2008 DEEP SOIL BACKGROUND REPORT

BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA

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I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

October 6, 2008

Dr. Ranajit Sahu, C.E.M. (No. EM-1699, Exp. 10/07/2009) Date
BRC Project Manager

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ABBREVIATION AND ACRONYM LIST

bgs	below ground surface
BMI	Basic Management, Inc.
BRC	Basic Remediation Company
DQIs	Data quality indicators
DVSR	Data Validation Summary Report
FOD	Frequency of Detection
FSSOP	Field Sampling and Standard Operating Procedures
MS/MSD	matrix spike/matrix spike duplicate
MDA	minimum detectable activity
NBMG	Nevada Bureau of Mines and Geology
NDEP	Nevada Division of Environmental Protection
NRS	Nevada Revised Statutes
OCPs	organochloride pesticides
pCi/g	pico Curies per gram
PID	photoionization detector
PARCC	precision, accuracy, representativeness, comparability, and completeness
Qal	Quaternary alluvium
QA/QC	quality assurance/quality control
QAPP	Quality Assurance Project Plan
QC	quality control
RPD	relative percent difference
SQL	sample quantitation limit
SVOCs	semi-volatile organic compounds
SSURGO	Soil Survey Geographic
SOP	standard operating procedure
TMC	Tertiary Muddy Creek formation
USDA	U.S. Department of Agriculture
DOE	U.S. Department of Energy
USEPA	U.S. Environmental Protection Agency
VOCs	volatile organic compounds

1.0 INTRODUCTION

On behalf of Basic Remediation Company (BRC), ERM-West, Inc. (ERM) has prepared this Deep Soil Background Report applicable to the Basic Management, Inc. (BMI), Complex and Common Areas in Clark County, Nevada. The deep soil background data were collected in accordance with the *Revised Work Plan for Determination of Deep Quaternary Alluvium and Upper Muddy Creek Formation Background Soil Chemistry and Upgradient Allivial Aquifer Conditions – BMI Common Areas and Complex Vicinity* (Daniel B Stevens & Associates [DBSA] 2007), and approved by the Nevada Division of Environmental Protection (NDEP) on June 12, 2007 (hereinafter, "Work Plan").

The general scope of work included the collection of soil samples from background areas upgradient of the BMI Common Areas and Complex industrial areas and analysis of these samples for site-related metals and radionuclides for determining background concentrations. In addition, selected samples were analyzed for general chemistry/soil parameters, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and organochloride pesticides (OCPs). The report entitled *Deep Background Investigation Report* (GES 2007) describes the drilling and sampling procedures, including detailed boring logs for each drilling location. This report presents the scope of work performed and the resultant data associated with deep background soils characterization only, and describes the scope and findings of the statistical analyses of the soils analytical results.

Deep soil background sample locations are shown on Figure 1. An electronic version of the entire report, as well as original format files (MS Word and MS Excel) of all text and tables are included in Appendix A; as is the 2008 Deep Soil Background dataset.

1.1 OBJECTIVES AND PURPOSE

The primary purpose of this investigation was to collect data for metals and radionuclides in background deep soils that are comparable to site soils in geologic units and depths not covered by the existing *Background Shallow Soil Summary Report* (BRC/TIMET 2005) and *2008 Supplemental Shallow Soil Background Report* (BRC and ERM 2008a [in revision]) datasets, which address shallower (0 to 10 feet below ground surface [bgs]) stratigraphic intervals. To support this data collection effort, soils collected from the background borings were analyzed for VOCs, SVOCs, and OCPs to evaluate potential soil impacts at the background drilling locations. The underlying assumption was that if potential chemical impacts were observed at a given boring location, the designation of that boring as representing background conditions would be suspect. In addition, general chemistry/soil parameters were also collected to better characterize the nature of the deeper soils, because limited data are currently available. General descriptive summary statistics and comparative statistical analyses for each stratigraphic unit were calculated only for the constituents being evaluated as background (*i.e.*, metals and radionuclides).

This deep background study was primarily undertaken because 1) insufficient background chemical data exist to evaluate whether concentrations of certain Site-related chemicals in deeper Site samples statistically exceed concentrations of these chemicals in background soils, and 2) insufficient background chemical data exist for the Muddy Creek stratigraphic unit, which outcrops at the ground surface in certain areas of the Common Areas. As presented in the two shallow soil background summary reports identified above (BRC/TIMET 2005; BRC and ERM 2008a [in revision]), the existing datasets focused on shallow Quaternary alluvium (Qal) soils (*i.e.*, surface to 10 feet bgs) and did not include data for the Tertiary Muddy Creek (TMC) formation.

The field activities were specifically designed to collect the following information needed for soil Site-to-background comparisons:

- Soil chemical data for various depth intervals, in both the Qal and TMC units;
- Soil chemical data for a representative range of soil map units applicable to the Site (*i.e.*, Natural Resources Conservation Service [NRCS] mapped soil units 117, 182, and 184);
- Soil chemical data to form an adequate sample population to support future statistical comparisons of Site and background sample datasets; and
- Soil chemical data to form more than one background data set, if required, based on statistical comparisons of data from different soil map units or geologic materials.

1.2 SITE LOCATION AND GEOLOGIC SETTING

The Site is located in Clark County, Nevada, and is situated approximately two miles west of the River Mountains and one mile north of the McCullough Range (Figure 2). For reference, it is noted that the Upper Ponds occupy the southern portion of the BMI Common Areas, and the Lower Ponds occupy the northern part of the BMI Common Areas. The McCullough Range is the primary source of materials upslope of the BMI Complex, the Lower Ponds, and the western and central portions of the Upper Ponds. Both the River Mountains and the McCullough Range are primary sources of materials upslope of the eastern portion of the Upper Ponds. According to the Nevada Bureau of Mines and Geology (NBMG) *Las Vegas SE Folio Geologic Map (1977) and the Geologic Map of the Henderson Quadrangle, Nevada* (NBMG 1980), the River Mountains and McCullough Range consist of volcanic rocks: dacite in the River Mountains and andesite in the McCullough Range. The land surface slopes in a westerly to northwesterly direction from the River Mountains and in a northerly to northeasterly direction from the McCullough Range. Near the Site, the surface topography slopes in a northerly direction towards the Las Vegas Wash.

Soils in the Site vicinity have been identified and mapped by the NRCS in Soils Survey of Las Vegas Valley Area, Nevada (USDA, 1985; hereinafter referred to as "NRCS Soils Survey"). The soils map from the U.S. Department of Agriculture (USDA) Soil Survey Geographic (SSURGO) database shows that the soil type classification for the Upper and Lower Ponds area proper is map unit 600, "slickens," a non-native soil type (artificial fill). This term is presumed to reflect the non-native material observed in those Ponds that were used for waste disposal. The soil type classification for the BMI Complex is map unit 615, "urban land." Native soils underlying the slickens and urban land are assumed to be consistent with the surrounding map units (*i.e.*, primarily map unit 184, and, to a lesser extent, map units 112, 117, 182, 187 and 326). In Figure 3, the sampling locations associated with this deep background soil investigation are superimposed over a digitized soils map reproduced from the 2004 NRCS SSURGO database, which represents the most recent available information pertaining to the mapped, naturally-occurring soils in the Site vicinity.

2.0 SUMMARY OF THE INVESTIGATION

This section identifies the sampling locations, presents the sampling and analytical methods, and summarizes the results of data validation.

2.1 SAMPLING LOCATIONS

As described in the Work Plan, a total of 33 potential sampling locations were originally identified within map units 117, 182, and 184. These potential sampling locations were selected because they exhibited the following characteristics:

- They are off-Site locations within the same soil map units as soils located immediately adjacent to the Site, and in relatively close proximity to the Common Areas and BMI Complex; however, they are upgradient and sufficiently distant from the Site such that impacts from Site or other industrial operations are not likely.

- Because the focus of the investigation is on deeper soils, the locations of these potential deeper background locations should not be affected by wind relationships such as might affect a shallow surface sampling program. Nonetheless, assuming a predominant wind direction from the south and southwest, the potential locations are upwind or crosswind of the Site.

- The sampling locations are upgradient of the Site and are thus unlikely to have been affected by overland transport of impacted sediments in surface water.

The *Background Shallow Soil Summary Report* (BRC/TIMET 2005) and *2008 Supplemental Shallow Soil Background Report* (BRC and ERM 2008a [in revision]) support the assumption that deep native soils collected from within map units 117, 182, and 184 should reflect background conditions at the Site. As specified in the Work Plan, based on then-current accessibility, site hazards, and land use compatibility, of the 33 candidate drilling locations, seven locations within each soil unit were selected for drilling (*i.e.*, a total of 21 locations[1]).

Based on geologic mapping data (NBMG 1980), ERM classified each sampling location as representing Qal sediments derived from either 1) the McCullough Range, 2) the River

[1] Each of the original potential drilling locations identified in the Work Plan are depicted in Figure 1, with color coding to differentiate the locations that were ultimately drilled from those that were omitted, Because the boring-specific nomenclature assigned in the Work Plan was retained, the associated dataset has gaps in the boring locations numbering system reflecting the omitted borings.

Mountains, or 3) mixed River and McCullough sources,[2] as follows, and the resultant data was accordingly segregated:

McCullough Range Source

- DBSA-01
- DBSA-02
- DBSA-03
- DBSA-04
- DBSA-08
- DBSA-09
- DBSA-10
- DBSA-11
- DBSA-13
- DBSA-14
- DBSA-15

River Mountain Source

- DBSA-23
- DBSA-26
- DBSA-27
- DBSA-29
- DBSA-30
- DBSA-32
- DBSA-33

Mixed Source

- DBSA-17
- DBSA-20
- DBSA-21

The underlying TMC was assumed to be the same unit across the study area, and all data collected from the TMC were compiled into a single dataset.

Soil samples were collected at 10-foot intervals at 21 sampling locations, from surface soil (0 to 0.5 feet bgs), to a maximum of 160 feet bgs. Of these samples, as discussed in the following section, a subset was submitted for laboratory analysis. As noted in *Deep Background Investigation Report* (GES 2007), no odors or stains indicating impacts to the soils in the deep background borings were observed. Likewise, field screening for VOCs using photoionization detectors (PIDs; 10.6 eV and 11.7 eV) revealed no elevated VOC measurements (see boring logs in Appendix B, which have been replicated from the *Deep Background Investigation Report* [GES 2007]).

2.2 SUMMARY OF SAMPLING PROCEDURES AND ANALYSES

Soil samples were collected from a single boring at each location, drilled using either a hollow-stem auger or sonic drill rig. The first five borings drilled (DBSA-1, -2, -3, -27, and -32) were

[2] Map Unit #117, which contains sampling locations DBSA-17 through DBSA-21 as seen in Figure 3, is classified as modern wash deposits. Its location is coincident with 1) a sharp topographic break and 2) the apparent contact of the alluvium from the River Mountains with that of the McCullough Ranges, which suggests that it could be derived from reworking of both underlying sediments.

advanced using hollow-stem auger drilling techniques. When the depth to the TMC contact was determined to be greater than 100 feet bgs in portions of the site, the project team revised the drilling approach to include the use of rotary sonic drilling, which could readily achieve greater depths. Samples collected from each boring using either drilling technique are considered independent samples, each representing a sample interval of 2.5 feet.

At the locations where hollow stem auger drilling was used, samples were obtained using a split-spoon sampler fitted with 2.5-inch by 6-inch stainless steel sleeves. Five sleeves were collected for each sampling interval, except where duplicate or matrix spike/matrix spike duplicate (MS/MSD) samples were needed, and were submitted directly to the laboratory without compositing. The sonic drill rig used a 6-inch diameter, 5-foot long core-sampler, which was advanced in 5-foot runs. The resulting "cores" were divided into two 2.5-foot sections, each of which was composited (separately) within a clean stainless steel bowl; a representative portion of each composited 2.5-foot sample was then placed into glass sample jars provided by the laboratory. In most cases, the jars containing the shallower 2.5-foot section of a given run were the only samples analyzed for that run; however, at intervals where duplicate samples were analyzed, the deeper samples from that interval were submitted for duplicate analysis.

Sampling and sample handling procedures were consistent with the standard operating procedures (SOP) developed for the BMI Common Areas as provided in the Field Sampling and Standard Operating Procedures (FSSOP; BRC, ERM and MWH 2007). Subsurface soil samples were collected from each 10-foot depth interval bgs. At locations where the TMC contact was observed, an effort was made to collect soil samples from 10 and 20 feet below that contact. A subset of the samples (173 samples,[3] Table 1) was subjected to laboratory analysis for site-related metals and radionuclides. Data for OCPs, VOCs, and SVOCs were also collected to evaluate whether the background soil locations are impacted by other anthropogenic sources.

Twenty-five (25) field duplicate samples were collected and analyzed for metals and radionuclides during the deep soil background investigation. Because these samples are considered field duplicates, and not split samples, each is considered an independent sample. Therefore, there were a total of 173 soil samples collected and analyzed for metals and radionuclides as part of this investigation.

[3] Note: Samples were inadvertently collected from the first soil boring, DBSA-1, at 0, 5, and 10 feet bgs. Since the purpose of the deep soil background study was to collect data for metals and radionuclides in deep background soils (that is, depths greater than 10 feet bgs), these shallow soil samples were removed from the deep background dataset and are not included in any of the statistical discussions, plots, or analyses in this report.

The soil samples were submitted for analysis to TestAmerica in St. Louis, Missouri. Analyses were conducted at four TestAmerica laboratory locations: St. Louis, Missouri (most analyses); Burlington, Vermont (physical parameters); Irvine, California (hexavalent chromium) and Richland, Washington (radionuclides). At the time of analysis, all laboratories were NDEP-certified laboratories for the analyses conducted. Sample analyses consisted of a full suite of metals, eight radionuclides (radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, and uranium-238), VOCs (5' and 10' bgs samples only), SVOCs (selected 5' and 10' bgs samples only), OCPs (selected surface soil samples only), and general soil characteristics.

Table 1 presents a sample-specific summary of the sampling and analysis program; a more detailed sample analysis summary, including the sample-specific laboratory information, the Lab Sample ID and Sample Delivery Group, sampling date and time is provided in Appendix C. The individual analytes, analytical methods, and sample quantitation limits (SQL) are consistent with the methods specified in the Work Plan. These analytes and methods are consistent with the BRC site-related chemicals list and analytical program previously established in the BRC Quality Assurance Project Plan (QAPP; BRC and ERM 2008b). All radionuclide analyses underwent full dissolution preparatory methods. All preparatory methods and analyses are consistent with the 2005 BRC/TIMET and 2008 Supplemental background datasets.

The detection frequency for metals and radionuclides evaluated during this deep soil background study is presented in Table 2. Detection frequencies observed for these analytes during the shallow background studies are also provided on that table for comparison. As seen in Table 2, most of the metals and radionuclides that are the subject of the deep soil background investigation were detected routinely in the deep soil samples. Exceptions are:

- Boron
- Chromium (VI)
- Mercury
- Niobium
- Nitrite[4]
- Platinum
- Selenium
- Thallium
- Tungsten

These nine constituents were detected in fewer than forty percent of the samples in which they were analyzed during the deep soil background investigation. This observation is generally consistent with the shallow soil background investigation findings, in which these same compounds (with the exception of mercury) were also not detected routinely. Certain

[4] Data collected for general chemistry characterization only; element not subjected to statistical analysis.

constituents were detected at noticeably higher frequencies in the deep background samples than in those from the shallow background investigations (*e.g.*, antimony, cadmium, chromium (VI), silver, and tungsten). In addition, mercury, selenium and thallium were detected at noticeably lower frequencies in the 2008 deep samples than in the shallow background studies. However, it should be noted that variations in detection frequencies are influenced by the associated reporting limits, and may not reflect trends in actual concentrations; the effect of reporting limits on detection frequencies is discussed further in Section 3.3.

2.3 DATA VALIDATION SUMMARY

All of the data were subjected to a Level 3 review. In addition to the Level 3 review, 20 percent of all data collected during the course of the investigation were subjected to full Level 4 data validation. Level 3 and 4 reviews are provided in the *Data Validation Summary Report (DVSR)— Deep Background Soil Investigation – August-October 2007 (Dataset 34c) – BMI Common Areas (Eastside), Clark County, Nevada* (BRC and ERM 2008c;[5] approved by NDEP in June 25, 2008). Stable chemistry sample results (metals) and organic data for deep soil background samples were validated in accordance with the following U.S. Environmental Protection Agency (USEPA) guidance documents: *U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA 2004); and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA 1999), respectively. USEPA has not standardized the validation of radionuclide data. Radionuclide results for deep soil background samples were validated in accordance with SOP-40 (BRC, ERM and MWH 2007) and the project QAPP (BRC and ERM 2008b).

Based on data validation and review, data qualifiers were placed in the electronic deep soil background database to classify whether the data were acceptable, acceptable with qualification, or rejected. Where applicable, an indication of result bias is presented. In addition, for every data validation qualifier, a secondary comment code was entered to indicate the reason for qualification. The DVSR (BRC and ERM 2008c) provides the definitions for the data validation qualifiers and comment codes used in the supplemental shallow soil background database. Validation qualifiers and definitions are based on those used by USEPA in the current validation guidelines (USEPA 1999 and USEPA 2004) and summarized in the SOP-40 (BRC, ERM, and MWH 2007).

[5] Note: in addition to the deep soil background data that are the subject of this report, the DVSR also includes other data not addressed in this report, such as incidental grab groundwater samples collected during the deep background drilling.

Results that are qualified as estimated may generally be usable for the purposes of establishing background and for comparison to Site-specific sample data. Based on the evaluation of the dataset, approximately 98 percent of the data obtained during the field investigation are valid (that is, not rejected) and acceptable for their intended use. With 98 percent of the dataset validated as usable, the overall objective of the data collection event was met.

2.4 DATA USABILITY EVALUATION

The analytical data were reviewed for applicability and usability following procedures in the *Guidance for Data Usability in Risk Assessment (Part A)* (USEPA 1992). A quality assurance/quality control (QA/QC) review of the analytical results was conducted during the sampling events. According to the USEPA Data Usability Guidance, there are six principal evaluation criteria by which data are judged for usability. The six criteria are:

- availability of information associated with site data;
- documentation;
- data sources;
- analytical methods and detection limits;
- data review; and
- data quality indicators (DQIs), including precision, accuracy, representativeness, comparability, and completeness.

A summary of these six criteria for determining data usability is provided below. Data usability evaluation tables are provided electronically in Appendix D.

<u>Criterion I – Availability of Information Associated with Deep Soil Background Data</u>

The usability analysis of the deep soil background data requires the availability of sufficient data for review. The required information is available from documentation associated with the data collection efforts. Data have been validated per the NDEP-approved DVSR (BRC and ERM 2008c). The following lists the information sources and the availability of such information for the data usability process:

- Background description and objectives provided in the NDEP-approved Work Plan (DBSA 2007) and in Section 1.
- A site map with sample locations is provided in Figure 1.
- Sampling design and procedures were provided in the NDEP-approved Work Plan (DBSA 2007) and discussed in Sections 2.1 and 2.2.
- Analytical methods and detection limits are provided in the Work Plan.
- A complete dataset is provided in Appendix A.
- The laboratory provides a narrative with each analytical data package outlining any problems encountered in the laboratory, control limit exceedance, and rationale for any deviations from protocol. These narratives are included as part of the DVSR (BRC and ERM 2008c).
- QC results are provided by the laboratory, including blanks, replicates, and spikes. The laboratory QC results are included as part of the DVSR (BRC and ERM 2008c).
- Data flags used by the laboratory were defined adequately
- Electronic files containing the raw data made available by the laboratory are included as part of the DVSR (BRC and ERM 2008c).

Criterion II – Documentation Review

The objective of the documentation review is to confirm that the analytical results provided are associated with a specific sample location and collection procedure, using available documentation. For the purposes of this data usability analysis, the chain-of-custody forms prepared in the field were reviewed and compared to the analytical data results provided by the laboratory to ensure completeness of the dataset. Based on the documentation review, all samples analyzed by the laboratory correspond to their respective geographic locations. Field procedures included documentation of sample times, dates and locations, and other sample-specific information (*e.g.*, sample depth). Information from field forms generated during sample collection activities was imported into the project database.

The analytical data were reported in a format that provides adequate information for evaluation, including appropriate quality control measures and acceptance criteria. Each laboratory report describes the analytical method used, provides results and detection limits on a sample-by-sample basis, and provides the results of appropriate quality control samples (*e.g.*, laboratory control spike samples, sample surrogates and internal standards [organic analyses only], and matrix spike samples). All laboratory reports provided the documentation required by USEPA's Contract Laboratory Program (USEPA 1999 and 2004) which includes chain of custody records, calibration data, QC results for blanks, duplicates, and spike samples from the field and laboratory, and all supporting raw data generated during sample analysis. Reported sample analysis results were imported into the project database.

Criterion III –Data Sources

The review of data sources is performed to determine whether the analytical techniques used in the site characterization process are appropriate. The data collection activities were primarily developed to characterize a broad spectrum of background metals and radionuclides. The State of Nevada is in the process of certifying the laboratories used to generate the analytical data. As such, standards of practice in these laboratories follow the quality program developed by the Nevada Revised Statutes (NRS) and are within the guidelines of the analytical methodologies established by the USEPA. Based on the review of the available information, the data sources for chemical and physical parameter measurements are adequate for use.

Criterion IV – Analytical Methods and Detection Limits

In addition to the appropriateness of the analytical techniques evaluated as part of Criterion III, it is necessary to evaluate whether the detection limits are low enough to allow adequate characterization of the data. At a minimum, this data usability criterion can be met through the determination that routine USEPA reference analytical methods were used in analyzing the samples. The Work Plan identifies the USEPA methods that were used in conducting the laboratory analysis of soil samples. Each of the identified USEPA methods is considered the most appropriate method for the respective constituent class and each was approved by NDEP as part of the Work Plan (DBSA 2007).

Laboratory reporting limits were based on those outlined in the reference method, the Work Plan, and the project QAPP (BRC and ERM 2008b). In accordance with respective laboratory SOPs, the analytical processes included instrument calibration, laboratory method blanks, and other verification standards used to ensure quality control during the analyses of collected samples.

Criterion V – Data Review

The data review portion of the data usability process focuses primarily of the quality of the analytical data received from the laboratory. Soil sample data were subject to data validation. The DVSR was prepared as a separate deliverable (BRC and ERM 2008c). The analytical data were validated according to the internal procedures using the principles of USEPA National Functional Guidelines (USEPA 1999 and 2004) and were designed to ensure completeness and adequacy of the dataset. Any analytical errors and/or limitations in the data have been addressed and an explanation for data qualification provided in the respective data tables. The results of ERM's data review for these issues are presented in the DVSR (BRC and ERM 2008c)

For some analytical results, quality criteria were not met and various data qualifiers were added to indicate limitations and/or bias in the data. The definitions for the data qualifiers, or data validation flags, used during validation are those defined in SOP-40 (BRC, ERM and MWH 2007) and the project QAPP (BRC and ERM 2008b). Sample results are rejected based on findings of serious deficiencies in the ability to properly collect or analyze the sample and meet QC criteria. Only rejected data are considered unusable for decision-making purposes. A small subset of sample data was rejected in the deep soil background dataset (approximately two percent). Sample results qualified as estimated indicate an elevated uncertainty in the value. A bias flag may have been applied to indicate a direction of the bias. Estimated analytical results are included in the deep soil background dataset.

In addition, under this criterion, the OCP, SVOC and VOC data were evaluated to identify any evidence of impacts that might indicate that these locations are not suitable for consideration as background. As summarized in Table 3, detections of these constituents are sporadic and relatively low, and no evidence of appreciable impacts was observed. Therefore, the OCP, SVOC and VOC data did not provide any evidence suggesting that use of samples from the 21 locations for determining background conditions would not be appropriate.

Criterion VI – Data Quality Indicators

DQIs are used to verify that sampling and analytical systems used in support of project activities are in control and the quality of the data generated for this project is appropriate for making decisions affecting future activities. The DQIs address the field and analytical data quality aspects as they affect uncertainties in the data collected. The DQIs include precision, accuracy, representativeness, comparability, and completeness (PARCC). The project QAPP provides the definitions and specific criteria for assessing DQIs using field and laboratory QC samples and is the basis for determining the overall quality of the dataset. Data validation activities included the evaluation of PARCC parameters, and all data not meeting the established PARCC criteria were qualified during the validation process using the guidelines presented in the National Functional Guidelines (USEPA 1999 and 2004).

Precision is a measure of the degree of agreement between replicate measurements of the same source or sample. Precision is expressed by relative percent difference (RPD) between replicate measurements. Replicate measurements can be made on the same sample or on two samples from the same source. Precision is generally assessed using a subset of the measurements made. The precision of the data was evaluated using several laboratory QA/QC procedures such as field duplicates, laboratory duplicates, LCS and LCSD, and MS and MSD results. Based on ERM's review of the results of these procedures, there do not appear to be any wide-spread data usability issues associated with precision.

Accuracy measures the level of bias that an analytical method or measurement exhibits. To measure accuracy, a standard or reference material containing a known concentration is analyzed or measured and the result is compared to the known value. Several QC parameters are used to evaluate the accuracy of reported analytical results:

- Holding times and sample temperatures;
- LCS percent recovery;
- MS/MSD percent recovery (organics);
- Spike sample recovery (inorganics)
- Surrogate spike recovery; and
- Blank sample results.

Detailed discussions of and tables with specific exceedances, with respect to precision and accuracy, are provided in the NDEP-approved DVSR (BRC and ERM 2008c).

Representativeness is the degree to which data accurately and precisely represent a characteristic of the population at a sampling point or an environmental condition (USEPA 2002). There is no standard method or formula for evaluating representativeness, which is a qualitative term. Representativeness is achieved through selection of sampling locations that are appropriate relative to the objective of the specific sampling task, and by collection of an adequate number of samples from the relevant types of locations.

Completeness is commonly expressed as a percentage of measurements that are valid and usable relative to the total number of measurements made. Analytical completeness is a measure of the number of overall accepted analytical results, including estimated values, compared to the total number of analytical results requested on samples submitted for analysis after review of the analytical data. A small subset of the data was eliminated due to data usability concerns. The percent completeness for the dataset is 98 percent.

Comparability is a qualitative characteristic expressing the confidence with which one dataset can be compared with another. The desire for comparability is the basis for specifying the analytical methods; these methods are consistent with those used in the 2005 BRC/TIMET shallow background soil and the 2008 supplemental shallow background soil datasets. The comparability goal is achieved through using standard techniques to collect and analyze representative samples and reporting analytical results in appropriate units.

3.0 STATISTICAL METHODS

The exploratory data analysis and statistical evaluation of data for deep background soils generally followed industry-standard guidance documents (USEPA 2000a, 2000b; DON 1999, 2002; Singh and Singh 2007) and standards agreed upon with NDEP. These guidance documents discuss the use of statistical plots, calculation of summary statistics (such as the arithmetic mean), treatment of non-detect data, and selection of statistical tests. The following sections discuss data preparation, statistical plots, summary statistics and statistical tests, and the types of comparisons conducted.

3.1 DATA PREPARATION

3.1.1 Spatial Independence Assumptions

There are 21 soil boring locations that were sampled for the deep soil background dataset, for a total of 222 samples from various depth intervals, including field duplicates. The 21 soil boring locations/222 samples are treated as spatially independent in this background soil study. The concentrations of each analyte at each sample location and depth is dependent on the origin of the sediment and the composition of the parent material (with the exception of anthropogenic deposition of analytes such as lead).

Naturally occurring variability is associated with the deposition of sediments, and these variations may never be fully characterized and result in unexplainable data clusters. The naturally occurring variability may be impacted by sediment transport, leaching, weathering, and other geochemical processes within the alluvium; therefore, when statistical tests are performed, it is expected that some spatial correlation may be seen, but the impact of this on the background evaluation is assumed to be negligible, and all sampling locations were therefore treated as independent in the statistical tests and calculations performed for this study. Treating the data points as independent is more conservative since the larger number of samples will result in narrower confidence intervals when comparing the background data to site data.

3.1.2 Data Filtering Rules

As discussed in Section 2.3, results from the deep soil background analytical dataset were validated. In order to prepare the datasets for statistical evaluation, the following results were removed from the dataset:

- All laboratory QC samples;

- All rejected (R-qualified) data; and
- Non-metals/non-radionuclides (*e.g.*, percent moisture).

Split samples, which are typically not included in datasets subjected to statistical analysis, were not collected during the deep soil background investigation; field duplicates were collected separately from their original sample and are thus considered independent samples that can appropriately be included in the statistical analyses.

3.1.3 Treatment of Data Qualified as Non-Detections

Treatment of radionuclide data qualified as non-detections followed U.S. Department of Energy (DOE) guidance (DOE 1997), which states that, for radionuclide activity data:

> "All of the actual values, including those that are negative, should be included in the statistical analysis. Practices such as assigning a zero, a detect limit value, or some in-between value to the below-detectable data point, or discarding those data points can severely bias the resulting parameter estimates and should be avoided."

Therefore, for radionuclides, the actual reported activities (in pico Curies per gram [pCi/g]) were used in all calculations and plots. Where radionuclides are not detected (specifically, below the minimum detectable activity [MDA]), the actual measured activity (positive or negative) is reported. For metals, a value of one-half the reported SQL was used as a replacement value for non-detected data in the statistical comparisons. The summary statistics (Tables 4 through 14) and plots (boxplots, individual value plots, and probability plots in Appendix E) incorporate the full SQLs for non-detects.

3.1.4 Identification and Treatment of Outliers

Outliers are data points that are extremely large or small relative to the rest of the data, and may not, therefore, be representative of the population sampled (USEPA 2000a). Outliers may be identified using statistical tests for outliers or through the construction of statistical plots. For this investigation, boxplots (discussed in more detail in the following section) were used to identify outliers for further investigation. If the outlier could not be confirmed to be a transcription or other verifiable error, except as noted below, all statistical analyses were performed with the outlier included in the dataset.

As shown on the boxplots in Appendix E, several outliers were found in the dataset. The outliers shown on the boxplots (indicated with a * symbol) are defined as observations that are beyond the upper or lower whiskers; with the whiskers extending to the maximum and minimum data points within 1.5 box heights (from the top/bottom of the box), which is the interquartile range (see Section 3.2).

Trends observed in the outliers are as follows:

- Several of the outliers are artifacts of reporting limits. For example, for constituents with few detections, those detections are often classified as outliers on the boxplots because they are outside the typical range of detection limits. In addition, elevated reporting limits are also classified as outliers in some cases. The probability plots for the metal constituents listed in Section 2.2 as not being routinely detected demonstrate the effect of the SQLs being incorporated in the dataset as detections; for those metals (*i.e.*, boron, chromium (VI), mercury, niobium, platinum, selenium, thallium, and tungsten), two distinct non-linear groupings of data are clearly visible in the probability plots.

- Outliers (low biased) for numerous constituents are associated with Qal samples collected from DBSA-30 at depths 130 ft bgs and 140 ft bgs. Furthermore, the reported concentrations are comparable to those observed in the samples collected from 150 ft bgs and 160 ft bgs at the same location (see database in Appendix A). These observations suggest that these deep samples would be more appropriately considered part of the TMC dataset, in which the 150 ft bgs and 160 ft bgs samples were assigned. The boring log for this location indicates that the TMC contact was originally identified based on the presence of clay at 148 feet bgs; based on this, the 130 and 140 ft bgs samples were assigned to Qal, and the two deeper sampling intervals (150 and 160 ft bgs) were assigned to the TMC. However, further scrutiny of the boring log reveals that soils overlying the clay TMC are clayey sands with distinct clay beds, and may represent transitional TMC. Based on this and the observed similarity in metal concentrations in the 130 ft bgs, 140 ft bgs, 150 ft bgs, and 160 ft bgs samples, data associated with the 130 ft bgs and 140 ft bgs samples were reassigned to the TMC dataset for the statistical comparisons.

Other outliers occur sporadically; these outliers were reviewed to confirm that they were not the result of reporting errors;[6] no such errors were identified. Because the sample design for collection of the deep soil background data intentionally focused on suspected unimpacted areas, the outliers are assumed to represent background conditions. Review of the probability plots provided in Appendix E shows that the majority of the outliers are close to the regression line. Therefore, there is no reason to consider these samples unreflective of background, and these sporadic outliers were retained in the deep soil background dataset.

3.2 STATISTICAL PLOTS

Statistical plots are used in exploratory data analysis to show characteristics and relationships of the data, to evaluate fit to a normal distribution, to identify anomalous data points or outliers, and to provide a general overview of the data. Probability plots, boxplots, and individual value plots were constructed as part of the data evaluation for this investigation. Preliminary evaluation of the data included an assessment of data characteristics through graphical and quantitative analysis. The deep soil background data were summarized overall and by stratigraphic classification (*i.e.*, Qal/McCullough source, Qal/River source, Qal/Mixed source, and TMC), with data plotted for the various groupings. The graphical analysis of the deep soil background analytical data is described in the following sections, and Appendix E contains the following statistical plots for the datasets, grouping data for each dataset by chemical:

- A series of boxplots for the 2008 deep soil dataset, along with the 2005 BRC/TIMET and 2008 Supplemental shallow soil datasets;
- A series of probability plots for the 2008 deep soil dataset;
- A series of individual value plots for the 2008 deep soil dataset;
- A series of boxplots for the Qal/McCullough, Qal/Mixed, and Qal/River units for each of the depths evaluated (0 ft bgs, 10 ft bgs, and deep samples); and
- A series of boxplots for the 2008 deep soil dataset prior to the reassignment of the two data points from the Qal to TMC (included electronically only).

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[6] Reporting or transcription errors are unlikely given the direct electronic data uploads from the laboratory, which were in turn uploaded directly into the spreadsheets used for statistical analysis, with no manual entry of concentration values.

Probability Plots. The distribution plots for each chemical include a probability plot that shows how well the dataset for the chemical fits a normal or lognormal distribution. Probability plots are also useful to visually identify outliers and to evaluate the possible presence of multiple populations within a dataset. Potential multiple populations are identified by inflection points on the probability plot. Inflection points are not defined statistically, and should be used with considerable caution.

The probability plots are graphs of values, ordered from lowest to highest and plotted against a standard normal or lognormal distribution function. The vertical axis is scaled in units of concentration (or activity, in the case of radionuclides), and the horizontal axis is scaled in units of the normal/lognormal distribution function. The vertical scale is plotted as a linear scale (concentration versus normal/lognormal quantile) and populations of data that plot as a straight line in a linear scale are referred to as normally distributed.

Boxplots. Boxplots provide a method for comparing data groupings or datasets side by side. The boxplots simultaneously display the full range of data, as well as key summary statistics, such as the median, 25th and 75th percentiles, and minimum and maximum values. A boxplot is a box (a rectangle) with lines. The length of the box is the interquartile range; therefore, the box represents the middle 50 percent of the data. The top and bottom of the box are the 25th and 75th percentiles of the distribution. The width of the box is arbitrary. The point in the middle of the box depicts the median value (the 50th percentile) of the population. The upper (lower) whisker extends to the highest (lowest) data value within the upper (lower) limit. Where the upper (lower) limit = third (first) quantile + (-) 1.5 * [third quantile-first quantile]. These plots show the symmetry of the dataset, the range of data, and a measure of central tendency (median).

As noted in the previous section, probability and boxplots were used for identifying anomalous data points (outliers) and data clusters in the deep soil background dataset. All anomalous data points and clusters were investigated further. As indicated above, outliers shown on the boxplots are indicated with a * symbol.

The plots shown in Appendix E summarize a large amount of data (over 7,300 records). The plots are presented to provide a comprehensive overview of the deep soil background dataset for soils and to compare the different stratigraphic units.

Scatterplots. A scatterplot uses a Cartesian coordinate system to display values for two variables for a set of data. The data are displayed as a collection of points, each having the value of one variable determining the position on the horizontal axis and the value of the other variable determining the position on the vertical axis.

As directed by NDEP, scatterplots were constructed for those constituent pairs with significant correlation coefficients. Scatterplots were visually examined and best professional judgment was used to ascertain whether high-concentration outliers[7] occur "near" the least-square linear trend line. As directed by NDEP, where high-concentration outliers occur "near" the trend line, one may infer that these concentrations are consistent with background concentrations.

3.3 DESCRIPTIVE SUMMARY STATISTICS

Descriptive summary statistics for metals and radionuclides were calculated for the deep soil background dataset (Table 4 for all deep units combined, and Tables 5 through 8 for deep units Qal/McCullough, Qal/River, Qal/Mixed, and TMC, respectively). The descriptive summary statistics calculated for each analyte include the sample size, number of detections, the minimum and maximum concentration, the median, the mean, and the 25th and 75th percentiles (quantiles); for both censored and detected data. For comparison purposes, Tables 9 through 14 present descriptive summary statistics for the Qal/River data collected during the 2008 Supplemental shallow soil investigation,[8] and the Qal/McCullough and Qal/Mixed data collected during the 2005 shallow soil investigation, respectively.

3.4 FREQUENCY OF DETECTION

As noted in Section 2.2, antimony, cadmium, chromium (VI), tungsten, and silver were detected at noticeably higher frequencies in the deep background samples than in those from the shallow background investigations, and mercury, selenium and thallium were detected at noticeably lower frequencies in the 2008 deep samples than in the shallow background studies. The statistical summaries in Tables 4 through 14 were evaluated to assess the likely influence of SQLs on these observed detection frequencies. This evaluation determined that variations in SQLs are likely to have had effects on detection frequencies for certain constituents (*i.e.*, cadmium, selenium, and tungsten), as summarized below.

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[7] High-concentration outliers were identified from boxplots.
[8] Qal/River data from the 2005 BRC/TIMET background dataset were not used in this report. The 2005 BRC/TIMET Qal/River data are considered more representative of the southern part of the River Mountains; while the site is closer to the northern part of the River Mountains range. The Qal/River data from the 2008 Supplemental shallow soil background investigation are considered more representative of northern part of the River Mountains and therefore more applicable for use for the site.

Antimony	**2008 Deep Data**	**2008 Supplemental Shallow Data**	**2005 Shallow Data**
Percent Detection[9]	94%	39%	41%
Mean SQLs for Non-Detects (mg/kg)	1.1 to 1.3	1.0	1 to 1.0
Mean Detected Concentration (mg/kg)	0.15 to 0.22	0.32	0.23 to 0.24
Assessment of SQL Effects on Frequency of Detection (FOD)	The 2005 and 2008 shallow soil FOD for antimony are comparable, at less than half the FOD of the 2008 deep data. The detections, which are primarily J-flagged results (indicating that they are estimated values below the SQL) are lower for the 2008 deep datasets than for the other two datasets. Reported antimony detections are lower than the SQLs associated with non-detections, and the SQLs are not appreciably different between the three events. The assessment of SQL effects on the FOD was inconclusive.[10]		

Cadmium	**2008 Deep Data**	**2008 Supplemental Shallow Data**	**2005 Shallow Data**
Percent Detection	86%	64%	13%
Mean SQLs for Non-Detects (mg/kg)	0.058 to 0.11	0.10	0.51 to 0.52
Mean Detected Concentration (mg/kg)	0.089 to 0.11	0.12	0.094 to 0.13
Assessment of SQL Effects on FOD	The 2005 and 2008 cadmium detections are comparable, primarily J-flagged results (indicating that they are estimated values below the SQL). Reported cadmium detections are higher than or within the range of the non-detect SQLs for the 2008 data, but are lower than the non-detect SQLs for the 2005 data. Based on this, it is likely that the higher SQLs of the 2005 event are one cause of differences in FODs between the 2008 and 2005 sampling events.		

Chromium (VI)	**2008 Deep Data**	**2008 Supplemental Shallow Data**	**2005 Shallow Data**
Percent Detection	24%	0%	0%
Mean SQLs for Non-	1.0 to 1.1	1.09	0.41 to 0.41

[9] For all summary tables in this section, the value for Percent Detection reflects the full dataset for each event, as taken from Table 2, and the range of values provided for the other parameters was taken from Tables 4 through 14, for each stratigraphic unit.

[10] In order to understand the potential effects of SQL variations on the FOD, the comparability of SQLs (for detections and non-detections) must be reviewed for the datasets being compared. If the detections have the same or higher SQLs than the non-detections, it is expected that detections in the range reported would have been reportable, if present, in the other samples, and it can be assumed that variations in FOD represent actual element variability in the datasets being compared. If the detections have lower SQLs than the non-detections, that element may actually be present in the reported range of detections, but undetected, in the latter samples; in such cases, the FOD may or may not reflect actual element variability.

Chromium (VI)	**2008 Deep Data**	**2008 Supplemental Shallow Data**	**2005 Shallow Data**
Detects (mg/kg)			
Mean Detected Concentration (mg/kg)	0.19 to 0.41	- -	- -
Assessment of SQL Effects on FOD	The shallow soil detections are primarily J-flagged results, indicating that they are estimated values below the SQL. The 2008 deep dataset has a higher FOD than the other datasets, despite the fact that the 2008 SQLs are higher than those associated with the 2005 event. The upper range of detections in the 2008 data are close to the 2005 SQLs, however, reported chromium (VI) detections are lower than the SQLs associated with non-detections for both the 2008 and 2005 events. The assessment of SQL effects on the FOD was inconclusive.		

Mercury	**2008 Deep Data**	**2008 Supplemental Shallow Data**	**2005 Shallow Data**
Percent Detection	38%	0%	78%
Mean SQLs for Non-Detects (mg/kg)	0.036 to 0.039	0.035	0.035 to 0.035
Mean Detected Concentration (mg/kg)	0.0083 to 0.013	- -	0.016 to 0.022
Assessment of SQL Effects on FOD	The 2005 mercury detections are higher than those associated with the 2008 event. Both the 2005 and 2008 detections are primarily J-flagged results, indicating that they are estimated values below the SQL. The non-detect SQLs for 2005 and 2008 data are comparable, and are higher than the detections in the 2005 and 2008 data. The assessment of SQL effects on the FOD was inconclusive.		

Selenium	**2008 Deep Data**	**2008 Supplemental Shallow Data**	**2005 Shallow Data**
Percent Detection	0%	0%	43%
Mean SQLs for Non-Detects (mg/kg)	1.0 to 1.1	1.0	0.51 to 0.52
Mean Detected Concentration (mg/kg)	- -	- -	0.13 to 0.34
Assessment of SQL Effects on FOD	The 2008 selenium SQLs for non-detections are higher than those associated with the 2005 event. The 2005 detections are lower than the 2005 and 2008 SQLs for non-detects, and are primarily J-flagged results, indicating that they are estimated values below the SQL. Given the proximity of the 2005 detections to the 2005 non-detect SQLs, it is likely that the higher SQLs of the 2008 event are one cause of differences in FODs between the 2008 and 2005 sampling events.		

Silver	2008 Deep Data	2008 Supplemental Shallow Data	2005 Shallow Data
Percent Detection	99%	42%	13%
Mean SQLs for Non-Detects (mg/kg)	1.1	1.0	1.0 to 1.0
Mean Detected Concentration (mg/kg)	0.14 to 0.25	0.095	0.042 to 0.058
Assessment of SQL Effects on FOD	The 2005 and 2008 SQLs for non-detects are comparable. The 2008 detections are an order of magnitude higher than the 2005 detections. The 2005 and 2008 detections are lower than the SQLs for non-detects and the detections are primarily J-flagged results, indicating that they are estimated values below the SQL. The assessment of SQL effects on the FOD was inconclusive.		

Thallium	2008 Deep Data	2008 Supplemental Shallow Data	2005 Shallow Data
Percent Detection	2.4%	18%	35%
Mean SQLs for Non-Detects (mg/kg)	0.42 to 0.4388	0.42	1 to 1.0
Mean Detected Concentration (mg/kg)	0.23	0.72	0.14 to 1.2
Assessment of SQL Effects on FOD	The 2005 dataset has a higher FOD than the 2008 datasets, despite the fact that the 2005 SQLs are more than 2 times higher than those associated with the 2008 event. The 2008 detections are within the range of the 2005 detections. The assessment of SQL effects on the FOD was inconclusive.		

Tungsten	2008 Deep Data	2008 Supplemental Shallow Data	2005 Shallow Data
Percent Detection	34%	6.1%	0%
Mean SQLs for Non-Detects (mg/kg)	1.0 to 1.1	1.0	2.6 to 2.6
Mean Detected Concentration (mg/kg)	0.38 to 0.45	0.98	- -
Assessment of SQL Effects on FOD	The 2005 SQLs for non-detects are more than 2 times higher than those for the 2008 data, which had a much higher FOD. The 2008 detections are primarily J-flagged results, indicating that they are estimated values below the SQL. The 2005 non-detect SQLs are more than 5 times the 2008 detections. Based on this, it is likely that the higher SQLs of the 2005 event are one cause of differences in FOD between the 2008 and 2005 sampling events.		

As noted above in Section 3.1.4, review of the statistical plots identified several outliers in the dataset. As discussed in Section 3.1.4., several outliers were associated with constituents with large percentages of non-detections (*i.e.*, boron, chromium (VI), mercury, niobium, platinum, selenium, thallium, and tungsten). In addition, outliers associated with one sample location (multiple depths) were of particular note: the samples collected at 130 ft bgs and 140 ft bgs at DBSA-30. As previously discussed, the two DBSA-30 samples were moved from the Qal/River dataset to the TMC dataset, because they were consistent outliers in the Qal/River dataset and were considered more representative of TMC conditions. With the exception of these samples, there were no other samples that exhibited consistent outliers (high or low biased) in the datasets, and there is no consistent pattern to the data that would suggest that the data are not indicative of naturally occurring background conditions.

3.5 STATISTICAL TESTS AND COMPARISONS

The main statistical problem was to determine if the data are from more than one population based on statistical comparisons of data from different geological settings, including 2008 Deep Soil investigation, 2008 Supplemental Shallow investigation and 2005 BRC/TIMET investigation sample locations; and (2) sampling depth intervals (0 to 0.5 feet, 9 to 11 feet and Deep soils [$\geq$ 20 ft bgs]). To answer these questions, several groups of data were compared using statistical tests and statistical plots (Section 3.2). These included comparison of the following datasets:

- Comparison of the 2008 deep soil dataset among stratigraphic units (Qal/McCullough, Qal/River, Qal/Mixed, and TMC);
- The Qal/McCullough unit datasets - deep data from the 2008 Deep Soil Background investigation, and surface soil and 10 ft bgs data from the 2005 BRC/TIMET dataset;
- The Qal/River unit datasets - deep data from the 2008 Deep Soil Background investigation, and surface soil and 10 ft bgs data from the 2008 Supplemental Shallow dataset; and
- The Qal/Mixed unit datasets - deep data from the 2008 Deep Soil Background investigation, and surface soil and 10 ft bgs data from the 2005 BRC/TIMET dataset.

In addition, prior to conducting these analyses, comparison of the data associated with the Qal units (McCullough, River, and Mixed) was performed to determine whether data categorized as Mixed was statistically different from the other two units. If no significant differences were observed between the Qal/Mixed data and one or both of the other Qal units, the Qal/Mixed data would have been moved into one of the other Qal datasets as appropriate. However, as discussed below, the Qal/Mixed data were found to exhibit significant differences from the other two Qal units; thus it was retained as a separate Qal unit.

3.5.1 Hypothesis Testing

Statistical hypotheses are framed in terms of a null hypothesis (H_o). For this study, one null hypothesis was that the data sets were derived from the same population; therefore, should this null hypothesis be rejected, one could infer that the data sets were derived from different populations. The other null hypothesis was that there is no correlation between two elements; therefore, should this null hypothesis be rejected, one could infer that there exists a correlation (positive or negative) between two elements (inter-element correlations). These hypotheses are also discussed in BRC/TIMET (2005) report.

3.5.2 Statistical Analyses

Statistical analyses were conducted to test whether data sets are comparable and whether there exist relationships between elements. A key characteristic of statistical analyses is whether a parametric or nonparametric statistical test is used. Parametric statistical tests used in this evaluation of background concentrations assume the following:

- Samples are independent and drawn randomly from the population.
- Data are normally distributed for each population.

Tests that do not require specific mathematical form for the underlying distribution of the data are called nonparametric statistical tests[11] (Singh and Sigh 2007; DON 2002). Nonparametric tests assume that samples are independent and drawn randomly from the population.

Methods used to evaluate and compare the data groups for this deep background dataset are summarized below. The parametric and nonparametric multiple population comparisons and correlation analyses were performed using SPSS v. 15.[12] Given this study examined potential differences among deep background datasets, two-tailed test were preformed. Consistent with

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[11] Accordingly, nonparametric tests are also known as distribution-free tests.
[12] Note a Gehan ranking is not supported by SPSS v.15 and was not used to accommodate non-detects in the Kruskal-Wallis and Kendall tau analyses.

previous studies of background concentrations at BRC, a level of significance (α) equal to 0.05 was used (BRC TIMET 2005).[13]

3.5.2.1 Multiple Independent Sample Tests[14]

One-Way Analysis of Variance (ANOVA). The parametric one-way ANOVA tests the hypothesis that multiple (*k*) population means are equal (Sokal and Rohlf 1981; Gilbert 1987; Zar 1984). Where one-way ANOVAs indicated the existence of significant differences among soil strata, the Tukey Honestly Significant Difference (HSD) test was used to conduct pair-wise *post-hoc* comparisons.

Kruskal-Wallis Test. Kruskal-Wallis test is a non-parametric one-way ANOVA for ranks and is used to test the equality of medians among multiple (*k*) populations. The Kruskal-Wallis tests the null hypothesis that several populations have the same continuous distribution. If the null hypothesis is rejected, one may infer that measurements tend to be higher in one or more of the populations. Fundamentally, this test is analogous to a parametric one-way ANOVA with the exception that the measured/observed values are replaced by their ranks. Accordingly, it is an extension of the Wilcoxon-Mann-Whitney test for three or more groups. Where Kruskal-Wallis tests indicated the existence of significant differences among soil strata, examinations of boxplots were used to conduct pair-wise *post-hoc* comparisons.[15]

Examination of Constituents with Less than 50 Percent Frequency of Detection. At the direction of NDEP, for those constituents where the use of two- or multiple independent sample tests is not recommended—specifically, when the FOD was less than 50 percent, the following approach was conducted:

1. Conduct test of proportions[16] to identify similarities in datasets based on the proportion of detected concentrations.

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[13] Where appropriate, a confidence level (1-α) of 95 percent confidence was used.
[14] At the direction of NDEP, results of both the parametric ANOVA and the nonparametric Kruskal-Wallis tests are provided.
[15] SPSS v. 15 does not support the nonparametric Behrens-Fisher *post-hoc* comparison test.
[16] In this investigation, the nonparapmetric test of proportions was used to test the null hypothesis that the proportion of detected concentrations is the same among two datasets. If the null hypothesis is rejected, one may infer that the two populations are different with respect to the proportion of detected data.

2. Where the proportion of detected concentrations is found to be similar and the number of detected concentrations is greater than four (4) for both datasets, conduct two- or multiple independent sample tests on detected data only.

Similarities among datasets may be inferred when similarities among medians of detected-only data may be inferred from two- or multiple independent sample tests.

Note that for constituents with FODs less than 50 percent and SQLs meeting analytical data quality objectives (DQOs), one may conclude that these constituents are present at low concentrations in background soils. Moreover, it is recommended that characterizations of similarities/dissimilarities among background datasets be ascertained based on the more robust statistical analyses of constituents with greater FODs.

3.5.2.2 Correlation Analysis

Pearson's Product-Moment Correlation Coefficient. The Pearson product-moment correlation coefficient (r) is a parametric measure of the correlation between two variables (Sokal and Rohlf 1981; Gilbert 1987; Zar 1984). The Pearson's correlation reflects the degree of linear relationship between two variables and ranges from +1 to -1. A correlation of +1 means that there is a perfect positive linear relationship between variables. A correlation of -1 means that there is a perfect negative linear relationship between variables. A correlation of 0 means there is no linear relationship between the two variables.

Kendall Tau Correlation Coefficient. The Kendall tau rank correlation coefficient (or Kendall tau coefficient) is a non-parametric statistic used to measure the degree of correspondence between the ranks of two populations—it measures the strength of association of cross tabulations. As with the Pearson's correlation coefficient, Kendall tau ranges from +1 to -1. A value of +1 means that there is 100 percent positive association between the two variables—*i.e.*, rankings for both variables are identical. A value of -1 means that there is 100 percent negative association between the two variables—*i.e.*, the ranking of one variable is the reverse of the other variable. A value of zero indicates the absence of an association between the two variables—*i.e.*, rankings are independent.

3.5.3 Comparison of All Deep Soil Units (2008 Data)

The Qal/McCullough, Qal/River, and Qal/Mixed datasets from the 2008 Deep Soil Background investigation were evaluated to determine if the Qal/Mixed dataset should be combined into one or the other datasets for future consideration. The results of the statistical analyses are included in Table F-1 of Appendix F. Probability plots, boxplots, and individual value plots were used to semi-quantitatively compare the three datasets. These plots are included in Appendix E.

Overall, a number of significant differences among the three populations may be inferred from the statistical tests of constituent concentrations. The five elements for which no significant differences may be inferred are as follows:

- Aluminum
- Cadmium
- Calcium
- Palladium
- Silver

Statistical tests were not conducted for metals that had fewer than four detections in one or more of the unit-specific datasets (BRC TIMET 2005). Accordingly, statistical tests were not performed for boron, chromium VI, niobium, platinum, selenium, and thallium and it was not possible to determine whether significant differences were associated with the Qal/McCullough, Qal/River, and Qal/Mixed datasets for these metals.

The datasets for the remaining 33 elements had significant differences noted between the 2008 Qal/McCullough, Qal/River, and/or Qal/Mixed datasets for deep background soils. More significant differences were noted between the Qal/McCullough and Qal/River datasets (28 elements) than between the Qal/Mixed and Qal/River datasets (18 elements with significant differences) or the Qal/Mixed and Qal/McCullough datasets (22 elements with significant differences). This is consistent with the geological interpretation that the Qal/Mixed unit is derived from a mixed source with contributions from both the Qal/McCullough and Qal/River units.

In general, for radionuclides, more significant differences in activities may be inferred between the Qal/McCullough and the other two units than between the Qal/Mixed and Qal/River units; the radionuclide detections tended to be higher in the McCullough unit than in the other two units. Neither the Qal/River nor Qal/McCullough datasets had consistently higher metal detections, and Qal/Mixed metal datasets were usually 1) statistically indistinguishable from one or the other units; or 2) mid-range values between the two. Limited exceptions to this rule were observed: barium and chromium detections were higher in the Qal/Mixed dataset than in either the Qal/McCullough or Qal/River datasets, and silicon and sodium detections were lower in the Qal/Mixed dataset than in either the Qal/McCullough or Qal/River datasets.

