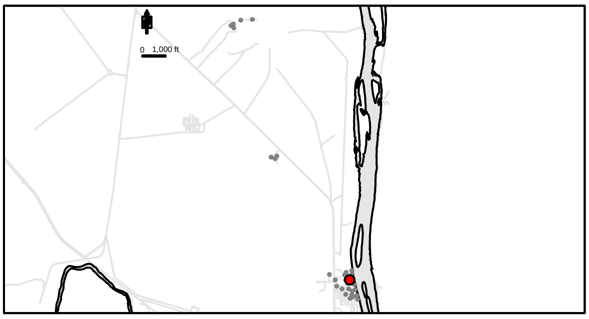
Regression Statistics for January 2015 to January 2016
Geometric Mean : 210 ug/L

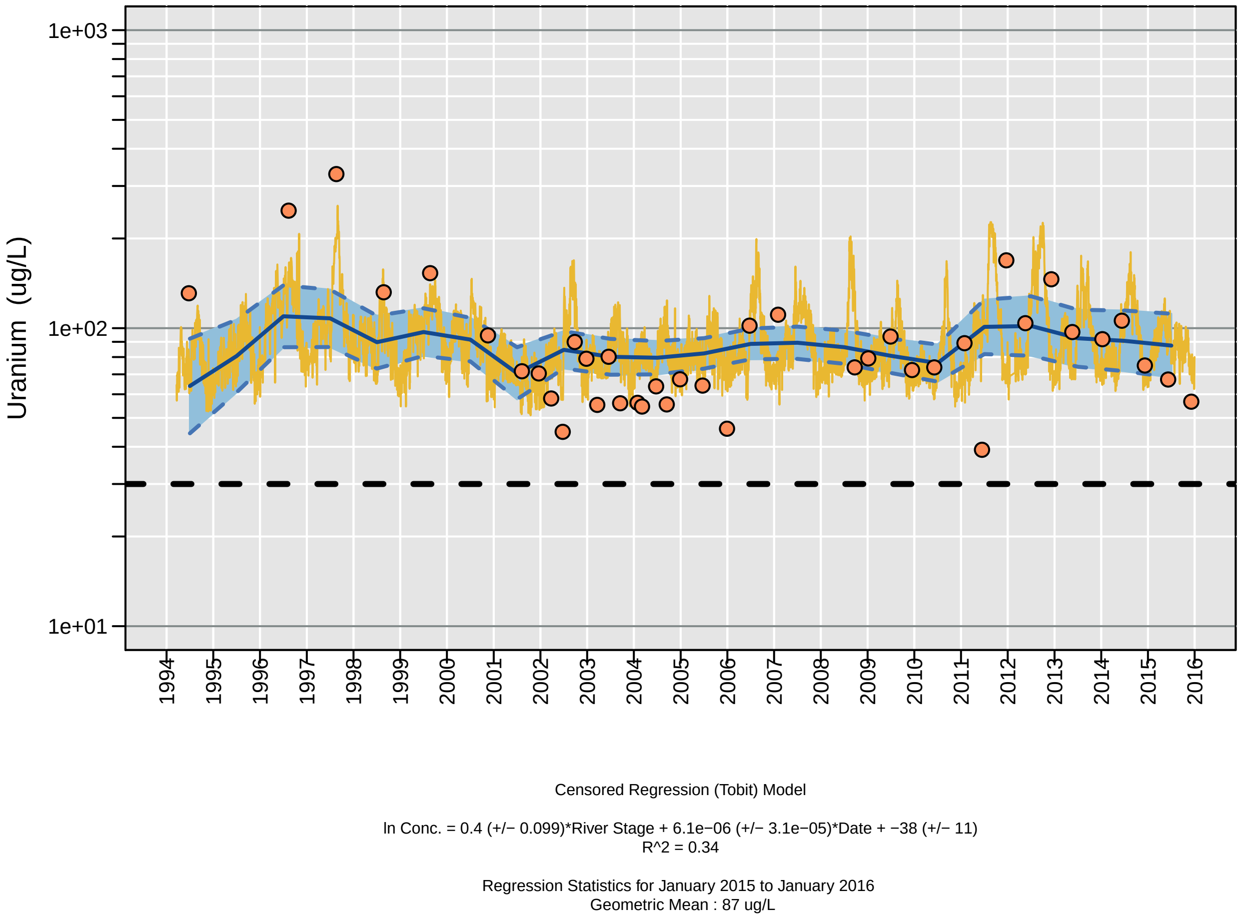
Regression Statistics for January 2015 to January 2016
Geometric Mean: 210 ug/L
UCL: 510 ug/L
LCL: 90 ug/L

399−1−7

Distance to River: 209 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	78
Max. Correlation (R2):	0.34
Number of Comparisons:	40
Percent NDs:	0%



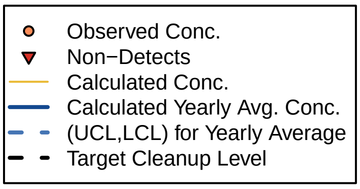


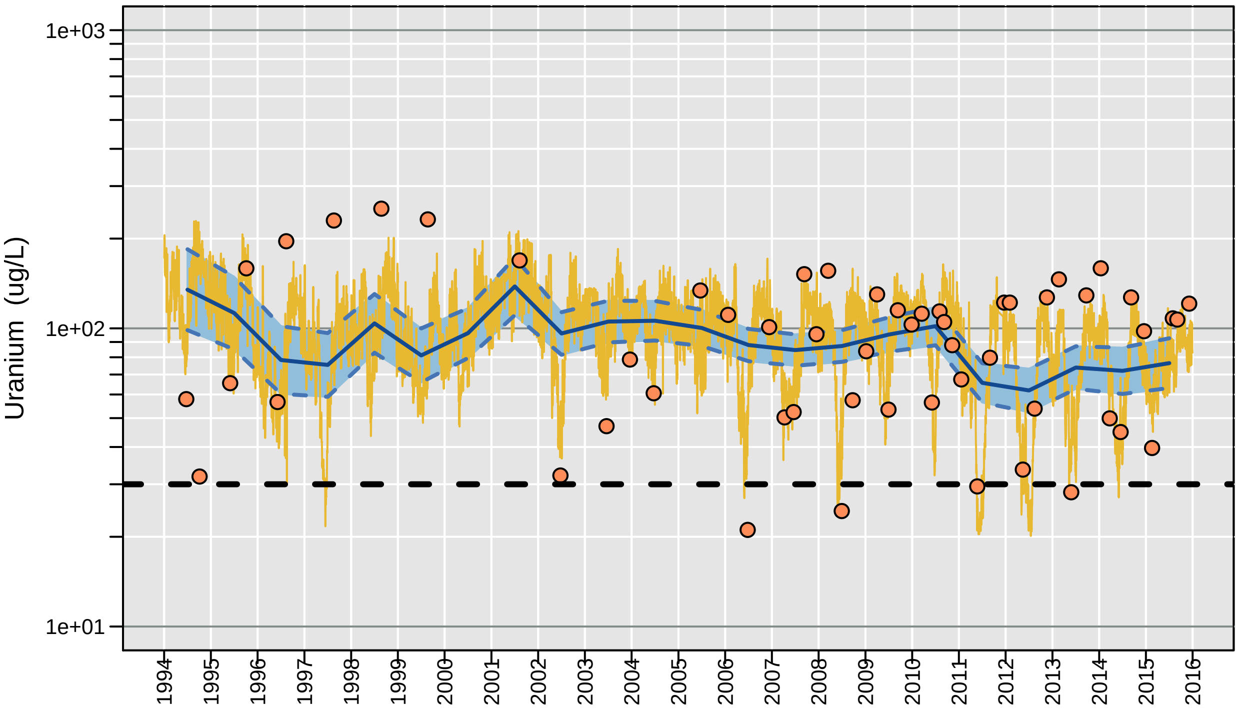
Regression Statistics for January 2015 to January 2016
Geometric Mean: 87 ug/L
UCL: 120 ug/L
LCL: 66 ug/L

399−2−1

Distance to River: 57 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.45
Number of Comparisons:	55
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.59 (+/− 0.088)*River Stage + −5.7e−05 (+/− 2.7e−05)*Date + 67 (+/− 9.3)
R^2 = 0.45

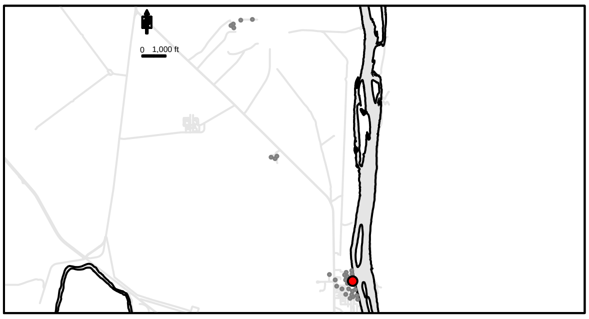
Regression Statistics for January 2015 to January 2016
Geometric Mean : 76 ug/L

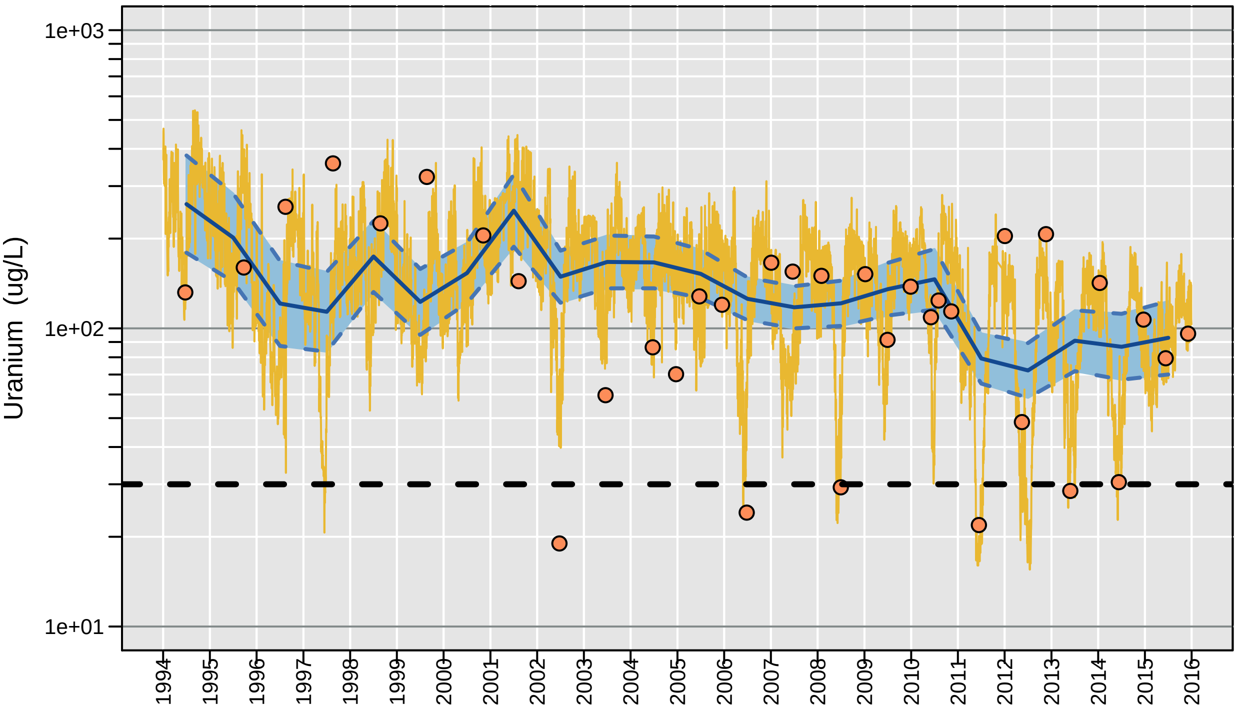
Regression Statistics for January 2015 to January 2016
Geometric Mean: 76 ug/L
UCL: 95 ug/L
LCL: 61 ug/L

399−2−2

Distance to River: 98 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.65
Number of Comparisons:	35
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.8 (+/− 0.11)*River Stage + −0.00011 (+/− 3.5e−05)*Date + 91 (+/− 12)
R^2 = 0.65

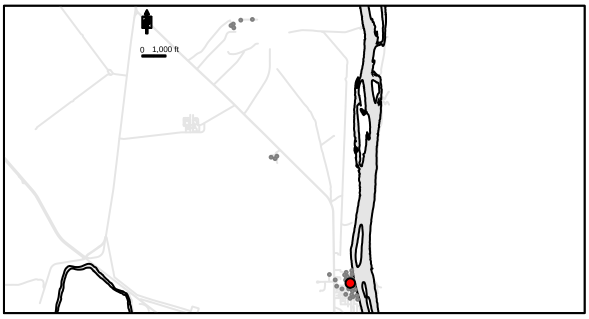
Regression Statistics for January 2015 to January 2016
Geometric Mean : 93 ug/L

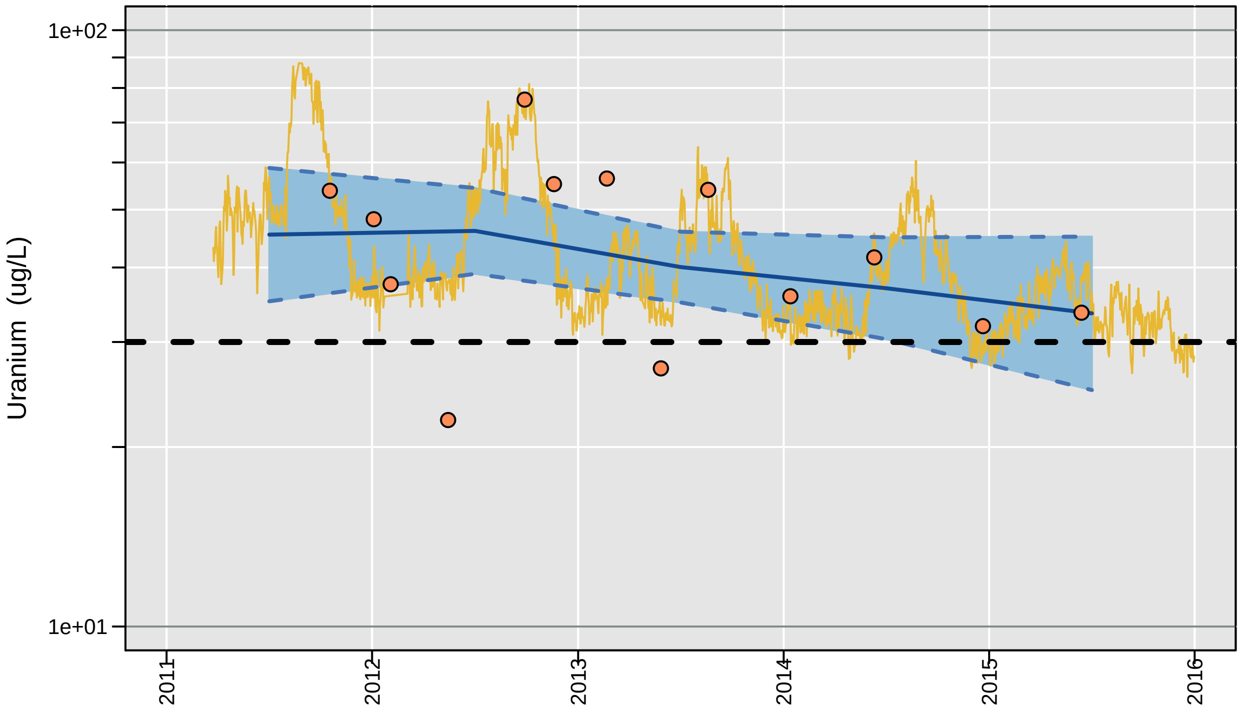
Regression Statistics for January 2015 to January 2016
Geometric Mean: 93 ug/L
UCL: 130 ug/L
LCL: 67 ug/L

399−2−32

Distance to River: 217 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	83
Max. Correlation (R2):	0.59
Number of Comparisons:	13
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.3 (+/− 0.074)*River Stage + −0.00018 (+/− 0.00015)*Date + −25 (+/− 8.3)
R^2 = 0.59

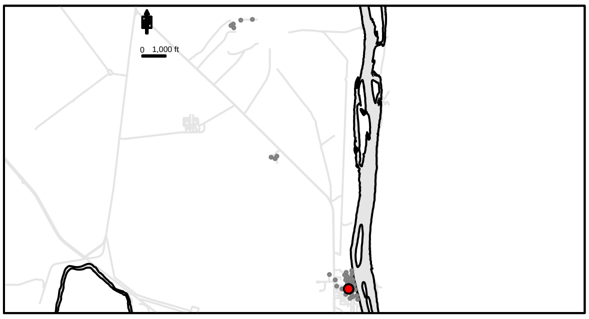
Regression Statistics for January 2015 to January 2016
Geometric Mean : 34 ug/L

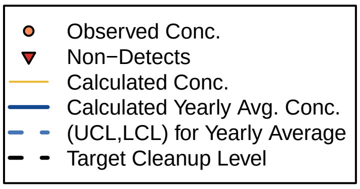
Regression Statistics for January 2015 to January 2016
Geometric Mean: 34 ug/L
UCL: 48 ug/L
LCL: 24 ug/L

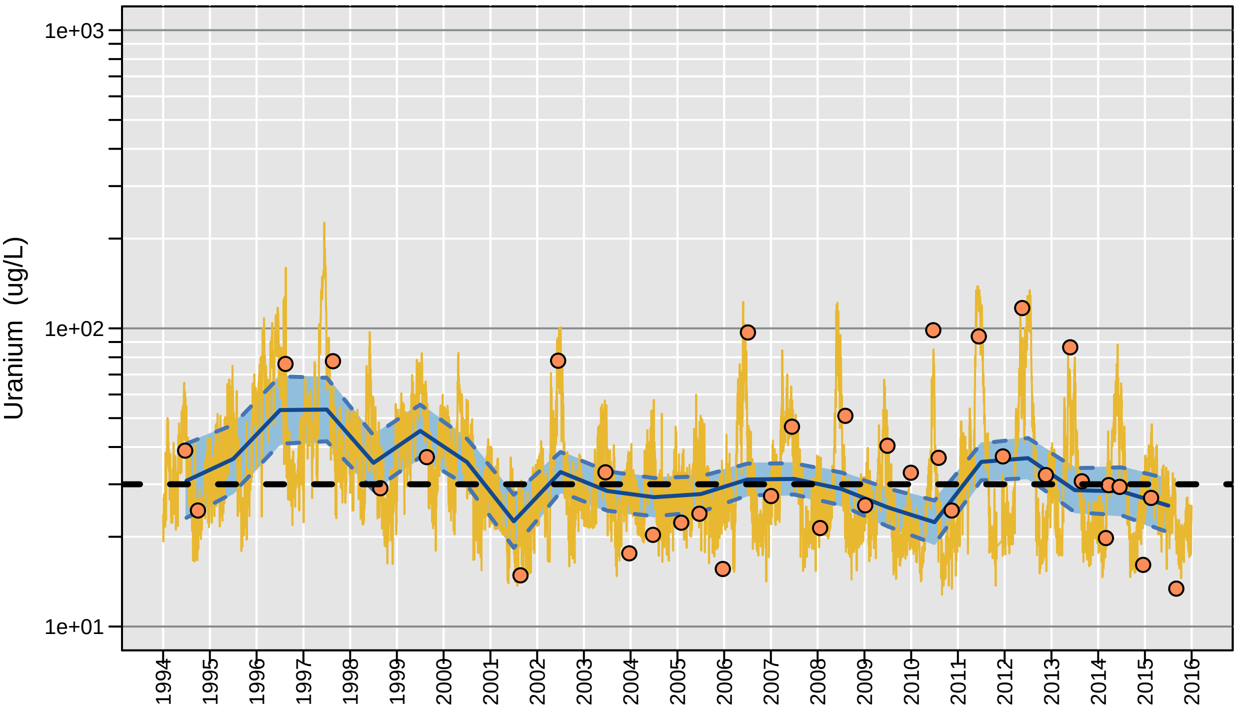
399−3−12

Distance to River: 344 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	0
Max. Correlation (R2):	0.64
Number of Comparisons:	37
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.68 (+/− 0.084)*River Stage + −4.5e−05 (+/− 2.7e−05)*Date + −68 (+/− 8.8)
R^2 = 0.64

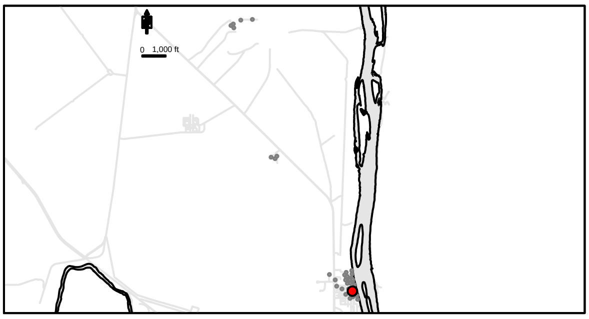
Regression Statistics for January 2015 to January 2016
Geometric Mean : 25 ug/L

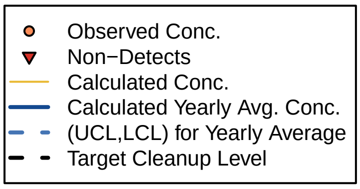
Regression Statistics for January 2015 to January 2016
Geometric Mean: 25 ug/L
UCL: 32 ug/L
LCL: 20 ug/L

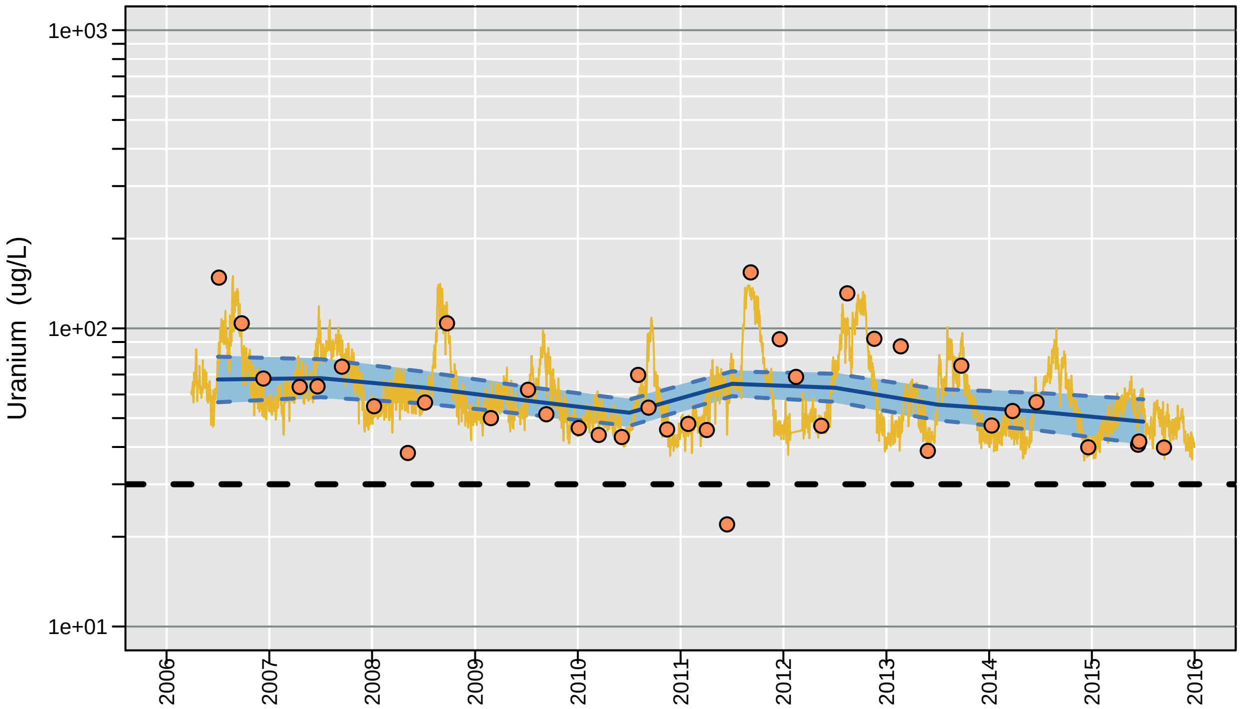
399−3−20

Distance to River: 210 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	87
Max. Correlation (R2):	0.57
Number of Comparisons:	38
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.38 (+/− 0.058)*River Stage + −1e−04 (+/− 4.5e−05)*Date + −35 (+/− 6.2)
R^2 = 0.57

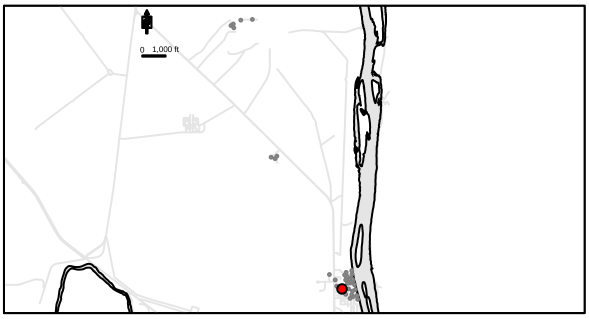
Regression Statistics for January 2015 to January 2016
Geometric Mean : 49 ug/L

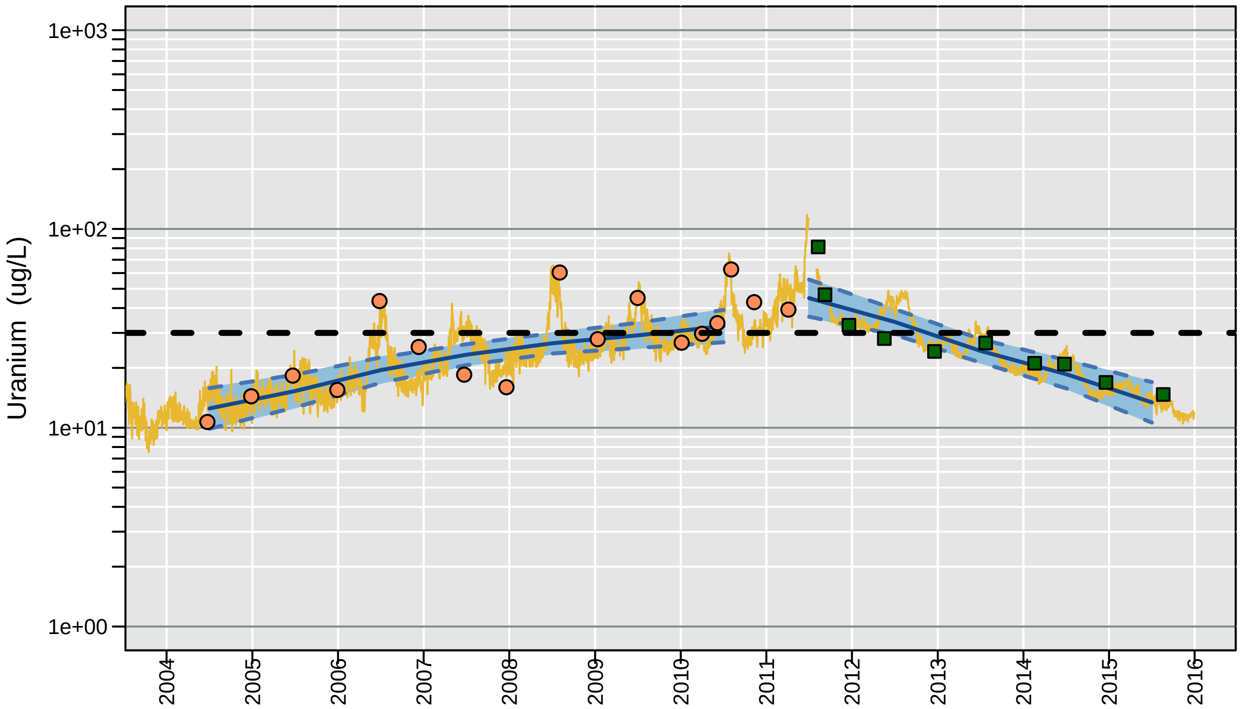
Regression Statistics for January 2015 to January 2016
Geometric Mean: 49 ug/L
UCL: 59 ug/L
LCL: 40 ug/L

399−3−6

Distance to River: 623 m
Number of Trends Calculated: 2

	Trend 1	Conc. 2
Est. Lag Time (days):	32	32
Max. Correlation (R2):	0.82	0.89
Number of Comparisons:	17	10
Percent NDs:	0%	0%





Censored Regression (Tobit) Model

ln Conc. = 0.2 (+/− 0.063)*River Stage + −0.00076 (+/− 1e−04)*Date + −5.9 (+/− 7.3)
R^2 = 0.89

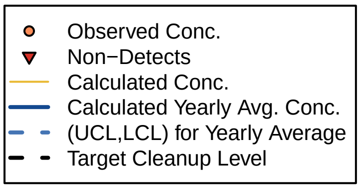
Regression Statistics for January 2015 to January 2016
Geometric Mean : 14 ug/L

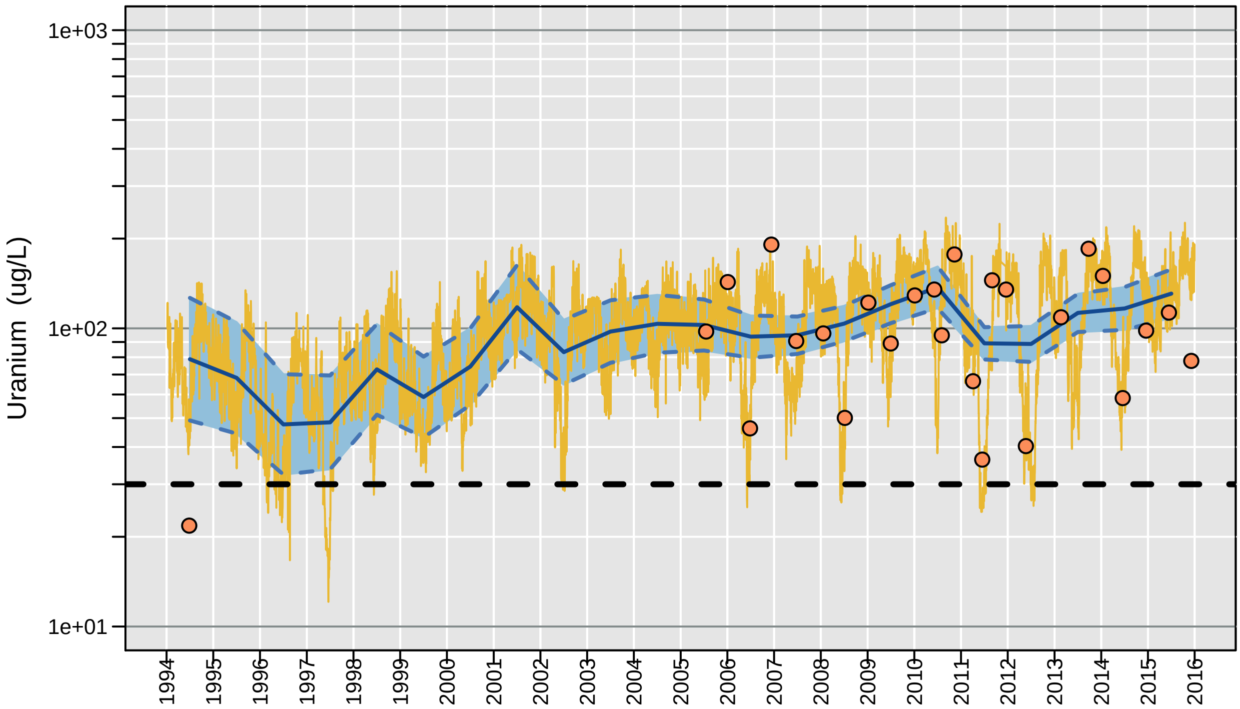
Regression Statistics for January 2015 to January 2016
Geometric Mean: 13 ug/L
UCL: 18 ug/L
LCL: 10 ug/L

399−3−9

Distance to River: 68 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	6
Max. Correlation (R2):	0.72
Number of Comparisons:	26
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.65 (+/− 0.091)*River Stage + 8.6e−05 (+/− 3.6e−05)*Date + 72 (+/− 9.7)
R^2 = 0.72

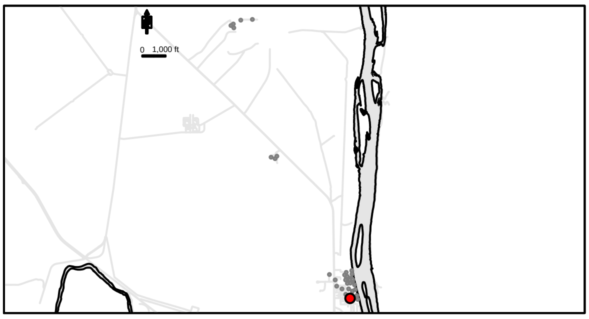
Regression Statistics for January 2015 to January 2016
Geometric Mean : 130 ug/L

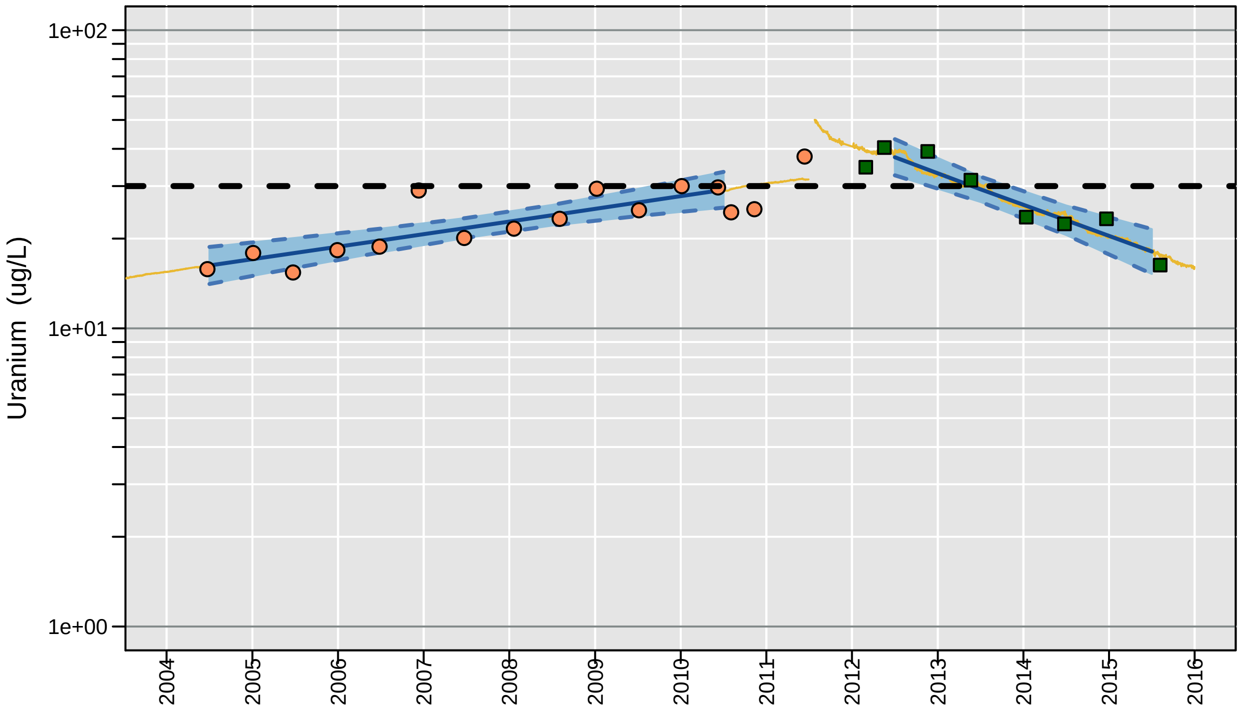
Regression Statistics for January 2015 to January 2016
Geometric Mean: 130 ug/L
UCL: 160 ug/L
LCL: 110 ug/L

399−4−1

Distance to River: 381 m
Number of Trends Calculated: 2

	Trend 1	Conc. 2
Est. Lag Time (days):	25	25
Max. Correlation (R2):	0.71	0.89
Number of Comparisons:	16	8
Percent NDs:	0%	0%





Censored Regression (Tobit) Model

ln Conc. = 0.038 (+/− 0.058)*River Stage + −0.00065 (+/− 8.3e−05)*Date + 9.6 (+/− 6.6)
R^2 = 0.89

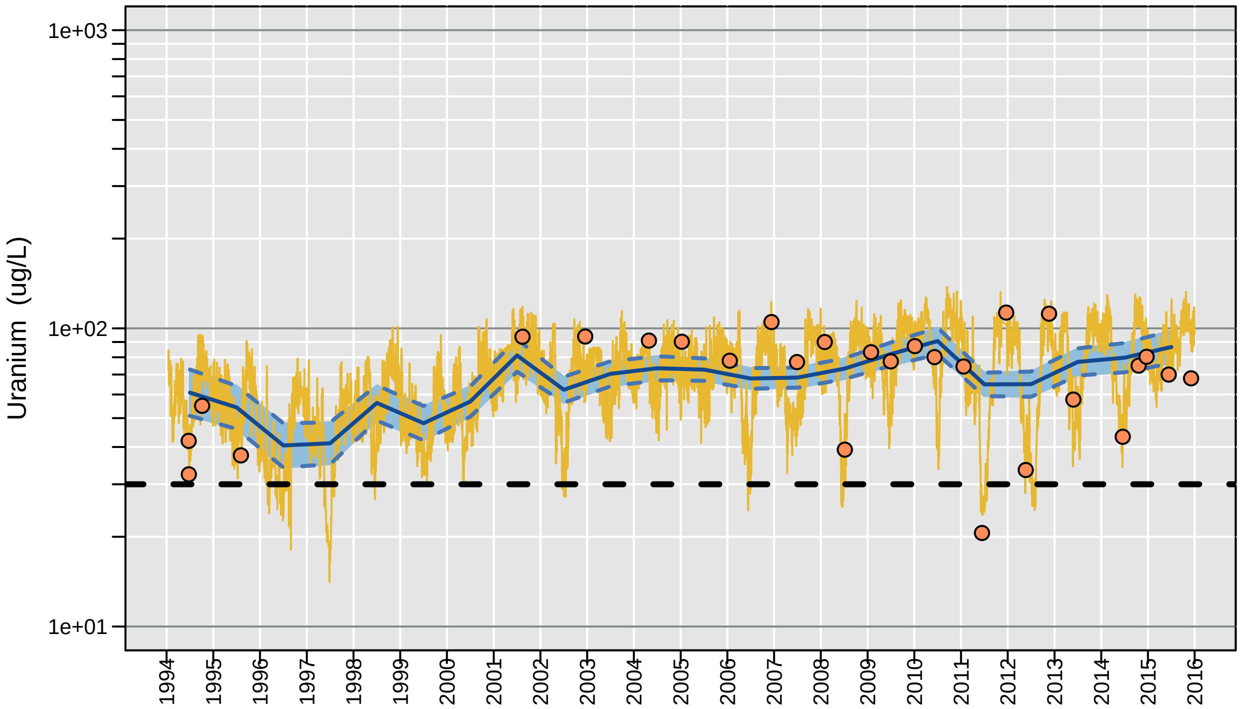
Regression Statistics for January 2015 to January 2016
Geometric Mean : 18 ug/L

Regression Statistics for January 2015 to January 2016
Geometric Mean: 18 ug/L
UCL: 23 ug/L
LCL: 15 ug/L

399−4−10

Distance to River: 69 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	14
Max. Correlation (R2):	0.78
Number of Comparisons:	28
Percent NDs:	0%



Censored Regression (Tobit) Model

ln Conc. = −0.5 (+/− 0.052)*River Stage + 6.3e−05 (+/− 1.6e−05)*Date + 57 (+/− 5.5)
R^2 = 0.78

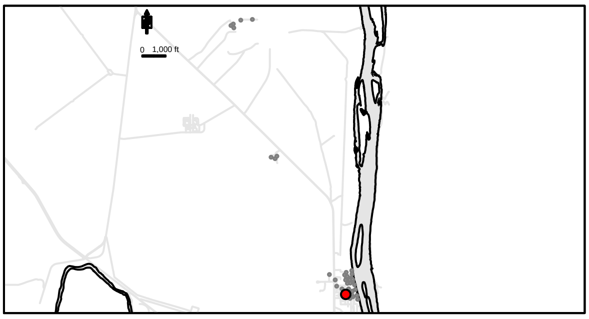
Regression Statistics for January 2015 to January 2016
Geometric Mean : 87 ug/L

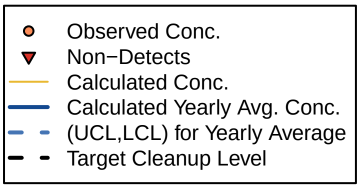
Regression Statistics for January 2015 to January 2016
Geometric Mean: 87 ug/L
UCL: 100 ug/L
LCL: 75 ug/L

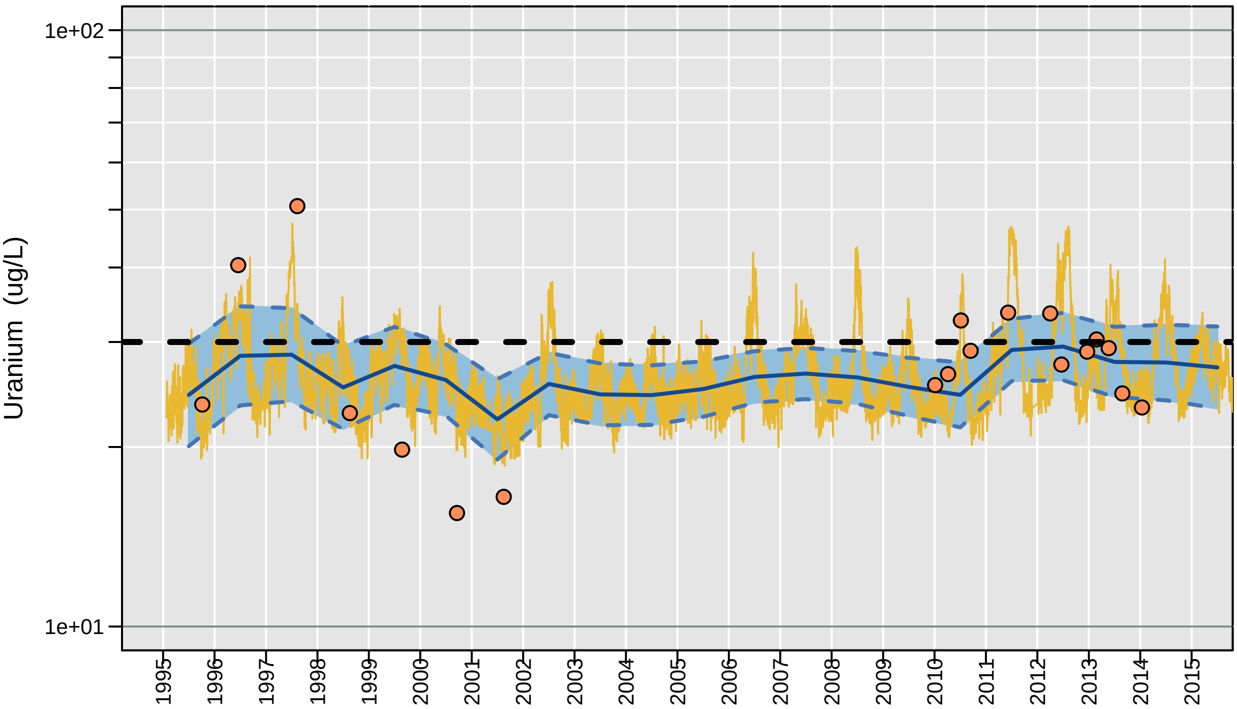
399−4−11

Distance to River: 522 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	24
Max. Correlation (R2):	0.47
Number of Comparisons:	19
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.24 (+/− 0.058)*River Stage + 1.5e−05 (+/− 1.9e−05)*Date + −22 (+/− 6.2)
R^2 = 0.47

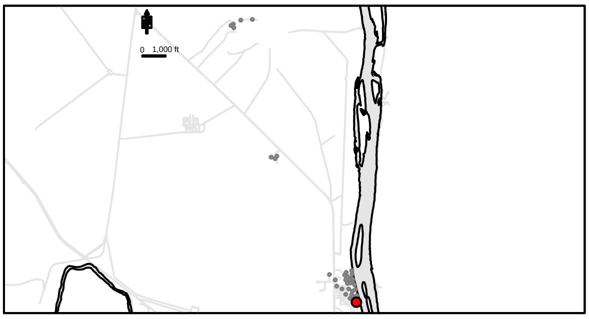
Regression Statistics for January 2015 to January 2016
Geometric Mean : 27 ug/L

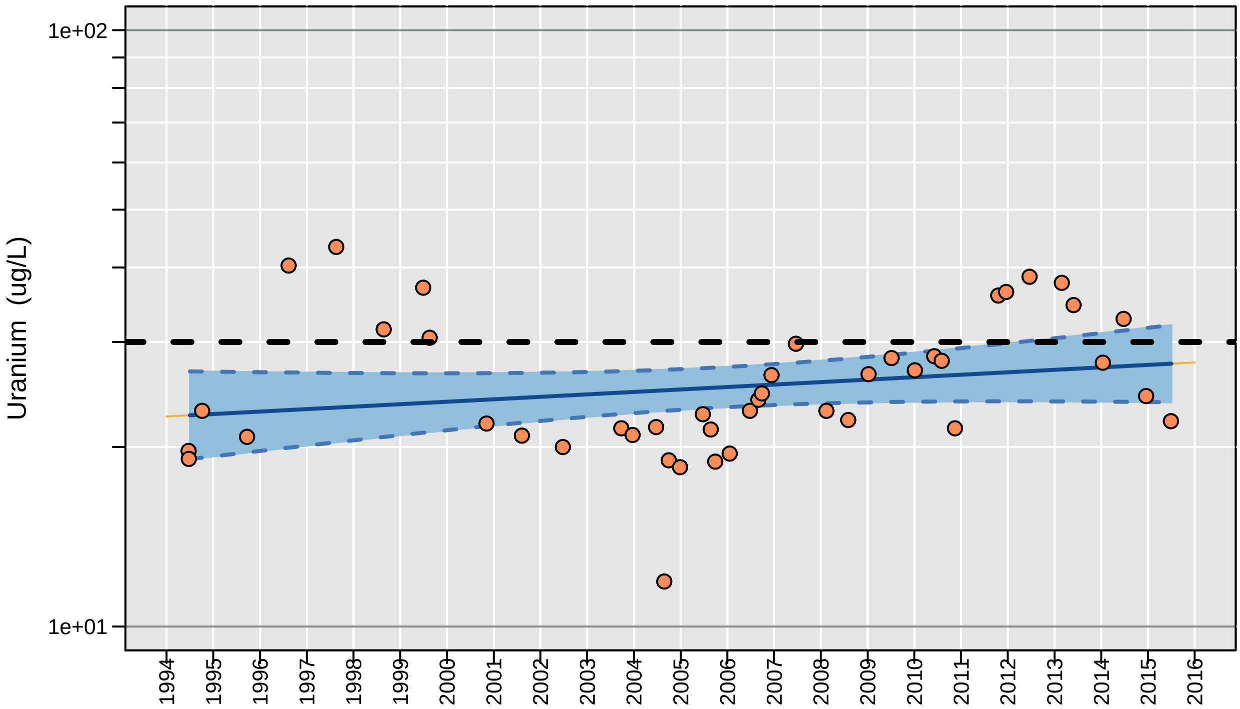
Regression Statistics for January 2015 to January 2016
Geometric Mean: 27 ug/L
UCL: 33 ug/L
LCL: 23 ug/L

399−4−12

Distance to River: 153 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.045
Number of Comparisons:	44
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 2.6e−05 (+/− 1.8e−05)*Date + 2.9 (+/− 0.24)
R^2 = 0.045

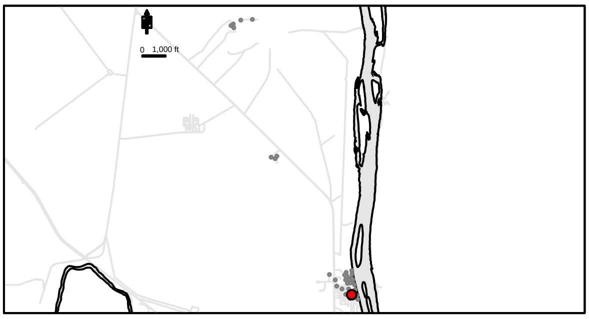
Regression Statistics for January 2015 to January 2016
Geometric Mean : 28 ug/L

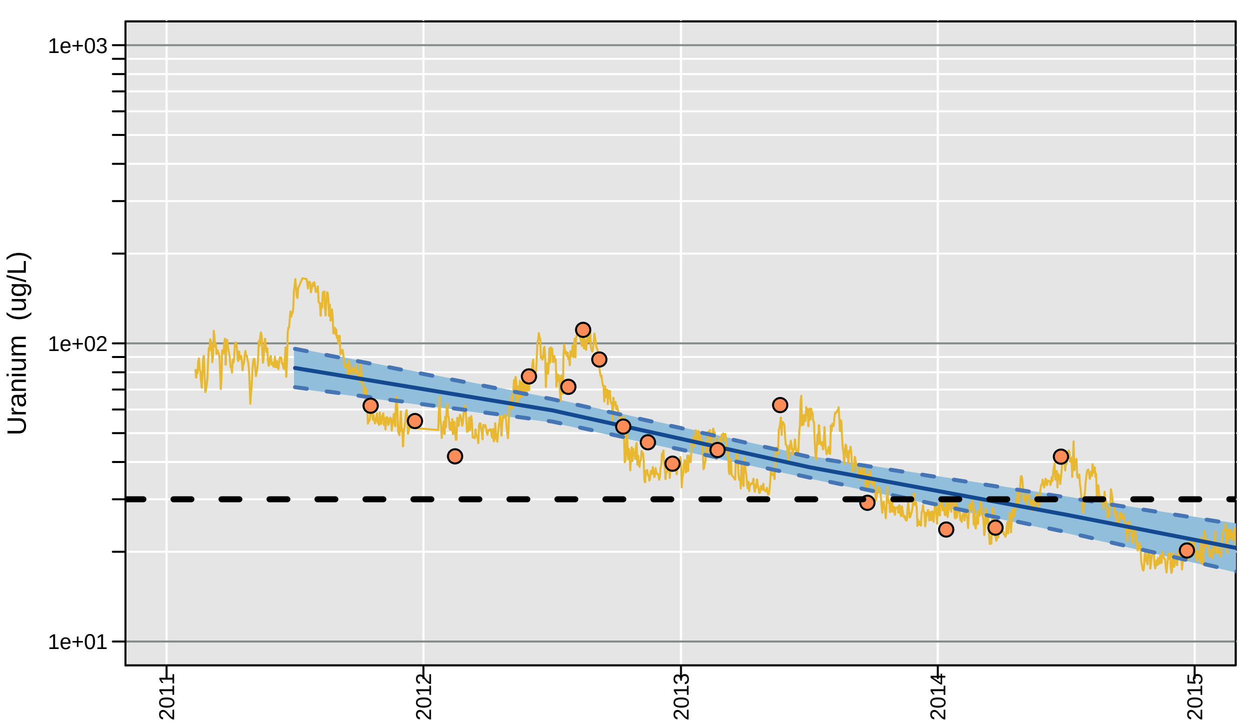
Regression Statistics for January 2015 to January 2016
Geometric Mean: 28 ug/L
UCL: 33 ug/L
LCL: 23 ug/L

399−4−15

Distance to River: 278 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	41
Max. Correlation (R2):	0.91
Number of Comparisons:	17
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.34 (+/− 0.039)*River Stage + −0.00097 (+/− 1e−04)*Date + −17 (+/− 4.5)
R^2 = 0.91

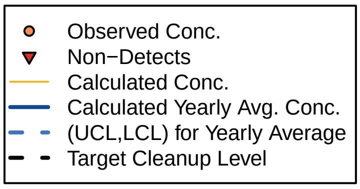
Regression Statistics for January 2015 to January 2016
Geometric Mean : 18 ug/L

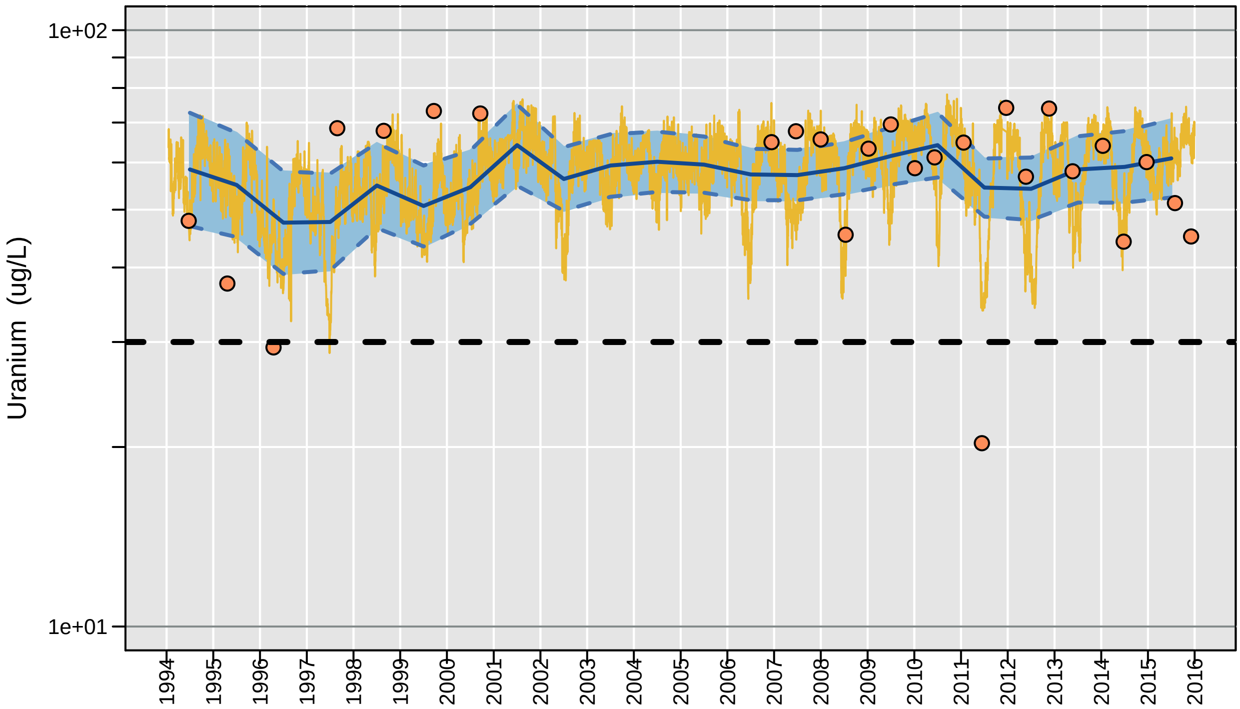
Regression Statistics for January 2015 to January 2016
Geometric Mean: 18 ug/L
UCL: 23 ug/L
LCL: 14 ug/L

399−4−7

Distance to River: 72 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	15
Max. Correlation (R2):	0.38
Number of Comparisons:	26
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.24 (+/− 0.06)*River Stage + 1.4e−05 (+/− 1.9e−05)*Date + 29 (+/− 6.3)
R^2 = 0.38

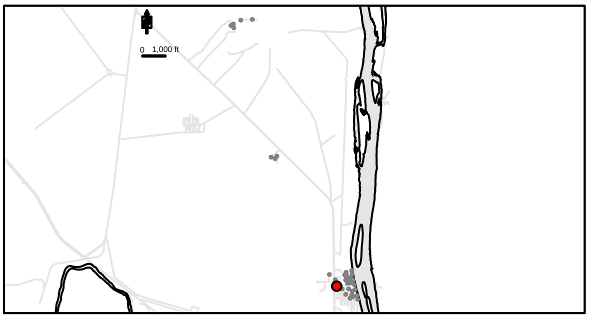
Regression Statistics for January 2015 to January 2016
Geometric Mean : 61 ug/L

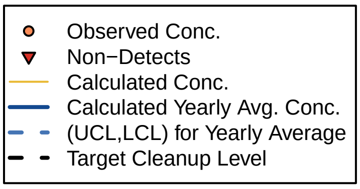
Regression Statistics for January 2015 to January 2016
Geometric Mean: 61 ug/L
UCL: 73 ug/L
LCL: 51 ug/L

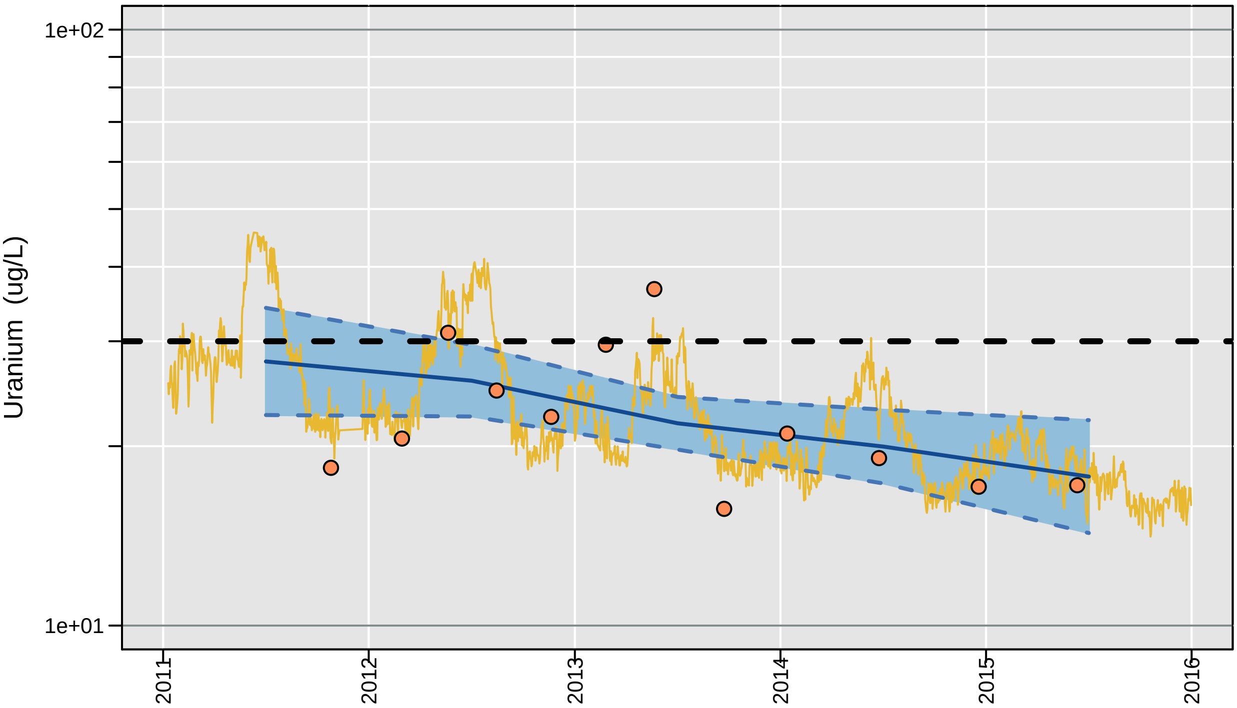
399−6−3

Distance to River: 819 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	9
Max. Correlation (R2):	0.64
Number of Comparisons:	12
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.25 (+/− 0.062)*River Stage + −0.00024 (+/− 0.00011)*Date + −19 (+/− 6.8)
R^2 = 0.64

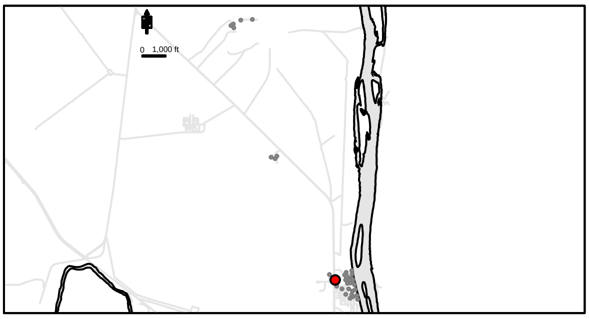
Regression Statistics for January 2015 to January 2016
Geometric Mean : 18 ug/L

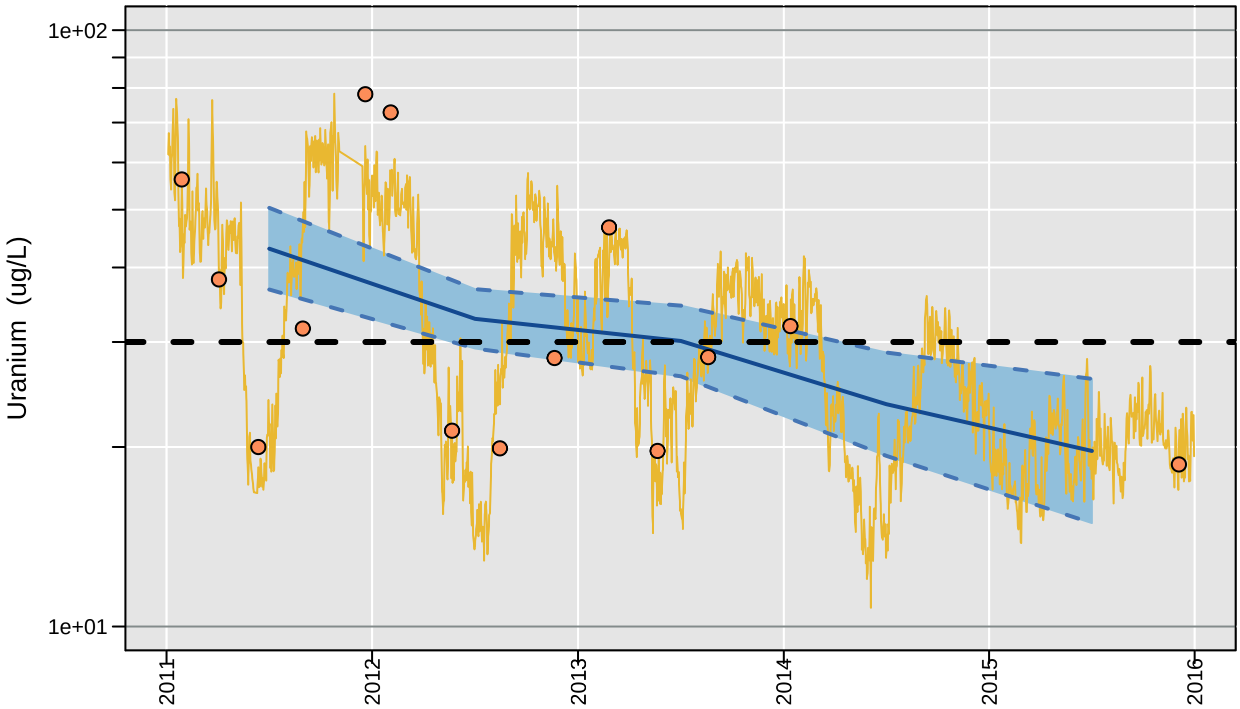
Regression Statistics for January 2015 to January 2016
Geometric Mean: 18 ug/L
UCL: 23 ug/L
LCL: 14 ug/L

399−8−1

Distance to River: 832 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	3
Max. Correlation (R2):	0.84
Number of Comparisons:	14
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.48 (+/− 0.064)*River Stage + −0.00067 (+/− 0.00011)*Date + 65 (+/− 7.5)
R^2 = 0.84

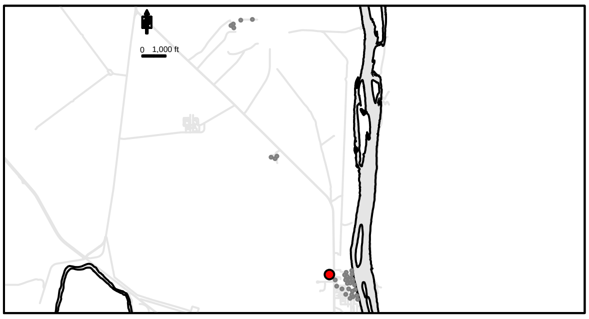
Regression Statistics for January 2015 to January 2016
Geometric Mean : 20 ug/L

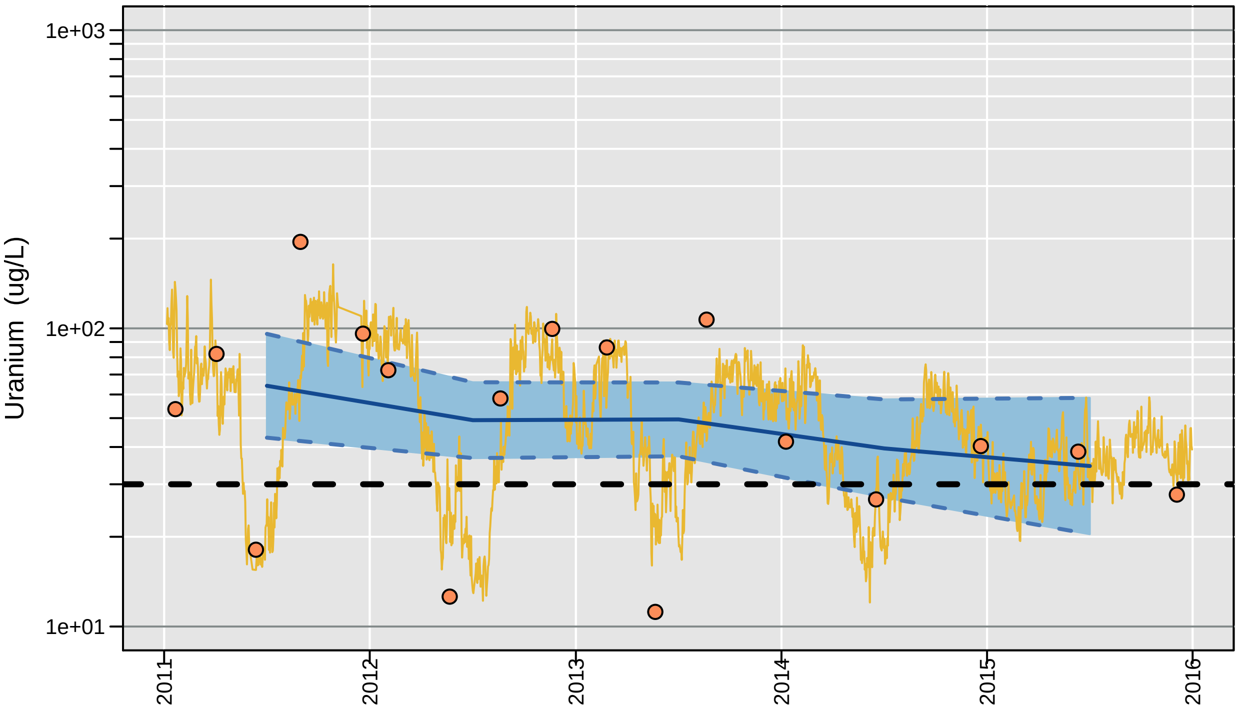
Regression Statistics for January 2015 to January 2016
Geometric Mean: 20 ug/L
UCL: 27 ug/L
LCL: 14 ug/L

399−8−5A

Distance to River: 1046 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	5
Max. Correlation (R2):	0.55
Number of Comparisons:	17
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.72 (+/− 0.17)*River Stage + −0.00062 (+/− 0.00024)*Date + 90 (+/− 19)
R^2 = 0.55

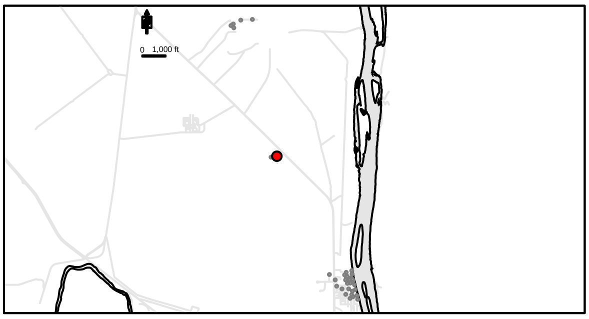
Regression Statistics for January 2015 to January 2016
Geometric Mean : 35 ug/L

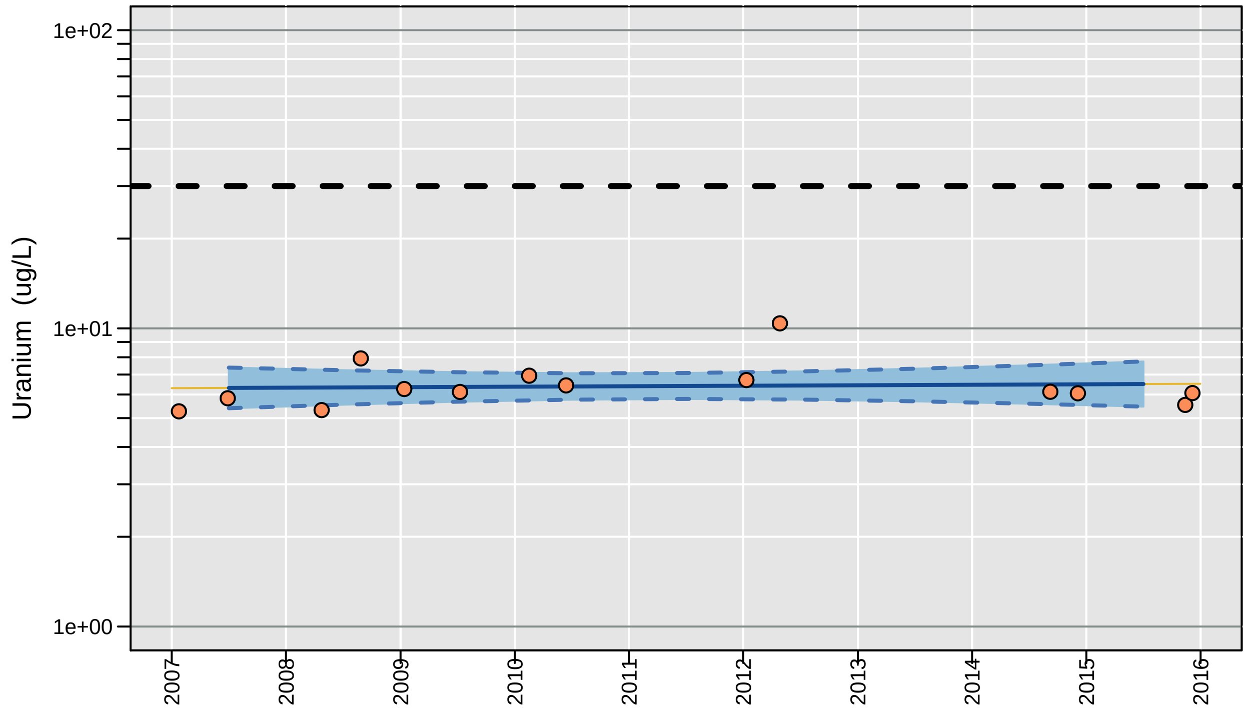
Regression Statistics for January 2015 to January 2016
Geometric Mean: 35 ug/L
UCL: 64 ug/L
LCL: 19 ug/L

699−S6−E4B

Distance to River: 3438 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.0044
Number of Comparisons:	14
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 1e−05 (+/− 4.1e−05)*Date + 1.7 (+/− 0.62)
R^2 = 0.0044

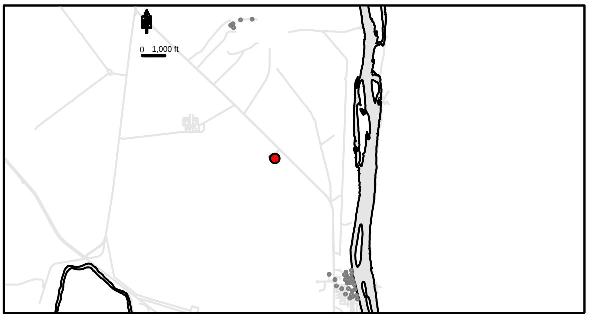
Regression Statistics for January 2015 to January 2016
Geometric Mean : 6.5 ug/L

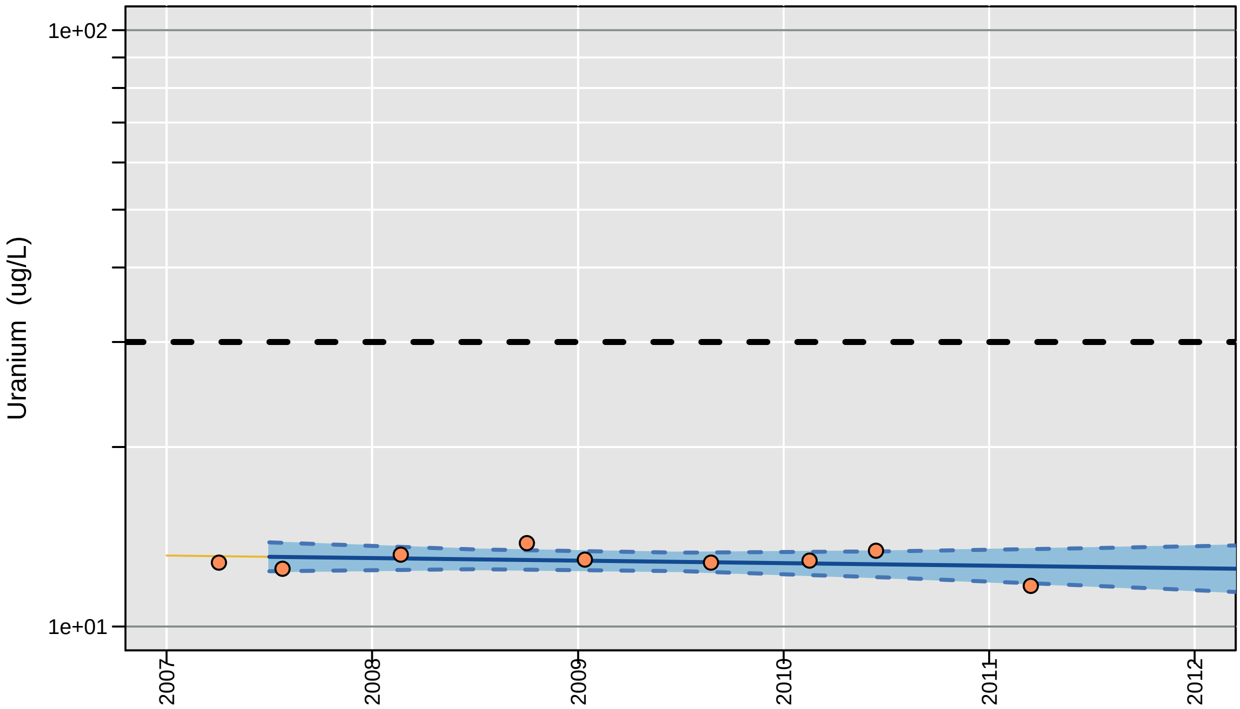
Regression Statistics for January 2015 to January 2016
Geometric Mean: 6.5 ug/L
UCL: 8 ug/L
LCL: 5.3 ug/L

699−S6−E4E

Distance to River: 3518 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.08
Number of Comparisons:	9
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −2.7e−05 (+/− 3e−05)*Date + 2.9 (+/− 0.43)
R^2 = 0.08

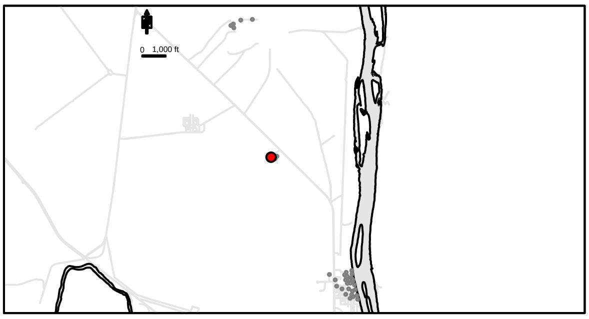
Regression Statistics for January 2015 to January 2016
Geometric Mean : 12 ug/L

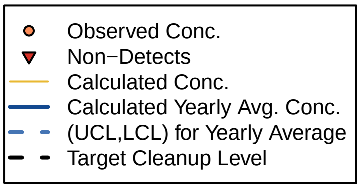
Regression Statistics for January 2015 to January 2016
Geometric Mean: 12 ug/L
UCL: 15 ug/L
LCL: 9.8 ug/L

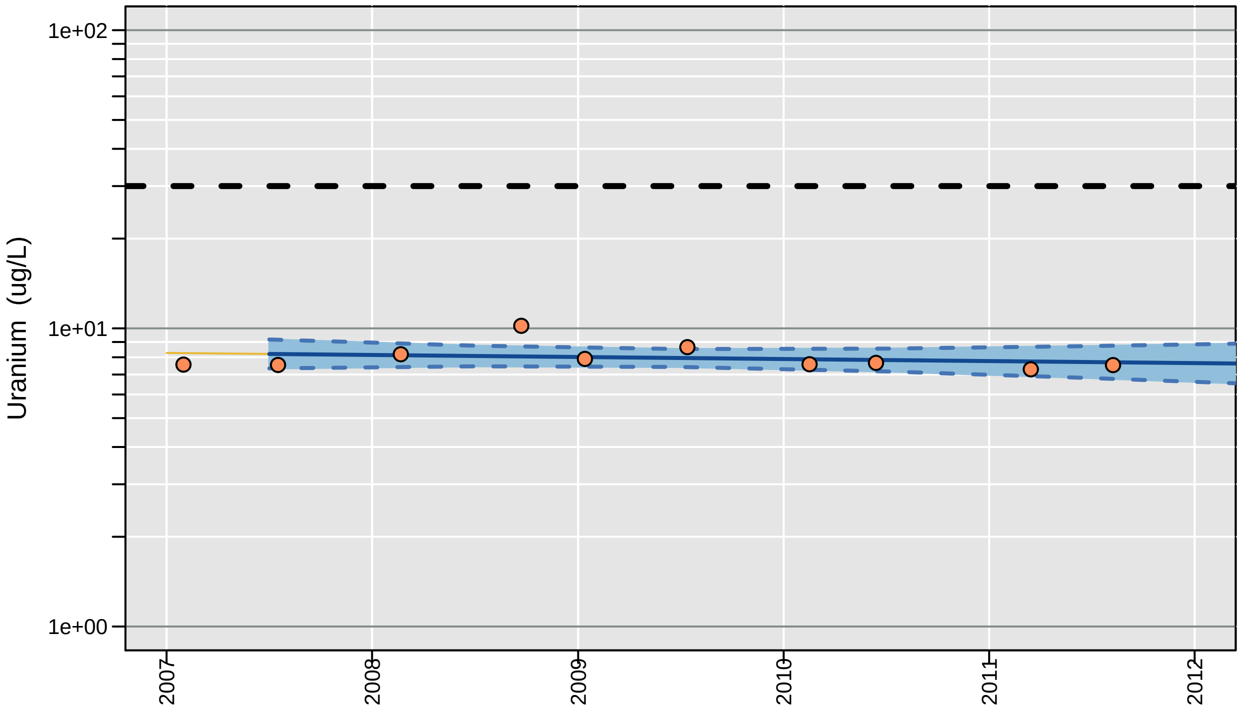
699−S6−E4K

Distance to River: 3689 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.057
Number of Comparisons:	10
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = −4.3e−05 (+/− 5.5e−05)*Date + 2.7 (+/− 0.79)
R^2 = 0.057

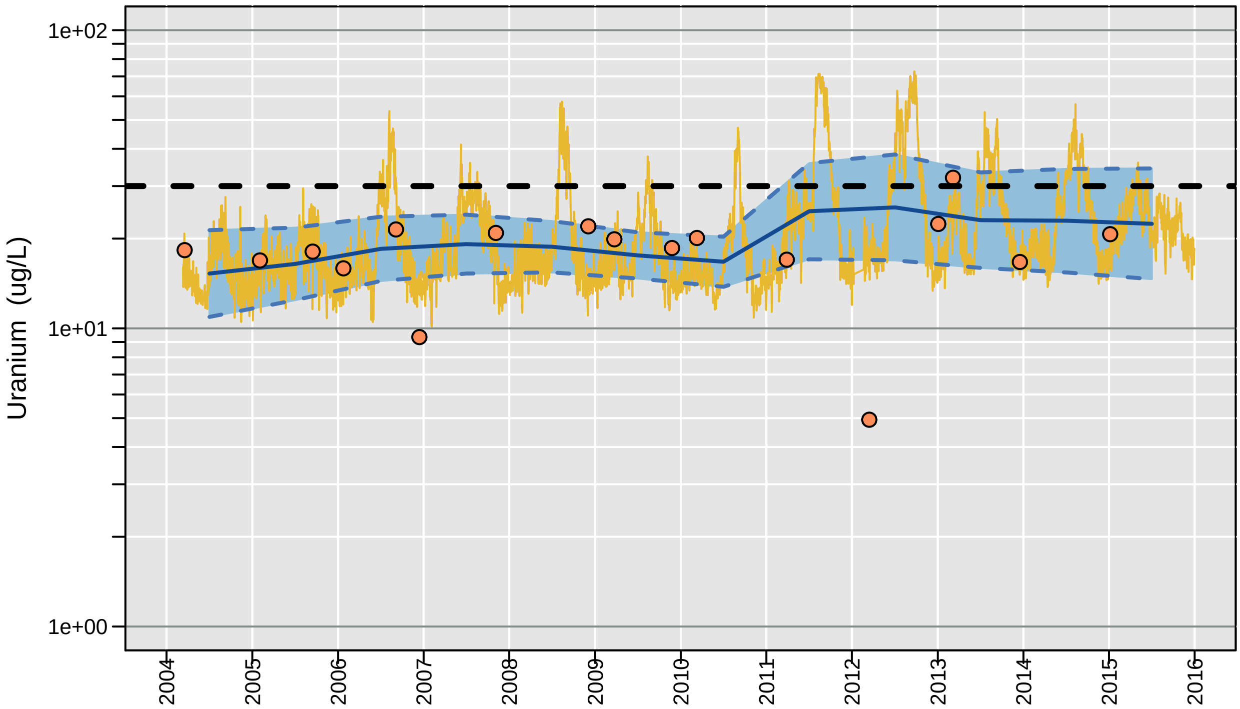
Regression Statistics for January 2015 to January 2016
Geometric Mean : 7.2 ug/L

Regression Statistics for January 2015 to January 2016
Geometric Mean: 7.2 ug/L
UCL: 10 ug/L
LCL: 5 ug/L

AT−3−7−M

Distance to River: 5 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	70
Max. Correlation (R2):	0.25
Number of Comparisons:	17
Percent NDs:	0%



Censored Regression (Tobit) Model

ln Conc. = 0.53 (+/− 0.22)*River Stage + 7.1e−05 (+/− 7.3e−05)*Date + −54 (+/− 24)
R^2 = 0.25

Regression Statistics for January 2015 to January 2016
Geometric Mean : 22 ug/L

Regression Statistics for January 2015 to January 2016
Geometric Mean: 22 ug/L
UCL: 37 ug/L
LCL: 14 ug/L

Time to Cleanup Results

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cis-1,2-Dichloroethene (cis-1,2-DCE)

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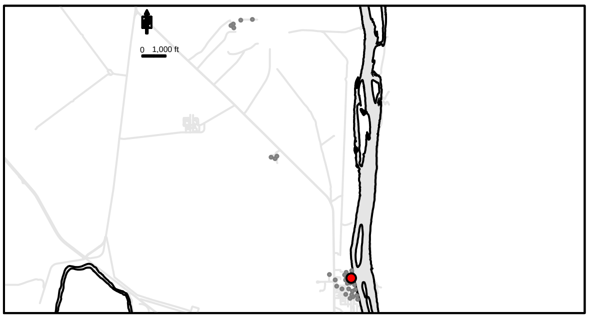
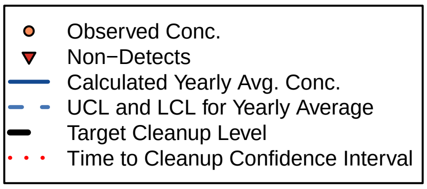
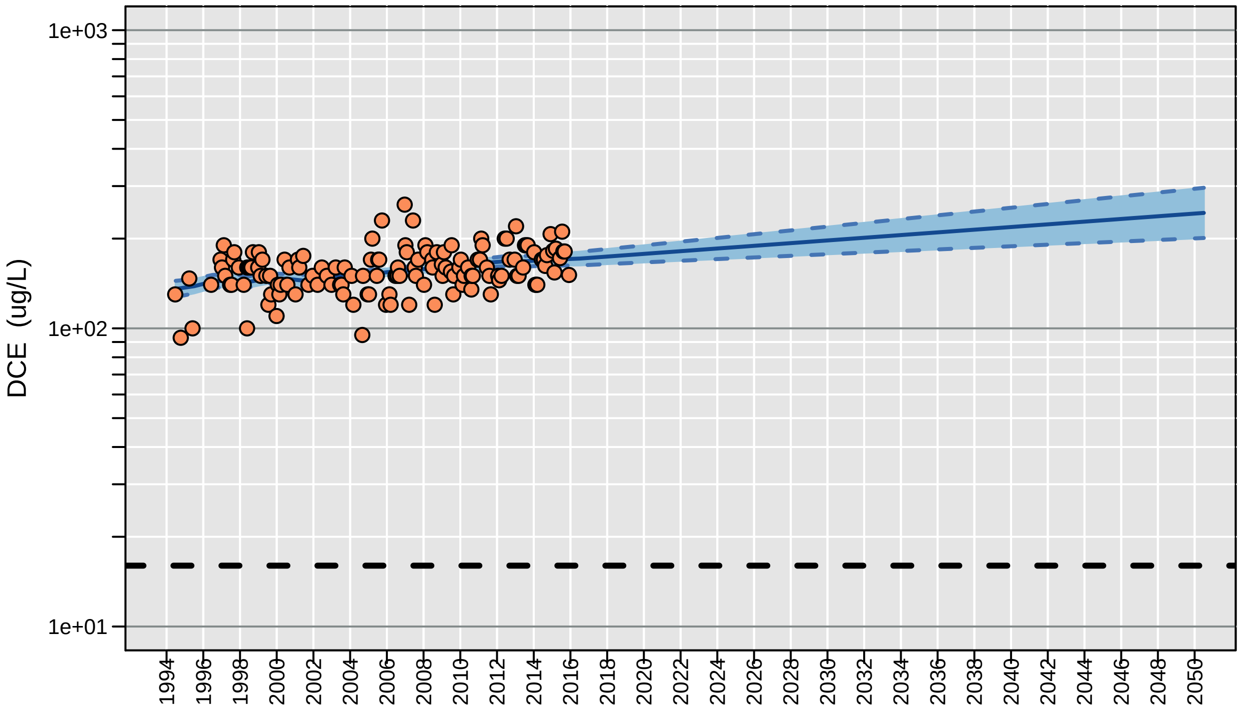
399−1−16B

Distance to River: 135 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	18
Max. Correlation (R2):	0.15
Number of Comparisons:	139
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.039 (+/− 0.021)*River Stage + 2.8e−05 (+/− 6e−06)*Date + 0.52 (+/− 2.2)
R^2 = 0.15

Regression Statistics for January 2015 to January 2016
Geometric Mean : 170 ug/L

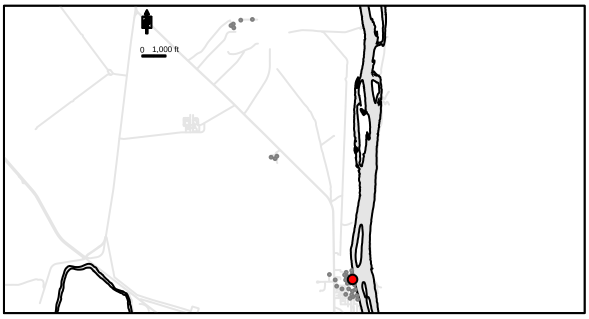
High Concern Well

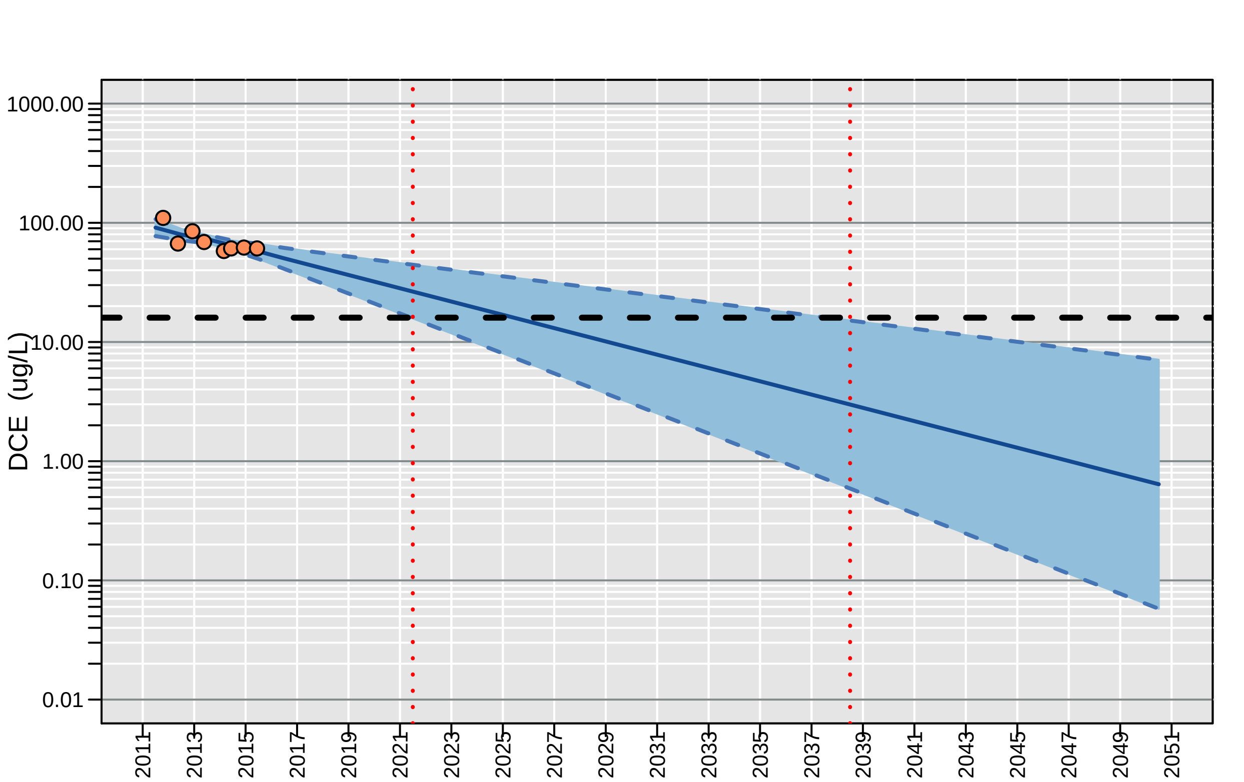
Yearly Average Concentration and LCL and UCL for Yearly Average above Cleanup Level in 2050
Trend is increasing

399−1−57

Distance to River: 86 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	20
Max. Correlation (R2):	0.85
Number of Comparisons:	8
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.15 (+/− 0.041)*River Stage + −0.00035 (+/− 6.4e−05)*Date + 25 (+/− 4.4)
R^2 = 0.85

Regression Statistics for January 2015 to January 2016
Geometric Mean : 58 ug/L

Low Concern Well

Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2050
Trend is declining

Gross Alpha

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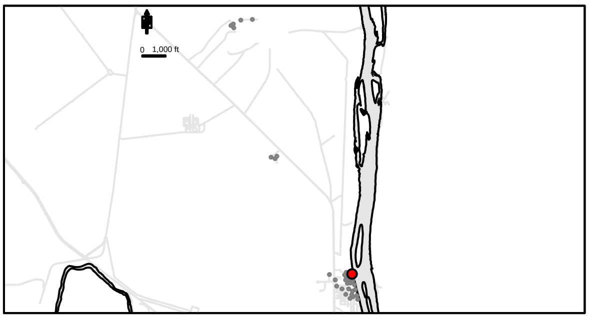
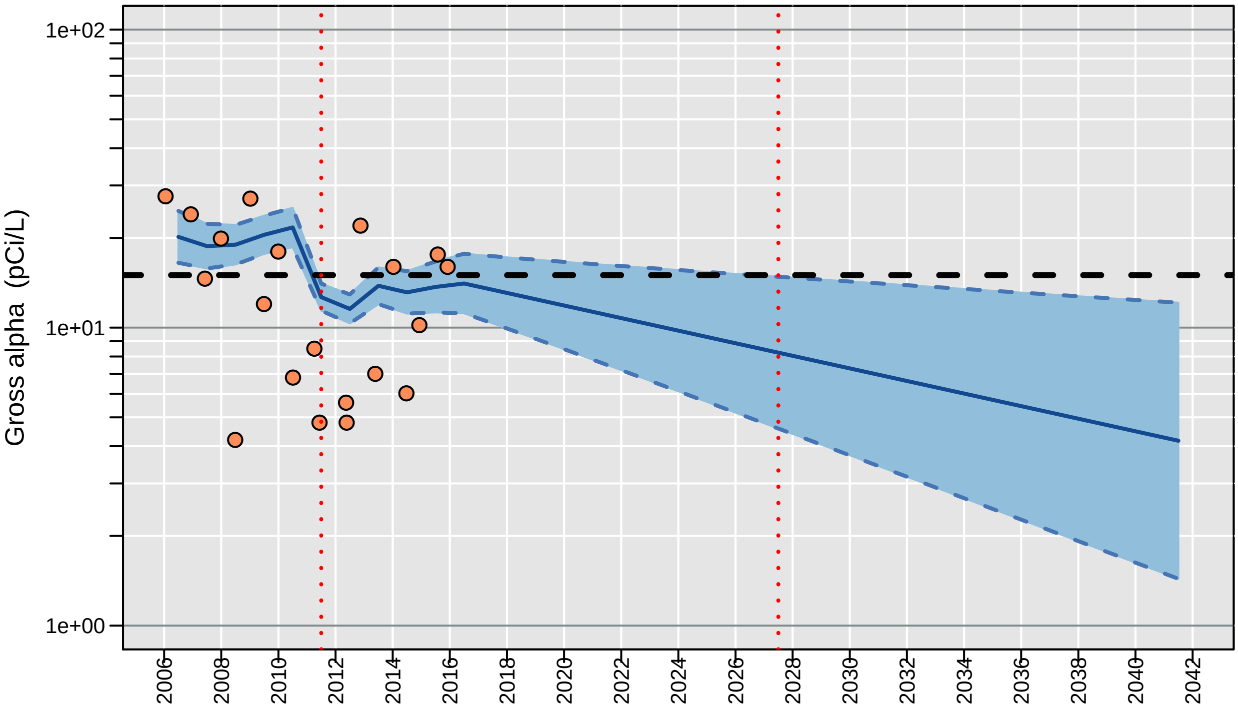
399−1−1

Distance to River: 76 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	3
Max. Correlation (R2):	0.88
Number of Comparisons:	20
Percent NDs:	0%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = −0.69 (+/− 0.06)*River Stage + −0.00013 (+/− 4.5e−05)*Date + 77 (+/− 6.4)
R^2 = 0.88

Regression Statistics for January 2015 to January 2016
Geometric Mean : 14 pCi/L

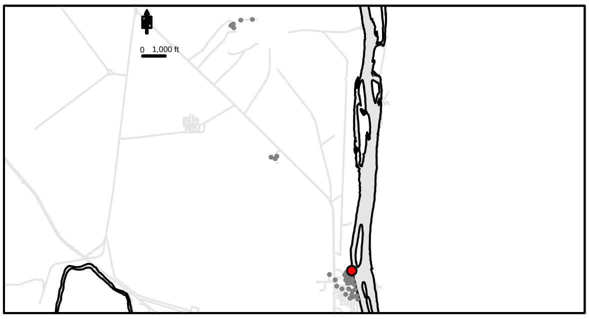
Low Concern Well

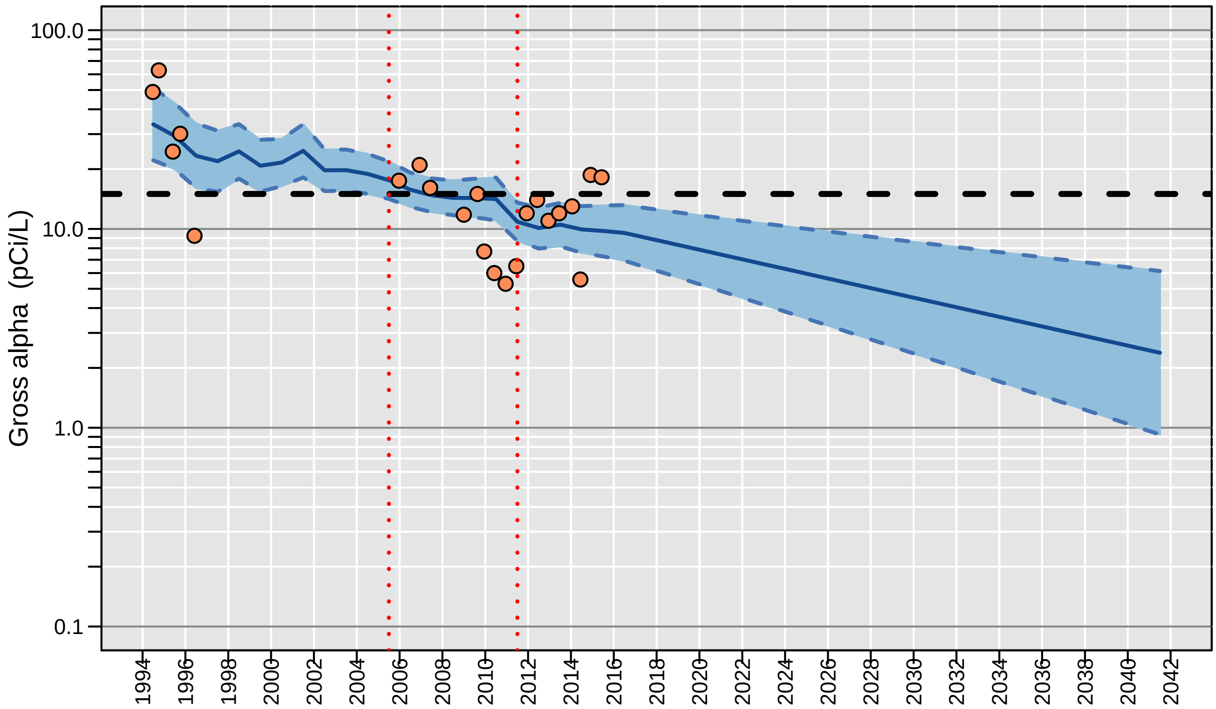
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

399−1−10A

Distance to River: 70 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	5
Max. Correlation (R2):	0.54
Number of Comparisons:	22
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.29 (+/− 0.11)*River Stage + −0.00015 (+/− 3.5e−05)*Date + 36 (+/− 12)
R^2 = 0.54

Regression Statistics for January 2015 to January 2016
Geometric Mean : 9.8 pCi/L