Based on post-hoc comparison tests, the following metals were considered to be present at significantly higher concentrations in the Qal/McCullough dataset than the Qal/River dataset:

- Beryllium
- Cobalt
- Copper
- Iron
- Magnesium
- Manganese
- Molybdenum
- Nickel
- Phosphorus
- Titanium
- Uranium
- Vanadium
- Zirconium

Similarly, the following metals were considered to be present at significantly higher concentrations in the Qal/River dataset than the Qal/McCullough dataset:

- Antimony
- Arsenic
- Barium
- Lead
- Lithium
- Potassium
- Sodium
- Zinc

Because of the numerous significant differences observed between the Qal/Mixed and other two units, the three 2008 Qal deep soil datasets were retained as separate datasets for further statistical evaluation and comparisons.

As discussed above, a number of significant differences in constituent concentrations may be inferred among the three Qal populations. In addition, the analysis determined that no significant differences may be inferred between the TMC and Qal units for the following metals:

- Aluminum
- Cadmium
- Calcium
- Calcium
- Palladium

Statistical tests were not conducted for metals with fewer than four detections in one or more of the unit-specific datasets (BRC TIMET 2005). Accordingly, statistical tests were not performed for boron, chromium VI, niobium, platinum, selenium, and thallium and it was not possible to determine whether significant differences were associated with the deep unit datasets for these metals.

The datasets for the remaining 33 elements had significant differences noted between the 2008 datasets for deep background soils. More significant differences were noted between the TMC and Qal/McCullough datasets (28 elements) than between the TMC and Qal/Mixed datasets (12 elements with significant differences) or the TMC and Qal/River datasets (17 elements with significant differences).

For radionuclides, there were more significant differences between the TMC and Qal/McCullough than between the TMC and the Qal/Mixed and/or Qal/River units; the radionuclide detections were higher in the Qal/McCullough unit than in the TMC. In contrast, the TMC metal datasets were usually 1) statistically indistinguishable from one or more of the other units; or 2) mid-range values between the three. Limited exceptions to this rule were observed: lithium and magnesium detections were higher in the TMC dataset than in the other three deep datasets.

3.5.4 Comparison of Qal/McCullough Units by Depth (2005 and 2008 Data)

The Qal/McCullough datasets from the 2008 Deep Soil Background and 2005 Shallow Soil Background investigations were evaluated to determine if there were significant differences between them. The specific datasets selected were surface data (2005 investigation), 10 ft bgs data (2005 investigation) and all Qal/McCullough data from depths 20 ft bgs or greater collected during the 2008 Deep Soil background investigation. The results of the statistical analyses are included in Table F-2 of Appendix F. Probability plots, boxplots, and individual value plots were used to semi-quantitatively compare the three datasets. These plots are included in Appendix E.

Overall, a number of significant differences in constituent concentrations among the three populations may be inferred from the ANOVAs/Kruskal-Wallis tests. Arsenic and beryllium were the only two elements for which no significant differences may be inferred.

No statistical tests were performed for the following metals that had fewer than four detections in one or more of the unit-specific datasets:

- Cadmium
- Chromium VI
- Niobium
- Platinum
- Selenium
- Silver
- Tungsten

Because these metals were not subjected to statistical comparisons, it was not possible to determine whether significant differences were associated with the various Qal/McCullough depth intervals for these metals.

The datasets for the remaining 31 elements had significant differences noted between the shallow and deep Qal/McCullough datasets. More significant differences were noted between the surface and deep datasets (26 elements) than between the surface and 10 ft bgs datasets (20 elements with significant differences) or the deep and 10 ft bgs datasets (19 elements with significant differences). Metal and radionuclide trends were inconsistent between the units; none of the datasets had consistently higher metal detections, but surface or deep results were more commonly identified as being statistically higher than the other datasets. The 10 ft bgs datasets were usually 1) statistically indistinguishable from one or the other units; or 2) mid-range values between the two. Limited exceptions to this rule were observed: calcium detections were higher in the 10 ft bgs dataset than in either the surface or deep datasets, and five elements (chromium, iron, lead, tin, and thorium-228) were lower in the 10 ft bgs dataset than in either the surface or deep datasets.

Based on post-hoc comparison tests, the following eleven elements were considered to be present at significantly higher concentrations in the surface soil dataset than the other two datasets:

- Aluminum
- Barium
- Copper
- Lead
- Manganese
- Nickel
- Phosphorus
- Potassium
- Silicon
- Zinc
- Thorium-232

The following eight elements were observed to be present at significantly higher concentrations in the deep soil dataset than the other two datasets:

- Lithium
- Molybdenum
- Sodium
- Titanium
- Uranium
- Vanadium
- Radium-226
- Thorium-230

3.5.5 Comparison of Qal/River Units by Depth (2008 Data)

The Qal/River datasets from the 2008 Deep Soil Background and 2008 Shallow Soil Supplemental Background investigations were evaluated to determine if there were significant differences between them. The specific datasets selected were surface data (Supplemental investigation), 10 ft bgs data (Supplemental investigation) and all Qal/River data from depths 20 ft bgs or greater collected during the 2008 Deep Soil background investigation. The results of the statistical analyses are included in Table F-3 of Appendix F. Probability plots, boxplots, and individual value plots were used to semi-quantitatively compare the three datasets. These plots are included in Appendix E.

Overall, fewer significant differences in constituent concentrations among the three populations may be inferred from statistical tests as compared to population comparisons described in the previous sub-sections. No significant differences in concentrations may be inferred from statistical tests for the following constituents:

- Arsenic
- Barium
- Beryllium
- Cadmium
- Chromium
- Iron
- Lead
- Magnesium
- Nickel
- Phosphorus
- Vanadium
- Zinc
- Radium-228

No statistical tests were performed for the following metals that had fewer than four detections in one or more of the unit-specific datasets:

- Chromium VI
- Lithium
- Mercury
- Niobium
- Platinum
- Selenium
- Thallium
- Tungsten
- Uranium-235/236

Accordingly, it was not possible to determine whether significant differences were associated with the various Qal/River depth intervals for these metals.

The datasets for the remaining 19 elements had significant differences noted between the datasets for shallow and deep background Qal/River soils. More significant differences were noted between the deep and shallow datasets (29 elements, combining the result of the deep/surface and deep/10 ft bgs comparisons) than between the surface and 10 ft bgs datasets (10 elements with significant differences).

Metal and radionuclide trends were inconsistent between the units; none of the datasets had consistently higher metal detections, but surface or 10 ft bgs results were more commonly identified as being statistically higher than the deep dataset. Titanium was the only element found at statistically higher concentrations in the deep dataset than in the surface and 10 ft bgs datasets.

The following metals were observed to be present at significantly higher concentrations in the surface soil dataset than the other datasets:

- Aluminum
- Cobalt
- Copper
- Manganese
- Potassium
- Silicon

The following metals were observed to be present at significantly higher concentrations in the 10 ft bgs dataset than the other two datasets:

- Calcium
- Palladium
- Sodium
- Strontium
- Uranium
- Radium-226
- Thorium-230
- Uranium-233/234
- Uranium-238

3.5.6 Comparison of Qal/Mixed Units by Depth (2005 and 2008 Data)

The Qal/Mixed datasets from the 2008 Deep Soil Background and 2005 Shallow Soil Background investigations were evaluated to determine if there were significant differences between them. The specific datasets selected were surface data (2005 investigation), 10 ft bgs data (2005 investigation) and all Qal/Mixed data from depths 20 ft bgs or greater collected during the 2008 Deep Soil background investigation. The results of the statistical analyses are included in Table F-4 of Appendix F. Probability plots, boxplots, and individual value plots are included in Appendix E.

As seen in the descriptive summary statistics tables (Tables 13 and 14 for the shallow Qal/Mixed datasets), the surface dataset contained results for fewer than four samples for several of the elements being evaluated, and the 10 ft bgs dataset contained results for fewer than four samples for all of the elements. Therefore, because statistical comparisons would be of limited value, these datasets were not subjected to statistical comparisons and it was not possible to determine whether significant differences were associated with the various Qal/Mixed depth intervals for these metals. The limited statistical analyses that were performed on the data (*i.e.*, normality tests) are provided in Appendix F.

3.5.7 Constituents with Less Than 50 Percent Frequency of Detection

When FODs are less than 50 percent, even the nonparametric tests have little power to detect differences in central values (Smeti *et al*. 2007). At the direction of NDEP, tests of proportions were performed for infrequently detected constituents (*i.e.*, constituents with FODs less than 50 percent) to identify potential similarities among datasets.

For comparisons among Qal/McCullough, Qal/River, Qal/Mixed, and TMC, infrequently detected constituents are presented in Table F-5 of Appendix F and summarized as follows:

Constituent	**Sample Size*** (n > 4)	Test of Proportion	Additional Analysis Candidate
Boron	Yes	Similar FOD	Yes
Chromium VI	No	Similar FOD	Yes

Constituent	Sample Size* (n > 4)	Test of Proportion	Additional Analysis Candidate
Mercury	Yes	Dissimilar FOD	No
Niobium	No	Similar FOD	No
Thallium	No	—	No
Tin	Yes	Dissimilar FOD	No
Tungsten	Yes	Dissimilar FOD	No

* for three or more lithological units

For comparisons among 2008 Deep McCullough, 2005 Surface McCullough, and 2005 10-ft McCullough, infrequently detected constituents are presented in Table F-6 of Appendix F and summarized as follows:

Constituent	Sample Size* (n > 4)	Test of Proportion	Additional Analysis Candidate
Antimony	Yes	Dissimilar FOD	No
Boron	Yes	Dissimilar FOD	No
Cadmium	No	Dissimilar FOD	No
Chromium VI	No	Dissimilar FOD	No
Mercury	Yes	Dissimilar FOD	No
Platinum	No	Similar FOD	No
Silver	No	Similar FOD	No
Thallium	No	Dissimilar FOD	No
Tungsten	No	Dissimilar FOD	No

* for three or more Qal/McCullough groups

For comparisons among 2008 Deep River, 2008 Supplemental Surface River, and 2008 Supplemental 10-ft River, infrequently detected constituents are presented in Table F-7 of Appendix F and summarized as follows:

Constituent	Sample Size* (n > 4)	Test of Proportion	Additional Analysis Candidate
Antimony	No	Dissimilar FOD	No
Boron	No	Dissimilar FOD	No
Chromium VI	No	Dissimilar FOD	No
Lithium	No	Dissimilar FOD	No

Constituent	Sample Size* (n > 4)	Test of Proportion	Additional Analysis Candidate
Mercury	Yes	Similar FOD	No
Niobium	No	Similar FOD	No
Platinum	No	Similar FOD	No
Selenium	No	—	No
Silver	No	—	No
Thallium	No	Dissimilar FOD	No
Tin	Yes	Similar FOD	Yes
Tungsten	No	Similar FOD	No
Zirconium	No	Dissimilar FOD	No

* for three or more Qal/River groups

No tests of proportion were conducted among 2008 Deep, 2005 Shallow Mixed, and 2005 10-ft Mixed because all infrequently detected constituents had sample sizes no greater than four for the three Qal/Mixed groups.

Note that for constituents with FODs less than 50 percent (and SQLs meeting analytical DQOs), one may conclude that these constituents are present at low concentrations in background soils. Moreover, it is both reasonable and defensible that characterizations of similarities/dissimilarities among background datasets be largely ascertained based on the more robust statistical analyses of constituents with greater FODs. Accordingly, given that only one or two constituents were identified as candidates for potential additional analysis, it was presumed that these few constituents would be unlikely to alter conclusions of differences among datasets that were based on constituents with more robust FODs (*i.e.*, FODs greater than 50 percent for all groups) and no further analyses were performed on detected-only concentrations.

3.5.8 Inter-Element Correlations

In addition to statistical comparisons and plots, the deep background data were evaluated with respect to inter-element correlations. Correlations or "measures of association" are of interest because they were considered to offer another line of evidence to distinguish between background and non-background data (BRC/TIMET 2005). At the direction of NDEP, correlation analyses[17] were conducted and used to identify those constituent pairs whose

[17] All correlation analyses were performed using SPSS v. 15.

scatterplots should be examined to ascertain whether high-concentration outliers should be considered background. As directed by NDEP, both parametric (Pearson's product-moment) and nonparametric (Kendall tau) correlation coefficients are presented in correlation matrices (Tables G-1 through G-8 of Appendix G). Note that statistically significant correlation coefficients (at a significance level of 0.05) are indicated by bold font and are color-coded for parametric and nonparametric coefficients in each table. Scatterplots for constituents with significant correlation coefficients and high-concentration outliers are also presented in Appendix G.

Certain inter-element relationships are expected on the basis of geochemical behavior and expected mineralogical associations (BRC TIMET 2005). For example, alkaline metals (such as lithium, sodium, and potassium) and alkaline-earth metals (such as barium, calcium, and magnesium) can be expected to behave similarly in solution and may therefore be expected to show an association in certain environmental media. Other metals are found in association in common minerals and show correlations in soils containing these minerals (such as feldspars; metal oxides such as hematite, goethite and pyrolusite; and carbonate minerals such as calcite). These associations are useful in distinguishing soils derived from different source materials and in distinguishing site-related contamination from natural background (BRC TIMET 2005).

Statistically significant associations among radionuclide in the uranium-238 decay chain were observed for Qal/McCullough, Qal/River, and TMC (Appendix G). Correlation among activities for radionuclides within the decay chain (parents and daughters) is anticipated, unless there are differences in geochemical behavior and mechanisms to separate the species (BRC TIMET 2005). Note that statistically significant associations were observed for several metals and radionuclides; however these statistical associations should also be evaluated based on known geochemical characteristics.

Finally, a visual side-by-side presentation of correlation matrices for Qal/McCullough, Qal/River, Qal/Mixed, and TMC is provided in Appendix G. This side-by-side presentation is intended to provide an overall visualization of significant inter-element correlations and may be used as an additional, though subjective, qualitative line-of-evidence for distinguishing among lithological units. A visual examination of the side-by-side presentation of correlation matrices suggests that the TMC has a pattern of significant correlations that appears to be different than those for Qal/McCullough, Qal/River, and Qal/Mixed.

3.5.9 Scatterplots

Statistically significant associations and high-concentration outliers were identified for several elements in each lithological unit (Appendix G):

Qal/McCullough

- Aluminum
- Arsenic
- Barium
- Copper
- Lithium
- Nickel
- Palladium
- Silver
- Strontium

Qal/River

- Barium
- Chromium
- Lead
- Potassium

TMC

- Arsenic
- Lithium
- Magnesium
- Nickel
- Uranium

At the direction of NDEP, scatterplots for identified constituent pairs were examined to determine whether high-concentration outliers are consistent with background (Appendix G)—*i.e.*, high-concentration outliers were "near" the linear least-square trend line. In general, no consistent and conspicuous deviations from least-square trend lines were observed for high concentration outliers.

4.0 SUMMARY AND CONCLUSIONS

The purpose of the deep soil background study was to collect data for metals, radionuclides, and general chemistry/soil parameters in deep background soils that are representative of soils in geologic units and depths not covered by the existing shallow soil background datasets (BRC/TIMET 2005; BRC and ERM 2008a [in revision]). The objective of this report was to determine whether these data can be used to supplement the existing representative background soil dataset.

Soil sampling was conducted from August to October 2008. Samples were collected from 21 soil boring locations that represent the specific lithologies targeted by this deep soil background sampling study and that extend the representative range of soils found in the vicinity of the Site. A total of 148 field and 25 duplicate soil samples were collected from the 21 borings for analysis. The data validation for the 2008 deep background dataset included 20 percent full validation and 100 percent partial validation. Results qualified as estimated based on the data validation are usable for the purposes of establishing background concentrations and for comparison to site-specific sample data. A small subset of soil sample results were rejected (approximately two percent). With 98 percent of the dataset validated as usable, the overall data collection objectives for the study were met.

Deep background samples were collected in areas presumed to be unimpacted by Site-related activities based on published documentation and site inspections. Analytical results for VOCs, SVOCs, and OCPs corroborate that samples collected in presumed background soil locations do not appear to be impacted by other anthropogenic sources. Several sporadic outliers were found in the dataset, which is not unusual for a dataset of this size. However, a review of these sporadic outliers confirmed that they were not the result reporting errors. A combined examination of correlation coefficients and scatterplots found no conspicuous anomalies, further supporting that this dataset is appropriate for use as a representative deep background soil dataset. All told, these lines of evidence support the contention that the dataset reflects background conditions for Site soils.

Note that samples collected at depths of 130 ft bgs and 140 ft bgs were re-assigned from Qal/River to the TMC lithological unit. The boring log for this location indicates that the TMC contact was originally identified based on the presence of clay at 148 feet bgs—accordingly, the 130 and 140 ft bgs samples were assigned to Qal/River. However, further scrutiny of the boring log reveals that soils overlying the clay TMC are clayey sands with distinct clay beds, and may represent transitional TMC. Based on this and the observed similarity in metal concentrations in the 130 ft bgs, 140 ft bgs, 150 ft bgs, and 160 ft bgs samples, data associated with the 130 ft bgs and 140 ft bgs samples were re-assigned to the TMC dataset.

The statistical analyses performed as part of this study determined that a number of statistically significant differences exist between subsets of the 2008 Deep background datasets, suggesting that these subsets may be retained separately for comparison to applicable, geologically-similar portions of the BMI Common Areas as part of the closure process. The differences between the datasets are summarized as follows:

- ***Comparison of Deep Qal Units***. More significant differences were noted between the Qal/McCullough and Qal/River datasets than between the Qal/Mixed and Qal/River datasets or the Qal/Mixed and Qal/McCullough datasets. This is consistent with the geological interpretation that the Qal/Mixed unit is derived from a mixed source with contributions from both the Qal/McCullough and Qal/River units. In general, the radionuclide detections tended to be higher in the McCullough unit than in the other two units. In contrast, trends were inconsistent between the units for metals. Neither the Qal/River nor Qal/McCullough datasets had consistently higher metal detections, and Qal/Mixed metal datasets were usually 1) statistically indistinguishable from one or the other units; or 2) mid-range values between the two. Limited exceptions to this rule were observed: barium and chromium detections were higher in the Qal/Mixed dataset than in either the Qal/McCullough or Qal/River datasets, and silicon and sodium detections were lower in the Qal/Mixed dataset than in either the Qal/McCullough or Qal/River datasets.

- ***Comparison of Deep Qal to TMC Units***. More significant differences were noted between the TMC and Qal/McCullough datasets than between the TMC and Qal/Mixed datasets or the TMC and Qal/River datasets. For radionuclides, the radionuclide detections were higher in the Qal/McCullough unit than in the TMC. In contrast, the TMC metal datasets were usually 1) statistically indistinguishable from one or more of the other units; or 2) mid-range values between the three. Limited exceptions to this rule were observed: lithium and magnesium detections were higher in the TMC dataset than in the other three deep datasets.

- ***Comparison of Qal/McCullough Depth Intervals***. More significant differences were noted between the surface and deep datasets than between the surface and 10 ft bgs datasets or the deep and 10 ft bgs datasets. Metal and radionuclide trends were inconsistent between the units; none of the datasets had consistently higher metal detections, but surface or deep results were more commonly identified as being statistically higher than the other datasets. The 10 ft bgs datasets were usually 1) statistically indistinguishable from one or the other units; or 2) mid-range values between the two. Limited exceptions to this rule were observed: calcium detections were higher in the 10 ft bgs dataset than in either the surface or deep datasets, and five elements (chromium, iron, lead, tin, and thorium-228) were lower in the 10 ft bgs dataset than in either the surface or deep datasets.

- ***Comparison of Qal/River Depth Intervals.*** More significant differences were noted between the deep and shallow datasets than between the surface and 10 ft bgs datasets. Metal and radionuclide trends were inconsistent between the units; none of the datasets had consistently higher metal detections, but surface or 10 ft bgs results were more commonly identified as being statistically higher than the deep dataset. Titanium was the only element found at statistically higher concentrations in the deep dataset than in the surface and 10 ft bgs datasets.

- ***Comparison of Qal/Mixed Depth Intervals***. The Qal/Mixed surface dataset were comprised of fewer than four samples for several of the constituents being evaluated. Similarly, the Qal/Mixed 10 ft bgs dataset were comprised of fewer than four samples for all of the constituents. Given the low sample size, statistical analyses were not performed and it was not possible to determine whether significant differences were associated with the various Qal/Mixed depth intervals for these constituents.

The goals of the deep soil background study were met, and a valid background dataset has been generated. The data should be used as subsets of several datasets as identified in this report. Combining the background dataset by depth and/or lithology for subsequent comparison with Site data will be influenced by potential exposures at varying depth intervals and the location of a particular receptor – in other words, based on data usability and conceptual site model considerations. Decisions on how best to use the background soils data for future Site-to-background comparisons will be made on a case-by-case basis.

5.0 REFERENCES

Basic Remediation Company (BRC), Environmental Resources Management, Inc. (ERM), and MWH. 2007. BRC Field Sampling and Standard Operating Procedures. BMI Common Areas, Clark County, Nevada. August.

Basic Remediation Company (BRC) and Titanium Metals Corporation (TIMET). 2005. Background Shallow Soil Summary Report, BMI Complex and Common Areas Vicinity. March.

Basic Remediation Company (BRC) and ERM. 2008a. 2008 Supplemental Shallow Soil Background Report. [In revision]

Basic Remediation Company (BRC) and ERM. 2008b. BRC Quality Assurance Project Plan. April.

Basic Remediation Company (BRC) and ERM. 2008c. Data Validation Summary Report: Deep Soil Background Sampling Event; August – October 2007 (Dataset 34c). June.

Bevans, H.E.; Lico, M.S.; Lawrence, S.J. 1998. Water Quality in the Las Vegas Valley Area and the Carson and Truckee River Basins, Nevada and California", 1992-96; updated March 19.

Daniel B Stevens & Associates (DBSA). 2007. Revised Work Plan for Determination of Deep Quaternary Alluvium and Upper Muddy Creek Formation Background Soil Chemistry and Upgradient Alluvial Aquifer Conditions – BMI Common Areas and Complex Vicinity. May.

Geotechnical and Environmental Services, Inc. (GES). 2007. Deep Background Investigation Report. November 19.

Gilbert, R.O. 1987. Statistical Methods for Environmental Pollution Monitoring. Van Nostrand Reinhold Company, New York, NY.

Nevada Bureau of Mines and Geology (NBMG). 1980. Las Vegas SE Folio Geologic Map (1977) and the Geologic Map of the Henderson Quadrangle, Nevada.

Singh, A. and A.K. Singh. 2007. ProUCL Version 4.0. Technical Guide. Prepared for the U.S. Environmental Protection Agency by Lockheed Martin Environmental Services.

Smeti, E.M., L.P. Kousouris, P.C. Tzoumerkas, and S.K. Golfinopoulos. 2007. Trend analysis and variability of microbiological parameters of the Mornos Reservoir. Proc. 10th Internat'l Conf. on Environ. Sci. Tech.

Sokal, R.R. and F.J. Rohlf. 1981. Biometry. Second Edition. W.H. Freeman and Company. San Francisco, CA.

SPSS, Inc. (SPSS). 2006. SPSS Base User's Guide. Chicago, IL.

U.S. Department of Agriculture (USDA). 1985. Soil Survey of Las Vegas Valley Area Nevada-Part of Clark County. Soil Conservation Service. July.

U.S. Department of Energy (DOE). 1997. Evaluation of Radiochemical Data Usability. Office of Environmental Management. Oak Ridge, Tennessee. April.

U.S. Department of Navy (DON). 2002. Guidance for Environmental Background Analysis. Volume I: Soil, NFESC User's Guide, UG-2049-ENV, NAVFAC, Washington, D.C. April.

U.S. Environmental Protection Agency (USEPA). 1992. Guidance for Data Usability in Risk Assessment. Part A. Office of Emergency and Remedial Response, Washington D.C. Publication 9285.7-09A. PB92-963356. April.

U.S. Environmental Protection Agency (USEPA). 1999. National Functional Guidelines for Organic Data Review. USEPA 540/R-99-008. OSWER 9240.1-05A-P. October.

U.S. Environmental Protection Agency (EPA). 2000a. Guidance for Data Quality Assessment: Practical Methods for Data Analysis. EPA QA/G-9. July. EPA/600/R-96/084.

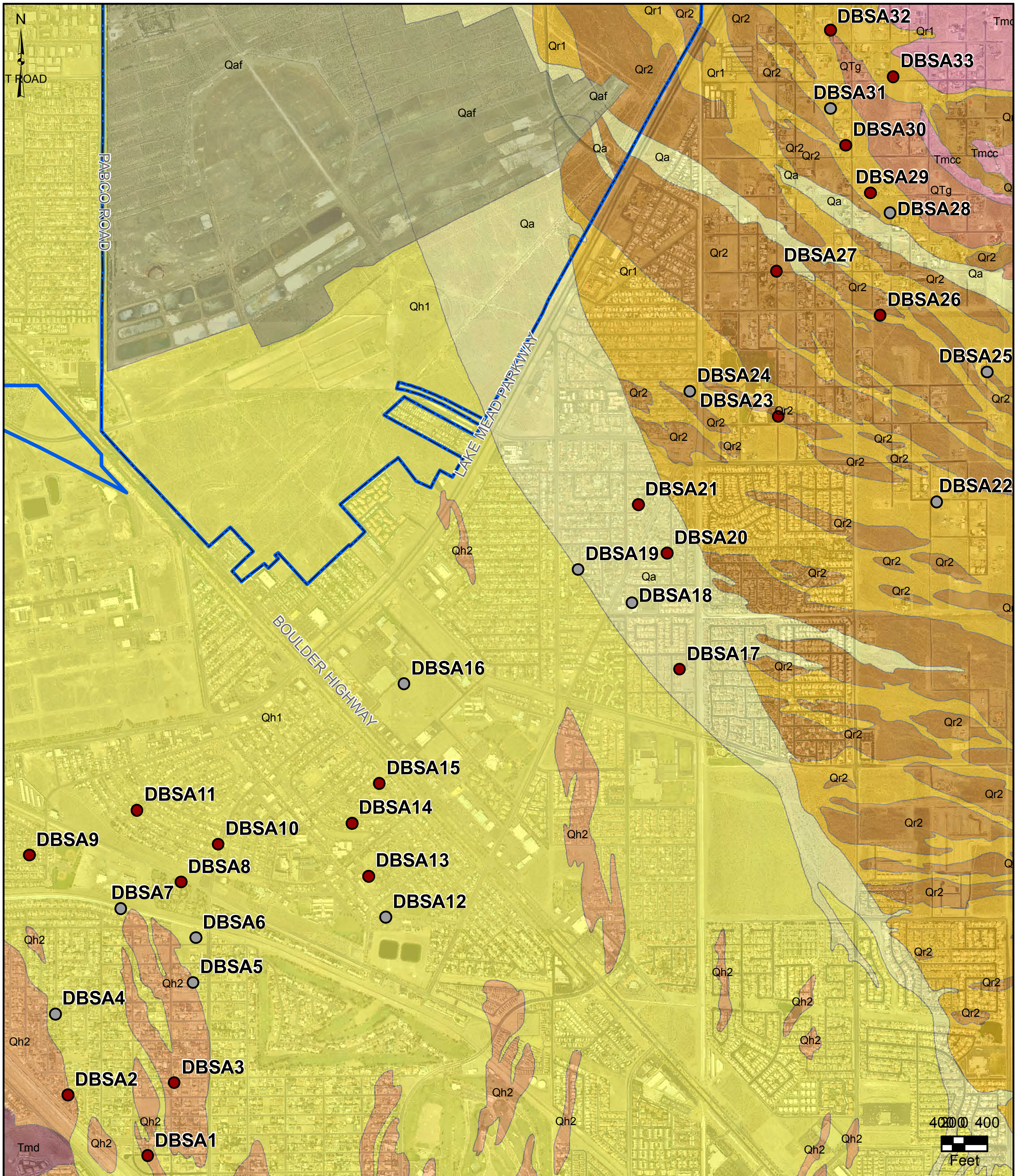
U.S. Environmental Protection Agency (EPA). 2000b. Guidance for the Data Quality Objectives Process. EPA QA/G-4. August. EPA/600/R-96/055.

U.S. Environmental Protection Agency (EPA). 2002. Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites. EPA 540-R-01-003, Office of Emergency and Remedial Response, Washington, DC. September.

U.S. Environmental Protection Agency (USEPA). 2004. National Functional Guidelines for Inorganic Data Review. USEPA 540-R-04-004. OSWER 9240.1-45. October.

Zar, J.H. 1984. Biostatistical Analysis. Prentice-Hall, Inc. Englewood Cliffs, N.J.

FIGURES



Site AOC3 Boundary

Deep Background Sample Location

- Boring Location
- Boring Location not Used

Lithology

Qa	Qr2
Qaf	QTg
Qh1	Tmcc
Qh2	Tmd
Qr1	

Fall 2006 Aerial Photo.

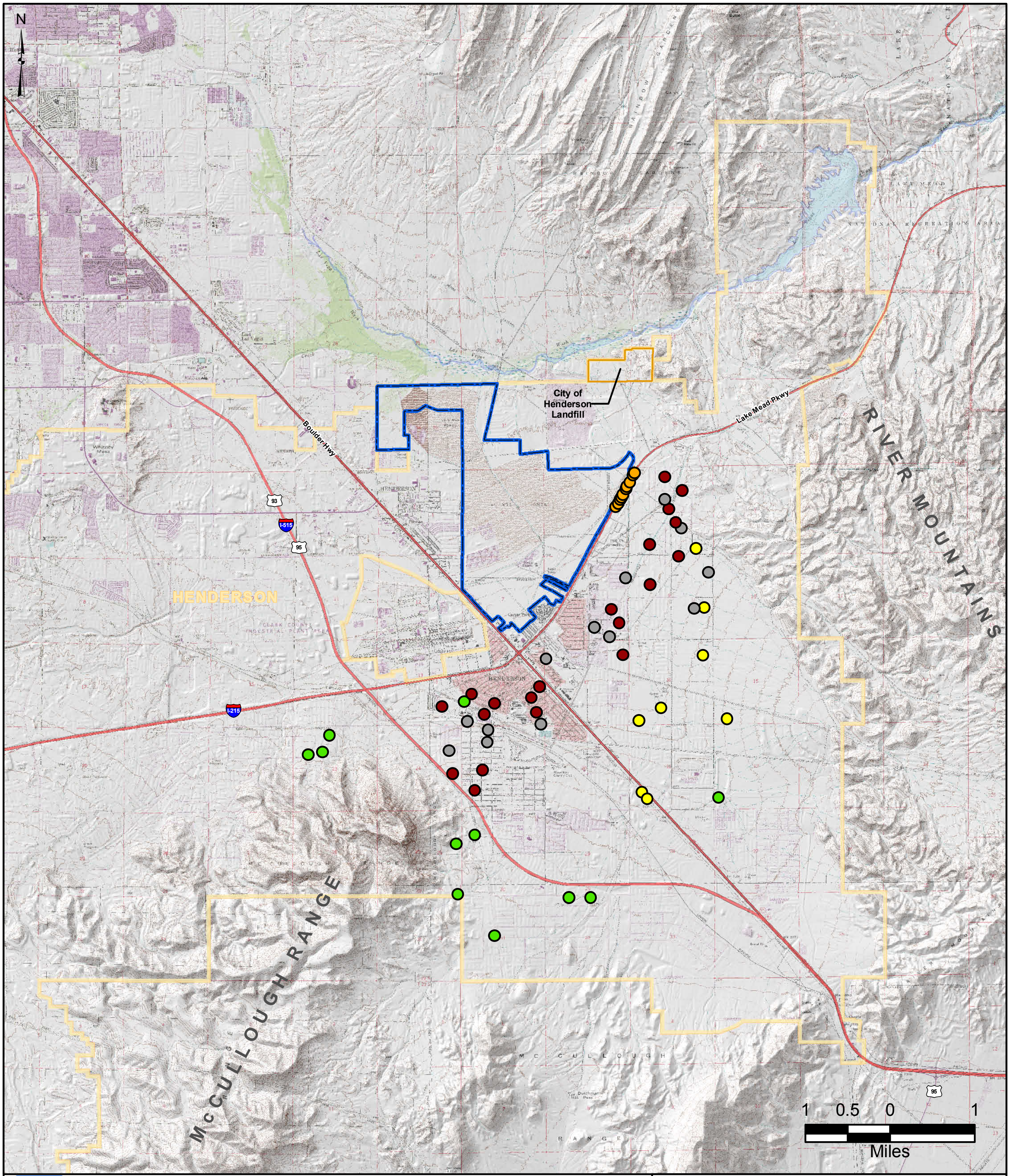
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 1

2008 DEEP BACKGROUND SAMPLE LOCATIONS

Basic Remediation Company

Prepared by: MKJ | Date 10/03/08 | JOB No. 0064276 | FILE: GIS/BRC/DEEP-BACKGROUND_FIGURE1.MXD



Site AOC3 Boundary

City of Henderson Boundary

Supplemental Background Sample Location

BRC/TIMET Background Sample Location

ENVIRON Background Sample Location

Deep Background Sample Location

Boring Location

Boring Location not Used

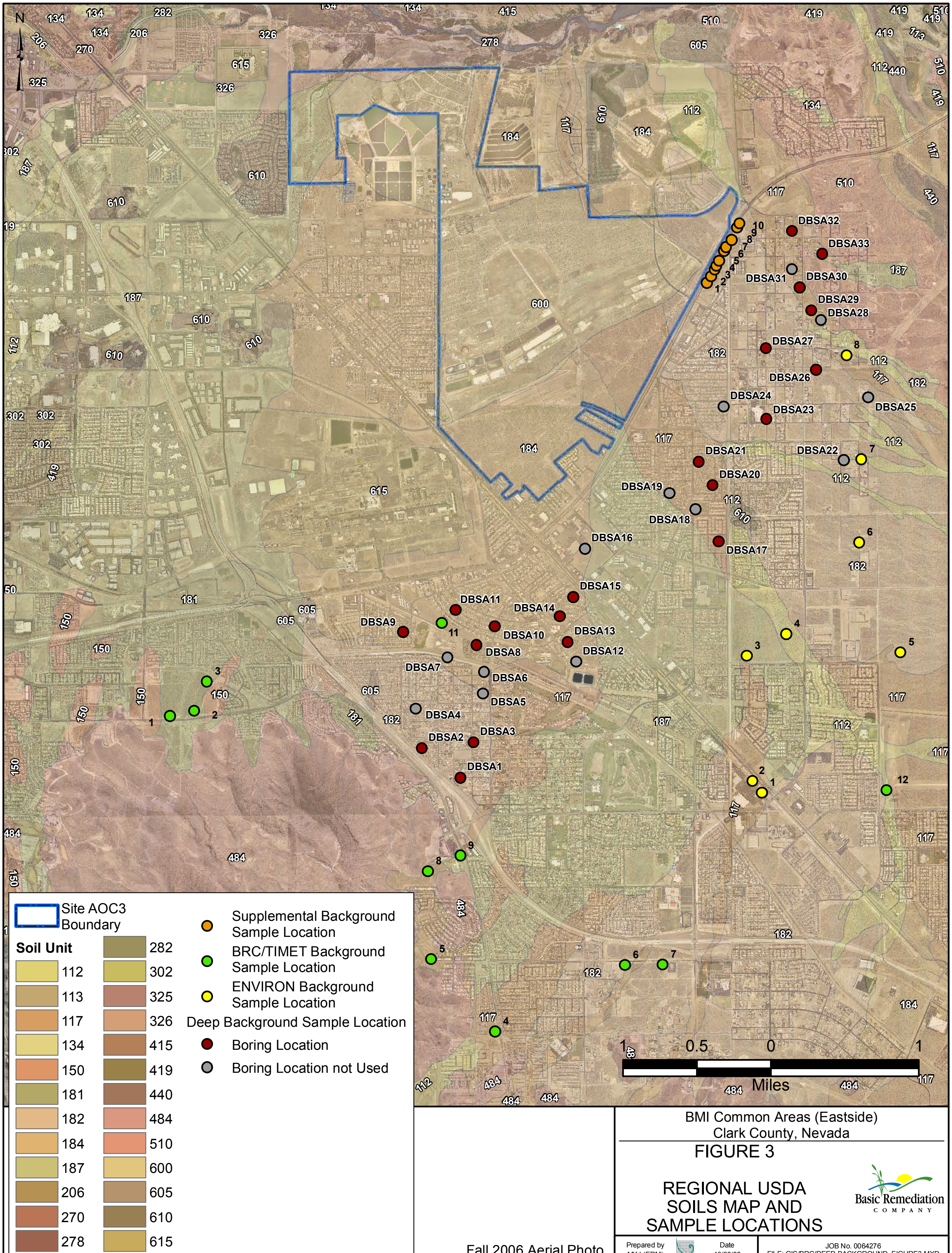
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 2

REGIONAL TOPOGRAPHIC MAP AND SAMPLE LOCATIONS

Basic Remediation COMPANY

Prepared by		Date	
MKJ (ERM)	ERM	10/03/08	JOB No. 0064276 FILE: GIS/BRC/DEEP-BACKGROUND_FIGURE2.MXD



Fall 2006 Aerial Photo.

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 3

REGIONAL USDA
SOILS MAP AND
SAMPLE LOCATIONS

Basic Remediation
COMPANY

Prepared by MKJ (ERM)	ERM	Date 10/03/08	JOB No. 0064276 FILE: GIS/BRC/DEEP-BACKGROUND_FIGURE3.MXD

TABLES

TABLE 1
PROJECT LIST OF ANALYTES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Sample ID	Sample Depth	Soil Unit (Qal or TMC)	Sample Type	Metals	Radio-nuclides	VOCs	SVOCs	Organo-chlorine Pesticides	Soil Parameters
DBSA-01-Q	0	Qal/McCullough	N	X				X	X
	5	Qal/McCullough	N	X		X	X		X
	10	Qal/McCullough	N	X		X	X		X
	20	Qal/McCullough	N	X	X				X
	30	Qal/McCullough	N	X	X				X
	40	Qal/McCullough	N	X	X				X
	50	Qal/McCullough	N	X	X				X
	60	Qal/McCullough	N	X	X				X
	70	Qal/McCullough	N	X	X				X
	80	Qal/McCullough	N	X	X				X
	90	Qal/McCullough	N	X	X				X
DBSA-02-Q	5	Qal/McCullough	N			X	X		X
	10	Qal/McCullough	N			X	X		X
	20	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
	30	Qal/McCullough	N	X	X				X
	40	Qal/McCullough	N	X	X				X
	50	Qal/McCullough	N	X	X				X
	60	Qal/McCullough	N	X	X				X
	70	Qal/McCullough	N	X	X				X
	80	Qal/McCullough	N	X	X				X
DBSA-03-Q	5	Qal/McCullough	N			X			X
	10	Qal/McCullough	N			X			X
	20	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
	30	Qal/McCullough	N	X	X				X
	40	Qal/McCullough	N	X	X				X
	50	Qal/McCullough	N	X	X				X
	60	Qal/McCullough	N	X	X				X
	70	Qal/McCullough	N	X	X				X
	80	Qal/McCullough	N	X	X				X
DBSA-04-Q	5	Qal/McCullough	N			X			X
	10	Qal/McCullough	N			X			X
	20	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
	30	Qal/McCullough	N	X	X				X
	40	Qal/McCullough	N	X	X				X
	50	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
DBSA-08-Q	5	Qal/McCullough	N			X			X
	10	Qal/McCullough	N			X			X
	20	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
	30	Qal/McCullough	N	X	X				X
	40	Qal/McCullough	N	X	X				X
	50	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
DBSA-09-Q	5	Qal/McCullough	N			X			X
	10	Qal/McCullough	N			X			X
	20	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
	30	Qal/McCullough	N	X	X				X

TABLE 1
PROJECT LIST OF ANALYTES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Sample ID	Sample Depth	Soil Unit (Qal or TMC)	Sample Type	Metals	Radio-nuclides	VOCs	SVOCs	Organo-chlorine Pesticides	Soil Parameters
DBSA-09-Q	40	Qal/McCullough	N	X	X				X
	50	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
DBSA-09-T	160	TMC	N	X	X				X
DBSA-10-Q	5	Qal/McCullough	N			X			X
	10	Qal/McCullough	N			X			X
	20	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
	30	Qal/McCullough	N	X	X				X
	40	Qal/McCullough	N	X	X				X
	50	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
DBSA-11-Q	5	Qal/McCullough	N			X			X
	10	Qal/McCullough	N			X			X
	20	Qal/McCullough	N	X	X				X
	30	Qal/McCullough	N	X	X				X
	40	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
	50	Qal/McCullough	N	X	X				X
	60	Qal/McCullough	N	X	X				X
	120	Qal/McCullough	N	X	X				X
DBSA-11-T	150	TMC	N	X	X				X
	160	TMC	N	X	X				X
DBSA-13-Q	5	Qal/McCullough	N			X			X
	10	Qal/McCullough	N			X			X
	20	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
	30	Qal/McCullough	N	X	X				X
	40	Qal/McCullough	N	X	X				X
	50	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
	60	Qal/McCullough	N	X	X				X
	70	Qal/McCullough	N	X	X				X
	80	Qal/McCullough	N	X	X				X
DBSA-14-Q	5	Qal/McCullough	N			X			X
	10	Qal/McCullough	N			X			X
	20	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
	30	Qal/McCullough	N	X	X				X
	40	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
	50	Qal/McCullough	N	X					
		Qal/McCullough	FD	X	X				
	140	Qal/McCullough	N	X	X				X
	150	Qal/McCullough	N	X					
	160	Qal/McCullough	N	X					
		Qal/McCullough	FD	X					

TABLE 1
PROJECT LIST OF ANALYTES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 3 of 5)

Sample ID	Sample Depth	Soil Unit (Qal or TMC)	Sample Type	Metals	Radio-nuclides	VOCs	SVOCs	Organo-chlorine Pesticides	Soil Parameters
DBSA-15-Q	5	Qal/McCullough	N			X			X
	10	Qal/McCullough	N			X			X
	20	Qal/McCullough	N	X	X				X
		Qal/McCullough	FD	X	X				X
	30	Qal/McCullough	N	X	X				X
	40	Qal/McCullough	N	X	X				X
	50	Qal/McCullough	N	X	X				X
	120	Qal/McCullough	N	X	X				X
	150	Qal/McCullough	N	X	X				X
	160	Qal/McCullough	N	X	X				X
DBSA-17-Q	5	Qal/Mixed	N			X			X
	10	Qal/Mixed	N			X			X
	20	Qal/Mixed	N	X	X				X
	30	Qal/Mixed	N	X	X				X
	40	Qal/Mixed	N	X	X				X
	50	Qal/Mixed	N	X	X				X
	60	Qal/Mixed	N	X	X				X
	70	Qal/Mixed	N	X	X				X
	80	Qal/Mixed	N	X	X				X
		Qal/Mixed	FD						
	90	Qal/Mixed	N	X	X				X
	100	Qal/Mixed	N	X	X				X
	110	Qal/Mixed	N	X	X				X
	120	Qal/Mixed	N	X	X				X
DBSA-17-T	130	TMC	N	X	X				X
	140	TMC	N	X	X				X
	150	TMC	N	X	X				X
DBSA-20-Q	5	Qal/Mixed	N			X			X
	10	Qal/Mixed	N			X			X
	20	Qal/Mixed	N	X	X				X
	30	Qal/Mixed	N	X	X				X
	40	Qal/Mixed	N	X	X				X
	50	Qal/Mixed	N	X	X				X
	70	Qal/Mixed	N	X	X				X
	80	Qal/Mixed	N	X	X				X
DBSA-20-T	90	TMC	N	X	X				X
		TMC	FD	X	X				X
	100	TMC	N	X	X				X
DBSA-21-Q	5	Qal/Mixed	N			X			X
	10	Qal/Mixed	N			X			X
	20	Qal/Mixed	N	X	X				X
		Qal/Mixed	FD	X	X				X
	30	Qal/Mixed	N	X	X				X
	40	Qal/Mixed	N	X	X				X
	50	Qal/Mixed	N	X	X				X
	70	Qal/Mixed	N	X					X
DBSA-21-T	80	TMC	N	X	X				X
	90	TMC	N	X	X				X

TABLE 1
PROJECT LIST OF ANALYTES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Sample ID	Sample Depth	Soil Unit (Qal or TMC)	Sample Type	Metals	Radio-nuclides	VOCs	SVOCs	Organo-chlorine Pesticides	Soil Parameters
DBSA-23-Q	5	Qal/River	N			X			X
	10	Qal/River	N			X			X
	20	Qal/River	N	X	X				X
	30	Qal/River	N	X	X				X
		Qal/River	FD	X	X				X
	40	Qal/River	N	X	X				X
	50	Qal/River	N	X	X				X
DBSA-23-T	140	TMC	N	X	X				X
	150	TMC	N	X	X				X
DBSA-26-Q	0	Qal/River	N					X	X
	5	Qal/River	N			X			X
	10	Qal/River	N			X			X
	20	Qal/River	N	X	X				X
	30	Qal/River	N	X	X				X
	40	Qal/River	N	X	X				X
	50	Qal/River	N	X	X				X
	60	Qal/River	N	X					
	70	Qal/River	N	X					
	80	Qal/River	N	X					
	90	Qal/River	N	X					
	100	Qal/River	N	X					
	110	Qal/River	N	X					
	150	Qal/River	N	X	X				X
	160	Qal/River	N	X	X				X
DBSA-27-Q	0	Qal/River	N					X	X
	5	Qal/River	N			X			X
	10	Qal/River	N			X			X
	20	Qal/River	N	X	X				X
		Qal/River	FD	X	X				X
	30	Qal/River	N	X	X				X
	40	Qal/River	N	X	X				X
	50	Qal/River	N	X	X				X
	60	Qal/River	N	X	X				X
	70	Qal/River	N	X	X				X
	80	Qal/River	N	X	X				X
	90	Qal/River	N	X	X				X
DBSA-27-T	100	TMC	N	X	X				X
DBSA-29-Q	5	Qal/River	N			X			X
	10	Qal/River	N			X			X
		Qal/River	FD			X			X
	20	Qal/River	N	X	X				X
	30	Qal/River	N	X	X				X
	40	Qal/River	N	X	X				X
	50	Qal/River	N	X	X				X
	150	Qal/River	N	X					X
	160	Qal/River	N	X					X
		Qal/River	FD	X					X

TABLE 1
PROJECT LIST OF ANALYTES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Sample ID	Sample Depth	Soil Unit (Qal or TMC)	Sample Type	Metals	Radio-nuclides	VOCs	SVOCs	Organo-chlorine Pesticides	Soil Parameters
DBSA-30-Q	5	Qal/River	N			X			X
	10	Qal/River	N			X			X
	20	Qal/River	N	X	X				X
	30	Qal/River	N	X	X				X
	40	Qal/River	N	X	X				X
	50	Qal/River	N	X	X				X
	130	TMC*	N	X	X				X
	140	TMC*	N	X	X				X
DBSA-30-T	150	TMC	N	X	X				X
	160	TMC	N	X	X				X
DBSA-32-Q	0	Qal/River	N					X	X
	5	Qal/River	N			X			X
		Qal/River	FD			X			X
	10	Qal/River	N			X			X
	20	Qal/River	N	X	X				X
	30	Qal/River	N	X	X				X
	40	Qal/River	N	X	X				X
	50	Qal/River	N	X	X				X
	60	Qal/River	N	X	X				X
	70	TMC*	N	X	X				X
DBSA-32-T	80	TMC	N	X	X				X
	95	TMC	N	X	X				X
DBSA-33-Q	0	Qal/River	N					X	X
	5	Qal/River	N			X			X
	10	Qal/River	N			X			X
	20	TMC*	N	X	X				X
		TMC*	FD	X	X				X
DBSA-33-T	30	TMC	N	X	X				X

Notes:
* Despite nomenclature (i.e., the use of "Q" in the sample ID), this sample appears to be TMC, possibly transitional.
N = Normal sample
FD = Field Duplicate sample
Qal/McCullough = Quaternary alluvium, interpreted McCullough Range source
Qal/River = Quaternary alluvium, interpreted River Range source
TMC - Tertiary Muddy Creek formation

TABLE 2
DATASET ANALYTE LIST AND DETECTION FREQUENCY
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 2)

Analyte Group	Analyte	2008 Deep (All Data)			2008 Supplemental Shallow			2005 BRC/TIMET Shallow		
		Sample Size	No. of Detects	Detection Frequency	Sample Size	No. of Detects	Detection Frequency	Sample Size	No. of Detects	Detection Frequency
Metals (mg/kg)	Aluminum	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Antimony	163	155	95.1%	33	13	39.4%	120	49	40.8%
	Arsenic	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Barium	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Beryllium	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Boron	163	38	23.3%	33	15	45.5%	104	34	32.7%
	Cadmium	163	139	85.3%	33	21	63.6%	120	16	13.3%
	Calcium	163	163	100.0%	33	33	100.0%	104	104	100.0%
	Chloride	--	--	--	--	--	--	104	72	69.2%
	Chromium (Total)	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Chromium (VI)	158	38	24.1%	33	0	0.0%	104	0	0.0%
	Cobalt	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Copper	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Fluoride	--	--	--	--	--	--	104	13	12.5%
	Iron	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Lead	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Lithium	163	151	92.6%	33	6	18.2%	104	104	100.0%
	Magnesium	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Manganese	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Mercury	151	55	36.4%	33	0	0.0%	120	93	77.5%
	Molybdenum	163	140	85.9%	33	33	100.0%	120	120	100.0%
	Nickel	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Niobium	163	13	8.0%	33	1	3.0%	104	0	0.0%
	Nitrate	--	--	--	--	--	--	104	90	86.5%
	Nitrite	--	--	--	--	--	--	104	5	4.8%
	Palladium	163	163	100.0%	33	33	100.0%	104	104	100.0%
	Phosphorus	163	163	100.0%	33	33	100.0%	--	--	--
	Platinum	163	9	5.5%	33	0	0.0%	104	5	4.8%
	Potassium	163	163	100.0%	33	33	100.0%	104	104	100.0%
	Selenium	163	0	0.0%	33	0	0.0%	120	52	43.3%
	Silicon	163	163	100.0%	33	33	100.0%	104	104	100.0%
	Silver	163	163	100.0%	33	14	42.4%	120	104	13.3%
	Sodium	163	163	100.0%	33	33	100.0%	104	104	100.0%
	Strontium	163	163	100.0%	33	33	100.0%	104	81	100.0%
	Sulfate	--	--	--	--	--	--	104	42	77.9%
	Thallium	163	4	2.5%	33	6	18.2%	120	16	35.0%
	Tin	163	127	77.9%	33	16	48.5%	104	104	100.0%
	Titanium	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Tungsten	163	54	33.1%	33	2	6.1%	104	0	0.0%
	Uranium	163	163	100.0%	33	33	100.0%	103	103	100.0%
	Vanadium	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Zinc	163	163	100.0%	33	33	100.0%	120	120	100.0%
	Zirconium	163	147	90.2%	33	13	39.4%	104	104	100.0%

TABLE 2
DATASET ANALYTE LIST AND DETECTION FREQUENCY
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 2 of 2)

Analyte Group	Analyte	2008 Deep (All Data)			2008 Supplemental Shallow			2005 BRC/TIMET Shallow		
		Sample Size	No. of Detects	Detection Frequency	Sample Size	No. of Detects	Detection Frequency	Sample Size	No. of Detects	Detection Frequency
Radionuclides (pCi/g)	Actinium-227	--	--	--	--	--	--	104	0	0.0%
	Actinium-228	--	--	--	--	--	--	120	120	100.0%
	Bismuth-210	--	--	--	--	--	--	104	1	1.0%
	Bismuth-211	--	--	--	--	--	--	104	0	0.0%
	Bismuth 212	--	--	--	--	--	--	120	68	56.7%
	Bismuth-214	--	--	--	--	--	--	120	120	100.0%
	Cobalt-57	--	--	--	--	--	--	104	0	0.0%
	Cobalt-60	--	--	--	--	--	--	104	0	0.0%
	Lead-210	--	--	--	--	--	--	120	2	1.7%
	Lead-211	--	--	--	--	--	--	104	0	0.0%
	Lead-212	--	--	--	--	--	--	120	120	100.0%
	Lead-214	--	--	--	--	--	--	120	120	100.0%
	Polonium-210	--	--	--	--	--	--	104	1	1.0%
	Polonium-212	--	--	--	--	--	--	104	64	61.5%
	Polonium-214	--	--	--	--	--	--	104	104	100.0%
	Polonium-215	--	--	--	--	--	--	104	0	0.0%
	Polonium-216	--	--	--	--	--	--	104	104	100.0%
	Polonium-218	--	--	--	--	--	--	104	96	92.3%
	Potassium-40	--	--	--	--	--	--	120	120	100.0%
	Protactinium-234	--	--	--	--	--	--	104	0	0.0%
	Radium-223	--	--	--	--	--	--	104	0	0.0%
	Radium-224	--	--	--	--	--	--	104	104	100.0%
	Radium 226	125	121	96.8%	33	31	93.9%	104	96	92.3%
	Radium 228	124	122	98.4%	33	28	84.8%	84	68	81.0%
	Thallium-207	--	--	--	--	--	--	104	0	0.0%
	Thallium-208	--	--	--	--	--	--	120	120	100.0%
	Thorium-227	--	--	--	--	--	--	104	0	0.0%
	Thorium-228	159	159	100.0%	33	33	100.0%	120	120	100.0%
	Thorium-230	159	159	100.0%	33	27	81.8%	120	120	100.0%
	Thorium-231	--	--	--	--	--	--	104	11	10.6%
	Thorium-232	159	159	100.0%	33	33	100.0%	120	120	100.0%
	Thorium-234	--	--	--	--	--	--	120	65	54.2%
	Uranium-233/234	141	126	89.4%	33	33	100.0%	120	61	50.8%
	Uranium-235/236	141	111	78.7%	33	11	33.3%	120	54	45.0%
	Uranium-238	141	124	87.9%	33	33	100.0%	120	120	100.0%

Notes:

mg/kg	milligrams per kilogram
Max	maximum concentration
Min	minimum concentration
pCi/g	picocuries per gram
ND	Non-detect