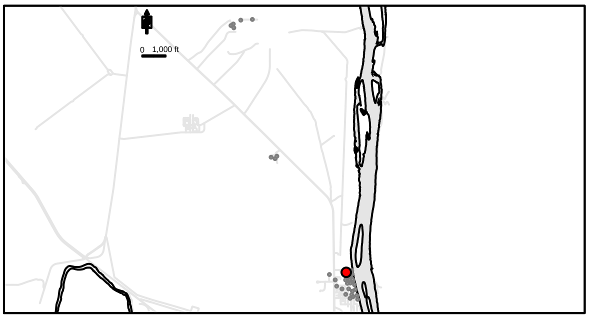
Low Concern Well

Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

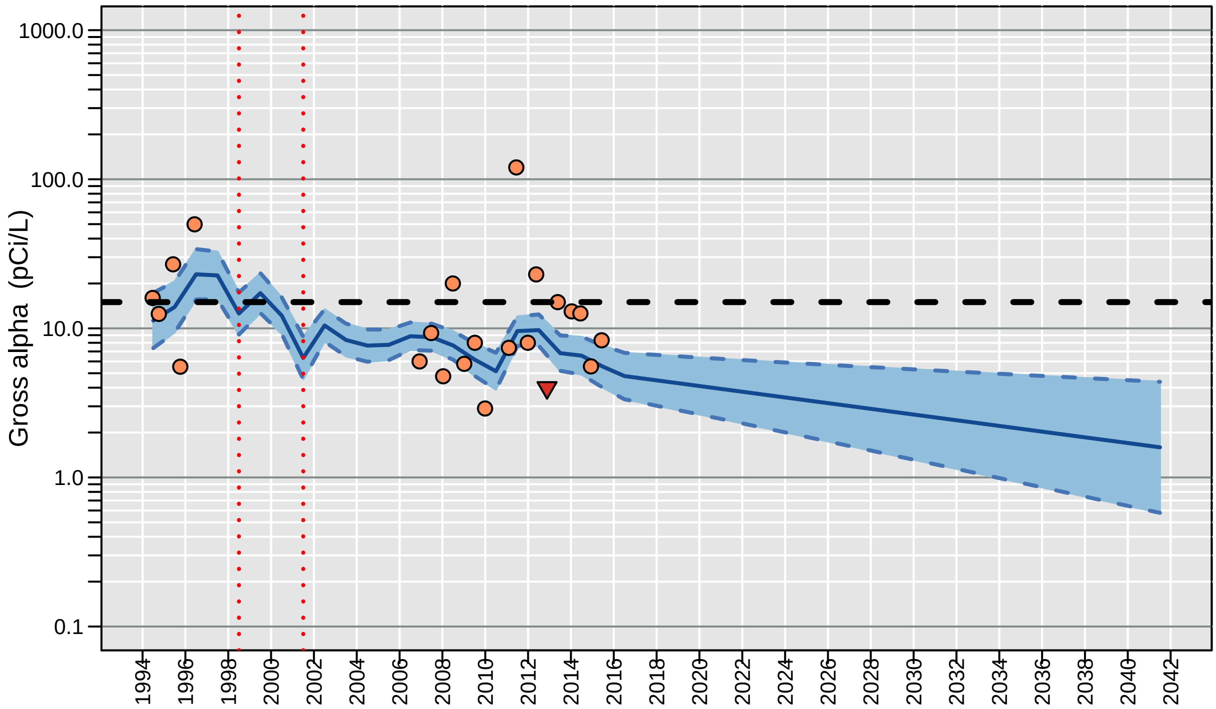
399−1−11

Distance to River: 314 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	2
Max. Correlation (R2):	0.74
Number of Comparisons:	22
Percent NDs:	5%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = 0.94 (+/− 0.12)*River Stage + −0.00012 (+/− 3.7e−05)*Date + −95 (+/− 13)
R^2 = 0.74

Regression Statistics for January 2015 to January 2016
Geometric Mean : 5.5 pCi/L

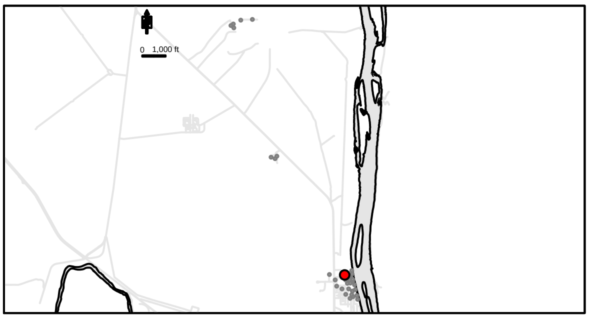
Low Concern Well

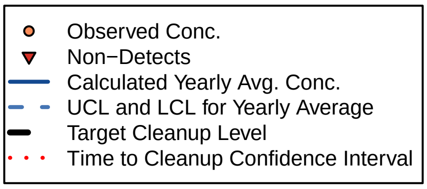
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

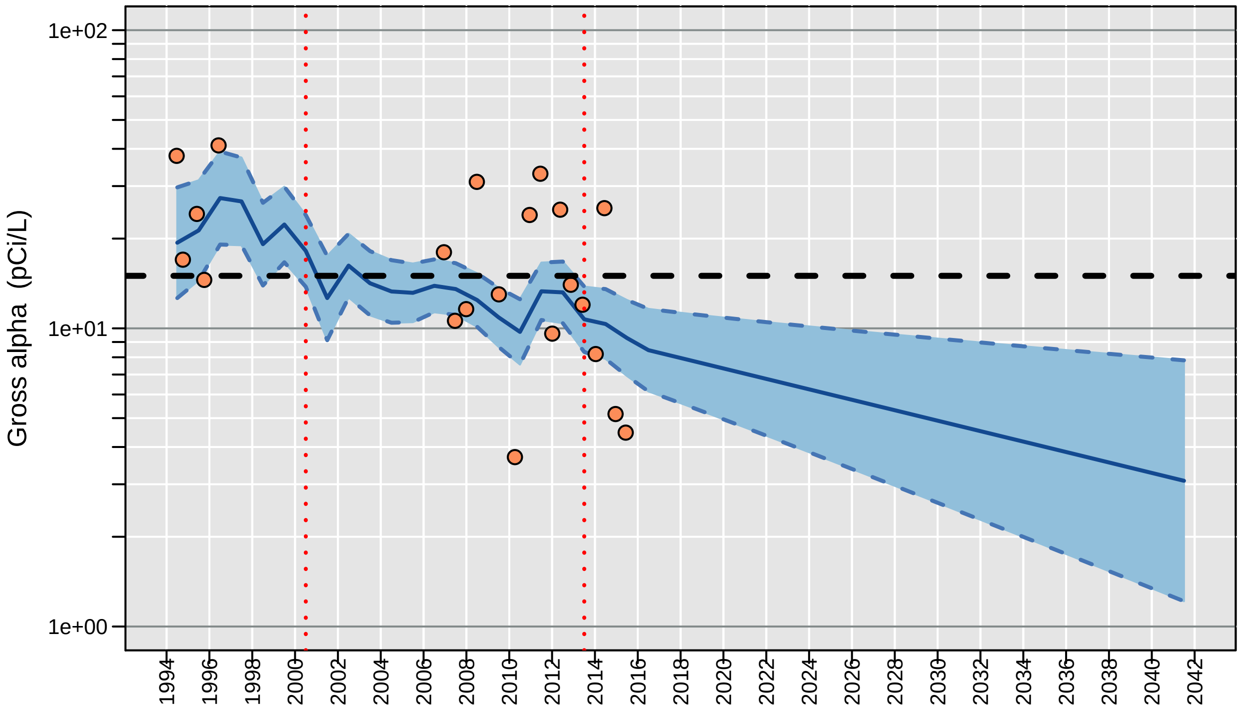
399−1−12

Distance to River: 398 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.61
Number of Comparisons:	21
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.5 (+/− 0.11)*River Stage + −0.00011 (+/− 3.5e−05)*Date + −48 (+/− 12)
R^2 = 0.61

Regression Statistics for January 2015 to January 2016
Geometric Mean : 9.3 pCi/L

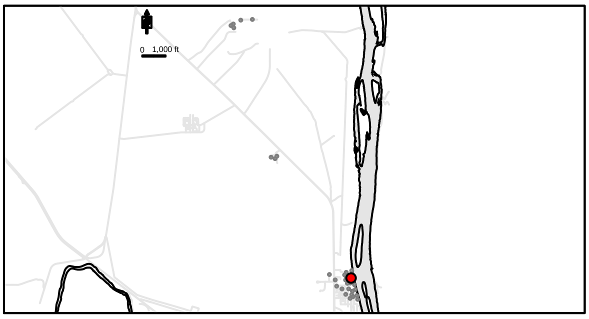
Low Concern Well

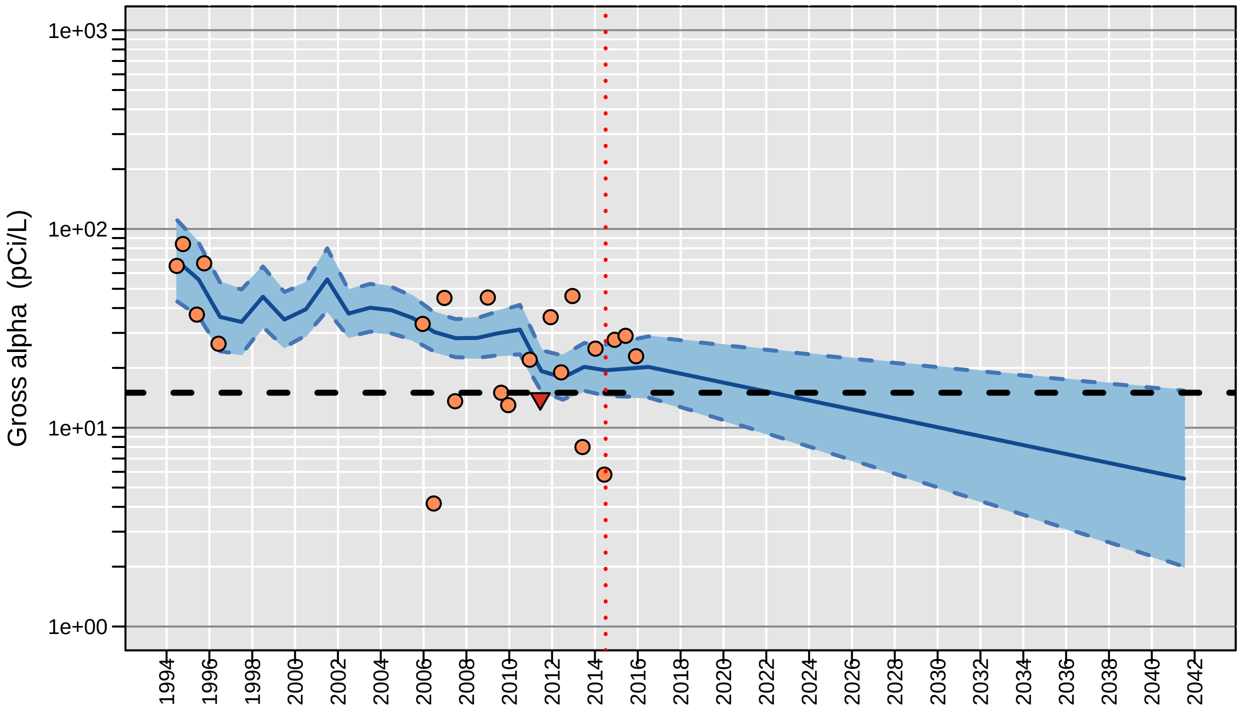
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

399−1−16A

Distance to River: 141 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	15
Max. Correlation (R2):	0.57
Number of Comparisons:	23
Percent NDs:	4%





Censored Regression (Tobit) Model

ln Conc. = −0.6 (+/− 0.13)*River Stage + −0.00014 (+/− 3.8e−05)*Date + 69 (+/− 14)
R^2 = 0.57

Regression Statistics for January 2015 to January 2016
Geometric Mean : 20 pCi/L

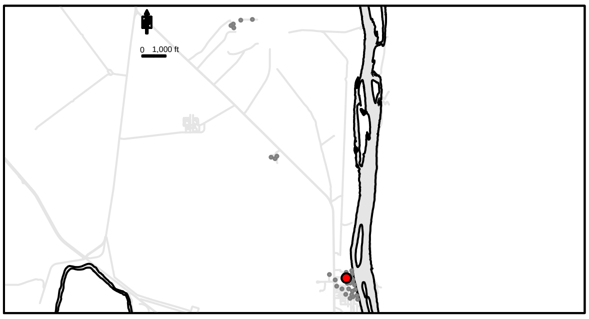
Moderate Concern Well

Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

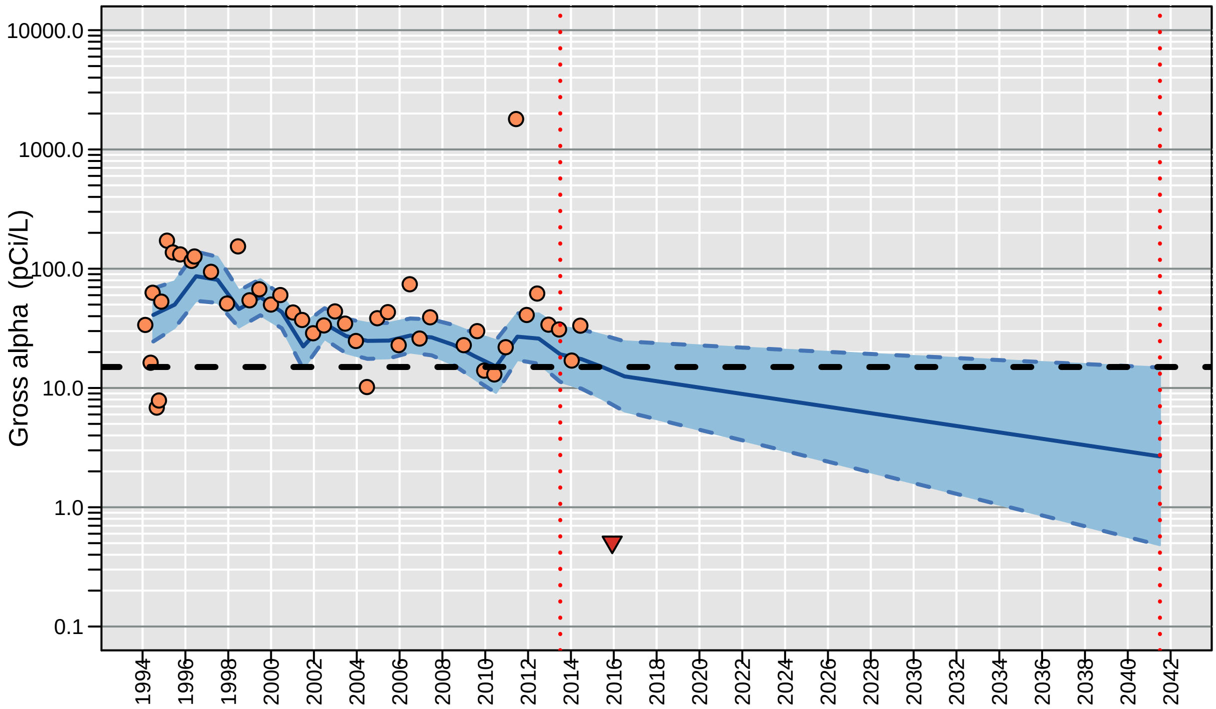
399−1−17A

Distance to River: 344 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	26
Max. Correlation (R2):	0.33
Number of Comparisons:	45
Percent NDs:	2%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = 0.91 (+/− 0.22)*River Stage + −0.00017 (+/− 5.9e−05)*Date + −90 (+/− 23)
R^2 = 0.33

Regression Statistics for January 2015 to January 2016
Geometric Mean : 15 pCi/L

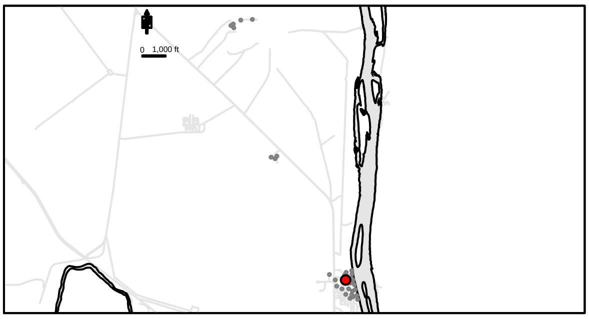
Low Concern Well

Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

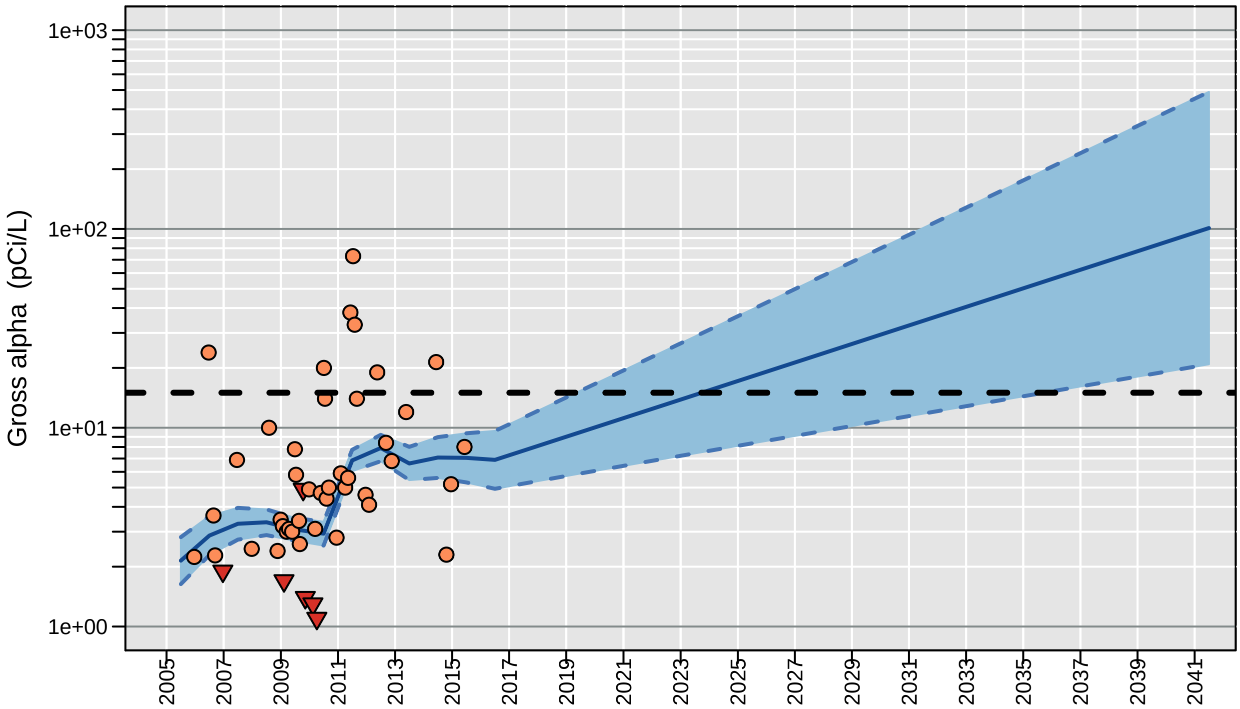
399−1−2

Distance to River: 386 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	24
Max. Correlation (R2):	0.85
Number of Comparisons:	48
Percent NDs:	12%



- Observed Conc.
- Non−Detects
- Calculated Yearly Avg. Conc.
- UCL and LCL for Yearly Average
- Target Cleanup Level
- Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = 1.1 (+/− 0.071)*River Stage + 0.00029 (+/− 6.8e−05)*Date + −110 (+/− 7.4)
R^2 = 0.85

Regression Statistics for January 2015 to January 2016
Geometric Mean : 7.1 pCi/L

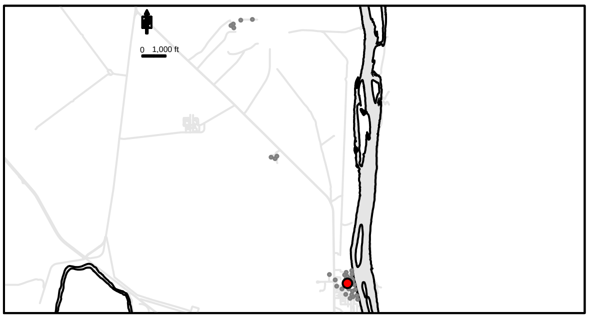
High Concern Well

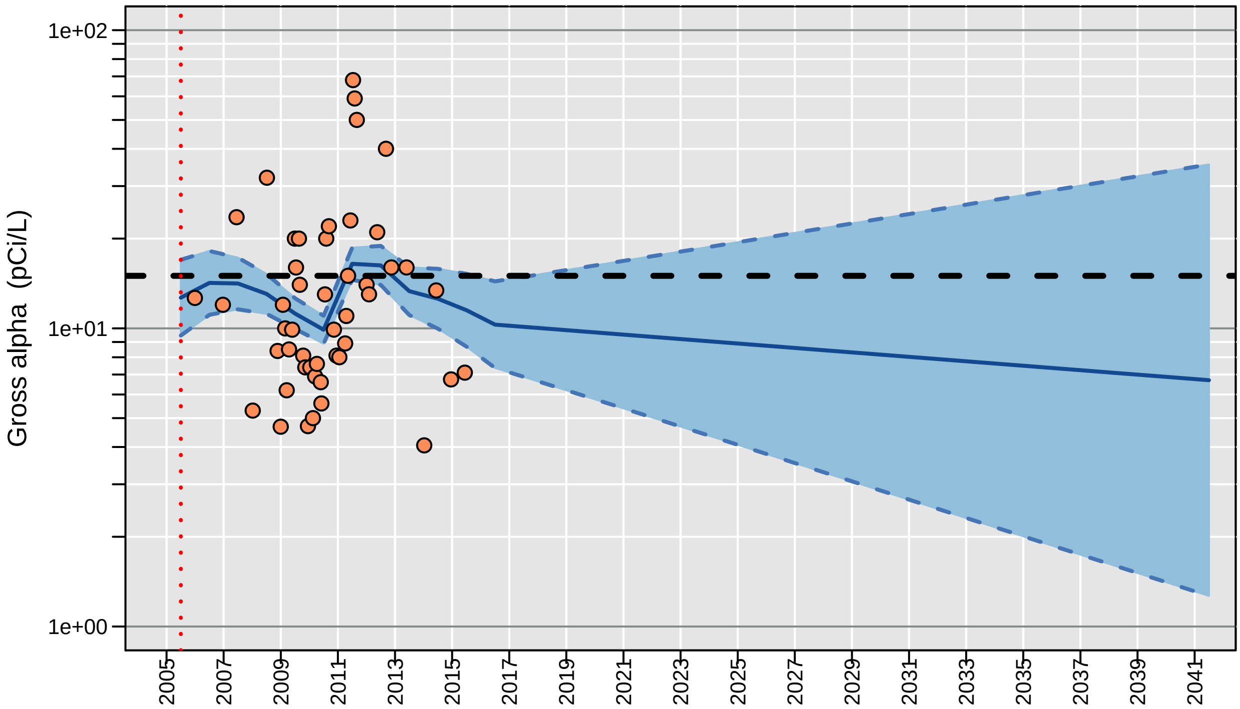
Yearly Average Concentration and LCL and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

399−1−21A

Distance to River: 340 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	58
Max. Correlation (R2):	0.72
Number of Comparisons:	48
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.76 (+/− 0.069)*River Stage + −4.7e−05 (+/− 7.3e−05)*Date + −77 (+/− 7.2)
R^2 = 0.72

Regression Statistics for January 2015 to January 2016
Geometric Mean : 12 pCi/L

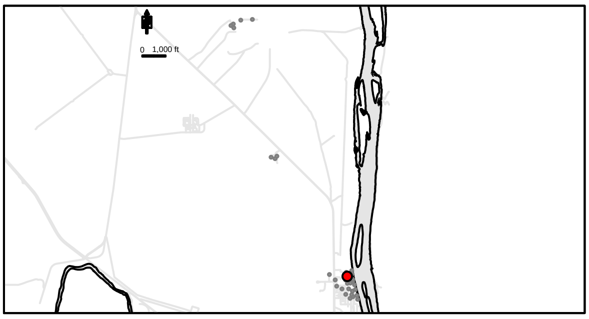
Moderate Concern Well

Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

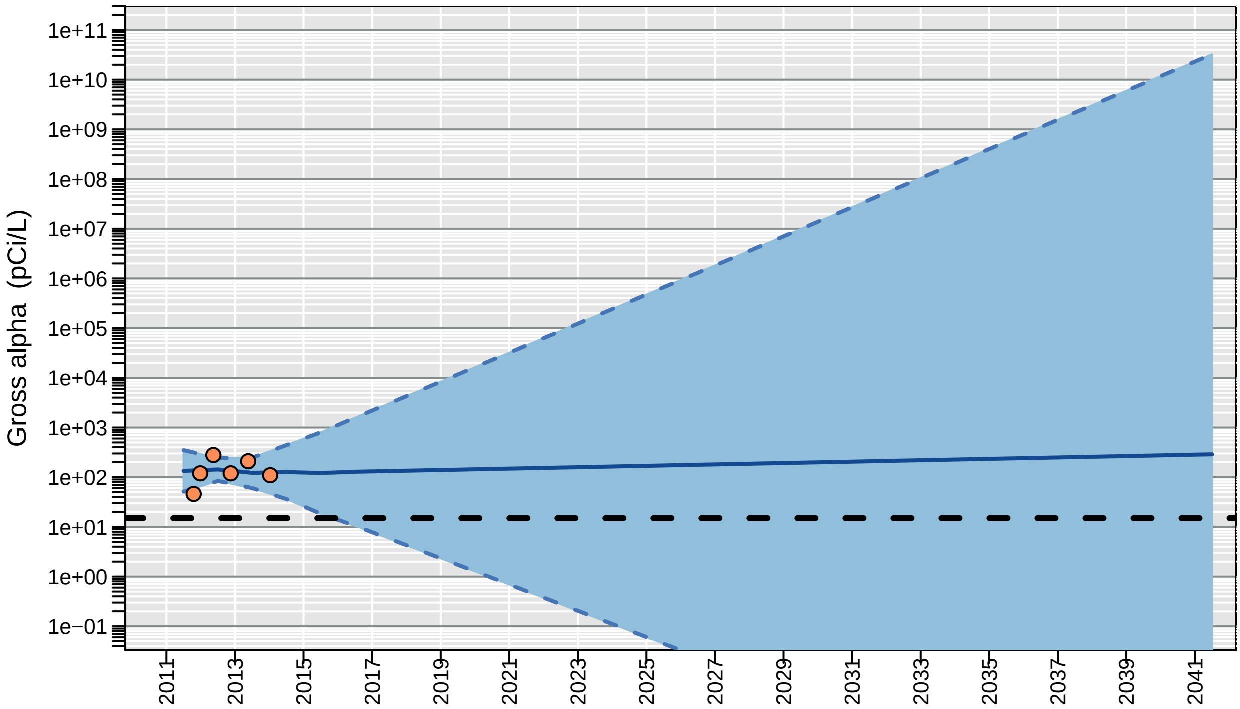
399−1−55

Distance to River: 295 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.77
Number of Comparisons:	6
Percent NDs:	0%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = 0.57 (+/− 0.14)*River Stage + 8.8e−05 (+/− 0.00041)*Date + −57 (+/− 14)
R^2 = 0.77

Regression Statistics for January 2015 to January 2016
Geometric Mean : 120 pCi/L

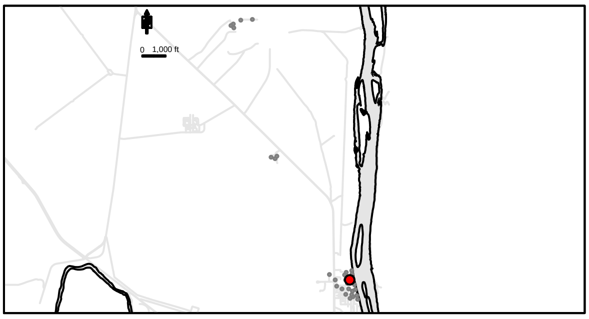
Indeterminate

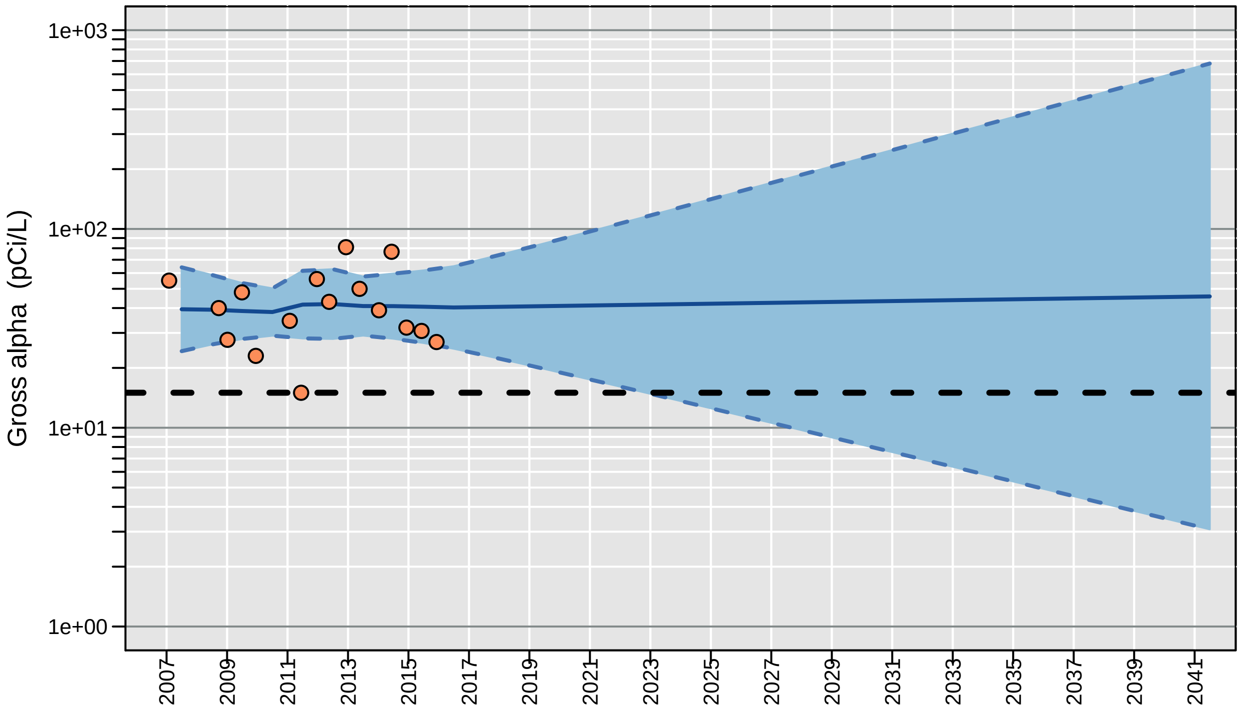
Time to cleanup not calculated (no. samples 6 < 8)

399−1−7

Distance to River: 209 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	78
Max. Correlation (R2):	0.015
Number of Comparisons:	16
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.12 (+/− 0.24)*River Stage + 1.4e−05 (+/− 0.00011)*Date + −9 (+/− 25)
R^2 = 0.015

Regression Statistics for January 2015 to January 2016
Geometric Mean : 41 pCi/L

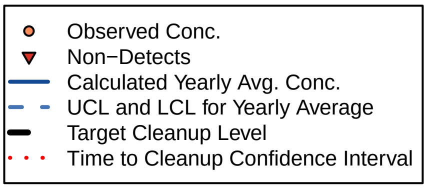
Moderate Concern Well

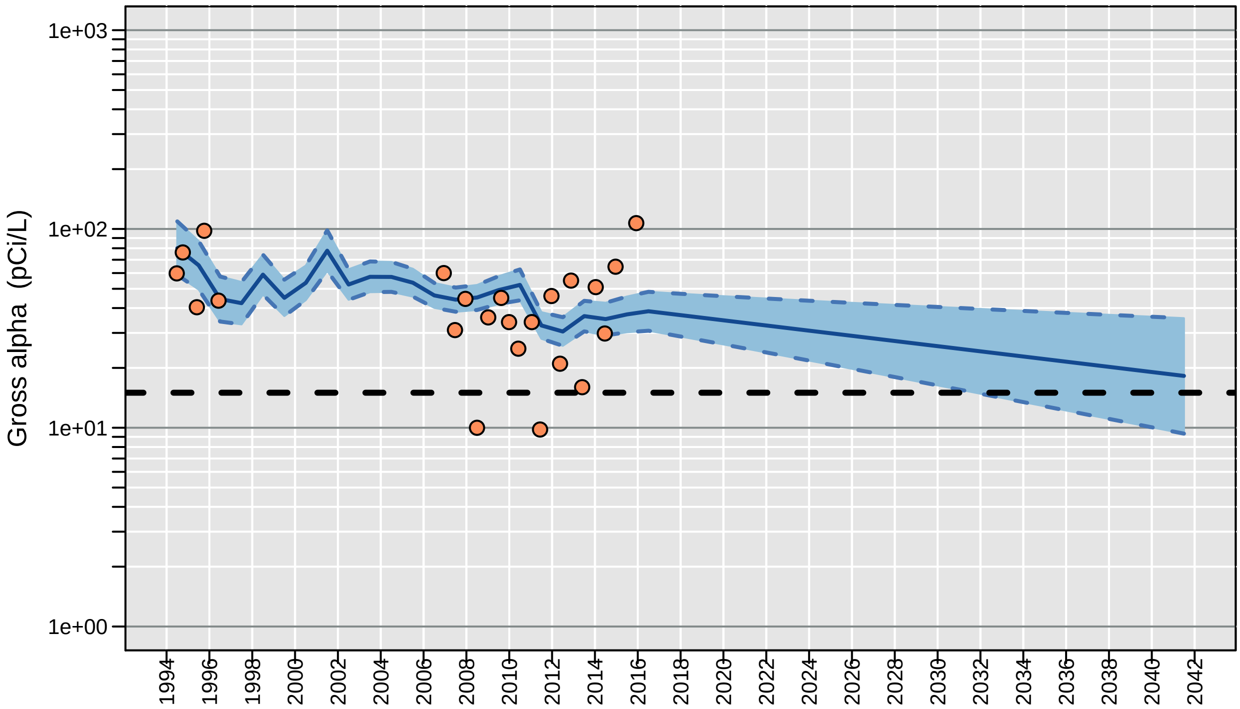
LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

399−2−1

Distance to River: 57 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.74
Number of Comparisons:	23
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.62 (+/− 0.081)*River Stage + −8.2e−05 (+/− 2.5e−05)*Date + 70 (+/− 8.6)
R^2 = 0.74

Regression Statistics for January 2015 to January 2016
Geometric Mean : 37 pCi/L

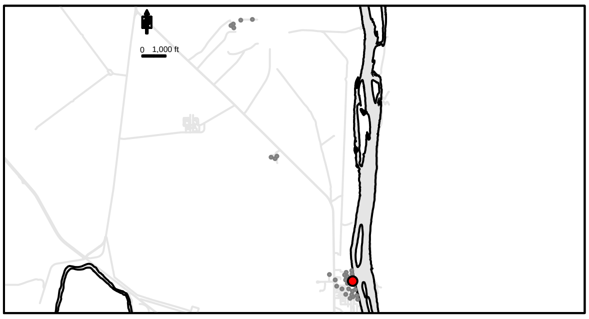
Moderate Concern Well

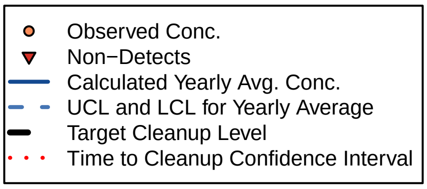
LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

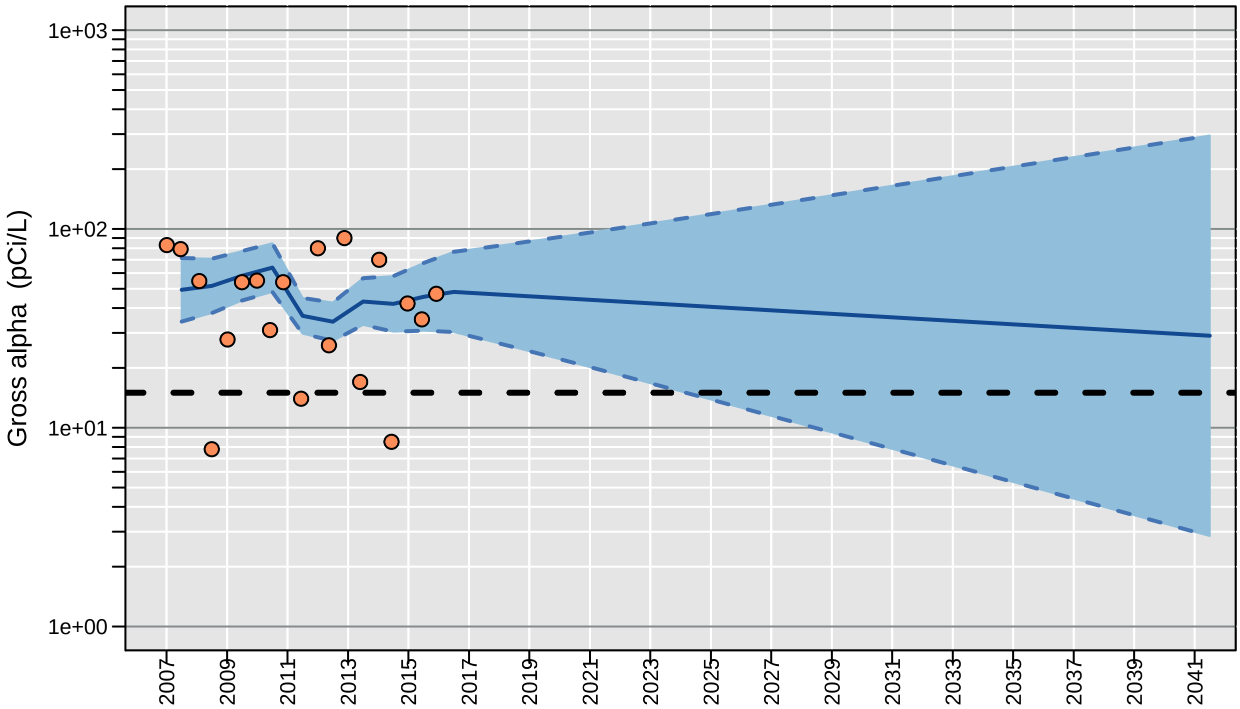
399−2−2

Distance to River: 98 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.66
Number of Comparisons:	19
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = −0.76 (+/− 0.13)*River Stage + −5.6e−05 (+/− 9.8e−05)*Date + 84 (+/− 13)
R^2 = 0.66

Regression Statistics for January 2015 to January 2016
Geometric Mean : 46 pCi/L

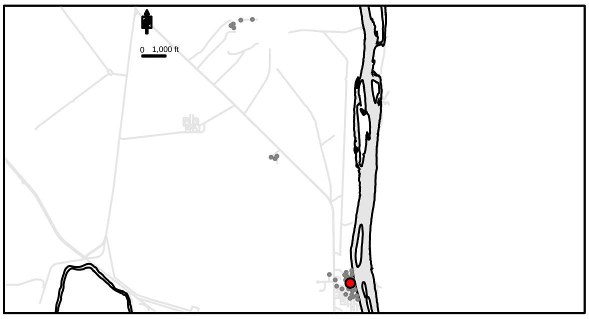
Moderate Concern Well

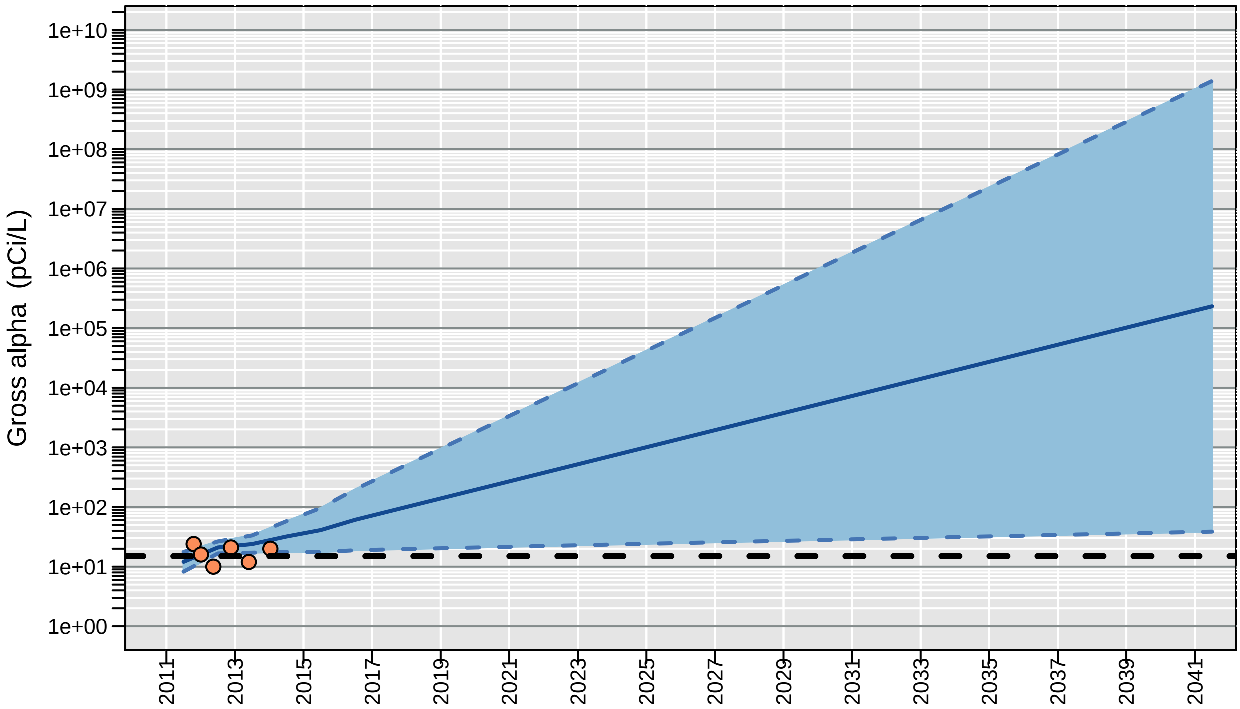
LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

399−2−32

Distance to River: 217 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	83
Max. Correlation (R2):	0.9
Number of Comparisons:	6
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.81 (+/− 0.11)*River Stage + 9e−04 (+/− 0.00019)*Date + −97 (+/− 14)
R^2 = 0.9

Regression Statistics for January 2015 to January 2016
Geometric Mean : 41 pCi/L

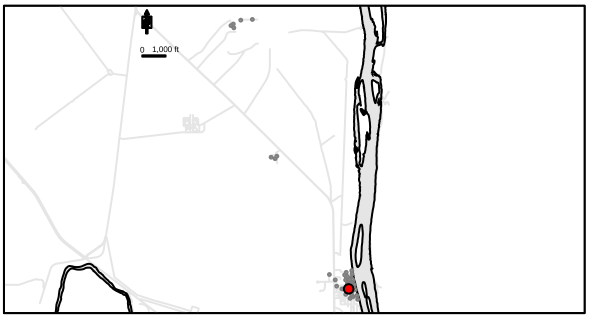
Indeterminate

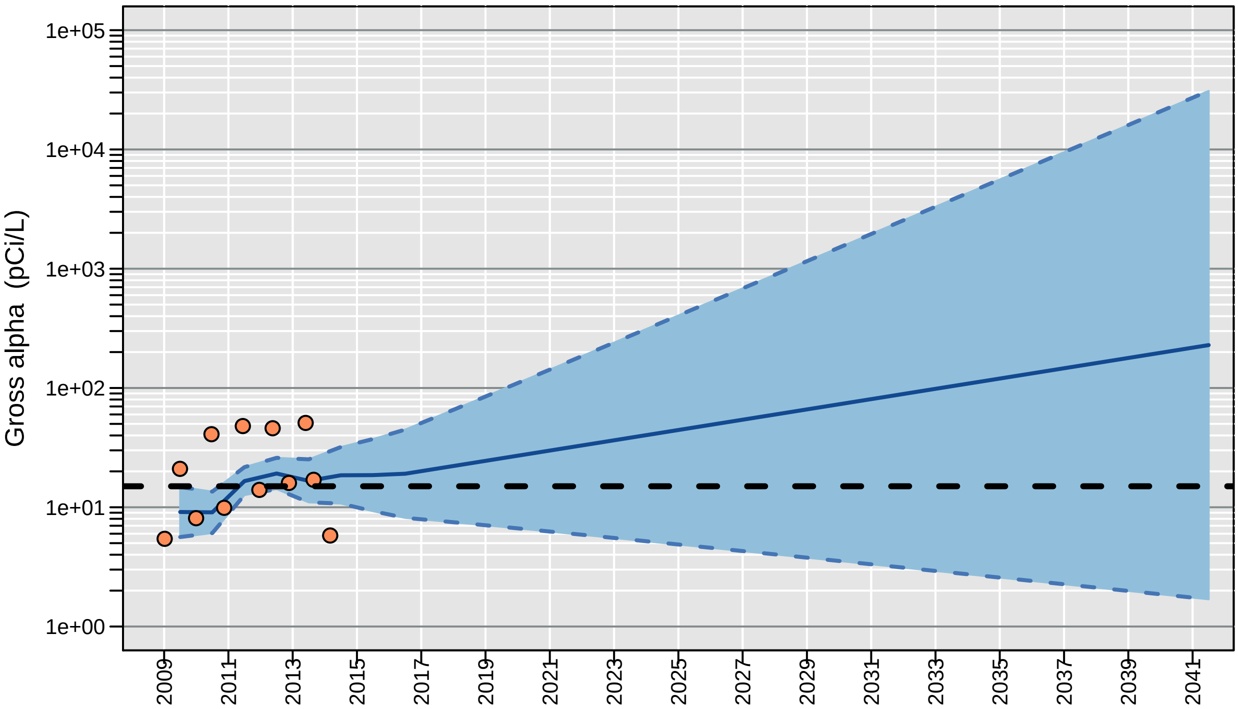
Time to cleanup not calculated (no. samples 6 < 8)

399−3−12

Distance to River: 344 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	0
Max. Correlation (R2):	0.74
Number of Comparisons:	12
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.71 (+/− 0.12)*River Stage + 0.00027 (+/− 0.00019)*Date + −76 (+/− 14)
R^2 = 0.74

Regression Statistics for January 2015 to January 2016
Geometric Mean : 19 pCi/L

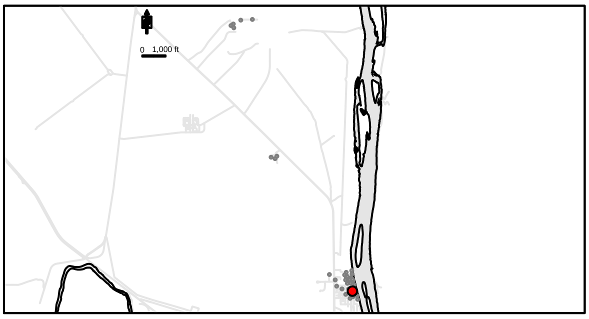
Moderate Concern Well

LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

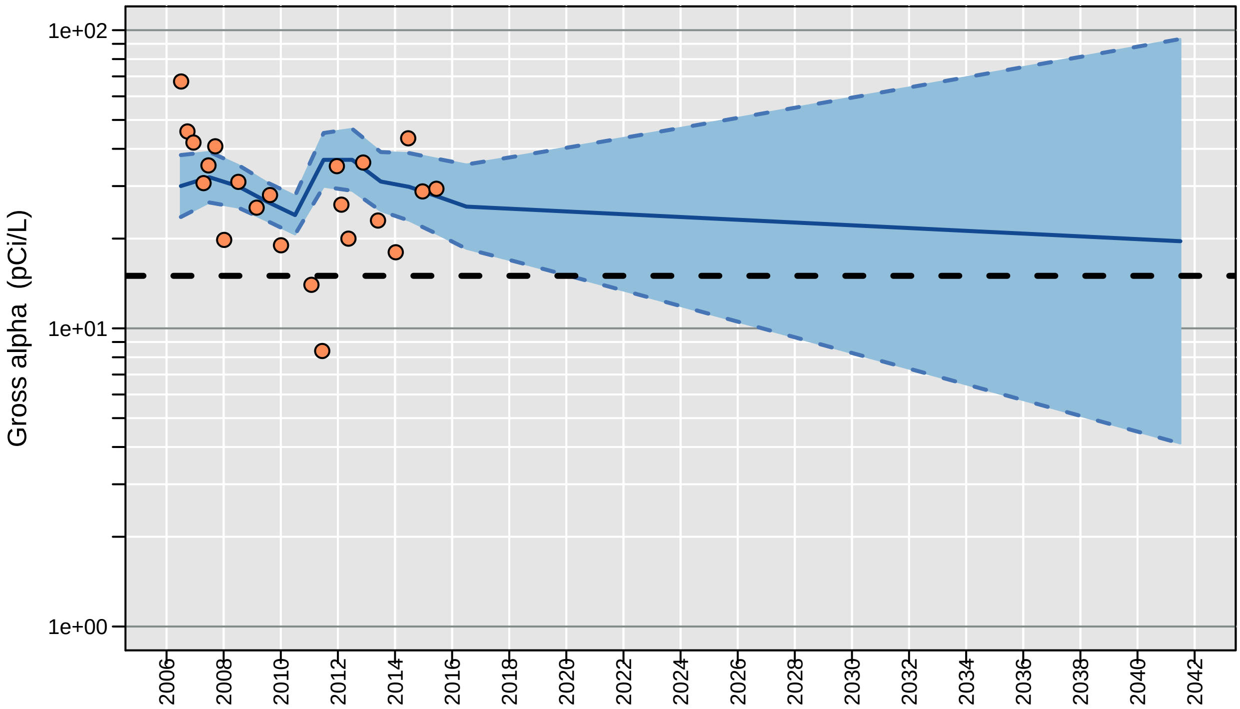
399−3−20

Distance to River: 210 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	87
Max. Correlation (R2):	0.54
Number of Comparisons:	22
Percent NDs:	0%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = 0.64 (+/− 0.14)*River Stage + −2.9e−05 (+/− 6.6e−05)*Date + −64 (+/− 15)
R^2 = 0.54

Regression Statistics for January 2015 to January 2016
Geometric Mean : 28 pCi/L

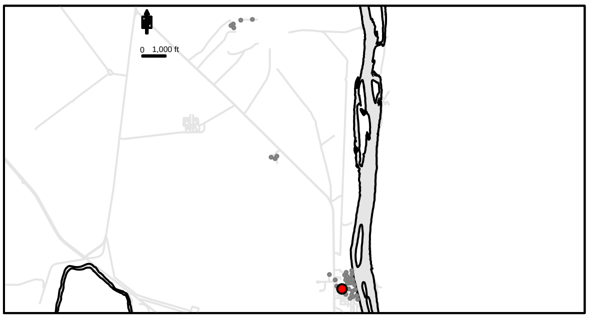
Moderate Concern Well

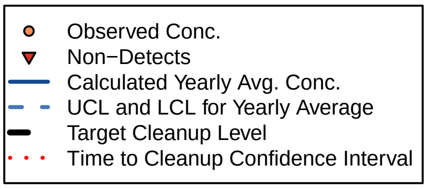
LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

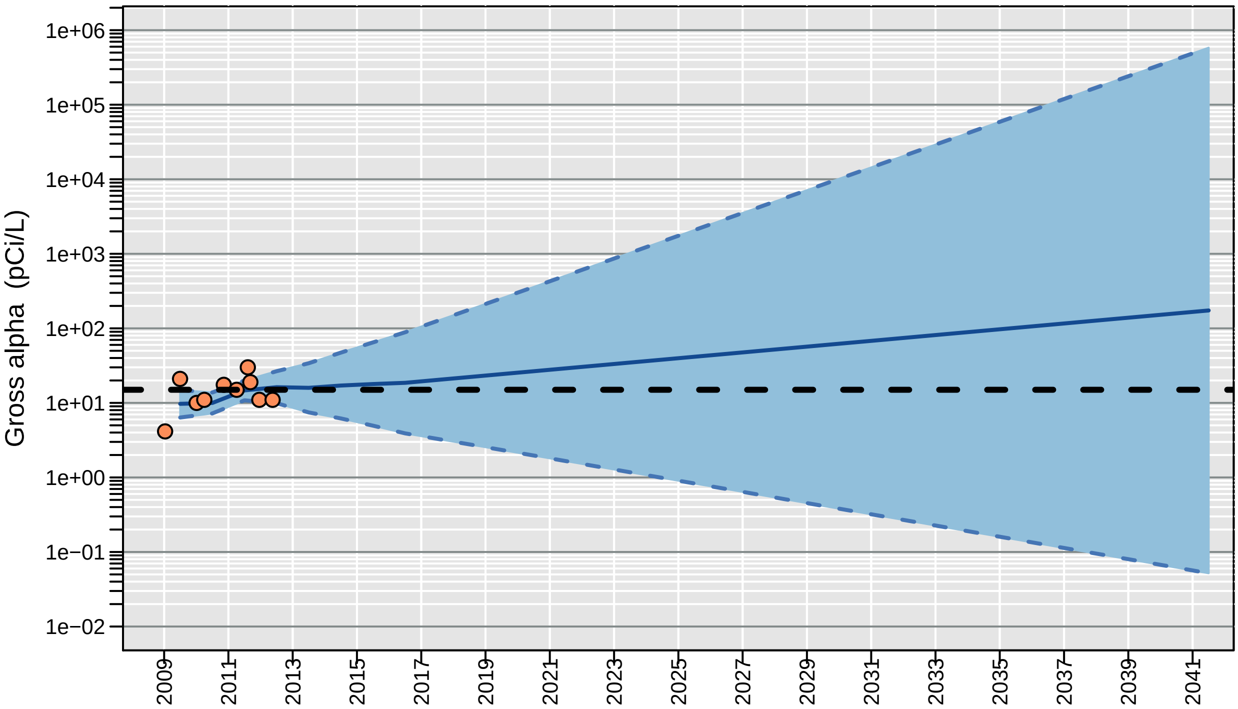
399−3−6

Distance to River: 623 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	32
Max. Correlation (R2):	0.57
Number of Comparisons:	10
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.43 (+/− 0.14)*River Stage + 0.00024 (+/− 0.00029)*Date + −46 (+/− 14)
R^2 = 0.57

Regression Statistics for January 2015 to January 2016
Geometric Mean : 18 pCi/L

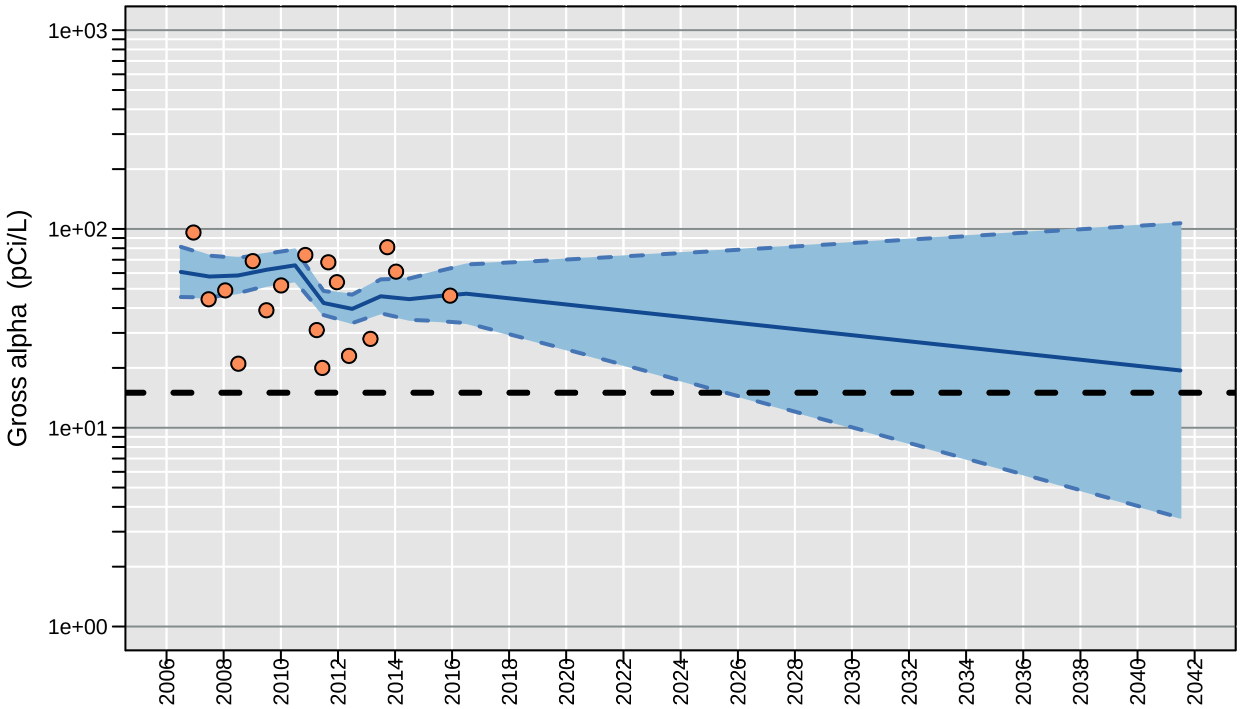
Moderate Concern Well

LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

399−3−9

Distance to River: 68 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	6
Max. Correlation (R2):	0.7
Number of Comparisons:	17
Percent NDs:	0%



Censored Regression (Tobit) Model

ln Conc. = −0.56 (+/− 0.09)*River Stage + −9.7e−05 (+/− 7.1e−05)*Date + 65 (+/− 9.7)
R^2 = 0.7

Regression Statistics for January 2015 to January 2016
Geometric Mean : 46 pCi/L

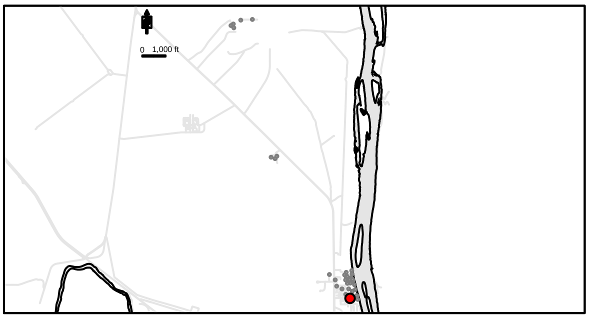
Moderate Concern Well

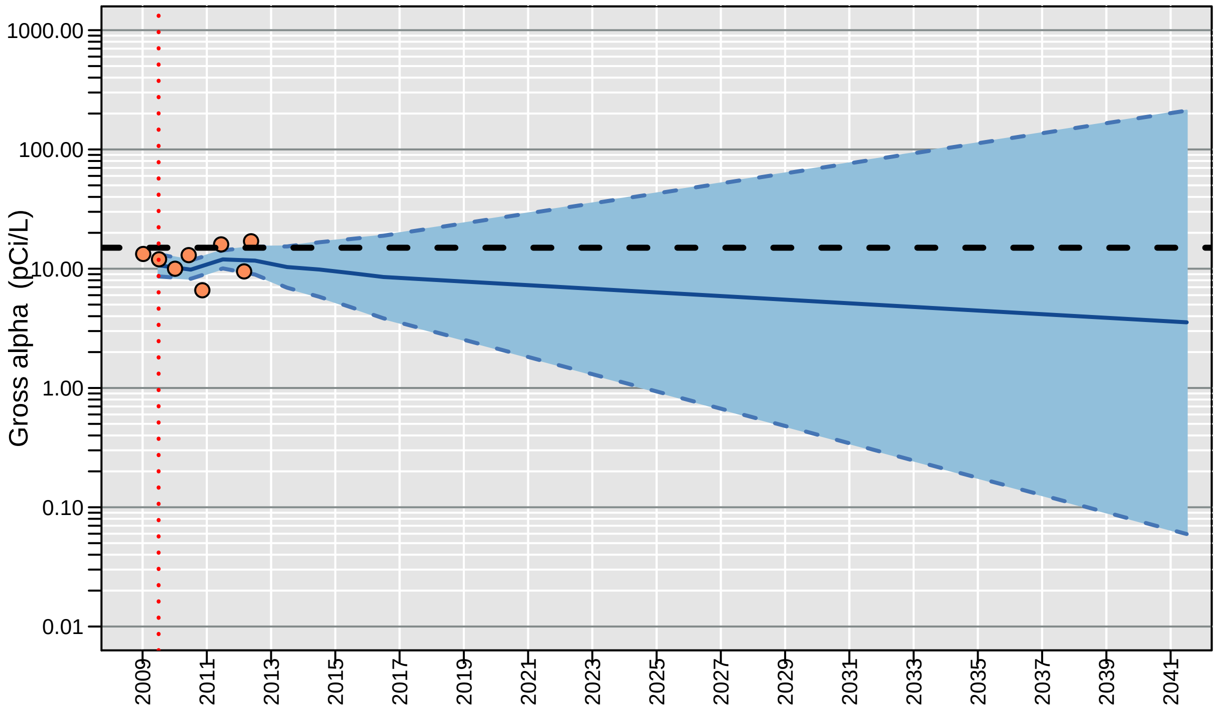
LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

399−4−1

Distance to River: 381 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	25
Max. Correlation (R2):	0.74
Number of Comparisons:	8
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.33 (+/− 0.071)*River Stage + −9.6e−05 (+/− 0.00013)*Date + −31 (+/− 7.1)
R^2 = 0.74

Regression Statistics for January 2015 to January 2016
Geometric Mean : 9.2 pCi/L

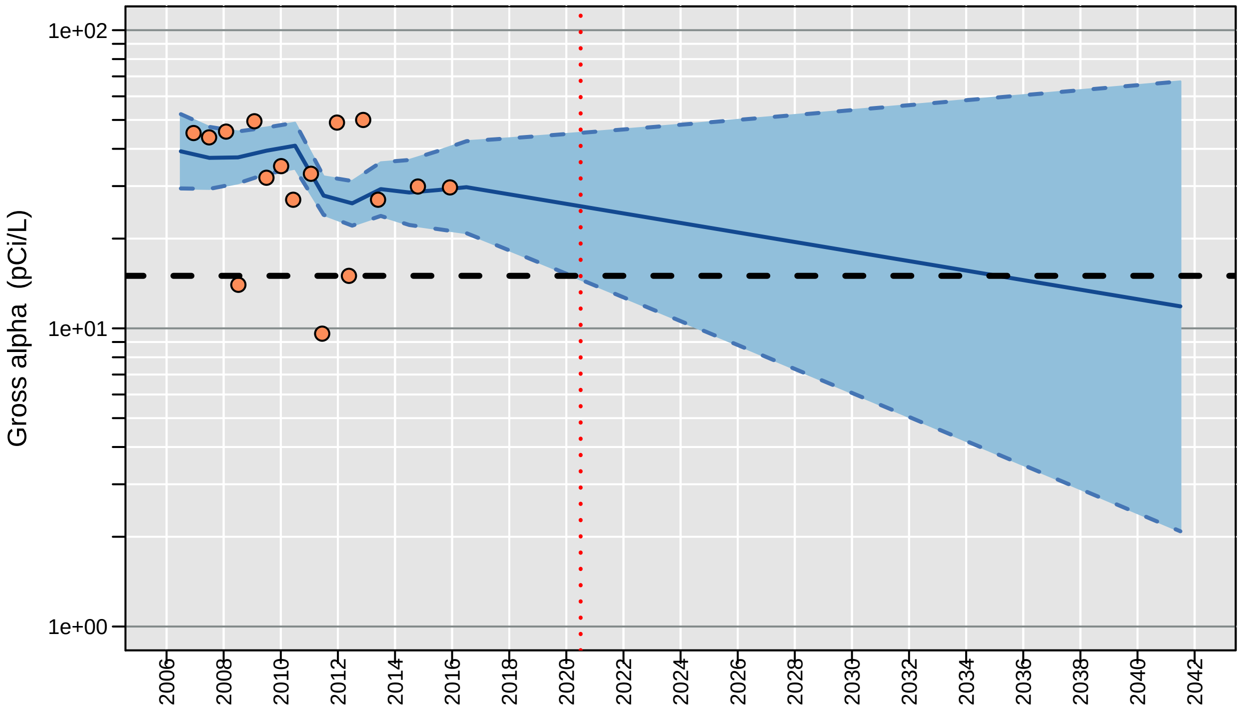
Moderate Concern Well

Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

399−4−10

Distance to River: 69 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	14
Max. Correlation (R2):	0.7
Number of Comparisons:	16
Percent NDs:	0%



Censored Regression (Tobit) Model

ln Conc. = −0.49 (+/− 0.083)*River Stage + −1e−04 (+/− 7.1e−05)*Date + 57 (+/− 8.8)
R^2 = 0.7

Regression Statistics for January 2015 to January 2016
Geometric Mean : 29 pCi/L

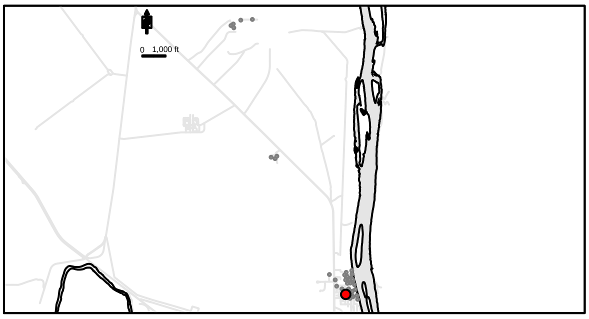
Moderate Concern Well

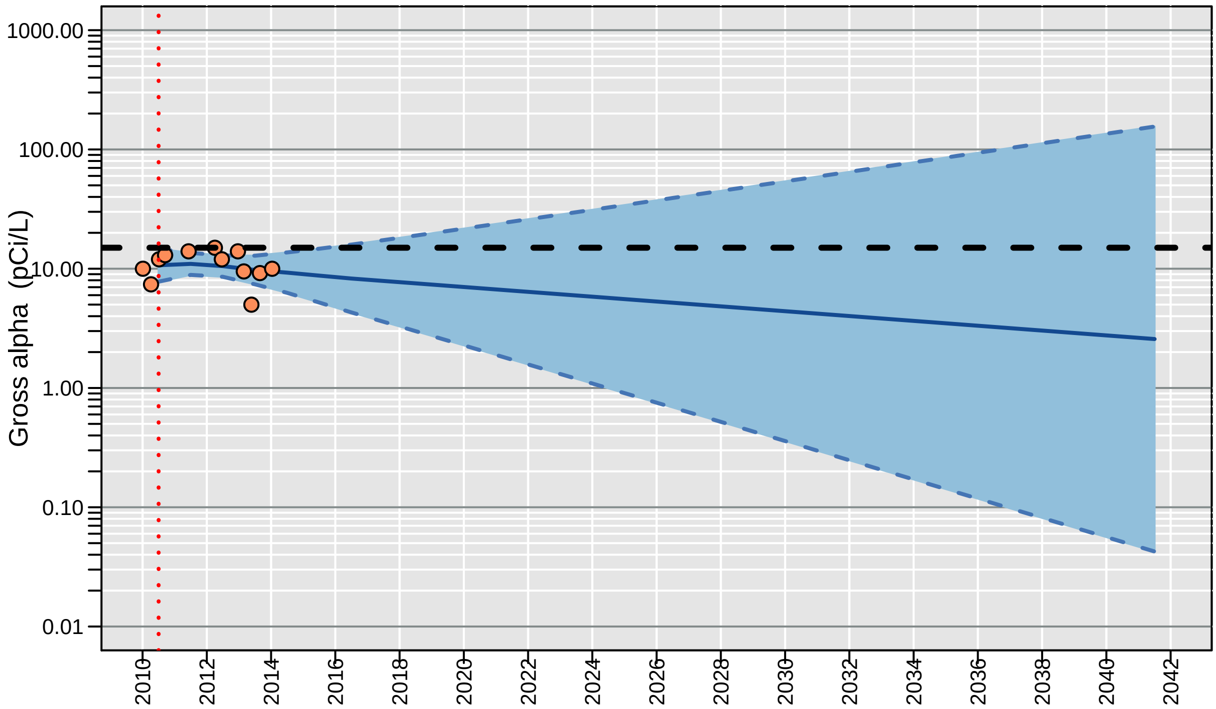
Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

399−4−11

Distance to River: 522 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	24
Max. Correlation (R2):	0.097
Number of Comparisons:	12
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.11 (+/− 0.12)*River Stage + −0.00013 (+/− 0.00017)*Date + −6.8 (+/− 13)
R^2 = 0.097

Regression Statistics for January 2015 to January 2016
Geometric Mean : 8.8 pCi/L

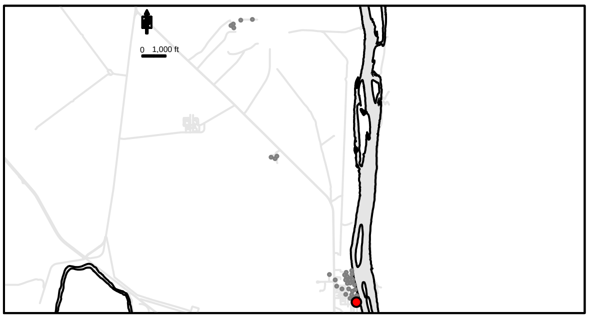
Moderate Concern Well

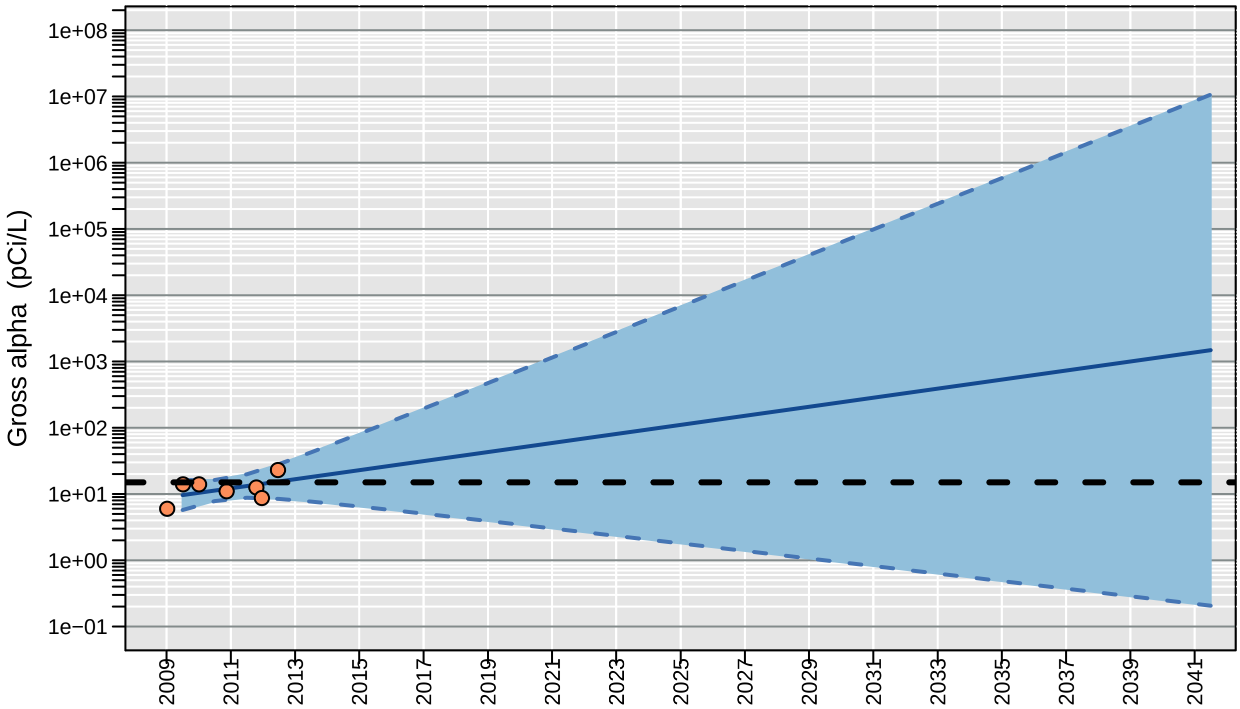
Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

399−4−12

Distance to River: 153 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.25
Number of Comparisons:	7
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.00043 (+/− 0.00029)*Date + −4 (+/− 4.3)
R^2 = 0.25

Regression Statistics for January 2015 to January 2016
Geometric Mean : 25 pCi/L

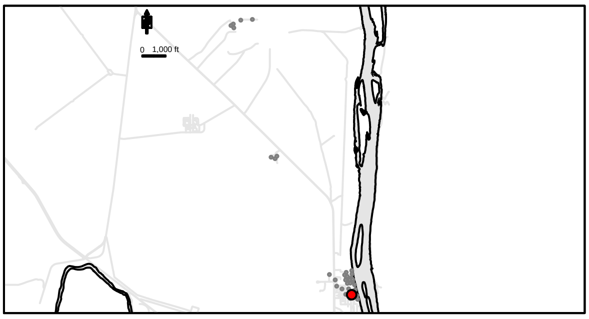
Indeterminate

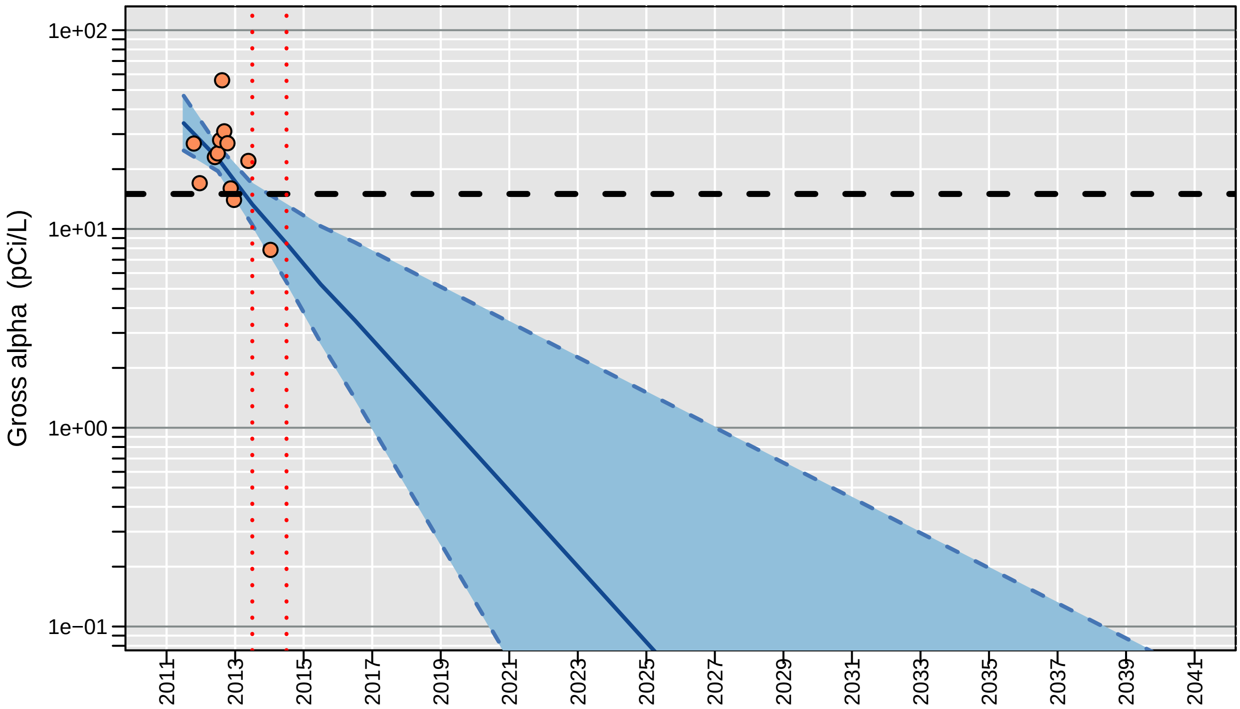
Time to cleanup not calculated (no. samples 7 < 8)

399−4−15

Distance to River: 278 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	41
Max. Correlation (R2):	0.81
Number of Comparisons:	12
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.36 (+/− 0.061)*River Stage + −0.0012 (+/− 0.00028)*Date + −16 (+/− 7.8)
R^2 = 0.81

Regression Statistics for January 2015 to January 2016
Geometric Mean : 5.3 pCi/L

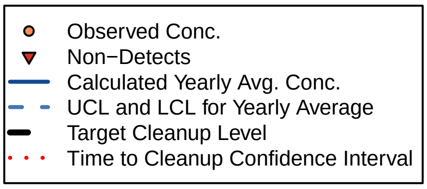
Low Concern Well

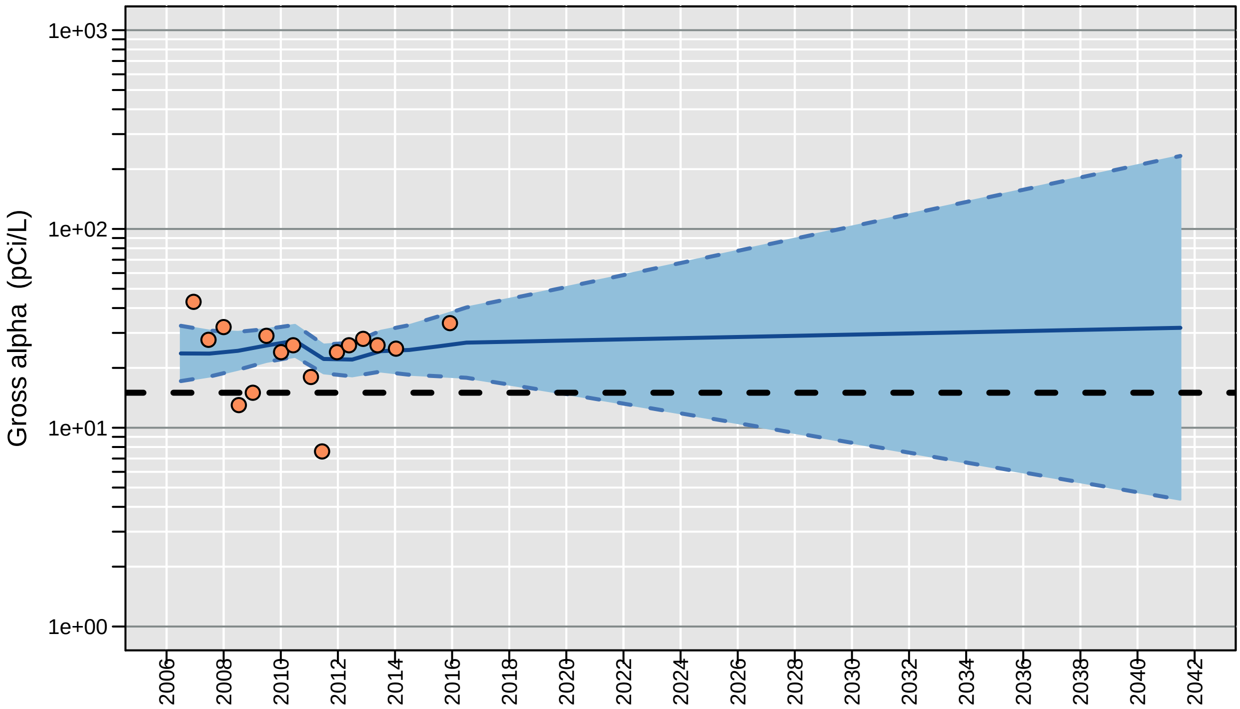
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

399−4−7

Distance to River: 72 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	15
Max. Correlation (R2):	0.48
Number of Comparisons:	16
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.31 (+/− 0.079)*River Stage + 1.9e−05 (+/− 8.1e−05)*Date + 35 (+/− 8.4)
R^2 = 0.48

Regression Statistics for January 2015 to January 2016
Geometric Mean : 26 pCi/L

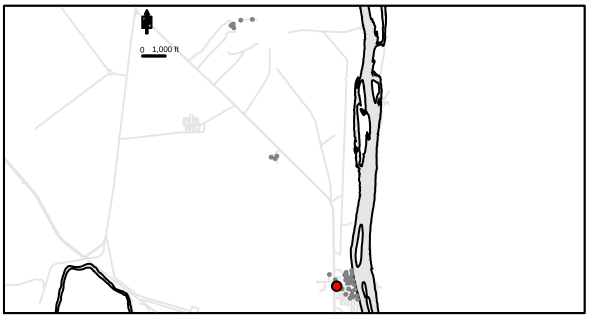
Moderate Concern Well

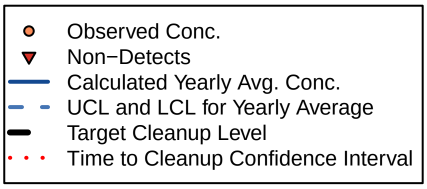
LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

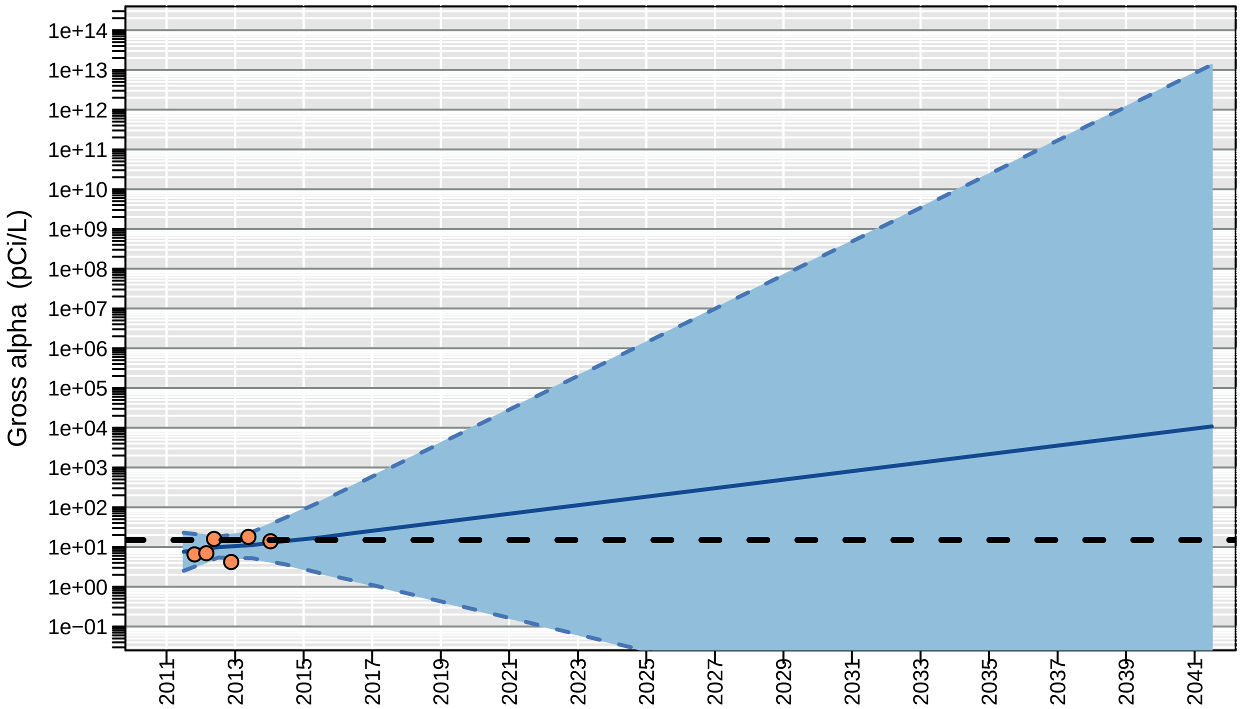
399−6−3

Distance to River: 819 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	9
Max. Correlation (R2):	0.67
Number of Comparisons:	6
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.41 (+/− 0.14)*River Stage + 0.00068 (+/− 0.00046)*Date + −51 (+/− 15)
R^2 = 0.67

Regression Statistics for January 2015 to January 2016
Geometric Mean : 17 pCi/L

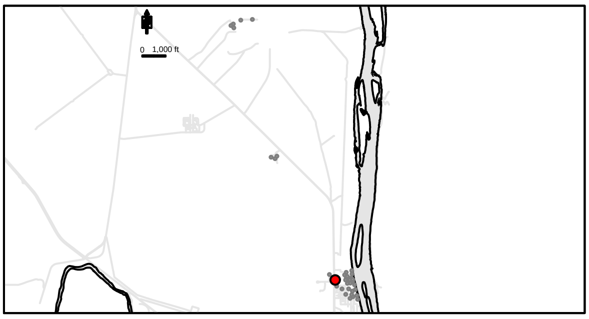
Indeterminate

Time to cleanup not calculated (no. samples 6 < 8)

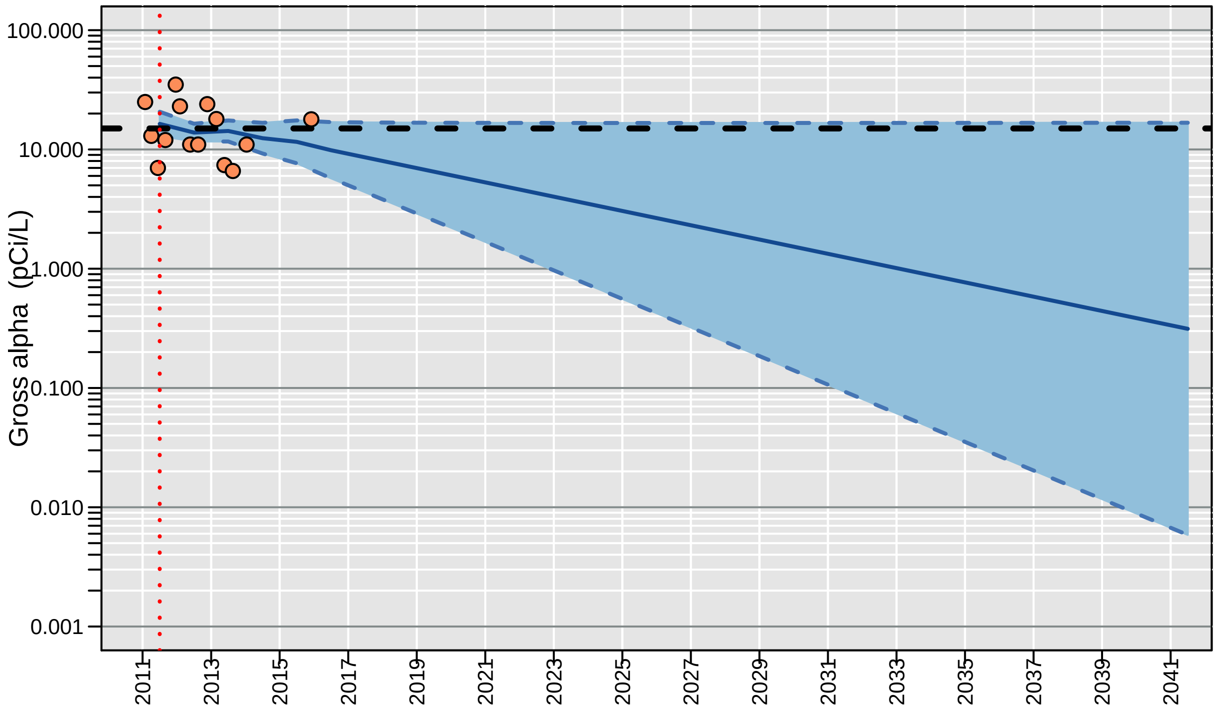
399−8−1

Distance to River: 832 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	3
Max. Correlation (R2):	0.68
Number of Comparisons:	14
Percent NDs:	0%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = −0.51 (+/− 0.095)*River Stage + −0.00038 (+/− 0.00017)*Date + 63 (+/− 11)
R^2 = 0.68

Regression Statistics for January 2015 to January 2016
Geometric Mean : 12 pCi/L

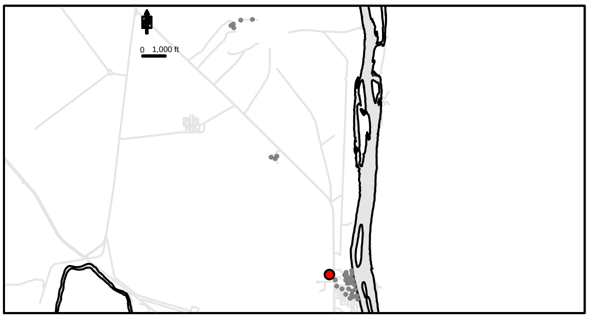
Moderate Concern Well

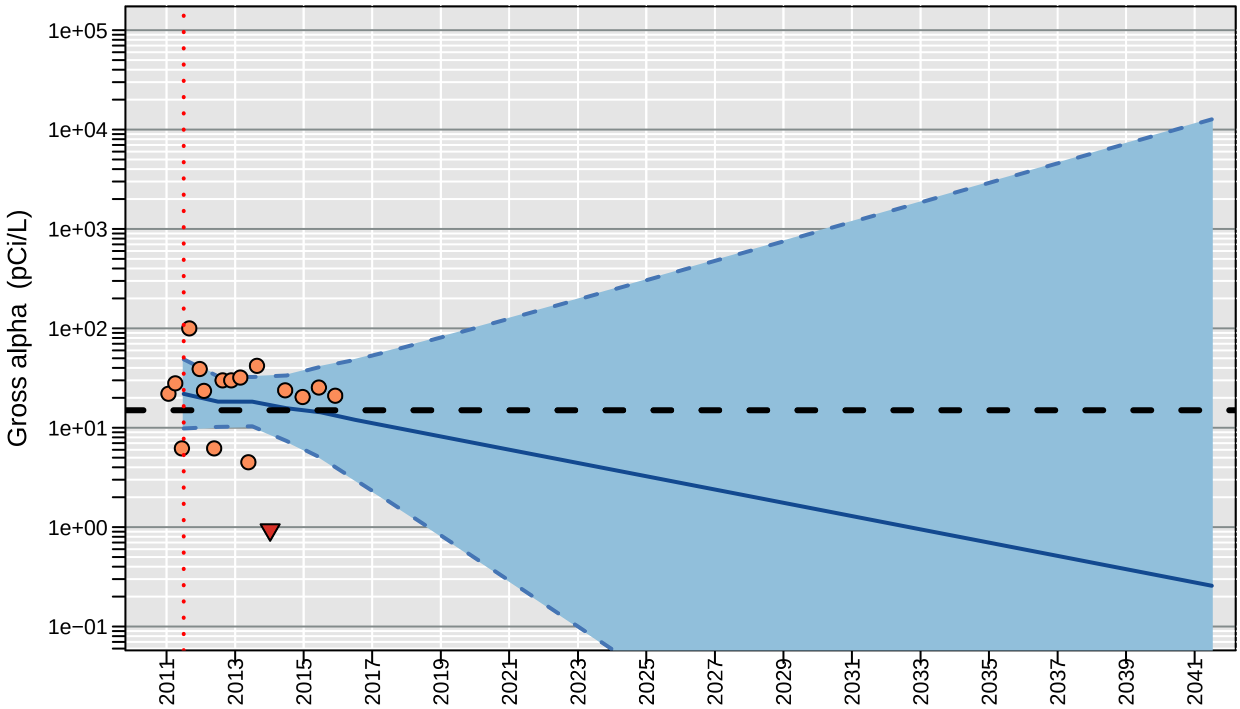
Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

399−8−5A

Distance to River: 1046 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	5
Max. Correlation (R2):	0.14
Number of Comparisons:	17
Percent NDs:	6%





Censored Regression (Tobit) Model

ln Conc. = −0.48 (+/− 0.34)*River Stage + −0.00042 (+/− 0.00048)*Date + 60 (+/− 38)
R^2 = 0.14

Regression Statistics for January 2015 to January 2016
Geometric Mean : 14 pCi/L

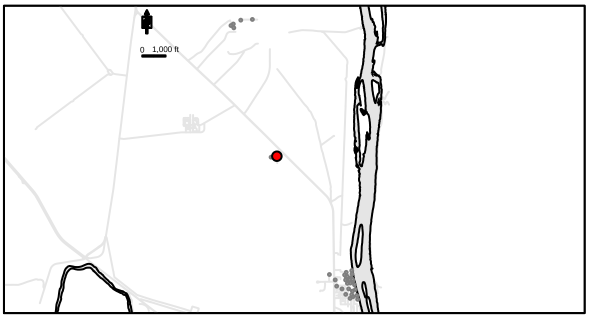
Moderate Concern Well

Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

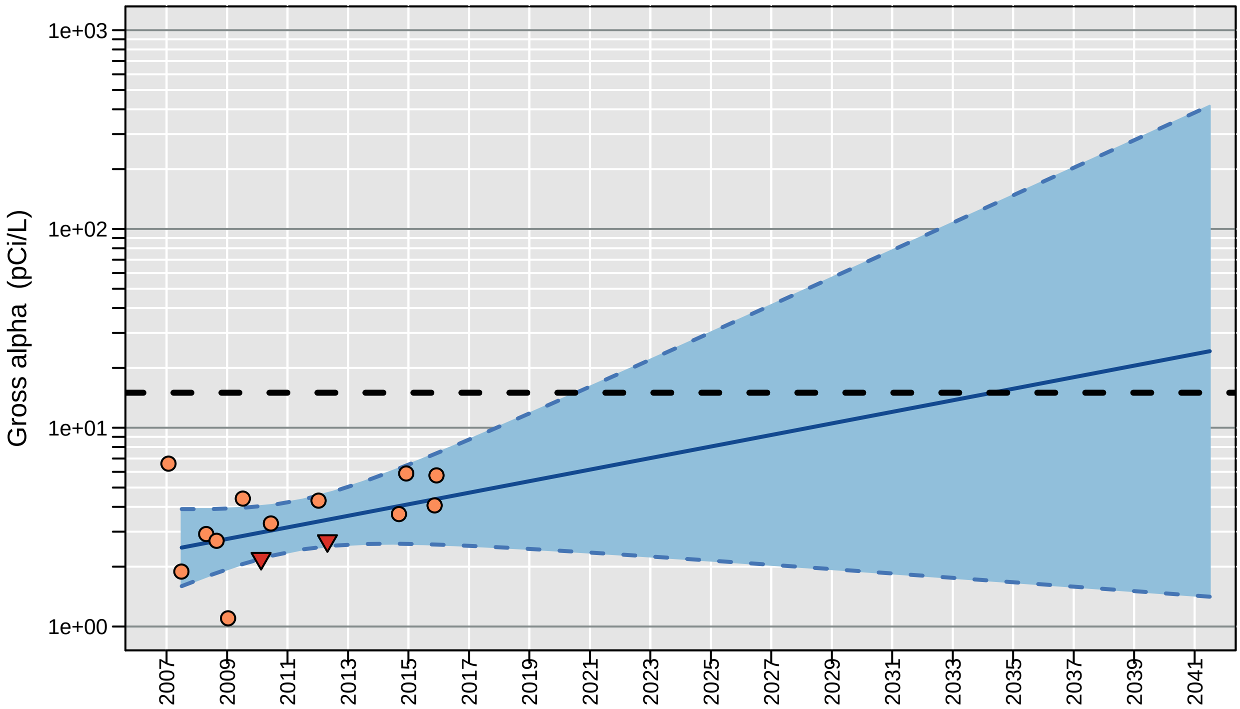
699−S6−E4B

Distance to River: 3438 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.18
Number of Comparisons:	14
Percent NDs:	14%



- Observed Conc.
- Non−Detects
- Calculated Yearly Avg. Conc.
- UCL and LCL for Yearly Average
- Target Cleanup Level
- Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = 0.00018 (+/− 0.00012)*Date + −1.6 (+/− 1.7)
R^2 = 0.18

Regression Statistics for January 2015 to January 2016
Geometric Mean : 4.3 pCi/L

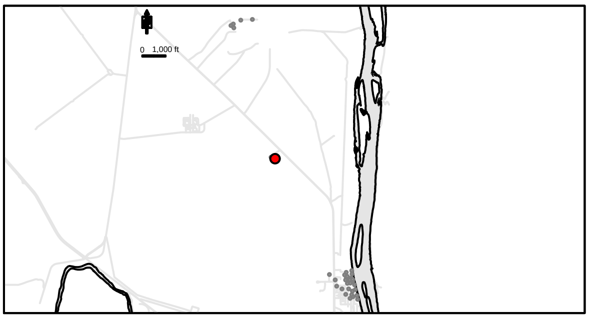
Moderate Concern Well

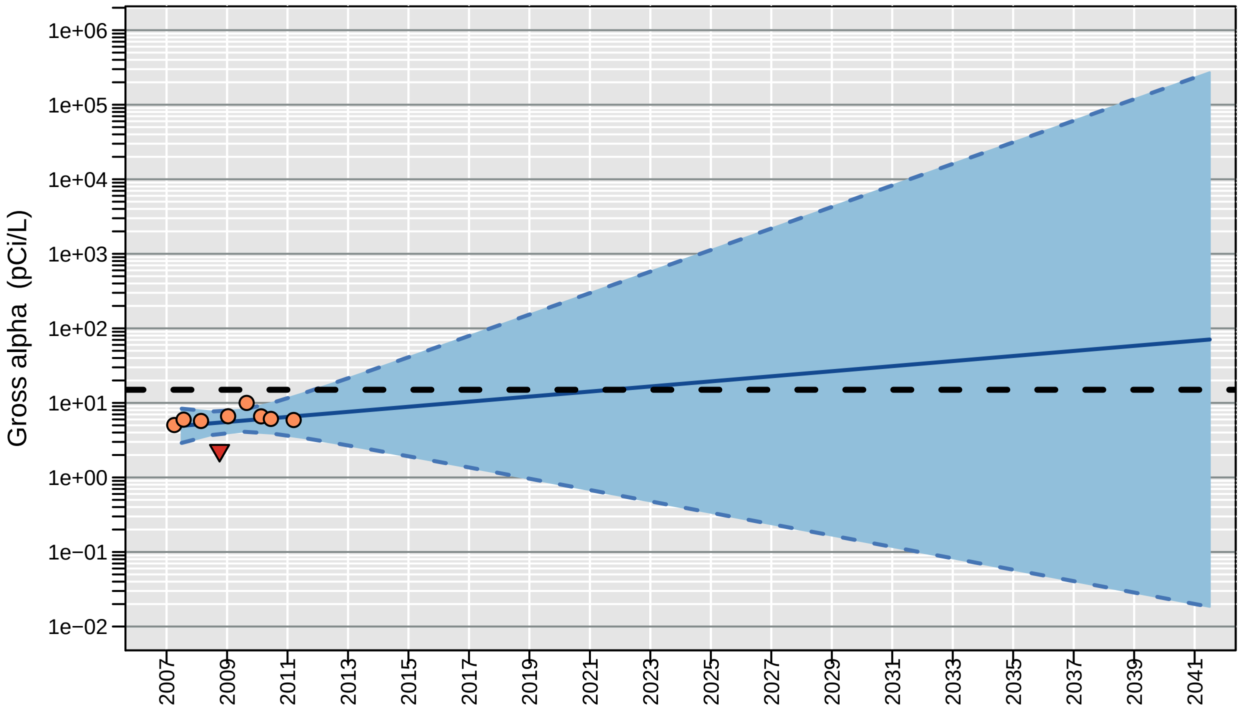
LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

699−S6−E4E

Distance to River: 3518 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.067
Number of Comparisons:	9
Percent NDs:	11%





Censored Regression (Tobit) Model

ln Conc. = 0.00021 (+/− 0.00029)*Date + −1.3 (+/− 4.1)
R^2 = 0.067

Regression Statistics for January 2015 to January 2016
Geometric Mean : 9.2 pCi/L

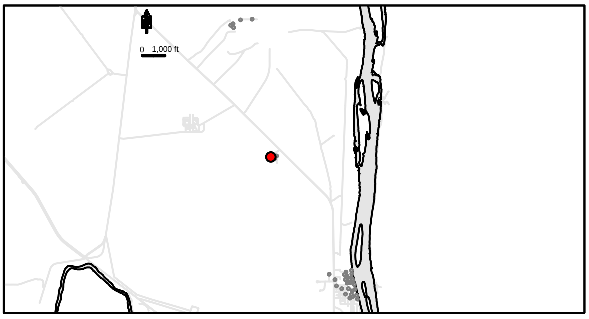
Moderate Concern Well

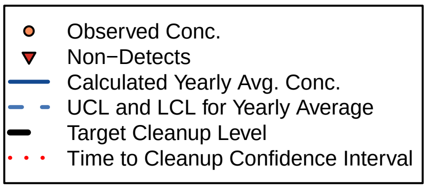
LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

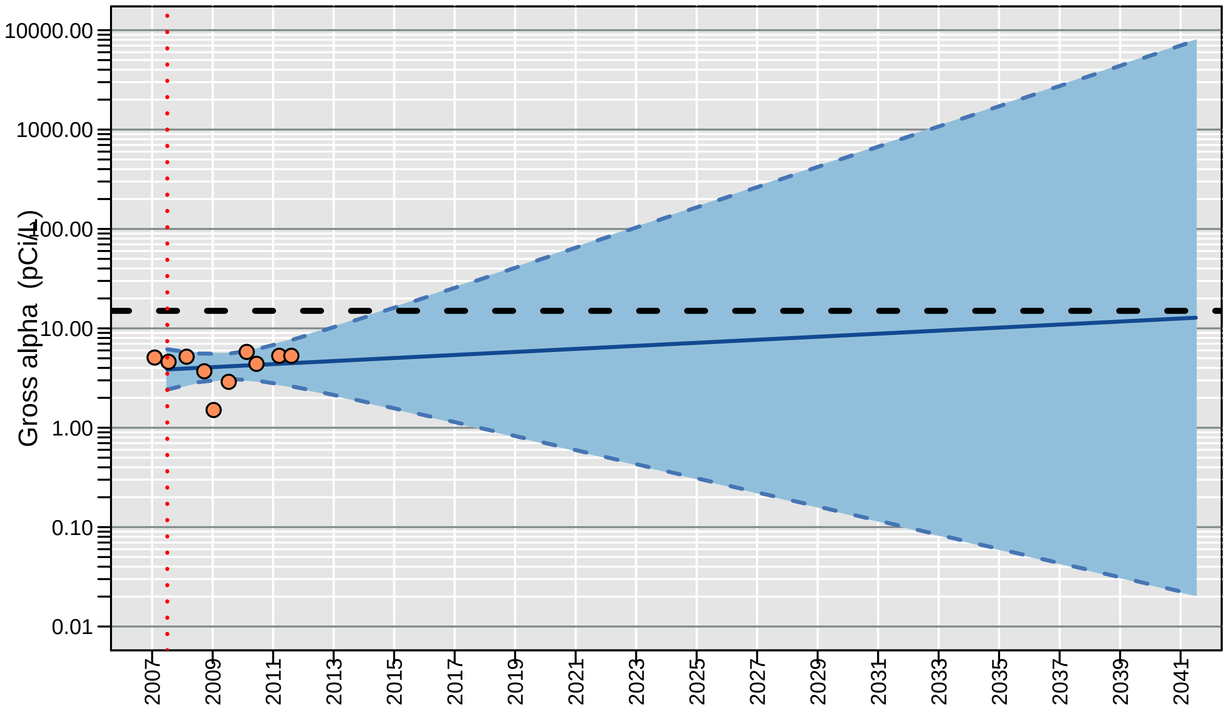
699−S6−E4K

Distance to River: 3689 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.017
Number of Comparisons:	10
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 9.6e−05 (+/− 0.00023)*Date + 0.031 (+/− 3.3)
R^2 = 0.017