TABLE 3
ORGANOCHLORINE PESTICIDES, SVOCs, AND VOCs ANALYTICAL RESULTS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Analytical Method	Chemical	DBSA-01			DBSA-02		DBSA-03		DBSA-04		DBSA-08		DBSA-09	
		0	5	10	5	10	5	10	5	10	5	10	5	10
		N	N	N	N	N	N	N	N	N	N	N	N	N
Organo-chlorine Pesticides	2,4-DDD	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-DDE	6.5 J-	--	--	--	--	--	--	--	--	--	--	--	--
	4,4-DDD	2.6 J-	--	--	--	--	--	--	--	--	--	--	--	--
	4,4-DDE	16 J-	--	--	--	--	--	--	--	--	--	--	--	--
	4,4-DDT	12 J-	--	--	--	--	--	--	--	--	--	--	--	--
	Aldrin	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	alpha-BHC	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	alpha-Chlordane	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	beta-BHC	3.1 J-	--	--	--	--	--	--	--	--	--	--	--	--
	Chlordane	< 17 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	delta-BHC	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Dieldrin	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan I	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan II	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan sulfate	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin aldehyde	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin ketone	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	gamma-Chlordane	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Heptachlor	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Heptachlor epoxide	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Lindane	< 1.7 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Methoxychlor	< 3.3 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Toxaphene	< 68 UJ	--	--	--	--	--	--	--	--	--	--	--	--
	Total	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs	1,2,4,5-Tetrachlorobenzene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	1,2-Diphenylhydrazine	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	1,4-Dioxane	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	2,2'-/4,4'-Dichlorobenzil	--	< 360 U	< 370 U	< 350 U	< 350 U	--	--	--	--	--	--	--	--
	2,4,5-Trichlorophenol	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	2,4-Dichlorophenol	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	2,4-Dimethylphenol	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	2,4-Dinitrophenol	--	< 1700 UJ	< 1800 UJ	< 1700 UJ	< 1700 UJ	--	--	--	--	--	--	--	--
	2,4-Dinitrotoluene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	2-Chloronaphthalene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	2-Chlorophenol	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	2-Methylnaphthalene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	2-Nitroaniline	--	< 1700 UJ	< 1800 UJ	< 1700 UJ	< 1700 UJ	--	--	--	--	--	--	--	--
	2-Nitrophenol	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	--	**< 1700 UJ**	< 1800 UJ	< 1700 UJ	< 1700 UJ	--	--	--	--	--	--	--	--
	3-Methylphenol & 4-Methylphenol	--	< 710 UJ	< 740 UJ	< 700 UJ	< 690 UJ	--	--	--	--	--	--	--	--
	3-Nitroaniline	--	< 1700 UJ	< 1800 UJ	< 1700 UJ	< 1700 UJ	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	4-Chloro-3-Methylphenol	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	4-Chlorothioanisole	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	4-Nitrophenol	--	< 1700 UJ	< 1800 UJ	< 1700 UJ	< 1700 UJ	--	--	--	--	--	--	--	--

TABLE 3
ORGANOCHLORINE PESTICIDES, SVOCs, AND VOCs ANALYTICAL RESULTS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 2 of 16)

Analytical Method	Chemical	DBSA-01			DBSA-02		DBSA-03		DBSA-04		DBSA-08		DBSA-09	
		0	5	10	5	10	5	10	5	10	5	10	5	10
		N	N	N	N	N	N	N	N	N	N	N	N	N
SVOCs	Acenaphthene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Acenaphthylene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Acetophenone	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Aniline	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Anthracene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Azobenzene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Benzenethiol	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Benzo(a)anthracene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Benzo(a)pyrene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Benzo(b)fluoranthene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Benzo(g,h,i)perylene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Benzo(k)fluoranthene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Benzoic acid	--	< 1700 UJ	< 1800 UJ	< 1700 UJ	< 1700 UJ	--	--	--	--	--	--	--	--
	Benzyl alcohol	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Benzyl butyl phthalate	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	bis(2-Chloroethoxy) methane	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	bis(2-Chloroethyl) ether	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	bis(2-Chloroisopropyl) ether	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	bis(2-Ethylhexyl) phthalate	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	bis(p-Chlorophenyl) disulfide	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	bis(p-Chlorophenyl) sulfone	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Carbazole	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Chrysene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Dibenzo(a,h)anthracene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Dibenzofuran	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Dibutyl phthalate	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Diethyl phthalate	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Dimethyl phthalate	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Di-n-octyl phthalate	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Diphenyl sulfone	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Fluoranthene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Fluorene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Hexachloro-1,3-butadiene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Hexachlorobenzene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	--	< 1700 UJ	< 1800 UJ	< 1700 UJ	< 1700 UJ	--	--	--	--	--	--	--	--
	Hexachloroethane	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Hydroxymethyl phthalimide	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Indeno(1,2,3-cd)pyrene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Isophorone	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Naphthalene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Nitrobenzene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	N-nitrosodi-n-propylamine	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	N-nitrosodiphenylamine	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	o-Cresol	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Octachlorostyrene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	p-Chloroaniline	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	p-Chlorothiophenol	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Pentachlorobenzene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Pentachlorophenol	--	< 1700 UJ	< 1800 UJ	< 1700 UJ	< 1700 UJ	--	--	--	--	--	--	--	--

TABLE 3
ORGANOCHLORINE PESTICIDES, SVOCs, AND VOCs ANALYTICAL RESULTS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Analytical Method	Chemical	DBSA-01			DBSA-02		DBSA-03		DBSA-04		DBSA-08		DBSA-09	
		0	5	10	5	10	5	10	5	10	5	10	5	10
		N	N	N	N	N	N	N	N	N	N	N	N	N
SVOCs	Phenanthrene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Phenol	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Phenyl Disulfide	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Phenyl Sulfide	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Phthalic acid	--	< 1700 UJ	< 1800 UJ	< 1700 UJ	< 1700 UJ	--	--	--	--	--	--	--	--
	p-Nitroaniline	--	< 1700 UJ	< 1800 UJ	< 1700 UJ	< 1700 UJ	--	--	--	--	--	--	--	--
	Pyrene	--	< 360 UJ	< 370 UJ	< 350 UJ	< 350 UJ	--	--	--	--	--	--	--	--
	Pyridine	--	< 710 UJ	< 740 UJ	< 700 UJ	< 690 UJ	--	--	--	--	--	--	--	--
	Total	--	--	--	--	--	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,1,1-Trichloroethane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,1,2,2-Tetrachloroethane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,1,2-Trichloroethane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,1-Dichloroethane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,1-Dichloroethylene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,1-Dichloropropene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,2,3-Trichlorobenzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,2,3-Trichloropropane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,2,4-Trichlorobenzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,2,4-Trimethylbenzene	--	0.51 J-	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	0.67 J	0.26 J	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,2-Dibromo-3-chloropropane (DBC	--	R	R	< 11 UJ	< 10 UJ	< 10 UJ	< 11 UJ	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
	1,2-Dichlorobenzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,2-Dichloroethane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,2-Dichloroethylene	--	R	R	< 11 UJ	< 10 UJ	< 10 UJ	< 11 UJ	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
	1,2-Dichloropropane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,3,5- Trichlorobenzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,3,5-Trimethylbenzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,3-Dichlorobenzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,3-Dichloropropane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1,4-Dichlorobenzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	1-Nonanal	--	R	R	< 11 UJ	< 10 UJ	< 10 UJ	< 11 UJ	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
	2,2,3-Trimethylbutane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	2,2-Dichloropropane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	2,2-Dimethylpentane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	2,3-Dimethylpentane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	2,4-Dimethylpentane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U
	2-Chlorotoluene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	2-Nitropropane	--	R	R	< 11 UJ	< 10 UJ	< 10 UJ	< 11 UJ	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
	2-Phenylbutane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	3,3-dimethylpentane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
	3-ethylpentane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	3-Methylhexane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	4-Chlorotoluene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Acetone	--	10 J-	R	< 21 UJ	23 J-	< 21 UJ	14 J-	36 J+	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U
	Acetonitrile	--	R	R	< 53 UJ	< 52 UJ	< 52 UJ	< 53 UJ	< 52 UJ	< 52 UJ	< 52 UJ	< 53 UJ	< 52 UJ	< 52 UJ
	Benzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Bromobenzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Bromodichloromethane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Bromomethane	--	R	R	< 11 UJ	< 10 UJ	< 10 UJ	< 11 UJ	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U

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		0	5	10	5	10	5	10	5	10	5	10	5	10
		N	N	N	N	N	N	N	N	N	N	N	N	N
VOCs	Carbon disulfide	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Carbon tetrachloride	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	CFC-11	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	CFC-12	--	R	R	< 11 UJ	< 10 UJ	< 10 UJ	< 11 UJ	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
	Chlorinated fluorocarbon (Freon 113	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Chlorobenzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Chlorobromomethane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Chlorodibromomethane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Chloroethane	--	R	R	< 11 UJ	< 10 UJ	< 10 UJ	< 11 UJ	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
	Chloroform	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Chloromethane	--	R	R	< 11 UJ	< 10 UJ	< 10 UJ	< 11 UJ	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
	cis-1,2-Dichloroethylene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	cis-1,3-Dichloropropylene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Cymene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Dibromomethane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Dichloromethane	--	4.9 J-	R	3.3 J-	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Ethanol	--	R	R	< 260 UJ	< 260 UJ	< 260 UJ	< 260 UJ	< 260 UJ	< 260 UJ	< 260 UJ	< 260 UJ	< 260 U	< 260 U
	Ethylbenzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Hexane, 2-methyl-	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Isopropylbenzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	m,p-Xylene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Methyl disulfide	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Methyl ethyl ketone	--	R	R	< 21 UJ	< 21 UJ	< 21 UJ	< 21 UJ	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U
	Methyl iodide	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Methyl isobutyl ketone	--	R	R	< 21 UJ	< 21 UJ	< 21 UJ	< 21 UJ	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U
	Methyl n-butyl ketone	--	R	R	< 21 UJ	< 21 UJ	< 21 UJ	< 21 UJ	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U
	MTBE (Methyl tert-butyl ether)	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	n-Butyl benzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	n-Heptane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	n-Propyl benzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	o-Xylene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Styrene (monomer)	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	tert-Butyl benzene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Tetrachloroethylene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Toluene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	trans-1,2-Dichloroethylene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	trans-1,3-Dichloropropylene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Tribromomethane	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Trichloroethylene	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Vinyl acetate	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Vinyl chloride	--	R	R	< 5.3 UJ	< 5.2 UJ	< 5.2 UJ	< 5.3 UJ	< 5.2 U	< 5.2 U	< 5.2 U	< 5.3 U	< 5.2 U	< 5.2 U
	Xylenes (total)	--	R	R	< 11 UJ	< 10 UJ	< 10 UJ	< 11 UJ	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U

All units in µg/kg.

TABLE 3
ORGANOCHLORINE PESTICIDES, SVOCs, AND VOCs ANALYTICAL RESULTS
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Analytical Method	Chemical	DBSA-10		DBSA-11		DBSA-13		DBSA-14		DBSA-15		DBSA-17	
		5	10	5	10	5	10	5	10	5	10	5	10
		N	N	N	N	N	N	N	N	N	N	N	N
Organo-chlorine Pesticides	2,4-DDD	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-DDE	--	--	--	--	--	--	--	--	--	--	--	--
	4,4-DDD	--	--	--	--	--	--	--	--	--	--	--	--
	4,4-DDE	--	--	--	--	--	--	--	--	--	--	--	--
	4,4-DDT	--	--	--	--	--	--	--	--	--	--	--	--
	Aldrin	--	--	--	--	--	--	--	--	--	--	--	--
	alpha-BHC	--	--	--	--	--	--	--	--	--	--	--	--
	alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--
	beta-BHC	--	--	--	--	--	--	--	--	--	--	--	--
	Chlordane	--	--	--	--	--	--	--	--	--	--	--	--
	delta-BHC	--	--	--	--	--	--	--	--	--	--	--	--
	Dieldrin	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan I	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan II	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan sulfate	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin aldehyde	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin ketone	--	--	--	--	--	--	--	--	--	--	--	--
	gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--
	Heptachlor	--	--	--	--	--	--	--	--	--	--	--	--
	Heptachlor epoxide	--	--	--	--	--	--	--	--	--	--	--	--
	Lindane	--	--	--	--	--	--	--	--	--	--	--	--
	Methoxychlor	--	--	--	--	--	--	--	--	--	--	--	--
	Toxaphene	--	--	--	--	--	--	--	--	--	--	--	--
	Total	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs	1,2,4,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Diphenylhydrazine	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dioxane	--	--	--	--	--	--	--	--	--	--	--	--
	2,2'-/4,4'-Dichlorobenzil	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dimethylphenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dinitrophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--
	2-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--
	2-Nitrophenol	--	--	--	--	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--	--	--	--	--
	3-Methylphenol & 4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--
	3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chloro-3-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorothioanisole	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitrophenol	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3
ORGANOCHLORINE PESTICIDES, SVOCs, AND VOCs ANALYTICAL RESULTS
2008 DEEP BACKGROUND STUDY
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Analytical Method	Chemical	DBSA-10		DBSA-11		DBSA-13		DBSA-14		DBSA-15		DBSA-17	
		5	10	5	10	5	10	5	10	5	10	5	10
		N	N	N	N	N	N	N	N	N	N	N	N
SVOCs	Acenaphthene	--	--	--	--	--	--	--	--	--	--	--	--
	Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--	--
	Acetophenone	--	--	--	--	--	--	--	--	--	--	--	--
	Aniline	--	--	--	--	--	--	--	--	--	--	--	--
	Anthracene	--	--	--	--	--	--	--	--	--	--	--	--
	Azobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzenethiol	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzoic acid	--	--	--	--	--	--	--	--	--	--	--	--
	Benzyl alcohol	--	--	--	--	--	--	--	--	--	--	--	--
	Benzyl butyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Chloroethoxy) methane	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Chloroethyl) ether	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Chloroisopropyl) ether	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Ethylhexyl) phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	bis(p-Chlorophenyl) disulfide	--	--	--	--	--	--	--	--	--	--	--	--
	bis(p-Chlorophenyl) sulfone	--	--	--	--	--	--	--	--	--	--	--	--
	Carbazole	--	--	--	--	--	--	--	--	--	--	--	--
	Chrysene	--	--	--	--	--	--	--	--	--	--	--	--
	Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--
	Dibenzofuran	--	--	--	--	--	--	--	--	--	--	--	--
	Dibutyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	Diethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	Di-n-octyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	Diphenyl sulfone	--	--	--	--	--	--	--	--	--	--	--	--
	Fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--
	Fluorene	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachloro-1,3-butadiene	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
	Hydroxymethyl phthalimide	--	--	--	--	--	--	--	--	--	--	--	--
	Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	--	--
	Isophorone	--	--	--	--	--	--	--	--	--	--	--	--
	Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--
	Nitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	N-nitrosodi-n-propylamine	--	--	--	--	--	--	--	--	--	--	--	--
	N-nitrosodiphenylamine	--	--	--	--	--	--	--	--	--	--	--	--
	o-Cresol	--	--	--	--	--	--	--	--	--	--	--	--
	Octachlorostyrene	--	--	--	--	--	--	--	--	--	--	--	--
	p-Chloroaniline	--	--	--	--	--	--	--	--	--	--	--	--
	p-Chlorothiophenol	--	--	--	--	--	--	--	--	--	--	--	--
	Pentachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	Pentachlorophenol	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3
ORGANOCHLORINE PESTICIDES, SVOCs, AND VOCs ANALYTICAL RESULTS
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Analytical Method	Chemical	DBSA-10		DBSA-11		DBSA-13		DBSA-14		DBSA-15		DBSA-17	
		5	10	5	10	5	10	5	10	5	10	5	10
		N	N	N	N	N	N	N	N	N	N	N	N
SVOCs	Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	--
	Phenol	--	--	--	--	--	--	--	--	--	--	--	--
	Phenyl Disulfide	--	--	--	--	--	--	--	--	--	--	--	--
	Phenyl Sulfide	--	--	--	--	--	--	--	--	--	--	--	--
	Phthalic acid	--	--	--	--	--	--	--	--	--	--	--	--
	p-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--
	Pyrene	--	--	--	--	--	--	--	--	--	--	--	--
	Pyridine	--	--	--	--	--	--	--	--	--	--	--	--
	Total	--	--	--	--	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,1,1-Trichloroethane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,1,2,2-Tetrachloroethane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,1,2-Trichloroethane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,1-Dichloroethane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,1-Dichloroethylene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,1-Dichloropropene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,2,3-Trichlorobenzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,2,3-Trichloropropane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,2,4-Trichlorobenzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,2,4-Trimethylbenzene	< 5.5 U	< 5.3 U	< 5.8 UJ	0.75 J-	0.32 J	0.39 J	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,2-Dibromo-3-chloropropane (DBC	< 11 U	< 11 U	< 12 UJ	< 11 UJ	< 11 U	< 11 U	< 11 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 11 U	< 10 U
	1,2-Dichlorobenzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,2-Dichloroethane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,2-Dichloroethylene	< 11 U	< 11 U	< 12 UJ	< 11 UJ	< 11 U	< 11 U	< 11 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 11 U	< 10 U
	1,2-Dichloropropane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,3,5- Trichlorobenzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,3,5-Trimethylbenzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,3-Dichlorobenzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,3-Dichloropropane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1,4-Dichlorobenzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	1-Nonanal	< 11 U	< 11 U	< 12 UJ	< 11 UJ	< 11 U	< 11 U	< 11 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 11 U	< 10 U
	2,2,3-Trimethylbutane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	2,2-Dichloropropane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	2,2-Dimethylpentane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	2,3-Dimethylpentane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	2,4-Dimethylpentane	< 22 U	< 21 U	< 23 UJ	< 22 UJ	< 21 U	< 21 U	< 21 UJ	< 21 UJ	< 21 UJ	< 21 UJ	< 21 U	< 21 U
	2-Chlorotoluene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	2-Nitropropane	< 11 U	< 11 U	< 12 UJ	< 11 UJ	< 11 U	< 11 U	< 11 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 11 U	< 10 U
	2-Phenylbutane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	3,3-dimethylpentane	< 11 U	< 11 U	< 12 UJ	< 11 UJ	< 11 U	< 11 U	< 11 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 11 U	< 10 U
	3-ethylpentane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	3-Methylhexane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	4-Chlorotoluene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Acetone	< 22 U	< 21 U	25 J	16 J	< 21 UJ	< 21 UJ	14 J	11 J	< 21 UJ	< 21 UJ	< 21 U	< 21 U
	Acetonitrile	< 55 UJ	< 53 UJ	< 58 UJ	< 54 UJ	< 53 UJ	< 53 UJ	< 54 UJ	< 53 UJ	< 54 UJ	< 53 UJ	< 53 UJ	< 52 UJ
	Benzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Bromobenzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Bromodichloromethane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Bromomethane	< 11 U	< 11 U	< 12 UJ	< 11 UJ	< 11 U	< 11 U	< 11 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 11 U	< 10 U

TABLE 3
ORGANOCHLORINE PESTICIDES, SVOCs, AND VOCs ANALYTICAL RESULTS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Analytical Method	Chemical	DBSA-10		DBSA-11		DBSA-13		DBSA-14		DBSA-15		DBSA-17	
		5	10	5	10	5	10	5	10	5	10	5	10
		N	N	N	N	N	N	N	N	N	N	N	N
VOCs	Carbon disulfide	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Carbon tetrachloride	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	CFC-11	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	CFC-12	< 11 U	< 11 U	< 12 UJ	< 11 UJ	< 11 U	< 11 U	< 11 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 11 U	< 10 U
	Chlorinated fluorocarbon (Freon 113	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Chlorobenzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Chlorobromomethane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Chlorodibromomethane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Chloroethane	< 11 U	< 11 U	< 12 UJ	< 11 UJ	< 11 U	< 11 U	< 11 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 11 U	< 10 U
	Chloroform	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Chloromethane	< 11 U	< 11 U	< 12 UJ	< 11 UJ	< 11 U	< 11 U	< 11 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 11 U	< 10 U
	cis-1,2-Dichloroethylene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	cis-1,3-Dichloropropylene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Cymene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Dibromomethane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Dichloromethane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Ethanol	< 270 UJ	< 270 UJ	< 290 UJ	< 270 UJ	< 260 UJ	< 270 UJ	< 270 UJ	< 260 UJ	< 270 UJ	< 270 UJ	< 270 UJ	< 260 UJ
	Ethylbenzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Hexane, 2-methyl-	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Isopropylbenzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	m,p-Xylene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Methyl disulfide	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Methyl ethyl ketone	< 22 U	< 21 U	< 23 UJ	< 22 UJ	< 21 U	< 21 U	< 21 UJ	< 21 UJ	< 21 UJ	< 21 UJ	< 21 U	< 21 U
	Methyl iodide	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Methyl isobutyl ketone	< 22 U	< 21 U	< 23 UJ	< 22 UJ	< 21 U	< 21 U	< 21 UJ	< 21 UJ	< 21 UJ	< 21 UJ	< 21 U	< 21 U
	Methyl n-butyl ketone	< 22 U	< 21 U	< 23 UJ	< 22 UJ	< 21 U	< 21 U	< 21 UJ	< 21 UJ	< 21 UJ	< 21 UJ	< 21 U	< 21 U
	MTBE (Methyl tert-butyl ether)	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	n-Butyl benzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	n-Heptane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	n-Propyl benzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	o-Xylene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Styrene (monomer)	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	tert-Butyl benzene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Tetrachloroethylene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Toluene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	trans-1,2-Dichloroethylene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	trans-1,3-Dichloropropylene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Tribromomethane	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Trichloroethylene	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Vinyl acetate	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Vinyl chloride	< 5.5 U	< 5.3 U	< 5.8 UJ	< 5.4 UJ	< 5.3 U	< 5.3 U	< 5.4 UJ	< 5.3 UJ	< 5.4 UJ	< 5.3 UJ	< 5.3 U	< 5.2 U
	Xylenes (total)	< 11 U	< 11 U	< 12 UJ	< 11 UJ	< 11 U	< 11 U	< 11 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 11 U	< 10 U

All units in µg/kg.

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Analytical Method	Chemical	DBSA-20		DBSA-21		DBSA-23		DBSA-26			DBSA-27		
		5	10	5	10	5	10	0	5	10	0	5	10
		N	N	N	N	N	N	N	N	N	N	N	N
Organo-chlorine Pesticides	2,4-DDD	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	2,4-DDE	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	4,4-DDD	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	4,4-DDE	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	4,4-DDT	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Aldrin	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	alpha-BHC	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	alpha-Chlordane	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	beta-BHC	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Chlordane	--	--	--	--	--	--	< 17 U	--	--	< 17 UJ	--	--
	delta-BHC	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Dieldrin	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Endosulfan I	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Endosulfan II	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Endosulfan sulfate	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Endrin	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Endrin aldehyde	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Endrin ketone	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	gamma-Chlordane	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Heptachlor	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Heptachlor epoxide	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Lindane	--	--	--	--	--	--	< 1.7 U	--	--	< 1.7 UJ	--	--
	Methoxychlor	--	--	--	--	--	--	< 3.3 U	--	--	< 3.3 UJ	--	--
	Toxaphene	--	--	--	--	--	--	< 68 U	--	--	< 68 UJ	--	--
	Total	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs	1,2,4,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Diphenylhydrazine	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dioxane	--	--	--	--	--	--	--	--	--	--	--	--
	2,2'-/4,4'-Dichlorobenzil	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dimethylphenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dinitrophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--
	2-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--
	2-Nitrophenol	--	--	--	--	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--	--	--	--	--
	3-Methylphenol & 4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--
	3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chloro-3-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorothioanisole	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitrophenol	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3
ORGANOCHLORINE PESTICIDES, SVOCs, AND VOCs ANALYTICAL RESULTS
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Analytical Method	Chemical	DBSA-20		DBSA-21		DBSA-23		DBSA-26			DBSA-27		
		5	10	5	10	5	10	0	5	10	0	5	10
		N	N	N	N	N	N	N	N	N	N	N	N
SVOCs	Acenaphthene	--	--	--	--	--	--	--	--	--	--	--	--
	Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--	--
	Acetophenone	--	--	--	--	--	--	--	--	--	--	--	--
	Aniline	--	--	--	--	--	--	--	--	--	--	--	--
	Anthracene	--	--	--	--	--	--	--	--	--	--	--	--
	Azobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzenethiol	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzoic acid	--	--	--	--	--	--	--	--	--	--	--	--
	Benzyl alcohol	--	--	--	--	--	--	--	--	--	--	--	--
	Benzyl butyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Chloroethoxy) methane	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Chloroethyl) ether	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Chloroisopropyl) ether	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Ethylhexyl) phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	bis(p-Chlorophenyl) disulfide	--	--	--	--	--	--	--	--	--	--	--	--
	bis(p-Chlorophenyl) sulfone	--	--	--	--	--	--	--	--	--	--	--	--
	Carbazole	--	--	--	--	--	--	--	--	--	--	--	--
	Chrysene	--	--	--	--	--	--	--	--	--	--	--	--
	Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--
	Dibenzofuran	--	--	--	--	--	--	--	--	--	--	--	--
	Dibutyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	Diethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	Di-n-octyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	Diphenyl sulfone	--	--	--	--	--	--	--	--	--	--	--	--
	Fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--
	Fluorene	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachloro-1,3-butadiene	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
	Hydroxymethyl phthalimide	--	--	--	--	--	--	--	--	--	--	--	--
	Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	--	--
	Isophorone	--	--	--	--	--	--	--	--	--	--	--	--
	Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--
	Nitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	N-nitrosodi-n-propylamine	--	--	--	--	--	--	--	--	--	--	--	--
	N-nitrosodiphenylamine	--	--	--	--	--	--	--	--	--	--	--	--
	o-Cresol	--	--	--	--	--	--	--	--	--	--	--	--
	Octachlorostyrene	--	--	--	--	--	--	--	--	--	--	--	--
	p-Chloroaniline	--	--	--	--	--	--	--	--	--	--	--	--
	p-Chlorothiophenol	--	--	--	--	--	--	--	--	--	--	--	--
	Pentachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	Pentachlorophenol	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3
ORGANOCHLORINE PESTICIDES, SVOCs, AND VOCs ANALYTICAL RESULTS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 11 of 16)

Analytical Method	Chemical	DBSA-20		DBSA-21		DBSA-23		DBSA-26			DBSA-27		
		5	10	5	10	5	10	0	5	10	0	5	10
		N	N	N	N	N	N	N	N	N	N	N	N
SVOCs	Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	--
	Phenol	--	--	--	--	--	--	--	--	--	--	--	--
	Phenyl Disulfide	--	--	--	--	--	--	--	--	--	--	--	--
	Phenyl Sulfide	--	--	--	--	--	--	--	--	--	--	--	--
	Phthalic acid	--	--	--	--	--	--	--	--	--	--	--	--
	p-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--
	Pyrene	--	--	--	--	--	--	--	--	--	--	--	--
	Pyridine	--	--	--	--	--	--	--	--	--	--	--	--
	Total	--	--	--	--	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,1,1-Trichloroethane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,1,2,2-Tetrachloroethane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,1,2-Trichloroethane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,1-Dichloroethane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,1-Dichloroethylene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,1-Dichloropropene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,2,3-Trichlorobenzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,2,3-Trichloropropane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,2,4-Trichlorobenzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,2,4-Trimethylbenzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	0.44 J	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	0.34 J-
	1,2-Dibromo-3-chloropropane (DBC	< 10 U	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 11 UJ	< 11 UJ
	1,2-Dichlorobenzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,2-Dichloroethane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,2-Dichloroethylene	< 10 U	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 11 UJ	< 11 UJ
	1,2-Dichloropropane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,3,5- Trichlorobenzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,3,5-Trimethylbenzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,3-Dichlorobenzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,3-Dichloropropane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1,4-Dichlorobenzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	1-Nonanal	< 10 U	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 11 UJ	< 11 UJ
	2,2,3-Trimethylbutane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	2,2-Dichloropropane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	2,2-Dimethylpentane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	2,3-Dimethylpentane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	2,4-Dimethylpentane	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	--	< 21 U	< 21 U	--	< 5.5 UJ	< 5.7 UJ
	2-Chlorotoluene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	2-Nitropropane	< 10 U	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 11 UJ	< 11 UJ
	2-Phenylbutane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	3,3-dimethylpentane	< 10 U	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 5.5 UJ	< 5.7 UJ
	3-ethylpentane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	3-Methylhexane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	4-Chlorotoluene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Acetone	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	--	< 21 U	< 21 U	--	8.7 J-	7.1 J-
	Acetonitrile	< 52 UJ	< 52 UJ	< 53 UJ	< 53 UJ	< 51 UJ	< 52 UJ	--	< 52 UJ	< 51 UJ	--	< 55 UJ	< 57 UJ
	Benzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Bromobenzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Bromodichloromethane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Bromomethane	< 10 U	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 11 UJ	< 11 UJ

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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Analytical Method	Chemical	DBSA-20		DBSA-21		DBSA-23		DBSA-26			DBSA-27		
		5	10	5	10	5	10	0	5	10	0	5	10
		N	N	N	N	N	N	N	N	N	N	N	N
VOCs	Carbon disulfide	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Carbon tetrachloride	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	CFC-11	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	CFC-12	< 10 U	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 11 UJ	< 11 UJ
	Chlorinated fluorocarbon (Freon 113	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Chlorobenzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Chlorobromomethane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Chlorodibromomethane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Chloroethane	< 10 U	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 11 UJ	< 11 UJ
	Chloroform	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Chloromethane	< 10 U	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 11 UJ	< 11 UJ
	cis-1,2-Dichloroethylene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	cis-1,3-Dichloropropylene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Cymene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Dibromomethane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Dichloromethane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Ethanol	< 260 UJ	< 260 UJ	< 260 UJ	< 260 UJ	< 260 UJ	< 260 UJ	--	< 260 UJ	< 260 UJ	--	< 270 UJ	< 290 UJ
	Ethylbenzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Hexane, 2-methyl-	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Isopropylbenzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	m,p-Xylene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Methyl disulfide	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Methyl ethyl ketone	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	--	< 21 U	< 21 U	--	< 22 UJ	< 23 UJ
	Methyl iodide	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Methyl isobutyl ketone	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	--	< 21 U	< 21 U	--	< 22 UJ	< 23 UJ
	Methyl n-butyl ketone	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	--	< 21 U	< 21 U	--	< 22 UJ	< 23 UJ
	MTBE (Methyl tert-butyl ether)	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	n-Butyl benzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	n-Heptane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	n-Propyl benzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	o-Xylene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Styrene (monomer)	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	tert-Butyl benzene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Tetrachloroethylene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Toluene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	0.27 J-
	trans-1,2-Dichloroethylene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	trans-1,3-Dichloropropylene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Tribromomethane	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Trichloroethylene	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Vinyl acetate	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Vinyl chloride	< 5.2 U	< 5.2 U	< 5.3 U	< 5.3 U	< 5.1 U	< 5.2 U	--	< 5.2 U	< 5.1 U	--	< 5.5 UJ	< 5.7 UJ
	Xylenes (total)	< 10 U	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 11 UJ	< 11 UJ

All units in µg/kg.

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ORGANOCHLORINE PESTICIDES, SVOCs, AND VOCs ANALYTICAL RESULTS
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		DBSA-29			DBSA-30		DBSA-32				DBSA-33		
Analytical Method	**Chemical**	5	10	10	5	10	0	5	5	10	0	5	10
		N	N	FD	N	N	N	N	FD	N	N	N	N
Organo-chlorine Pesticides	2,4-DDD	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	2,4-DDE	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	4,4-DDD	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	4,4-DDE	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	4,4-DDT	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Aldrin	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	alpha-BHC	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	alpha-Chlordane	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	beta-BHC	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Chlordane	--	--	--	--	--	< 17 U	--	--	--	< 17 U	--	--
	delta-BHC	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Dieldrin	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Endosulfan I	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Endosulfan II	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Endosulfan sulfate	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Endrin	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Endrin aldehyde	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Endrin ketone	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	gamma-Chlordane	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Heptachlor	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Heptachlor epoxide	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Lindane	--	--	--	--	--	< 1.7 U	--	--	--	< 1.7 U	--	--
	Methoxychlor	--	--	--	--	--	< 3.3 U	--	--	--	< 3.3 U	--	--
	Toxaphene	--	--	--	--	--	< 67 U	--	--	--	< 67 U	--	--
	Total	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs	1,2,4,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Diphenylhydrazine	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dioxane	--	--	--	--	--	--	--	--	--	--	--	--
	2,2'-/4,4'-Dichlorobenzil	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dimethylphenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dinitrophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--
	2,6-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorophenol	--	--	--	--	--	--	--	--	--	--	--	--
	2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--
	2-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--
	2-Nitrophenol	--	--	--	--	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--	--	--	--	--
	3-Methylphenol & 4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--
	3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chloro-3-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorothioanisole	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitrophenol	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3
ORGANOCHLORINE PESTICIDES, SVOCs, AND VOCs ANALYTICAL RESULTS
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CLARK COUNTY, NEVADA
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		DBSA-29			DBSA-30		DBSA-32				DBSA-33		
		5	10	10	5	10	0	5	5	10	0	5	10
Analytical Method	**Chemical**	N	N	FD	N	N	N	N	FD	N	N	N	N
SVOCs	Acenaphthene	--	--	--	--	--	--	--	--	--	--	--	--
	Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--	--
	Acetophenone	--	--	--	--	--	--	--	--	--	--	--	--
	Aniline	--	--	--	--	--	--	--	--	--	--	--	--
	Anthracene	--	--	--	--	--	--	--	--	--	--	--	--
	Azobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzenethiol	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--
	Benzoic acid	--	--	--	--	--	--	--	--	--	--	--	--
	Benzyl alcohol	--	--	--	--	--	--	--	--	--	--	--	--
	Benzyl butyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Chloroethoxy) methane	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Chloroethyl) ether	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Chloroisopropyl) ether	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Ethylhexyl) phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	bis(p-Chlorophenyl) disulfide	--	--	--	--	--	--	--	--	--	--	--	--
	bis(p-Chlorophenyl) sulfone	--	--	--	--	--	--	--	--	--	--	--	--
	Carbazole	--	--	--	--	--	--	--	--	--	--	--	--
	Chrysene	--	--	--	--	--	--	--	--	--	--	--	--
	Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--
	Dibenzofuran	--	--	--	--	--	--	--	--	--	--	--	--
	Dibutyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	Diethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	Di-n-octyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--
	Diphenyl sulfone	--	--	--	--	--	--	--	--	--	--	--	--
	Fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--
	Fluorene	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachloro-1,3-butadiene	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--	--	--	--	--
	Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
	Hydroxymethyl phthalimide	--	--	--	--	--	--	--	--	--	--	--	--
	Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	--	--
	Isophorone	--	--	--	--	--	--	--	--	--	--	--	--
	Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--
	Nitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	N-nitrosodi-n-propylamine	--	--	--	--	--	--	--	--	--	--	--	--
	N-nitrosodiphenylamine	--	--	--	--	--	--	--	--	--	--	--	--
	o-Cresol	--	--	--	--	--	--	--	--	--	--	--	--
	Octachlorostyrene	--	--	--	--	--	--	--	--	--	--	--	--
	p-Chloroaniline	--	--	--	--	--	--	--	--	--	--	--	--
	p-Chlorothiophenol	--	--	--	--	--	--	--	--	--	--	--	--
	Pentachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--
	Pentachlorophenol	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3
ORGANOCHLORINE PESTICIDES, SVOCs, AND VOCs ANALYTICAL RESULTS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Analytical Method	Chemical	DBSA-29			DBSA-30		DBSA-32				DBSA-33		
		5	10	10	5	10	0	5	5	10	0	5	10
		N	N	FD	N	N	N	N	FD	N	N	N	N
SVOCs	Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	--
	Phenol	--	--	--	--	--	--	--	--	--	--	--	--
	Phenyl Disulfide	--	--	--	--	--	--	--	--	--	--	--	--
	Phenyl Sulfide	--	--	--	--	--	--	--	--	--	--	--	--
	Phthalic acid	--	--	--	--	--	--	--	--	--	--	--	--
	p-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--
	Pyrene	--	--	--	--	--	--	--	--	--	--	--	--
	Pyridine	--	--	--	--	--	--	--	--	--	--	--	--
	Total	--	--	--	--	--	--	--	--	--	--	--	--
VOCs	1,1,1,2-Tetrachloroethane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,1,1-Trichloroethane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,1,2,2-Tetrachloroethane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,1,2-Trichloroethane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,1-Dichloroethane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,1-Dichloroethylene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,1-Dichloropropene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,2,3-Trichlorobenzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,2,3-Trichloropropane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,2,4-Trichlorobenzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,2,4-Trimethylbenzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	0.31 J	0.26 J	0.28 J	--	< 5.3 U	< 5.3 U
	1,2-Dibromo-3-chloropropane (DBC	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 11 U	< 10 U	< 11 U	--	< 11 U	< 11 U
	1,2-Dichlorobenzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,2-Dichloroethane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,2-Dichloroethylene	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 11 U	< 10 U	< 11 U	--	< 11 U	< 11 U
	1,2-Dichloropropane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,3,5- Trichlorobenzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,3,5-Trimethylbenzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,3-Dichlorobenzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,3-Dichloropropane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1,4-Dichlorobenzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	1-Nonanal	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 11 U	< 10 U	< 11 U	--	< 11 U	< 11 U
	2,2,3-Trimethylbutane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	2,2-Dichloropropane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	2,2-Dimethylpentane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	2,3-Dimethylpentane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	2,4-Dimethylpentane	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	--	< 21 U	< 5.2 U	< 5.6 U	--	< 21 U	< 21 U
	2-Chlorotoluene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	2-Nitropropane	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 11 U	< 10 U	< 11 U	--	< 11 U	< 11 U
	2-Phenylbutane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	3,3-dimethylpentane	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 11 U	< 10 U	< 11 U	--	< 11 U	< 11 U
	3-ethylpentane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	3-Methylhexane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	4-Chlorotoluene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Acetone	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	--	< 21 U	< 21 U	< 22 U	--	7.6	8.3
	Acetonitrile	< 52 UJ	< 53 UJ	< 54 UJ	< 52 UJ	< 52 UJ	--	< 53 UJ	< 52 UJ	< 56 UJ	--	< 53 UJ	< 53 UJ
	Benzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Bromobenzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Bromodichloromethane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Bromomethane	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 11 U	< 10 U	< 11 U	--	< 11 U	< 11 U

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Analytical Method	Chemical	DBSA-29			DBSA-30		DBSA-32				DBSA-33		
		5	10	10	5	10	0	5	5	10	0	5	10
		N	N	FD	N	N	N	N	FD	N	N	N	N
VOCs	Carbon disulfide	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 UJ	< 5.2 UJ	< 5.6 UJ	--	< 5.3 U	< 5.3 U
	Carbon tetrachloride	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	CFC-11	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	CFC-12	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 11 U	< 10 U	< 11 U	--	< 11 U	< 11 U
	Chlorinated fluorocarbon (Freon 113	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Chlorobenzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Chlorobromomethane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Chlorodibromomethane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Chloroethane	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 11 U	< 10 U	< 11 U	--	< 11 U	< 11 U
	Chloroform	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Chloromethane	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 11 U	< 10 U	< 11 U	--	< 11 U	< 11 U
	cis-1,2-Dichloroethylene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	cis-1,3-Dichloropropylene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Cymene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Dibromomethane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Dichloromethane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Ethanol	< 260 UJ	< 260 UJ	< 270 UJ	< 260 UJ	< 260 UJ	--	< 260 UJ	< 260 UJ	< 280 UJ	--	< 270 UJ	< 260 UJ
	Ethylbenzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Hexane, 2-methyl-	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Isopropylbenzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	m,p-Xylene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Methyl disulfide	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Methyl ethyl ketone	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	--	< 21 U	< 21 U	< 22 U	--	< 21 U	< 21 U
	Methyl iodide	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Methyl isobutyl ketone	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	--	< 21 U	< 21 U	< 22 U	--	< 21 U	< 21 U
	Methyl n-butyl ketone	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	--	< 21 U	< 21 U	< 22 U	--	< 21 U	< 21 U
	MTBE (Methyl tert-butyl ether)	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	n-Butyl benzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	n-Heptane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	n-Propyl benzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	o-Xylene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Styrene (monomer)	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	tert-Butyl benzene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Tetrachloroethylene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Toluene	< 5.2 U	< 5.3 U	0.15 J	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	trans-1,2-Dichloroethylene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	trans-1,3-Dichloropropylene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Tribromomethane	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Trichloroethylene	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Vinyl acetate	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Vinyl chloride	< 5.2 U	< 5.3 U	< 5.4 U	< 5.2 U	< 5.2 U	--	< 5.3 U	< 5.2 U	< 5.6 U	--	< 5.3 U	< 5.3 U
	Xylenes (total)	< 10 U	< 11 U	< 11 U	< 10 U	< 10 U	--	< 11 U	< 10 U	< 11 U	--	< 11 U	< 11 U

All units in µg/kg.

TABLE 4
DESCRIPTIVE SUMMARY STATISTICS FOR METALS AND RADIONUCLIDES IN 2008 DEEP BACKGROUND SOIL SAMPLES - ALL DATA
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

Analyte Group	Analyte	Sample Size	Detection Frequency	Censored (Non-Detect) Data							Detected Data						
				ND Count	Min	Q1	Median	Mean	Q3	Max	Detect Count	Min	Q1	Median	Mean	Q3	Max
Metals (mg/kg)	Aluminum	163	100.0%	0	--	--	--	--	--	--	163	3190	7550	8790	8966	10100	19700
	Antimony	163	95.1%	8	1	1.1	1.1	1.088	1.1	1.1	155	0.066	0.14	0.16	0.1728	0.2	0.37
	Arsenic	163	100.0%	0	--	--	--	--	--	--	163	2.1	3.7	5.7	6.123	7.5	24.8
	Barium	163	100.0%	0	--	--	--	--	--	--	163	64.5	134	191	276.3	399	1350
	Beryllium	163	100.0%	0	--	--	--	--	--	--	163	0.17	0.47	0.54	0.5375	0.6	1.1
	Boron	163	23.3%	125	10.7	21	21.4	21.31	21.9	29.8	38	3	4.575	5.9	7.9	7.25	24.1
	Cadmium	163	85.3%	24	0.055	0.07	0.11	0.09763	0.11	0.13	139	0.034	0.077	0.088	0.09283	0.11	0.2
	Calcium	163	100.0%	0	--	--	--	--	--	--	163	0.43	17800	23200	23580	29400	46600
	Chromium (Total)	163	100.0%	0	--	--	--	--	--	--	163	1.1	9.4	10.6	11.63	13.4	27.9
	Chromium (VI)	158	24.1%	120	1	1	1.1	1.076	1.1	1.3	38	0.16	0.1975	0.265	0.3892	0.4225	1.6
	Cobalt	163	100.0%	0	--	--	--	--	--	--	163	1.6	5.3	7	6.748	7.9	12.9
	Copper	163	100.0%	0	--	--	--	--	--	--	163	4.1	11.1	15.1	14.2	16.7	24
	Iron	163	100.0%	0	--	--	--	--	--	--	163	3620	11800	13900	13840	16000	22500
	Lead	163	100.0%	0	--	--	--	--	--	--	163	4.4	6.9	9.2	10.05	11.6	35.1
	Lithium	163	92.6%	12	10.5	26.4	26.5	25.24	26.68	27.1	151	7.5	17.6	21.9	28.07	30	189
	Magnesium	163	100.0%	0	--	--	--	--	--	--	163	2780	7620	9170	9360	10400	31000
	Manganese	163	100.0%	0	--	--	--	--	--	--	163	87.5	236	296	312.5	371	836
	Mercury	151	36.4%	96	0.0343	0.0352	0.0356	0.03614	0.0364	0.0426	55	0.007	0.0085	0.0102	0.01182	0.0141	0.0254
	Molybdenum	163	85.9%	23	1.1	1.1	1.1	1.113	1.1	1.3	140	0.12	0.4	0.52	0.5834	0.67	1.9
	Nickel	163	100.0%	0	--	--	--	--	--	--	163	4.5	13.3	14.9	14.61	15.9	30.9
	Niobium	163	8.0%	150	2.7	5.275	5.3	5.295	5.5	7.5	13	1.7	2.7	3	3.085	3.55	4
	Palladium	163	100.0%	0	--	--	--	--	--	--	163	0.16	0.41	0.61	0.6361	0.79	2.2
	Phosphorus	163	100.0%	0	--	--	--	--	--	--	163	299	859	1080	1100	1380	1930
	Platinum	163	5.5%	154	0.11	0.21	0.21	0.2119	0.22	0.3	9	0.022	0.024	0.027	0.03178	0.041	0.049
	Potassium	163	100.0%	0	--	--	--	--	--	--	163	850	1410	1920	2443	2870	12600
	Selenium	163	0.0%	163	0.53	1.1	1.1	1.073	1.1	1.5	0	--	--	--	--	--	--
	Silicon	163	100.0%	0	--	--	--	--	--	--	163	109	238	465	512.3	743	1340
	Silver	163	100.0%	0	--	--	--	--	--	--	163	0.046	0.096	0.13	0.2153	0.21	2.2
	Sodium	163	100.0%	0	--	--	--	--	--	--	163	235	500	752	867.6	1050	3250
	Strontium	163	100.0%	0	--	--	--	--	--	--	163	68.5	199	246	257	293	793
	Thallium	163	2.5%	159	0.21	0.42	0.43	0.424	0.44	0.6	4	0.15	0.1625	0.21	0.2275	0.31	0.34
	Tin	163	77.9%	36	0.22	0.41	0.425	0.4117	0.43	0.5	127	0.24	0.45	0.53	0.5219	0.6	0.96
	Titanium	163	100.0%	0	--	--	--	--	--	--	163	175	505	589	590.4	679	1000
	Tungsten	163	33.1%	109	0.55	1.1	1.1	1.068	1.1	1.5	54	0.19	0.26	0.33	0.4215	0.4525	3.6
	Uranium	163	100.0%	0	--	--	--	--	--	--	163	0.31	1.1	1.3	1.356	1.5	4.4
	Vanadium	163	100.0%	0	--	--	--	--	--	--	163	10	33.4	39.2	39.58	44.9	73.3
	Zinc	163	100.0%	0	--	--	--	--	--	--	163	16.1	30.3	33.2	34.07	36.5	68.2
	Zirconium	163	90.2%	16	20.6	20.9	21.8	21.63	22.18	22.7	147	6.2	16.4	21.6	21.32	26.1	36.7
Radionuclides (pCi/g)	Radium-226	125	96.8%	4	1	1	1	1	1	1	121	0.394	0.997	1.29	1.361	1.71	2.29
	Radium-228	124	98.4%	2	0.452	--	0.741	0.741	--	1.03	122	0.855	1.19	1.37	1.387	1.543	2.31
	Thorium-228	159	100.0%	0	--	--	--	--	--	--	159	0.944	1.39	1.58	1.597	1.79	2.3
	Thorium-230	159	100.0%	0	--	--	--	--	--	--	159	0.495	1.02	1.32	1.359	1.62	2.72
	Thorium-232	159	100.0%	0	--	--	--	--	--	--	159	0.898	1.32	1.47	1.467	1.6	2.05
	Uranium-233/234	141	89.4%	15	1	1	1	1	1	1	126	0.626	1.148	1.405	1.442	1.683	2.63
	Uranium-235/236	141	78.7%	30	-0.000681	0.01285	0.0197	0.02138	0.02903	0.0438	111	0.0285	0.0452	0.0584	0.06056	0.0764	0.116
	Uranium-238	141	87.9%	17	1	1	1	1	1	1	124	0.57	1.08	1.325	1.374	1.57	2.79

Notes:

mg/kg milligrams per kilogram
Max maximum concentration
Min minimum concentration
pCi/g picocuries per gram
Q1 1st quartile (25th percentile)
Q3 3rd quartile (75th percentile)

TABLE 5
DESCRIPTIVE SUMMARY STATISTICS FOR METALS AND RADIONUCLIDES IN 2008 DEEP BACKGROUND SOIL SAMPLES - Qal/McCULLOUGH
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Analyte Group	Analyte	Sample Size	Detection Frequency	Censored (Non-Detect) Data							Detected Data						
				ND Count	Min	Q1	Median	Mean	Q3	Max	Detect Count	Min	Q1	Median	Mean	Q3	Max
Metals (mg/kg)	Aluminum	79	100.0%	0	--	--	--	--	--	--	79	5060	7230	8790	8693	9860	15100
	Antimony	79	92.4%	6	1	1.075	1.1	1.083	1.1	1.1	73	0.089	0.13	0.15	0.1483	0.165	0.22
	Arsenic	79	100.0%	0	--	--	--	--	--	--	79	2.2	3.1	3.8	4.38	5	13.1
	Barium	79	100.0%	0	--	--	--	--	--	--	79	84.7	117	138	156.2	173	539
	Beryllium	79	100.0%	0	--	--	--	--	--	--	79	0.29	0.51	0.55	0.5557	0.6	0.67
	Boron	79	25.3%	59	10.7	21.1	21.2	21.2	21.6	23.7	20	3	3.975	5.6	5.355	6.35	7.6
	Cadmium	79	92.4%	6	0.11	0.11	0.11	0.1133	0.12	0.12	73	0.05	0.075	0.084	0.0871	0.0975	0.13
	Calcium	79	100.0%	0	--	--	--	--	--	--	79	10700	19300	24500	24970	29600	46600
	Chromium (Total)	79	100.0%	0	--	--	--	--	--	--	79	7.1	9.3	10.3	10.62	11.8	16.6
	Chromium (VI)	80	22.5%	62	1	1	1.1	1.074	1.1	1.2	18	0.18	0.2	0.255	0.4089	0.3925	1.6
	Cobalt	79	100.0%	0	--	--	--	--	--	--	79	5.3	6.8	7.5	7.785	8.6	10.8
	Copper	79	100.0%	0	--	--	--	--	--	--	79	8.8	15.3	16.4	16.33	17.3	24
	Iron	79	100.0%	0	--	--	--	--	--	--	79	11200	13100	14700	15350	17000	22500
	Lead	79	100.0%	0	--	--	--	--	--	--	79	4.9	6.4	7.1	7.439	8.4	15.8
	Lithium	79	84.8%	12	10.5	26.4	26.5	25.24	26.68	27.1	67	7.5	15.4	17.4	20.14	21.3	124
	Magnesium	79	100.0%	0	--	--	--	--	--	--	79	4990	8650	9530	9553	10600	12500
	Manganese	79	100.0%	0	--	--	--	--	--	--	79	217	276	319	342.9	390	579
	Mercury	79	44.3%	44	0.0349	0.0352	0.0355	0.0356	0.03578	0.0381	35	0.0072	0.0086	0.0129	0.01262	0.0146	0.0235
	Molybdenum	79	78.5%	17	1.1	1.1	1.1	1.106	1.1	1.2	62	0.31	0.47	0.575	0.6702	0.815	1.9
	Nickel	79	100.0%	0	--	--	--	--	--	--	79	8.5	14.4	15.3	15.54	16.3	27.5
	Niobium	79	7.6%	73	2.7	5.3	5.3	5.308	5.4	5.9	6	1.7	2.675	3.35	3.117	3.575	3.8
	Palladium	79	100.0%	0	--	--	--	--	--	--	79	0.2	0.39	0.61	0.672	0.83	2.2
	Phosphorus	79	100.0%	0	--	--	--	--	--	--	79	649	1240	1390	1369	1500	1930
	Platinum	79	8.9%	72	0.11	0.21	0.21	0.2119	0.22	0.24	7	0.022	0.023	0.025	0.03229	0.046	0.049
	Potassium	79	100.0%	0	--	--	--	--	--	--	79	850	1240	1430	1499	1720	2450
	Selenium	79	0.0%	79	0.53	1.1	1.1	1.088	1.1	1.2	0	--	--	--	--	--	--
	Silicon	79	100.0%	0	--	--	--	--	--	--	79	139	370	617	590.6	823	1080
	Silver	79	100.0%	0	--	--	--	--	--	--	79	0.074	0.11	0.15	0.2511	0.2	2.2
	Sodium	79	100.0%	0	--	--	--	--	--	--	79	428	644	776	864.2	1000	3250
	Strontium	79	100.0%	0	--	--	--	--	--	--	79	123	207	250	274.6	311	793
	Thallium	79	5.1%	75	0.21	0.42	0.43	0.4245	0.43	0.47	4	0.15	0.1625	0.21	0.2275	0.31	0.34
	Tin	79	96.2%	3	0.42	0.42	0.43	0.4367	0.46	0.46	76	0.25	0.5125	0.55	0.5493	0.62	0.78
	Titanium	79	100.0%	0	--	--	--	--	--	--	79	445	597	671	680.1	751	912
	Tungsten	79	31.6%	54	1.1	1.1	1.1	1.104	1.1	1.2	25	0.19	0.27	0.31	0.454	0.375	3.6
	Uranium	79	100.0%	0	--	--	--	--	--	--	79	0.89	1.2	1.4	1.552	1.8	2.8
	Vanadium	79	100.0%	0	--	--	--	--	--	--	79	26.7	38.3	43.2	45.99	53.5	73.3
	Zinc	79	100.0%	0	--	--	--	--	--	--	79	18.1	29.9	32	31.87	34	41.2
	Zirconium	79	100.0%	0	--	--	--	--	--	--	79	15.9	22.3	25.5	25.21	27.3	33.9
Radionuclides (pCi/g)	Radium-226	65	100.0%	0	--	--	--	--	--	--	65	0.981	1.4	1.64	1.673	1.965	2.29
	Radium-228	64	100.0%	0	--	--	--	--	--	--	64	0.855	1.233	1.4	1.46	1.675	2.31
	Thorium-228	79	100.0%	0	--	--	--	--	--	--	79	1.11	1.57	1.75	1.763	1.96	2.3
	Thorium-230	79	100.0%	0	--	--	--	--	--	--	79	1.05	1.42	1.58	1.681	1.92	2.72
	Thorium-232	79	100.0%	0	--	--	--	--	--	--	79	0.908	1.44	1.54	1.557	1.69	2.01
	Uranium-233/234	76	100.0%	0	--	--	--	--	--	--	76	0.868	1.4	1.615	1.647	1.788	2.63
	Uranium-235/236	76	89.5%	8	0.0121	0.01783	0.0294	0.02814	0.03703	0.0438	68	0.029	0.0502	0.06945	0.06726	0.07778	0.116
	Uranium-238	76	100.0%	0	--	--	--	--	--	--	76	0.993	1.283	1.505	1.547	1.703	2.79