Regression Statistics for January 2015 to January 2016
Geometric Mean : 5.1 pCi/L

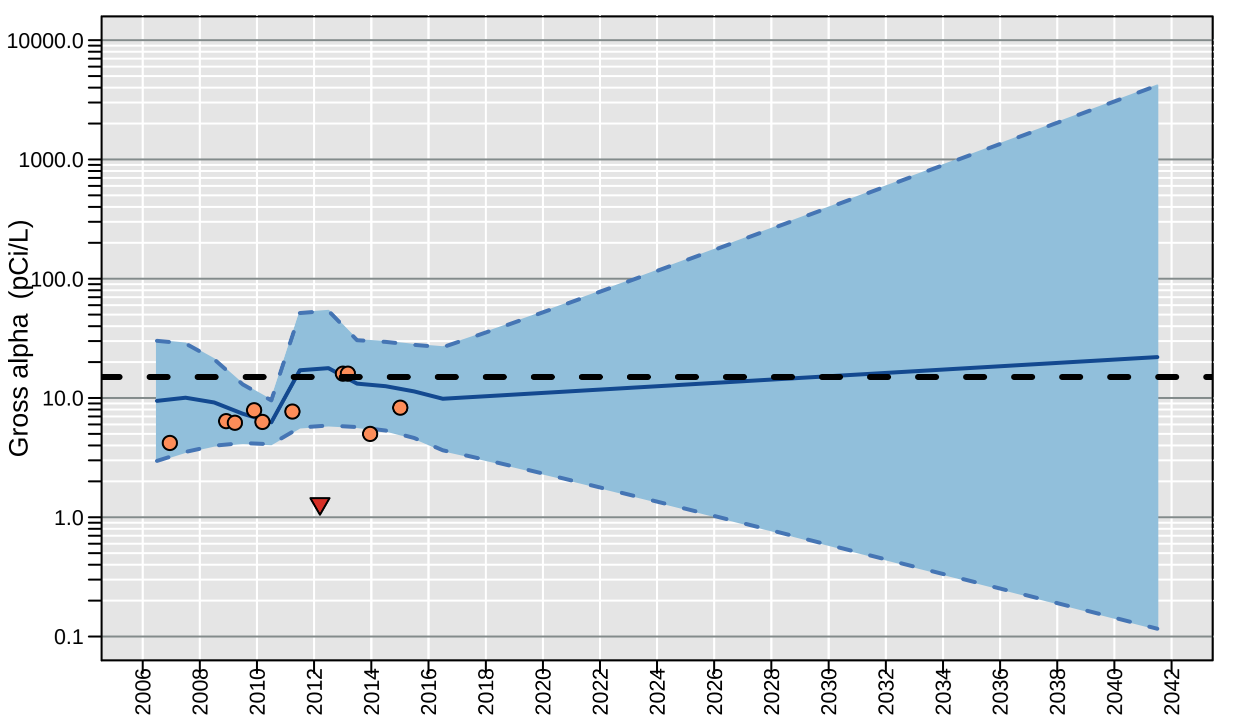
Moderate Concern Well

Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

AT−3−7−M

Distance to River: 5 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	70
Max. Correlation (R2):	0.37
Number of Comparisons:	11
Percent NDs:	9%



Censored Regression (Tobit) Model

ln Conc. = 1.4 (+/− 0.64)*River Stage + 8.8e−05 (+/− 2e−04)*Date + −150 (+/− 67)
R^2 = 0.37

Regression Statistics for January 2015 to January 2016
Geometric Mean : 11 pCi/L

Moderate Concern Well

LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

Nitrate

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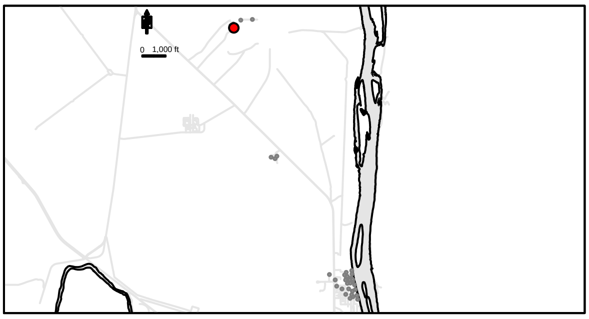
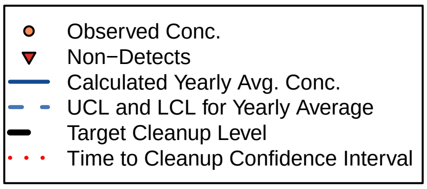
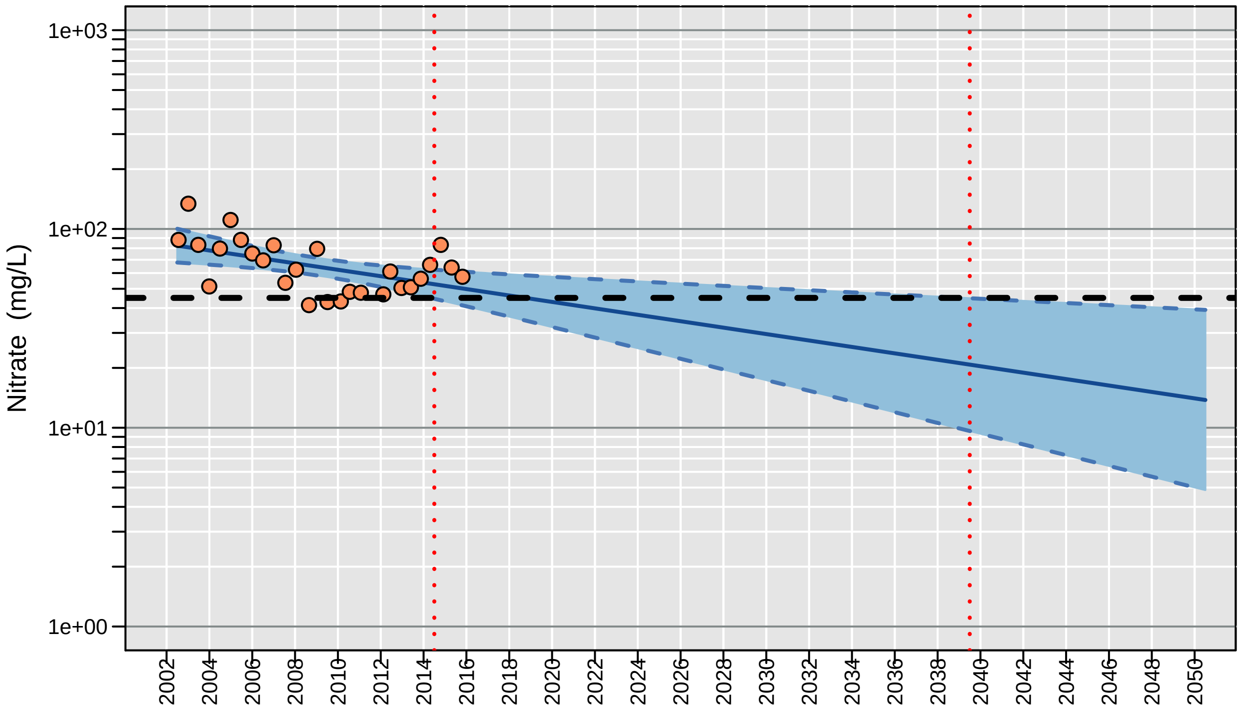
699−12−2C

Distance to River: 5526 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.26
Number of Comparisons:	27
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = −1e−04 (+/− 3.3e−05)*Date + 5.6 (+/− 0.48)
R^2 = 0.26

Regression Statistics for January 2015 to January 2016
Geometric Mean : 51 mg/L

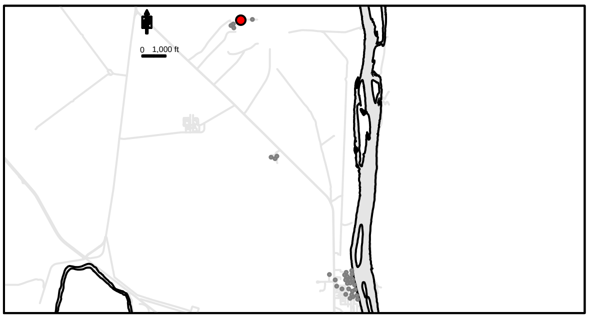
Low Concern Well

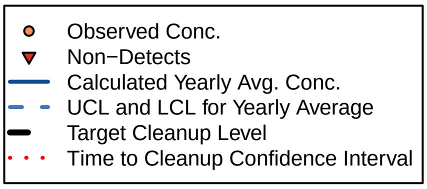
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2050
Trend is declining

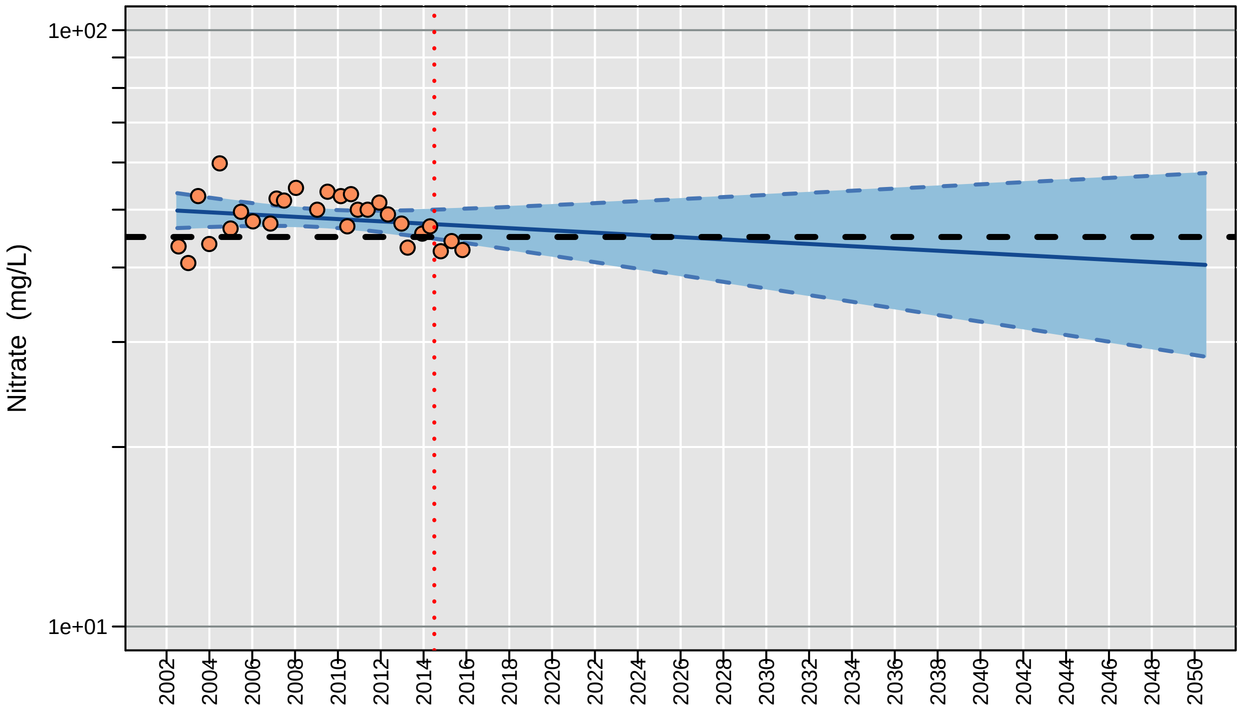
699−13−1E

Distance to River: 5173 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.038
Number of Comparisons:	28
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = −1.2e−05 (+/− 1.1e−05)*Date + 4.1 (+/− 0.16)
R^2 = 0.038

Regression Statistics for January 2015 to January 2016
Geometric Mean : 47 mg/L

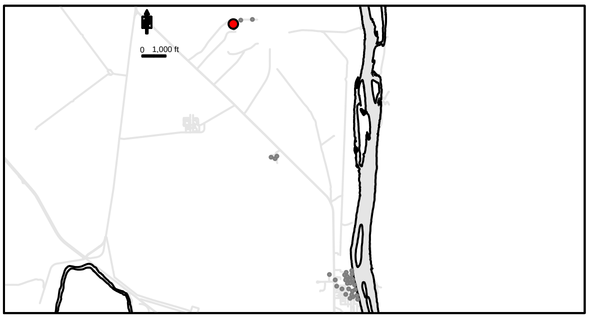
Moderate Concern Well

Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2050
UCL for Yearly Average above Cleanup Level in 2050
Trend is declining

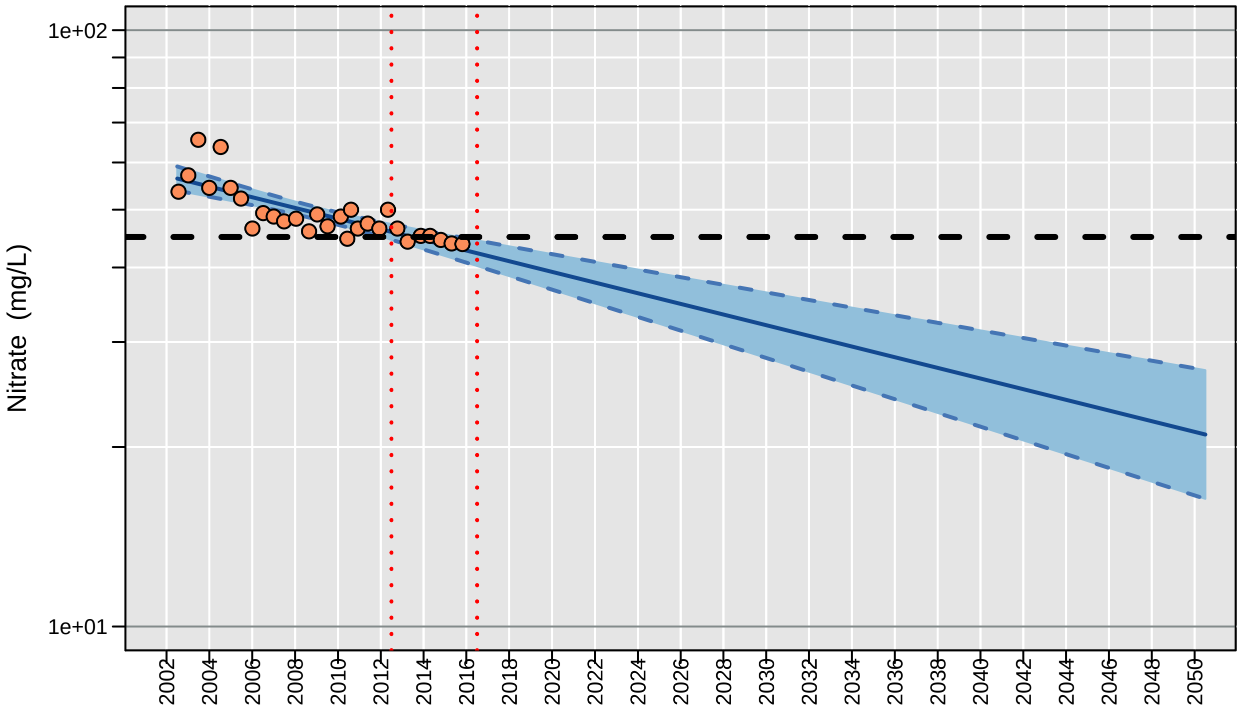
699−13−2D

Distance to River: 5519 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.63
Number of Comparisons:	29
Percent NDs:	0%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = −5.6e−05 (+/− 8e−06)*Date + 4.7 (+/− 0.12)
R^2 = 0.63

Regression Statistics for January 2015 to January 2016
Geometric Mean : 43 mg/L

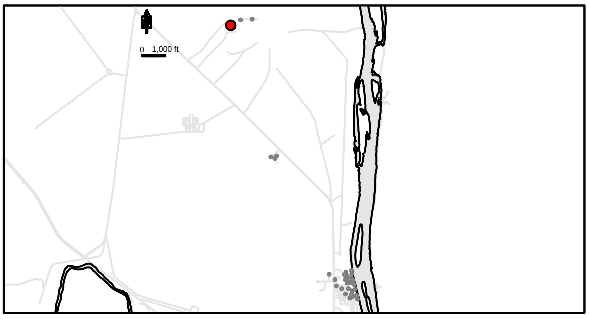
Low Concern Well

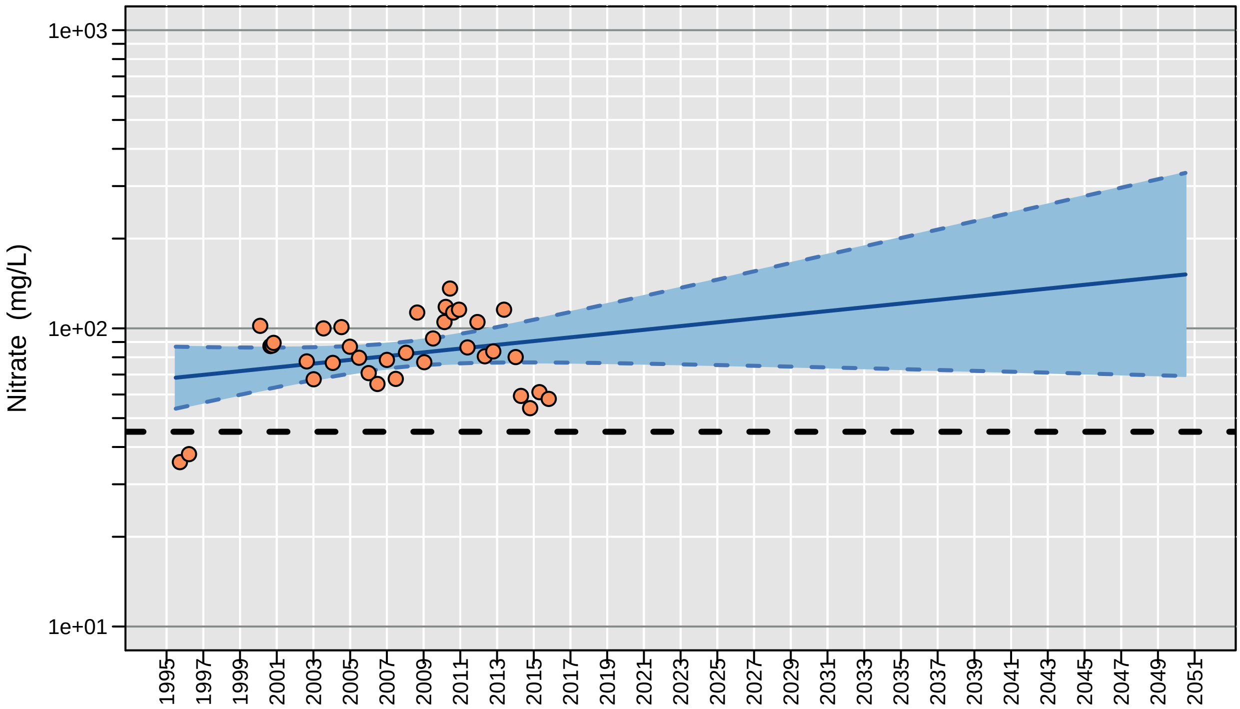
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2050
Trend is declining

699−13−3A

Distance to River: 5630 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.068
Number of Comparisons:	36
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 4e−05 (+/− 2.4e−05)*Date + 3.9 (+/− 0.34)
R^2 = 0.068

Regression Statistics for January 2015 to January 2016
Geometric Mean : 91 mg/L

High Concern Well

Yearly Average Concentration and LCL and UCL for Yearly Average above Cleanup Level in 2050
Trend is increasing

Trichloroethene (TCE)

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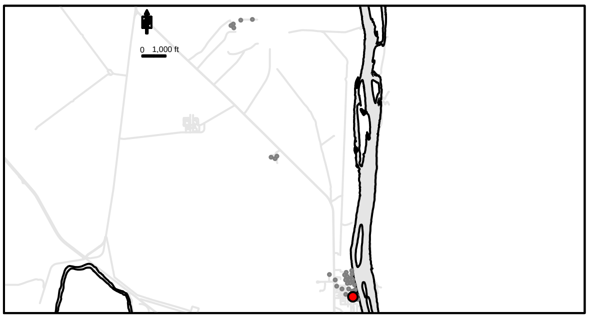
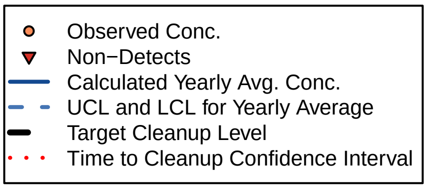
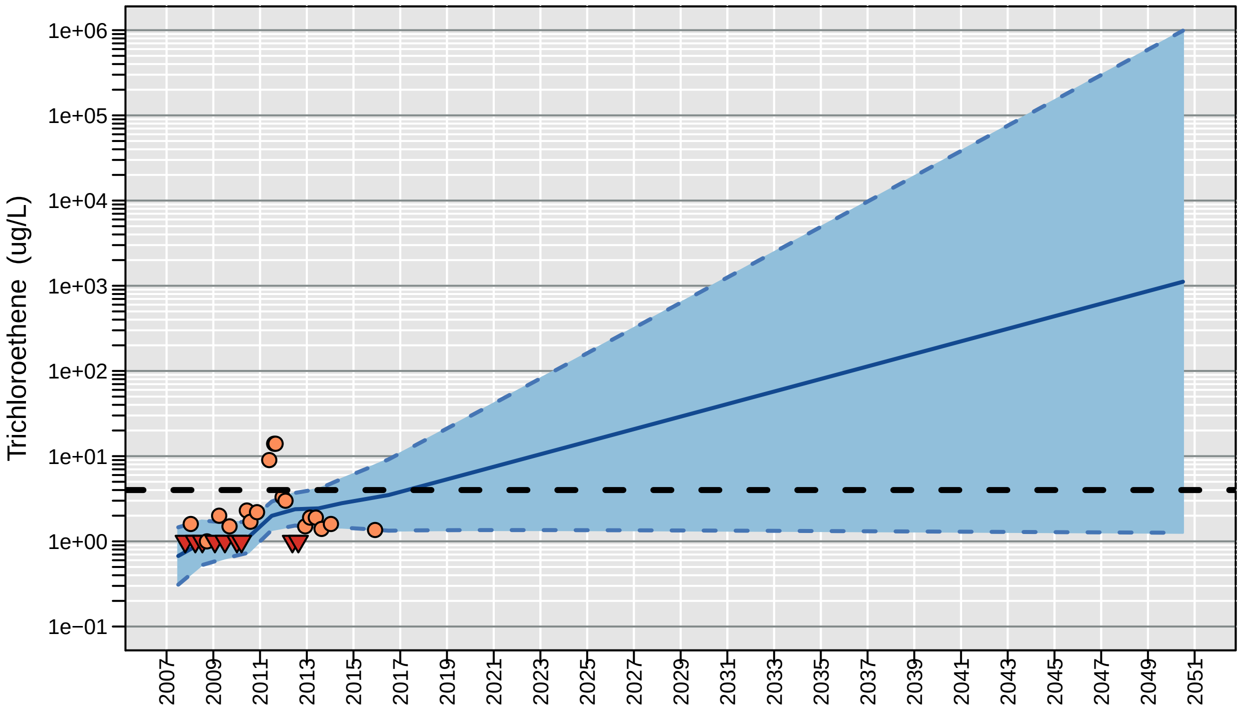
399−4−14

Distance to River: 247 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	81
Max. Correlation (R2):	0.35
Number of Comparisons:	27
Percent NDs:	33%







Censored Regression (Tobit) Model

ln Conc. = 0.6 (+/− 0.21)*River Stage + 0.00046 (+/− 0.00023)*Date + −70 (+/− 22)
R^2 = 0.35

Regression Statistics for January 2015 to January 2016
Geometric Mean : 3.1 ug/L

Moderate Concern Well

LCL for Yearly Average below Cleanup Level by 2050
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2050
Trend is increasing

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Tritium

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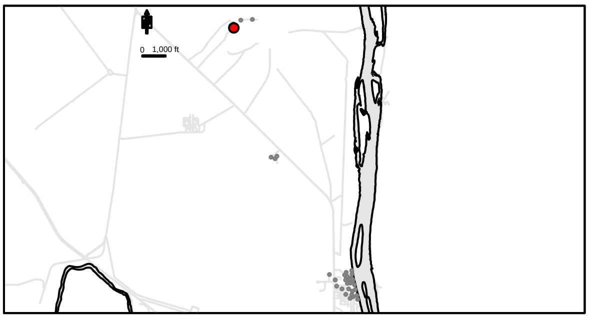
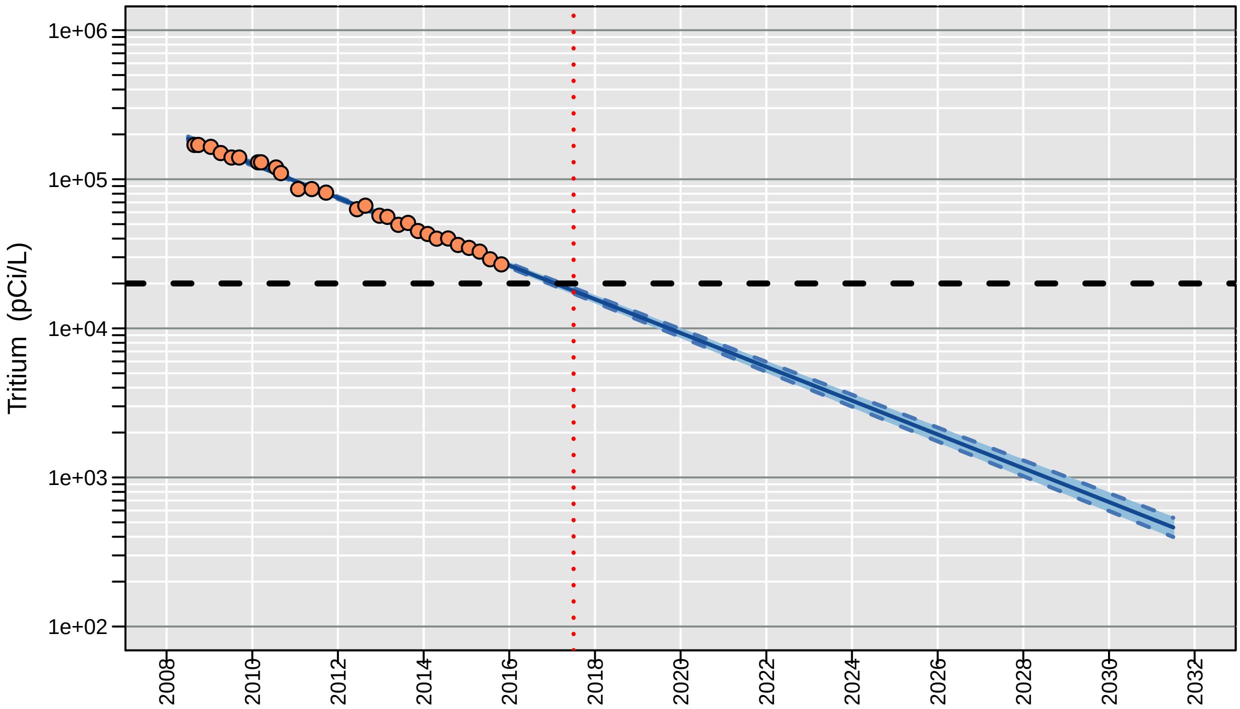
699−12−2C

Distance to River: 5526 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.99
Number of Comparisons:	28
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.00071 (+/− 1e−05)*Date + 22 (+/− 0.16)
R^2 = 0.99

Regression Statistics for January 2015 to January 2016
Geometric Mean : 30,000 pCi/L

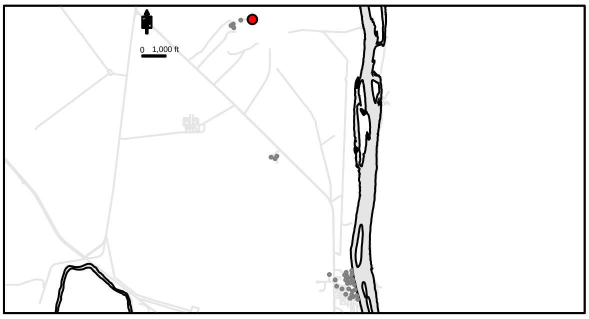
Low Concern Well

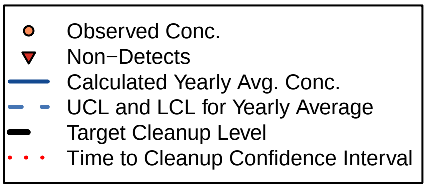
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2031
Trend is declining

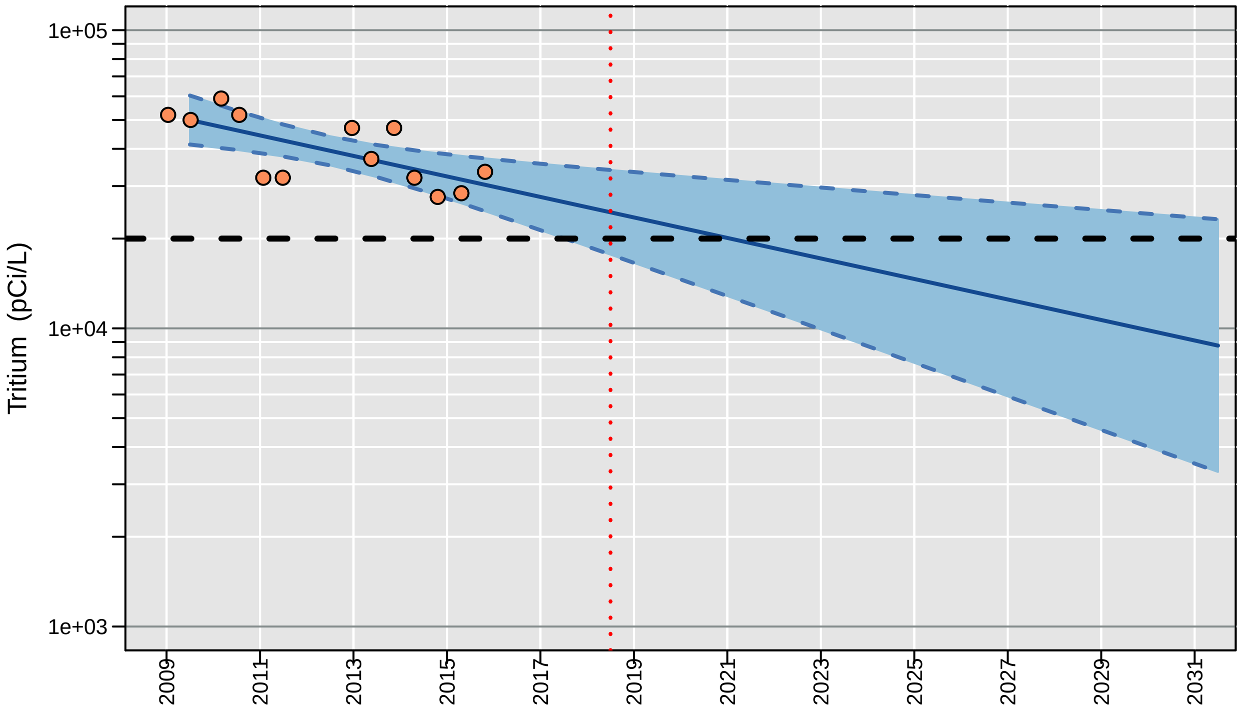
699−13−0A

Distance to River: 4675 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.48
Number of Comparisons:	13
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = −0.00022 (+/− 6.3e−05)*Date + 14 (+/− 0.97)
R^2 = 0.48

Regression Statistics for January 2015 to January 2016
Geometric Mean : 31,000 pCi/L

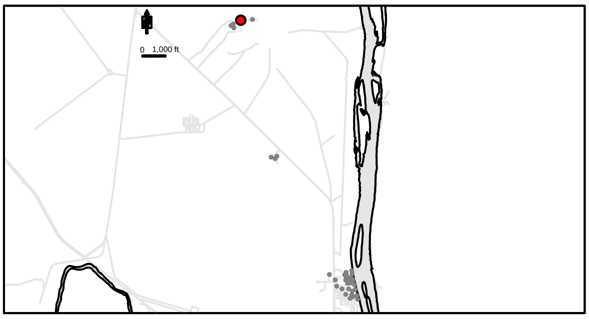
Moderate Concern Well

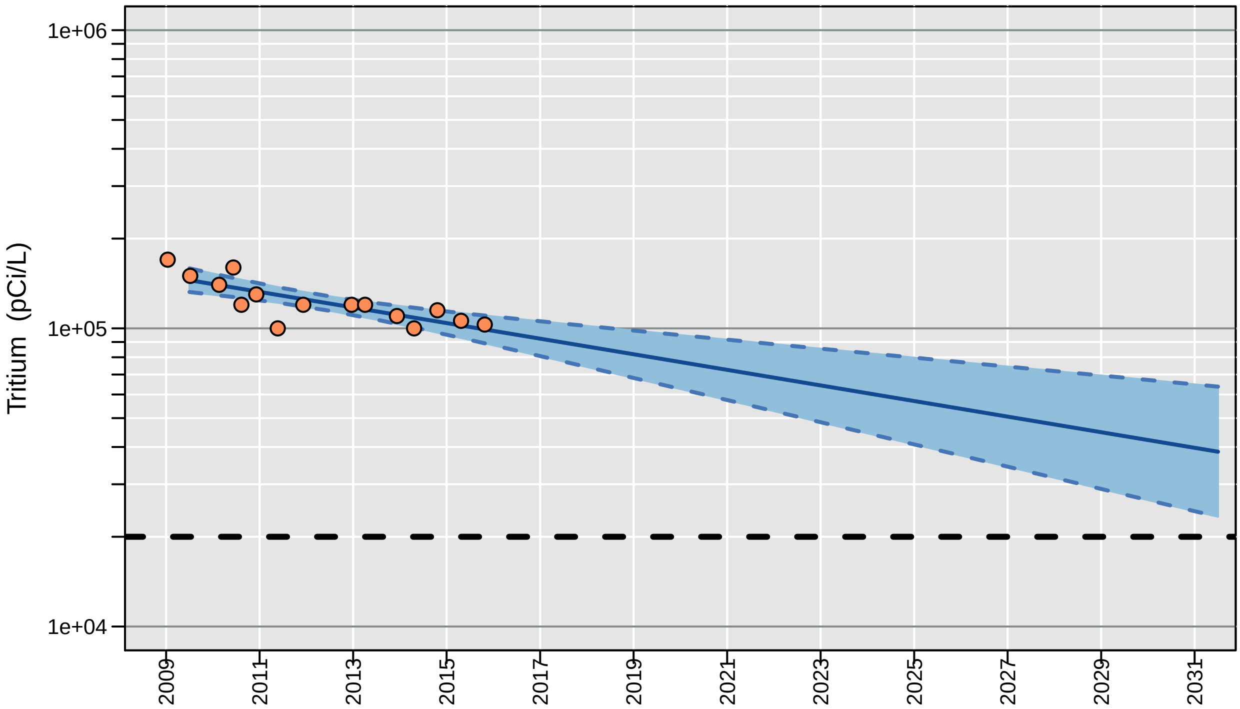
Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2031
UCL for Yearly Average above Cleanup Level in 2031
Trend is declining

699−13−1E

Distance to River: 5173 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.63
Number of Comparisons:	15
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.00016 (+/− 3.3e−05)*Date + 14 (+/− 0.51)
R^2 = 0.63

Regression Statistics for January 2015 to January 2016
Geometric Mean : 1e+05 pCi/L

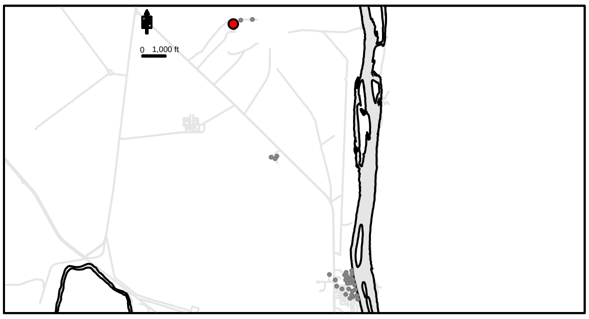
Moderate Concern Well

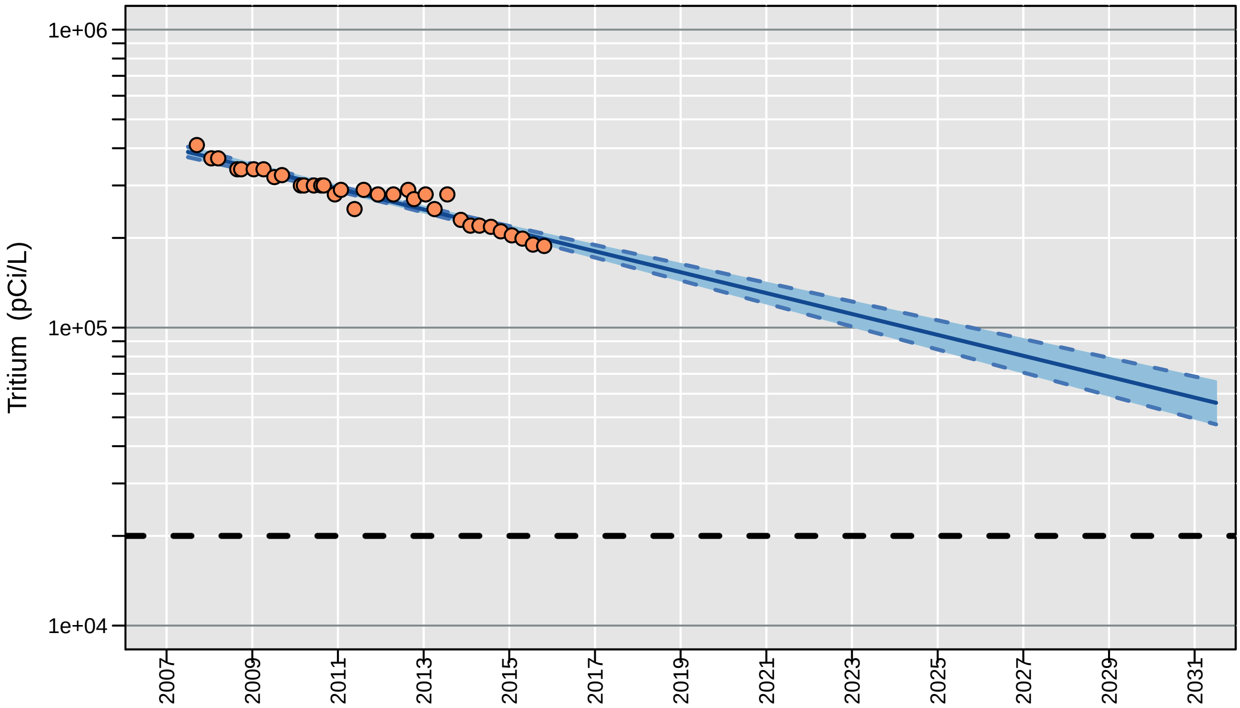
Yearly Average Concentration and LCL and UCL for Yearly Average above Cleanup Level in 2031
Trend is declining

699−13−2D

Distance to River: 5519 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.92
Number of Comparisons:	34
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.00022 (+/− 1.1e−05)*Date + 16 (+/− 0.17)
R^2 = 0.92

Regression Statistics for January 2015 to January 2016
Geometric Mean : 2e+05 pCi/L

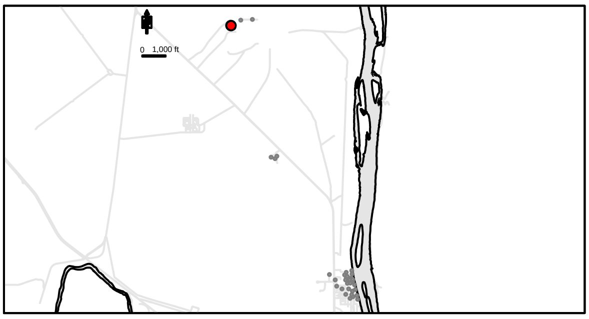
Moderate Concern Well

Yearly Average Concentration and LCL and UCL for Yearly Average above Cleanup Level in 2031
Trend is declining

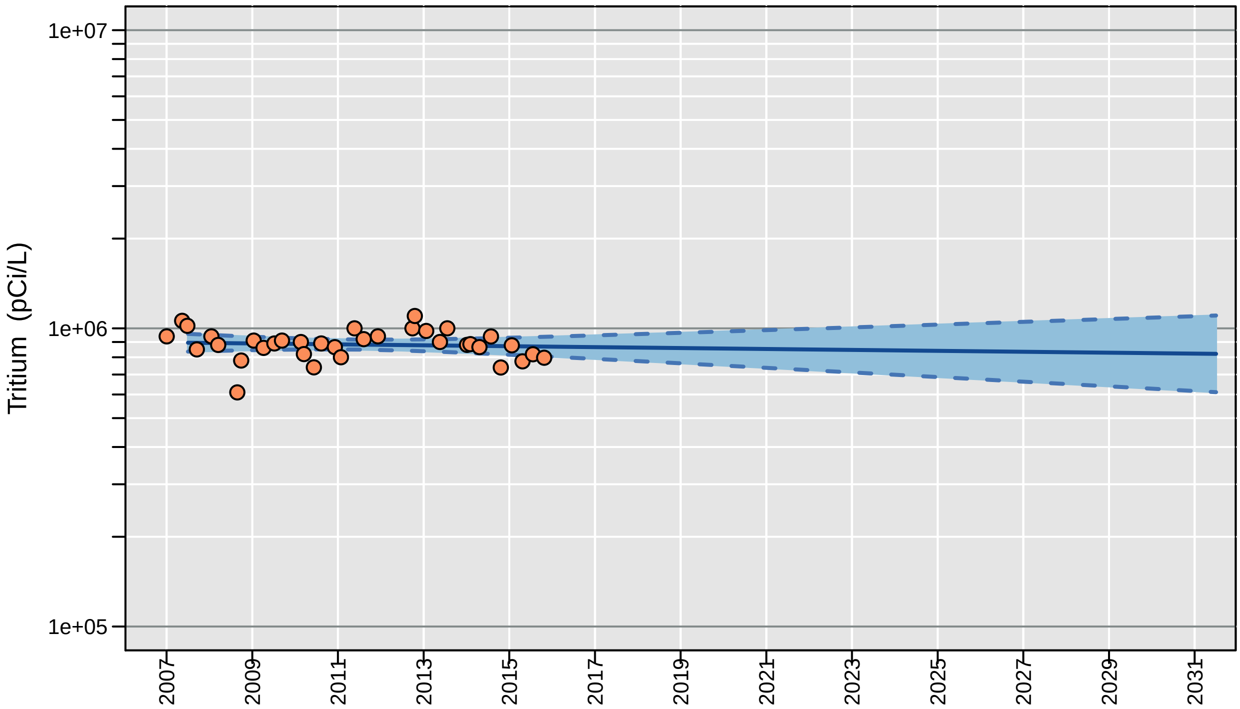
699−13−3A

Distance to River: 5630 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.0071
Number of Comparisons:	35
Percent NDs:	0%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = −9.8e−06 (+/− 2e−05)*Date + 14 (+/− 0.3)
R^2 = 0.0071

Regression Statistics for January 2015 to January 2016
Geometric Mean : 870,000 pCi/L

Moderate Concern Well

Yearly Average Concentration and LCL and UCL for Yearly Average above Cleanup Level in 2031
Trend is declining

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Uranium

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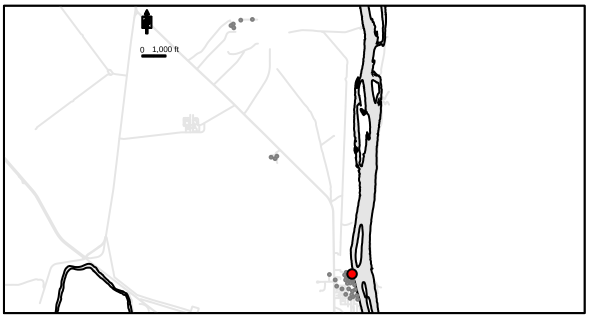
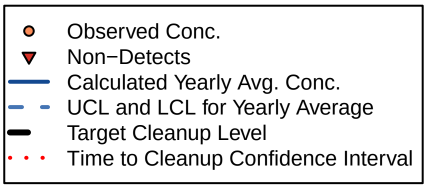
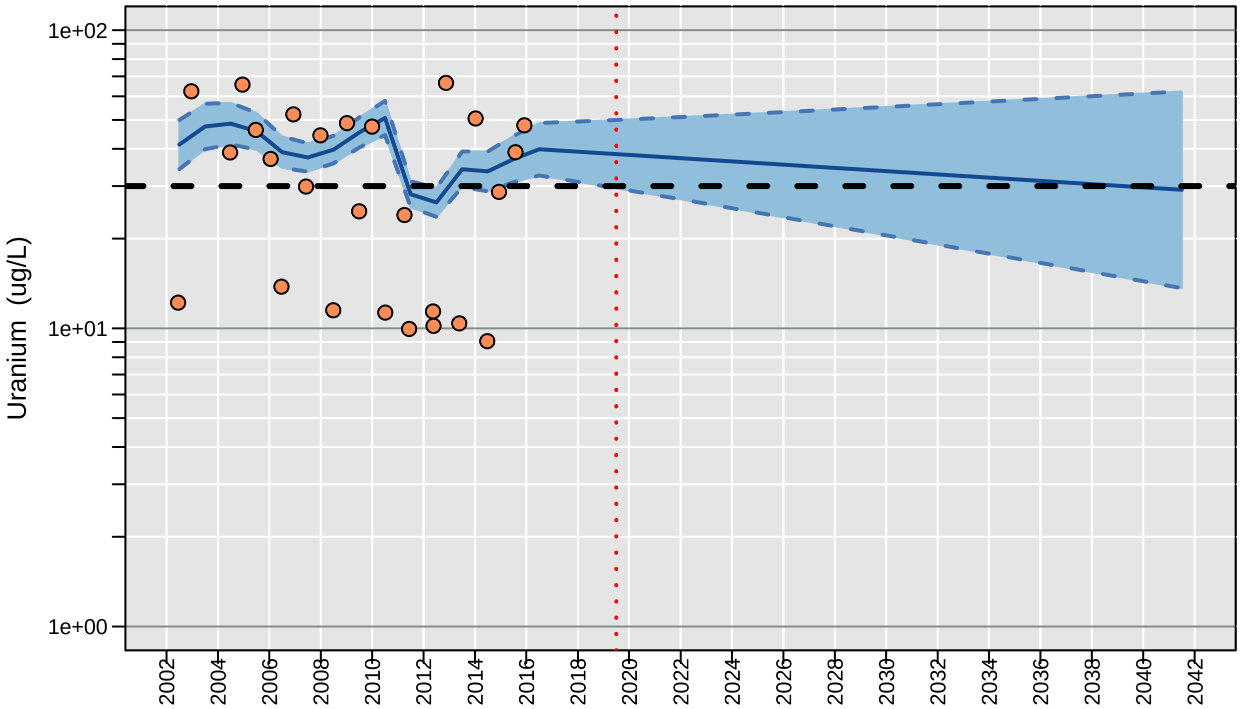
399−1−1

Distance to River: 76 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	3
Max. Correlation (R2):	0.9
Number of Comparisons:	26
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = −0.81 (+/− 0.055)*River Stage + −3.4e−05 (+/− 3.1e−05)*Date + 90 (+/− 5.7)
R^2 = 0.9

Regression Statistics for January 2015 to January 2016
Geometric Mean : 37 ug/L

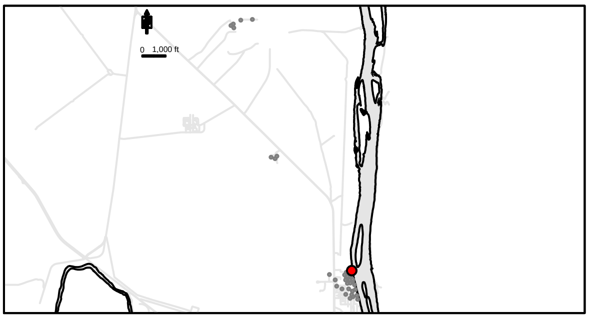
Moderate Concern Well

Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

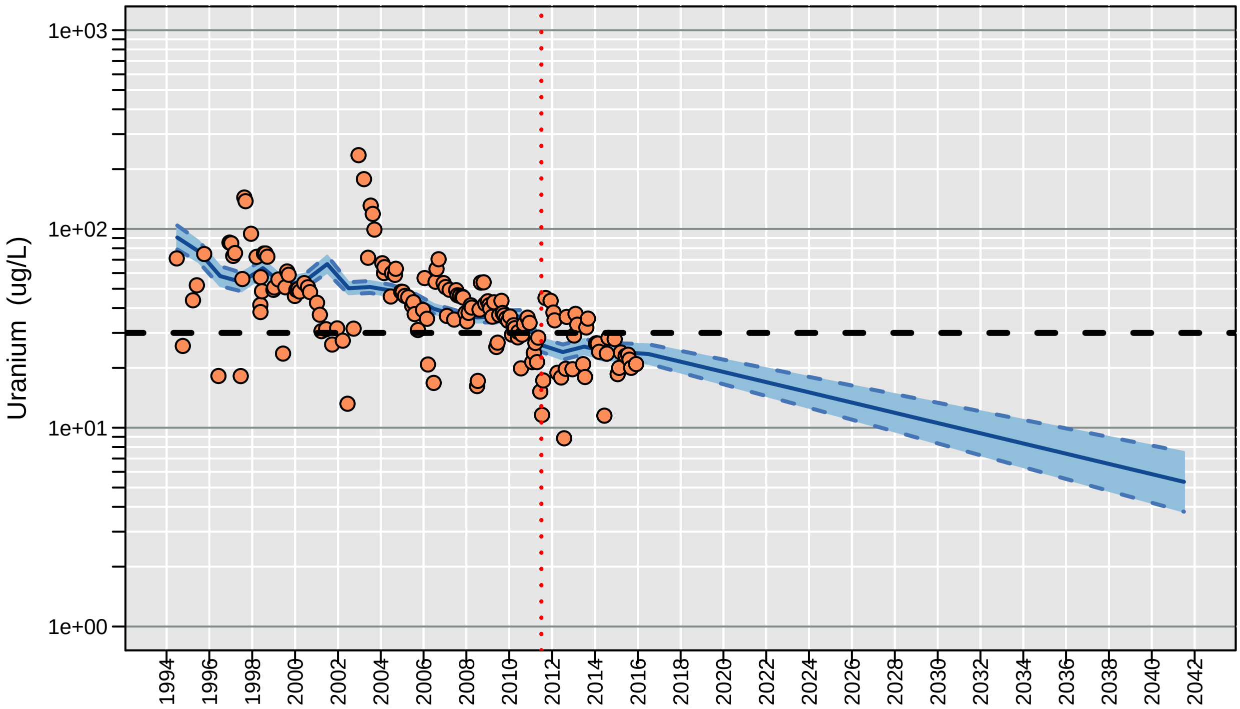
399−1−10A

Distance to River: 70 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	5
Max. Correlation (R2):	0.54
Number of Comparisons:	161
Percent NDs:	0%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = −0.38 (+/− 0.044)*River Stage + −0.00016 (+/− 1.4e−05)*Date + 46 (+/− 4.7)
R^2 = 0.54

Regression Statistics for January 2015 to January 2016
Geometric Mean : 24 ug/L

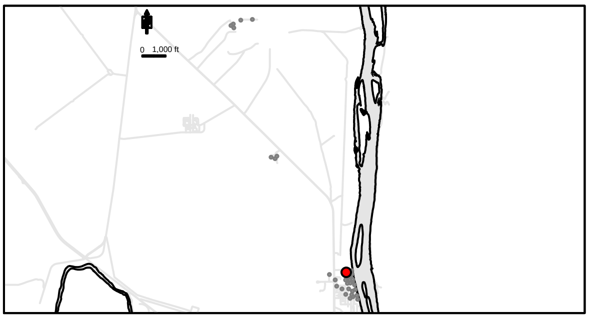
Low Concern Well

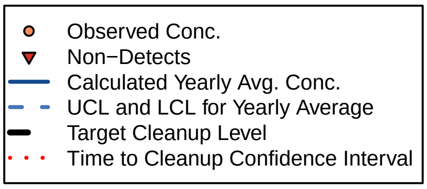
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

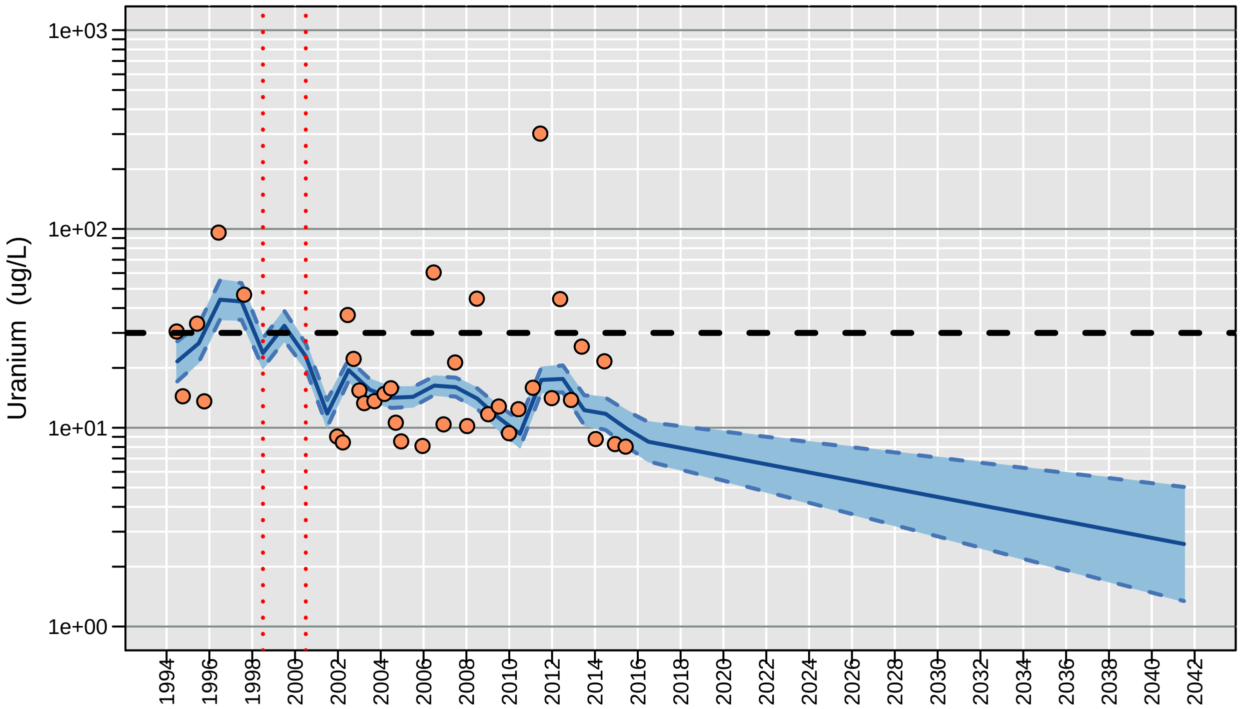
399−1−11

Distance to River: 314 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	2
Max. Correlation (R2):	0.83
Number of Comparisons:	37
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.95 (+/− 0.071)*River Stage + −0.00013 (+/− 2.4e−05)*Date + −95 (+/− 7.4)
R^2 = 0.83

Regression Statistics for January 2015 to January 2016
Geometric Mean : 9.9 ug/L

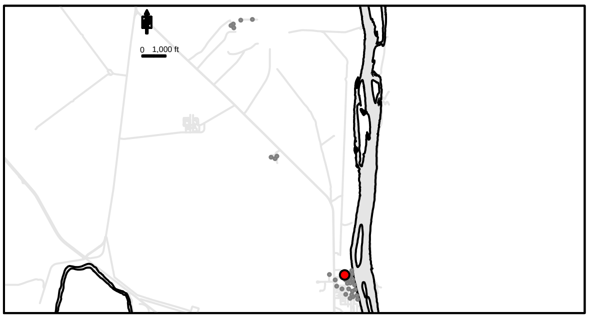
Low Concern Well

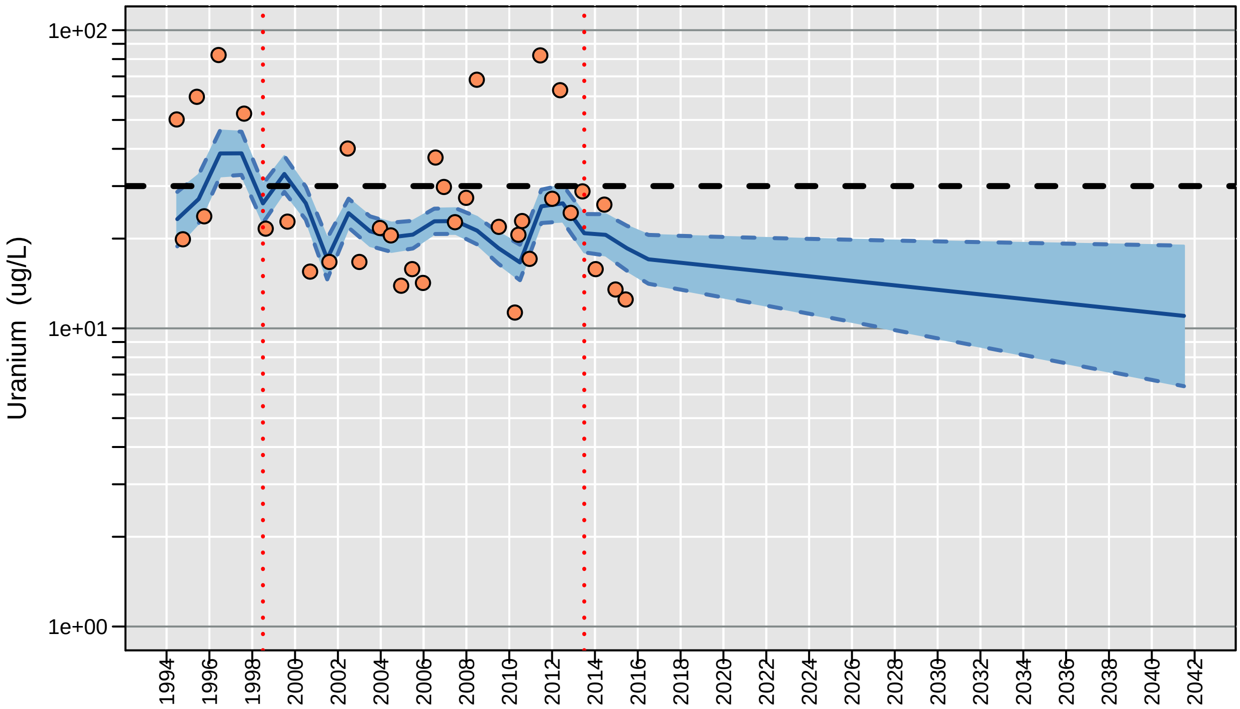
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

399−1−12

Distance to River: 398 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.73
Number of Comparisons:	36
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.64 (+/− 0.067)*River Stage + −4.8e−05 (+/− 2e−05)*Date + −63 (+/− 7.1)
R^2 = 0.73

Regression Statistics for January 2015 to January 2016
Geometric Mean : 19 ug/L

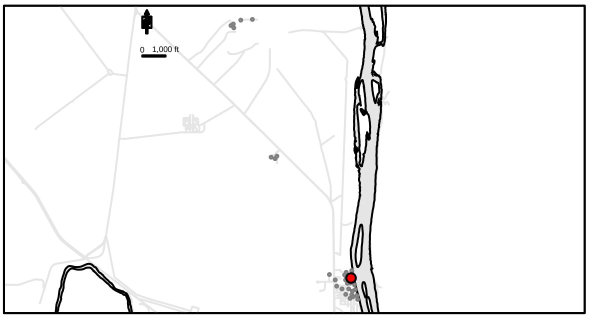
Low Concern Well

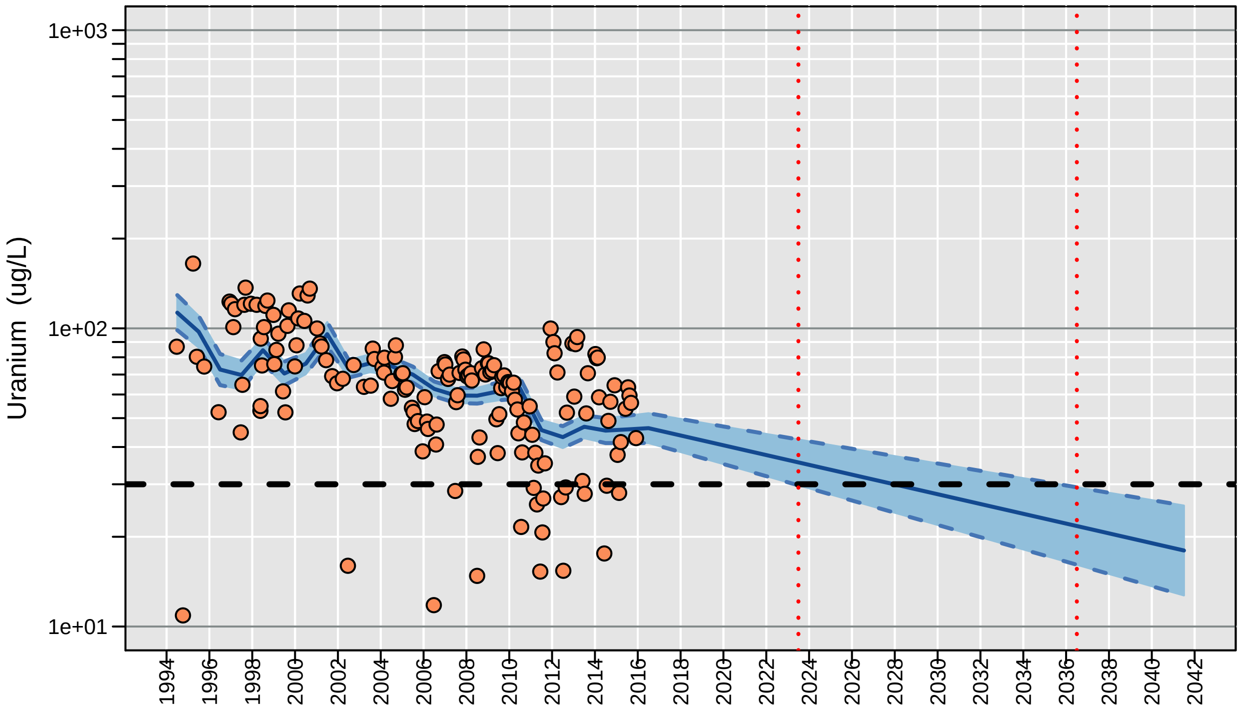
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

399−1−16A

Distance to River: 141 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	15
Max. Correlation (R2):	0.48
Number of Comparisons:	160
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.4 (+/− 0.043)*River Stage + −1e−04 (+/− 1.4e−05)*Date + 48 (+/− 4.5)
R^2 = 0.48

Regression Statistics for January 2015 to January 2016
Geometric Mean : 46 ug/L

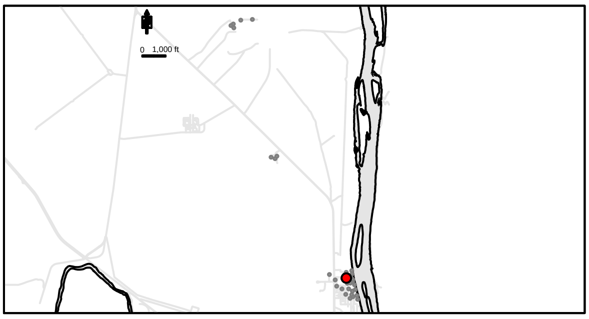
Low Concern Well

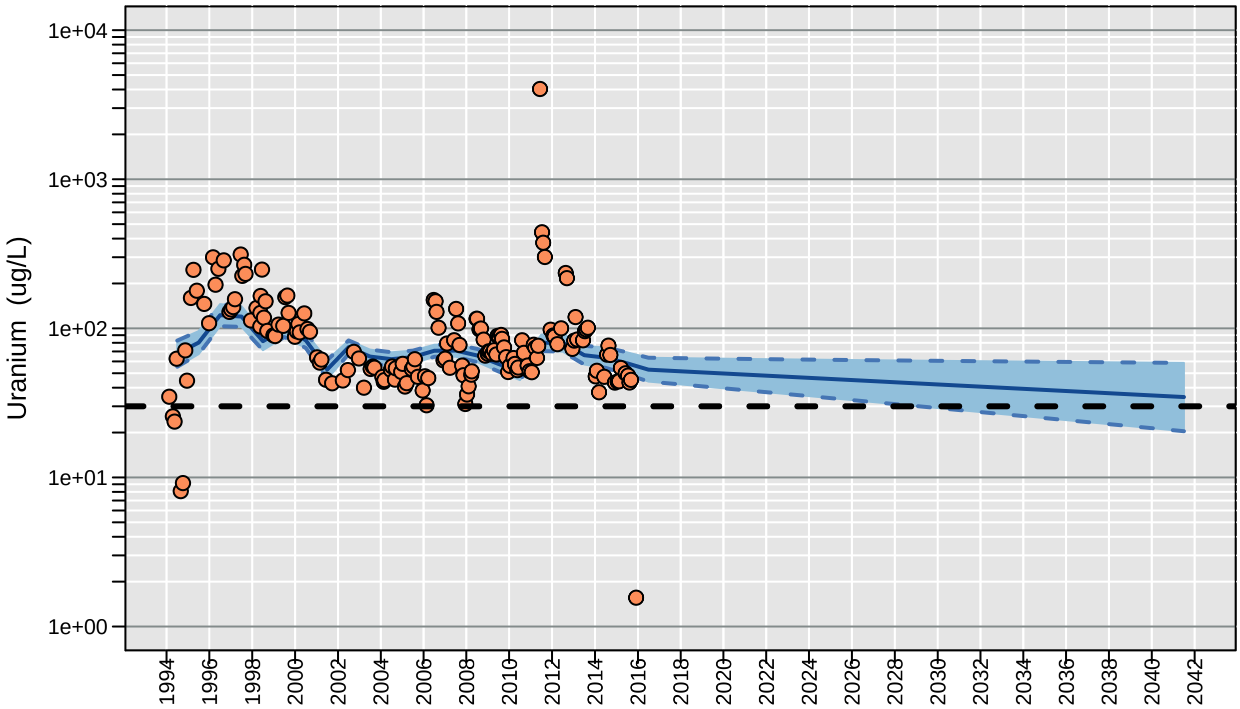
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

399−1−17A

Distance to River: 344 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	26
Max. Correlation (R2):	0.37
Number of Comparisons:	167
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.66 (+/− 0.069)*River Stage + −4.6e−05 (+/− 2e−05)*Date + −64 (+/− 7.3)
R^2 = 0.37

Regression Statistics for January 2015 to January 2016
Geometric Mean : 58 ug/L

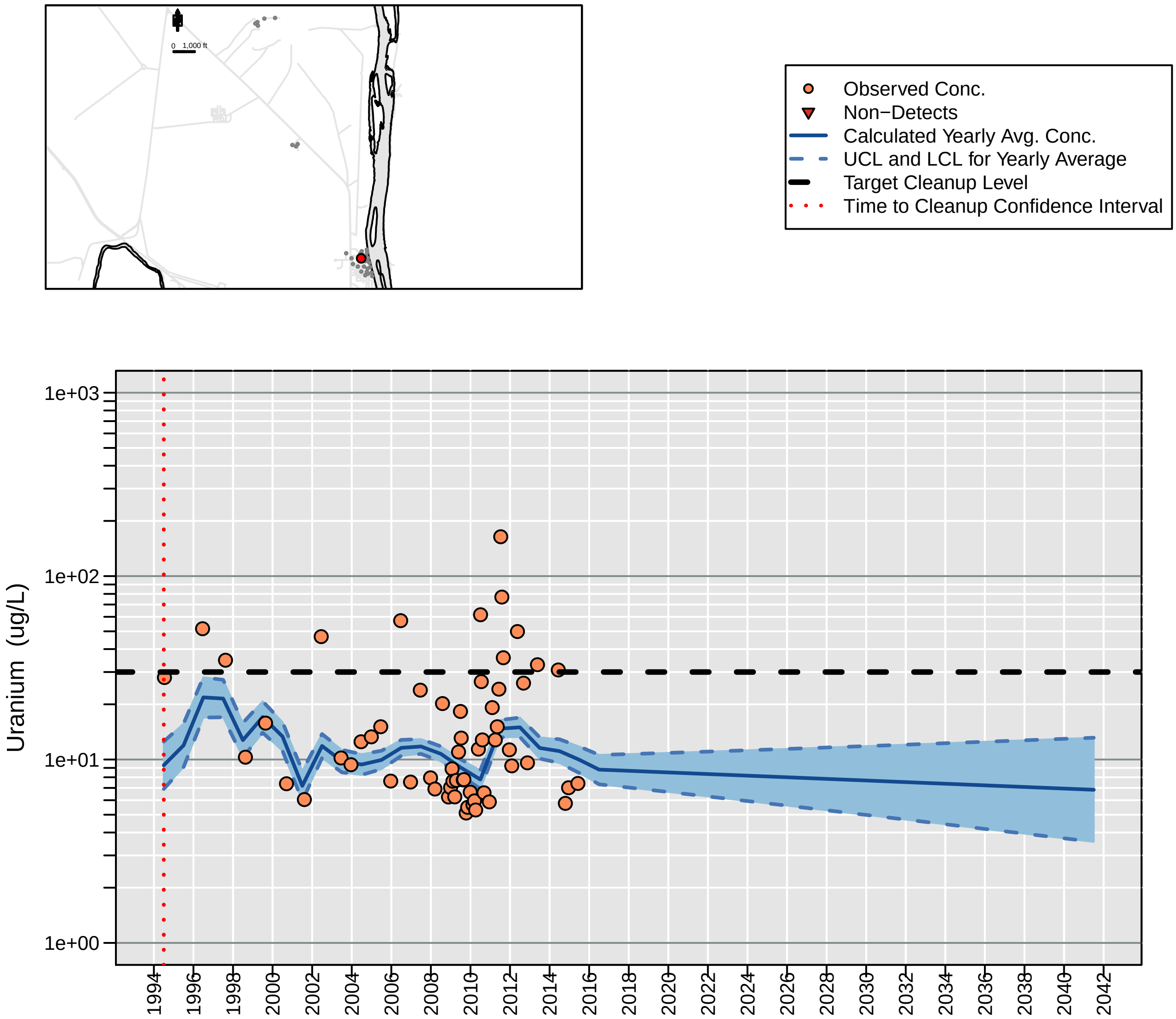
Moderate Concern Well

LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

399−1−2

Distance to River: 386 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	24
Max. Correlation (R2):	0.81
Number of Comparisons:	60
Percent NDs:	0%



Censored Regression (Tobit) Model

ln Conc. = 0.92 (+/− 0.058)*River Stage + −2.8e−05 (+/− 2.7e−05)*Date + −94 (+/− 6.1)
R^2 = 0.81

Regression Statistics for January 2015 to January 2016
Geometric Mean : 10 ug/L

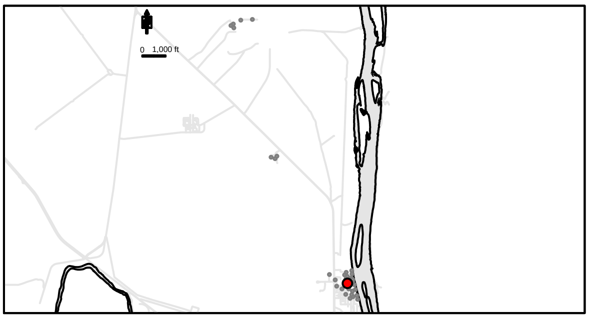
Low Concern Well

Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

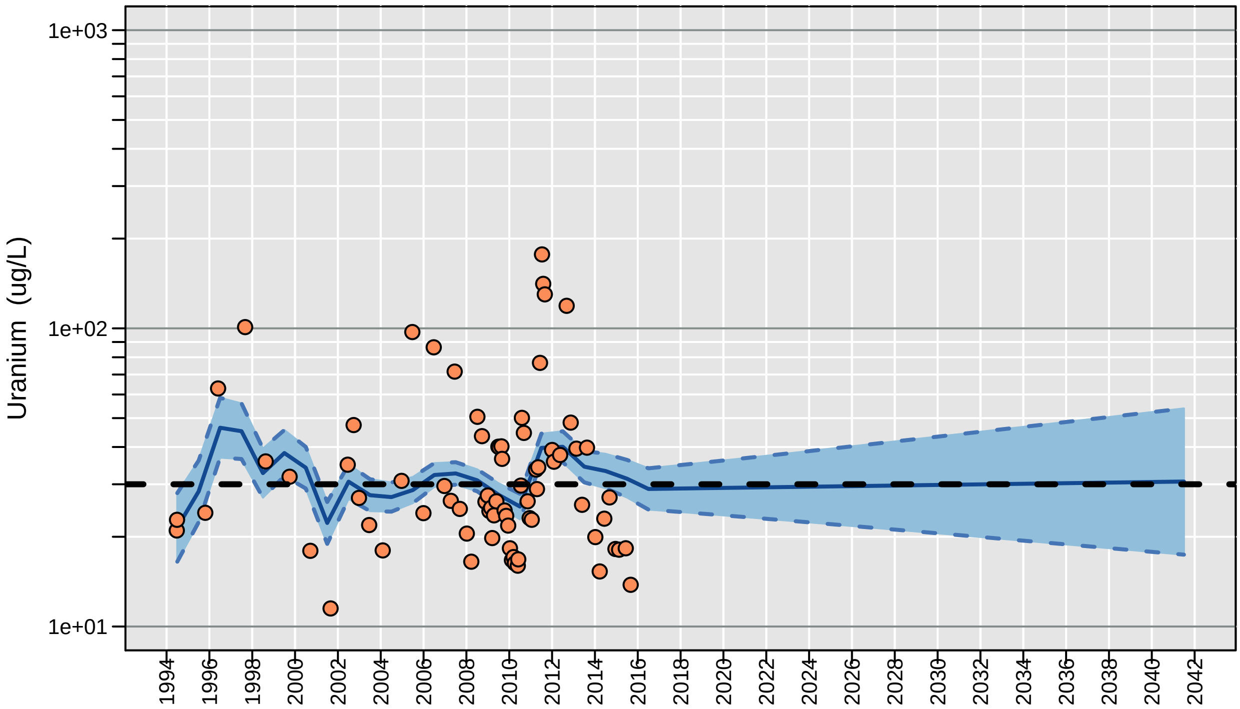
399−1−21A

Distance to River: 340 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	58
Max. Correlation (R2):	0.59
Number of Comparisons:	75
Percent NDs:	0%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = 0.65 (+/− 0.063)*River Stage + 6.3e−06 (+/− 2.3e−05)*Date + −65 (+/− 6.6)
R^2 = 0.59

Regression Statistics for January 2015 to January 2016
Geometric Mean : 31 ug/L

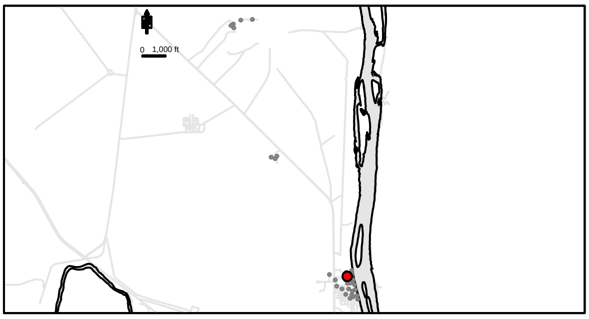
Moderate Concern Well

LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

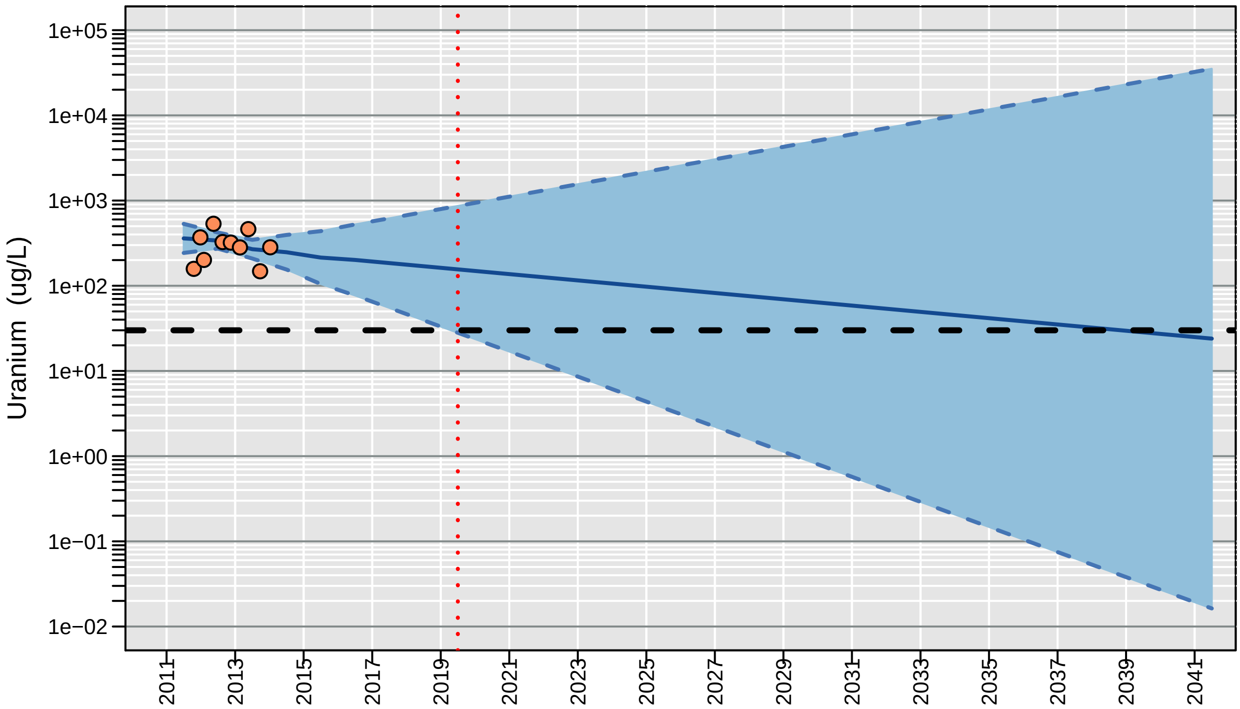
399−1−55

Distance to River: 295 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.67
Number of Comparisons:	10
Percent NDs:	0%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = 0.44 (+/− 0.099)*River Stage + −0.00023 (+/− 0.00028)*Date + −38 (+/− 11)
R^2 = 0.67

Regression Statistics for January 2015 to January 2016
Geometric Mean : 210 ug/L

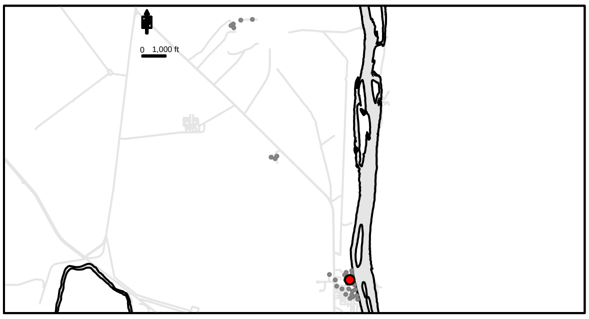
Moderate Concern Well

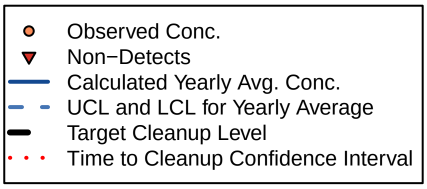
Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

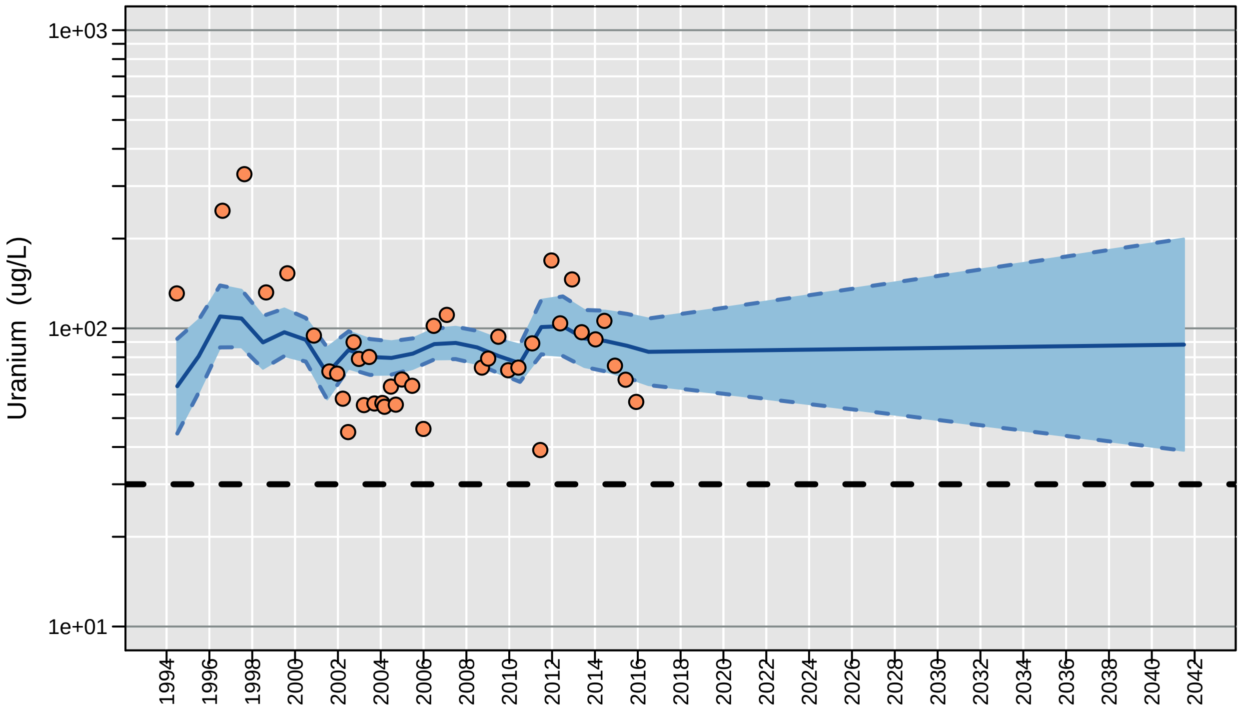
399−1−7

Distance to River: 209 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	78
Max. Correlation (R2):	0.34
Number of Comparisons:	40
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.4 (+/− 0.099)*River Stage + 6.1e−06 (+/− 3.1e−05)*Date + −38 (+/− 11)
R^2 = 0.34

Regression Statistics for January 2015 to January 2016
Geometric Mean : 87 ug/L

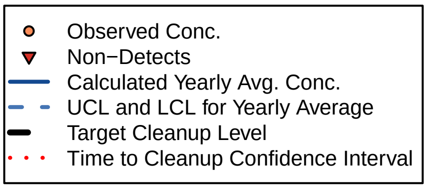
High Concern Well

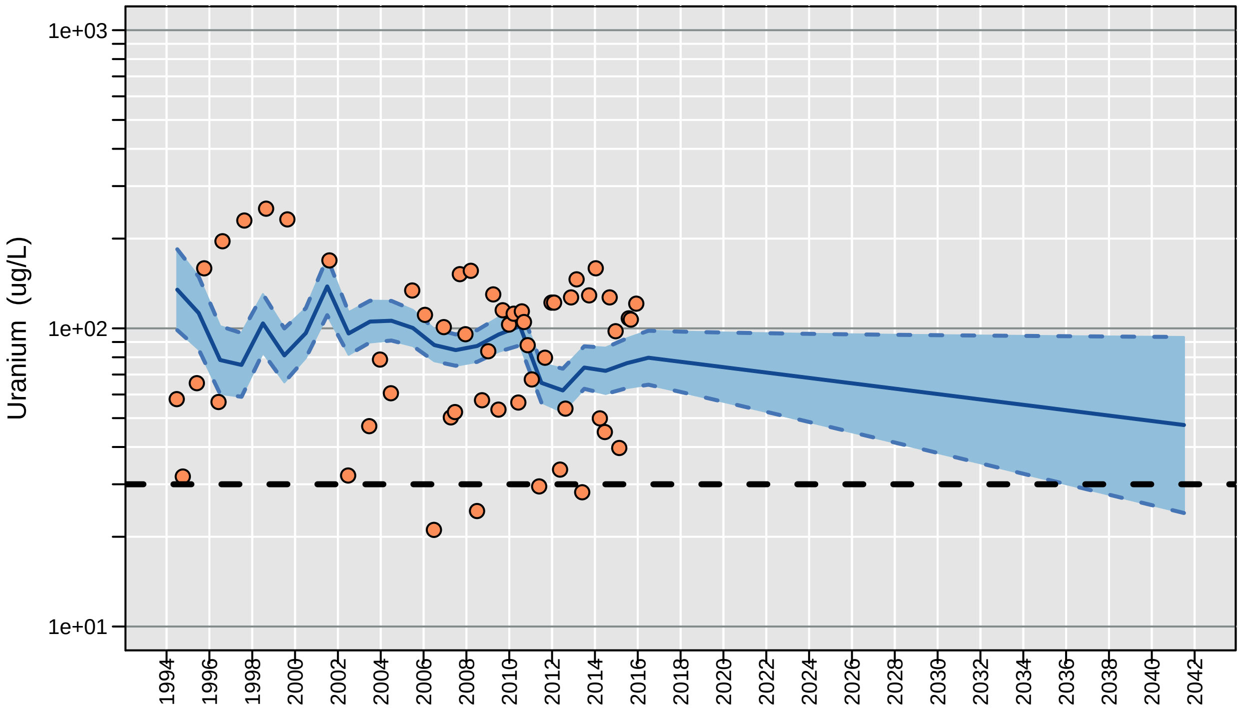
Yearly Average Concentration and LCL and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

399−2−1

Distance to River: 57 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.45
Number of Comparisons:	55
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.59 (+/− 0.088)*River Stage + −5.7e−05 (+/− 2.7e−05)*Date + 67 (+/− 9.3)
R^2 = 0.45

Regression Statistics for January 2015 to January 2016
Geometric Mean : 76 ug/L

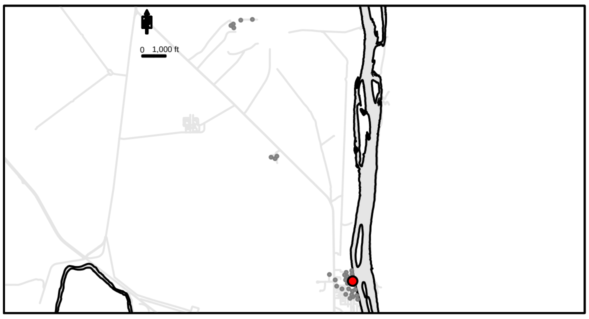
Moderate Concern Well

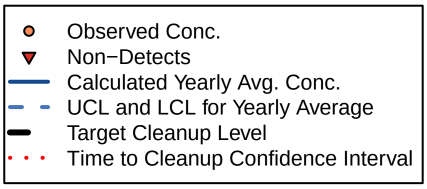
LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

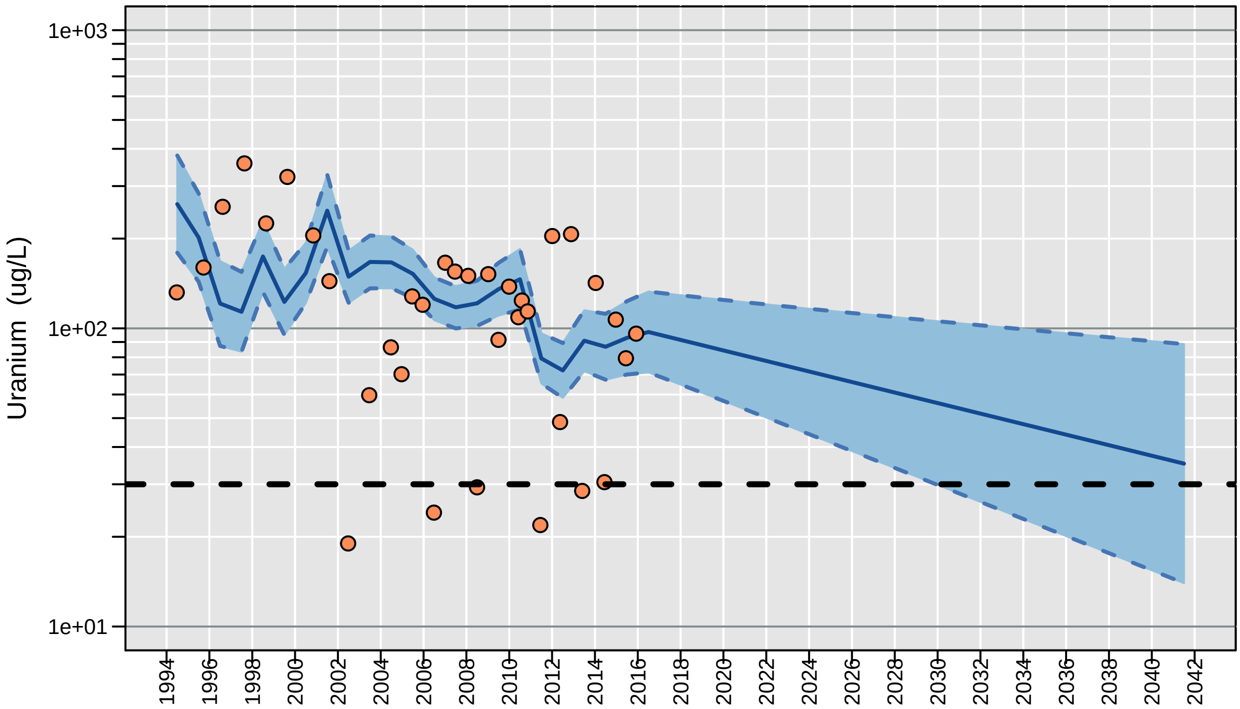
399−2−2

Distance to River: 98 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	1
Max. Correlation (R2):	0.65
Number of Comparisons:	35
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = −0.8 (+/− 0.11)*River Stage + −0.00011 (+/− 3.5e−05)*Date + 91 (+/− 12)
R^2 = 0.65

Regression Statistics for January 2015 to January 2016
Geometric Mean : 93 ug/L

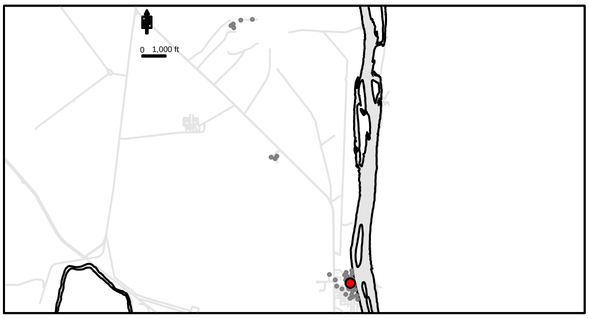
Moderate Concern Well

LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

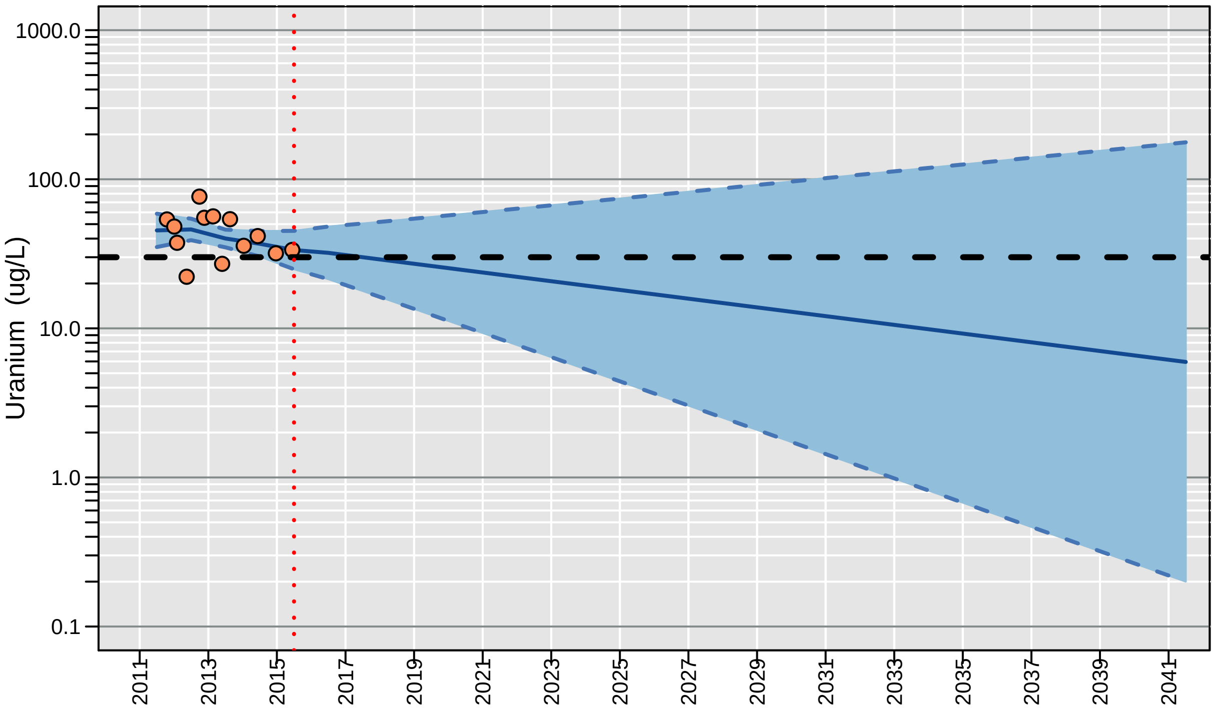
399−2−32

Distance to River: 217 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	83
Max. Correlation (R2):	0.59
Number of Comparisons:	13
Percent NDs:	0%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = 0.3 (+/− 0.074)*River Stage + −0.00018 (+/− 0.00015)*Date + −25 (+/− 8.3)
R^2 = 0.59

Regression Statistics for January 2015 to January 2016
Geometric Mean : 34 ug/L

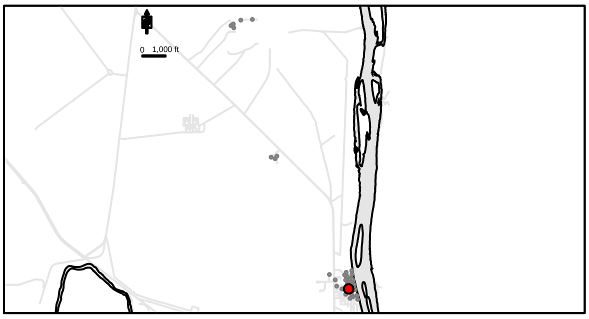
Moderate Concern Well

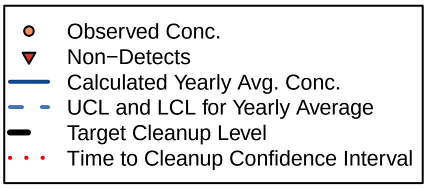
Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

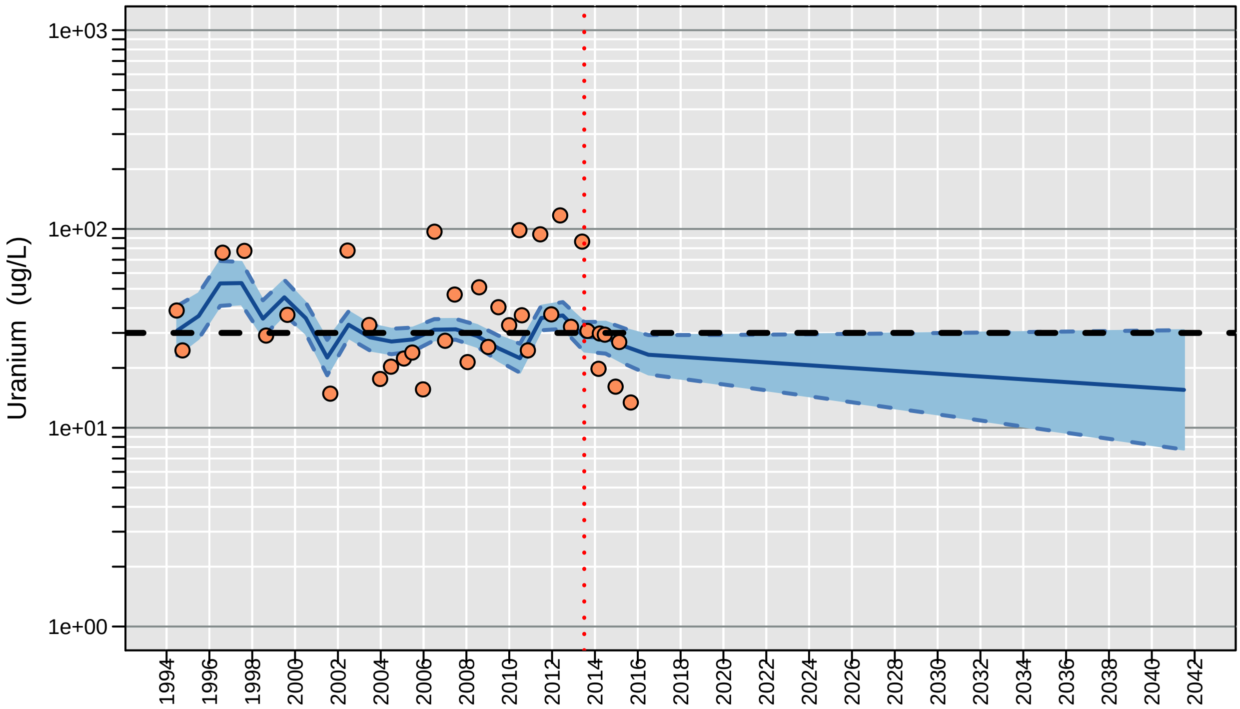
399−3−12

Distance to River: 344 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	0
Max. Correlation (R2):	0.64
Number of Comparisons:	37
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.68 (+/− 0.084)*River Stage + −4.5e−05 (+/− 2.7e−05)*Date + −68 (+/− 8.8)
R^2 = 0.64

Regression Statistics for January 2015 to January 2016
Geometric Mean : 25 ug/L

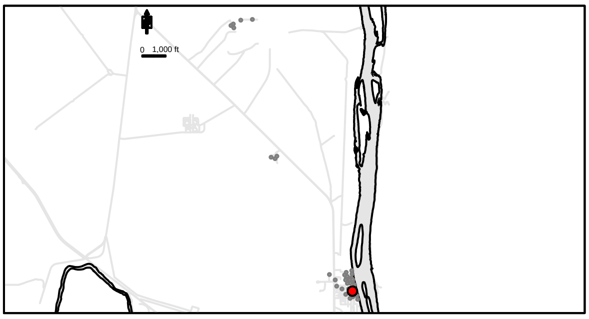
Moderate Concern Well

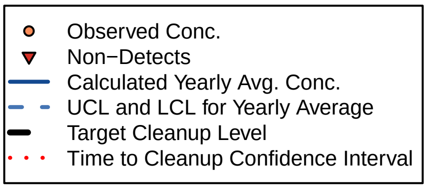
Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