Notes:

mg/kg milligrams per kilogram
Max maximum concentration
Min minimum concentration
pCi/g picocuries per gram
Q1 1st quartile (25th percentile)
Q3 3rd quartile (75th percentile)

TABLE 6
DESCRIPTIVE SUMMARY STATISTICS FOR METALS AND RADIONUCLIDES IN 2008 DEEP BACKGROUND SOIL SAMPLES - Qal/RIVER
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Analyte Group	Analyte	Sample Size	Detection Frequency	Censored (Non-Detect) Data							Detected Data						
				ND Count	Min	Q1	Median	Mean	Q3	Max	Detect Count	Min	Q1	Median	Mean	Q3	Max
Metals (mg/kg)	Aluminum	36	100.0%	0	--	--	--	--	--	--	36	5680	7863	8355	8613	8898	13400
	Antimony	36	100.0%	0	--	--	--	--	--	--	36	0.14	0.1925	0.21	0.2217	0.2375	0.37
	Arsenic	36	100.0%	0	--	--	--	--	--	--	36	4.7	5.75	7.2	7.506	8.175	13.9
	Barium	36	100.0%	0	--	--	--	--	--	--	36	188	269.3	328.5	399	478.3	1350
	Beryllium	36	100.0%	0	--	--	--	--	--	--	36	0.34	0.44	0.46	0.4708	0.515	0.72
	Boron	36	22.2%	28	20.5	20.7	20.9	21.26	21.4	25	8	5	5.45	6.15	8.363	7.175	24.1
	Cadmium	36	72.2%	10	0.1	0.1075	0.11	0.11	0.11	0.13	26	0.034	0.07475	0.0985	0.09596	0.12	0.16
	Calcium	36	100.0%	0	--	--	--	--	--	--	36	4680	16780	21950	21740	27700	45600
	Chromium (Total)	36	100.0%	0	--	--	--	--	--	--	36	7.2	9.425	10.4	11.09	11.4	24.2
	Chromium (VI)	41	39.0%	25	1	1	1	1.024	1	1.2	16	0.16	0.22	0.375	0.4088	0.5375	1.1
	Cobalt	36	100.0%	0	--	--	--	--	--	--	36	3.5	4.2	4.6	4.614	5.075	5.7
	Copper	36	100.0%	0	--	--	--	--	--	--	36	8	9.225	10.25	10.29	11	13.9
	Iron	36	100.0%	0	--	--	--	--	--	--	36	7250	9315	10900	10550	11780	13100
	Lead	36	100.0%	0	--	--	--	--	--	--	36	9.5	10.6	11.75	14.09	13.85	35.1
	Lithium	36	100.0%	0	--	--	--	--	--	--	36	20	25.15	30.25	30.92	36.3	47.2
	Magnesium	36	100.0%	0	--	--	--	--	--	--	36	5210	6500	7210	7629	8688	13900
	Manganese	36	100.0%	0	--	--	--	--	--	--	36	87.5	140.5	161.5	212.6	262.5	777
	Mercury	28	17.9%	23	0.0343	0.0344	0.0348	0.03551	0.0358	0.0417	5	0.007	0.00725	0.0077	0.00832	0.0097	0.0102
	Molybdenum	36	86.1%	5	1.1	1.1	1.1	1.14	1.2	1.3	31	0.26	0.34	0.4	0.4323	0.52	0.72
	Nickel	36	100.0%	0	--	--	--	--	--	--	36	9.2	12.25	13.25	13.25	14.83	17.5
	Niobium	36	8.3%	33	5.1	5.2	5.2	5.333	5.45	6.3	3	2.5	2.5	2.6	2.7	3	3
	Palladium	36	100.0%	0	--	--	--	--	--	--	36	0.24	0.39	0.6	0.5767	0.775	1.1
	Phosphorus	36	100.0%	0	--	--	--	--	--	--	36	511	738.8	819.5	829.4	911	1320
	Platinum	36	0.0%	36	0.21	0.21	0.21	0.2139	0.2175	0.25	0	--	--	--	--	--	--
	Potassium	36	100.0%	0	--	--	--	--	--	--	36	2560	2945	3325	4368	5030	12600
	Selenium	36	0.0%	36	1	1	1	1.053	1.1	1.3	0	--	--	--	--	--	--
	Silicon	36	100.0%	0	--	--	--	--	--	--	36	224	451	617.5	633.5	797	1340
	Silver	36	100.0%	0	--	--	--	--	--	--	36	0.046	0.0695	0.12	0.1939	0.245	1.4
	Sodium	36	100.0%	0	--	--	--	--	--	--	36	600	942.3	1250	1401	1888	2770
	Strontium	36	100.0%	0	--	--	--	--	--	--	36	146	201.8	252	270.4	312	559
	Thallium	36	0.0%	36	0.41	0.41	0.42	0.4258	0.43	0.5	0	--	--	--	--	--	--
	Tin	36	44.4%	20	0.41	0.41	0.42	0.4255	0.43	0.5	16	0.25	0.3225	0.355	0.3663	0.4175	0.49
	Titanium	36	100.0%	0	--	--	--	--	--	--	36	309	440	524.5	515.5	588.8	712
	Tungsten	36	25.0%	27	1	1	1	1.052	1.1	1.3	9	0.26	0.265	0.38	0.3978	0.525	0.6
	Uranium	36	100.0%	0	--	--	--	--	--	--	36	0.64	0.885	1.2	1.153	1.375	2.2
	Vanadium	36	100.0%	0	--	--	--	--	--	--	36	24.6	27.95	31.25	31.75	35.78	40.9
	Zinc	36	100.0%	0	--	--	--	--	--	--	36	25.5	33.75	37.85	39.6	42.38	68.2
	Zirconium	36	80.6%	7	20.6	20.6	20.8	21.33	22.2	22.5	29	10	13.45	15.9	15.7	17.6	20.5
Radionuclides (pCi/g)	Radium-226	28	100.0%	0	--	--	--	--	--	--	28	0.491	0.7813	0.984	0.9665	1.14	1.39
	Radium-228	28	100.0%	0	--	--	--	--	--	--	28	0.879	1.075	1.37	1.299	1.478	1.76
	Thorium-228	33	100.0%	0	--	--	--	--	--	--	33	0.944	1.26	1.38	1.379	1.495	1.71
	Thorium-230	33	100.0%	0	--	--	--	--	--	--	33	0.552	0.8305	1.02	1.032	1.135	1.85
	Thorium-232	33	100.0%	0	--	--	--	--	--	--	33	0.898	1.14	1.35	1.314	1.445	1.67
	Uranium-233/234	32	96.9%	1	1	--	1	1	--	1	31	0.641	0.87	1.1	1.109	1.23	2.1
	Uranium-235/236	32	56.3%	14	-0.000681	0.01208	0.0169	0.01896	0.02775	0.0425	18	0.0354	0.0388	0.0448	0.05168	0.05953	0.0961
	Uranium-238	32	93.8%	2	1	--	1	1	--	1	30	0.57	0.905	1.02	1.078	1.25	2.17

Notes:

mg/kg	milligrams per kilogram
Max	maximum concentration
Min	minimum concentration
pCi/g	picocuries per gram
Q1	1st quartile (25th percentile)
Q3	3rd quartile (75th percentile)

TABLE 7
DESCRIPTIVE SUMMARY STATISTICS FOR METALS AND RADIONUCLIDES IN 2008 DEEP BACKGROUND SOIL SAMPLES - Qal/MIXED
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Analyte Group	Analyte	Sample Size	Detection Frequency	Censored (Non-Detect) Data							Detected Data						
				ND Count	Min	Q1	Median	Mean	Q3	Max	Detect Count	Min	Q1	Median	Mean	Q3	Max
Metals (mg/kg)	Aluminum	24	100.0%	0	--	--	--	--	--	--	24	7060	8383	9375	9514	10480	12300
	Antimony	24	95.8%	1	1.1	--	1.1	1.1	--	1.1	23	0.12	0.15	0.16	0.1717	0.2	0.26
	Arsenic	24	100.0%	0	--	--	--	--	--	--	24	4.4	6.225	6.95	7.104	8.25	10
	Barium	24	100.0%	0	--	--	--	--	--	--	24	262	409.5	487.5	500.3	555	743
	Beryllium	24	100.0%	0	--	--	--	--	--	--	24	0.44	0.4925	0.56	0.5583	0.605	0.73
	Boron	24	12.5%	21	21	21.45	21.9	22.04	22.6	23.5	3	4	4	4.5	4.5	5	5
	Cadmium	24	91.7%	2	0.11	--	0.11	0.11	--	0.11	22	0.051	0.081	0.0995	0.09482	0.11	0.13
	Calcium	24	100.0%	0	--	--	--	--	--	--	24	0.43	16300	23100	22760	29950	40500
	Chromium (Total)	24	100.0%	0	--	--	--	--	--	--	24	1.1	12.95	15	14.19	16.23	18.3
	Chromium (VI)	14	14.3%	12	1	1.1	1.1	1.117	1.175	1.2	2	0.18	--	0.26	0.26	--	0.34
	Cobalt	24	100.0%	0	--	--	--	--	--	--	24	4.7	6.75	7.5	7.488	8	12.9
	Copper	24	100.0%	0	--	--	--	--	--	--	24	9.9	13.35	15.15	15.04	16.5	18.8
	Iron	24	100.0%	0	--	--	--	--	--	--	24	11900	14300	15400	15120	16400	17200
	Lead	24	100.0%	0	--	--	--	--	--	--	24	7.4	10.43	11.35	11.83	12.75	21.3
	Lithium	24	100.0%	0	--	--	--	--	--	--	24	13	18.45	20.85	21.42	23.13	33.4
	Magnesium	24	100.0%	0	--	--	--	--	--	--	24	5920	8623	9435	9386	10200	12800
	Manganese	24	100.0%	0	--	--	--	--	--	--	24	158	241	327.5	368.1	397	836
	Mercury	24	41.7%	14	0.0349	0.03558	0.03615	0.03641	0.0371	0.0392	10	0.0076	0.008275	0.0094	0.01166	0.01443	0.0254
	Molybdenum	24	100.0%	0	--	--	--	--	--	--	24	0.28	0.45	0.56	0.6125	0.685	1.8
	Nickel	24	100.0%	0	--	--	--	--	--	--	24	9.7	12.95	15.05	14.5	15.68	17.3
	Niobium	24	12.5%	21	5.2	5.4	5.5	5.514	5.65	5.9	3	2.8	2.8	2.9	3.1	3.6	3.6
	Palladium	24	100.0%	0	--	--	--	--	--	--	24	0.41	0.52	0.705	0.6929	0.8525	1.1
	Phosphorus	24	100.0%	0	--	--	--	--	--	--	24	594	881.3	920	929.5	1013	1200
	Platinum	24	0.0%	24	0.21	0.21	0.22	0.2196	0.22	0.24	0	--	--	--	--	--	--
	Potassium	24	100.0%	0	--	--	--	--	--	--	24	1220	1613	1960	2038	2400	3440
	Selenium	24	0.0%	24	1.1	1.1	1.1	1.117	1.1	1.2	0	--	--	--	--	--	--
	Silicon	24	100.0%	0	--	--	--	--	--	--	24	109	166	192.5	212.5	237	516
	Silver	24	100.0%	0	--	--	--	--	--	--	24	0.077	0.0925	0.11	0.135	0.15	0.35
	Sodium	24	100.0%	0	--	--	--	--	--	--	24	235	278.5	319	336.9	390	537
	Strontium	24	100.0%	0	--	--	--	--	--	--	24	153	174.8	219	229.6	270.5	362
	Thallium	24	0.0%	24	0.42	0.43	0.44	0.4388	0.4475	0.47	0	--	--	--	--	--	--
	Tin	24	62.5%	9	0.42	0.425	0.43	0.4344	0.445	0.46	15	0.43	0.45	0.49	0.502	0.53	0.6
	Titanium	24	100.0%	0	--	--	--	--	--	--	24	323	462	499.5	495	546.5	638
	Tungsten	24	62.5%	9	1.1	1.1	1.1	1.111	1.1	1.2	15	0.24	0.26	0.33	0.3953	0.55	0.76
	Uranium	24	100.0%	0	--	--	--	--	--	--	24	0.75	0.9725	1.1	1.099	1.175	1.6
	Vanadium	24	100.0%	0	--	--	--	--	--	--	24	29.4	36.3	39.45	39.21	42.35	44.9
	Zinc	24	100.0%	0	--	--	--	--	--	--	24	26.8	30.73	33.25	33.44	36.08	46.4
	Zirconium	24	62.5%	9	21.2	21.45	21.9	21.87	22.15	22.7	15	7.7	12.1	15.2	14.29	16.7	17.7
Radionuclides (pCi/g)	Radium-226	14	100.0%	0	--	--	--	--	--	--	14	0.394	0.9075	0.9795	1.013	1.245	1.32
	Radium-228	14	92.9%	1	0.452	--	0.452	0.452	--	0.452	13	1.11	1.205	1.39	1.378	1.495	1.79
	Thorium-228	23	100.0%	0	--	--	--	--	--	--	23	1.07	1.39	1.59	1.57	1.7	1.91
	Thorium-230	23	100.0%	0	--	--	--	--	--	--	23	0.602	0.923	1.09	1.073	1.17	1.49
	Thorium-232	23	100.0%	0	--	--	--	--	--	--	23	1.12	1.31	1.51	1.513	1.66	1.89
	Uranium-233/234	11	63.6%	4	1	1	1	1	1	1	7	0.977	1.01	1.14	1.132	1.26	1.32
	Uranium-235/236	11	90.9%	1	0.0235	--	0.0235	0.0235	--	0.0235	10	0.0291	0.03068	0.04285	0.04247	0.05093	0.0624
	Uranium-238	11	63.6%	4	1	1	1	1	1	1	7	0.897	1.02	1.05	1.054	1.12	1.16

Notes:

mg/kg	milligrams per kilogram
Max	maximum concentration
Min	minimum concentration
pCi/g	picocuries per gram
Q1	1st quartile (25th percentile)
Q3	3rd quartile (75th percentile)

TABLE 8
DESCRIPTIVE SUMMARY STATISTICS FOR METALS AND RADIONUCLIDES IN 2008 DEEP BACKGROUND SOIL SAMPLES - TMC
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Analyte Group	Analyte	Sample Size	Detection Frequency	Censored (Non-Detect) Data							Detected Data						
				ND Count	Min	Q1	Median	Mean	Q3	Max	Detect Count	Min	Q1	Median	Mean	Q3	Max
Metals (mg/kg)	Aluminum	24	100.0%	0	--	--	--	--	--	--	24	3190	7098	9335	9847	13400	19700
	Antimony	24	95.8%	1	1.1	--	1.1	1.1	--	1.1	23	0.066	0.14	0.16	0.175	0.19	0.34
	Arsenic	24	100.0%	0	--	--	--	--	--	--	24	2.1	4.9	7.7	8.804	11.53	24.8
	Barium	24	100.0%	0	--	--	--	--	--	--	24	64.5	141.3	203	263.9	385.8	620
	Beryllium	24	100.0%	0	--	--	--	--	--	--	24	0.17	0.355	0.59	0.5571	0.6925	1.1
	Boron	24	29.2%	17	11	16.3	22.8	20.84	24.2	29.8	7	4.4	6	21.5	16.1	22.5	22.9
	Cadmium	24	75.0%	6	0.055	0.05575	0.0565	0.05717	0.05925	0.06	18	0.06	0.08325	0.11	0.1092	0.1225	0.2
	Calcium	24	100.0%	0	--	--	--	--	--	--	24	4190	14600	22150	22610	31930	38600
	Chromium (Total)	24	100.0%	0	--	--	--	--	--	--	24	2.9	5.7	13.2	13.17	17.65	27.9
	Chromium (VI)	23	8.7%	21	1	1	1.1	1.119	1.2	1.3	2	0.18	--	0.185	0.185	--	0.19
	Cobalt	24	100.0%	0	--	--	--	--	--	--	24	1.6	2.6	6.45	5.8	8.325	9.7
	Copper	24	100.0%	0	--	--	--	--	--	--	24	4.1	5.85	13.75	12.24	15.95	21.3
	Iron	24	100.0%	0	--	--	--	--	--	--	24	3620	6935	12800	12550	17430	20100
	Lead	24	100.0%	0	--	--	--	--	--	--	24	4.4	8.625	11.3	10.8	13.08	16.1
	Lithium	24	100.0%	0	--	--	--	--	--	--	24	18.3	23.3	32.3	52.57	47.13	189
	Magnesium	24	100.0%	0	--	--	--	--	--	--	24	2780	7153	10250	11300	13580	31000
	Manganese	24	100.0%	0	--	--	--	--	--	--	24	126	167.3	295	306.8	377.5	786
	Mercury	20	25.0%	15	0.0357	0.0368	0.0379	0.03841	0.0397	0.0426	5	0.008	0.00825	0.0101	0.01	0.0117	0.012
	Molybdenum	24	95.8%	1	1.1	--	1.1	1.1	--	1.1	23	0.12	0.32	0.51	0.523	0.65	1.1
	Nickel	24	100.0%	0	--	--	--	--	--	--	24	4.5	7.05	14.35	13.67	16.18	30.9
	Niobium	24	4.2%	23	2.8	2.9	5.6	5	6	7.5	1	4	--	4	4	--	4
	Palladium	24	100.0%	0	--	--	--	--	--	--	24	0.16	0.3025	0.615	0.55	0.74	1
	Phosphorus	24	100.0%	0	--	--	--	--	--	--	24	299	561.5	843	794.2	1028	1370
	Platinum	24	8.3%	22	0.11	0.1175	0.23	0.2	0.24	0.3	2	0.027	--	0.03	0.03	--	0.033
	Potassium	24	100.0%	0	--	--	--	--	--	--	24	1030	2173	2820	3070	3578	6190
	Selenium	24	0.0%	24	0.55	0.5925	1.1	1.012	1.2	1.5	0	--	--	--	--	--	--
	Silicon	24	100.0%	0	--	--	--	--	--	--	24	188	222.3	303.5	372.9	451.8	1000
	Silver	24	100.0%	0	--	--	--	--	--	--	24	0.051	0.0805	0.14	0.2097	0.275	0.82
	Sodium	24	100.0%	0	--	--	--	--	--	--	24	259	366.8	460	610.1	882.5	1200
	Strontium	24	100.0%	0	--	--	--	--	--	--	24	68.5	172	223.5	206.5	249.8	324
	Thallium	24	0.0%	24	0.22	0.24	0.45	0.405	0.4875	0.6	0	--	--	--	--	--	--
	Tin	24	83.3%	4	0.22	0.22	0.22	0.2725	0.3775	0.43	20	0.24	0.345	0.6	0.557	0.7275	0.96
	Titanium	24	100.0%	0	--	--	--	--	--	--	24	175	262	564.5	502.8	611.8	1000
	Tungsten	24	20.8%	19	0.55	0.57	1.1	0.9679	1.2	1.5	5	0.26	0.265	0.33	0.38	0.52	0.58
	Uranium	24	100.0%	0	--	--	--	--	--	--	24	0.31	0.7925	1.15	1.269	1.575	4.4
	Vanadium	24	100.0%	0	--	--	--	--	--	--	24	10	13.58	33.4	30.61	41.85	45.8
	Zinc	24	100.0%	0	--	--	--	--	--	--	24	16.1	21.95	33.7	33.67	40.18	61.3
	Zirconium	24	100.0%	0	--	--	--	--	--	--	24	6.2	14.8	17.95	19.72	25.08	36.7
Radionuclides (pCi/g)	Radium-226	18	77.8%	4	1	1	1	1	1	1	14	0.754	0.872	1.025	1.051	1.123	1.63
	Radium-228	18	94.4%	1	1.03	--	1.03	1.03	--	1.03	17	0.989	1.1	1.26	1.263	1.375	1.55
	Thorium-228	24	100.0%	0	--	--	--	--	--	--	24	1.01	1.178	1.335	1.375	1.51	2.15
	Thorium-230	24	100.0%	0	--	--	--	--	--	--	24	0.495	0.8463	0.9785	1.019	1.148	2.09
	Thorium-232	24	100.0%	0	--	--	--	--	--	--	24	0.966	1.193	1.3	1.337	1.468	2.05
	Uranium-233/234	22	54.5%	10	1	1	1	1	1	1	12	0.626	1.033	1.145	1.181	1.335	1.81
	Uranium-235/236	22	68.2%	7	0.0112	0.0125	0.0188	0.0182	0.022	0.0286	15	0.0285	0.0388	0.048	0.05293	0.0635	0.101
	Uranium-238	22	50.0%	11	1	1	1	1	1	1	11	0.839	1.01	1.15	1.186	1.38	1.75

Notes:

mg/kg	milligrams per kilogram
Max	maximum concentration
Min	minimum concentration
pCi/g	picocuries per gram
Q1	1st quartile (25th percentile)
Q3	3rd quartile (75th percentile)

TABLE 9
DESCRIPTIVE SUMMARY STATISTICS FOR METALS AND RADIONUCLIDES IN 2008 SUPPLEMENTAL SHALLOW BACKGROUND SOIL SAMPLES - Qal/RIVER - 0 FEET BGS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Analyte Group	Analyte	Sample Size	Detection Frequency	Censored (Non-Detect) Data							Detected Data						
				ND Count	Min	Q1	Median	Mean	Q3	Max	Detect Count	Min	Q1	Median	Mean	Q3	Max
Metals (mg/kg)	Aluminum	12	100.0%	0	--	--	--	--	--	--	12	6630	8500	10600	10920	13200	15500
	Antimony	12	41.7%	7	1	1	1	1.014	1	1.1	5	0.24	0.27	0.33	0.378	0.51	0.61
	Arsenic	12	100.0%	0	--	--	--	--	--	--	12	4.5	6	6.95	7.217	8.525	10.5
	Barium	12	100.0%	0	--	--	--	--	--	--	12	282	310	404	440.3	543.3	710
	Beryllium	12	100.0%	0	--	--	--	--	--	--	12	0.35	0.3775	0.415	0.4917	0.6475	0.78
	Boron	12	33.3%	8	20.5	20.5	20.6	20.64	20.78	20.9	4	9.7	9.9	11.05	12.88	17.68	19.7
	Cadmium	12	58.3%	5	0.1	0.1	0.1	0.102	0.105	0.11	7	0.079	0.092	0.13	0.1444	0.17	0.26
	Calcium	12	100.0%	0	--	--	--	--	--	--	12	20700	23230	25650	29520	32230	51400
	Chromium (Total)	12	100.0%	0	--	--	--	--	--	--	12	3.2	7.7	10.65	12.22	16.75	23.6
	Chromium (VI)	12	0.0%	12	1	1	1	1.067	1.1	1.3	0	--	--	--	--	--	--
	Cobalt	12	100.0%	0	--	--	--	--	--	--	12	4.1	4.325	5.1	5.683	7.05	8.9
	Copper	12	100.0%	0	--	--	--	--	--	--	12	8.6	10	12.85	15.68	18	36.2
	Iron	12	100.0%	0	--	--	--	--	--	--	12	6630	7835	9685	11640	15480	21700
	Lead	12	100.0%	0	--	--	--	--	--	--	12	9	10.6	15.05	19.93	22.85	53
	Lithium	12	0.0%	12	25.6	25.8	38.7	51.66	89.48	105	0	--	--	--	--	--	--
	Magnesium	12	100.0%	0	--	--	--	--	--	--	12	5470	7548	8290	8839	10250	13300
	Manganese	12	100.0%	0	--	--	--	--	--	--	12	199	302	359.5	541.8	592.8	2070
	Mercury	12	0.0%	12	0.0341	0.03423	0.0344	0.03444	0.03468	0.0349	0	--	--	--	--	--	--
	Molybdenum	12	100.0%	0	--	--	--	--	--	--	12	0.28	0.415	0.6	0.7717	0.8475	2.3
	Nickel	12	100.0%	0	--	--	--	--	--	--	12	9.8	11.18	13.95	14.21	16.95	22
	Niobium	12	8.3%	11	5.1	5.1	5.2	5.173	5.2	5.2	1	4.6	--	4.6	4.6	--	4.6
	Palladium	12	100.0%	0	--	--	--	--	--	--	12	0.45	0.5475	0.645	0.6483	0.75	0.87
	Phosphorus	12	100.0%	0	--	--	--	--	--	--	12	461	696.3	785	872.9	1026	1710
	Platinum	12	0.0%	12	0.21	0.21	0.21	0.21	0.21	0.21	0	--	--	--	--	--	--
	Potassium	12	100.0%	0	--	--	--	--	--	--	12	1370	2750	5475	5155	6860	9000
	Selenium	12	0.0%	12	1	1	1	1.008	1	1.1	0	--	--	--	--	--	--
	Silicon	12	100.0%	0	--	--	--	--	--	--	12	461	964	1460	2062	2715	7480
	Silver	12	50.0%	6	1	1	1	1.017	1.025	1.1	6	0.071	0.08	0.135	0.1257	0.1625	0.17
	Sodium	12	100.0%	0	--	--	--	--	--	--	12	274	547.5	804.5	1152	1535	4210
	Strontium	12	100.0%	0	--	--	--	--	--	--	12	183	252.8	328	315.5	385.3	430
	Thallium	12	41.7%	7	0.41	0.41	0.41	0.4129	0.42	0.42	5	0.43	0.435	0.45	0.758	1.235	2
	Tin	12	58.3%	5	0.41	0.41	0.41	0.414	0.42	0.42	7	0.36	0.42	0.57	0.5829	0.64	1
	Titanium	12	100.0%	0	--	--	--	--	--	--	12	247	293.3	390	412.5	533	611
	Tungsten	12	8.3%	11	1	1	1	1.009	1	1.1	1	0.96	--	0.96	0.96	--	0.96
	Uranium	12	100.0%	0	--	--	--	--	--	--	12	0.65	0.7075	0.845	0.8917	1.135	1.2
	Vanadium	12	100.0%	0	--	--	--	--	--	--	12	19	25.45	31.6	30.38	34.88	39.8
	Zinc	12	100.0%	0	--	--	--	--	--	--	12	25	27.53	38.55	40.63	51.53	70.5
	Zirconium	12	41.7%	7	20.5	20.5	20.6	20.64	20.8	20.9	5	10.7	11.45	12.7	13.18	15.15	16.8
Radionuclides (pCi/g)	Radium-226	11	100.0%	0	--	--	--	--	--	--	11	0.574	0.725	0.807	0.8639	0.952	1.3
	Radium-228	11	81.8%	2	0.751	--	0.8265	0.8265	--	0.902	9	1.08	1.195	1.44	1.59	2.01	2.3
	Thorium-228	11	100.0%	0	--	--	--	--	--	--	11	1.1	1.29	1.58	1.757	2.31	2.56
	Thorium-230	11	81.8%	2	1	--	1	1	--	1	9	1.02	1.135	1.34	1.354	1.47	1.98
	Thorium-232	11	100.0%	0	--	--	--	--	--	--	11	1.35	1.36	1.5	1.557	1.76	1.85
	Uranium-233/234	11	100.0%	0	--	--	--	--	--	--	11	0.7	0.801	0.865	0.9454	0.885	1.82
	Uranium-235/236	11	18.2%	9	0.0249	0.03825	0.06	0.05942	0.07	0.113	2	0.117	--	0.1175	0.1175	--	0.118
	Uranium-238	11	100.0%	0	--	--	--	--	--	--	11	0.564	0.74	0.773	0.8184	0.881	1.1

Notes:

mg/kg	milligrams per kilogram
Max	maximum concentration
Min	minimum concentration
pCi/g	picocuries per gram
Q1	1st quartile (25th percentile)
Q3	3rd quartile (75th percentile)

TABLE 10
DESCRIPTIVE SUMMARY STATISTICS FOR METALS AND RADIONUCLIDES IN 2008 SUPPLEMENTAL SHALLOW BACKGROUND SOIL SAMPLES - Qal/RIVER - 10 FEET BGS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

Analyte Group	Analyte	Sample Size	Detection Frequency	Censored (Non-Detect) Data							Detected Data						
				ND Count	Min	Q1	Median	Mean	Q3	Max	Detect Count	Min	Q1	Median	Mean	Q3	Max
Metals (mg/kg)	Aluminum	10	100.0%	0	--	--	--	--	--	--	10	5330	5773	7905	8788	12730	13900
	Antimony	10	40.0%	6	1	1	1	1.067	1.1	1.4	4	0.27	0.2725	0.29	0.3175	0.39	0.42
	Arsenic	10	100.0%	0	--	--	--	--	--	--	10	4.8	7.775	9.25	10.51	10.23	27.6
	Barium	10	100.0%	0	--	--	--	--	--	--	10	211	237.5	291	409.2	616.5	755
	Beryllium	10	100.0%	0	--	--	--	--	--	--	10	0.28	0.2975	0.355	0.409	0.535	0.67
	Boron	10	60.0%	4	20.7	20.73	20.8	20.8	20.88	20.9	6	7.1	7.25	9.1	17.2	24.45	57
	Cadmium	10	80.0%	2	0.1	--	0.1	0.1	--	0.1	8	0.069	0.07525	0.1015	0.1084	0.1275	0.19
	Calcium	10	100.0%	0	--	--	--	--	--	--	10	3760	18800	30250	31180	39850	71300
	Chromium (Total)	10	100.0%	0	--	--	--	--	--	--	10	5.4	6.875	12.15	11.19	13.68	19.8
	Chromium (VI)	10	0.0%	10	1	1	1.05	1.11	1.2	1.4	0	--	--	--	--	--	--
	Cobalt	10	100.0%	0	--	--	--	--	--	--	10	3.7	3.875	4.6	4.71	5.625	6.2
	Copper	10	100.0%	0	--	--	--	--	--	--	10	8	8.275	10.15	11.03	13.28	16.4
	Iron	10	100.0%	0	--	--	--	--	--	--	10	6210	7118	9595	9702	11850	14100
	Lead	10	100.0%	0	--	--	--	--	--	--	10	7.7	8.35	11.7	12.67	15.48	23.7
	Lithium	10	40.0%	6	103	103	104.5	109.8	114	138	4	31.2	31.43	32.95	32.75	33.88	33.9
	Magnesium	10	100.0%	0	--	--	--	--	--	--	10	1550	5705	7165	7308	8855	11900
	Manganese	10	100.0%	0	--	--	--	--	--	--	10	178	215.3	273.5	377.4	380	1320
	Mercury	10	0.0%	10	0.0345	0.0345	0.03465	0.03581	0.035	0.0458	0	--	--	--	--	--	--
	Molybdenum	10	100.0%	0	--	--	--	--	--	--	10	0.4	0.46	0.8	0.838	1.15	1.4
	Nickel	10	100.0%	0	--	--	--	--	--	--	10	10.7	11.4	12.3	12.69	13.5	16.9
	Niobium	10	0.0%	10	5.2	5.2	5.2	5.38	5.225	6.9	0	--	--	--	--	--	--
	Palladium	10	100.0%	0	--	--	--	--	--	--	10	0.35	0.475	0.805	0.841	1.085	1.6
	Phosphorus	10	100.0%	0	--	--	--	--	--	--	10	442	578.5	738	814.2	1025	1320
	Platinum	10	0.0%	10	0.21	0.21	0.21	0.217	0.21	0.28	0	--	--	--	--	--	--
	Potassium	10	100.0%	0	--	--	--	--	--	--	10	1090	1690	2485	2383	2890	4150
	Selenium	10	0.0%	10	1	1	1	1.06	1.1	1.4	0	--	--	--	--	--	--
	Silicon	10	100.0%	0	--	--	--	--	--	--	10	479	691.8	1105	1074	1428	1670
	Silver	10	40.0%	6	1	1	1	1.067	1.1	1.4	4	0.054	0.05725	0.072	0.07425	0.0935	0.099
	Sodium	10	100.0%	0	--	--	--	--	--	--	10	853	1333	1990	2070	3013	3310
	Strontium	10	100.0%	0	--	--	--	--	--	--	10	172	239.5	413	417.4	531.3	761
	Thallium	10	0.0%	10	0.41	0.41	0.42	0.429	0.42	0.55	0	--	--	--	--	--	--
	Tin	10	50.0%	5	0.41	0.41	0.42	0.416	0.42	0.42	5	0.32	0.325	0.36	0.424	0.555	0.6
	Titanium	10	100.0%	0	--	--	--	--	--	--	10	215	268.5	377.5	395.9	531.8	539
	Tungsten	10	10.0%	9	1	1	1	1.067	1.1	1.4	1	1	--	1	1	--	1
	Uranium	10	100.0%	0	--	--	--	--	--	--	10	0.61	0.7425	1.55	1.656	1.975	4.3
	Vanadium	10	100.0%	0	--	--	--	--	--	--	10	21.9	25.53	32.05	33.48	37.7	55.3
	Zinc	10	100.0%	0	--	--	--	--	--	--	10	31.1	31.58	37.55	37.77	43.13	44.7
	Zirconium	10	40.0%	6	20.7	20.7	20.8	21.9	22.55	27.5	4	9.2	9.575	11.1	10.93	12.1	12.3
Radionuclides (pCi/g)	Radium-226	10	90.0%	1	0.153	--	0.153	0.153	--	0.153	9	0.753	1.103	1.41	1.529	1.95	2.75
	Radium-228	10	80.0%	2	0.947	--	0.964	0.964	--	0.981	8	1.05	1.255	1.35	1.469	1.83	2.1
	Thorium-228	10	100.0%	0	--	--	--	--	--	--	10	1.29	1.313	1.65	1.869	2.228	3.37
	Thorium-230	10	100.0%	0	--	--	--	--	--	--	10	1.12	1.503	1.975	1.974	2.153	3.64
	Thorium-232	10	100.0%	0	--	--	--	--	--	--	10	1.15	1.258	1.415	1.593	1.798	2.8
	Uranium-233/234	10	100.0%	0	--	--	--	--	--	--	10	0.985	1.378	1.915	2.077	2.405	4.78
	Uranium-235/236	10	50.0%	5	0.0734	0.0755	0.0781	0.1029	0.1426	0.189	5	0.088	0.1365	0.185	0.1718	0.2005	0.21
	Uranium-238	10	100.0%	0	--	--	--	--	--	--	10	0.545	1.086	1.43	1.702	2.115	4.01

Notes:

mg/kg milligrams per kilogram
Max maximum concentration
Min minimum concentration
pCi/g picocuries per gram
Q1 1st quartile (25th percentile)
Q3 3rd quartile (75th percentile)

TABLE 11
DESCRIPTIVE SUMMARY STATISTICS FOR METALS AND RADIONUCLIDES IN 2005 BRC/TIMET SHALLOW BACKGROUND SOIL SAMPLES - Qal/McCULLOUGH - 0 FEET BGS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

Analyte Group	Analyte	Sample Size	Detection Frequency	Censored (Non-Detect) Data							Detected Data						
				ND Count	Min	Q1	Median	Mean	Q3	Max	Detect Count	Min	Q1	Median	Mean	Q3	Max
Metals (mg/kg)	Aluminum	37	100.0%	0	--	--	--	--	--	--	37	6340	7370	10400	10040	12300	13900
	Antimony	37	62.2%	14	1	1	1	1	1	1	23	0.12	0.2	0.25	0.2765	0.36	0.5
	Arsenic	37	100.0%	0	--	--	--	--	--	--	37	2.1	2.95	3.7	4.141	5.35	7.2
	Barium	37	100.0%	0	--	--	--	--	--	--	37	90.4	143.5	171	180.4	215	445
	Beryllium	37	100.0%	0	--	--	--	--	--	--	37	0.16	0.445	0.66	0.6184	0.79	0.89
	Boron	34	47.1%	18	5	5	5.1	5.072	5.1	5.1	16	5.2	5.725	6.1	6.963	8.1	11.6
	Cadmium	37	8.1%	34	0.5	0.5	0.51	0.5071	0.51	0.51	3	0.11	0.11	0.13	0.1333	0.16	0.16
	Calcium	34	100.0%	0	--	--	--	--	--	--	34	11200	16400	19850	22180	26880	43200
	Chromium (Total)	37	100.0%	0	--	--	--	--	--	--	37	3.6	7.85	11.1	10.62	13.4	16.7
	Chromium (VI)	34	0.0%	34	0.4	0.4	0.4	0.4032	0.41	0.41	0	--	--	--	--	--	--
	Cobalt	37	100.0%	0	--	--	--	--	--	--	37	5.7	7.8	9.3	9.046	9.7	14.6
	Copper	37	100.0%	0	--	--	--	--	--	--	37	12.1	16.85	18.7	18.62	20.15	25.9
	Iron	37	100.0%	0	--	--	--	--	--	--	37	9030	12650	14600	14540	16650	19700
	Lead	37	100.0%	0	--	--	--	--	--	--	37	6	8.6	10.5	11.74	12.2	35.1
	Lithium	34	100.0%	0	--	--	--	--	--	--	34	7.5	9.925	12.15	13.84	18.05	23.9
	Magnesium	37	100.0%	0	--	--	--	--	--	--	37	7380	8925	10200	10880	12600	17500
	Manganese	37	100.0%	0	--	--	--	--	--	--	37	263	405.5	455	460.2	508.5	747
	Mercury	37	89.2%	4	0.034	0.034	0.034	0.034	0.034	0.034	33	0.0091	0.0155	0.022	0.02467	0.0325	0.082
	Molybdenum	37	100.0%	0	--	--	--	--	--	--	37	0.3	0.37	0.46	0.5211	0.67	0.9
	Nickel	37	100.0%	0	--	--	--	--	--	--	37	10.9	15.5	17.1	17.56	18.9	30
	Niobium	34	0.0%	34	10.1	10.1	10.1	10.12	10.1	10.2	0	--	--	--	--	--	--
	Palladium	34	100.0%	0	--	--	--	--	--	--	34	0.21	0.26	0.3	0.3682	0.3875	1.5
	Phosphorus	34	100.0%	0	--	--	--	--	--	--	34	1220	1340	1535	1539	1713	1990
	Platinum	34	2.9%	33	0.1	0.1	0.1	0.1	0.1	0.1	1	0.082	--	0.082	0.082	--	0.082
	Potassium	34	100.0%	0	--	--	--	--	--	--	34	1240	1610	1880	2280	3013	3890
	Selenium	37	59.5%	15	0.5	0.5	0.51	0.5073	0.51	0.51	22	0.17	0.2675	0.315	0.3214	0.3625	0.6
	Silicon	34	100.0%	0	--	--	--	--	--	--	34	335	570.3	1035	1447	2558	4150
	Silver	37	8.1%	34	1	1	1	1	1	1	3	0.044	0.044	0.057	0.06133	0.083	0.083
	Sodium	34	100.0%	0	--	--	--	--	--	--	34	128	149.8	169.5	258.9	342	693
	Strontium	34	100.0%	0	--	--	--	--	--	--	34	97.7	124.3	144.5	174.4	176.8	808
	Thallium	37	35.1%	24	1	1	1	1	1	1	13	0.13	0.71	1.2	1.104	1.5	1.7
	Tin	34	100.0%	0	--	--	--	--	--	--	34	0.38	0.5175	0.56	0.5712	0.63	0.8
	Titanium	37	100.0%	0	--	--	--	--	--	--	37	371	475	558	580.6	666	936
	Tungsten	34	0.0%	34	2.5	2.5	2.5	2.503	2.5	2.6	0	--	--	--	--	--	--
	Uranium	34	100.0%	0	--	--	--	--	--	--	34	0.62	0.8175	0.925	0.9471	1.025	1.8
	Vanadium	37	100.0%	0	--	--	--	--	--	--	37	23.6	33.7	36.1	38.32	43.9	57.3
	Zinc	37	100.0%	0	--	--	--	--	--	--	37	29.3	38.1	43.1	45.89	51.2	121
	Zirconium	34	100.0%	0	--	--	--	--	--	--	34	99.3	117.8	125	130.7	142	176
Radionuclides (pCi/g)	Radium-226	34	94.1%	2	0.977	--	0.988	0.988	--	0.999	32	0.494	0.8818	1.025	1.029	1.175	1.58
	Radium-228	29	75.9%	7	1.11	1.34	1.78	1.614	1.86	1.93	22	1.28	1.813	2	1.989	2.213	2.66
	Thorium-228	37	100.0%	0	--	--	--	--	--	--	37	1.15	1.665	1.83	1.801	1.955	2.28
	Thorium-230	37	100.0%	0	--	--	--	--	--	--	37	0.73	0.93	1.16	1.13	1.255	1.7
	Thorium-232	37	100.0%	0	--	--	--	--	--	--	37	1.32	1.535	1.77	1.743	1.895	2.23
	Uranium-233/234	37	32.4%	25	0.63	0.805	0.88	0.8928	1	1.16	12	0.7	0.9075	0.995	1.02	1.198	1.23
	Uranium-235/236	37	40.5%	22	0.011	0.035	0.054	0.05623	0.07475	0.11	15	0.042	0.054	0.076	0.08013	0.101	0.13
	Uranium-238	37	100.0%	0	--	--	--	--	--	--	37	0.65	0.82	0.92	0.9422	1.055	1.38

Notes:

mg/kg	milligrams per kilogram
Max	maximum concentration
Min	minimum concentration
pCi/g	picocuries per gram
Q1	1st quartile (25th percentile)
Q3	3rd quartile (75th percentile)

TABLE 12
DESCRIPTIVE SUMMARY STATISTICS FOR METALS AND RADIONUCLIDES IN 2005 BRC/TIMET SHALLOW BACKGROUND SOIL SAMPLES - Qal/McCULLOUGH - 10 FEET BGS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Analyte Group	Analyte	Sample Size	Detection Frequency	Censored (Non-Detect) Data							Detected Data						
				ND Count	Min	Q1	Median	Mean	Q3	Max	Detect Count	Min	Q1	Median	Mean	Q3	Max
Metals (mg/kg)	Aluminum	30	100.0%	0	--	--	--	--	--	--	30	3740	6503	8345	8413	10430	13300
	Antimony	30	33.3%	20	1	1	1	1.02	1	1.1	10	0.12	0.135	0.155	0.2	0.26	0.41
	Arsenic	30	100.0%	0	--	--	--	--	--	--	30	3.1	3.675	4.15	4.367	5.025	6.7
	Barium	30	100.0%	0	--	--	--	--	--	--	30	82.5	135.8	167.5	169.9	192.5	340
	Beryllium	30	100.0%	0	--	--	--	--	--	--	30	0.29	0.4375	0.51	0.556	0.64	0.89
	Boron	30	26.7%	22	5.1	5.1	5.2	5.186	5.2	5.3	8	5.5	5.9	7.4	7.45	8.575	10.2
	Cadmium	30	0.0%	30	0.51	0.51	0.52	0.5187	0.52	0.53	0	--	--	--	--	--	--
	Calcium	30	100.0%	0	--	--	--	--	--	--	30	17900	21130	32150	34600	45580	70200
	Chromium (Total)	30	100.0%	0	--	--	--	--	--	--	30	2.6	6.15	8.2	8.093	9.525	14.1
	Chromium (VI)	30	0.0%	30	0.41	0.41	0.41	0.4147	0.42	0.43	0	--	--	--	--	--	--
	Cobalt	30	100.0%	0	--	--	--	--	--	--	30	3.7	6.55	8.95	8.547	10.2	16.3
	Copper	30	100.0%	0	--	--	--	--	--	--	30	10.2	14.6	17	17.06	19.83	23.9
	Iron	30	100.0%	0	--	--	--	--	--	--	30	5410	9075	12600	12050	14750	19100
	Lead	30	100.0%	0	--	--	--	--	--	--	30	3	5.2	6	5.88	6.7	7.8
	Lithium	30	100.0%	0	--	--	--	--	--	--	30	9.9	11.8	13.85	15.54	18.35	26.5
	Magnesium	30	100.0%	0	--	--	--	--	--	--	30	5530	8795	11050	10680	12780	16900
	Manganese	30	100.0%	0	--	--	--	--	--	--	30	151	289.3	394	381.5	462.8	641
	Mercury	30	73.3%	8	0.034	0.034	0.034	0.03438	0.035	0.035	22	0.0092	0.011	0.0135	0.02323	0.02125	0.11
	Molybdenum	30	100.0%	0	--	--	--	--	--	--	30	0.33	0.4275	0.515	0.5657	0.6025	1.9
	Nickel	30	100.0%	0	--	--	--	--	--	--	30	7.9	11.65	15.2	15.21	18.28	22.1
	Niobium	30	0.0%	30	10.2	10.3	10.4	10.37	10.43	10.7	0	--	--	--	--	--	--
	Palladium	30	100.0%	0	--	--	--	--	--	--	30	0.25	0.3975	0.585	0.6307	0.845	1.2
	Phosphorus	30	100.0%	0	--	--	--	--	--	--	30	862	1113	1430	1411	1653	1960
	Platinum	30	6.7%	28	0.1	0.1	0.1	0.1018	0.1	0.11	2	0.064	--	0.064	0.064	--	0.064
	Potassium	30	100.0%	0	--	--	--	--	--	--	30	625	913	1220	1282	1428	2270
	Selenium	30	16.7%	25	0.51	0.51	0.52	0.5184	0.52	0.53	5	0.26	0.265	0.27	0.28	0.3	0.31
	Silicon	30	100.0%	0	--	--	--	--	--	--	30	423	547.8	665.5	765.6	951.5	1380
	Silver	30	0.0%	30	1	1	1	1.02	1	1.1	0	--	--	--	--	--	--
	Sodium	30	100.0%	0	--	--	--	--	--	--	30	196	517	646	659.4	805.3	1190
	Strontium	30	100.0%	0	--	--	--	--	--	--	30	114	195.8	272	312.8	408.8	684
	Thallium	30	23.3%	23	1	1	1	1.009	1	1.1	7	1.1	1.2	1.2	1.329	1.5	1.6
	Tin	30	100.0%	0	--	--	--	--	--	--	30	0.24	0.3775	0.42	0.4363	0.5125	0.63
	Titanium	30	100.0%	0	--	--	--	--	--	--	30	262	415.5	503.5	521.2	617.3	858
	Tungsten	30	0.0%	30	2.5	2.6	2.6	2.6	2.6	2.7	0	--	--	--	--	--	--
	Uranium	30	100.0%	0	--	--	--	--	--	--	30	0.68	0.915	1.1	1.176	1.3	2.7
	Vanadium	30	100.0%	0	--	--	--	--	--	--	30	20.2	33.78	39.15	39.58	46.43	57.5
	Zinc	30	100.0%	0	--	--	--	--	--	--	30	15.4	24	34.55	32.79	40.08	51.7
	Zirconium	30	100.0%	0	--	--	--	--	--	--	30	86.1	103	124.5	126.7	149.5	177
Radionuclides (pCi/g)	Radium-226	30	93.3%	2	0.939	--	0.9585	0.9585	--	0.978	28	0.507	1.04	1.275	1.352	1.688	2.36
	Radium-228	25	84.0%	4	0.946	1.097	1.615	1.522	1.853	1.91	21	1.34	1.745	2.04	2.017	2.175	2.92
	Thorium-228	30	100.0%	0	--	--	--	--	--	--	30	1.16	1.38	1.53	1.606	1.845	2.13
	Thorium-230	30	100.0%	0	--	--	--	--	--	--	30	0.81	1.145	1.555	1.544	1.72	3.01
	Thorium-232	30	100.0%	0	--	--	--	--	--	--	30	1.23	1.363	1.52	1.584	1.805	2.1
	Uranium-233/234	30	70.0%	9	0.85	0.905	1.03	1.01	1.115	1.17	21	1.13	1.28	1.84	1.785	2.005	2.84
	Uranium-235/236	30	53.3%	14	0.001	0.0385	0.055	0.05507	0.07625	0.102	16	0.037	0.087	0.1	0.1108	0.1375	0.21
	Uranium-238	30	100.0%	0	--	--	--	--	--	--	30	0.85	1.068	1.385	1.455	1.778	2.37

Notes:

mg/kg	milligrams per kilogram
Max	maximum concentration
Min	minimum concentration
pCi/g	picocuries per gram
Q1	1st quartile (25th percentile)
Q3	3rd quartile (75th percentile)

TABLE 13
DESCRIPTIVE SUMMARY STATISTICS FOR METALS AND RADIONUCLIDES IN 2005 BRC/TIMET SHALLOW BACKGROUND SOIL SAMPLES - Qal/MIXED - 0 FEET BGS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Analyte Group	Analyte	Sample Size	Detection Frequency	Censored (Non-Detect) Data							Detected Data						
				ND Count	Min	Q1	Median	Mean	Q3	Max	Detect Count	Min	Q1	Median	Mean	Q3	Max
Metals (mg/kg)	Aluminum	4	100.0%	0	--	--	--	--	--	--	4	5530	5708	6270	7168	9525	10600
	Antimony	4	75.0%	1	1	--	1	1	--	1	3	0.2	0.2	0.22	0.2867	0.44	0.44
	Arsenic	4	100.0%	0	--	--	--	--	--	--	4	3.3	3.575	4.85	4.725	5.75	5.9
	Barium	4	100.0%	0	--	--	--	--	--	--	4	260	287.3	396.5	414.3	559	604
	Beryllium	4	100.0%	0	--	--	--	--	--	--	4	0.38	0.405	0.545	0.5225	0.6175	0.62
	Boron	3	0.0%	3	5	5	5	5	5	5	0	--	--	--	--	--	--
	Cadmium	4	25.0%	3	0.5	0.5	0.5	0.5	0.5	0.5	1	0.11	--	0.11	0.11	--	0.11
	Calcium	3	100.0%	0	--	--	--	--	--	--	3	10900	10900	16100	14530	16600	16600
	Chromium (Total)	4	100.0%	0	--	--	--	--	--	--	4	7.8	8.3	10.3	10.03	11.48	11.7
	Chromium (VI)	3	0.0%	3	0.4	0.4	0.4	0.4	0.4	0.4	0	--	--	--	--	--	--
	Cobalt	4	100.0%	0	--	--	--	--	--	--	4	5.4	5.575	6.25	6.925	8.95	9.8
	Copper	4	100.0%	0	--	--	--	--	--	--	4	11.1	12.73	18.05	17.6	22.03	23.2
	Iron	4	100.0%	0	--	--	--	--	--	--	4	11000	11580	13450	12980	13900	14000
	Lead	4	100.0%	0	--	--	--	--	--	--	4	8.9	11.05	18.8	16.88	20.78	21
	Lithium	3	100.0%	0	--	--	--	--	--	--	3	9.1	9.1	13.5	12.5	14.9	14.9
	Magnesium	4	100.0%	0	--	--	--	--	--	--	4	5450	5750	6765	6613	7323	7470
	Manganese	4	100.0%	0	--	--	--	--	--	--	4	422	430.3	479.5	617.8	943.5	1090
	Mercury	4	75.0%	1	0.034	--	0.034	0.034	--	0.034	3	0.0097	0.0097	0.017	0.01523	0.019	0.019
	Molybdenum	4	100.0%	0	--	--	--	--	--	--	4	0.27	0.385	0.78	0.7325	1.033	1.1
	Nickel	4	100.0%	0	--	--	--	--	--	--	4	10.3	10.58	11.75	11.9	13.38	13.8
	Niobium	3	0.0%	3	10	10	10.1	10.07	10.1	10.1	0	--	--	--	--	--	--
	Palladium	3	100.0%	0	--	--	--	--	--	--	3	0.19	0.19	0.2	0.2033	0.22	0.22
	Phosphorus	3	100.0%	0	--	--	--	--	--	--	3	636	636	745	728.3	804	804
	Platinum	3	0.0%	3	0.1	0.1	0.1	0.1	0.1	0.1	0	--	--	--	--	--	--
	Potassium	3	100.0%	0	--	--	--	--	--	--	3	1520	1520	1840	1733	1840	1840
	Selenium	4	100.0%	0	--	--	--	--	--	--	4	0.17	0.185	0.245	0.3125	0.5075	0.59
	Silicon	3	100.0%	0	--	--	--	--	--	--	3	761	761	789	782.7	798	798
	Silver	4	25.0%	3	1	1	1	1	1	1	1	0.056	--	0.056	0.056	--	0.056
	Sodium	3	100.0%	0	--	--	--	--	--	--	3	111	111	123	126.7	146	146
	Strontium	3	100.0%	0	--	--	--	--	--	--	3	86.8	86.8	91.4	91.83	97.3	97.3
	Thallium	4	75.0%	1	1	--	1	1	--	1	3	0.16	0.16	1	0.8533	1.4	1.4
	Tin	3	100.0%	0	--	--	--	--	--	--	3	0.28	0.28	0.33	0.3167	0.34	0.34
	Titanium	4	100.0%	0	--	--	--	--	--	--	4	244	257.8	306	312	372.3	392
	Tungsten	3	0.0%	3	2.5	2.5	2.5	2.5	2.5	2.5	0	--	--	--	--	--	--
	Uranium	3	100.0%	0	--	--	--	--	--	--	3	0.43	0.43	0.51	0.5233	0.63	0.63
	Vanadium	4	100.0%	0	--	--	--	--	--	--	4	23.2	23.35	24	24.3	25.55	26
	Zinc	4	100.0%	0	--	--	--	--	--	--	4	24.8	27.25	34.95	35.63	44.68	47.8
	Zirconium	3	100.0%	0	--	--	--	--	--	--	3	60.1	60.1	63.5	63.23	66.1	66.1
Radionuclides (pCi/g)	Radium-226	3	33.3%	2	0.63	--	0.751	0.751	--	0.872	1	0.835	--	0.835	0.835	--	0.835
	Radium-228	1	100.0%	0	--	--	--	--	--	--	1	2.94	--	2.94	2.94	--	2.94
	Thorium-228	4	100.0%	0	--	--	--	--	--	--	4	1.34	1.365	1.46	1.47	1.585	1.62
	Thorium-230	4	100.0%	0	--	--	--	--	--	--	4	0.72	0.735	0.9	0.9	1.065	1.08
	Thorium-232	4	100.0%	0	--	--	--	--	--	--	4	1.26	1.295	1.43	1.398	1.468	1.47
	Uranium-233/234	4	25.0%	3	0.47	0.47	0.71	0.66	0.8	0.8	1	0.76	--	0.76	0.76	--	0.76
	Uranium-235/236	4	75.0%	1	0.035	--	0.035	0.035	--	0.035	3	0.054	0.054	0.064	0.08267	0.13	0.13
	Uranium-238	4	100.0%	0	--	--	--	--	--	--	4	0.57	0.575	0.745	0.75	0.93	0.94