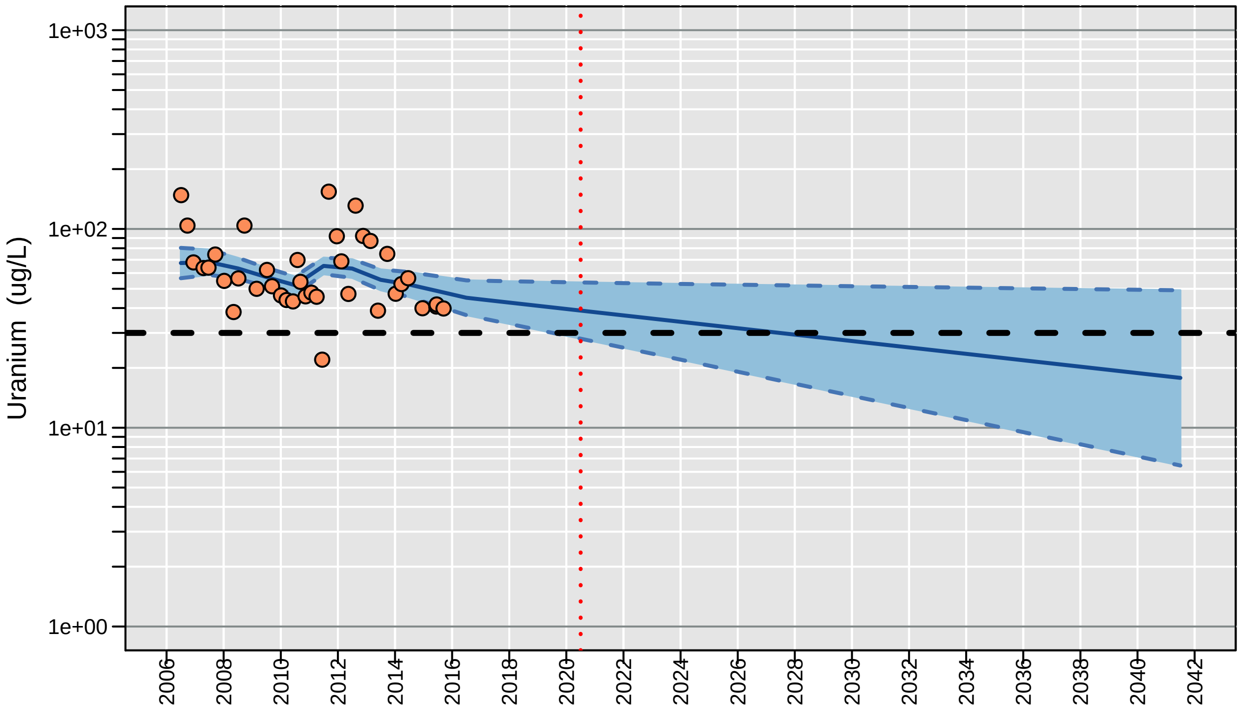
399−3−20

Distance to River: 210 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	87
Max. Correlation (R2):	0.57
Number of Comparisons:	38
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.38 (+/− 0.058)*River Stage + −1e−04 (+/− 4.5e−05)*Date + −35 (+/− 6.2)
R^2 = 0.57

Regression Statistics for January 2015 to January 2016
Geometric Mean : 49 ug/L

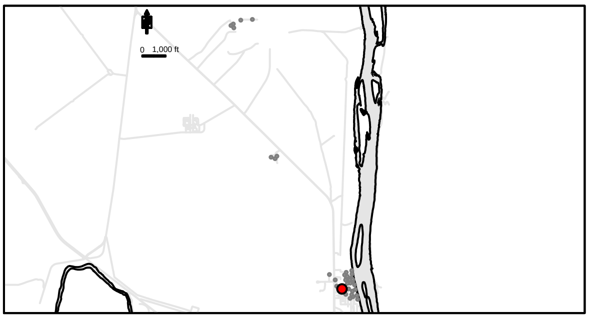
Moderate Concern Well

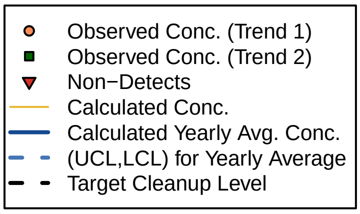
Yearly Average Concentration and LCL for Yearly Average below Cleanup Level by 2041
UCL for Yearly Average above Cleanup Level in 2041
Trend is declining

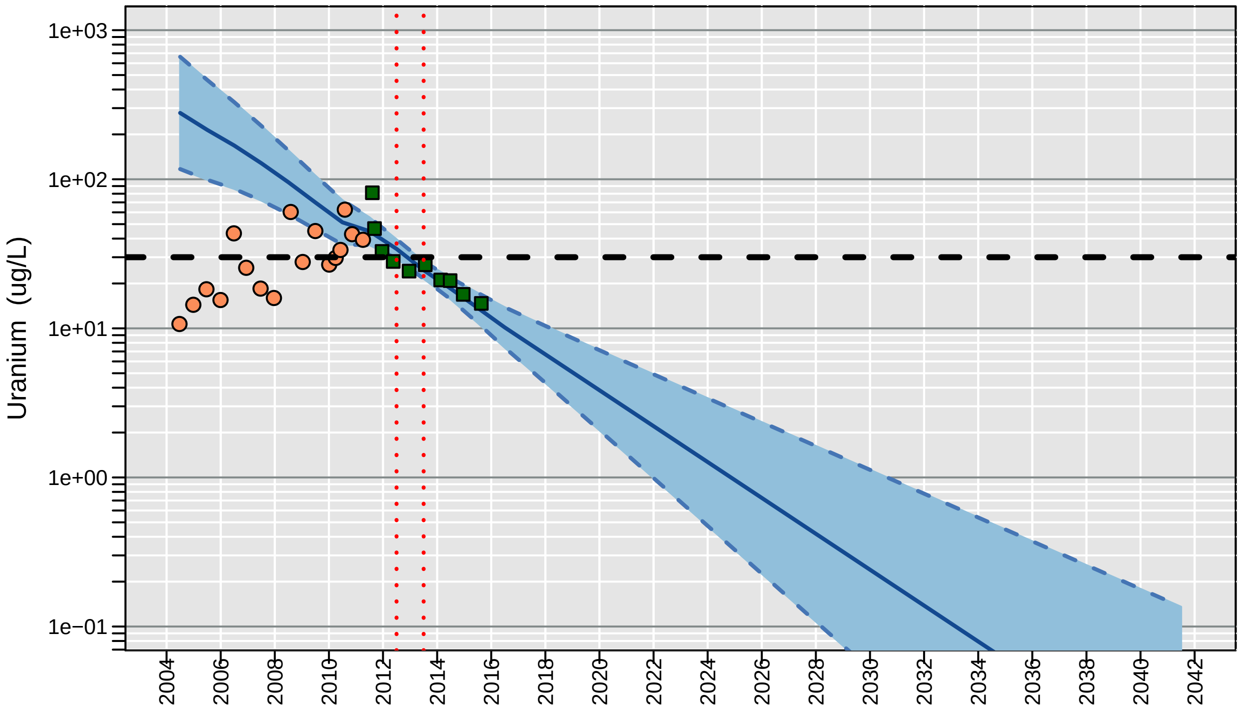
399−3−6

Distance to River: 623 m
Number of Trends Calculated: 2

	Conc 1	Conc. 2
Est. Lag Time (days):	32	32
Max. Correlation (R2):	0.82	0.89
Number of Comparisons:	17	10
Percent NDs:	0%	0%







Censored Regression (Tobit) Model

ln Conc. = 0.2 (+/− 0.063)*River Stage + −0.00076 (+/− 1e−04)*Date + −5.9 (+/− 7.3)
R^2 = 0.89

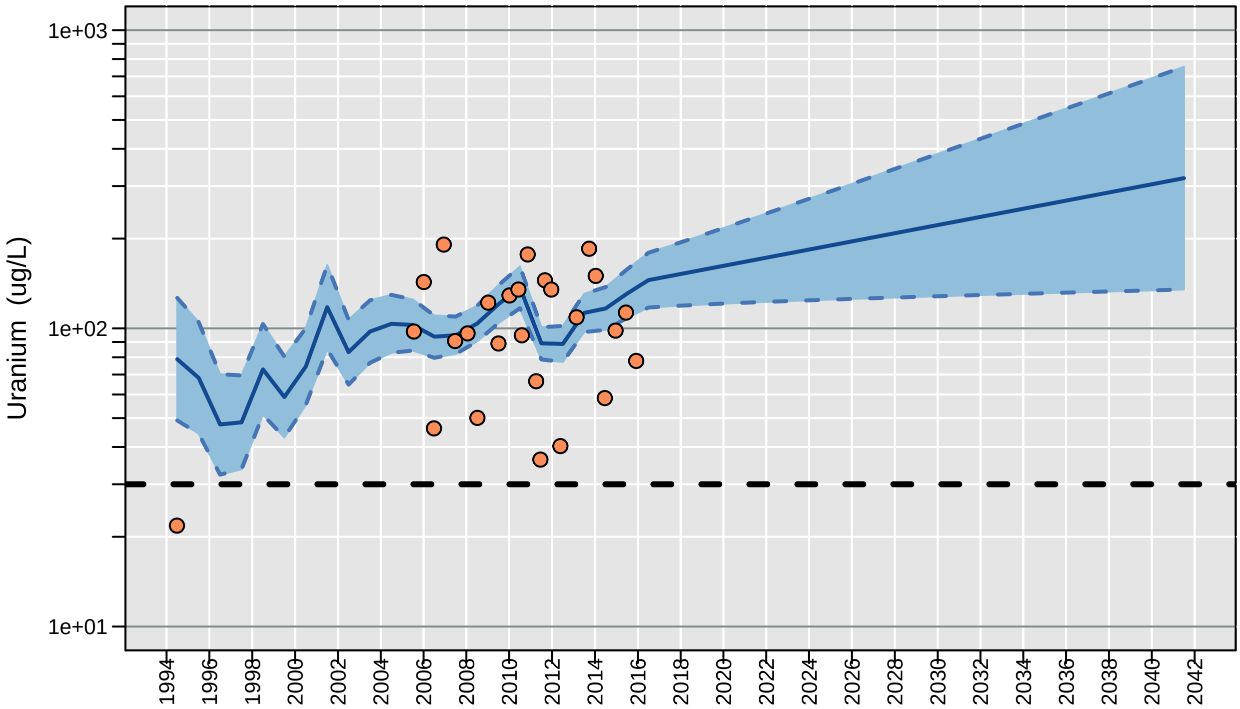
Low Concern Well

Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

399−3−9

Distance to River: 68 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	6
Max. Correlation (R2):	0.72
Number of Comparisons:	26
Percent NDs:	0%



Censored Regression (Tobit) Model

ln Conc. = −0.65 (+/− 0.091)*River Stage + 8.6e−05 (+/− 3.6e−05)*Date + 72 (+/− 9.7)
R^2 = 0.72

Regression Statistics for January 2015 to January 2016
Geometric Mean : 130 ug/L

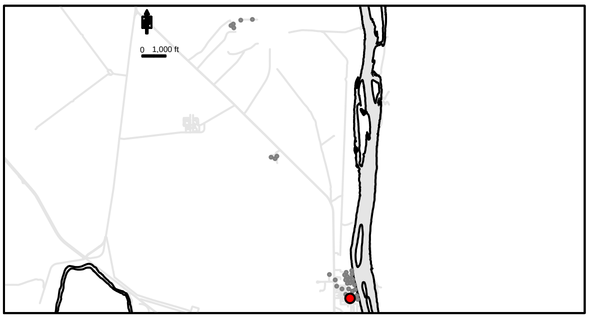
High Concern Well

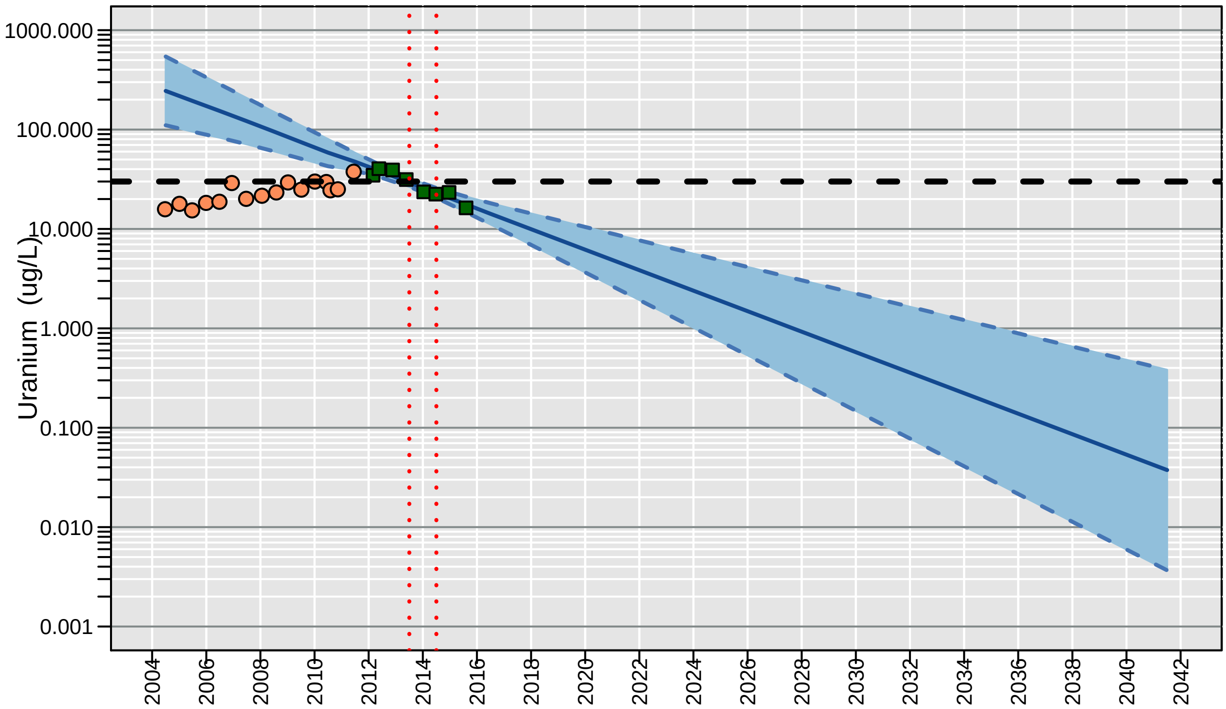
Yearly Average Concentration and LCL and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

399−4−1

Distance to River: 381 m
Number of Trends Calculated: 2

	Conc 1	**Conc. 2**
Est. Lag Time (days):	25	25
Max. Correlation (R2):	0.71	0.89
Number of Comparisons:	16	8
Percent NDs:	0%	0%





Censored Regression (Tobit) Model

ln Conc. = 0.038 (+/− 0.058)*River Stage + −0.00065 (+/− 8.3e−05)*Date + 9.6 (+/− 6.6)
R^2 = 0.89

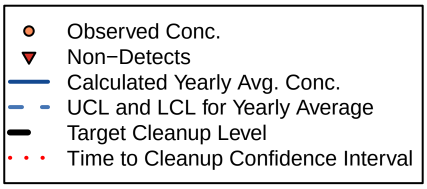
Low Concern Well

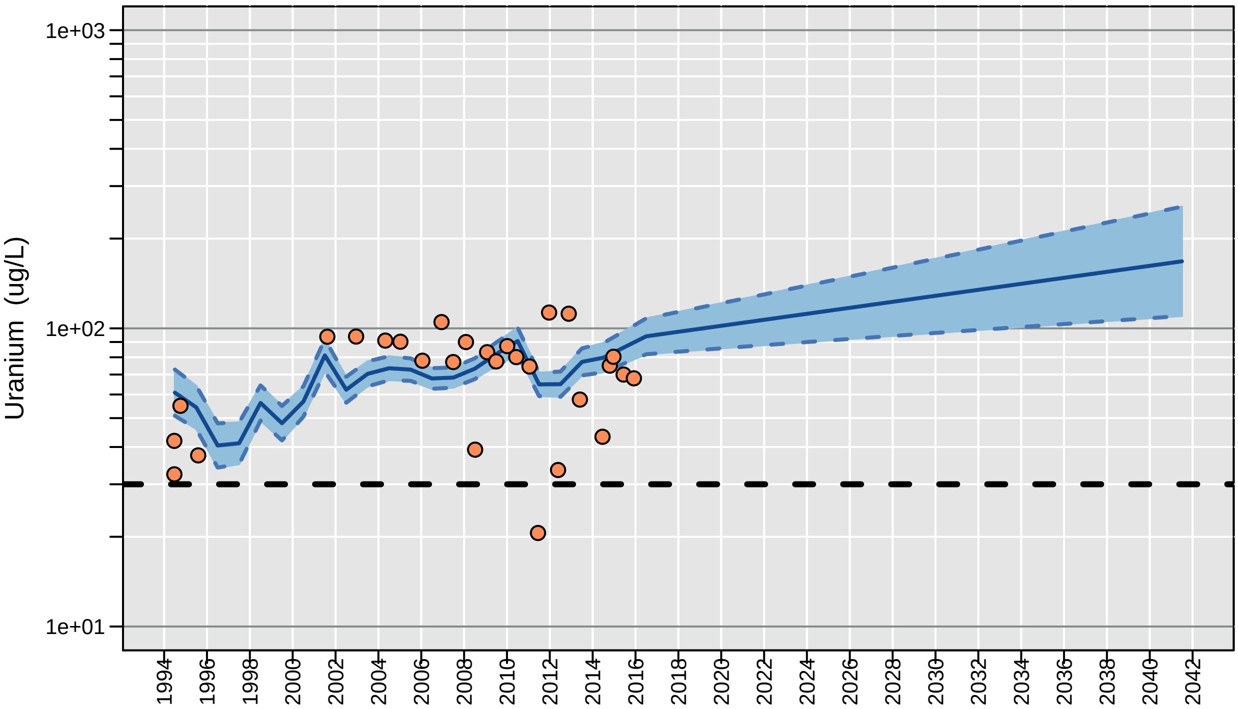
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

399−4−10

Distance to River: 69 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	14
Max. Correlation (R2):	0.78
Number of Comparisons:	28
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.5 (+/− 0.052)*River Stage + 6.3e−05 (+/− 1.6e−05)*Date + 57 (+/− 5.5)
R^2 = 0.78

Regression Statistics for January 2015 to January 2016
Geometric Mean : 87 ug/L

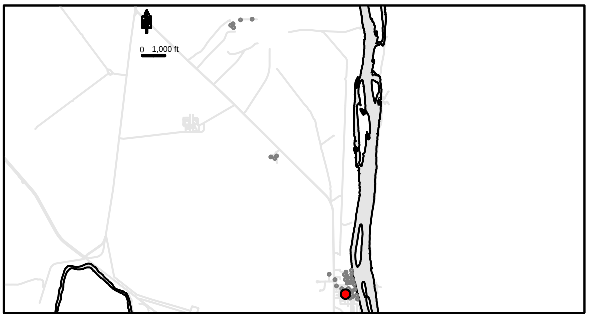
High Concern Well

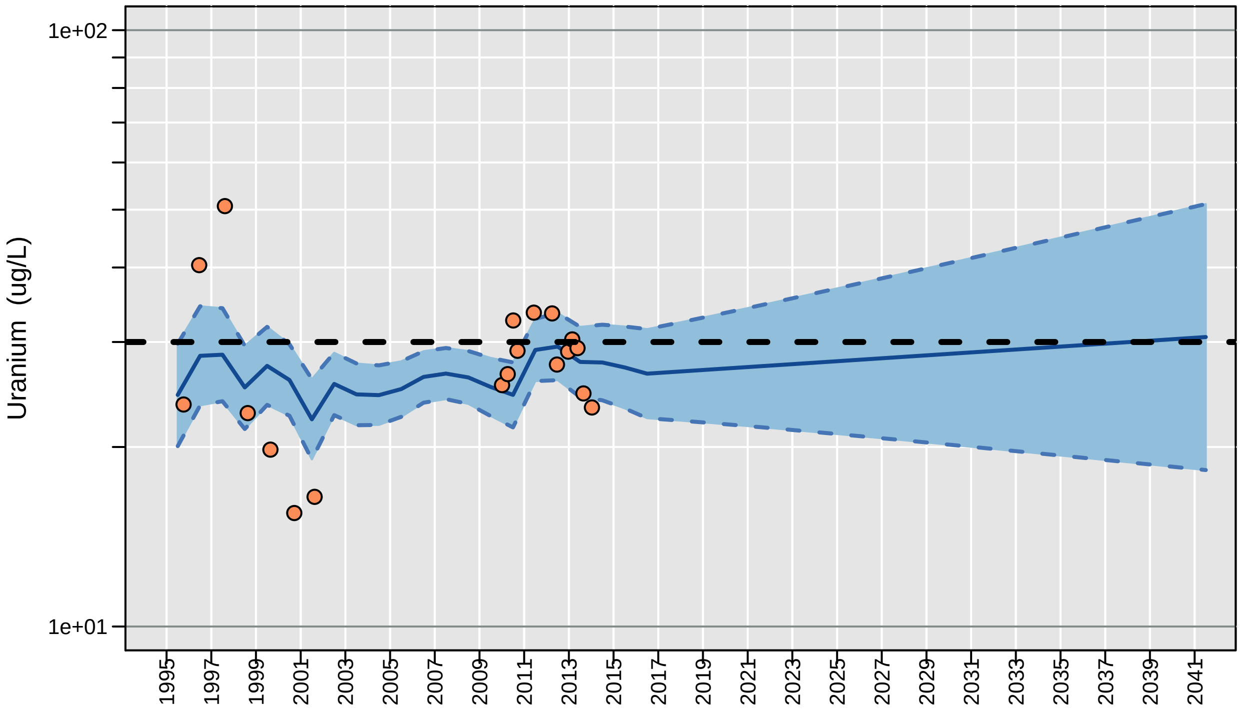
Yearly Average Concentration and LCL and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

399−4−11

Distance to River: 522 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	24
Max. Correlation (R2):	0.47
Number of Comparisons:	19
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 0.24 (+/− 0.058)*River Stage + 1.5e−05 (+/− 1.9e−05)*Date + −22 (+/− 6.2)
R^2 = 0.47

Regression Statistics for January 2015 to January 2016
Geometric Mean : 27 ug/L

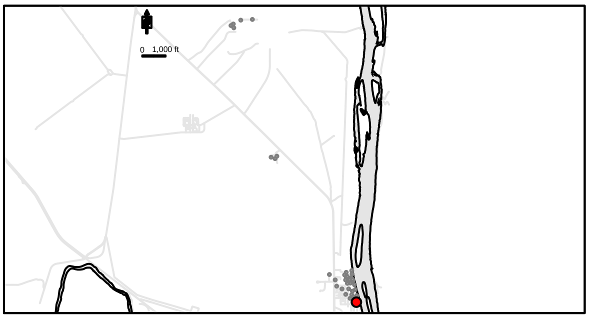
Moderate Concern Well

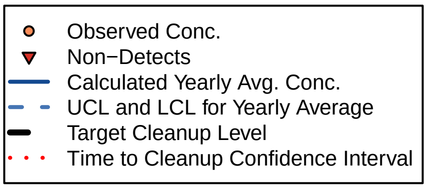
LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

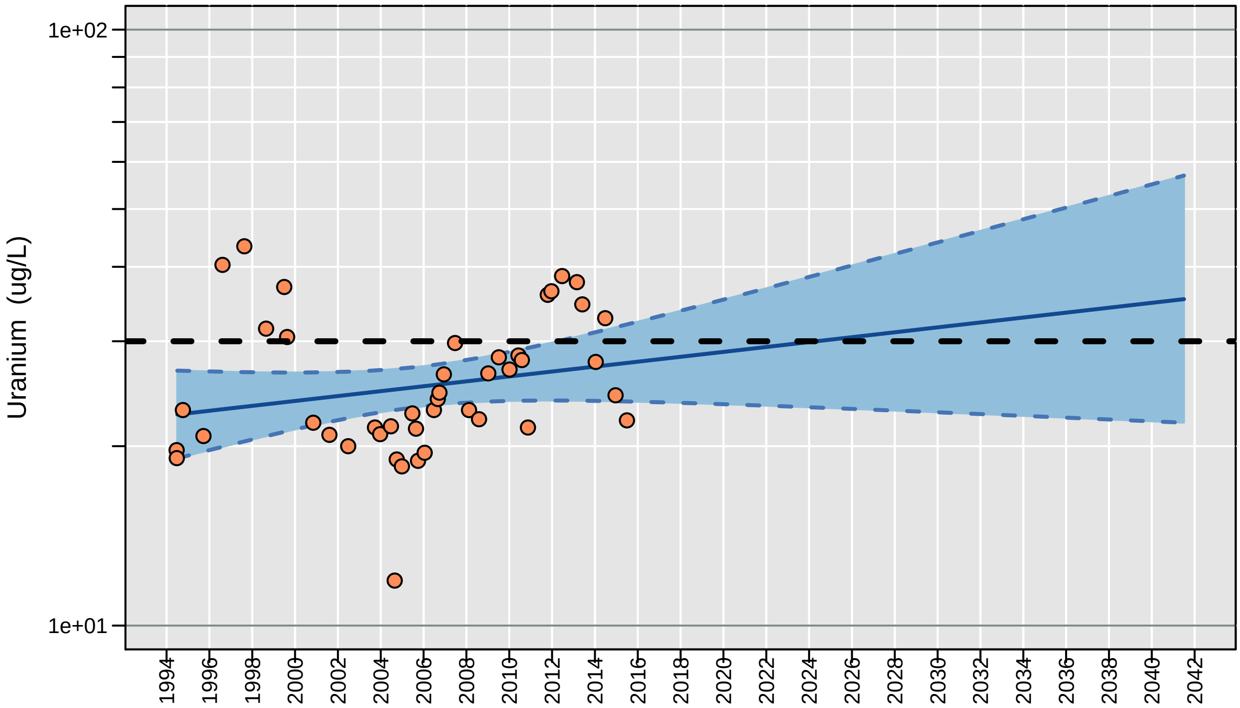
399−4−12

Distance to River: 153 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.045
Number of Comparisons:	44
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 2.6e−05 (+/− 1.8e−05)*Date + 2.9 (+/− 0.24)
R^2 = 0.045

Regression Statistics for January 2015 to January 2016
Geometric Mean : 28 ug/L

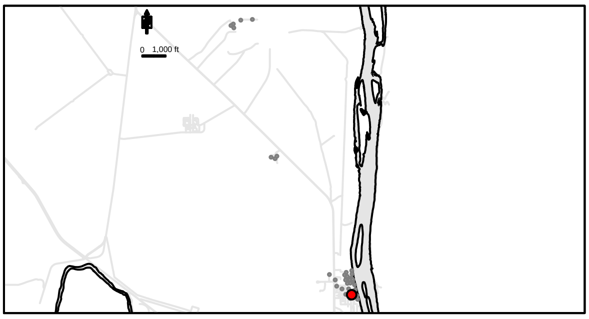
Moderate Concern Well

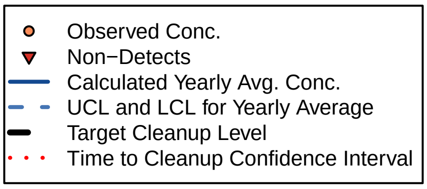
LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

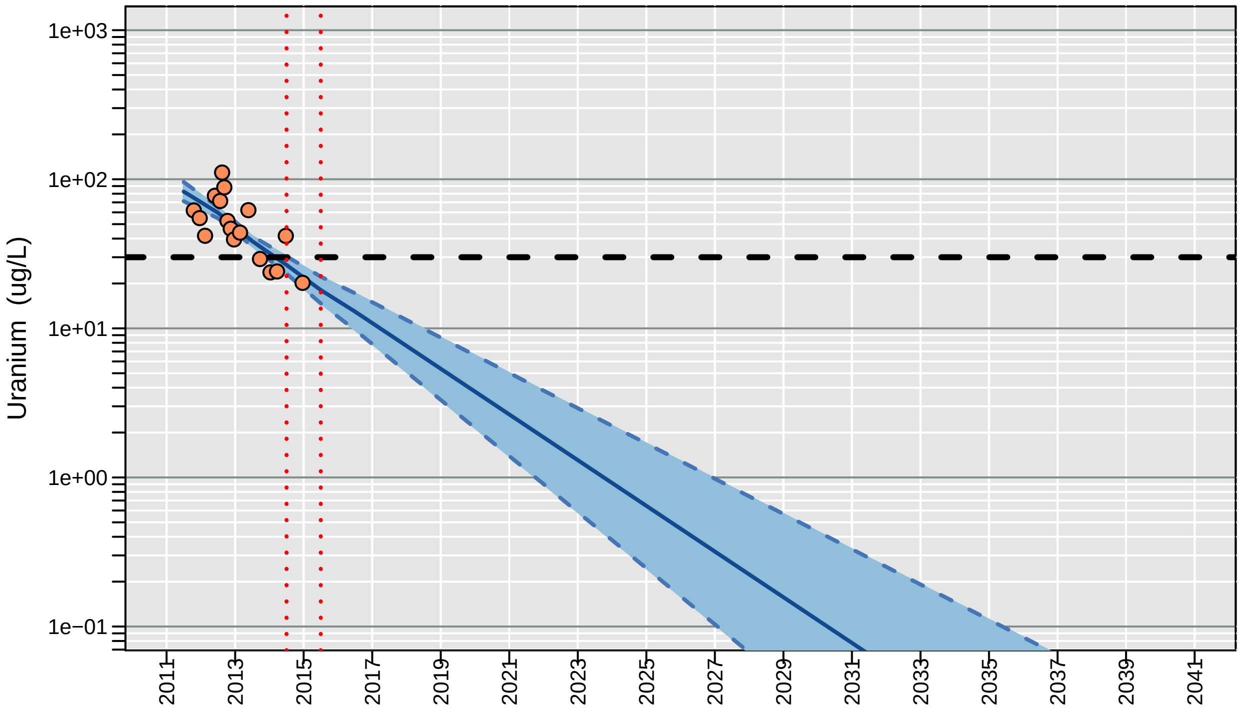
399−4−15

Distance to River: 278 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	41
Max. Correlation (R2):	0.91
Number of Comparisons:	17
Percent NDs:	0%







Censored Regression (Tobit) Model

ln Conc. = 0.34 (+/− 0.039)*River Stage + −0.00097 (+/− 1e−04)*Date + −17 (+/− 4.5)
R^2 = 0.91

Regression Statistics for January 2015 to January 2016
Geometric Mean : 18 ug/L

Low Concern Well

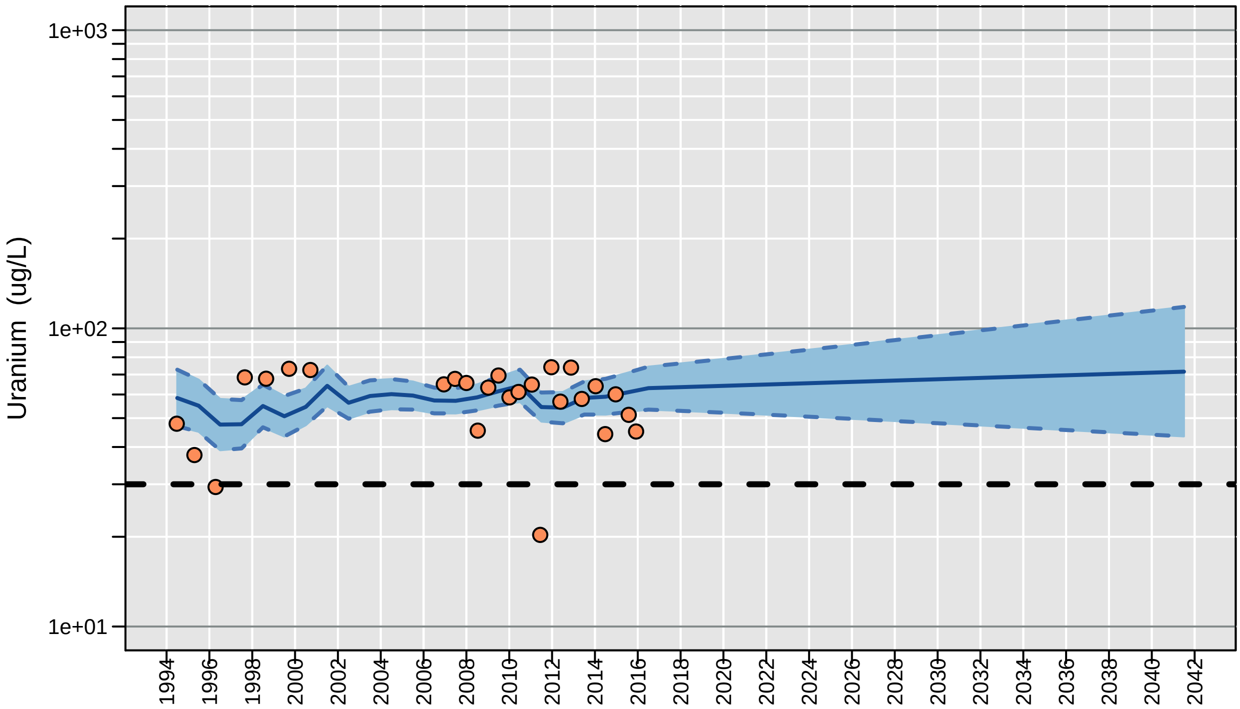
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

399−4−7

Distance to River: 72 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	15
Max. Correlation (R2):	0.38
Number of Comparisons:	26
Percent NDs:	0%

Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = −0.24 (+/− 0.06)*River Stage + 1.4e−05 (+/− 1.9e−05)*Date + 29 (+/− 6.3)
R^2 = 0.38

Regression Statistics for January 2015 to January 2016
Geometric Mean : 61 ug/L

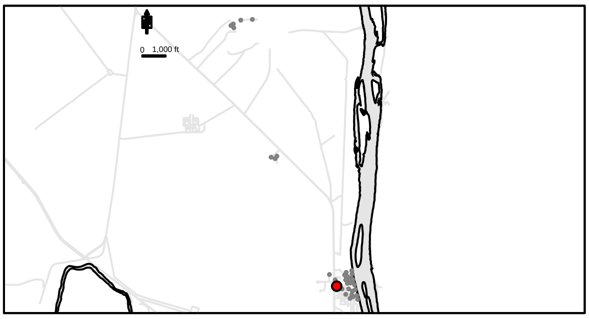
High Concern Well

Yearly Average Concentration and LCL and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

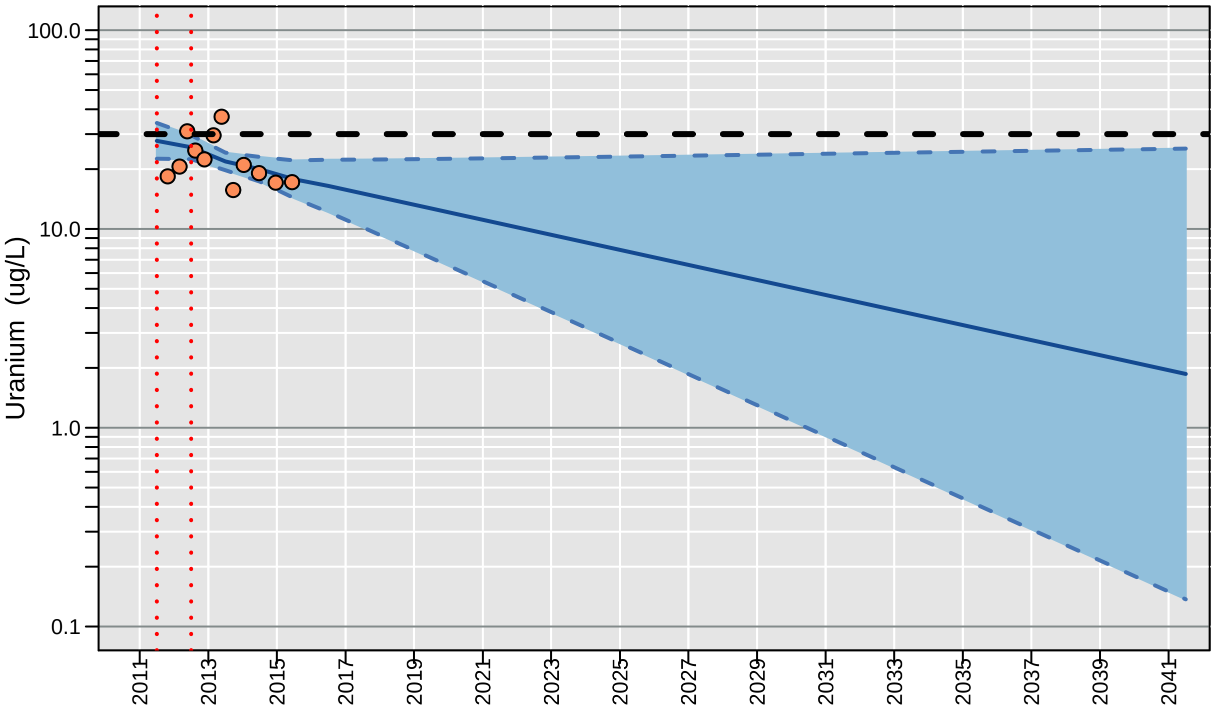
399−6−3

Distance to River: 819 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	9
Max. Correlation (R2):	0.64
Number of Comparisons:	12
Percent NDs:	0%



Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = 0.25 (+/− 0.062)*River Stage + −0.00024 (+/− 0.00011)*Date + −19 (+/− 6.8)
R^2 = 0.64

Regression Statistics for January 2015 to January 2016
Geometric Mean : 18 ug/L

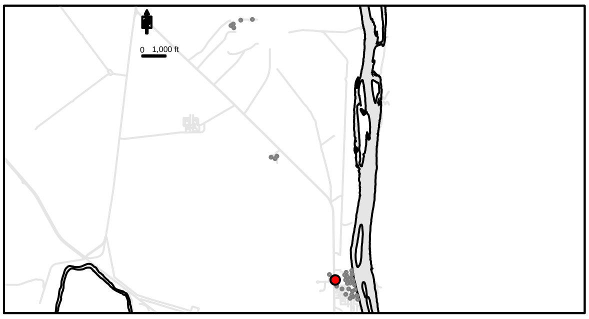
Low Concern Well

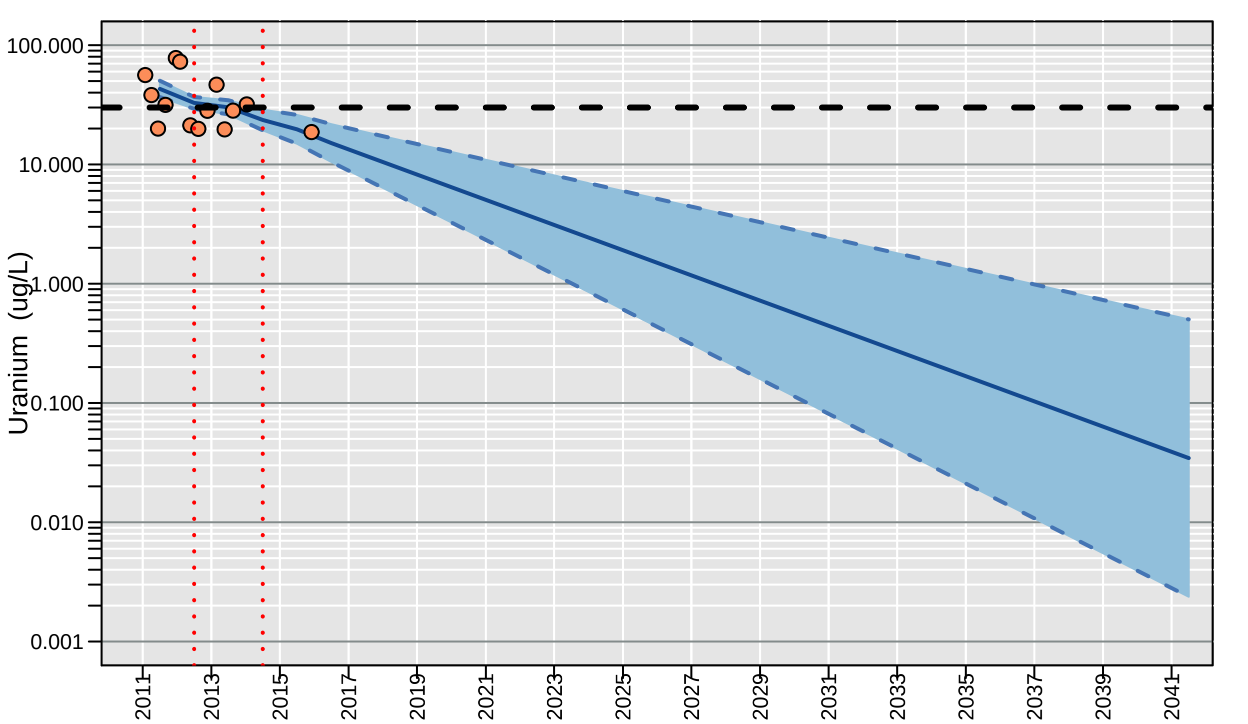
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

399−8−1

Distance to River: 832 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	3
Max. Correlation (R2):	0.84
Number of Comparisons:	14
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.48 (+/− 0.064)*River Stage + −0.00067 (+/− 0.00011)*Date + 65 (+/− 7.5)
R^2 = 0.84

Regression Statistics for January 2015 to January 2016
Geometric Mean : 20 ug/L

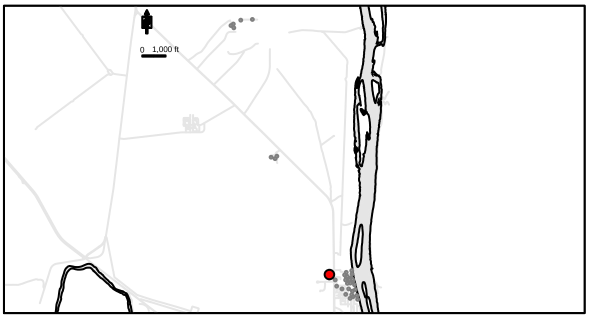
Low Concern Well

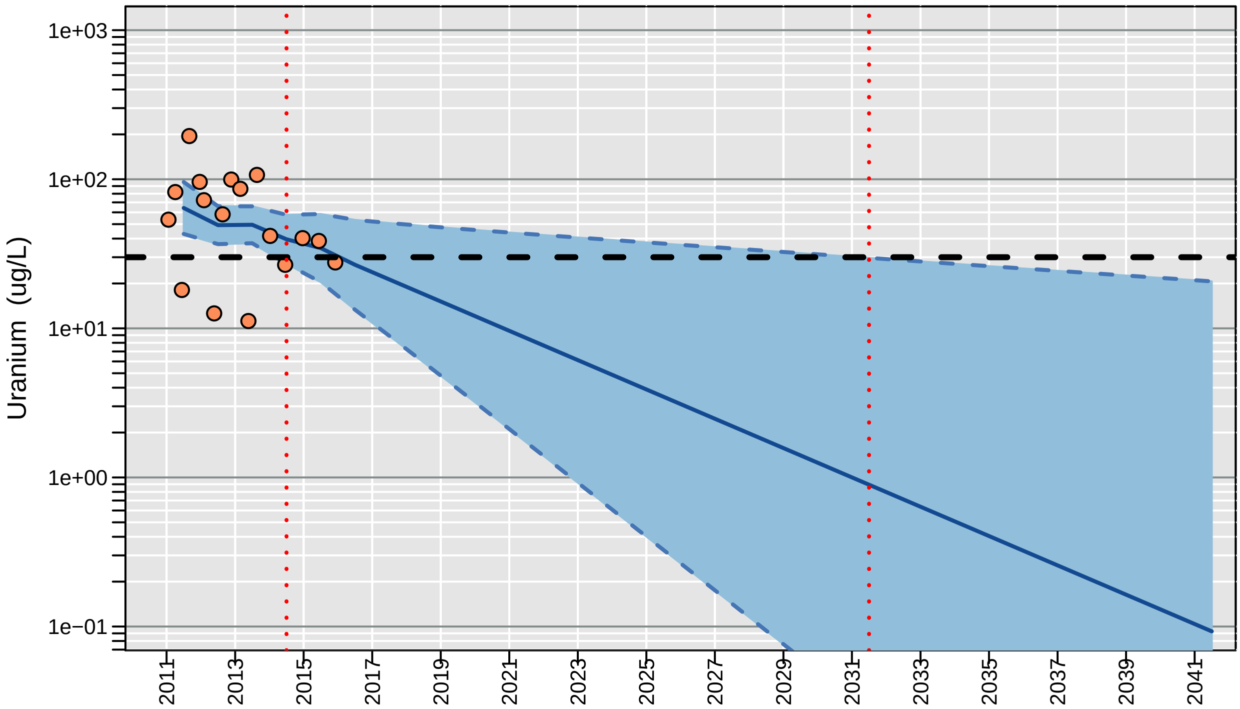
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

399−8−5A

Distance to River: 1046 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	5
Max. Correlation (R2):	0.55
Number of Comparisons:	17
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −0.72 (+/− 0.17)*River Stage + −0.00062 (+/− 0.00024)*Date + 90 (+/− 19)
R^2 = 0.55

Regression Statistics for January 2015 to January 2016
Geometric Mean : 35 ug/L

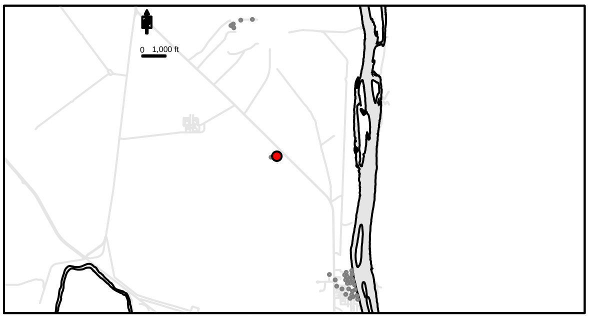
Low Concern Well

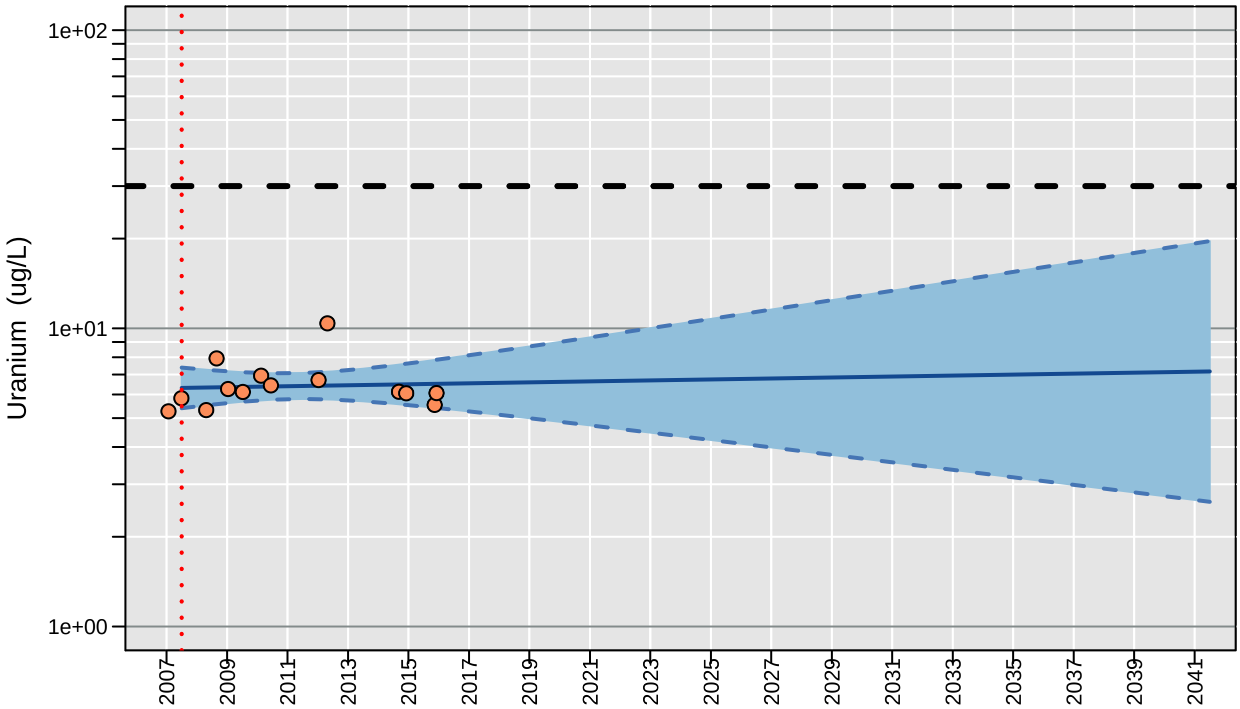
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

699−S6−E4B

Distance to River: 3438 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.0044
Number of Comparisons:	14
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = 1e−05 (+/− 4.1e−05)*Date + 1.7 (+/− 0.62)
R^2 = 0.0044