Notes:

mg/kg milligrams per kilogram
Max maximum concentration
Min minimum concentration
pCi/g picocuries per gram
Q1 1st quartile (25th percentile)
Q3 3rd quartile (75th percentile)

TABLE 14
DESCRIPTIVE SUMMARY STATISTICS FOR METALS AND RADIONUCLIDES IN 2005 BRC/TIMET SHALLOW BACKGROUND SOIL SAMPLES - Qal/MIXED - 10 FEET BGS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

Analyte Group	Analyte	Sample Size	Detection Frequency	Censored (Non-Detect) Data							Detected Data						
				ND Count	Min	Q1	Median	Mean	Q3	Max	Detect Count	Min	Q1	Median	Mean	Q3	Max
Metals (mg/kg)	Aluminum	3	100.0%	0	--	--	--	--	--	--	3	6150	6150	6180	6233	6370	6370
	Antimony	3	66.7%	1	1	--	1	1	--	1	2	0.13	--	0.19	0.19	--	0.25
	Arsenic	3	100.0%	0	--	--	--	--	--	--	3	5.3	5.3	5.5	5.533	5.8	5.8
	Barium	3	100.0%	0	--	--	--	--	--	--	3	573	573	697	702	836	836
	Beryllium	3	100.0%	0	--	--	--	--	--	--	3	0.54	0.54	0.54	0.5467	0.56	0.56
	Boron	3	0.0%	3	5.2	5.2	5.2	5.2	5.2	5.2	0	--	--	--	--	--	--
	Cadmium	3	0.0%	3	0.52	0.52	0.52	0.52	0.52	0.52	0	--	--	--	--	--	--
	Calcium	3	100.0%	0	--	--	--	--	--	--	3	26600	26600	30400	31130	36400	36400
	Chromium (Total)	3	100.0%	0	--	--	--	--	--	--	3	7.9	7.9	8.8	8.767	9.6	9.6
	Chromium (VI)	3	0.0%	3	0.41	0.41	0.41	0.4133	0.42	0.42	0	--	--	--	--	--	--
	Cobalt	3	100.0%	0	--	--	--	--	--	--	3	5.2	5.2	5.4	7.633	12.3	12.3
	Copper	3	100.0%	0	--	--	--	--	--	--	3	14.3	14.3	18.3	18.67	23.4	23.4
	Iron	3	100.0%	0	--	--	--	--	--	--	3	9180	9180	10800	10460	11400	11400
	Lead	3	100.0%	0	--	--	--	--	--	--	3	9.4	9.4	9.9	10.33	11.7	11.7
	Lithium	3	100.0%	0	--	--	--	--	--	--	3	11.7	11.7	12.6	12.5	13.2	13.2
	Magnesium	3	100.0%	0	--	--	--	--	--	--	3	5240	5240	5340	5500	5920	5920
	Manganese	3	100.0%	0	--	--	--	--	--	--	3	345	345	469	434	488	488
	Mercury	3	66.7%	1	0.034	--	0.034	0.034	--	0.034	2	0.014	--	0.0145	0.0145	--	0.015
	Molybdenum	3	100.0%	0	--	--	--	--	--	--	3	0.89	0.89	0.9	1.03	1.3	1.3
	Nickel	3	100.0%	0	--	--	--	--	--	--	3	8.9	8.9	11.2	10.9	12.6	12.6
	Niobium	3	0.0%	3	10.3	10.3	10.3	10.33	10.4	10.4	0	--	--	--	--	--	--
	Palladium	3	100.0%	0	--	--	--	--	--	--	3	0.34	0.34	0.4	0.4067	0.48	0.48
	Phosphorus	3	100.0%	0	--	--	--	--	--	--	3	722	722	727	756.3	820	820
	Platinum	3	0.0%	3	0.1	0.1	0.1	0.1	0.1	0.1	0	--	--	--	--	--	--
	Potassium	3	100.0%	0	--	--	--	--	--	--	3	1240	1240	1380	1333	1380	1380
	Selenium	3	66.7%	1	0.52	--	0.52	0.52	--	0.52	2	0.39	--	0.395	0.395	--	0.4
	Silicon	3	100.0%	0	--	--	--	--	--	--	3	680	680	680	747.7	883	883
	Silver	3	0.0%	3	1	1	1	1	1	1	0	--	--	--	--	--	--
	Sodium	3	100.0%	0	--	--	--	--	--	--	3	432	432	711	681.3	901	901
	Strontium	3	100.0%	0	--	--	--	--	--	--	3	160	160	199	192.7	219	219
	Thallium	3	0.0%	3	1	1	1	1	1	1	0	--	--	--	--	--	--
	Tin	3	66.7%	1	1	--	1	1	--	1	2	0.21	--	0.23	0.23	--	0.25
	Titanium	3	100.0%	0	--	--	--	--	--	--	3	200	200	221	216	227	227
	Tungsten	3	0.0%	3	2.6	2.6	2.6	2.6	2.6	2.6	0	--	--	--	--	--	--
	Uranium	3	100.0%	0	--	--	--	--	--	--	3	0.71	0.71	0.73	0.76	0.84	0.84
	Vanadium	3	100.0%	0	--	--	--	--	--	--	3	19.2	19.2	21.7	21.37	23.2	23.2
	Zinc	3	100.0%	0	--	--	--	--	--	--	3	21.4	21.4	23.9	23.5	25.2	25.2
	Zirconium	3	100.0%	0	--	--	--	--	--	--	3	68.4	68.4	69	74.33	85.6	85.6
Radionuclides (pCi/g)	Radium-226	3	100.0%	0	--	--	--	--	--	--	3	0.583	0.583	0.784	0.7643	0.926	0.926
	Radium-228	0	--	0	--	--	--	--	--	--	0	--	--	--	--	--	--
	Thorium-228	3	100.0%	0	--	--	--	--	--	--	3	1.17	1.17	1.23	1.253	1.36	1.36
	Thorium-230	3	100.0%	0	--	--	--	--	--	--	3	0.66	0.66	0.78	0.7533	0.82	0.82
	Thorium-232	3	100.0%	0	--	--	--	--	--	--	3	1.05	1.05	1.26	1.2	1.29	1.29
	Uranium-233/234	3	0.0%	3	0.58	0.58	0.68	0.7167	0.89	0.89	0	--	--	--	--	--	--
	Uranium-235/236	3	0.0%	3	0.046	0.046	0.053	0.05067	0.053	0.053	0	--	--	--	--	--	--
	Uranium-238	3	100.0%	0	--	--	--	--	--	--	3	0.58	0.58	0.76	0.7167	0.81	0.81

Notes:

mg/kg	milligrams per kilogram
Max	maximum concentration
Min	minimum concentration
pCi/g	picocuries per gram
Q1	1st quartile (25th percentile)
Q3	3rd quartile (75th percentile)

APPENDIX A

ELECTRONIC REPORT FILES AND DATASET (ON CD)

APPENDIX B

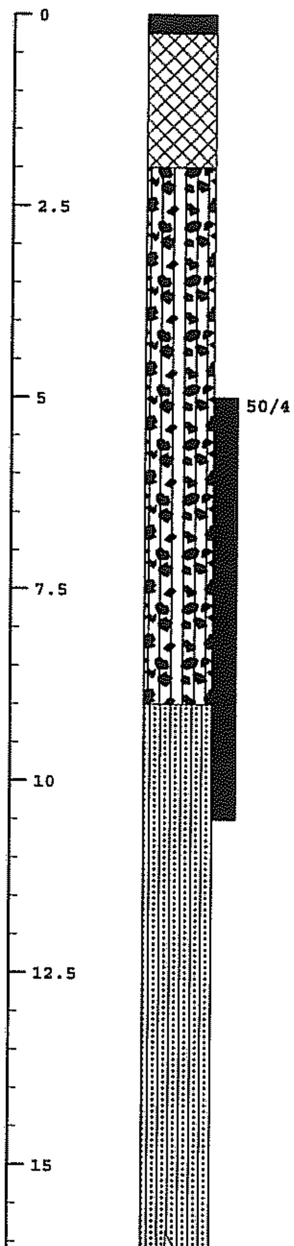
SOIL BORING LOGS

EXPLORATION LOG
DBSA-1

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/6/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH | SOIL & SAMPLE SYMBOLS



USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
PAVE	Dark gray ASPHALT 3" thick.						
FILL	Reddish brown (5 YR 5/4) silty GRAVEL with sand, moist. Gravel is well-graded angular, and consisits of 100% andesite. Sand is well-graded, subangular, with 80% felsics, 20% mafics. Approximately 55% gravel, 20% silt, 25% sand.						
GM	Reddish brown (5 YR 5/4) silty GRAVEL with sand, moist and dense. ...boring cleared with air knife to 5.0'; switch to 4' coring sleeves due to hard soils. ...same soil as above, sample DBSA-1-Q-05, Pid's: 10.6 eV = 0.5 ppmv, 11.7 eV = 1.6 ppmv.						
SM	Reddish yellow (5 YR 6/6) silty SAND with gravel, moist and very dense. Sand is subangular to subrounded, well-graded, 10% mafics, 90% felsics. Gravel is subangular, poorly graded, consists of 100% latite. Approximately 20% gravel, 20% silt, 60% sand. Sample DBSA-1-Q-10, Pid's: 10.6 eV = 0.5 ppmv, 11.7 eV = 0.0 ppmv.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

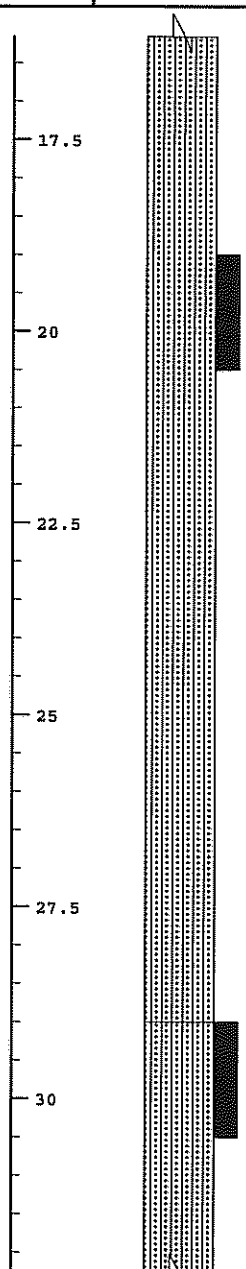
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 4

EXPLORATION LOG
DBSA-1

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/6/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...sample DBSA-1-Q-20, Pid's: 10.6 eV = 0.5 ppmv, 11.7 eV = 0.0 ppmv. Strong iron oxide staining.						
		SM	Reddish brown (5 YR 5/4) silty SAND, few gravel, moist and very dense. Sand is subangular, well-graded, 30% mafics, 70% felsics. Gravel is angular, poorly graded, with 20% rhyolite, 40% latite, 40% basalt/andesite. Approximately 10% gravel, 30% silt, 60% sand. Sample DBSA-1-Q-30, Pid's: 10.6 eV = 0.8 ppmv,						

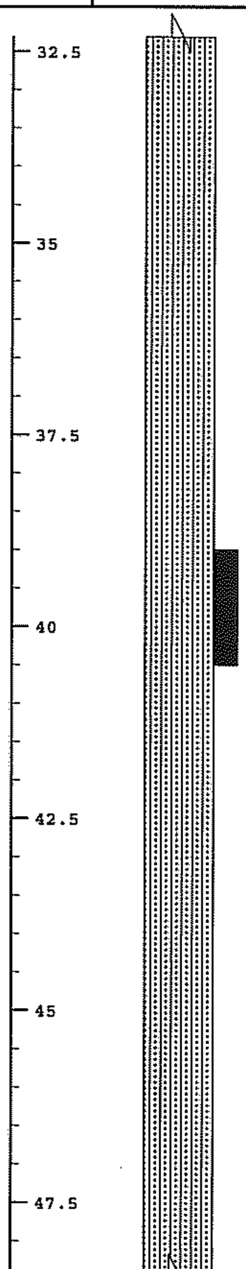
The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA-1

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/6/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5			11.7 eV = 0. 0 ppmv.						
40			...same soil as above, sample DBSA-1-Q-40, Pid's: 10.6 eV = 0.3 ppmv, 11.7 eV = 0.0 ppmv.						



The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.
It is not intended to be representative of subsurface conditions at other locations or times.

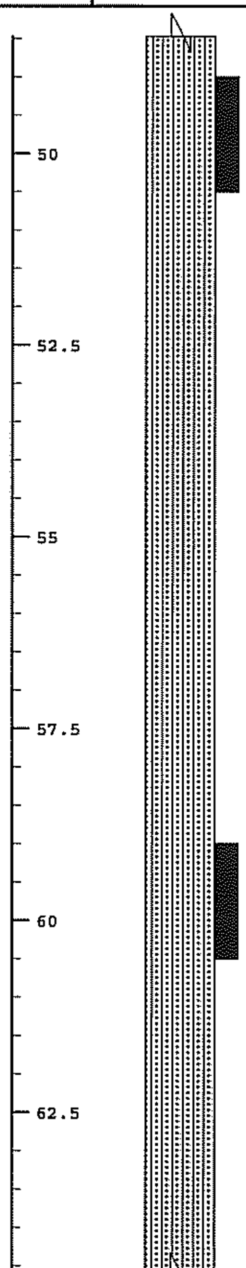
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 4

EXPLORATION LOG
DBSA-1

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/6/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...same soil as above, sample DBSA-1-Q-50, Pid's: 10.6 eV = 0.4 ppmv, 11.7 eV = 0.0 ppmv.						
60			...same soil as above, sample DBSA-1-Q-60, Pid's: 10.6 eV = 0.3 ppmv, 11.7 eV = 0.0 ppmv.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.
It is not intended to be representative of subsurface conditions at other locations or times.

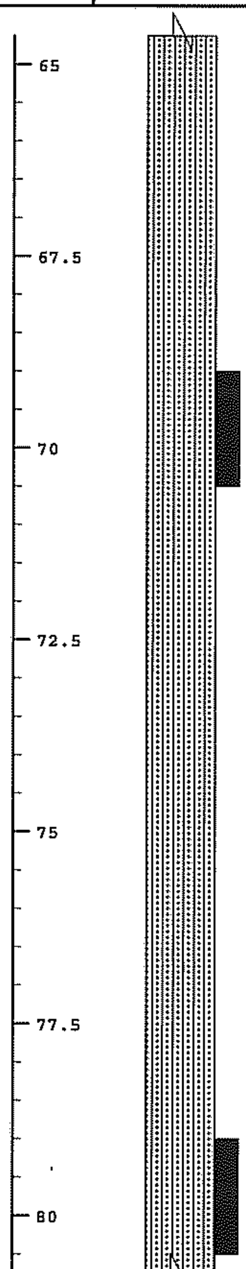
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 4

EXPLORATION LOG
DBSA-1

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/6/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...same soil as above, sample DBSA-1-Q-70, Pid's: 10.6 eV = 0.4 ppmv, 11.7 eV = 0.0 ppmv.						
			...same soil as above, sample DBSA-1-Q-80, Pid's: 10.6 eV = 0.1 ppmv, 11.7 eV = 0.0 ppmv.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 4

EXPLORATION LOG
DBSA-1

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 8/6/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER **EQUIPMENT:** DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5									
85									
87.5									
90			...same soil as above, sample DBSA-1-Q-90, Pid's: 10.6 eV = 0.4 ppmv, 11.7 eV = 0.0 ppmv.						
			END OF BORING AT 90.5 FEET						
92.5									
95									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

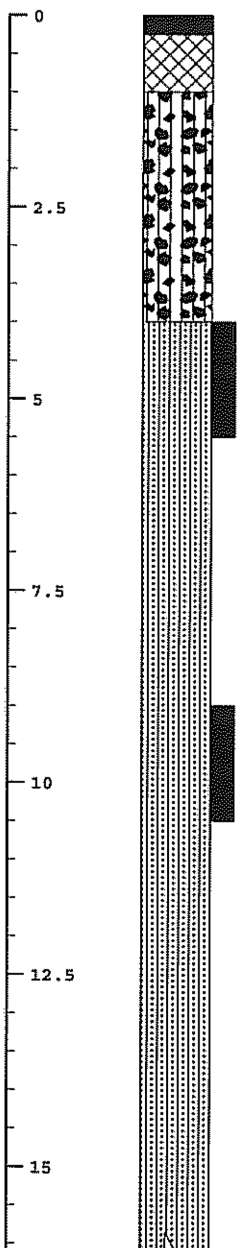
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 4

EXPLORATION LOG
DBSA-2

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/7/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		PAVE	Dark gray ASPHALT 2.5" thick.						
		FILL	Light brown (7.5 YR 6/3) silty GRAVEL with sand, moist.						
		GM	Reddish brown (5 YR 5/4) silty GRAVEL with sand, moist and very dense. ...boring cleared with air knife to 5'. ...cobble.						
		SM	Reddish brown (5 YR 5/4) silty SAND with gravel, moist and very dense. Sand is subangular, well graded with 20% mafics (basalt/andesite), 80% felsics. Gravel is angular, 80% rhyolite, 20% andesite and basalt. Approximately 15% silt, 20% gravel, 65% sand. Sample DBSA-2-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...same soil as above, sample DBSA-2-Q 10. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 5

EXPLORATION LOG
DBSA-2

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/7/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5									
20			...same soil as above, sample DBSA-2-Q 20 and DBSA-2-Q-20-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
22.5			...alternating hard and soft layers.						
25		SM	Reddish brown (5 YR 5/4) silty SAND, moist, moderately cemented and very dense. Sand is subangular to subrounded, well-sorted with 40% mafics (andesite and basalt), 60% felsics. Gravel is angular, poorly graded, has 40% andesite, 30% rhyolite, 30% latite. Approximately 20% silt, 10% gravel, 70% sand.						
27.5									
30			...moderately to strongly cemented with alternating layers of 4"-6" thick of cemented and uncemented soils, sample DBSA-2-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA-2

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 8/7/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER **EQUIPMENT:** DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
35									
37.5		SM	Reddish brown (% YR 5/4) silty SAND with gravel, moist, weakly cemented (in layers) and very dense. Sand is subangular to subrounded, well-graded, consists of 40% mafics (basalt and andesite), 60% felsics. Gravel is angular, poorly graded with 20% basalt (with epidote crystals), 20% andesite, 30% rhyolite, 30% latite. Approximately 20% silt, 20% gravel, 60% sand. ...same soil as above, sample DBSA-2-Q 40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
40									
42.5									
45									
47.5									

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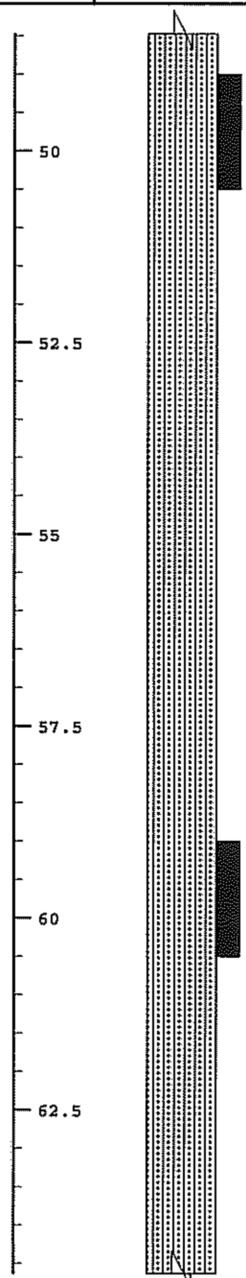
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 5

EXPLORATION LOG
DBSA-2

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/7/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...same soil as above except: interbeds of silty SAND and silty SAND with PIDs: 10.6, 11.7 eV = 0.0 ppmV.gravel, moderately cemented in 0.5" to 1.0" thick layers. Sample DBSA-2-Q-50.						
60			PIDs: 10.6, 11.7 eV = 0.0 ppmV....same soil as above, moderately to strongly cemented to 65', strong iron oxide staining. Sample DBSA-2-Q-60.						

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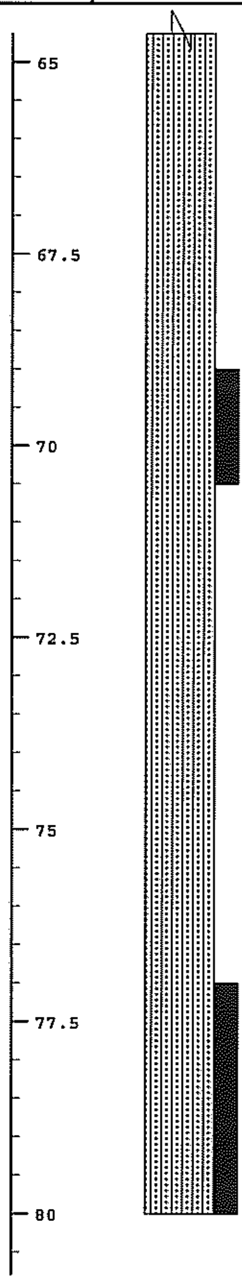
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 5

EXPLORATION LOG
DBSA-2

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/7/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...same soil as above, basalt cobble in sampler shoe. Sample DBSA-2-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...consists of alternating zones of cemented and uncemented soils, gravel clasts consist of latite, andesite, and basalt. Samples DBSA-2-Q-80 and DBSA-2 -Q-80 MS/MSD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			END OF BORING AT 80.0 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

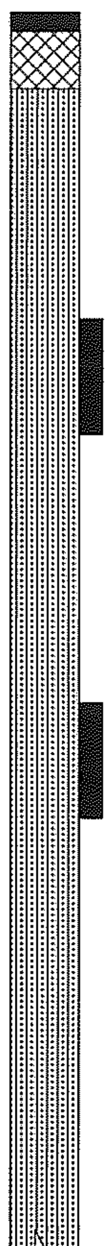
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 5

EXPLORATION LOG
DBSA-3

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/8/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 3" thick.						
		FILL	Light brown (7.5 YR 6/3) silty GRAVEL with sand, moist.						
2.5		SM	Reddish brown (5 YR 5/4) silty SAND, moist and very dense. Sand is subrounded, well-graded, 30% mafics, 40% felsics, 30% quartz. Gravel is subangular with 90% basalt, 10% latite/ andesite. Approximately 20% silt, 10% gravel, 70% sand.						
5			...boring cleared with air knife to 5', sample DBSA-3-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
7.5									
10			...same as above, sample DBSA-3-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
12.5									
15									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

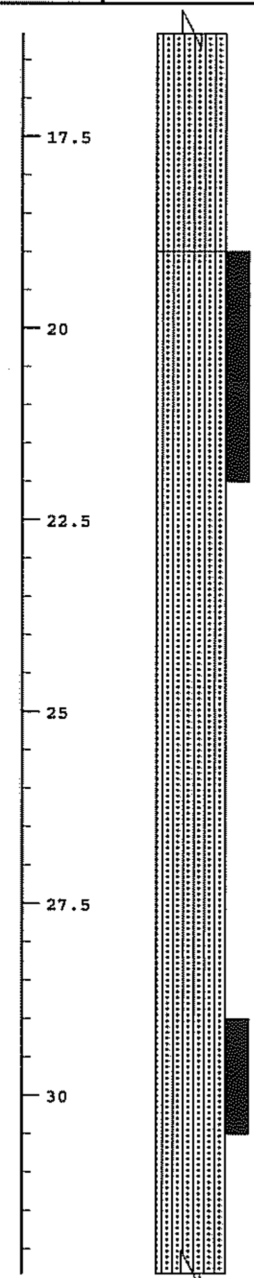
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 6

EXPLORATION LOG
DBSA-3

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/8/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		SM	Reddish brown (5 YR 5/4) silty SAND with gravel, few cobbles, moist and very dense. Sand is subrounded, well-graded with 60% felsics, 40% mafics. Gravel is subrounded to subangular, well graded, consists of 30% basalt, 70% latite. Approximately 20% silt, 20% gravel, 60% sand. Sample DBSA-3-Q-20 and DBSA-3-Q-20-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...same soil as above, sample DBSA-3-Q 30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 6

EXPLORATION LOG
DBSA-3

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 8/8/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER **EQUIPMENT:** DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
35									
37.5									
40			...approximate percentages of soil types estimated using ASTM D2488 X4.1"Jar Method": 15% silt, 20% gravel, 65% sand, sample DBSA-3-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
42.5									
45									
47.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 6

EXPLORATION LOG
DBSA-3

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/8/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50		SM	Reddish brown (5 YR 5/4) silty SAND, moist, weakly cemented and very dense. Sand is subrounded, well-graded, with 60% felsics, 40% mafics. Gravel is subangular, well-graded, consists of 100% basalt. Approximately 20% silt, 10% gravel, 70% sand. Sample DBSA-3-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
52.5			...weakly to moderately cemented (based upon drilling behavior and drilling rates).						
55									
57.5									
60			...same as above, except for trace gravel, sample DBSA-3-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
62.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA-3

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/8/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65									
67.5									
70		SM	Light reddish brown (5 YR 6/3) silty SAND with gravel, moist, weakly cemented and very dense. Sand is subrounded, well-graded, with 60% felsics, 40% mafics. Gravel is subangular, well-graded, consists of 100% dacite. Approximately 20% silt, 25% gravel, 55% sand. Sample DBSA-3-Q-70.						
72.5									
75									
77.5									
80			...yellowish brown (10 YR 5/4), caliche coats on gravel clasts, sample DBSA-3-Q-80.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 6

EXPLORATION LOG
DBSA-3

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/8/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			END OF BORING AT 80.5 FEET						
82.5									
85									
87.5									
90									
92.5									
95									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 6

EXPLORATION LOG
DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
BORING LOCATION: SEE FIGURE 2
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1
EXPLORATION DATE: 10-19-07
EQUIPMENT: SONIC DRILL RIG
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A
DATE MEASURED: N/A

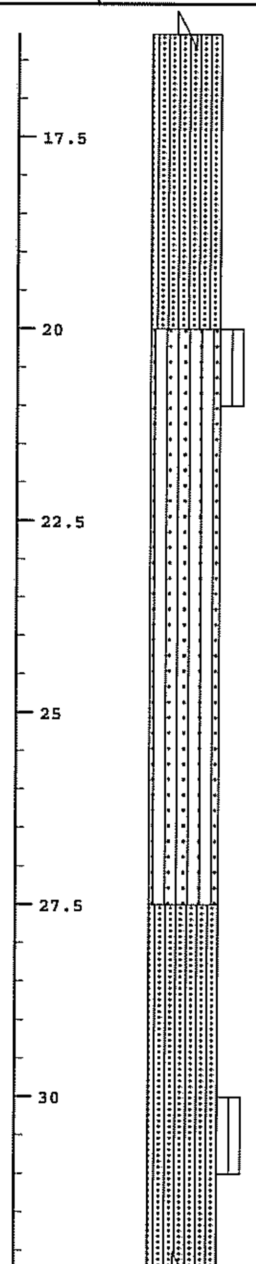
ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2.25 inches thick.						
		FILL	Very pale brown (10 YR 7/4) silty GRAVEL with sand, moist.						
2.5			...boring cleared with air knife to 5'.						
5		SM	...collect DBSA-4-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Light brown (7.5 YR 6/4), silty SAND with gravel (approxiately 40% gravel, well graded, angular to subangular (approximately 10% course gravel, 40% medium gravel, 50% fine gravel), approximately 15% silt, 45% sand (well graded, subrounded, approximately 20% course sand, 20% medium sand, 60% fine sand), moist. Sand: approximately 5% mafics, 95% felsics. Gravel: approximately 60% basalt (subangular), 40% andesite (angular), caliche coats on gravel clasts.						
7.5									
10			...collect DBSA-4-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Light brown (7.5 YR 6/4), silty SAND (approximately 15% gravel (poorly graded, subangular, 100% fine gravel), approximately 20% silt, 65% sand (poorly graded "skip" graded, subrounded, approximately 30% course sand, 10% medium sand, 60% fine sand), moist. Sand and gravel have same composition as 5.0'-7.5' interval; at 12.5' has: 0.5" silty gravel (GM) bed with 100% angular andesite gravel (well graded).						
12.5									
15									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...contact gradational over 2' with the unit described below.						
		SP-SM	...collect DBSA-4-Q-20. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Light brown (7.5 YR 6/4), poorly graded SAND with silt and gravel (approximately 50% sand, (subrounded, approximately 45% course sand, 15% medium sand, 35% fine sand), 10% silt, 40% gravel (well graded, subangular to angular, approximately 30% course gravel, 30% medium gravel, 40% fine gravel), moist. Sand: 20% mafics (as basalt), 80% felsics. Gravel: 40% basalt (subangular), 40% andesite, 20% rhyolite. Caliche coats on gravel clasts. ...very pale brown (10 YR 7/3) carbonaceous layer, approximatley 1' thick. ...andesite cobble (5" diameter).						
		SM	Brown (7.5 YR 5/4), silty SAND with gravel, same characteristics as last interval besides approximately 25% silt, moist. ...collect DBSA-4-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...same as above; has alternating inter beds of sand and gravel.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
35									
37.5			Very pale brown (10 YR 7/3), silty SAND (approximately 15% gravel (poorly graded, subangular, approximately 20% medium gravel, 80% fine gravel), 20% silt, 65% sand ("skip" graded, subrounded, approximately 40% course sand, 10% medium sand, 50% fine sand), moist. Sand: approximately 5% mafics (as basalt), 95% felsics. Gravel: 80% basalt, 20% andesite. Caliche coats on gravel clasts.						
40			...collect DBSA-4-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
42.5									
45			...gradational transition into the next sequence at 46'.						
47.5			Brownish yellow (10 YR 6/6), silty SAND with gravel (approximately 30% gravel (well graded, subangular, approximately 30% course gravel, 20% medium gravel, 50% fine gravel), approximately 20% silt, 50% sand (poorly graded, subrounded,						

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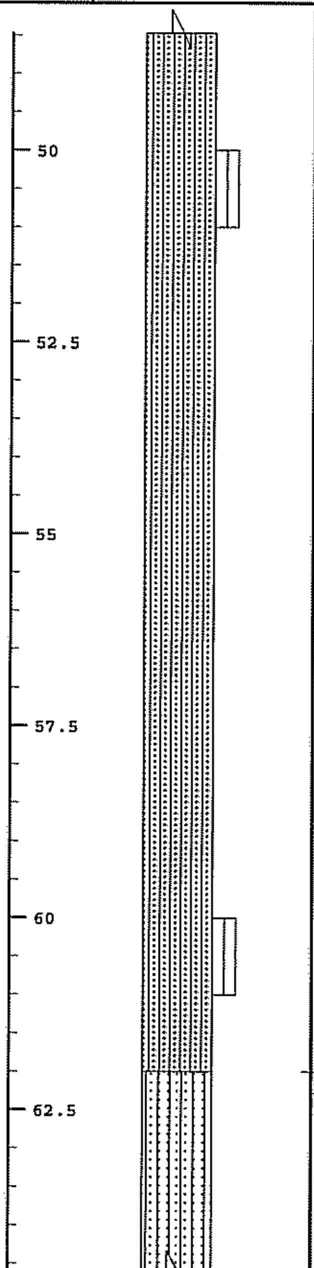
EXPLORATION LOG
DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			approximately 40% course sand, 10% medium sand, 50% fine sand), moist. Sand: approximately 5% mafics, 95% felsics. Gravel: 40% basalt, 30% andesite, 30% rhyolite. ...gravel becomes poorly graded, approximately 80% fine gravel. Reddish yellow (7.5 YR 6/6), silty SAND (approximately 10% gravel (poorly graded, subangular, approximately 100% fine gravel), approximately 15% silt, 75% sand (well graded, subrounded, approximately 40% course sand, 20% medium sand, 40% fine sand), moist. Sand and gravel composition similar to 46' bgs. ...collect DBSA-4-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...reddish yellow (7.5 YR 6/6), gravel clasts (basalt) show minor clay and iron oxide alteration. Traces of chloritic andesite, cementation occurs as thin randomly distributed layers. ...collect DBSA-4-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Very pale brown (10 YR 7/4), silty SAND with gravel (approximately 35% gravel (well graded, angular to subangular,						
		SW-SM	approximately 20% course gravel, 30% medium gravel, 50% fine gravel), 20% silt, 45% sand (40% course sand, 20% medium sand, 40% fine sand), moist.						
			Very pale brown (10 YR 7/4), well graded SAND with silt (approximately 10% gravel						

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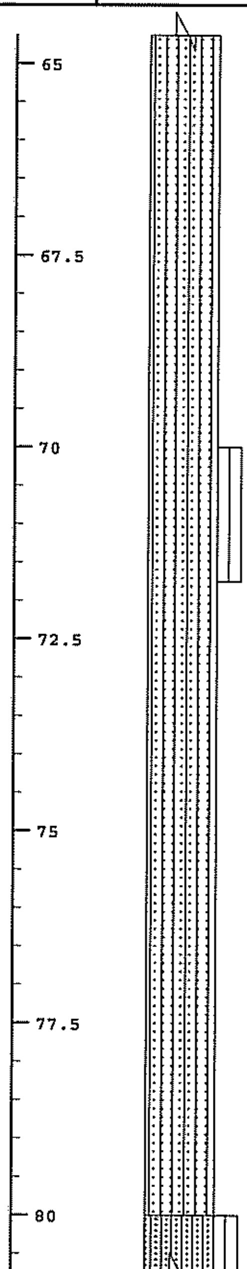
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 7

EXPLORATION LOG
DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			(poorly graded, subrounded, approximately 5% medium gravel, 95% fine gravel), 10% silt, 80% sand (subrounded, approximately 40% course sand, 10% medium sand, 50% fine sand). Sand: approximately 5% mafics, 95% felsics. Gravel: approximately 20% rhyolite, 30% basalt, 50% andesite.						
			...collect DBSA-4-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...traces of iron oxide stained and clayey weathered basalt.						
			...1' thick layer of angular to subangular gravel.						
		SM	...collect DBSA-4-Q-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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EXPLORATION LOG
DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5 85 87.5			Very pale brown (10 YR 7/4), silty SAND with gravel (approximately 35% gravel (poorly graded, subangular, approximately 20% course gravel, 10% medium gravel, 70% fine gravel), 15% silt, 50% sand ("skip" graded poorly graded, subrounded, approximately 40% course sand, 15% medium sand, 45% fine sand), moist. Sand: 5% mafics, 95% felsics. Gravel: approximately 60% basalt, 30% andesite, 10% rhyolite. 1' wide bed of light brown (7.5 YR 6/4), well graded SAND with silt (90% sand (subangular to subrounded, approximately 50% course sand, 40% medium sand, 10% fine sand), 10% silt, moist. Sand: 20% mafics (as basalt and andesite), 80% felsics (as rhyolite and feldspar).						
90 92.5 95		SW-SM	...collect DBSA-4-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Light brown well graded SAND with silt and gravel (approximately 40% gravel (well graded, subangular to angular, approximately 30% course gravel, 40% medium gravel, 30% fine gravel), 10% silt, 50% sand (subangular to subrounded, approximately 40% course sand, 30% medium sand, 30% fine sand), moist. Gravel: approximaely 40% andesite, 50% basalt, 20% rhyolite. Sand: 20% mafics (as basalt and andesite), 80% felsics (as						

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EXPLORATION LOG
DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			rhyolite and feldspar). 6" basalt cobble. ...shows white encrustations (salts) from possible groundwater leaching.						
100			...collect DBSA-4-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...1' wide basalt clast.						
102.5									
105			...has 0.5' to 1.0' wide layers of well graded, angular gravel, consisting of approximately 40% basalt, 40% andesite, 20% dacite.						
107.5									
110			...collect DBSA-4-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
112.5									

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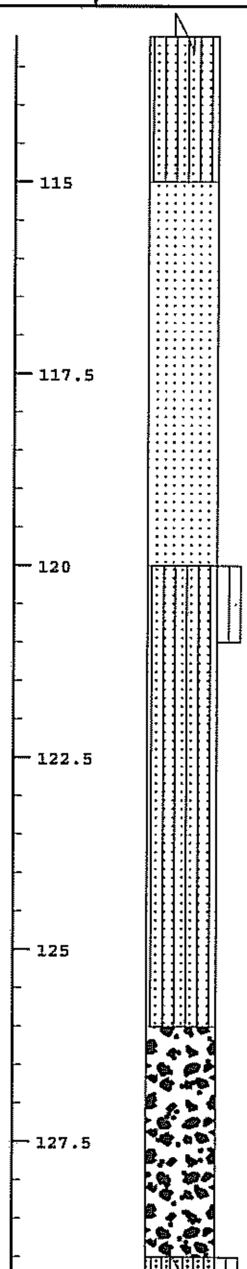
EXPLORATION LOG
DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115		SW	Brown (7.5 YR 5/4), well graded SAND with gravel (approximately 40% gravel (well graded, subangular to angular, approximately 40% course gravel (as cobbles and boulders), 30% medium gravel, 30% fine gravel), approximately 5% silt, 55% sand (subrounded, approximately 40% course sand, 35% medium sand, 25% fine sand), moist. Sand: approximately 10% mafics (as basalt), 90% felsics. Gravel: approximately 40% basalt, 30% andesite, 30% dacite. Minor chloritic material.						
120		SW-SM	...collect DBSA-4-Q-120 and DBSA-4-Q-120-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Reddish yellow (7.5 YR 6/6), well graded SAND with silt and gravel (approximately 40% gravel (well graded, angular, approximately 40% course gravel, 30% medium gravel, 30% fine gravel), 10% silt, 50% sand (subangular to subrounded, approximately 50% course sand, 15% medium sand, 35% fine sand), moist. Sand: approximately 15% mafics (as basalt), 85% felsics (as feldspar and dacite), trace mica. Gravel: approximately 50% basalt, 40% andesite, 10% dacite, trace green andesite. Caliche coats on gravel clasts.						
		GW	Reddish yellow (7.5 YR 6/6), well graded GRAVEL with sand (approximately 30% sand subangular to subrounded, approximately 50% course sand, 15% medium sand, 35% fine sand), 5% silt, 65% gravel (subangular to angular, approximately 40% course gravel (as						

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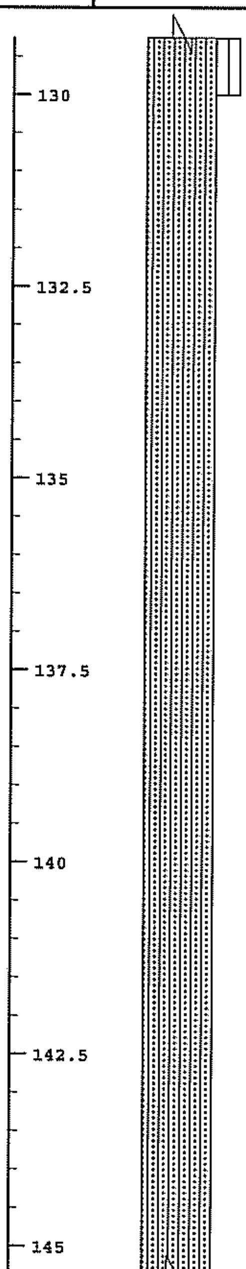
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 7

EXPLORATION LOG
DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		SM	boulders and cobbles, 20% medium gravel, 40% fine gravel), moist. ...collect DBSA-4-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Strong brown (7.5 YR 5/6) silty SAND with gravel (approximately 30% gravel, poorly graded, subangular to angular, approximately 20% course gravel, 30% medium gravel, 50% fine gravel, approximately 20% silt, approximately 50% sand (well graded), subrounded, approximately 40% course sand, 20% medium sand, 40% fine sand), moist. Sand: approximately 20% matics (basalt, trace chlorite), 80% felsics. Gravel: approximately 40% andesite, 40% basalt, 20% dacite. ...Sample DBSA 4-Q-140 ...caliche coats gravel clasts, occurs as 0.5" nodules. 140'-142.5': mostly gravel, basaltic and angular. ...very moist zone (approximatley 2.0" thick).						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 7

EXPLORATION LOG
DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5									
			...Sample DBSA 4-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
150		SW-SM	Strong brown (7.5 YR 5/6) well-graded Sand with silt and gravel (approximately 40% gravel (well-graded, subangular to angular with tabular clasts, approximately 40% course gravel, 30% medium gravel, 30% fine gravel), aproximately 10% silt, 40% sand (subrounded, 40% course sand, 30% medium sand, 30% fine sand), moist. Sand and gravel have same composition as above; traces of chloritic andesite. Caliche coats gravel clasts.						
152.5									
155									
157.5			...Approximately 30% cobbles.						
			...Sample DBSA 4-Q-160. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
160			**END OF BORING AT 160.0 FEET**						

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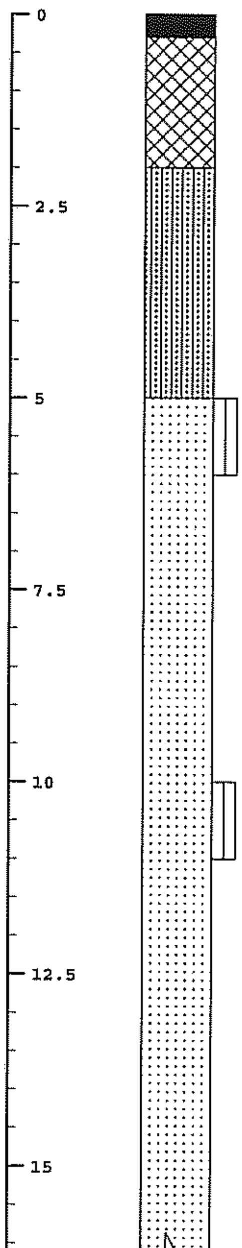
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-17-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH | SOIL & SAMPLE SYMBOLS



USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
PAVE	Dark gray ASPHALT 3.5 inches thick.						
FILL	Brown (7.5 YR 5/4), silty SAND with gravel, dry.						
SM	Brown (7.5 YR 5/4), silty SAND with gravel, dry and dense. ...boring cleared with air knife to 5'.						
SW	...collect DBSA-8-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Brown (7.5 YR 5/2), well graded SAND, few gravel, dry and dense. ...light brown (7.5 YR 6/3), 10% gravel (angular andesite and basalt), 85% sand (poorly sorted), 50-60% medium sand, 1-5% fines. ...collect DBSA-8-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...course sub angular basalt cobble and gravel at 10'. ...5" subangular to sub-rounded basalt cobble. ...brown (7.5 YR 3/2).						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 8

EXPLORATION LOG
DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-17-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...fines (silt) increase to 10%.						
17.5									
20			...brown (7.5 YR 5/3). Collect DBSA-8 Q-20 and DBSA-8-Q-20-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...4" subangular basalt cobble.						
22.5									
25			...15-20% gravel, 70-75% sand, 5-10% fines.						
			...3" subangular basalt cobble.						
27.5									
30			...collect DBSA-8-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...brown (7.5 YR 4/4), 4" su b angularbasalt cobble, course basalt and andesite gravel to 2" diameter.						

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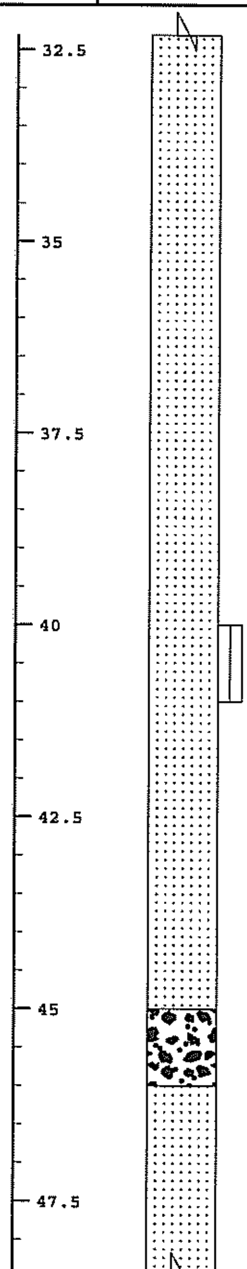
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-17-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
40			...collect DBSA-8-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
45		GW	Brown (7.5 YR 4/4), well graded GRAVEL with sand, dry and very dense.						
		SW	Brown (7.5 YR 4/4), well graded SAND with gravel, dry and very dense.						

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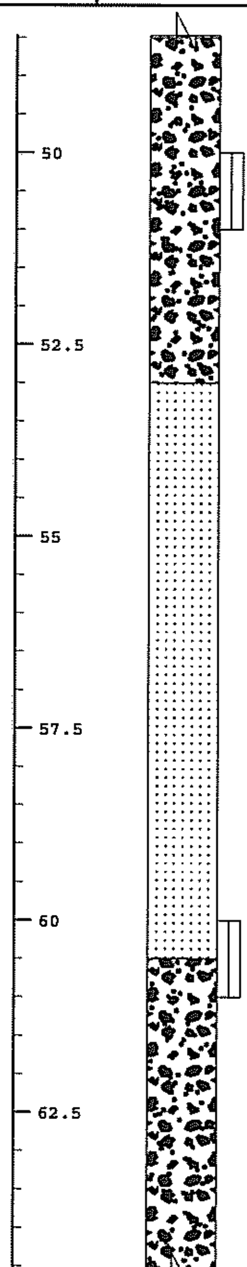
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 8

EXPLORATION LOG
DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-17-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		GW	Brown (7.5 YR 4/4), well graded GRAVEL with sand, little to some cobbles, dry and very dense. ...collect DBSA-8-Q-50, DBSA-8-Q-50-FD, and DBSA-8-Q-50-MS/MSD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
		SW	Brown (7.5 YR 4/4), well graded SAND with gravel, dry and very dense. ...5% gravel, 90% course sand, 1- 5% fines. ...collect DBSA-8-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...borderline SP at 60'.						
		GW	Brown (7.5 YR 4/4), well graded GRAVEL with sand, dry and very dense. Few cobbles of andesite and basalt to 70'.						

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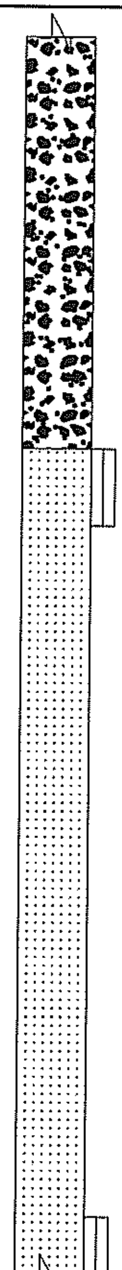
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-17-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65									
67.5									
70		SW	Brown (7.5 YR 4/4), well graded SAND with gravel, dry and very dense. ...collect DBSA-8-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
72.5									
			...4" subangular basalt cobble.						
75									
77.5									
80			...reddish brown (5 YR 4/4). ...collect DBSA-8-Q-80.						

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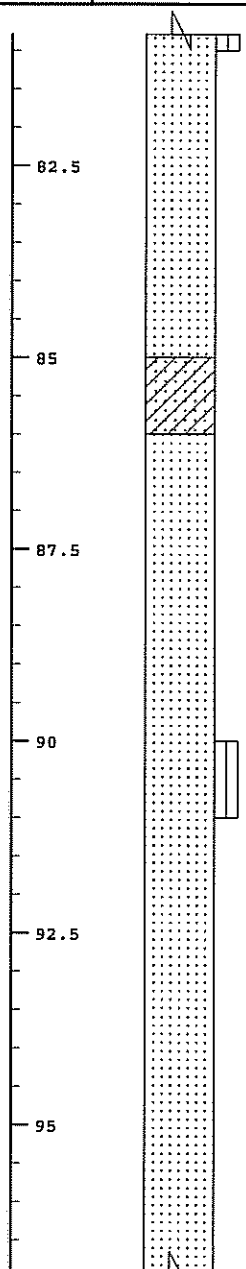
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 8

EXPLORATION LOG
DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-17-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
85		SC	Reddish brown (5 YR 4/4), well graded SAND with gravel, dry and very dense.						
		SW	Reddish brown (5 YR 4/4), well graded SAND with gravel, dry and very dense.						
90			...collect DBSA-8-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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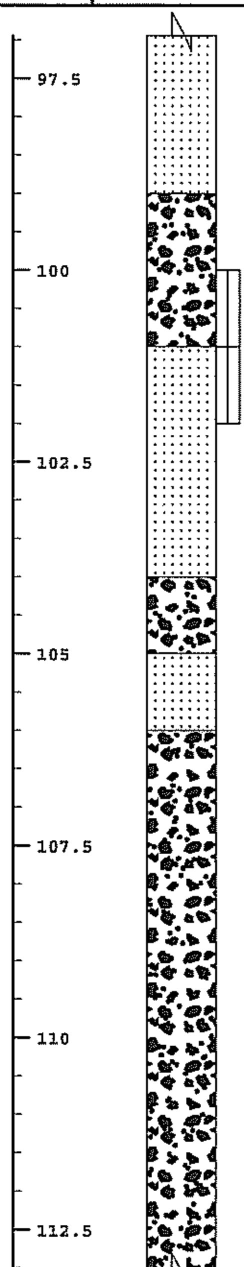
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 8

EXPLORATION LOG
DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-17-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		GW	Reddish brown (5 YR 4/4), well graded GRAVEL with SAND, dry and very dense. ...collect DBSA-8-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
		SW	Reddish brown (5 YR 4/4), well graded SAND with gravel, dry and very dense.						
		GW	Reddish brown (5 YR 4/4), well graded GRAVEL with sand, dry and very dense.						
		SW	Reddish brown (5 YR 4/4), well graded SAND with gravel, dry and very dense.						
		GW	Brown (7.5 YR 4/4), well graded GRAVEL with sand, dry and very dense. ...50% gravel (angular volcanics), 45-50% sand (poorly sorted), 1-5% fines (silt). ...collect DBSA-8-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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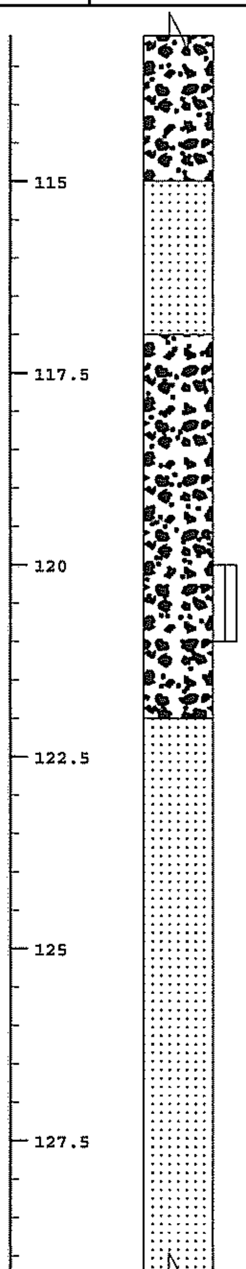
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 8

EXPLORATION LOG
DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-17-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115		SW	Strong brown (7.5 YR 4/6), well graded SAND with gravel, dry and very dense.						
117.5		GW	Strong brown (7.5 YR 4/6), well graded GRAVEL with sand, dry and very dense. ...collect DBSA-8-Q-120 and DBSA-8-Q-120-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
122.5		SW	Brown (7.5 YR 4/4), well graded SAND with gravel, dry, very dense. 15-20 % gravel, gravel consists of angular volcanics. 80% sand, poorly sorted. 1-5% fines (silt).						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 8

EXPLORATION LOG
DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-17-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...collect DBSA-8-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...20% gravel (angular volcanics), 75-80% sand (poorly sorted), 1-5% fines (silt).						
132.5									
135									
137.5									
140			...collect DBSA-8-Q-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
142.5									
145		SC	Reddish brown (5 YR 4/4), clayey SAND						

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EXPLORATION LOG
DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-17-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5			with gravel, dry and very dense.						
		SM	Reddish brown (5 YR 5/3), silty SAND with gravel, dry and very dense.						
150			...collect DBSA-8-Q-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
152.5									
			...10% gravel, 75-80% sand, 10-15% fines.						
155									
157.5									
			...collect DBSA-8-Q-160.						
160			**END OF BORING AT 160.0 FEET**						

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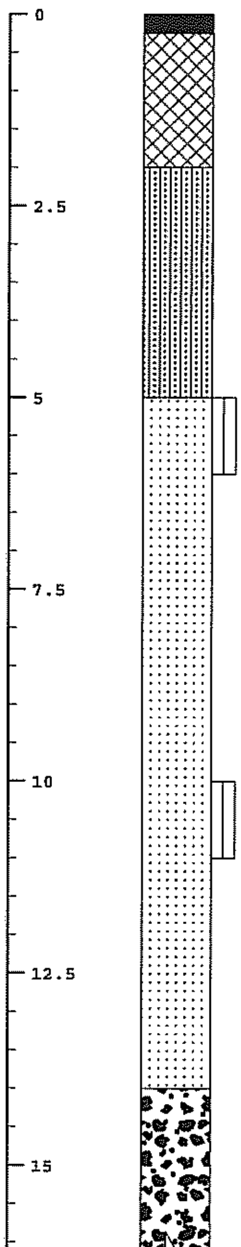
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-15-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		PAVE	Dark gray ASPHALT 2.25 inches thick.						
		FILL	Strong brown (7.5 YR 5/4) silty SAND with gravel, dry.						
		SM	Strong brown (7.5 YR 5/4) silty SAND with gravel, dry and dense. ...boring cleared with air knife to 5'.						
		SW	Brown (7.5 YR 5/4) well graded SAND with gravel, little cobbles (5" diameter angular andesite), dry and dense. Collect DBSA 9-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. 20% gravel (angular basalt and andesite), 75% sand (poorly sorted), 1-5% fines. ...collect DBSA-9-Q-10 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
		GW	Brown (7.5 YR 5/4) well graded GRAVEL with sand, little cobbles (up to 7" diameter angular andesite), dry and dense. 60% gravel (80% of gravel is angular andesite, 20% of gravel is basalt, dacite, and						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 9

EXPLORATION LOG
DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-15-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			trachyte).						
17.5		SW	Light brown (7.5 YR 6/4) well graded SAND, few gravel, dry and dense. 10% gravel, 85% sand, 1-5% fines.						
			...4" angular andesite cobbles to 20'.						
20			...collect DBSA-9-Q-20 and DBSA-9-Q-20-FD PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
22.5									
25			...course, angular andesite gravel to 2. 5". From 25' to 27'.						
27.5			...40-50% gravel (borderline well graded gravel (GW)).						
30			... collect DBSA-9-Q-30 PIDs: 10.6, 11.7 eV = 0.0 ppmV						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-15-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
		GW	Brown (7.5 YR 5/4), well graded GRAVEL with sand, dry and very dense. Gravel consists of approximately 80% angular andesite and approximately 20% subangular basalt.						
35		SW	Brown (7.5 YR 5/4), well graded SAND with gravel, dry and very dense. Course, angular andesite gravel (1" to 2" diameter), to 38'.						
37.5									
40			...collect DBSA-9-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
42.5									
			...5" angular basalt cobble.						
45									
47.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

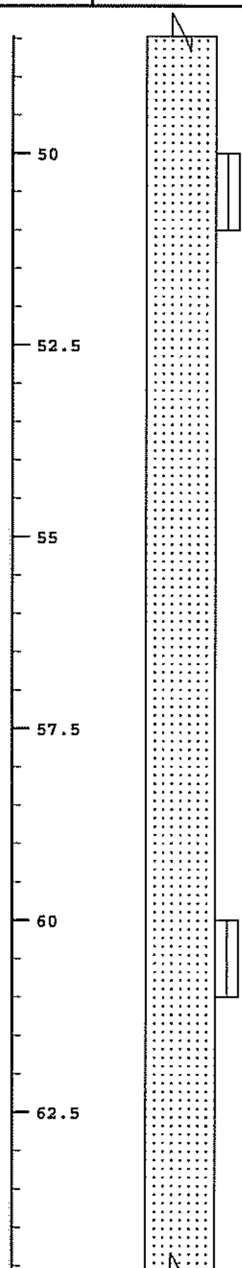
Figure No. 9

EXPLORATION LOG
DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-15-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...2.5" angular andesite gravel Collect DBSA-9-Q-50, DBSA-9-Q-50-FD, and DBSA-9-Q-50-MS/MSD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
52.5									
55			...1" thick weakly cemented layer.						
57.5									
60			...collect DBSA-9-Q-60 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
62.5									



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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 9

EXPLORATION LOG
DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-15-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65									
			...15-20% gravel, 75-80% sand, and 1-5% fines.						
67.5									
70			...10% gravel, 85-90% sand, 1-5% fines. ...collect DBSA-9-Q-70 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
72.5			...15-20% gravel, 75-80% sand, 1-5% fines.						
75									
77.5									
80			...collect DBSA-9-Q-80 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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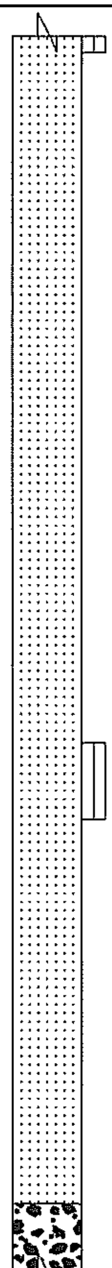
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 9

EXPLORATION LOG
DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-15-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			15% gravel, 80% sand, 1-5% fines.						
82.5									
			...3" angular andesite cobble.						
85									
87.5									
90			...collect DBSA-9-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV. 10-15% gravel, 85% sand, 1-5% fines.						
92.5									
95									
		GW	Brown (7.5 YR 5/4), well graded GRAVEL with sand, dry and very dense. Gravel						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 9

EXPLORATION LOG
DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-15-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			consists of 80% basalt and andesite, 20% trachyte, dacite, and latite.						
100			...collect DBSA-9-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...weakly cemented nodules of sand with white salt coatings. Salt coatings observed in cemented soil to 160'.						
102.5									
		SW	Brown (7.5 YR 5/4), well graded SAND with gravel, dry and very dense.						
105			...weakly cemented sand layers 1" thick (multiple thin layers to 108').						
107.5									
			...multiple weakly cemented sand layers 1" thick to 111'.						
110			...collect DBSA-9-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
112.5			...multiple weakly cemented sand layers 1" thick to 114'.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-15-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115									
117.5			...thin (.25"), white (10 YR 8/1), weathered and leached CALICHE lenses/stringers within cemented sand nodules. Caliche is soft to medium dense, moist. Caliche stringers are from 116' to 116.5'.						
120			...collect DBSA-9-Q-120 and DBSA-9-Q-120-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
122.5			...weakly cemented sand to 123.5'.						
125			...multiple weakly cemented layers of sand 1" to 1.5" thick to 130'.						
127.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-15-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...collect DBSA-9-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
132.5									
135			...weakly cemented sand to 140'.						
137.5									
140		SW-SC	...moist: 140' to 143'. ...collect DBSA-9-Q-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...trace clay.						
142.5			...dry.						
145		SC	Brown (7.5 YR 4/4), clayey SAND with						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-15-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			gravel, moist and very dense.						
147.5									
150			...collect DBSA-9-Q-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Gravel: 50% angular basalt and andesite, 50% dacite and trachyte. Sand: poorly sorted.						
152.5			MUDDY CREEK FORMATION: Brown (7.5 YR 4/4), clayey SAND with gravel, moist and very dense. ...borderline sandy lean clay (CL) from 154' to 158' bgs.						
155									
157.5			...collect DBSA-9-Q-160. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
160			**END OF BORING AT 160.0 FEET**						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

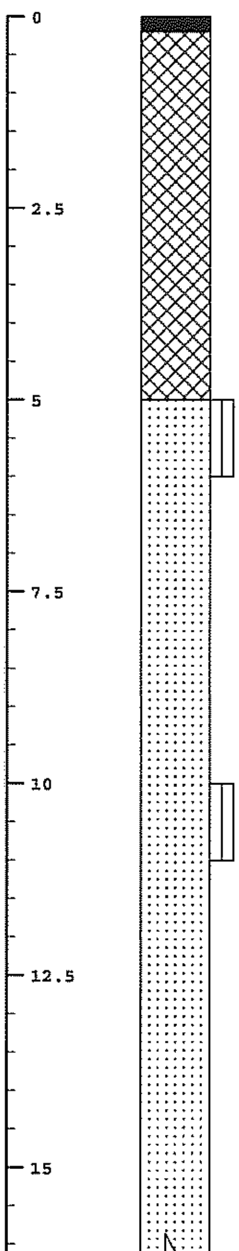
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-16-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH — SOIL & SAMPLE SYMBOLS



USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
PAVE	Dark gray ASPHALT 2.0 inches thick.						
FILL	Brown (7.5 YR 5/4), silty SAND with gravel, dry. Brown (7.5 YR 5/4), silty SAND with gravel, dry and dense. ...boring cleared with air knife to 5'.						
SW	Reddish brown (5 YR 5/3), well graded SAND, few gravel, dry, dense. Gravel is .5" to 1" size, angular andesite. Sand is poorly sorted. Trace fines (1%). ...Collect DBSA-10-Q-5. PIDs: 10.6, 11.7 eV = 0.2, 0.1 ppmV. No odors or stained soils observed. ...collect DBSA-10-Q-10. PIDs: 10.6, 11.7 eV = 2.1, 0.2 ppmV. No odors or stains observed. ...occasional course gravel to 2" size, angular to subangular volcanics (basalt and andesite) to 20' depth.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 10

EXPLORATION LOG
DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-16-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...same soil (SW) as described at 5' bgs.						
17.5									
			...brown (7.5 YR 5/2).						
20			...collect DBSA-10-Q-20 and DBSA-10-Q-FD. PIDs: 10.6, 11.7 eV = 1.0, 0.0 ppmV.						
22.5									
25									
27.5									
30			...collect DBSA-10-Q-30 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...weakly cemented to 35'.						

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EXPLORATION LOG
DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-16-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5			...same soil (SW) as described at 5' bgs.						
35			...uncemented.						
37.5									
40			...brown (7.5 YR 4/4). ...collect DBSA-10-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
42.5			...moist to 45'.						
45			...dry.						
47.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-16-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...same soil (SW) as described at 5' bgs.						
50			...collect DBSA-10-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
52.5									
55									
			...5" angular basalt cobble.						
57.5									
60			... collect DBSA-10-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...3" subangular basalt cobble.						
62.5			...white (10 YR 8/1), salt coatings on gravel and cemented sand nodules.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 10

EXPLORATION LOG
DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-16-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65			...same soil (SW) as described at 5' bgs.						
			...15-20% gravel (angular to subangular basalt and andesite), 75-80% sand (poorly sorted), 1% fines.						
67.5									
70			...collect DBSA-10-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
72.5									
75			...borderline well graded gravel (GW) at 75' (approximately 40% gravel). Gravel consists of angular andesite and basalt.						
77.5									
80			...collect DBSA-10-Q-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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EXPLORATION LOG
DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-16-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...same soil (SW) as described at 5' bgs.						
82.5									
85			...4" subangular to angular "blocky" basalt cobble.						
			...weakly cemented sand to 94'.						
87.5									
90			...collect DBSA-10-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...10% gravel, 90% sand, 1% fines.						
92.5									
95									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 10

EXPLORATION LOG
DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-16-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			...same soil (SW) as described at 5' bgs.						
100			...4" subangular basalt cobble. ...collect DBSA-10-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
102.5			...weakly cemented sand to 105'.						
105									
107.5									
110			...collect DBSA-10-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
112.5									

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EXPLORATION LOG
DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-16-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...same soil (SW) as described at 5' bgs.						
115									
117.5									
120			...collect DBSA-10-Q-120. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
122.5									
125									
127.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 10

EXPLORATION LOG
DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-16-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...same soil (SW) as described at 5' bgs. ...collect DBSA-10-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV. 10% gravel (angular andesite and subangular basalt), 90% sand (poorly sorted), 1% fines.						
132.5									
135			...weakly cemented sand to 137'.						
137.5									
140			...collect DBSA-10-Q-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
142.5									
145									

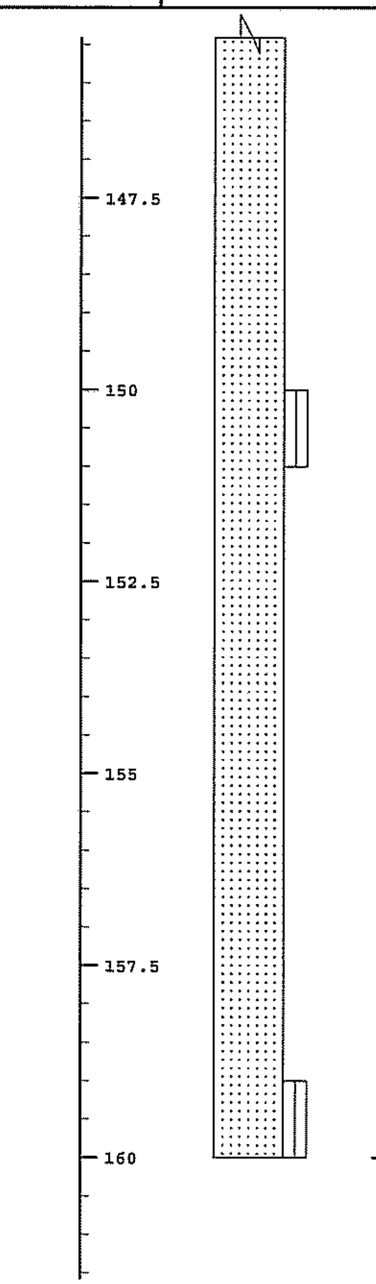
The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-16-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A



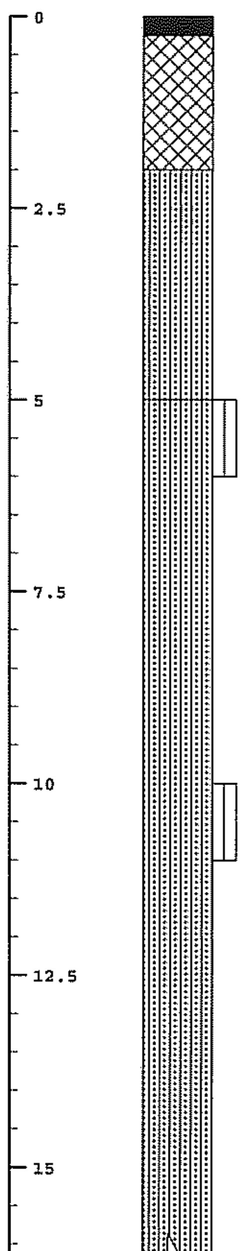
ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...same soil (SW) as described at 5' bgs.						
			...collect DBSA-10-Q-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV. 10% gravel (angular andesite and subangular basalt), 85-90% sand, (poorly sorted), 1-5% fines. No plasticity detected in the fine fraction using field tests.						
			...weakly cemented sand with gravel to 160'.						
			...collect DBSA-10-Q-160. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			END OF BORING AT 160.0 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-07-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2.5 inches thick.						
		FILL	Brown silty SAND, few gravel, dry.						
		SM	Brown silty SAND, few gravel, dry and dense. ...boring cleared with air knife to 5'.						
5		SM	...collect DBSA-11-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Brown (7.5 YR 5/3), silty SAND with gravel, few cobbles to 8" diameter, dry, and dense. 5% Gravel (angular to subangular basalt and andesite), 85% sand (poorly sorted), 10% fines. ...collect DBSA-11-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...few cobbles to 3" diameter.						

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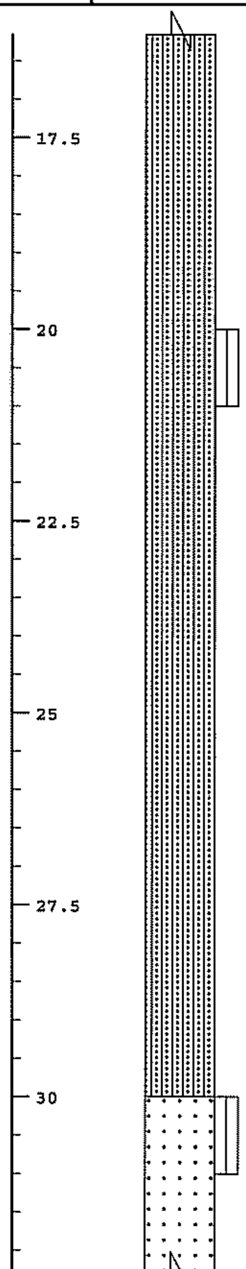
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 11

EXPLORATION LOG
DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-07-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
20			...collect DBSA-11-Q-20. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Brown (7.5 YR 5/3), silty SAND with gravel, few cobbles to 8" diameter, dry, and dense. 5% gravel (angular to subangular basalt and andesite), 85% sand (poorly sorted), 10% fines.						
25			...weakly cemented sand layer 1" thick.						
			...90% sand, well sorted.						
30		SP	...collect DBSA-11-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Reddish gray (5 YR 3/2), poorly graded SAND, few gravel, dry and very dense. ...gravel size increases to 2" from 31' to 32'.						

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EXPLORATION LOG
DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-07-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5			...weakly cemented sand layers 1.5" thick.						
35									
37.5			...crystaline calcite to 1/16", forming rosettes.						
40		SW	...collect DBSA-11-Q-40 and DBSA-11-Q-40-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Reddish brown (5 YR 5/3), well graded SAND with gravel, dry, and very dense. ...subangular basalt cobble 5" in diameter.						
42.5									
45									
47.5									

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EXPLORATION LOG
DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-07-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...collect DBSA-11-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...weakly cemented sand and gravel layer.						
52.5			...basalt cobble 4" in diameter.						
55			...brown (5 YR 5/4).						
57.5			...trace (1%) fines.						
60			...collect DBSA-11-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
62.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-07-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65									
67.5									
70			...collect DBSA-11-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
72.5									
75			...4-1/2" diameter angular to subangular andesite cobble.						
77.5			...weakly cemented sand and gravel layer to 78'bgs.						
80			...collect DBSA-11-Q-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION | **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 | **EXPLORATION DATE:** 10-07-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE | **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE | **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED | **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED | **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...3" diameter andesite cobble. 20% gravel (angular), 75% sand (poorly sorted), 5% fines.						
82.5			...4" diameter subangular basalt cobble.						
85			...weakly cemented sand and gravel layer.						
87.5									
90			...collect DBSA-11-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...laminated sand and silt layers 1/4" to 1/2" thick, weakly cemented.						
			...3" diameter andesite cobble, subrounded to subangular.						
92.5			...course gravel and cobbles from 92.5' to 94'. 45% gravel (angular to subangular andesite and basalt), 50% sand (poorly sorted), 5% fines.						
95									
			...slight increase in soil moisture content.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 11

EXPLORATION LOG
DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-07-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5									
100			...10-15% gravel. ...collect DBSA-11-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
102.5			...3" diameter basalt cobble, vessicular texture, with secondary calcite crystalization.						
105			...weakly cemented sand and gravel layer from 106' to 108'.						
107.5									
110			...gravel with weak red (10 YR 4/3) alteration mineralization. ...collect DBSA-11-Q-110. PIDs: 1.6, 11.7 eV = 0.0 ppmV.						
112.5									

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DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-07-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115									
117.5									
120			...collect DBSA-11-Q-120, DBSA-11-Q-120- FD, and DBSA-11-Q-120-MS/MSD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
122.5									
125		SC	Brownish gray (7.5 YR 6/2) clayey SAND, dry, weakly cemented and very dense.						
		SW	Reddish brown, well graded SAND with gravel, dry and very dense.						
127.5			...3" diameter subangular andesite cobble.						

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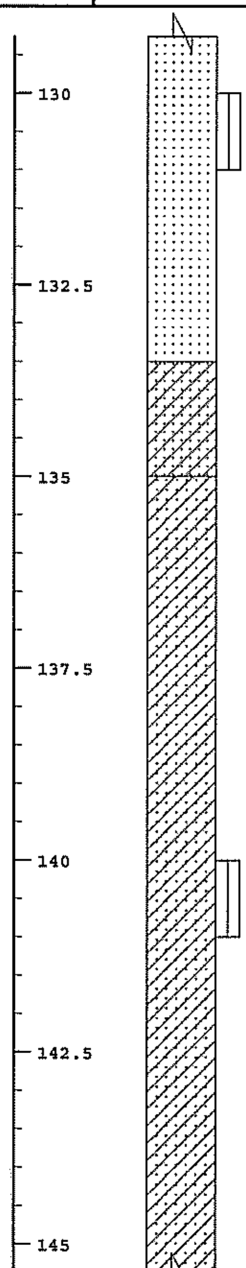
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 11

EXPLORATION LOG
DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-07-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...collect DBSA-11-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...moist.						
		SW-SC	Reddish brown (7.5 YR 5/3), well graded SAND with clay, moist and dense.						
		SC	MUDDY CREEK FORMATION: Reddish brown (7.5 YR 5/3), clayey SAND, few gravel, moist, and very dense. Massive layers of clayey sand. ...10% gravel (3/8" to 1" in size, sub angular to angular andesite and basalt). ...collect DBSA-11-T-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...multiple moist zones from 142' bgs to 159' bgs..						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

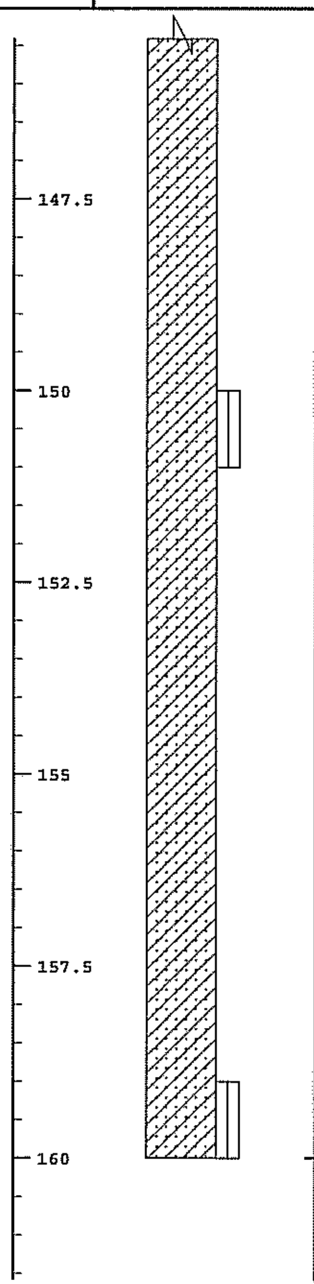
Figure No. 11

EXPLORATION LOG
DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-07-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
150			...collect DBSA-11-T-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...course gravel to 2.5" in diameter.						
			...collect DBSA-11-T-160. PIDs: 10.6, 11.7 eV = 0.0 ppm.						
160			**END OF BORING AT 160.0 FEET**						



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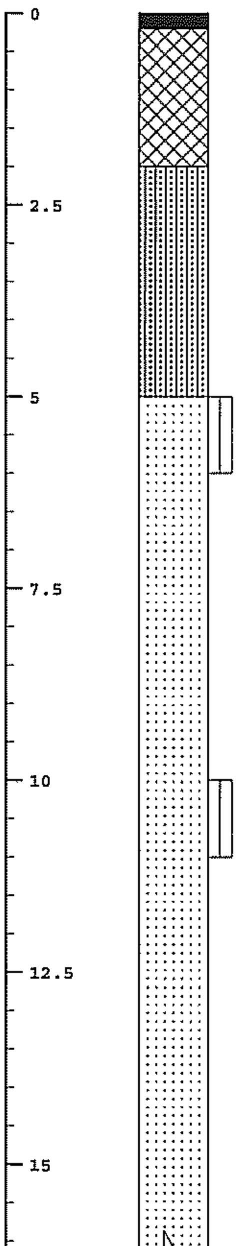
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 11

EXPLORATION LOG
DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2.25 inches thick.						
		FILL	Brown (7.5 YR 4/4), silty SAND with gravel, dry. 25% gravel, 70% sand, 1-5% fines. Gravel consists of angular to subangular andesite and basalt. ...boring cleared with air knife to 5' bgs.						
2.5		SM	Brown (7.5 YR 4/4), silty SAND with gravel, dry and dense.						
5		SW	...collect DBSA-13-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Brown (7.5 YR 4/3), well graded SAND with gravel, dry and dense. 10% gravel (angular to subangular basalt and andesite), 85% sand (poorly sorted), mostly medium to course grain, 1-5% Fines (silt).						
10			...collect DBSA-13-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
12.5			...5" subangular basalt cobble.						
15									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5									
20			...borderline gravel (30-40% gravel). ...collect DBSA-13-Q-20. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
22.5									
25		SP	Brown (7.5 YR 5/4), poorly graded SAND, few gravel, dry, and dense. 5-10% gravel (angular, less than 1" diameter), sand consists of 80% medium to course sand.						
27.5		SW	Reddish brown (5 YR 4/3), well graded SAND with gravel, dry and very dense.						
30			...collect DBSA-13-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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EXPLORATION LOG
DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5		GW	Reddish brown (5 YR 4/3), well graded GRAVEL, dry, and very dense. Gravel consists of 80% basalt and andesite, 20% latite, dacite, and trachyte. ...4" subangular basalt cobble.						
35									
37.5									
40			...collect DBSA-13-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
42.5									
45									
47.5		SC	Reddish brown (5 YR 4/3), clayey SAND with gravel, moist and very dense.						

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EXPLORATION LOG
DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...47' to 49' is weathered, brittle gravel/ cobble (basalt).						
50		SW	...collect DBSA-13-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Reddish brown (5 YR 4/4), well graded SAND with gravel, dry and very dense. Light reddish brown (2.5 YR 6/4) oxidation coatings on gravel. Gravel is weathered and brittle, dominantly andesite and basalt.						
52.5									
55									
57.5			...5" subangular basalt cobble.						
60			...collect DSA-13-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
62.5									

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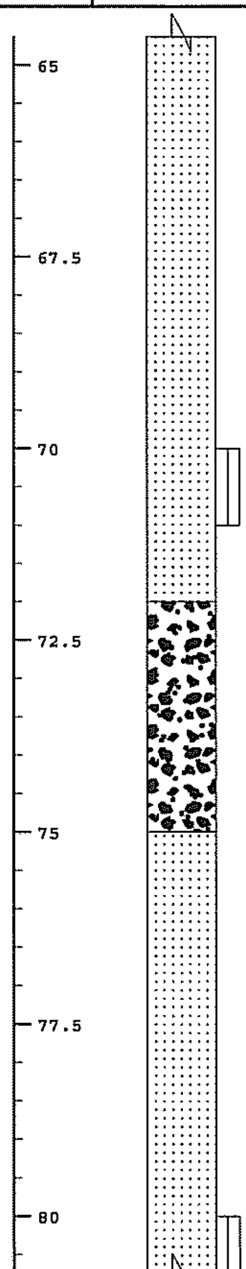
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 12

EXPLORATION LOG
DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65–72			...4" sub-rounded basalt cobble. ...collect DBSA-13-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
72–75		GW	Reddish brown (5 YR 4/4), well graded GRAVEL with sand, dry and very dense.						
75–81		SW	Reddish brown (5 YR 4/4), well graded SAND with gravel, dry and very dense. ...collect DBSA-13-Q-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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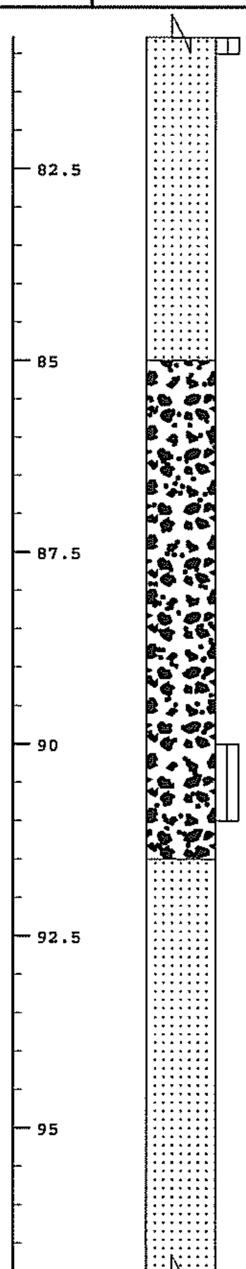
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
85		GW	Brown (7.5 YR 5/3), well graded GRAVEL with sand, dry and very dense. ...weakly cemented to 91'. ...with course gravel up to 2" diameter and cobbles. ...collect DBSA-13-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
91.3		SW	Brown (7.5 YR 4/4), well graded SAND with gravel, dry and very dense.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			...weakly cemented to 98'.						
		GW	Brown (7.5 YR 4/4), well graded GRAVEL with sand, dry and very dense.						
100 102.5		SW	Brown (7.5 YR 4/4), well graded SAND with gravel, dry and very dense. ...collect DBSA-13-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
105 107.5		SW	...borderline well graded gravel (GW) (approximately 40 % gravel). Course, angular to subangular basalt gravel (2" to 3"). ...SW/GW to 110'. ...6" subangular basalt cobble.						
110 112.5		SW	...collect DBSA-13-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...105' to 120': Gravel consists of 20-30% angular basalt and andesite (80% of gravel) and 20% dacite and latite. 65-70%						

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EXPLORATION LOG
DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115 117.5 120 122.5			sand (poorly sorted), medium to course sand. 5% Fines (silt). ...4"-5" subangular basalt cobble with white (10 YR 8/1) carbonate cement coating. ...4"-5" diameter subangular basalt cobble. ...collect DBSA-13-Q-120 and DBSA-13-Q 120-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...some basalt gravel is slightly chloritic (micro-chrystaline), 1- 3 % mica: .						
125		GW	Brown (5 YR 4/4), well graded GRAVEL with sand, trace mica, dry and very dense. ...4" diameter subangular basalt cobble.						
127.5		SW	Brown (5 YR 4/4), well graded SAND with gravel, dry and very dense. ...6" diameter subangular basalt cobble.						

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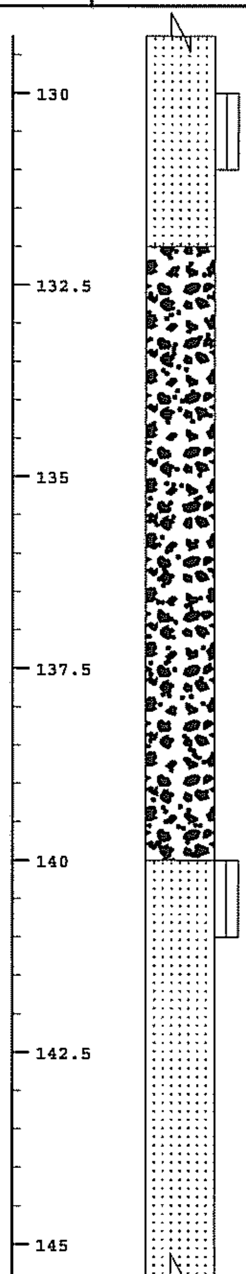
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 12

EXPLORATION LOG
DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...collect DBSA-13-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
132.5–140		GW	...mica - 1/16" diameter plates to 135' bgs. Brown (5 YR 4/4), well graded GRAVEL with sand, trace mica, dry and very dense. ...white (10 YR 8/1) caliche coatings and veins in gravel. Light greenish gray (Gley 1 7/1) coating on gravel (chloritic). ...weakly cemented to 140'. ...subangular basalt cobble, trace mica (1%).						
140–145		SW	...collect DBSA-13-Q-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Brown (5 YR 4/4), well graded SAND with gravel, dry and very dense.						

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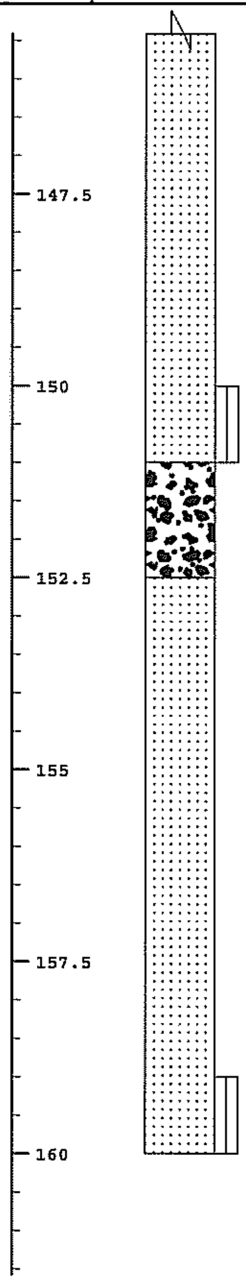
EXPLORATION LOG
DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-19-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...collect DBSA-13-Q-150. PIDs: 10.6, 11.7 = eV = 0.0 ppmV.						
		GW	Light reddish brown (5 YR 6/4) to dark reddish brown (5 YR 4/2), well graded GRAVEL with sand, few cobbles (basalt), dry, weakly to moderately cemented and hard.						
		SW	Reddish brown (5 YR 5/3) well graded SAND with gravel, trace mica (less than 1%), dry, and very dense.						
			...weakly cemented sand and gravel.						
			...collect DBSA-13-Q-160. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			END OF BORING AT 160.0 FEET						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 12

EXPLORATION LOG
DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-09-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 3.0 inches thick.						
		FILL	Brown (7.5 YR 4/4) silty SAND, few gravel, moist. 5% gravel (angular to subrounded), 85% sand (poorly sorted), 10% fines.						
2.5		SM	Brown (7.5 YR 4/4) silty SAND, few gravel, moist and dense. ...boring cleared with air knife to 5'.						
5 7.5 10 12.5 15		SW	...collect DBSA-14-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Brown (7.5 YR 4/3) well graded SAND with gravel, dry and dense. 15% gravel (angular to subangular basalt and andesite), gravel diameter up to 2.5". ...collect DBSA-14-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...15' to 18': few cobbles to 6" diameter (subrounded basalt and subangular andesite).						

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EXPLORATION LOG
DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-09-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5									
20			...collect DBSA-14-Q-20 PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...20-25% gravel.						
22.5									
25		GW	Brown (7.5 YR 5/3) well graded GRAVEL with sand, dry and very dense. Course gravel up to 2.5" diameter. Trace cobbles up to 3.5" diameter.						
27.5									
30		SW	Brown (7.5 YR 5/3) well graded SAND with gravel, dry and very dense. ...collect DBSA-14-Q-30 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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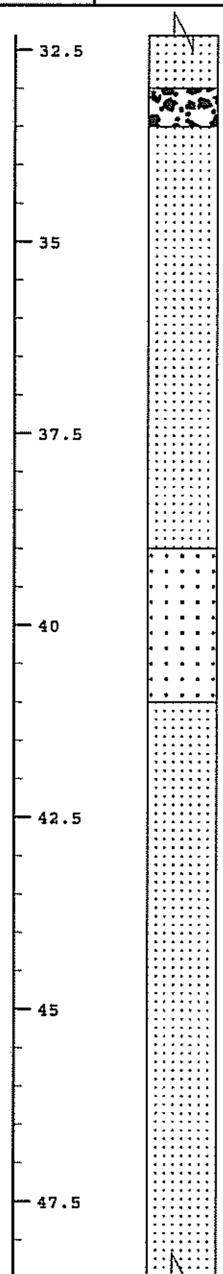
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-09-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		GW	Brown (7.5 YR 5/3) well graded gravel with sand, dry and very dense.						
		SW	Brown (7.5 YR 5/3) well graded SAND with gravel, dry and very dense. ...reddish brown (5 YR 4/4) ...gravel decreases to 10%. 90% sand, trace (1%) fines.						
		SP	Reddish brown (5 YR 5/3) poorly graded SAND, few gravel, dry and very dense. ...collect DBSA-14-Q-40 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
		SW	Reddish brown (5 YR 5/4) well graded SAND, few gravel, dry and very dense. ...2" thick weakly cemented sand layer.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 13

EXPLORATION LOG
DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-09-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...collect DBSA-14-Q-50, DBSA-14-Q-50-FD, DBSA-14-Q-50-MS/MSD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
52.5			...3"-4" diameter subangular basalt cobbles to 55' bgs. Cobbles comprise 10-15% of soil in this depth range. Soil is moist.						
55									
57.5									
		GW	Reddish brown (5 YR 5/4) well graded GRAVEL with sand, dry and very dense.						
60			...collect DBSA-14-Q-60 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
62.5									

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EXPLORATION LOG
DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-09-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65		SW	Reddish brown (5 YR 5/4) well graded SAND with gravel, dry and very dense.						
67.5		SP	Reddish brown (5 YR 5/4) poorly graded SAND, few gravel, dry and very dense. 5-10% gravel (angular to subangular andesite and basalt), 85% sand (well sorted), 5% fines.						
70 72.5 75 77.5		SW	...collect DBSA-14-Q-70 PIDs: 10.6, 11.7 eV = 0.0 ppmV. Reddish brown (5 YR 5/4) well graded SAND with gravel, dry and very dense. 20% gravel (angular to subangular andesite and basalt), 75% sand (poorly sorted), 1-5% fines.						
80		SP	Reddish brown (5 YR 5/4) poorly graded SAND little gravel, dry and very dense. 5-10% gravel (angular to subangular andesite and basalt), 85% sand (well sorted), 5% fines. ...collect DBSA-14-Q-80 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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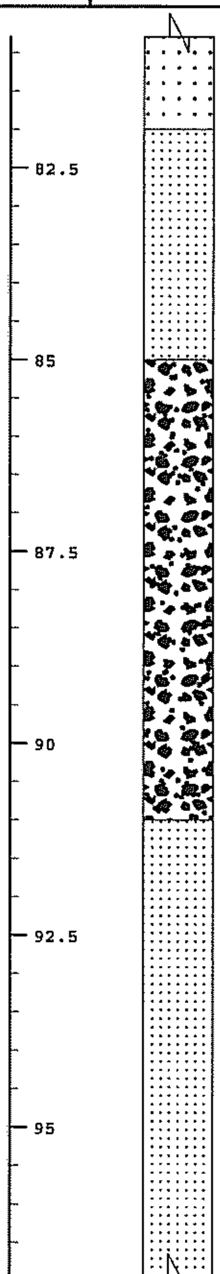
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-09-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA

ELEVATION/ DEPTH; SOIL & SAMPLE SYMBOLS



USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
SW	Reddish brown (5 YR 5/4) well graded SAND with gravel, dry and very dense.						
GW	Reddish brown (5 YR 5/4) well graded GRAVEL with sand, dry and very dense. ...3" diameter andesite cobble with chloritic inclusions. ...collect DBSA-14-Q-90 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
SW	Reddish brown (5 YR 5/4) well graded SAND with gravel, dry and very dense.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 13

EXPLORATION LOG
DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-09-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			...slight increase in soil moisture to 98.5'.						
100			...collect DBSA-14-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
102.5									
105		SW	Reddish brown (5 YR 5/4) well graded SAND with gravel, dry and very dense.						
107.5									
110			...collect DBSA-14-Q-110 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
112.5									

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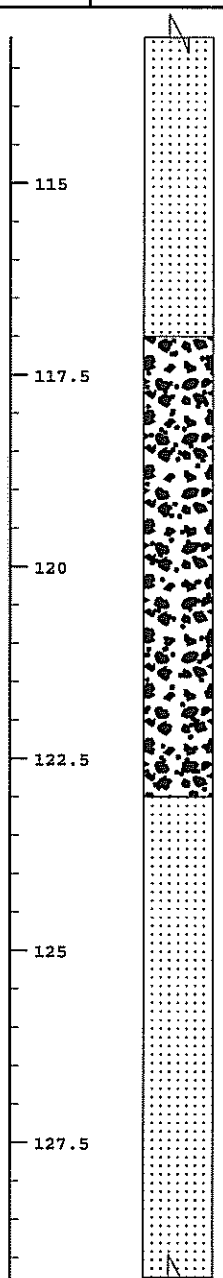
EXPLORATION LOG
DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-09-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115									
117.5		GW	Reddish brown (5 YR 5/4) well graded GRAVEL with sand, dry and very dense.						
120			...collect DBSA-14-Q-120 PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...trace 3" diameter cobbles (subangular basalt).						
122.5									
		SW	Reddish brown (5 YR 5/4) well graded SAND with gravel, dry and very dense.						
125			...moist to 127'.						
127.5			...multiple weakly cemented sand layers 1" to 2" thick to 130'.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
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BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-09-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...collect DBSA-14-Q-130 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
132.5									
135									
137.5			...weakly cemented sand and gravel to 140'.						
			...4" diameter subangular basalt cobble.						
			4" diameter angular andesite cobble.						
140			...collect DBSA-14-Q-140 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
142.5									
145									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 13

EXPLORATION LOG
DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION | **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 | **EXPLORATION DATE:** 10-09-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE | **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE | **LOGGED BY:** R. COOKE

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FINAL DEPTH TO WATER: NOT ENCOUNTERED | **DATE MEASURED:** NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5			...15% gravel (angular to subangular andesite and basalt), 85% sand (poorly sorted), trace (1%) fines. No plasticity observed in field tests of soil.						
150			...collect DBSA-14-Q-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
152.5									
155									
157.5									
		GW	...collect DBSA-14-Q-160. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Light reddish brown (5 YR 6/3) well graded GRAVEL, some basalt cobbles, dry and very dense.						
160			**END OF BORING AT 160.0 FEET**						

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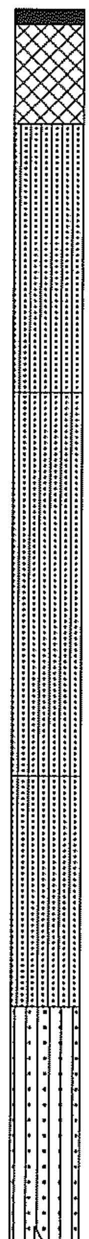
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-06-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 3.25 inches thick.						
		FILL	Light brown (7.5 YR 6/4) silty SAND with gravel, moist.						
2.5		SM	Light brown (7.5 YR 6/4) silty SAND with gravel, moist and dense. ...boring cleared with air knife to 5'.						
5 7.5		SM	...Sample DBSA-15-Q-5, PID's: 10.6 eV= 0.4 ppmv, 11.7 eV = 2.1 ppmv. Light brown (7.5 YR 6/4) silty Sand with gravel, (approximately 25% gravel (poorly graded, subrounded, approximately 30% medium gravel, 70% fine gravel), approximately 20% silt, 60% sand (well-graded, subrounded, approximately 30% course sand, 30% medium sand, 40% fine sand), moist and dense. Sand: approximately 20% mafics, 80% felsics. Gravel: approximately 30% rhyolite, 30% chloritic andesite, 20% basalt, 20% latite.						
10 12.5		SM	...Sample DBSA-15-Q-10. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. Light brown (7.5 YR 6/4) silty SAND (approximately 10% gravel (poorly graded, angular (planar), approximately 50% medium gravel, 50% fine gravel), approximately 20% silt, 70% sand (well-graded, subangular, approximately 40% course sand, 20% medium sand, 40% fine sand), moist and very dense.						
15		SP-SM	Reddish yellow (7.5 YR 6/6) poorly graded SAND with silt (appproximately 10% gravel (poorly graded, angular, approximatley 50% medium gravel, 50% fine grain), 10% silt, 80% sand (subrounded, approximately						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 14

EXPLORATION LOG
DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-06-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA
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ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5 20			30% course sand, 10% medium sand, 70% fine sand), moist and very dense. Sand: approximately 15% mafics, 85% felsics. Gravel: approximately 30% dacite, 70% basaltic andesite, at 15.5', basalt (vesicular, plagioclase); caliche coats gravel clasts. ..."skip" graded (approximately 5% sand) ...Samples DSBA-15-Q-20, DSBA-15-Q-20- FD. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
22.5 25 27.5		SP-SM	...same as above, except: Gravel is approximately 90% basalt, 10% dacite, weakly cemented in banded layers.						
30		SM	Reddish yellow (7.5 YR 6/6) silty SAND with gravel (approximately 15-20% gravel (well-graded, angular, approximately 30% course gravel, 30% medium gravel, 40% fine gravel), approximately 20% silt, 60% sand (poorly-graded ("skip" graded), subrounded, approximately 20% course sand, 10% medium sand, 70% fine sand), moist and very dense. Sand:						

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EXPLORATION LOG
DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-06-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
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FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5			approximately 5% mafics 95% felsics. Gravel: approximately 80% basalt, 10% dacite, 10% latite. ...collect sample DBSA-15-Q-30PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
35		SM	Light yellowish brown (10YR 6/4) silty SAND (approximately 10% gravel (poorly graded, angular, approximately 100% fine gravel), approximately 20% silt, 70% sand (poorly graded ("Skip" graded), subrounded, approximately 30% course sand, 10% medium sand, 60% fine sand), moist and very dense. Sand: approximatley 10% mafics, 90% felsics. Gravel: approximately 20% dacite, 80% basalt. ...weakly to moderatly cemented.						
37.5									
40			...Sample DBSA-15-Q-40. PID's: 10.6 eV= 0.4 ppmv, 11.7 eV = 2.1 ppmv. ...uncemented.						
42.5			...salt or caliche coats gravel clasts.						
45									
47.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 14

EXPLORATION LOG
DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
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EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE
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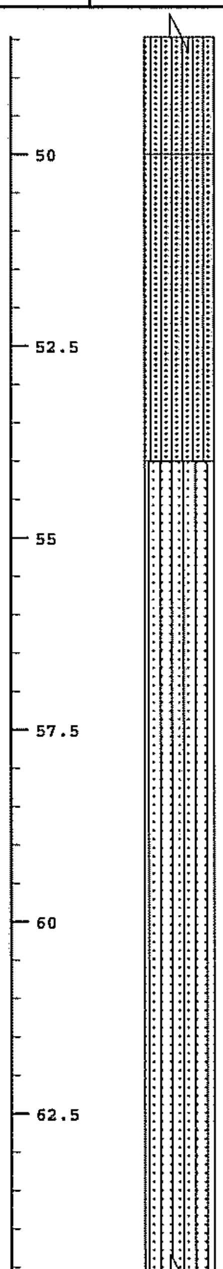

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50		SM	...Sample DSBA-15-Q-50. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. ; same as before, with minor encrustations of cahiche/salt on gravel.						
		SW-SM	Light brown (7.5 YR 6/3) well-graded SAND with silt and gravel (approximately 20% gravel (well-graded, angular, approximately 30% course gravel, 30% medium gravel, 40% fine gravel), approximately 10% silt, 70% sand (subrounded-subangular, approximately 30% course sand, 25% medium sand, 45% fine sand)), moist and very dense. Sand: approximately 10% mafics (as basalt), 90% felsics. Gravel: approximately 70% basalt, 20% andesite (basaltic), 5% dacite, 5% green chloritic andesite. Weakly cemented in small calcite nodules. ...Sample DBSA-15-Q-60. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.; Gravel content increases to approximately 30-40%, consists of approximately 40% basalt, 20% dacite, 20% basaltic andesite, and 20% chloritic andesite. 0.25"-0.5" thick layers of weakly cemented caliche at 60'.						

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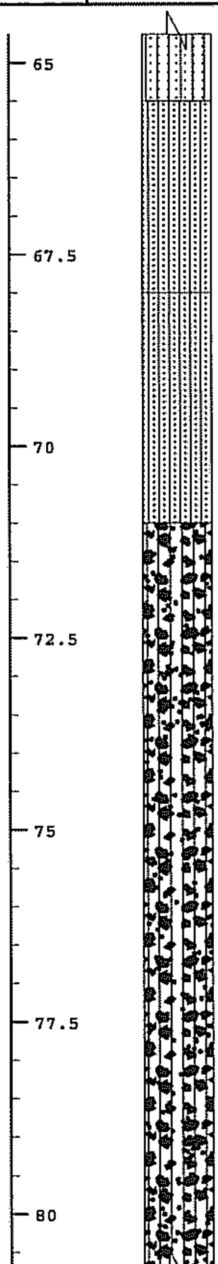
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 14

EXPLORATION LOG
DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-06-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		SM	Strong brown (7.5 YR 4/6) silty SAND (approximately 30% silt, 70% sand (poorly-graded, subangular to subrounded, approximatley 30% course sand, 5% medium sand, 65% fine sand), moist. Sand: approximately 5% mafics, 95% felsics.						
		SM	Strong brown (7.5 YR 4/6) silty SAND with gravel (approximately 40% gravel, well-graded, angular, approximately 30% course gravel, 30% medium gravel, 40% fine gravel), approximately 20% silt, 40% sand, (poorly-graded, subrounded, approximately 20% course sand, 5% medium sand, 75% fine sand), moist and weakly cemented. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 60% basalt, 40% andesite ...Sample DBSA-15-Q-70. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
		GW-GM	Light brown (7.5 YR 6/4) well-graded GRAVEL with silt and sand (approximately 10% silt, 30% sand (poorly-graded ("skip" graded), subrounded, approximately 20% course sand, 5% medium sand, 75% fine sand), approximately 60% gravel (angular, approximately 30% cobbles/boulders, 30% medium gravel, 40% fine gravel), moist and very dense. Gravel has approximately 60% basalt, 30% trachyte (propylitically altered), approximately 10% andesite. Sand: approximately 10% mafics, 90% felsics. ...from 77.5-81': laminated bed of silty sand with gravel (approximately 40% gravel (angular, well-graded), 60% sand (subrounded, poorly-graded), becomes weakly cemented at 80'.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 14

EXPLORATION LOG
DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-06-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5		GW-GM	...Sample DBSA-15-Q-80. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. ...similar to that encountered at 70' above. ...weakly to moderately cemented from 83'-85'; has 1'-2' beds of alternating flood deposits of well graded gravel with silt (GW-GM) and silty sand (SM).						
85 87.5 90 92.5		SM	Light brown (7.5 YR 6/4) silty SAND with gravel (approximately 40% gravel (well-graded, angular, approximately 5% cobbles/boulders, 30% course gravel, 35% medium gravel, 30% fine gravel), approximately 20% silt, 40%-50% sand (subrounded, poorly-graded, approximately 30% course sand, 70% medium sand, 60% fine sand), moist and very dense. Gravel and sand have compositions similar to the soil at 75'. ...Sample DBSA-15-Q-90. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
95		SM	Light brown (7.5 YR 6/4) silty SAND (approximately 5% gravel (poorly-graded, angular, 100% fine gravel), approximately 20% silt, 75% sand (poorly-graded, subrounded, approximately 10% course						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-06-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			sand, 10% medium sand, 80% fine sand), moist and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 100% basalt. ...seguence is thinly-bedded to laminated. ...moderately cemented (99'-101'). ...sample DBSA-15-Q-100. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
100									
102.5									
105									
107.5									
110			...sample DBSA-15-Q-110. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. ; same sediments as at 95'; weakly-moderately cemented layers occur at approximately every 1.5'-2.0'.						
112.5									

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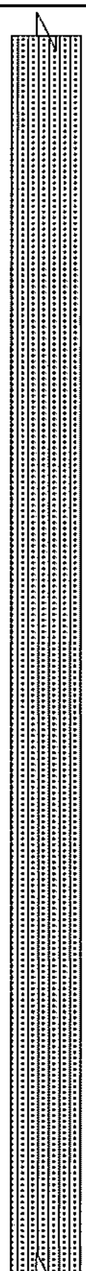
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-06-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115									
117.5									
120			...Sample DBSA-15-Q-120, -120-FD, -120 MS/MSD. PIDs: 10.6, 11.7 eV= 0.0 ppmV. Sediments are the same as described at 95', weakly cemented silty SAND with gravel. Gravel consists of angular volcanics, sand is poorly-graded.						
122.5									
125									
127.5			...weakly to moderately cemented sand with gravel.						



The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-06-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...sampled DBSA-15-Q-130. PIDs: 10.6, 11.7 eV= 0.0 ppmV. ...uncemented at 130'.						
132.5			...weakly cemented.						
135									
137.5									
140			...borderline well graded gravel (GW). ...sampled DBSA-15-Q-140. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. ...Increasing gravel percent to 35%. 5" basalt cobble at 140". Gravel is course (up to cobble size) and subangular to angular, sand is poorly graded.						
142.5									
145									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-06-07
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5									
150			...weakly cemented. ...sampled DBSA-15-Q-150. PIDs: 10.6, 11.7 eV= 0.0 ppmV. 15-20% gravel (angular to subangular andesite and basalt), 75% sand (poorly-sorted), 5% fines. Gravel is dominatly basalt with accessory andesite, dacite.						
152.5									
155			...3" basalt cobble.						
157.5									
		SW-SC	Reddish brown (2.5 YR 4/3) well graded SAND with clay, moist and very dense. Gravel size decrease to 1/2"-3/4". Gravel percentage= 10% subangular to angular. ...Sampled DBSA-15-Q-160. PIDs 10.6, 11. 7 eV= 0.0 ppmV.						
160			**END OF BORING AT 160.0 FEET**						

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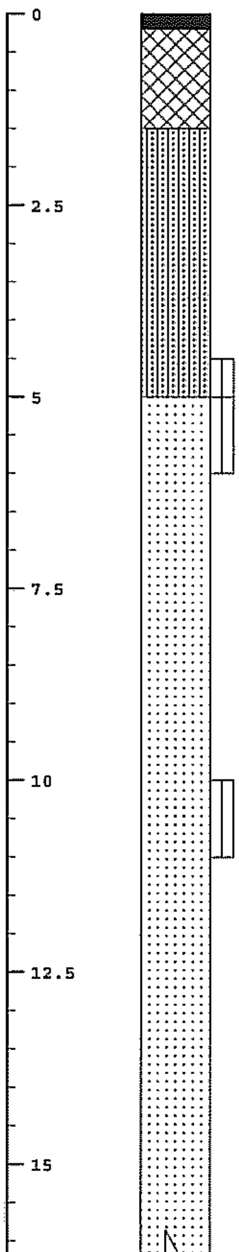
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 14

EXPLORATION LOG
DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-04-07
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE
DATE MEASURED: 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		PAVE	Dark gray ASPHALT 2.0 inches thick.						
		FILL	Reddish brown (5 YR 3/2), silty SAND with gravel, dry. 30% gravel (angular to subangular andesite and basalt) 55% sand (poorly sorted), 15% fines.						
		SM	Reddish brown (5 YR 3/2), silty SAND with gravel, dry and dense. ...boring cleared with air knife to 5'. ...dark reddish brown (5 YR 3/2)						
		SW	Dark reddish brown (5 YR 3/2), well graded SAND with gravel, dry and very dense. ...collect DBSA-17-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...15% gravel (angular to subangular), 75% sand (poorly sorted), 5-10% fines. 5-10%. ...weak red (2.5 YR 4/2). ...collect DBSA-17-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...5% gravel, 90% sand, 5% fines. ...multiple thin (1" thick) weakly cemented layers.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 15

EXPLORATION LOG
DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-04-07
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE
DATE MEASURED: 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5									
			...thin (1" thick) weakly cemented layer.						
20			...collect DBSA-17-Q-20. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...reddish brown (5 YR 4/3), with 1" thick weakly cemented sand layers.						
22.5									
25									
27.5									
30			...collect DBSA-17-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...dark reddish brown (5 YR 4/2), with 1" thick weakly cemented layers of sand.						

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EXPLORATION LOG
DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-04-07
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE
DATE MEASURED: 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
35									
37.5									
40			...collect DBSA-17-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...1" thick weakly cemented sand layers.						
42.5									
45			...1" thick weakly cemented sand layers.						
47.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-04-07
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE **DATE MEASURED:** 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...reddish brown (5 YR 5/3). ...collect DBSA-17-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...15-20% gravel (angular to subangular basalt and andesite), 65% sand (poorly sorted), 10-15% fines. ...moist.						
52.5			...dry.						
55			...weakly cemented, moist from 56'-57'.						
57.5									
60			...collect DBSA-17-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...moist to 64'. ...increasing gravel size from 1" to 2.5".						
62.5		GW	Reddish brown (5 YR 5/3), well graded GRAVEL with sand, moist, and very dense. 55% gravel, 30% sand, 10-15% fines. ...moist to 64'.						