Regression Statistics for January 2015 to January 2016
Geometric Mean : 6.5 ug/L

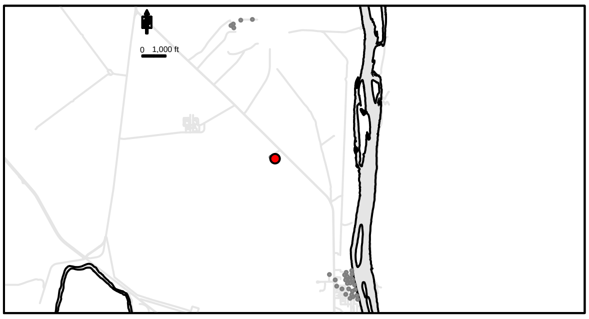
Moderate Concern Well

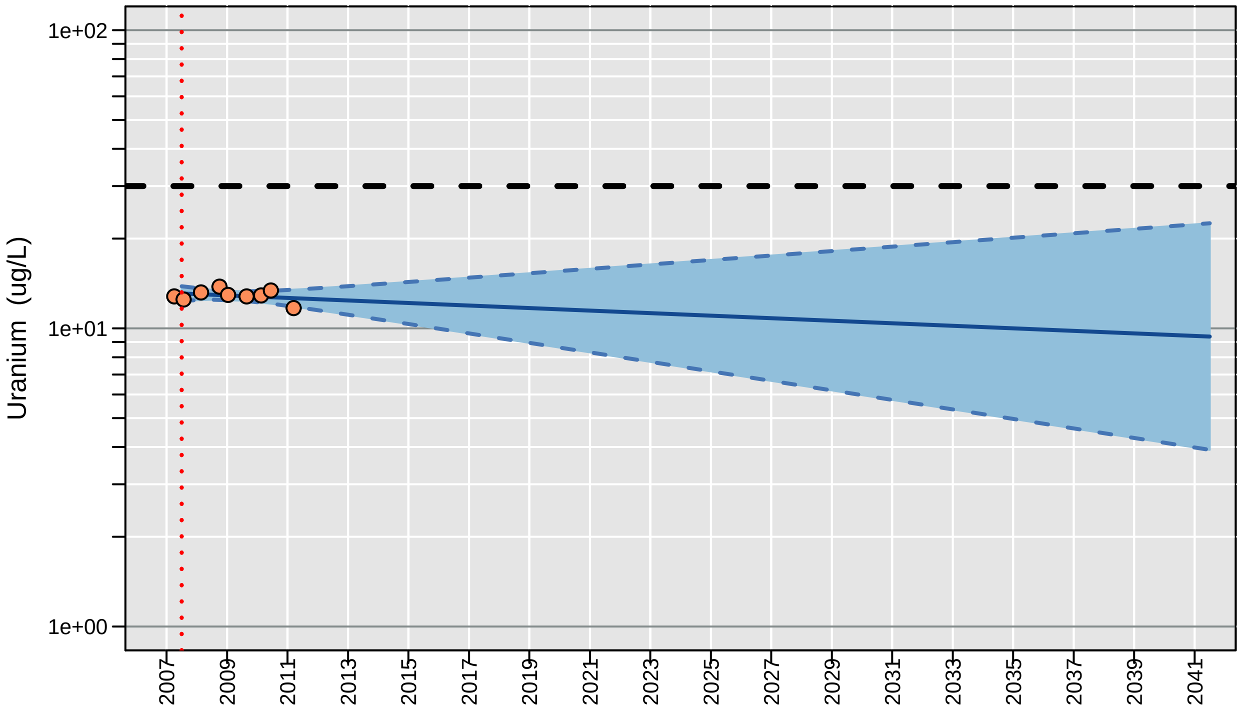
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is increasing

699−S6−E4E

Distance to River: 3518 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.08
Number of Comparisons:	9
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −2.7e−05 (+/− 3e−05)*Date + 2.9 (+/− 0.43)
R^2 = 0.08

Regression Statistics for January 2015 to January 2016
Geometric Mean : 12 ug/L

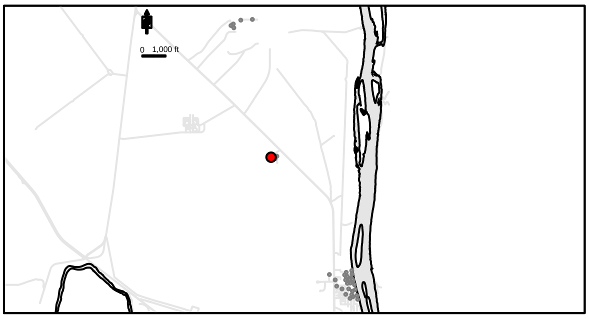
Low Concern Well

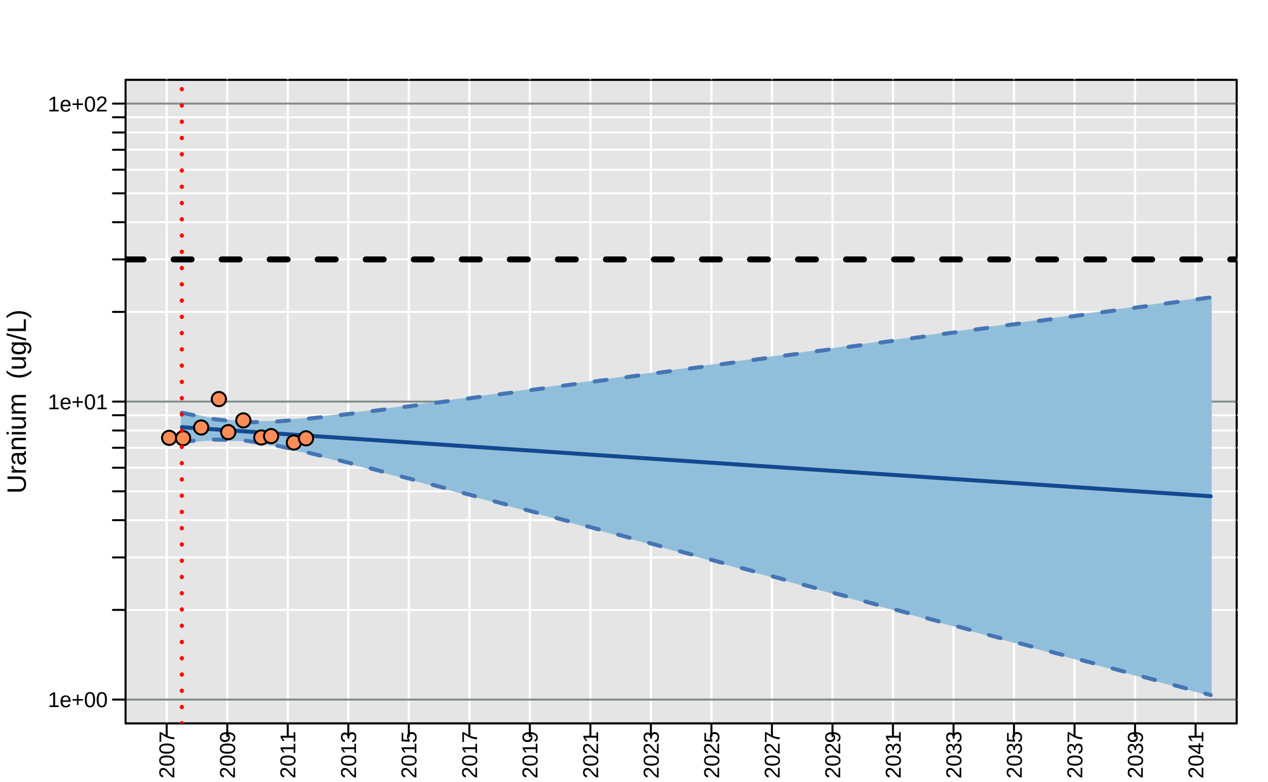
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

699−S6−E4K

Distance to River: 3689 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	No RS
Max. Correlation (R2):	0.057
Number of Comparisons:	10
Percent NDs:	0%





Censored Regression (Tobit) Model

ln Conc. = −4.3e−05 (+/− 5.5e−05)*Date + 2.7 (+/− 0.79)
R^2 = 0.057

Regression Statistics for January 2015 to January 2016
Geometric Mean : 7.2 ug/L

Low Concern Well

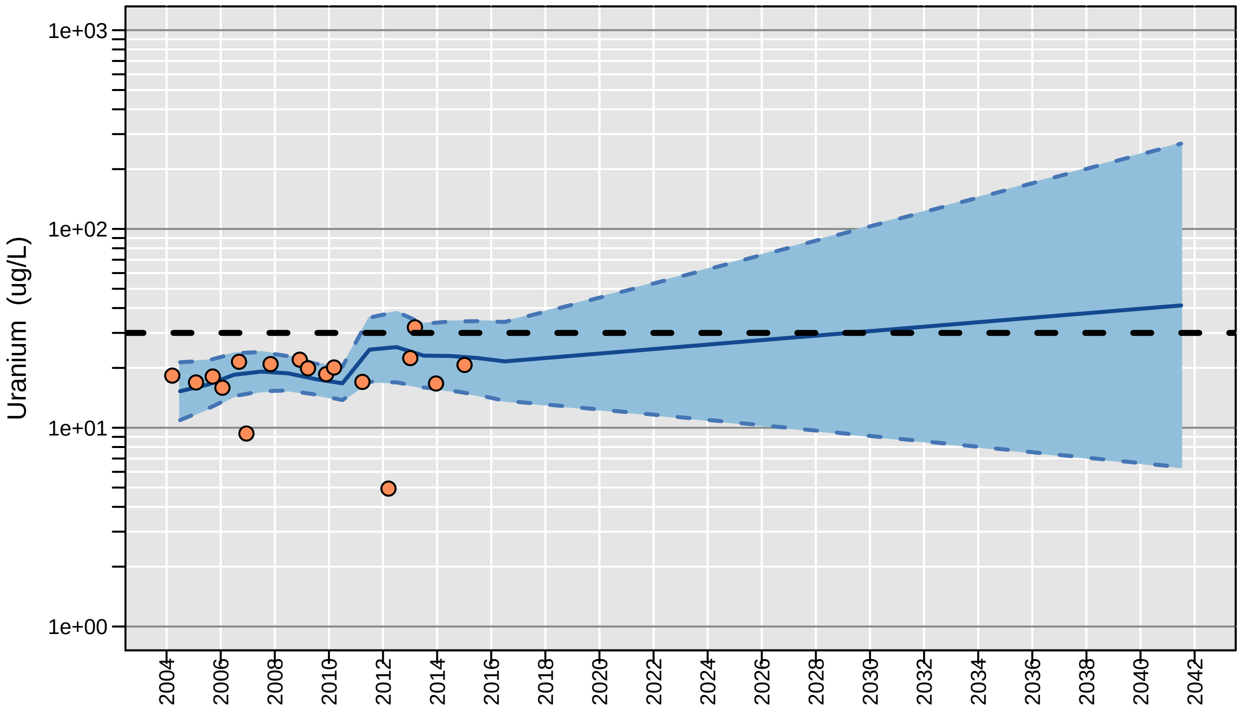
Yearly Average Concentration and LCL and UCL for Yearly Average below Cleanup Level by 2041
Trend is declining

AT−3−7−M

Distance to River: 5 m
Number of Trends Calculated: 1

	Conc
Est. Lag Time (days):	70
Max. Correlation (R2):	0.25
Number of Comparisons:	17
Percent NDs:	0%

Observed Conc.
Non−Detects
Calculated Yearly Avg. Conc.
UCL and LCL for Yearly Average
Target Cleanup Level
Time to Cleanup Confidence Interval



Censored Regression (Tobit) Model

ln Conc. = 0.53 (+/− 0.22)*River Stage + 7.1e−05 (+/− 7.3e−05)*Date + −54 (+/− 24)
R^2 = 0.25

Regression Statistics for January 2015 to January 2016
Geometric Mean : 22 ug/L

Moderate Concern Well

LCL for Yearly Average below Cleanup Level by 2041
Yearly Average Concentration and UCL for Yearly Average above Cleanup Level in 2041
Trend is increasing

Appendix B

Evaluation of Multiple Trend Periods for Wells 399-3-6 and 399-4-1

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Contents

Figures

Tables

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B1 Background

The trend analyses performed in this document assume that all of the concentrations observed at a well display a singular, continuous trend. However, there are two wells (399-3-6 and 399-4-1) where observed uranium concentrations appear to increase and then decrease over the time period of this analysis. This is particularly evident when evaluating the data from 2004 through 2015 (Figures B-1 and B-2).

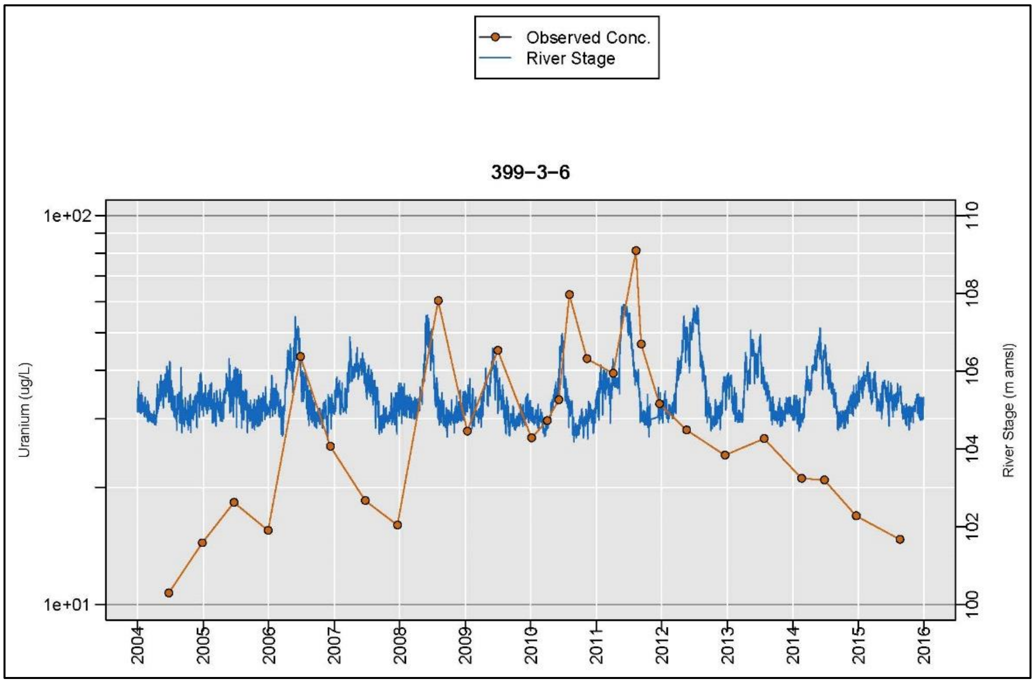

Figure B-1. Uranium Concentration in Well 399-3-6 from 2004 through 2015

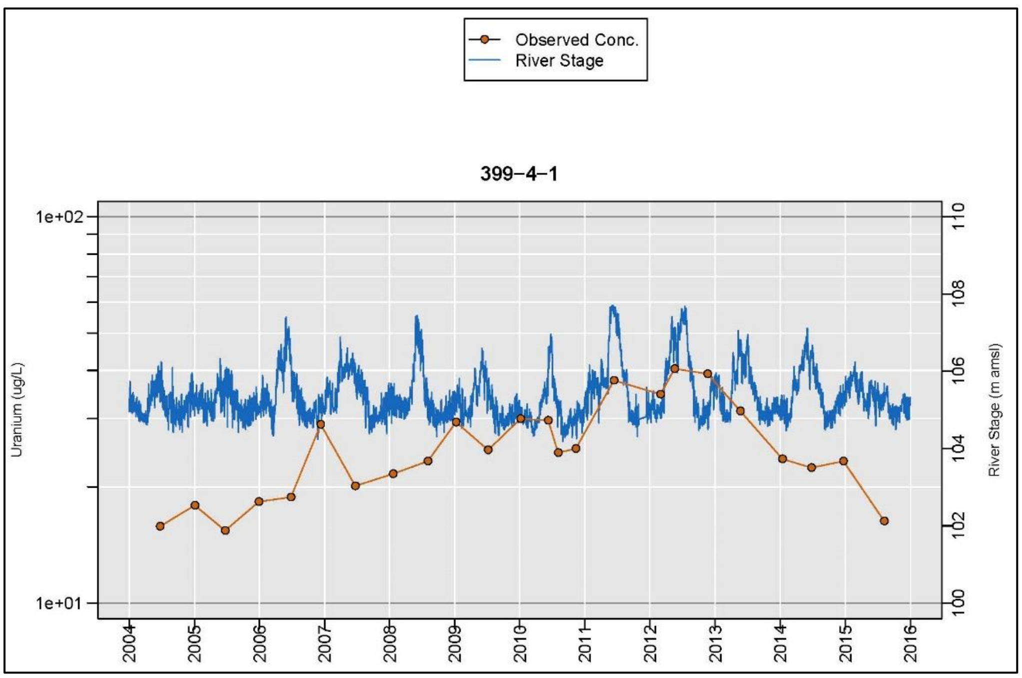

Figure B-2. Uranium Concentration in Well 399-4-1 from 2004 through 2015

Both of these wells show that, prior to 2012, uranium concentrations were following a singular, continuous, upward trend. After 2012, uranium concentrations have steadily decreased to below the target cleanup level of 30 µg/L. River stage was abnormally high in 2011 and observed uranium concentrations do show a corresponding change in some wells (Figure B-3). However, as shown in Figure B-3, the uranium concentrations in most wells return to pre-2011 concentrations once the event passed and the overall trend in uranium concentration was not impacted.

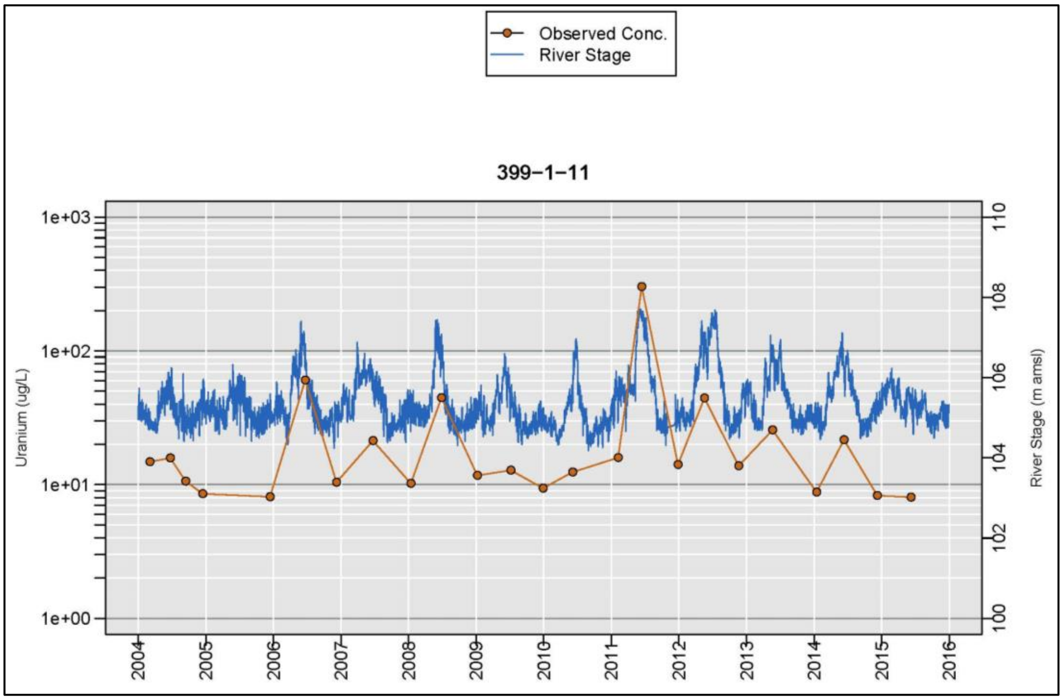

Figure B-3. Uranium Concentration in Well 399-1-11 from 2004 through 2015

An explanation for the observed behavior in wells 399-3-6 and 399-4-1 is migration of the uranium plume. As the centroid of the plume moves toward these wells, concentrations steadily increase. Once the centroid of the plume has moved past the location of these wells, concentrations steadily decrease.

The presence of two distinct trends in the data set impacts the calculated trends and time to cleanup for these wells. Using the single trend approach for the 1994 through 2015 data that follows, both wells show an increasing trend in uranium and do not attain cleanup levels before 2041 (Figures B-4 to B-7). These upward trends, however, are incapable of capturing the observed decreasing concentrations post-2011 (well 399-3-6) and post-2012 (well 399-4-1). Calculating the trend based on only data from after 2011 for well 399-3-6 and post-2012 for well 399-4-1 indicates a decreasing trend for both wells (Figures B-8 to B-11). Both trend periods were calculated using river stage as a covariate. A comparison of the time to cleanup calculations for the trend calculated using the 1994 to 2015 data set and the second trend period only is presented in Table B-1.

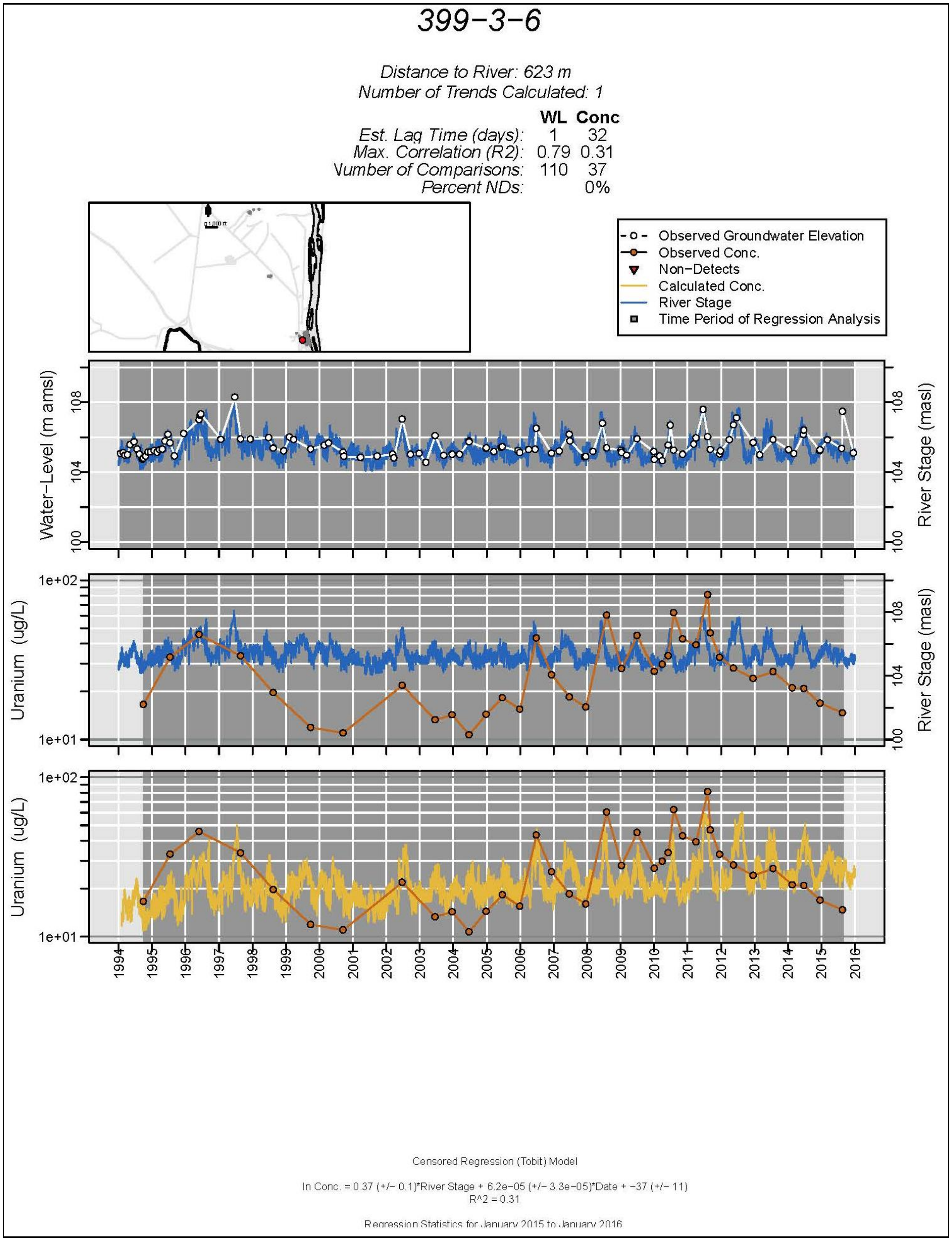

Figure B-4. Censored Regression (Tobit) Model Results for Uranium in Well 399-3-6 Using One Trend Period

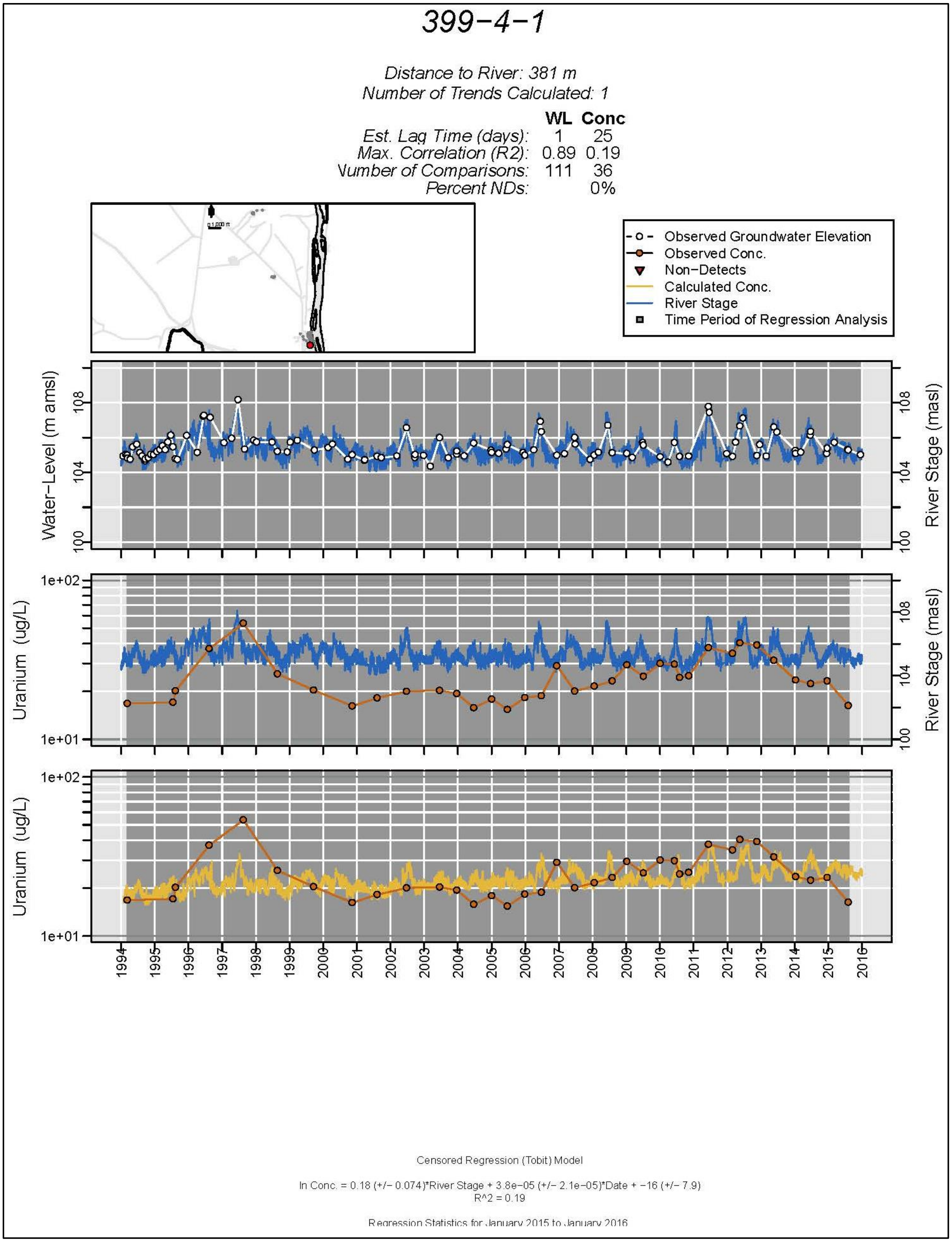

Figure B-5. Censored Regression (Tobit) Model Results for Uranium in Well 399-4-1 Using One Trend Period

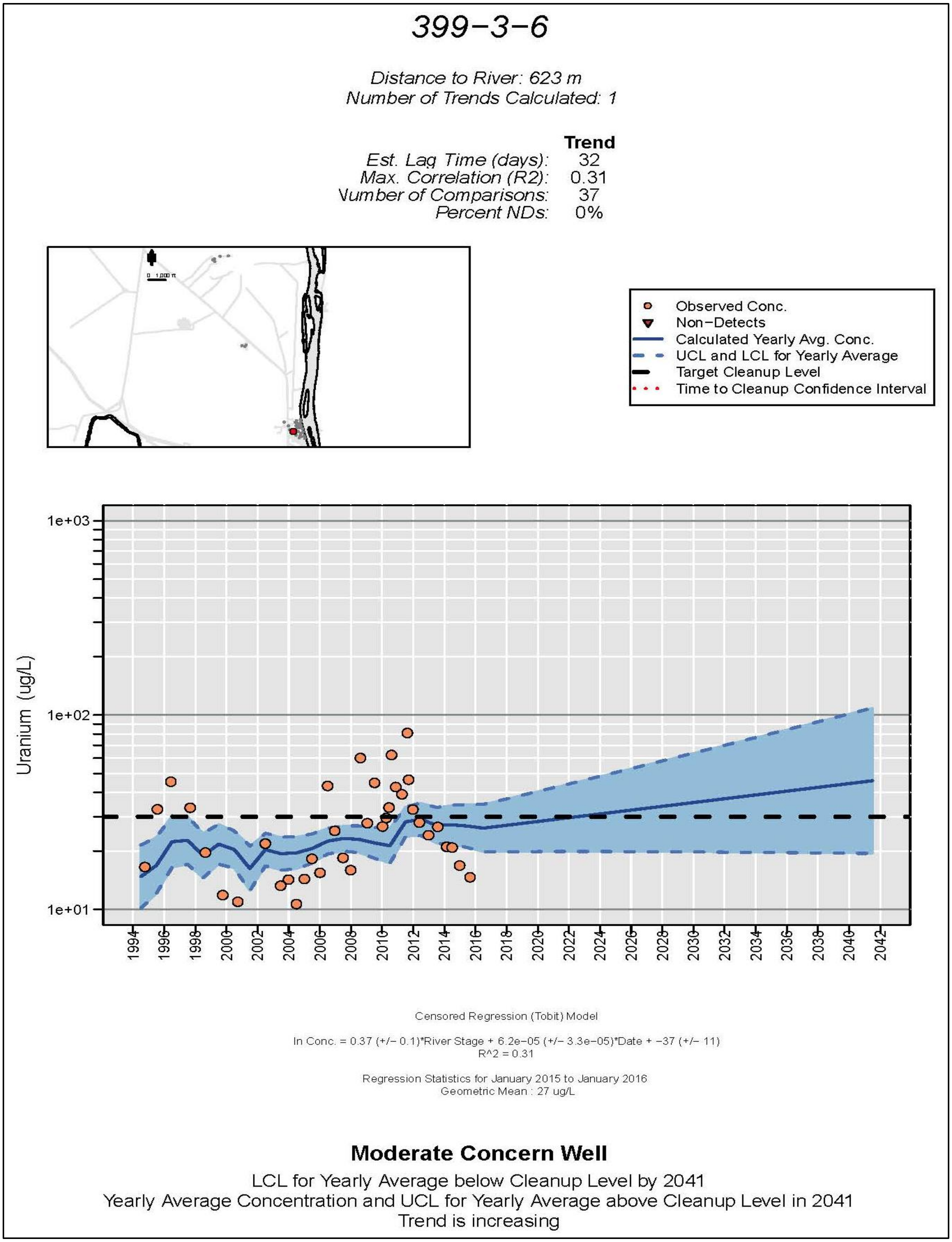

Figure B-6. Time to Cleanup Results for Uranium in Well 399-3-6 Using One Trend Period

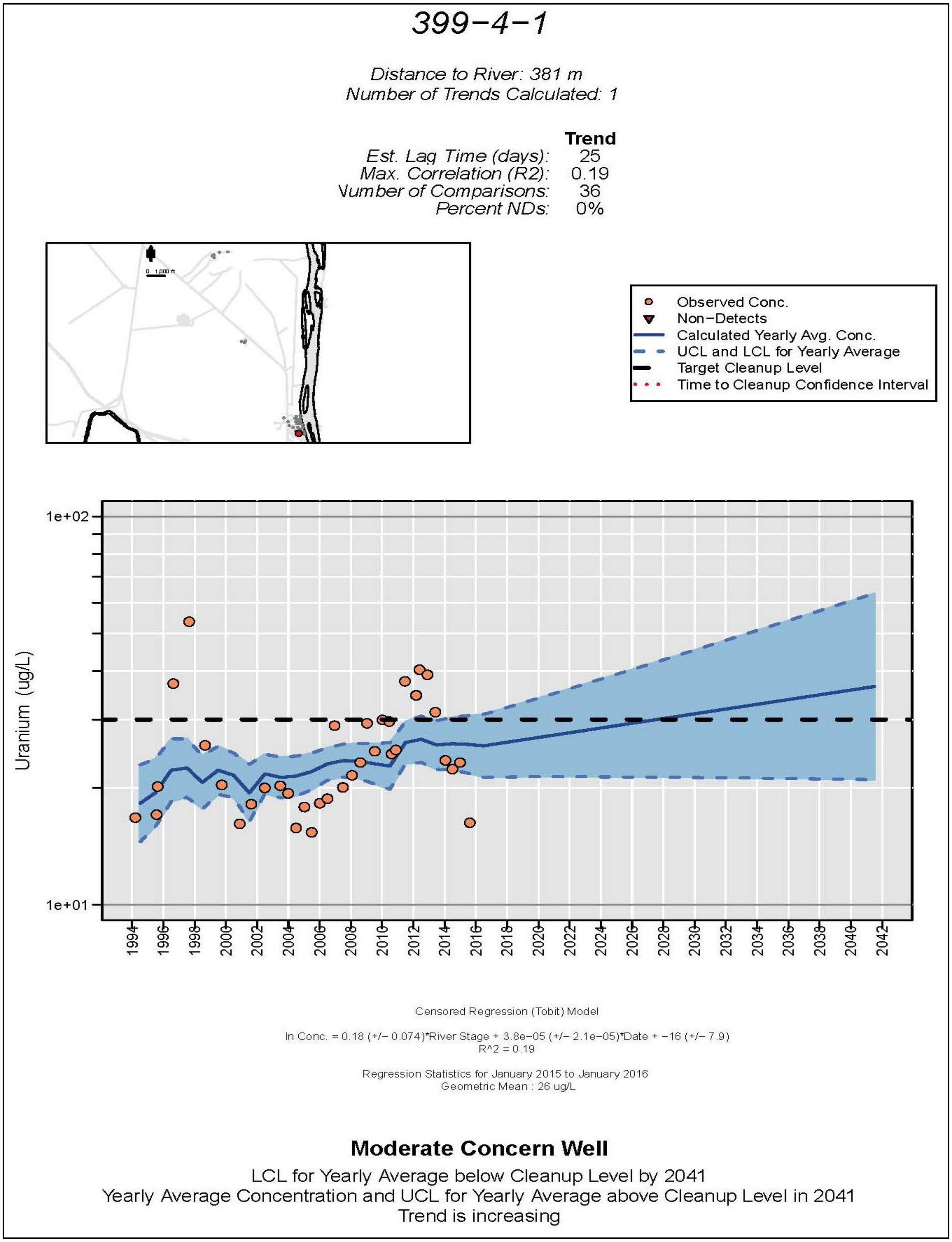

Figure B-7. Time to Cleanup Results for Uranium in Well 399-4-1 Using One Trend Period

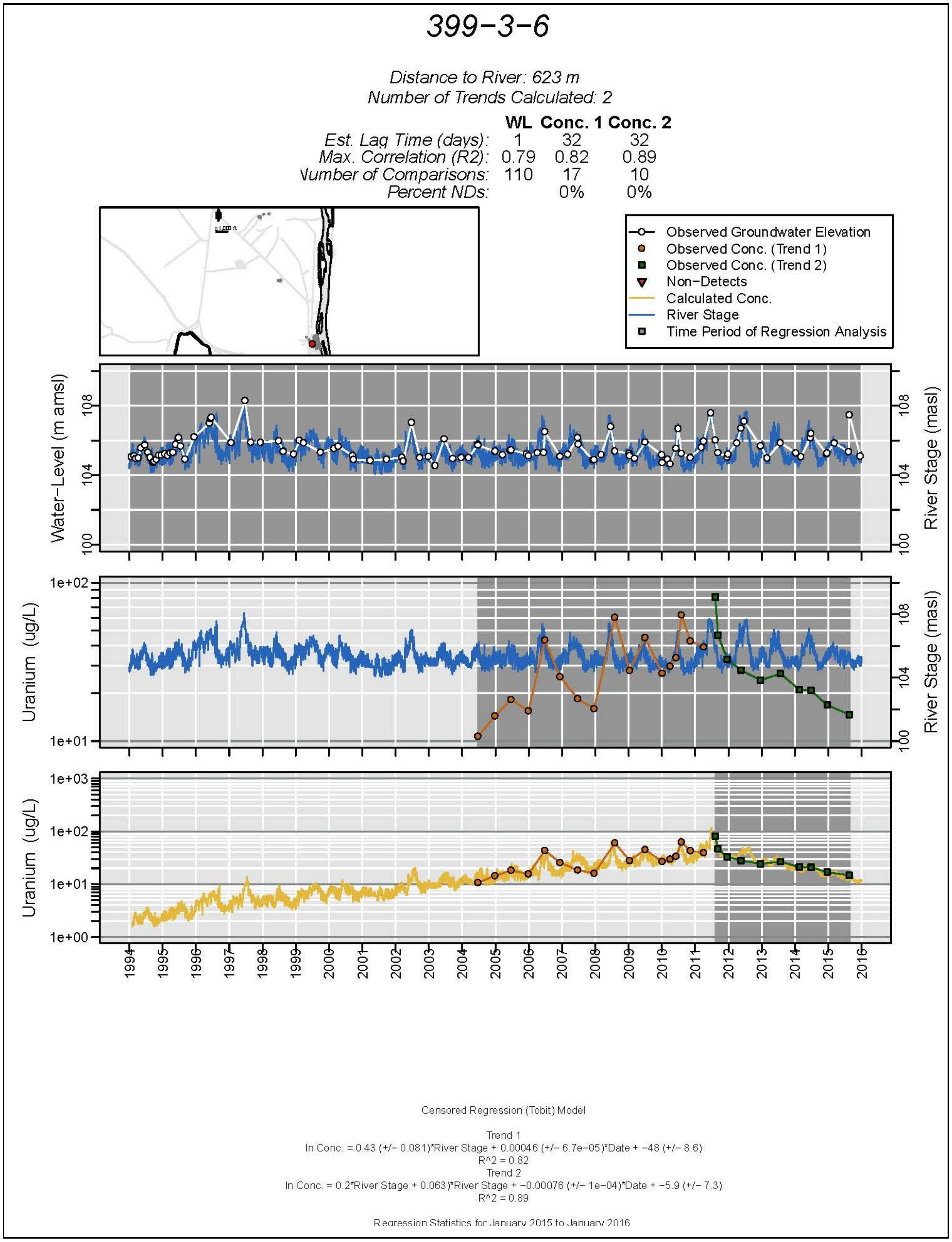

Figure B-8. Censored Regression (Tobit) Model Results for Uranium in Well 399-3-6 Using Two Trend Periods

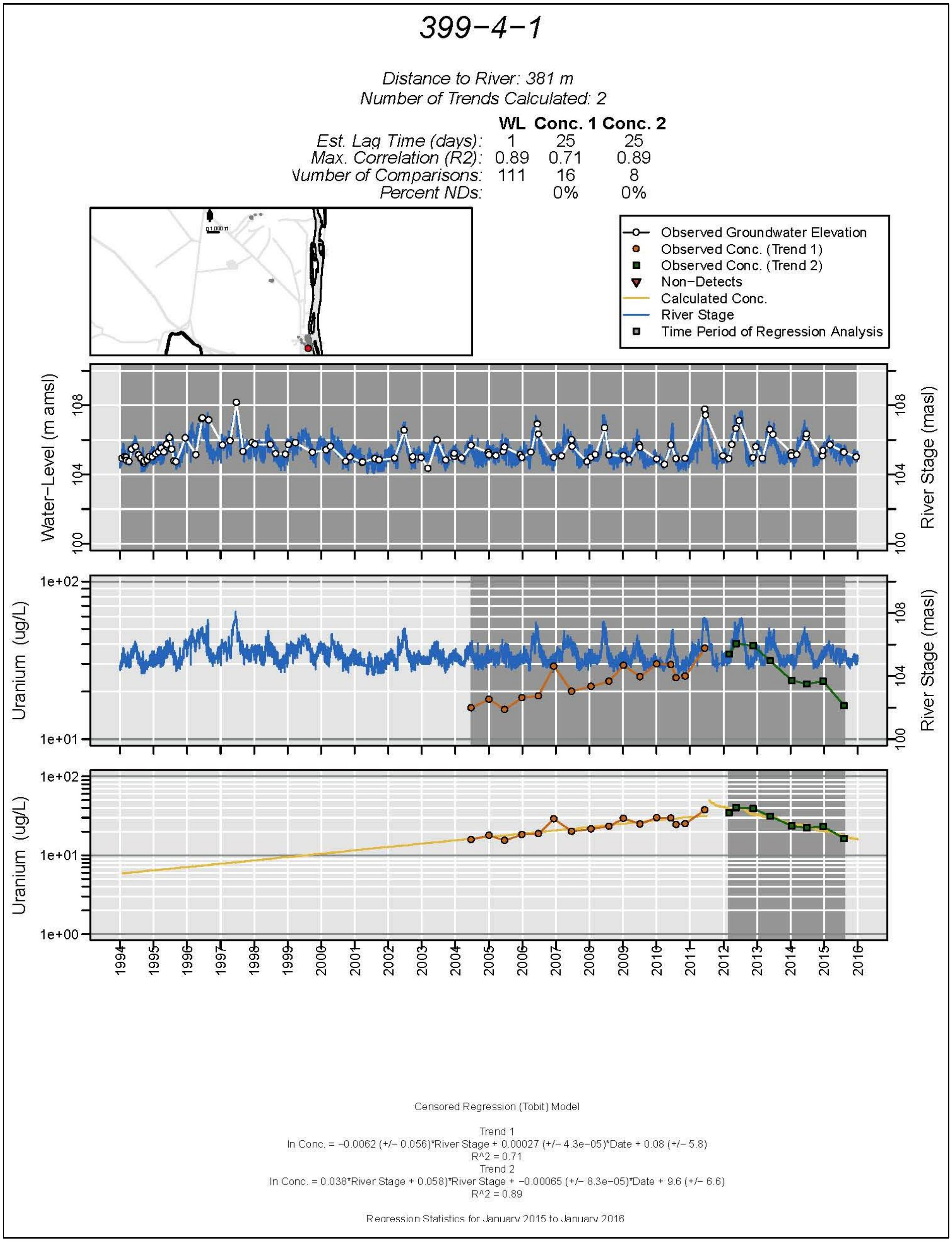

Figure B-9. Censored Regression (Tobit) Model Results for Uranium in Well 399-4-1 Using Two Trend Periods

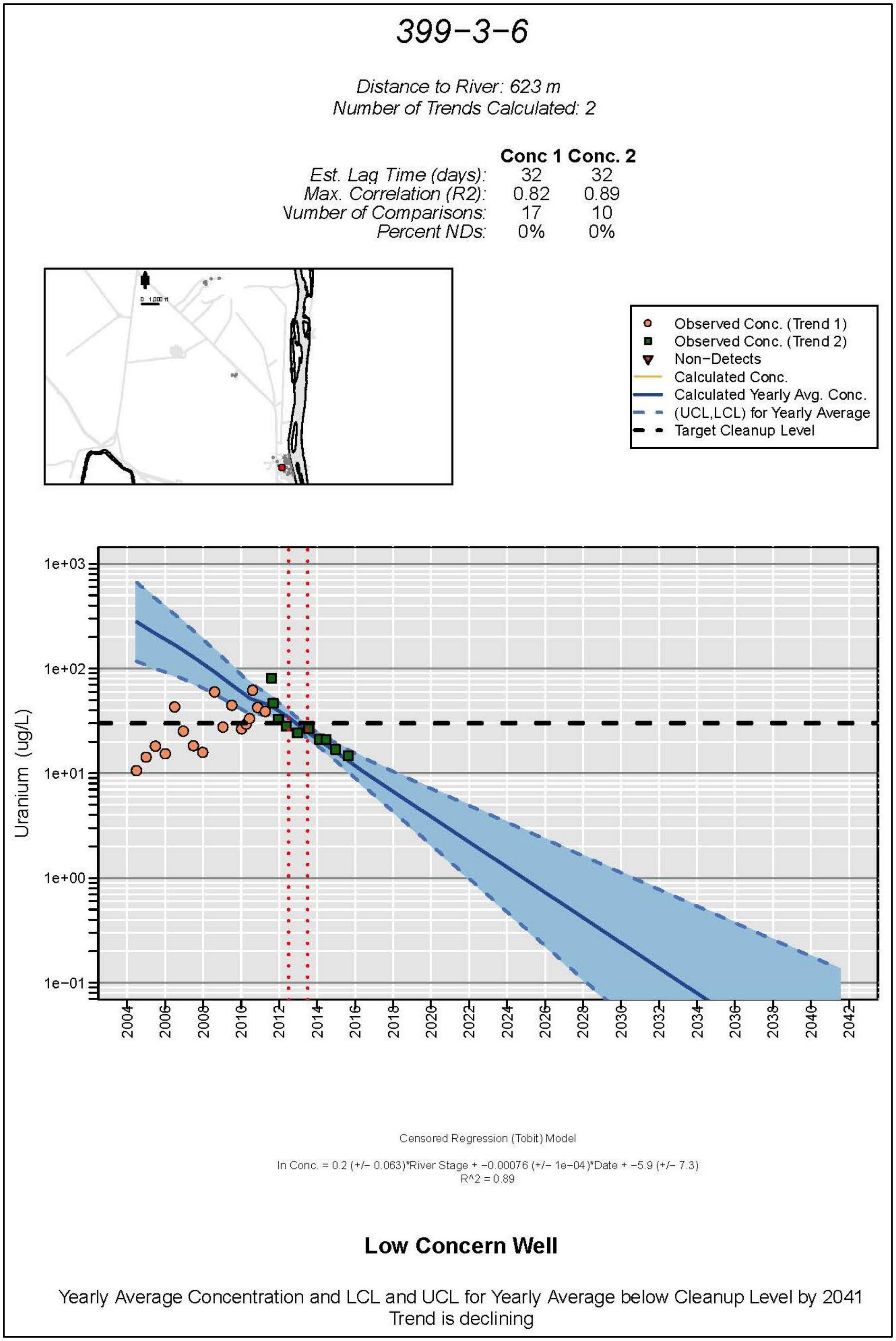

Figure B-10. Time to Cleanup Results for Uranium in Well 399-3-6 Using the Trend for the 2011 through 2015 Period

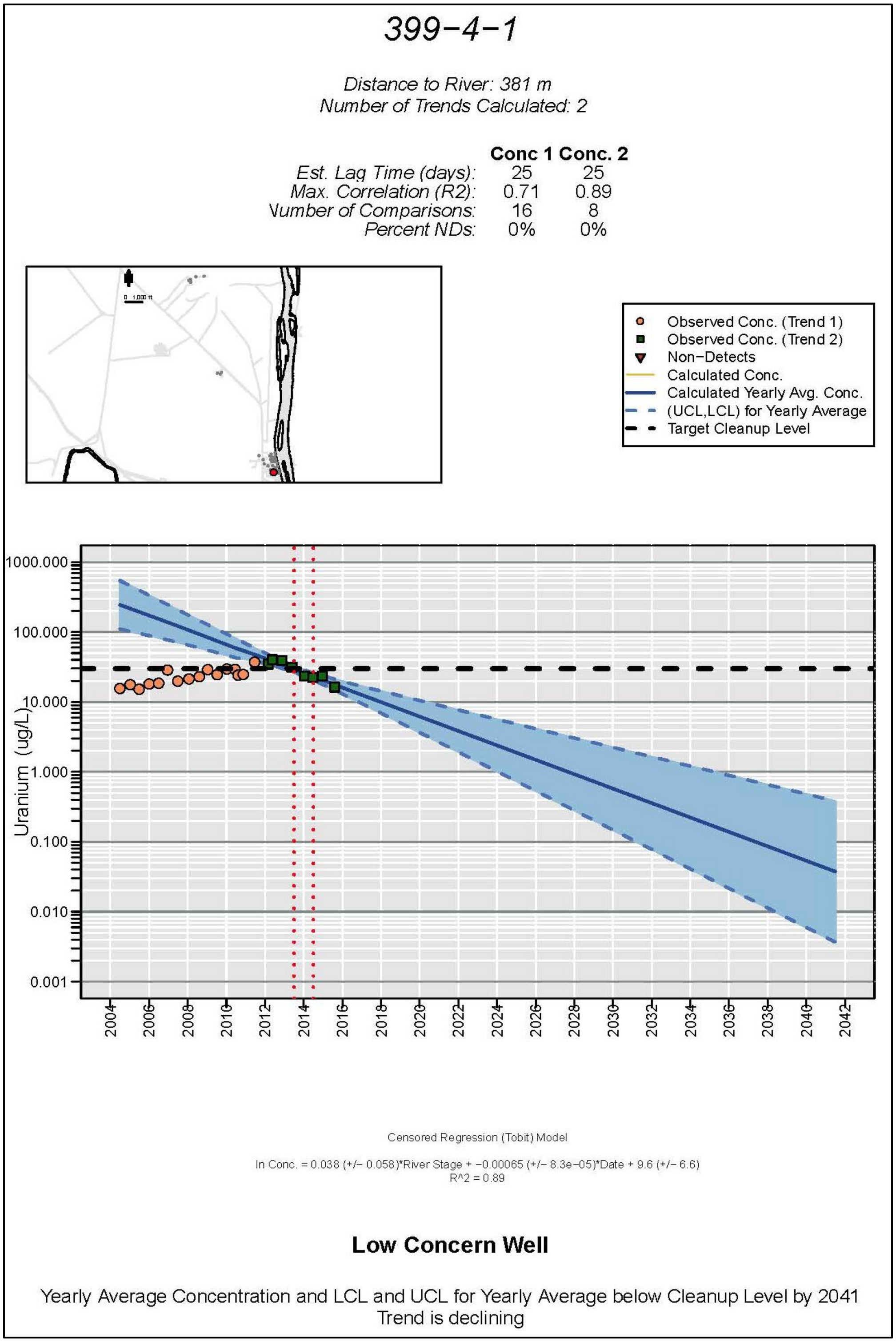

Figure B-11. Time to Cleanup Results for Uranium in Well 399-4-1 Using the Trend for the 2012 through 2015 Period

Table B-1. Comparison of Statistics and Cleanup Times for Uranium Based on Single and Two Trend Analysis

Well Name	Cleanup Level (µg/L)	2015 (1994 – 2015)				2015 (Second Trend Period Only)			
		Mean (µg/L)	UCL (µg/L)	[Relative] Well Assessment	Estimated Time to Cleanup (LCL, UCL)	Mean (µg/L)	UCL (µg/L)	[Relative] Well Assessment	Estimated Time to Cleanup (LCL, UCL)
399-3-6	30	27	35	Moderate Concern Well	Cleanup not attained by 2041	14	17	Low Concern Well	2013 (2012, 2013)
399-4-1	30	26	30	Moderate Concern Well	Cleanup not attained by 2041	18	22	Low Concern Well	2013 (2013, 2014)

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