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EXPLORATION LOG
DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-04-07
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE **DATE MEASURED:** 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65 67.5			...general gravel size decreases to approximately 1" in diameter.						
70		SW	Reddish brown (5 YR 5/3), well graded SAND with gravel, dry and very dense. ...collect DBSA-17-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
		SP	Reddish brown (5 YR 5/3), poorly graded SAND, few gravels, moist and very dense.						
72.5 75 77.5 80		SW	Reddish brown (5 YR 5/3), well graded SAND with gravel, dry and very dense. ...weakly cemented to 75'. ...moist to 77'. ...collect DBSA-17-Q-80, DBSA-17-Q-80-DUP, and DBSA-17-Q-80-MS/MSD						

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EXPLORATION LOG
DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-04-07
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE
DATE MEASURED: 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
82.5									
85									
			...moist.						
87.5									
			...moist to 89'.						
90									
92.5									
		GW	Reddish brown (5 YR 5/3), well graded GRAVEL with sand, dry and very dense.						
95		SP	Reddish brown (5 YR 5/3), poorly graded SAND, few gravel, moist, and very dense. 5% gravel (angular to subangular andesite and basalt), 90% Sand (fine sand to medium sand), 5% fines.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 15

EXPLORATION LOG
DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-04-07
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE
DATE MEASURED: 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5									
100			...collect DBSA-17-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
102.5		SW	Reddish brown (5 YR 5/3), well graded SAND with silt and gravel, moist and very dense.						
105									
107.5									
110			...andesite cobble 3" in diameter. ...collect DBSA-17-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
112.5									

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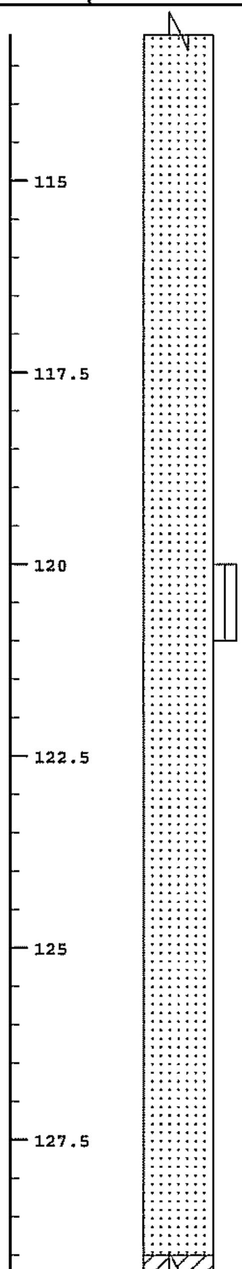
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-04-07
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE
DATE MEASURED: 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115			...moist to 117'.						
120			...collect DBSA-17-Q-120. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
122.5			...15% gravel (angular to subangular andesite and basalt), 75% sand (poorly sorted), 10% fines.						
127.5			...hard layer, slow drilling.						
			...reddish brown (5 YR 4/3).						

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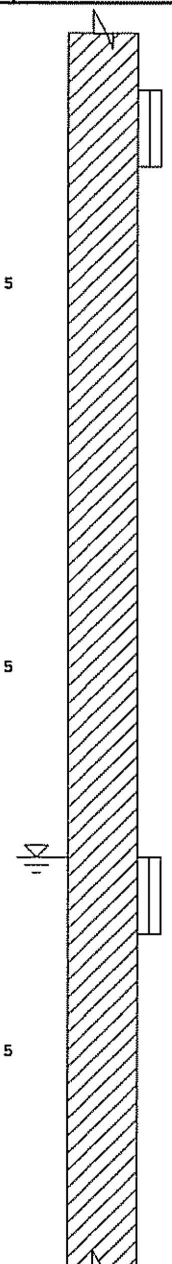
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 15

EXPLORATION LOG
DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-04-07
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE **DATE MEASURED:** 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130		CL	MUDDY CREEK FORMATION: Reddish brown (5 YR 5/3), sandy lean CLAY, moist and very stiff. Clay at 129' to 130' is crudely layered and contained fine layers (1/8" thick) of red (10YR 4/8) weathered mineralization, also white (10 YR 8/1) salt coatings on weakly cemented layers. ...collect DBSA-17-T-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
132.5									
135			...scattered thin deposits of altered mineralization, variably colored.						
137.5									
140			...wet. ...collect DBSA-17-T-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
142.5									
145									

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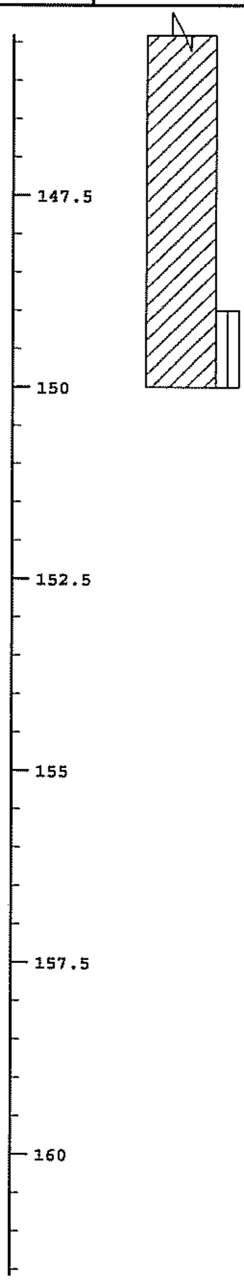
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 15

EXPLORATION LOG
DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-04-07
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE **DATE MEASURED:** 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5 – 150			...collect DBSA-17-T-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			END OF BORING AT 150.0 FEET						

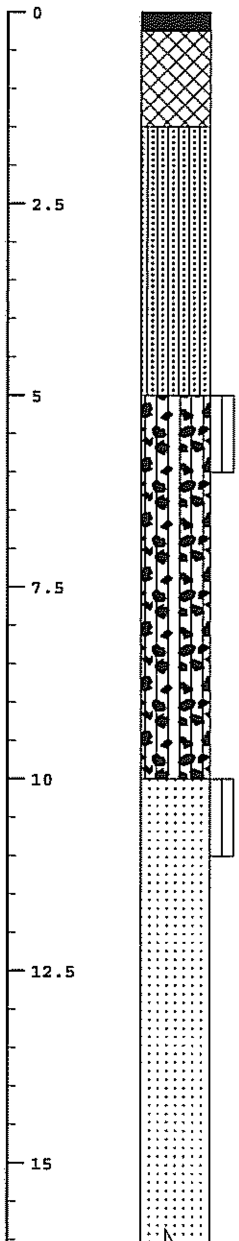
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 15

EXPLORATION LOG
DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-03-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE
DATE MEASURED: 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		PAVE	Dark gray ASPHALT 2.25 inches thick.						
		FILL	Pale brown (10 YR 6/3), silty SAND with gravel, dry.						
		SM	Pale brown (10 YR 6/3), silty SAND with gravel, dry and dense. ...boring cleared with air knife to 5'.						
		GM	Brown (7.5 YR 5/3), silty GRAVEL with sand, dry, and dense. 50% gravel (angular to subangular basalt, dacite, trace latite, trachyte, and andesite), 30% sand (poorly sorted), 10% fines. ...collect DBSA-20-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
		SW	Pale brown (10 YR 6/3), well graded SAND with gravel, trace cobbles, dry and very dense. ...collect DBSA-20-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...weakly cemented. ...25% gravel (angular to subangular andesite and basalt), 70% sand (poorly sorted), 5% fines.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-03-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE
DATE MEASURED: 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5									
20			...collect DBSA-20-Q-20. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
22.5									
25			...with cobbles 3.5" in diameter.						
27.5									
			...multiple thin (1/2" to 1') weakly cemented layers.						
30			...collect DBSA-20-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...white (10 YR 8/1) caliche layers, 1" thick.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 16

EXPLORATION LOG
DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-03-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE **DATE MEASURED:** 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5			...multiple thin (1/2" to 1") weakly cemented layers.						
			...25% gravel (angular to subangular andesite and basalt), 65% sand (poorly sorted), 10% fines.						
35									
37.5			...borderline silty gravel (GM) with 30-40% gravel.						
40			...collect DBSA-20-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
42.5									
45									
47.5			...15-20% gravel (angular to subangular andesite and basalt), 75% sand (poorly sorted), 5-10% fines.						
		CL							

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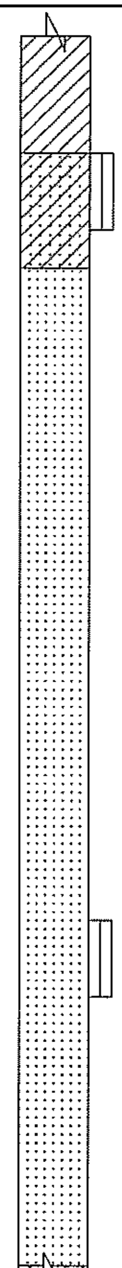
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 16

EXPLORATION LOG
DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-03-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE
DATE MEASURED: 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			Pale brown (10 YR 6/3), sandy lean CLAY, moist and very stiff. ...white (10 YR 8/1) CALICHE gravel, 1/2" in diameter.						
50		SC	Brown (7.5 YR 5/3), clayey SAND with gravel, moist, and very dense. ...collect DBSA-20-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
52.5		SW	Brown (7.5 YR 5/3), well graded SAND with gravel, dry, weakly cemented and very dense.						
55			...15-20% gravel (angular to subangular andesite and basalt), 65-70% sand (poorly sorted), 5-10% fines.						
57.5									
60			...collect DBSA-20-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
62.5			...weakly cemented layer 2" thick.						

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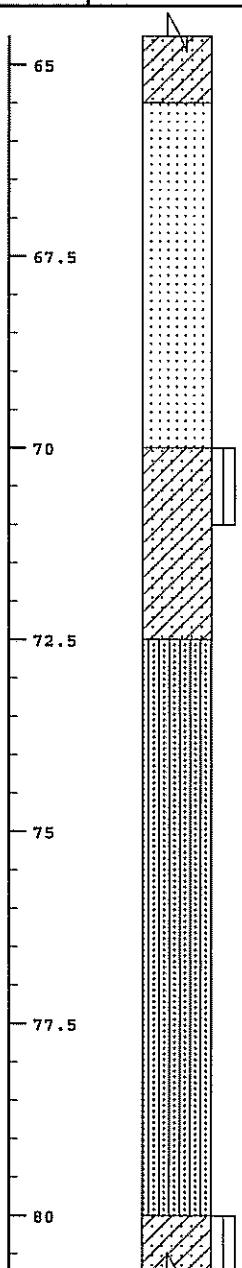
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 16

EXPLORATION LOG
DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-03-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE **DATE MEASURED:** 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED **DATE MEASURED:** N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		SC	Brown (7.5 YR 5/3), clayey SAND with gravel, moist and very dense.						
		SW	Brown (7.5 YR 5/3), silty SAND with gravel, moist and very dense.						
		SC	Pale brown, clayey SAND with gravel, dry and very dense. Salt laminations within clayey sand layers. ...collect DBSA-20-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
		SM	Light brown, silty SAND with gravel, dry and very dense. ...strong brown (7.5 YR 4/5). ...moist to 77'. ...with 4" diameter andesite cobbles. Cobbles are subangular, comprising 30% of course material from 76'-77'. ...reddish brown (5 YR 4/3). ...moist.						
		SC	Reddish brown (5 YR 4/3), clayey SAND, trace gravel, moist, and very dense.						

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EXPLORATION LOG
DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-03-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE **DATE MEASURED:** 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5			...collect DBSA-20-Q-80. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. ...5-10% gravel (angular to subangular andesite and basalt), 60% sand (poorly sorted), 25-30% fines.						
85 87.5		CL	MUDDY CREEK FORMATION: Pale brown, sandy lean CLAY, moist and very stiff. ...reddish brown (5 YR 5/4).						
90		SC	Reddish brown, clayey SAND, trace gravel, moist and very dense. ...collect DBSA-20-T-90 and DBSA-20-T-90-DUP. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
92.5 95		CL	Reddish brown, sandy lean CLAY, wet and very stiff. ...moist.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-03-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE
DATE MEASURED: 10-05-07
FINAL DEPTH TO WATER: NOT MEASURED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			Reddish brown, clayey SAND, trace gravel, moist and very dense. ...collect DBSA-20-T-100. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
100			**END OF BORING AT 100.0 FEET**						
102.5									
105									
107.5									
110									
112.5									

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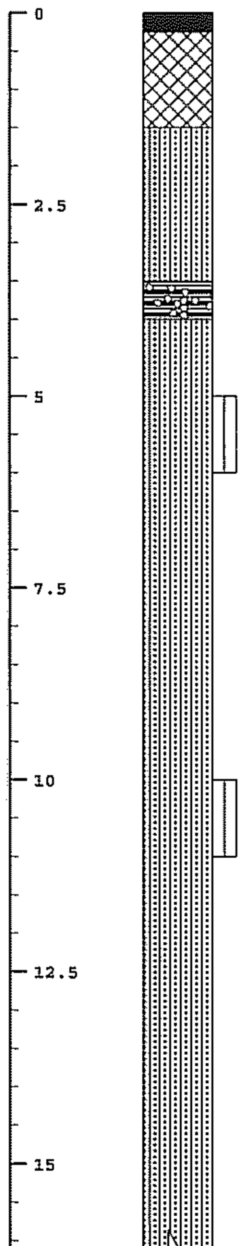
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 21

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-2-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		PAVE	Dark gray ASPHALT 2.5" thick.						
		FILL	Brown (7.5 YR 5/4), silty SAND with gravel, dry.						
		SM	Brown (7.5 YR 5/4), silty SAND with gravel, dry and dense. ...boring cleared with air knife to 5'.						
		CG	Brown (7.5 YR 5/4), cemented SAND and GRAVEL, some basalt cobbles, moist, weakly cemented and very dense.						
		SM	Brown (7.5 YR 4/3), silty SAND with gravel, moist and very dense. 10-15% gravel (angular to subangular basalt and andesite), 80% sand (well sorted), 5% fines. ...collect DBSA-21-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...collect DBSA-21-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...moderately cemented cobbles (basalt and andesite) to 13' bgs.						

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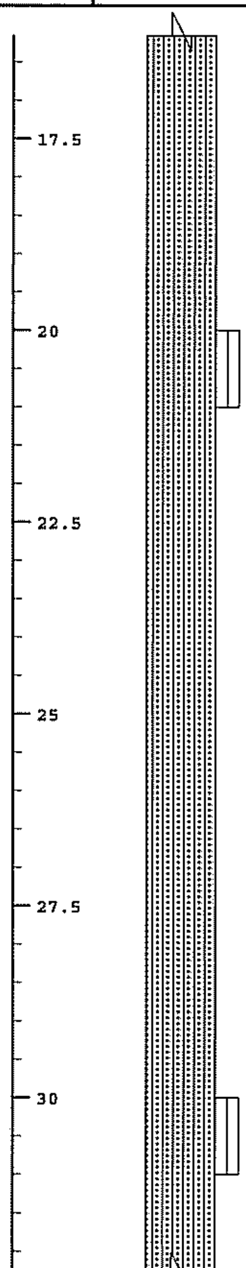
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 21

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-2-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...brown (7.5 YR 5/3), dry.						
20			...collect DBSA-21-Q-20 and DBSA-21-Q-20-DUP. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...course, angular gravel and cobbles (andesite and basalt). 20% Gravel, 10% cobbles, 65% sand, 5% fines.						
25			...course, angular gravel and cobbles to 26' bgs.						
27.5			...multiple weakly cemented layers 1" to 2" thick to 37' bgs.						
30			...brown (7.5 YR 4/3). ...collect DBSA-21-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						



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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

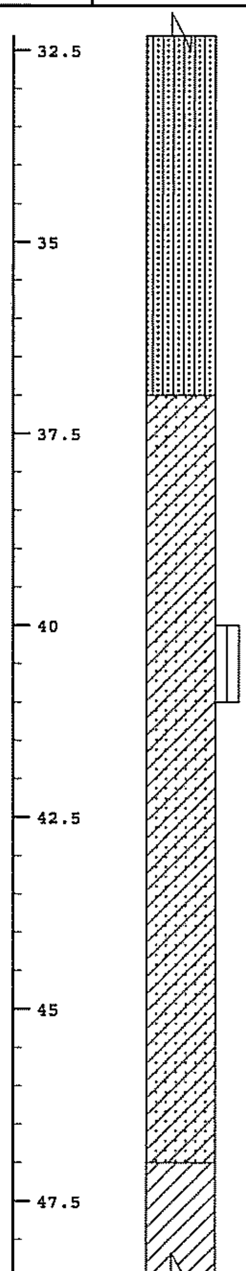
Figure No. 17

EXPLORATION LOG
DBSA 21

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-2-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		SC	Brown (7.5 YR 5/3), clayey SAND with gravel, dry and very dense. Trace Pyrite. ...pale brown (10 YR 6/3), weakly cemented. ...collect DBSA-21-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...laminated clayey sand layers with fine, white (10 YR 8/1) salt coatings.						
		CL	Pale brown (10 YR 6/3), sandy lean CLAY, trace gravel dry, and very stiff.						



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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 17

EXPLORATION LOG
DBSA 21

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-2-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

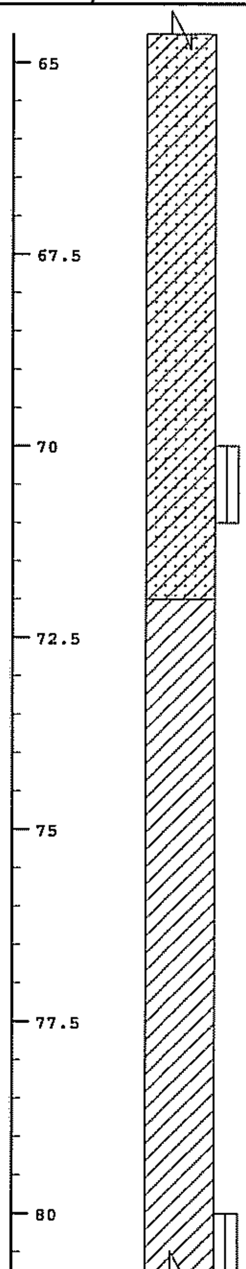
INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50 52.5 55 57.5		SM	Brown (7.5 YR 5/4), silty SAND with gravel, dry, weakly cemented and very dense. ...collect DBSA-21-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...red (2.5 YR 5/6), basalt cobble, volcanic, sub-rounded. ...brown (7.5 YR 5/3), weakly cemented.						
60 62.5		SC	Brown (7.5 YR 5/4), clayey SAND, few gravel, moist and very dense. 5% Gravel (angular to subangular andesite and basalt), 80% sand (poorly sorted), 15% fines. ...collect DBSA-21-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

EXPLORATION LOG
DBSA 21

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 10-2-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...course, poorly sorted sand. 5% gravel, 85% sand, 10% fines. ...wet to 66' bgs. ...moist. ...reddish brown (5 YR 5/4). ...thin (1/8") white (10 YR 8/1) caliche lamination. ...collect DBSA-21-Q-70, DBSA-21-Q-70-DUP, and DBSA-21-Q-70-MS/MSD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
		CL	MUDDY CREEK FORMATION: Brown (7.5 YR 4/3), sandy lean CLAY, trace gravel, moist and very stiff. ...clay layers are mostly massive with occasional laminated clay layers. ...weakly cemented. ...collect DBSA-21-T-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 17

EXPLORATION LOG
DBSA 21

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 10-2-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5									
85									
87.5		SC	Brown (5 YR 5/4), silty SAND, trace gravel, moist and very dense.						
90		SM	Reddish brown (5 YR 4/3), silty SAND, trace gravel, moist and very dense. ...collect DBSA-21-T-90.						
			END OF BORING AT 90.0 FEET						
92.5									
95									

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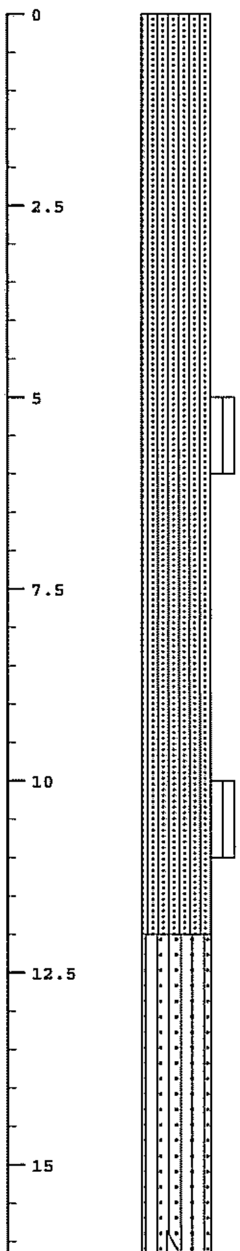
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 17

EXPLORATION LOG
DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-26-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		SM	Yellow (10 YR 7/6), silty SAND with gravel (approximately 30% gravel (well graded, subangular, approximately 33% course gravel, 33% medium gravel, and 33% fine gravel), 15% silt, 55% sand (poorly graded, subrounded, approximately 20% course sand, 20% medium sand, and 60% fine sand), moist and dense. ...collect DBSA-23-Q-5. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. Yellow (10 YR 7/6), silty SAND with gravel (approximately 30% gravel (well graded, subangular, approximately 33% course gravel, 33% medium gravel, and 33% fine gravel), 15% silt, 55% sand (poorly graded, subrounded, approximately 20% course sand, 20% medium sand, and 60% fine sand), moist and very dense . ...pale yellow (2.5 Y 8/4), sand has approximately 5% mafic, and 95% felsics. Gravel: approximately 20% basalt, and 80% latite. ...collect DBSA-23-Q-10. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
		SP-SM	Pale yellow (2.5 Y 7/4), poorly graded SAND with silt (approximately 10% gravel, 10% silt, 80% sand (subrounded, approximately 10% course sand, 5% medium sand, 85% fine sand), moist, weakly cemented (0.5" layers), and very dense. Sand: approximately 5% mafics, and 95% felsics. Gravel: 50% andesite, and 50% latite.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-26-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5 20 22.5 25 27.5 30		SM	Very pale brown (10YR 7/3) silty SAND with gravel (approximately 25% gravel (well-graded, subangular, approximately 33% course gravel, 33% medium gravel, 33% fine gravel), approximately 20% silt, 55% sand (well-graded, subrounded, approximately 30% course sand, 20% medium sand, 50% fine sand), moist and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 80% chloritic andesite, 20% latite. ...collected DBSA-23-Q-20. PID's: 10.6 eV= 1.3 ppmv, 11.7 eV = 0.0 ppmv. ...collected DBSA-23-Q-30, DBSA-23-Q-30- FD and DBSA-23-Q-30-MS/MD.						
		SM	...same as above, except weakly cemented in 0.5" layers.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-26-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
35									
37.5									
40			...collected DBSA-23-Q-40. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv; same soil as above except: light yellowish brown (10 YR 6/4), approximately 40% silt. Gravel: approximately 20% rhyolite, 30% latite, 30% basalt, 20% chloritic andesite.						
42.5			...past 42.5', same soil/sediments as before 39.0'.						
45									
47.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-26-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...collected DBSA-23-Q-50. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.; same soil as above.						
52.5									
55		SP-SM	Light yellowish brown (10yr 6/4) poorly-graded SAND with silt and gravel (approximately 20% gravel (well-graded, subangular, approximately 30% course gravel, 20% medium gravel, 50% fine gravel), approximately 10% silt, 70% sand (subrounded, approximately 20% course sand, 10% medium sand, 70% fine sand), moist and very dense. Sand: approximately 10% matics (as chlorite), 90% felsics. Gravel: approximately 30% basalt, 30% andesite (chloritic), 40% rhyolite. Contains 1.0" thick lenses of poorly graded sand with silt (SP-SM).						
57.5									
60		SP-SM	Light yellowish brown poorly-graded SAND with silt, few gravel, moist and very dense. Same grain size and composition as at 54'. ...collected DBSA-23-Q-60. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
62.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 18

EXPLORATION LOG
DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-26-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65									
67.5									
70			...collected DBSA-23-Q-70. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
72.5									
75									
			...abrupt contact at 77.5" (see below)						
77.5		SC	Brown (7.5 YR 5/4) clayey SAND (approximately 5% gravel (poorly-graded, subrounded, 100% fine gravel), 25% lean clay, 70% sand (poorly-graded, subrounded, approximatley 20% medium sand, 60% fine sand)), moist, weakly cemented and very dense. Sand: approximately 10% chlorite, 20% gypsum,						
80									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-26-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5 85			70% felsics. Gravel: approximately 50% chloritic andesite, 50% basalt. Sequence is laminated. ...becomes thickly bedded. ...collected DBSA-23-Q-80. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
87.5 90 92.5		SP-SC	Light yellowish brown (10 YR 6/4) poorly-graded SAND with clay (approximately 5% gravel (well-graded, subrounded, approximately 33% course gravel, 33% medium gravel, 33% fine gravel), approximately 10% clay, 85% sand (subrounded, approximately 20%, course sand, 10% medium sand, 70% fine sand), moist and very dense. Sand: has approximately 10% mafics, 90% felsics. Gravel: has approximately 20% chloritic andesite, 30% basalt, 50% rhyolite. ...1' thick beds of approximately 100% sand and gravel layers. ...collect DBSA-23-Q-90. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
95		SC	Reddish yellow (7.5 YR 6/6) clayey SAND with gravel (approximately 20% gravel, (well-graded, subrounded, approximately 30% course gravel, 30% medium gravel, 40% fine gravel), approximately 20% lean						

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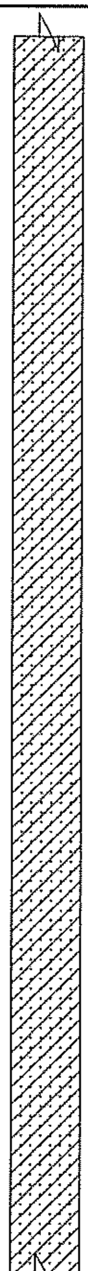
EXPLORATION LOG
DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-26-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			clay, 60% sand, (poorly-graded, subrounded, approximatley 20% course sand, 5% medium sand, 75% fine sand), moist and very dense. Sand: trace chlorite, 5% mafics, 95% felsics. Gravel: approximately 30% andesite (chloritic), 30% basalt, 40% rhyolite.						
100			...collected DBSA-23-Q-100. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv; samples have alternating interbeds of approximately 30% clay and then approximately 15% clay, with individual bedding thicknesses of 1.0'-1.5' thick.						
102.5									
105			...clayey beds gradually increase in thickness.						
107.5									
110			...collected DBSA-23-Q-110. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
112.5									

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EXPLORATION LOG
DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-26-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115		SP-SM	Brown (7.5 YR 5/4) poorly-graded SAND with silt and gravel (approximately 25% gravel (poorly-graded, subangular, approximately 30% medium gravel, 70% fine gravel), approximately 10% silt, approximately 65% sand (subrounded, approximately 20% course sand, 5% medium sand, 75% fine sand), moist and very dense. Sand: approximately 5% chlorite, 10% mafics, 85% felsics. Gravel: approximately 70% rhyolite, 15% latite, 15% andesite (chloritic).						
117.5									
120			...collected DBSA-23-Q-120. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. ...approximately 5% to 10% gravel, 70% sand, 30% fines. Gravel is subangular and well graded; Sand is 70% medium sand, 30% fine sand. Trace white salt coatings.						
122.5									
125									
127.5			...poorly formed layering in soil. Layers are 1/8" to 1/4" thick.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-26-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...collect sample DBSA-23-Q-130. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
132.5		CL-ML	Muddy Creek Formation: Brown (7.5 YR 5 4) silty CLAY with sand, moist and very stiff. Sand is fine grain, approximately 10% of soil.						
135		ML	Brown (7.5 YR 5/4) SILT, trace sand, trace clay, moist and very stiff.						
137.5			...dark yellowish brown (10YR 4/4).						
140			...collect DBSA-23-T-140. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
142.5									
145									

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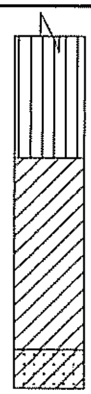
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-26-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5		CL	Dark yellowish brown (10 YR 4/4) sandy lean CLAY, moist and very stiff.						
150		SC	Dark yellowish brown (10 YR 4/4) clayey SAND, moist and very dense. ...collect DBSA-23-T-150. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
			END OF BORING AT 150.0 FEET						
152.5									
155									
157.5									
160									

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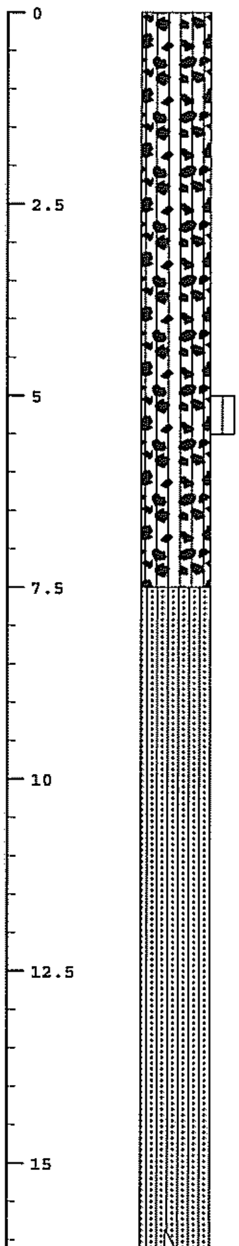
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 18

EXPLORATION LOG
DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		GM	Yellowish brown (10 YR 5/6) silty GRAVEL with sand (approximately 60% gravel (well-graded, subrounded, approximately 20% cobbles, 20% course gravel, 20% medium gravel, 20% fine gravel), approximately 15% silt, 25% sand, (well-graded, subrounded, approximately 40% course sand, 20% medium sand, 40% fine sand), moist and dense. Gravel: approximately 30% rhyolite, 30% latite, 20% andesite, 10% chloritic andesite. Sand: approximately 5% mafics, 95% felsics. ...collect DBSA-23-Q-5. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. ...6" thick layers of silty gravel with sand (see soil description at 0.0').						
		SM	Yellowish brown (10 YR 5/6) silty SAND with gravel (appproximately 40% gravel, 20% silt, 40% sand), moist. Gravel is poorly-graded, subangular, approximately 10% medium gravel, 90% fine gravel, has approximately 40% andesite, 30% rhyolite, 30% latite. Sand is well-graded, subrounded, approximately 30% course sand, 20% medium sand, 50% fine sand, approximatley 5% mafics, 95% felsics. ...collect DBSA-26-Q-10. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmV.						

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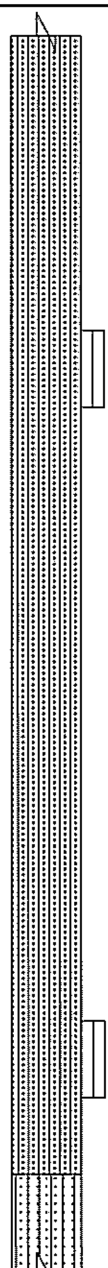
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 19

EXPLORATION LOG
DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5			...6" thick gravel layer (poorly-graded), has thin alternating beds of silty SAND and silty SAND with gravel within the layer.						
20			...collected DBSA-26-Q-20, PIDs: 11.7 eV = 0.0 ppmv, 10.6 eV = 1.5 ppmv.						
22.5									
25									
27.5									
30			...collected DBSA-26-Q-30. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmV. Same soil as above.						
		SW-SM	Very pale brown (10 YR 7/4) well-graded SAND with silt (approximately 5% gravel (poorly-graded, subangular, 100% fine						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5 35 37.5			gravel), approximately 10% silt, 85% sand (subrounded, well-graded, approximately 30% course sand, 30% medium sand, 40% fine sand)), moist and very dense. Sand: approximately 20% mafics (as chloritic andesite), 80% felsics; Gravel: approximately 20% andesite (chloritic), 80% rhyolite.						
40 42.5 45 47.5		SM	Light yellowish brown (10 Y/R 6/4) silty SAND with gravel (approximately 25% gravel (welll-graded, subangular, approximately 20% course gravel, 30% medium gravel, 50% fine gravel), approximatley 20% silt, 55% sand (subrounded, poorly graded, approximately 30% course sand, 10% medium sand, 60% fine sand), dry and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximatley 10% andsite (chlorite), 40% latite, 40% rhyolite, 10% basalt. ...collected DBSA-23-Q-40. PID's: 10.6 eV= 0.0 ppmV, 11.7 eV = 0.0 ppmv. Same soil as above except: light yellowish brown (10 YR 6/4), approximately 40% silt. Gravel: approximately 20% rhyolite, 30% latite, 30% basalt, 20% chloritic andesite. ...past 42.5', same soil/sediments as before 39.0'.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

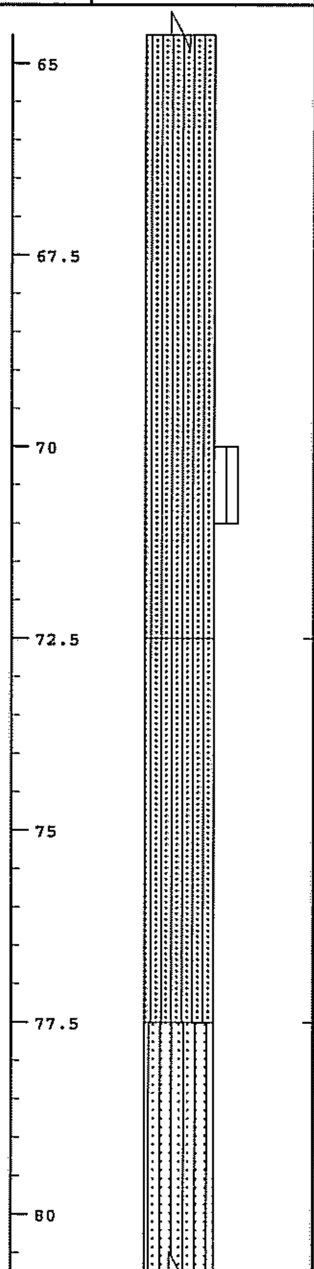
ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...collected DBSA-23-Q-50. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
52.5									
55			...andesite cobble.						
57.5									
60		SC	Light yellowish brown (10 YR 6/4) clayey SAND with gravel (approximately 25% gravel (well-graded, subangular, approximately 20% course gravel, 30% medium gravel, 50% fine gravel),						
62.5		SM	aproximately 30% clay, 45% sand (poorly-graded, subrounded, approximately 20% course sand, 10% medium sand, 70% fine sand), moist and very dense. Sand: approximately 15% mafics, 85% felsics. Gravel: approximately 70% rhyolite, 30% andesite. Weakly cemented 1"-2" thick layers. ...collected DBSA-26-Q-60. PID's: 10.6						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
			Light yellowish brown (10 YR 6/4) silty SAND with gravel (approximately 35% gravel (well-graded, subangular, approximately 30% course gravel, 30% medium gravel, 40% fine gravel), approximately 20% silt, 45% sand, (poorly graded, subrounded, approximately 10% course sand, 10% medium sand, 80% fine sand), moist and very dense. Gravel: approximately 70% rhyolite, 30% andesite. Sand: approximatley 15% mafics, 85% felsics. ...collected DBSA-26-Q-70, PID's: 11.7eV= 3.8 ppmv, 10.6 eV= 1.6 ppmv.						
		SM	Very pale brown (10 YR 7/4) silty SAND (approximately 10% gravel (poorly graded, subrounded, approximately 10% medium gravel, 90% fine gravel), approximately 20% silt, 70% sand (poorly graded, subrounded, approximately 30% fine sand, 20% medium sand, 50% fine sand), moist and very dense. Sand: approximately 5% mafics, 95% felsics. Gravel: approximatley 30% rhyolite, 40% chloritic andesite, 30% latite.						
		SW-SM	Very pale brown (10 YR 7/4) well-graded SAND with silt (approximately 10% gravel (poorly graded, subangular, 100% fine gravel), approximately 10% silt, 80% sand (subrounded, well-graded, 40% course sand, 30% medium sand, 30% fine sand)), moist and very dense. Sand: approximately 20% matics (as basalt/						

EXPLORATION LOG
DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5 85			chloritic andesite), approximately 80% felsics. Gravel: approximately 30% rhyolite, 30% latite, 40% green chloritic andesite. ...collect DBSA-26-Q-80. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmV.						
87.5 90		SM	Brown (10 YR 5/3) well-graded SAND with silt and gravel (approximately 20% gravel (well-graded, subangular, approximately 30% course gravel, 30% medium gravel, 40% fine gravel), approximately 20% silt, 50% sand (poorly-graded, subrounded, approximately, 20% course gravel, 10% medium sand, 70% fine sand)), moist and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 50% rhyolite, 25% andesite (chloritic), 25% latite. ...collected DBSA-26-Q-90. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmV.						
92.5 95		SW-SM	Brown (10 YR 5/3) well-graded SAND with silt and gravel (approximately 20% gravel (poorly graded, subangular, approximately 10% medium gravel, 90% fine gravel), approximately 10% silt, 70% sand (subrounded, approximately 30% course sand, 30% medium sand, 40% fine sand)), moist and very dense. Sand: approximately 10% basalt, 10% andesite, 80% felsics. Gravel: approximately 50%						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			basalt, 25% andesite, 25% rhyolite.						
100			...collected DBSA-26-Q-100; ...collected DBSA-26-Q-100, PID's: 11.7 eV = 2.4 ppmv, 10.6 eV = 2.0 ppmv.						
102.5		SM	Very pale brown (10 YR 7/3) silty SAND with gravel (approximately 20% gravel (well-graded, subangular, approximately 33% course gravel, 33% medium gravel, 33% fine gravel), approximately 30% silt, 50% sand (well-graded, subrounded, approximately 40% course sand, 10% medium sand, 50% fine sand)), moist and very dense. Sand: approximately 5% mafics (as chlorite), approximately 95% felsics. Gravel: approximately 40% rhyolite, 30% latite, 30% andesite.						
105									
107.5									
110			...collected DBSA-26-Q-110. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
112.5									

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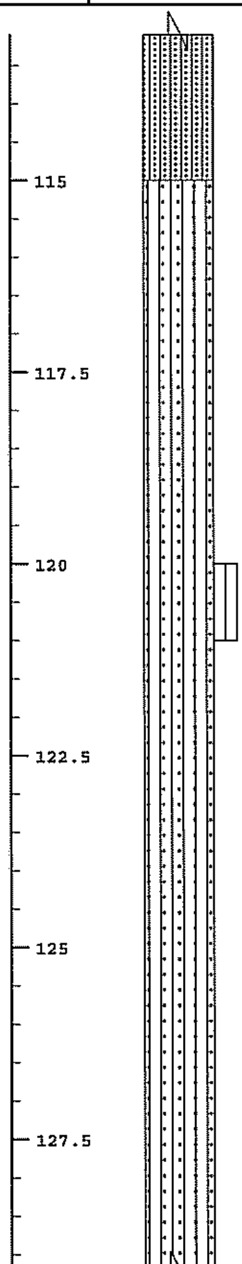
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115		SP-SM	Reddish yellow (7.5 YR 6/6) poorly graded SAND with silt and gravel (approximately 30% gravel (well graded, subangular, approximately 33% course gravel, 33% medium gravel, 33% fine gravel), approximately 10% silt, 60% sand (subrounded, approximately 20% course sand, 10% medium sand, 70% fine sand), moist and very dense. Sand: approximately 5% mafics, 95% felsics. Gravel: approximately 40% latite, 60% rhyolite.						
120			...collected DBSA-26-Q-120. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						



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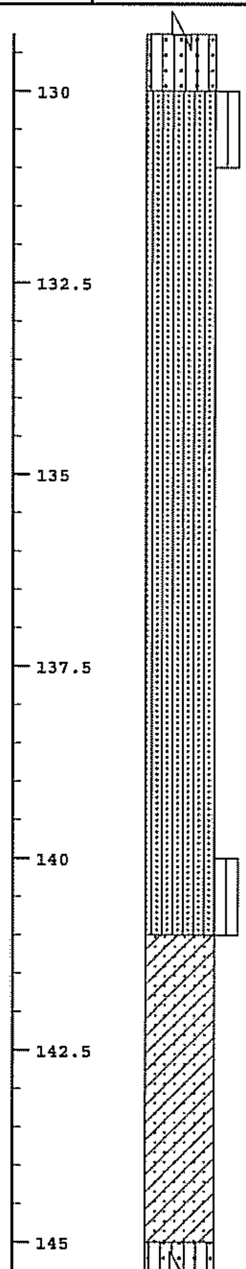
EXPLORATION LOG
DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130		SM	...collected DBSA-26-Q-130. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. Brownish yellow (10 YR 6/6) silty SAND with gravel (approximately 25% gravel (well graded, subangular, approximately 30% course gravel, 35% medium gravel, 35% fine gravel), approximately 20% silt, 55% sand (poorly graded, subrounded, approximately 25% course sand, 10% medium sand, 65% fine sand)), moist and very dense. Sand: approximately 5% mafics, 95% felsics. Gravel: approximately 50% latite, 50% rhyolite. ...collected DBSA-26-Q-140. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmV.						
		SC	Strong brown (7.5 YR 5/6) clayey SAND with gravel (approximately 20% gravel (poorly graded, subangular, approximately 40% course gravel, 60% fine gravel), approximaely 25% lean clay, approximately 55% sand (well graded, subrounded, approximately 30% course sand, 30% medium sand, 40% fine sand)), moist and very dense. Sand: 10% mafics, 90% felsics. Gravel: 80% rhyolite, 10% latite, 10% chloritic andesite.						
145		SP-SM							

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

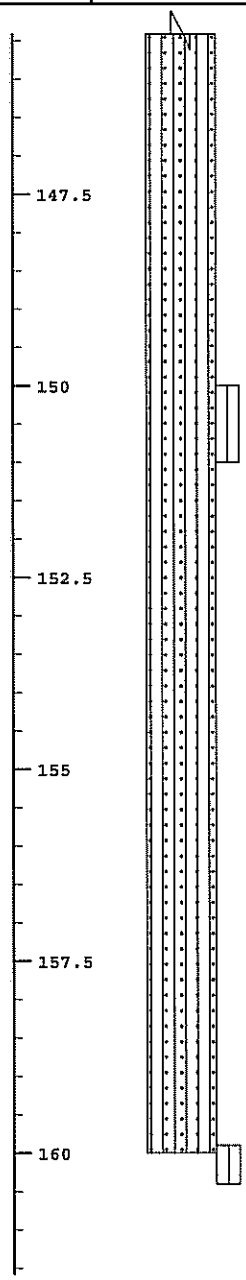
Figure No. 19

EXPLORATION LOG
DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5, 150, 152.5, 155, 157.5			Yellowish brown (10 YR 5/4) silty SAND with gravel (approximately 20% gravel (poorly graded, subangular, approximately 20% course gravel, 10% medium gravel, 70%), approximately 20% silt, 60% sand (poorly graded, subrounded, approximatley 20% course sand, 20% medium sand, 60% fine sand)), moist and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 80% andesite, 10% latite, 10% chloritic andesite. ...collected DBSA-26-Q-150. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. ...same soil as above.						
160			...collected DBSA-26-Q-160. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. ...same soil as above. **END OF BORING AT 160.0 FEET**						



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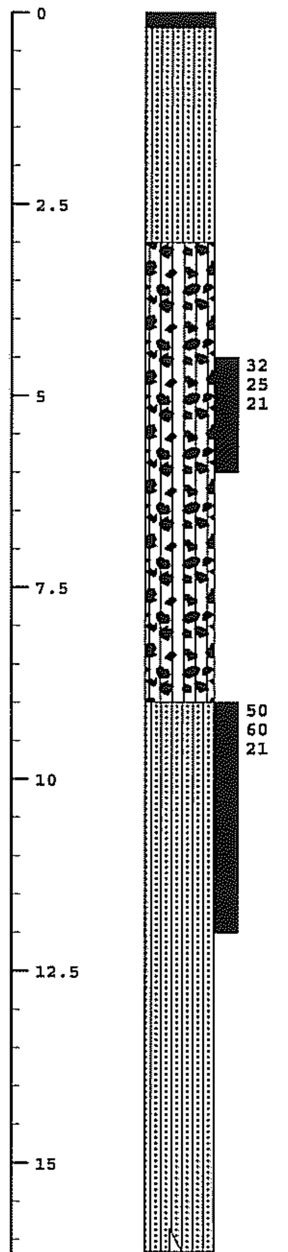
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 19

EXPLORATION LOG
DBSA-27

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/9/07-8/13/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2" thick. Sample DBSA-27-Q-0 from field adjacent to the boring.						
		SM	Reddish brown (5 YR 5/4) silty SAND with gravel, moist.						
		GM	Reddish yellow (5 YR 6/6) silty GRAVEL with sand, moist and medium dense. Gravel is subangular to subrounded, well-graded, consists of 80% latite, 20% basalt. Sand is subrounded, poorly graded, with 40% mafics, 60% felsics. Approximately 20% silt, 25% sand, 55% gravel. ...boring cleared with air knife to 4.5'. ...sample DBSA-27-Q-5, Pid's: 10.6 eV = 1.7 ppmv, 11.7 eV = 0.0 ppmv.						
		SM	Light greenish gray (GLEY 2 7/1) silty SAND, moist, weakly cemented and dense. Sand is subrounded, poorly graded, with 30% gypsum, 70% felsics. Approximately 30% silt, 70% sand. Samples DBSA-27-Q-10 and DBSA-27-Q-10-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 20

EXPLORATION LOG
DBSA-27

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/9/07-8/13/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5									
20	15 16 75	SM	Greenish gray silty SAND with gravel, moist, weakly cemented and very dense. Sand is subrounded, well-graded, consists of 10% gypsum, 20% mafics, 70% felsics. Gravel is angular, well-graded, with 30% cemented sand, 30% andesite, 40% rhyolite. Approximately 20% silt, 20% gravel, 40% sand. Samples DBSA-27-Q-20 and DBSA-27-Q-20-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
22.5									
25									
27.5									
30	60 100 160		...light yellowish brown (10 YR 6/4), sample DBSA 27-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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EXPLORATION LOG
DBSA-27

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/9/07-8/13/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
35									
37.5									
40	98 167 250		...gravel consists of 30% basalt, 70% rhyolite, sample DBSA-27-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
42.5									
45									
47.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 20

EXPLORATION LOG
DBSA-27

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/9/07-8/13/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50	78 124 170	SM	Yellowish brown silty SAND, moist, weakly cemented and very dense. Sand is subrounded, poorly graded, consisting of 30% mafics, 70% felsics. Gravel is subangular, poorly graded, with 90% rhyolite, 10% latite. Approximately 20% silt, 10% gravel, 70% sand. Collect DBSA-27-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
52.5									
55									
57.5									
60		SM	Yellowish brown silty SAND with gravel, moist and very dense. Sand is subrounded, well-graded, has 40% mafics, 60% felsics. Gravel is subangular, poorly graded, with 30% rhyolite, 30% basalt, 40% andesite. Sequence is thinly bedded. Approximately 20% silt, 25% gravel, 55% sand. Sample DBSA-27-Q-60, Pid's: 11.7 eV = 0. 9 ppmv, 10.6 eV = 0.0 ppmv.						
62.5									

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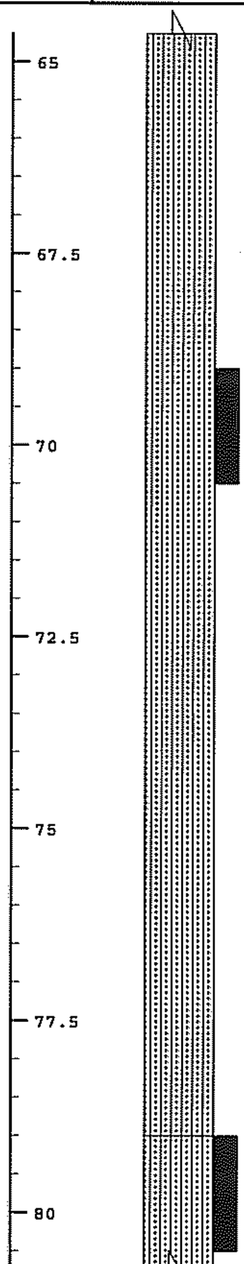
EXPLORATION LOG
DBSA-27

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/9/07-8/13/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65 – 80			...same as 58' bgs except: thin beds of silty SAND and silty SAND with gravel, sand composition is 25% mafics, 75% felsics, weakly cemented and veined. Collect DBSA-27-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
		SM	Yellowish brown silty SAND, moist and very dense. Sand is subrounded, well - graded, 40% mafics, 60% felsics. Gravel is subangular, poorly graded, with 30%						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA-27

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/9/07-8/13/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			rhyolite, 30% basalt, 40% andesite. Approximately 20% silt, 10% gravel, 70% sand. Sample DBSA-27-Q-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
82.5									
85									
87.5									
			...same soil as above, sample DBSA-27-Q= 90. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
90									
92.5		CL	MUDDY CREEK FORMATION: Light yellowish brown sandy lean CLAY, moist, weakly cemented and very stiff. Sequnce is laminated and cross cut by 1/ 8" gypsum veinlets. Approximately 40% sand, 60% clay. Contact inferred by changes in drilling behavior and drill rates.						
95									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA-27

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/9/07-8/13/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5									
100			...light greenish gray, weakly cemented with thin laminae of clayey sand, samples: DBSA-27-T-100, PIDs: 10.6, 11.7 eV = 0.0 ppmV. DBSA-27-T-100-FD, DBSA-27-T-100-MS/MSD.						
			END OF BORING AT 102.0 FEET						
102.5									
105									
107.5									
110									
112.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 20

EXPLORATION LOG
DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2" thick.						
		SW-SM	Brownish yellow (10YR 6/6) well-graded SAND with silt (approximatley 10% gravel (poorly graded, subangular, approximatley 5% medium gravel, 95% fine gravel), approximately 10% silt, 80% sand (well graded, subangular, approximatley 30% course sand, 40% medium sand, 30% fine sand), moist and dense. Sand: approximately 5% mafics, 95% feslics. Gravel: approximately 90% rhyolite, 10% andesite.						
2.5		SM							
5			Brownish yellow (10YR 6/6) well-graded SAND with silt, dry and dense. ...collected DBSA-29-Q-5, PID's: 11.7 eV = 1.3 ppmv, 10.6 eV = 0.8 ppmv. ...boring cleared with air knife to 5'.						
7.5		SP-SM	Brownish yellow (10 YR 6/6) poorly graded SAND (approximately 10% gravel, 10% silt, 80% sand (poorly graded, subrounded, 10% course sand, 90% fine sand), moist and very dense. Sand: approximately 10% mafics, 90% felsics, Gravel: 80% andesite, 20% latite.						
10			...collected DBSA-29-Q-10, and DBSA-29-Q-10-FD. PID's: 11.7 eV= 1.9 ppmv, 10.6 eV= 1.6 ppmv. Same as above.						
12.5									
15		SM	Brownish yellow (10 YR 6/6) silty SAND with gravel (approximately 20% gravel (poorly graded, subangular, approximately						

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EXPLORATION LOG
DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5 20			30% medium gravel, 70% fine gravel), approximately 10% silt, 70% sand (well graded, subrounded, approximately 25% course sand, 30% medium sand, 45% fine sand)), moist, weakly cemented and very dense. Sand: approximately 30% mafics (basalt, chloritic andesite), approximately 70% felsics; Gravel: approximately 20% rhyolite, 20% latite, 60% andesite. ...collected DBSA-29-Q-10, PID's: 11.7 eV= 0.0 ppmv, 10.6 eV= 0.5 ppmv.						
22.5 25 27.5 30		SM	Brownish yellow (10 YR 6/6) silty SAND with gravel (approximately 20% gravel (poorly graded, subangular, approximately 10% medium gravel, 90% fine gravel), approximately 20% silt, 60% sand (subround, poorly graded, approximately 10% course sand, 10% medium sand, 80% fine sand), moist, weakly cemented (in layers) and very dense. Sand: approximately 10 % mafics, 90% felsics; Gravel: approximately 30% rhyolite, 70% latite: caliche coats on gravel clasts. ...collected DBSA-29-Q-30, PID's: 11.7 eV = 0.0 ppmv, 10.6 eV = 0.4 ppmv, same soil as 22.5' bgs.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
35			...weakly cemented, gravel clasts contain approximately 30% green/olive choritically altered andesite.						
37.5									
40			...collected DBSA-29-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Same soil as 22.5' bgs except: approximately 5% course gravel as latite.						
42.5									
45									
47.5		SW-SM	Light brown (75 YR 6/3) well-graded SAND with silt and gravel (approximately 40% gravel (well graded subangular, approximately 10% course gravel, 40% medium gravel 50% fine gravel), approximately 10% silt, 50% sand (well-						

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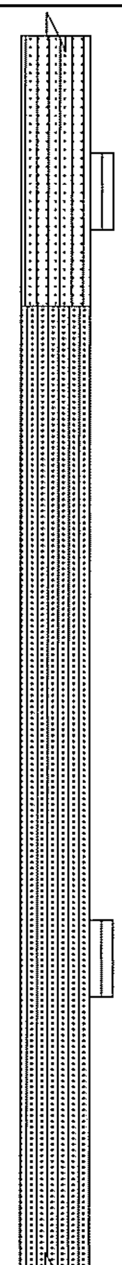
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			graded, subrounded, approximately 30% course sand, 30% medium sand, 40% fine sand)) moist and very dense. Sand: approximately 20% mafics (basalt, chloritic andesite), approximately 80% felsics. Gravel: approximately 20% rhyolite, 30% latite, 50% andesite. ...collected DBSA-29-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Same soil as 22.5' bgs, except sand consists of 50% mafics (basalt, chloritic andesite and 50% felsics; weakly cemented.						
52.5 55 57.5 60 62.5		SM	Very pale brown (10 YR 7/4) silty SAND (approximately 15% gravel, (poorly graded, subangular, approximately 10% medium gravel, 90% fine gravel), approximately 20% silt, 65% sand (poorly graded, subrounded, approximately 20% course sand, 80% fine sand), moist and very dense. Sand: approximately 10% matics (basalt), 90% felsics. Gravel: approximately 50% andesite (chloritic), 50% latite. ...collected DBSA-29-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Same as 52.0' bgs.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

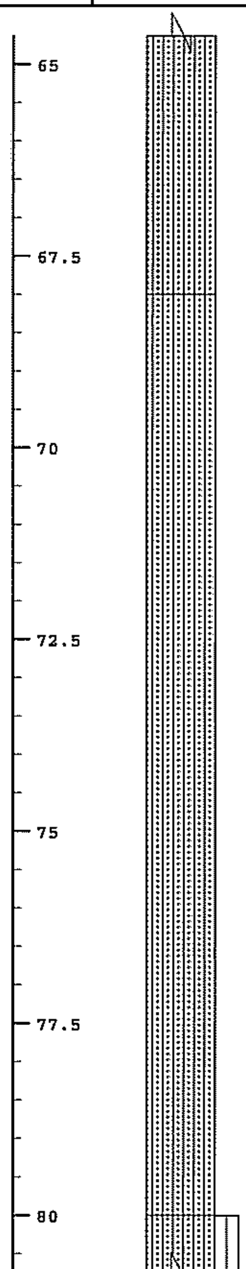
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 21

EXPLORATION LOG
DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		SM	Strong brown (7.5 YR 5/6) silty SAND wih gravel (approximately 25% gravel (poorly graded, subangular, approximatley 30% medium gravel, 70% fine gravel), approximately 20% silt, 55% sand (well graded, subrounded, approximately 20% course sand, 20% medium sand, 60% fine sand), moist and very dense. Sand: approximately 15% mafics (basalt, chlorite), 85% felsics. Gravel: approximately 50% andesite (chlorite), approximately 20% basalt, 30% latite. ...collect DBSA-29-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
		SM	...collected DBSA-29-Q-80, PID's: 11.7 eV= 0.0 ppmv, 10.6 eV = 1.4 ppmv.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

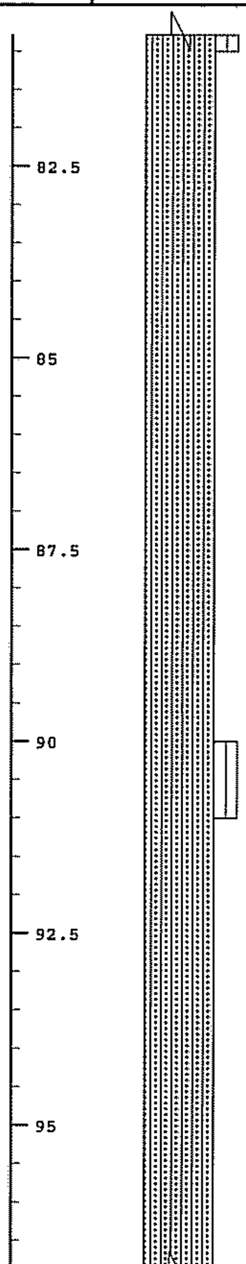
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 21

EXPLORATION LOG
DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			Light brown (7.5 YR 6/4) silty SAND (approximately 10% gravel, (poorly graded, subangular, approximately 5% medium gravel, 95% fine gravel), approximately 15% silt, 75% sand (well-graded, subrounded, approximately 20% course sand. 30% medium sand, 50% fine sand)), moist and very dense. Sand: approximately 10% mafics (basalt), 90% felsics. Gravel: approximately 50% andesite, 50% latite.						
			...collected DBSA-29-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Same soil as 80' bgs except: brownish yellow (10 YR 6 6); gravel clasts consist of approximately 30% chloritic andesite.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 21

EXPLORATION LOG
DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			...very pale brown (10 YR 7/4), moisture content is gradually increasing.						
100			...collected DBSA-29-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
102.5									
105		SP-SM	Very pale brown (10 YR 7/4) poorly graded SAND with silt and gravel (approximately 20% gravel (poorly graded, subangular, approximately 40% medium gravel, 60% fine gravel), approximately 10% silt, 70% sand, (poorly graded, subrounded, approximately 15% course sand, 5% medium sand, 80% fine sand), moist and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 40% rhyolite, 60% andesite (approximately 20% is chloritically altered).						
107.5									
110			...collected DBSA-29-Q-110, PIDs: 11.7 eV = 0.0 ppmv, 10.6 eV = 1.0 ppmv.						
112.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

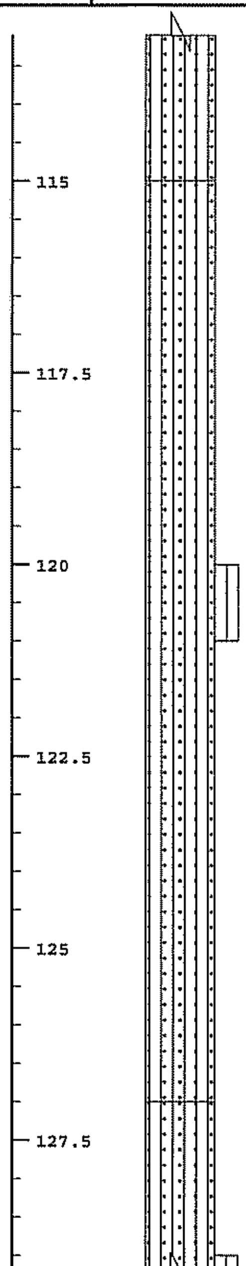
Figure No. 21

EXPLORATION LOG
DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/DEPTH — SOIL & SAMPLE SYMBOLS



USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
SP-SM	Yellowish brown (10 YR 5/6) poorly graded SAND with silt (approximately 10% gravel (poorly graded, subangular, 30% medium gravel, 70% fine gravel), 10% silt, 80% sand (poorly graded, subrounded, 30% course sand, 5% medium sand, 65% fine sand), moist, weakly cemented (in sheets) and very dense. Sand: approximately 10% mafics (andesite, trace chloritic), approximately 90% felsics, Gravel: approximately 70% rhyolite, 30% andesite. ...collected DBSA-29-Q-120, PID's: 11.7 eV = 0.0 ppmv, 10.6 eV = 0.7 ppmv.						
SP-SM	Yellowish brown (10 YR 5/6), poorly graded SAND with silt and gravel (approximately 20% gravel (poorly graded, subangular, approximately 20% medium gravel, 80% fine gravel), approximately						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

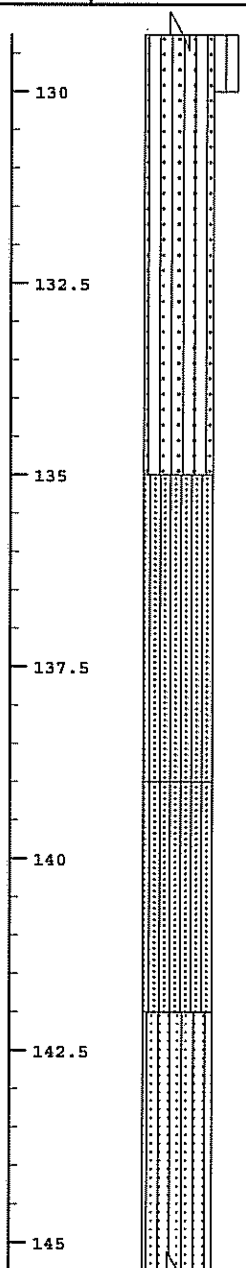
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

ELEVATION/ DEPTH — SOIL & SAMPLE SYMBOLS



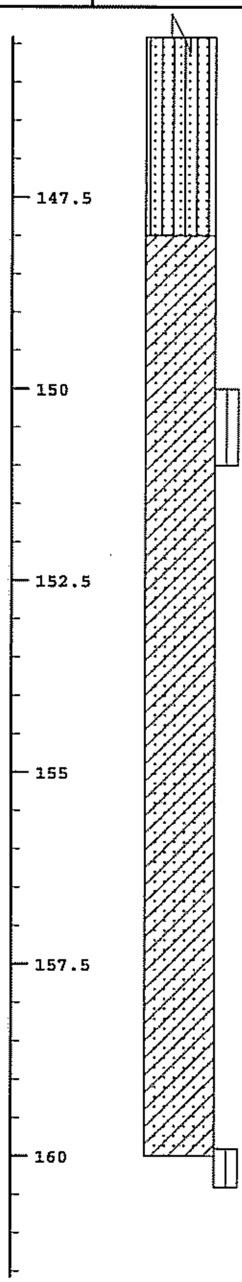
USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
	10% silt, 70% sand (poorly graded, subrounded, approximately 30% course sand, 10% medium sand, 70% fine sand)), moist and very dense. Sand: approximately 20% mafics (as andesite/ chloritic andesite), 80% felsics, Gravel: approximately 20% rhyolite, 60% andesite, 20% latite. ...collected DBSA-29-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
SM	Brown (7.5 YR 5/4) silty SAND (approximately 15% gravel (poorly graded, subrounded, approximately 10% medium gravel, 90% fine gravel), approximately 20% silt, 65% sand (poorly graded, subrounded, approximately 15% course sand, 5% medium sand, 80% fine sand), moist and very dense. Sand: approximately 20% sand as chloritic andesite, 80% felsics; Gravel: approximately 40% latite, 60% andesite (chloritic).						
SM							
SW-SM	Reddish yellow (7.5 YR 6/6) silty SAND with gravel (approximately 30% gravel (well graded, subangular, approximately 40% medium gravel, 60% fine gravel), 20% silt, 50% sand (well graded, subround, approximately 40% course sand, 30% medium sand, 30% fine sand) moist and very dense. Sand: approximately 20% mafics, 80% felsics; Gravel: approximately 20% chloritic andesite, 10% basalt, 10% latite, 60% rhyolite. ...collect DBSA-29-Q-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...wet at approximately 140'.						

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			Brown (7.5 YR 5/4) well graded SAND with silt and gravel (approximately 20% gravel (poorly graded, subrounded, approximately 20% medium gravel, 80% fine gravel), approximately 10% silt, 70% sand (well graded, subrounded, approximately 40% course, 20% medium gravel, 40% fine sand), wet and very dense. Sand: approximately 20% mafics (as basalt and chloritic andesite), 80% felsics, Gravel: approximately 30% rhyolite, 30% andesite (chloritic), 30% andesite, 10% latite.						
		SC	Light brown (7.5 YR 6/4) clayey SAND (approximately 10% gravel (subrounded, poorly graded, 100% fine gravel), approximately 30% clay, 60% sand (poorly graded, subrounded, approximately 20% course sand, 10% medium sand, 70% fine sand), wet and very dense. Gravel: approximately 40% rhyolite, 30% chloritic andesite, 30% latite; Sand: approximately 10% mafics, 90% felsics. ...collected DBSA-29-Q-150. ...1.0' thick of clayey sand with gravel; clay content gradually increases to approximately 40% down hole to 160'.						
			...collected DBSA-29-Q-160, DBSA-29-Q-160-FD, and DBSA-29-GW (groundwater sample).						
			END OF BORING AT 160.0 FEET						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 21

EXPLORATION LOG
DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0–7.5		SM	Very pale brown (10 YR 8/2) silty SAND with gravel (approximately 40% gravel (well graded, subangular), approximately 15% silt, 45% sand (well graded, subangular)), dry and dense. Sand: approximately 80% felsics, 20% mafics, Gravel: approximately 20% basalt, 20% rhyolite, 40% andesite, 20% latite. ...collected DBSA-30-Q-5, PID's: 10.6 eV = 0.9 ppmv, 11.7 eV = 1.7 ppmv.						
7.5–13		SM	Light yellowish brown (10 YR 6/4) silty SAND (approximately 10% gravel (poorly graded, subangular), approximately 15% silt, 75% sand (well graded, subrounded), moist and very dense. Sand: approximately 25% mafics, 75% felsics; Gravel: approximately 100% andesite. ...collected DBSA-30-Q-10, PID: 10.6 eV = 0.7 ppmv.						
13–16		SM	Pale brown (10 YR 6/3) silty SAND with gravel (approximately 20% gravel), dry and very dense.						

Depth scale: 0, 2.5, 5, 7.5, 10, 12.5, 15

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5			...very pale brown (10 YR 7/3).						
20			...collected DBSA-30-Q-20, PID: 10.6 eV = 0.1 ppmv. ...same soil as 13' bgs.						
22.5									
25									
27.5									
30		SM	...collected DBSA-30-Q-3, PID's: 10.6 eV = 0.9 ppmv, 11.7 ev = 1.7 ppmv. Pale brown (10 YR 6/3) silty SAND with gravel (approximately 20% gravel (well graded, subangular), approximately 15%						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

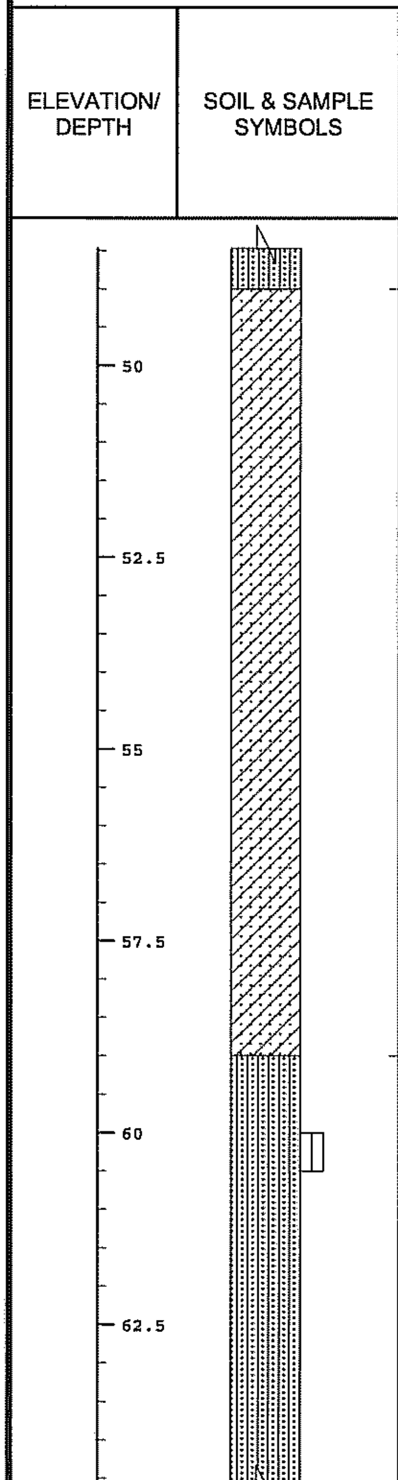
ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5			silt, 65% sand (poorly graded, subround), moist and very dense. Sand: approximately 10% mafics, 90% felsics; Gravel: approximately 50% basalt, 50% rhyolite. Gravel occurs as 6" thick beds.						
35									
37.5		SM	...slower more resistant drilling. Brown (10 YR 5/3) silty SAND (approximately 30% silt, 70% sand (well graded, subangular), moist, weakly cemented and very dense. Sand: approximately 90% andesite/felsics, 10% mafics.						
40		SM	...collected DBSA-30-Q-40, PID's: 10.6 eV= 2.4 ppmv, 11.7 eV= 0.5 ppmv. Very pale brown (10 YR 7/3) silty SAND with gravel (approximately 20% gravel (well graded, subangular), approximately 20% silt, 60% sand (well graded, subangular), moist and very dense. Sand: approximately 20% mafics, 80% felsics; Gravel: approxmiately 40% andesite, 20% basalt, 40% rhyolite.						
42.5									
45									
47.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A



USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
SC	Yellowish brown (10 YR 5/4) clayey SAND with gravel (approximately 15% gravel (well graded, subangular), approximately 30% clay, 55% sand, (poorly graded, subrounded), moist. Sand: approximately 15% mafics, 855 felsics; Gravel: approximately 90% andesite, 10% rhyolite. ...collect DBSA-30-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...minor 0.5" thick lean CLAY layers.						
SM	Very pale brown (10 YR 7/4) silty SAND (approximately 10% gravel (poorly graded, subangluar), 25% silt, 75% sand (well graded, subrounded), moist and very dense. Sand: approximately 10% mafics, 90% felsics; Gravel: consists of 100% andesite. ...collected DBSA-30-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION **PROJECT NO.:** 20072226V1
BORING LOCATION: SEE FIGURE 2 **EXPLORATION DATE:** 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE **EQUIPMENT:** SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE **LOGGED BY:** M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED **DATE MEASURED:** N/A

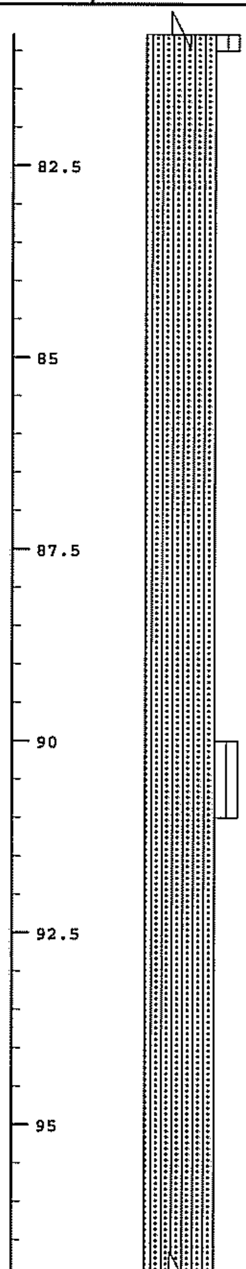
ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65 67.5									
70 72.5		SM	Brownish yellow (10 YR 6/6) silty SAND with gravel (approximately 20% gravel (poorly graded, subrounded), approximately 15% silt, 65% sand (well graded, subrounded), moist and very dense. Sand: approximately 5% chlorite, 10% mafics, 85% felsics; Gravel: approximately 80% andesite, 20% latite. ...collected DBSA-30-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
75 77.5		SP-SM	Light yellowish brown (10 YR 6/4) poorly graded SAND with silt (approximately 10% silt, 90% sand (subrounded), moist and very dense. Weakly cemented nodules; Sand: approximately 5% mafics, 95% felsics, trace gypsum.						
80		SM	Very pale brown (10 YR 7/4) silty SAND with gravel (approximately 20% gravel (well graded, subangular), approximately 15% silt, 65% sand (well graded,						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



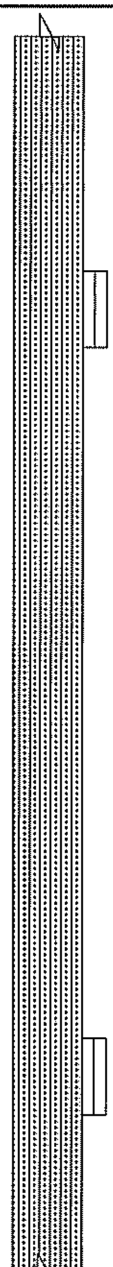
ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			subrounded), moist and very dense. Sand: approximately 10% mafics, 90% felsics: Gravel: approximately 20% green chloritic andesite, 70% latite, 10% rhyolite. Sequence is thinly bedded. ...collected DBSA-30-Q-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...collected DBSA-30-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV. same soil as 80' bgs.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5									
100			...collected DBSA-30-Q-100, PID's: 10.6 eV= 0.8 ppmv: same soil as 80' bgs.						
102.5									
105									
107.5									
110			...collected DBSA-30-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...weakly cemented layers.						
112.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 22

EXPLORATION LOG
DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115		SC	Yellowish brown (10 YR 5/4) clayey SAND (approximately 5% gravel (poorly graded, subangular), approximately 20% clay, 75% sand (well graded, subrounded), moist and very dense. Sand: approximately 5% mafics, 95% felsics; Gravel: approximately 100% andesite.						
117.5			...clay increases to approximately 40%, wet in bands.						
120			...collected DBSA-30-Q-120. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
122.5									
		SC	...wet at 123'. Mottled brown (7.5 YR 4/4) clayey SAND with gravel (approximately 20% gravel (well graded, subangular) approximately 20% clay, 60% sand (coarse, well graded, subrounded), wet and very dense. Sand: approximately 20% mafics, 80% felsics; Gravel: approximately 30% rhyolite, 30% andesite (chloritic), 40% basalt.						
125									
127.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...collected DBSA-30-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...clay occurs as 2" thick beds; gravel consists of approximately 30% choloritic andesite, 40% basalt, 30% latite.						
132.5									
135									
137.5									
140			...collected DBSA-30-Q-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV.; same soil as 123' bgs except: brown (7.5 YR 5/4) sandy lean CLAY with gravel occurs as 2. 0" wide beds.						
142.5									
145									

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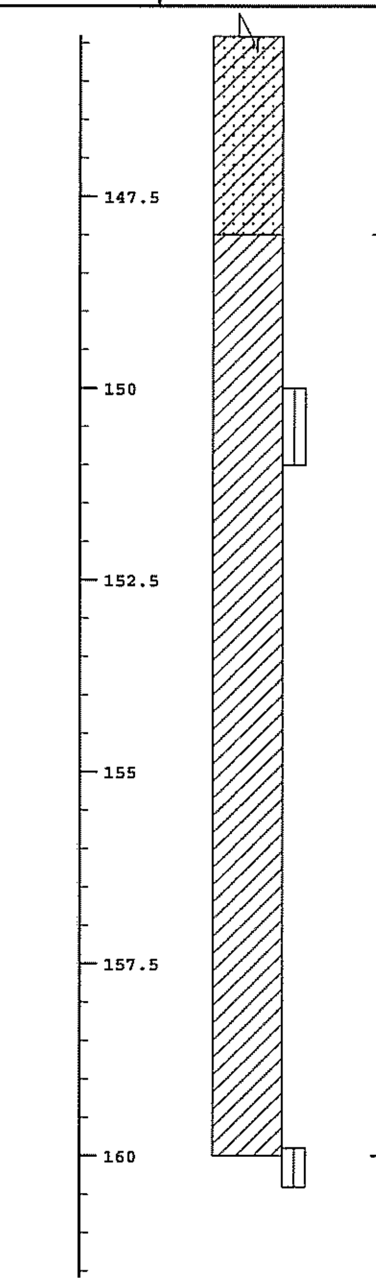
EXPLORATION LOG
DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 09-21-07
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		CL	Muddy Creek Formation: Yellowish brown (7.5 YT 5/4) sandy lean CLAY (approximately 40% sand (well graded, subrounded, approximately 60% course sand, 20% medium sand, 20% fine sand), wet and very stiff. Sand: approximately 50% mafics, 50% felsics. Sand contains 1.0" thick interbeds of: yellowish brown (7.5 YR 5/4) clayey SAND with gravel (approximately 15% gravel (poorly graded, subangular, approximatley 20% medium gravel, 80% fine gravel), approximatley 20% clay, 65% sand (well graded, subrounded, approximately 40% course sand, 30% medium sand, 30% fine sand), wet and very stiff. Sand: approximately 10% chloritic, 30% mafics, 60% felsics; Gravel: approximately 60% latite, 40% andesite. ...collected DBSA-30-T-150, and DBSA-30- T-150-MS/MSD.						
			...sample DBSA-30-T-160, same soil as 147.5' bgs.						
			END OF BORING AT 160.0 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA-32

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/14/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: 67.0'
DATE MEASURED: 8/14/07
FINAL DEPTH TO WATER: 66.1'
DATE MEASURED: 8/14/07

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		SM	Yellowish brown silty SAND with gravel, dry and loose.						
2.5									
4	21 26 23	SM	Yellowish brown silty SAND, moist and medium dense. Sand is subrounded, well-graded, has 30% mafics/biotite, 70% felsics. Gravel is angular, poorly graded, with 30% rhyolite, 30% basalt, 40% andesite. Sequence is thinly bedded. Approximately 20% silt, 10% gravel, 70% sand. Samples DBSA- 32-Q-5 and DBSA-32-Q-5-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
5	21 19 9								
7.5									
9			...same soil as 4' bgs except: 5% gravel, 20% silt, 75% sand; gravel consists of 10% rhyolite, 30% andesite, 60% latite. Sample DBSA-32-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
10									
12.5									
15									

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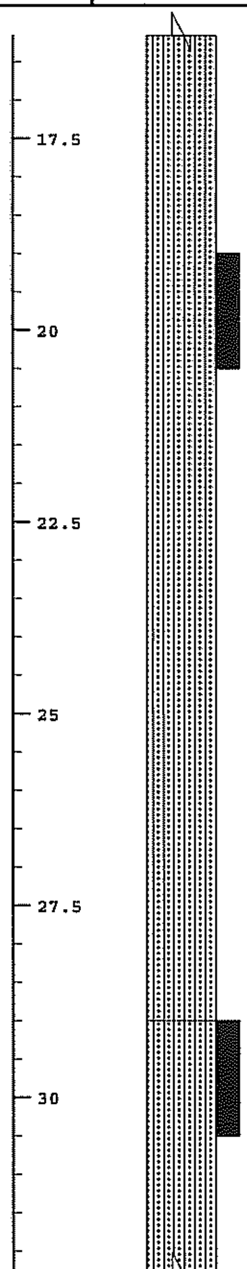
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA-32

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/14/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: 67.0'
DATE MEASURED: 8/14/07
FINAL DEPTH TO WATER: 66.1'
DATE MEASURED: 8/14/07



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...same soil as 4' bgs, andesite clasts contain chlorite and epidote, very dense. Sample DBSA-32-Q-20. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
		SM	Very pale brown silty SAND with gravel, moist, weakly cemented and very dense. Sand is subrounded, well-graded with 5% biotite, 25% mafics, 70% felsics. Gravel is angular, poorly graded, 70% rhyolite, 10% andesite, 10% latite, 10% weakly cemented sand. Approximately 25% silt, 25% gravel, 50% sand.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA-32

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/14/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: 67.0'
DATE MEASURED: 8/14/07
FINAL DEPTH TO WATER: 66.1'
DATE MEASURED: 8/14/07

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5 35 37.5			...sample DBSA-32-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
40 42.5 45 47.5		SM	Light reddish brown silty SAND, moist, weakly cemented and very dense. Sand is subangular, well-graded, 50% rhyolite, 40% andesite, 10% felsics. Approximately 20% silt, 80% sand. ...sample DBSA-32-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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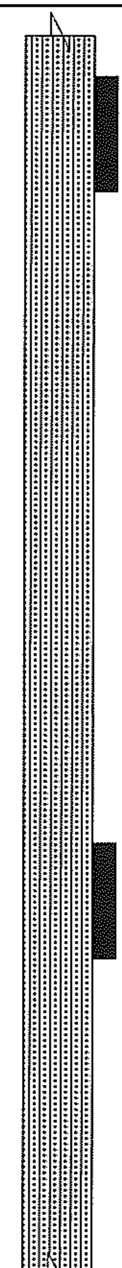
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

EXPLORATION LOG
DBSA-32

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/14/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: 67.0'
DATE MEASURED: 8/14/07
FINAL DEPTH TO WATER: 66.1'
DATE MEASURED: 8/14/07

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...same soil as 39' bgs except: 5% gravel (subangular, poorly graded, 100% latite), 20% silt, 75% sand. ...sample DBSA-32-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
52.5									
55									
57.5									
60			...same soil as 39' bgs except: yellowish brown, 15% silt, 10% gravel (angular, poorly graded, 20% rhyolite, 80% latite) 75% sand (20% mafics (biotie), 80% felsics). ...sample DBSA-32-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
62.5									

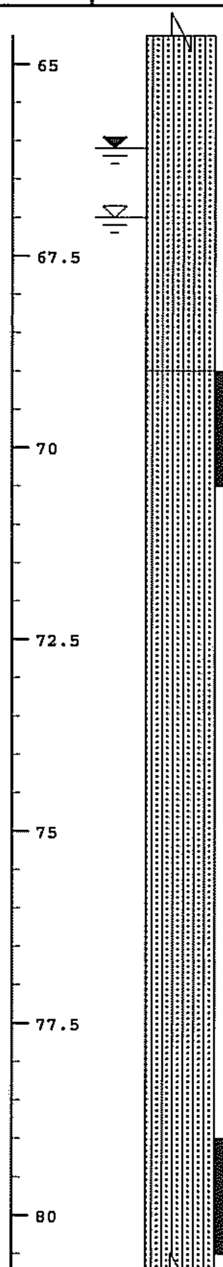


The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA-32

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/14/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: 67.0'
DATE MEASURED: 8/14/07
FINAL DEPTH TO WATER: 66.1'
DATE MEASURED: 8/14/07



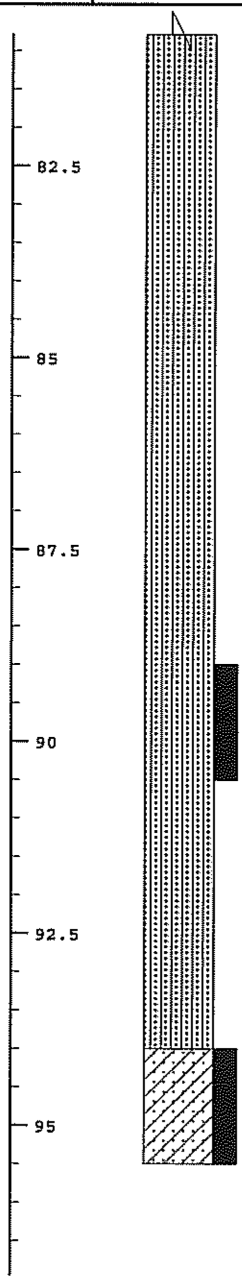
ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...final ground water depth.						
			...initial groundwater depth.						
		SM	MUDDY CREEK FORMATION: Yellowish brown silty SAND with gravel, wet, weakly cemented and very dense. Sand is subangular, well-graded, consists of 30% mafics (as chlorite, andesite), 70% felsics (latite, rhyolite). Gravel is angular, poorly graded, and same composition as sand. Approximately 20% silt, 20% gravel, 60% sand. ...sample DBSA-32-Q-70. ...collect groundwater sample DBSA-32-GW.						
			...same soil as 69' bgs, sample DBSA-32-T-80.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA-32

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 8/14/07
EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER
EQUIPMENT: DIEDRICH D-120 DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: 67.0'
DATE MEASURED: 8/14/07
FINAL DEPTH TO WATER: 66.1'
DATE MEASURED: 8/14/07



ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			...same soil as 69' bgs. No sample recovery: re-sample at 94.0'.						
		SC	Reddish yellow clayey SAND, wet, weakly cemented and very dense. Sand is subangular, well-graded, with 40% mafics (chloritically altered andesite), 60% felsics (latite,rhyolite). Approximately 40% lean clay, 60% sand. Sample DBSA-32-T-95.						
			END OF BORING AT 95.5 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA-33

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 9/17/07
EXPLORATION SIZE (dia.): 6" O.D. SAMPLER
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: HILLMAN/MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0 – 5		SM	Light yellowish brown (10YR 6/4) silty SAND (Approximately 10% gravel (poorly graded, subangular), 15% silt, 75% sand (well-graded, subangular), dry and loose. Sand has approximately 20% rhyolite, 15% mafics, 30% andesite, 35% felsics. Gravel consists of 80% rhyolite, 20% basalt.						
5 – 13		SM	Reddish yellow (7.5 YR 6/6) silty SAND with gravel (Approximately 20% gravel (poorly graded, subrounded), 20% silt, 60% sand (subrounded, poorly graded), moist and very dense. Sand has 90% felsics, 10% mafics. Gravel consists of 10% rhyolite, 90% basalt. ...sample DBSA-33-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...sample DBSA-33-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
13 – 16		CL	MUDDY CREEK FORMATION: Reddish yellow (7.5YR 6/6) sandy lean CLAY (Approximately 30% sand (poorly graded, subrounded), 70% lean clay), moist and very stiff. Sand has 15% gypsum (as veinlets and crystals), 75% felsics.						

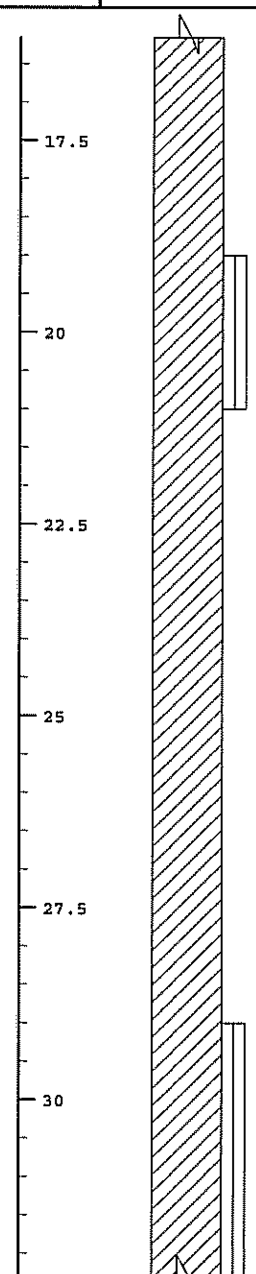
The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA-33

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 9/17/07
EXPLORATION SIZE (dia.): 6" O.D. SAMPLER
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: HILLMAN/MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)



...0.5" thick weakly cemented clay layers with gypsum veins.

...samples DBSA-33-20 and DBSA-33-20-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.

...light brown (7.5YR 6/4), approximately 35% sand, 65% lean clay.

...sample DBSA-33-T-30. Pid's: 11.7eV = 0.0 ppmv, 10.6eV = 1.7 ppmv.
...sand occurs as 1/8" laminations.

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

EXPLORATION LOG
DBSA-33

PROJECT: BRC DEEP BACKGROUND INVESTIGATION
PROJECT NO.: 20072226V1
BORING LOCATION: SEE FIGURE 2
EXPLORATION DATE: 9/17/07
EXPLORATION SIZE (dia.): 6" O.D. SAMPLER
EQUIPMENT: SONIC DRILL RIG
ELEVATION: EXISTING GROUND SURFACE
LOGGED BY: HILLMAN/MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A
FINAL DEPTH TO WATER: NOT ENCOUNTERED
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
			END OF BORING AT 32.5 FEET						
35									
37.5									
40									
42.5									
45									
47.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 24

APPENDIX C

DETAILED SAMPLE ANALYSIS SUMMARY TABLE

TABLE C-1
DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Irvine	DBSA 11-Q-20	IQJ0948-01	IQJ0948	S	10/07/07	16:20															
TA-Irvine	DBSA 11-Q-30	IQJ0948-02	IQJ0948	S	10/07/07	16:40															
TA-Irvine	DBSA 11-Q-40	IQJ0948-03	IQJ0948	S	10/07/07	17:00															
TA-Irvine	DBSA 11-Q-40-FD	IQJ0948-04	IQJ0948	S	10/07/07	17:00															
TA-Irvine	DBSA 11-Q-50	IQJ0948-05	IQJ0948	S	10/07/07	17:20															
TA-Irvine	DBSA 11-Q-60	IQJ0948-06	IQJ0948	S	10/07/07	17:45															
TA-Irvine	DBSA 11-T-150	IQJ1106-01	IQJ1106	S	10/08/07	15:10															
TA-Irvine	DBSA 11-T-160	IQJ1106-02	IQJ1106	S	10/08/07	15:40															
TA-Irvine	DBSA 14-Q-150	IQJ1215-01	IQJ1215	S	10/10/07	8:00															
TA-Irvine	DBSA 14-Q-160	IQJ1215-02	IQJ1215	S	10/10/07	8:20															
TA-Irvine	DBSA 14-Q-160FD	IQJ1215-03	IQJ1215	S	10/10/07	8:20															
TA-St. Louis	DBSA 15 TRIP BLANK	F7J090259-001	DB101007*	WQ	10/07/07	6:45															
TA-St. Louis	DBSA 15-Q-120	F7J090259-002	DB101007*	S	10/07/07	6:50					X					X	X	X	X	X	X
TA-Richland	DBSA 15-Q-120	F7J090264-001	DB1010RD*	S	10/07/07	6:50															
TA-Irvine	DBSA 17-T-130	IQJ0952-01	IQJ0952	S	10/05/07	14:20															
TA-Irvine	DBSA 17-T-140	IQJ0952-02	IQJ0952	S	10/05/07	15:15															
TA-Irvine	DBSA 17-T-150	IQJ0952-03	IQJ0952	S	10/05/07	15:30															
TA-Irvine	DBSA 21-Q-20	IQJ0456-01	IQJ0456	S	10/02/07	12:55															
TA-Irvine	DBSA 21-Q-20 DUP	IQJ0456-02	IQJ0456	S	10/02/07	12:55															
TA-Irvine	DBSA 21-Q-30	IQJ0456-03	IQJ0456	S	10/02/07	13:30															
TA-Irvine	DBSA 21-Q-40	IQJ0456-04	IQJ0456	S	10/02/07	13:50															
TA-Irvine	DBSA 21-Q-50	IQJ0456-05	IQJ0456	S	10/02/07	14:15															
TA-St. Louis	DBSA-10-Q-10	F7J180242-003	DB101807*	S	10/16/07	13:15					X									X	
TA-St. Louis	DBSA-10-Q-20	F7J180242-004	DB101807*	S	10/16/07	13:30					X					X	X	X	X	X	X
TA-Richland	DBSA-10-Q-20	F7J180263-001	DB1018RD*	S	10/16/07	13:30															
TA-Richland	DBSA-10-Q-20	F8A150214-017	F8A150214	S	10/16/07	13:30															
TA-Richland	DBSA-10-Q-20	F8B080335-001	F8B080335	S	10/16/07	13:30															
TA-Irvine	DBSA-10-Q-20	IQJ1944-01	IQJ1944	S	10/16/07	13:30															
TA-St. Louis	DBSA-10-Q-20-FD	F7J180242-005	DB101807*	S	10/16/07	13:30					X					X	X	X	X	X	X
TA-Richland	DBSA-10-Q-20-FD	F7J180263-002	DB1018RD*	S	10/16/07	13:30															
TA-Richland	DBSA-10-Q-20-FD	F8A150214-018	F8A150214	S	10/16/07	13:30															
TA-Richland	DBSA-10-Q-20-FD	F8B080335-002	F8B080335	S	10/16/07	13:30															
TA-Irvine	DBSA-10-Q-20-FD	IQJ1944-02	IQJ1944	S	10/16/07	13:30															
TA-St. Louis	DBSA-10-Q-30	F7J180242-006	DB101807*	S	10/16/07	13:50					X					X	X	X	X	X	X

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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-10-Q-30	F7J180263-003	DB1018RD*	S	10/16/07	13:50															
TA-Richland	DBSA-10-Q-30	F8A150214-019	F8A150214	S	10/16/07	13:50															
TA-Richland	DBSA-10-Q-30	F8B080335-003	F8B080335	S	10/16/07	13:50															
TA-Irvine	DBSA-10-Q-30	IQJ1944-03	IQJ1944	S	10/16/07	13:50															
TA-St. Louis	DBSA-10-Q-40	F7J180242-007	DB101807*	S	10/16/07	14:05					X					X	X	X	X	X	X
TA-Richland	DBSA-10-Q-40	F7J180263-004	DB1018RD*	S	10/16/07	14:05															
TA-Richland	DBSA-10-Q-40	F8A150214-020	F8A150214	S	10/16/07	14:05															
TA-Richland	DBSA-10-Q-40	F8B080335-004	F8B080335	S	10/16/07	14:05															
TA-Irvine	DBSA-10-Q-40	IQJ1944-04	IQJ1944	S	10/16/07	14:05															
TA-St. Louis	DBSA-10-Q-5	F7J180242-002	DB101807*	S	10/16/07	13:10					X									X	
TA-St. Louis	DBSA-10-Q-50	F7J180242-008	DB101807*	S	10/16/07	14:30					X					X	X	X	X	X	X
TA-Richland	DBSA-10-Q-50	F7J180263-005	DB1018RD*	S	10/16/07	14:30															
TA-Richland	DBSA-10-Q-50	F8A150224-001	F8A150224	S	10/16/07	14:30															
TA-Richland	DBSA-10-Q-50	F8B080335-005	F8B080335	S	10/16/07	14:30															
TA-Irvine	DBSA-10-Q-50	IQJ1944-05	IQJ1944	S	10/16/07	14:30															
TA-St. Louis	DBSA-10-Q-50-FD	F7J180242-009	DB101807*	S	10/16/07	14:30					X					X	X	X	X	X	X
TA-Richland	DBSA-10-Q-50-FD	F7J180263-006	DB1018RD*	S	10/16/07	14:30															
TA-Richland	DBSA-10-Q-50-FD	F8A150224-002	F8A150224	S	10/16/07	14:30															
TA-Richland	DBSA-10-Q-50-FD	F8B080335-006	F8B080335	S	10/16/07	14:30															
TA-Irvine	DBSA-10-Q-50-FD	IQJ1944-06	IQJ1944	S	10/16/07	14:30															
TA-St. Louis	DBSA-11-Q-10	F7J090254-003	DB100907*	S	10/07/07	16:05					X									X	
TA-St. Louis	DBSA-11-Q-120	F7J100176-006	DB101007*	S	10/08/07	11:45					X					X	X	X	X	X	X
TA-Richland	DBSA-11-Q-120	F7J100192-006	DB1010RD*	S	10/08/07	11:45															
TA-Richland	DBSA-11-Q-120	F8A150205-016	F8A150205	S	10/08/07	11:45															
TA-St. Louis	DBSA-11-Q-120-FD	F7J100176-007	DB101007*	S	10/08/07	11:45															
TA-St. Louis	DBSA-11-Q-20	F7J090254-004	DB100907**	S	10/07/07	16:20					X					X	X	X	X	X	X
TA-Richland	DBSA-11-Q-20	F7J090257-001	DB1009RD*	S	10/07/07	16:20															
TA-Richland	DBSA-11-Q-20	F8A150205-007	F8A150205	S	10/07/07	16:20															
TA-Richland	DBSA-11-Q-20	F8B080335-007	F8B080335	S	10/07/07	16:20															
TA-Irvine	DBSA-11-Q-20	IQJ1814-01	IQJ1814	S	10/08/07	16:20															
TA-St. Louis	DBSA-11-Q-30	F7J090254-005	DB100907*	S	10/07/07	16:40					X					X	X	X	X	X	X
TA-Richland	DBSA-11-Q-30	F7J090257-002	DB1009RD*	S	10/07/07	16:40															
TA-Richland	DBSA-11-Q-30	F8A150205-008	F8A150205	S	10/07/07	16:40															
TA-Richland	DBSA-11-Q-30	F8B080335-008	F8B080335	S	10/07/07	16:40															

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2008 DEEP BACKGROUND STUDY
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LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Irvine	DBSA-11-Q-30	IQJ1814-02	IQJ1814	S	10/08/07	16:40															
TA-St. Louis	DBSA-11-Q-40	F7J090254-006	DB100907*	S	10/07/07	17:00					X					X	X	X	X	X	X
TA-Richland	DBSA-11-Q-40	F7J090257-003	DB1009RD*	S	10/07/07	17:00															
TA-Richland	DBSA-11-Q-40	F8A150205-009	F8A150205	S	10/07/07	17:00															
TA-Richland	DBSA-11-Q-40	F8B080335-009	F8B080335	S	10/07/07	17:00															
TA-Irvine	DBSA-11-Q-40	IQJ1814-03	IQJ1814	S	10/08/07	17:00															
TA-St. Louis	DBSA-11-Q-40FD	F7J090254-007	DB100907*	S	10/07/07	17:00					X					X	X	X	X	X	X
TA-Richland	DBSA-11-Q-40FD	F7J090257-004	DB1009RD*	S	10/07/07	17:00															
TA-Richland	DBSA-11-Q-40FD	F8A150205-010	F8A150205	S	10/07/07	17:00															
TA-Richland	DBSA-11-Q-40FD	F8B080335-010	F8B080335	S	10/07/07	17:00															
TA-Irvine	DBSA-11-Q-40FD	IQJ1814-04	IQJ1814	S	10/08/07	17:00															
TA-St. Louis	DBSA-11-Q-5	F7J090254-002	DB100907*	S	10/07/07	16:00					X									X	
TA-St. Louis	DBSA-11-Q-50	F7J090254-008	DB100907*	S	10/07/07	17:20					X					X	X	X	X	X	X
TA-Richland	DBSA-11-Q-50	F7J090257-005	DB1009RD*	S	10/07/07	17:20															
TA-Richland	DBSA-11-Q-50	F8A150205-011	F8A150205	S	10/07/07	17:20															
TA-Richland	DBSA-11-Q-50	F8B080335-011	F8B080335	S	10/07/07	17:20															
TA-Irvine	DBSA-11-Q-50	IQJ1814-05	IQJ1814	S	10/08/07	17:20															
TA-St. Louis	DBSA-11-Q-60	F7J090254-009	DB100907*	S	10/07/07	17:45					X					X	X	X	X	X	X
TA-Richland	DBSA-11-Q-60	F7J090257-006	DB1009RD*	S	10/07/07	17:45															
TA-Richland	DBSA-11-Q-60	F8A150205-012	F8A150205	S	10/07/07	17:45															
TA-Richland	DBSA-11-Q-60	F8B080335-012	F8B080335	S	10/07/07	17:45															
TA-Irvine	DBSA-11-Q-60	IQJ1814-06	IQJ1814	S	10/08/07	17:45															
TA-St. Louis	DBSA-11-T-150	F7J100176-010	DB101007*	S	10/08/07	15:10					X					X	X	X	X	X	X
TA-Richland	DBSA-11-T-150	F7J100192-010	DB1010RD*	S	10/08/07	15:10															
TA-Richland	DBSA-11-T-150	F8A150205-018	F8A150205	S	10/08/07	15:10															
TA-Richland	DBSA-11-T-150	F8B090159-013	F8B090159	S	10/08/07	15:10															
TA-St. Louis	DBSA-11-T-160	F7J100176-011	DB101007*	S	10/08/07	15:40					X					X	X	X	X	X	X
TA-Richland	DBSA-11-T-160	F7J100192-011	DB1010RD*	S	10/08/07	15:40															
TA-Richland	DBSA-11-T-160	F8A150205-019	F8A150205	S	10/08/07	15:40															
TA-St. Louis	DBSA-13-Q-10	F7J200153-003	DB102007*	S	10/18/07	15:10					X									X	
TA-St. Louis	DBSA-13-Q-20	F7J200153-004	DB102007*	S	10/18/07	15:25					X					X	X	X	X	X	X
TA-Richland	DBSA-13-Q-20	F7J200157-001	DB102RD*	S	10/18/07	15:25															
TA-Richland	DBSA-13-Q-20	F8A150224-009	F8A150224	S	10/18/07	15:25															
TA-Richland	DBSA-13-Q-20	F8B080335-013	F8B080335	S	10/18/07	15:25															

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CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Irvine	DBSA-13-Q-20	IQJ2234-01	IQJ2234	S	10/18/07	15:25															
TA-St. Louis	DBSA-13-Q-20-FD	F7J200153-005	DB102007*	S	10/18/07	15:25					X					X	X	X	X	X	X
TA-Richland	DBSA-13-Q-20-FD	F7J200157-002	DB102RD*	S	10/18/07	15:25															
TA-Richland	DBSA-13-Q-20-FD	F8A150224-010	F8A150224	S	10/18/07	15:25															
TA-Richland	DBSA-13-Q-20-FD	F8B080335-014	F8B080335	S	10/18/07	15:25															
TA-Irvine	DBSA-13-Q-20-FD	IQJ2234-02	IQJ2234	S	10/18/07	15:25															
TA-St. Louis	DBSA-13-Q-30	F7J200153-006	DB102007*	S	10/18/07	15:40					X					X	X	X	X	X	X
TA-Richland	DBSA-13-Q-30	F7J200157-003	DB102RD*	S	10/18/07	15:40															
TA-Richland	DBSA-13-Q-30	F8A150224-011	F8A150224	S	10/18/07	15:40															
TA-Richland	DBSA-13-Q-30	F8B080335-015	F8B080335	S	10/18/07	15:40															
TA-Irvine	DBSA-13-Q-30	IQJ2234-03	IQJ2234	S	10/18/07	15:40															
TA-St. Louis	DBSA-13-Q-40	F7J200153-007	DB102007*	S	10/18/07	16:00					X					X	X	X	X	X	X
TA-Richland	DBSA-13-Q-40	F7J200157-004	DB102RD*	S	10/18/07	16:00															
TA-Richland	DBSA-13-Q-40	F8A150224-012	F8A150224	S	10/18/07	16:00															
TA-Richland	DBSA-13-Q-40	F8B080335-016	F8B080335	S	10/18/07	16:00															
TA-Irvine	DBSA-13-Q-40	IQJ2234-04	IQJ2234	S	10/18/07	16:00															
TA-St. Louis	DBSA-13-Q-5	F7J200153-002	DB102007*	S	10/18/07	15:00					X									X	
TA-St. Louis	DBSA-13-Q-50	F7J200153-008	DB102007*	S	10/18/07	16:25					X					X	X	X	X	X	X
TA-Richland	DBSA-13-Q-50	F7J200157-005	DB102RD*	S	10/18/07	16:25															
TA-Richland	DBSA-13-Q-50	F8A150224-013	F8A150224	S	10/18/07	16:25															
TA-Richland	DBSA-13-Q-50	F8B080335-017	F8B080335	S	10/18/07	16:25															
TA-Irvine	DBSA-13-Q-50	IQJ2234-05	IQJ2234	S	10/18/07	16:25															
TA-St. Louis	DBSA-13-Q-50-FD	F7J200153-019	DB102007*	S	10/18/07	16:25					X					X	X	X	X	X	X
TA-Richland	DBSA-13-Q-50-FD	F7J200157-006	DB102RD*	S	10/18/07	16:25															
TA-Richland	DBSA-13-Q-50-FD	F8A150224-014	F8A150224	S	10/18/07	16:25															
TA-Richland	DBSA-13-Q-50-FD	F8B080335-018	F8B080335	S	10/18/07	16:25															
TA-Irvine	DBSA-13-Q-50-FD	IQJ2234-06	IQJ2234	S	10/18/07	16:25															
TA-St. Louis	DBSA-13-Q-60	F7J200153-009	DB102007*	S	10/18/07	16:45					X					X	X	X	X	X	X
TA-Richland	DBSA-13-Q-60	F7J200157-007	DB102RD*	S	10/18/07	16:45															
TA-Richland	DBSA-13-Q-60	F8A150224-015	F8A150224	S	10/18/07	16:45															
TA-Richland	DBSA-13-Q-60	F8B080335-019	F8B080335	S	10/18/07	16:45															
TA-Irvine	DBSA-13-Q-60	IQJ2234-07	IQJ2234	S	10/18/07	16:45															
TA-St. Louis	DBSA-13-Q-70	F7J200153-010	DB102007*	S	10/18/07	17:10					X					X	X	X	X	X	X
TA-Richland	DBSA-13-Q-70	F7J200157-008	DB102RD*	S	10/18/07	17:10															

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LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-13-Q-70	F8A150224-016	F8A150224	S	10/18/07	17:10															
TA-Irvine	DBSA-13-Q-70	IQJ2234-08	IQJ2234	S	10/18/07	17:10															
TA-St. Louis	DBSA-13-Q-80	F7J200153-011	DB102007*	S	10/18/07	17:40					X					X	X	X	X	X	X
TA-Richland	DBSA-13-Q-80	F7J200157-009	DB102RD*	S	10/18/07	17:40															
TA-Richland	DBSA-13-Q-80	F8A150224-017	F8A150224	S	10/18/07	17:40															
TA-Irvine	DBSA-13-Q-80	IQJ2234-09	IQJ2234	S	10/18/07	17:40															
TA-St. Louis	DBSA-14-Q-10	F7J110226-003	DB101107*	S	10/09/07	10:55					X									X	
TA-St. Louis	DBSA-14-Q-140	F7J110226-018	DB101107*	S	10/10/07	17:55					X					X	X	X	X	X	X
TA-Richland	DBSA-14-Q-140	F7J110245-015	DB1011RD*	S	10/10/07	17:55															
TA-Irvine	DBSA-14-Q-140	IQJ1216-15	IQJ1216	S	10/09/07	17:55															
TA-St. Louis	DBSA-14-Q-20	F7J110226-004	DB101107*	S	10/09/07	11:15					X					X	X	X	X	X	X
TA-Richland	DBSA-14-Q-20	F7J110245-001	DB1011RD*	S	10/09/07	11:15															
TA-Richland	DBSA-14-Q-20	F8A150205-020	F8A150205	S	10/09/07	11:15															
TA-Richland	DBSA-14-Q-20	F8A150214-006	F8A150214	S	10/09/07	11:15															
TA-Richland	DBSA-14-Q-20	F8B080335-020	F8B080335	S	10/09/07	11:15															
TA-Irvine	DBSA-14-Q-20	IQJ1216-01	IQJ1216	S	10/09/07	11:15															
TA-St. Louis	DBSA-14-Q-20 FD	F7J110226-005	DB101107*	S	10/09/07	11:15					X					X	X	X	X	X	X
TA-Richland	DBSA-14-Q-20 FD	F7J110245-002	DB1011RD*	S	10/09/07	11:15															
TA-Richland	DBSA-14-Q-20 FD	F8A150214-001	F8A150214	S	10/09/07	11:15															
TA-Irvine	DBSA-14-Q-20 FD	IQJ1216-02	IQJ1216	S	10/09/07	11:15															
TA-Richland	DBSA-14-Q-20-FD	F8B090125-001	F8B090125	S	10/09/07	11:15															
TA-St. Louis	DBSA-14-Q-30	F7J110226-006	DB101107*	S	10/09/07	11:40					X					X	X	X	X	X	X
TA-Richland	DBSA-14-Q-30	F7J110245-003	DB1011RD*	S	10/09/07	11:40															
TA-Richland	DBSA-14-Q-30	F8A150214-002	F8A150214	S	10/09/07	11:40															
TA-Richland	DBSA-14-Q-30	F8B090125-002	F8B090125	S	10/09/07	11:40															
TA-Irvine	DBSA-14-Q-30	IQJ1216-03	IQJ1216	S	10/09/07	11:40															
TA-St. Louis	DBSA-14-Q-40	F7J110226-007	DB101107*	S	10/09/07	12:05					X					X	X	X	X	X	X
TA-Richland	DBSA-14-Q-40	F7J110245-004	DB1011RD*	S	10/09/07	12:05															
TA-Richland	DBSA-14-Q-40	F8A150214-003	F8A150214	S	10/09/07	12:05															
TA-Richland	DBSA-14-Q-40	F8B090125-003	F8B090125	S	10/09/07	12:05															
TA-Irvine	DBSA-14-Q-40	IQJ1216-04	IQJ1216	S	10/09/07	12:05															
TA-St. Louis	DBSA-14-Q-5	F7J110226-002	DB101107*	S	10/09/07	10:45					X									X	
TA-St. Louis	DBSA-14-Q-50	F7J110226-008	DB101107*	S	10/09/07	12:30					X					X	X	X	X	X	X
TA-Richland	DBSA-14-Q-50	F7J110245-005	DB1011RD*	S	10/09/07	12:30															

TABLE C-1
DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-14-Q-50	F8A150214-004	F8A150214	S	10/09/07	12:30															
TA-Richland	DBSA-14-Q-50	F8B090125-004	F8B090125	S	10/09/07	12:30															
TA-Irvine	DBSA-14-Q-50	IQJ1216-05	IQJ1216	S	10/09/07	12:30															
TA-St. Louis	DBSA-14-Q-50 FD	F7J110226-009	DB101107*	S	10/09/07	12:30					X					X	X	X	X	X	X
TA-Richland	DBSA-14-Q-50 FD	F7J110245-006	DB1011RD*	S	10/09/07	12:30															
TA-Richland	DBSA-14-Q-50 FD	F8A150214-005	F8A150214	S	10/09/07	12:30															
TA-Richland	DBSA-14-Q-50 FD	F8B090125-005	F8B090125	S	10/09/07	12:30															
TA-Irvine	DBSA-14-Q-50 FD	IQJ1216-06	IQJ1216	S	10/09/07	12:30															
TA-St. Louis	DBSA-14-Q-60	F7J110226-010	DB101107*	S	10/09/07	13:40					X								X	X	
TA-St. Louis	DBSA-15-Q-10	F7J090244-003	DB100907*	S	10/06/07	10:40					X									X	
TA-St. Louis	DBSA-15-Q-150	F7J090259-006	DB101007*	S	10/07/07	9:45					X					X	X	X	X	X	X
TA-Richland	DBSA-15-Q-150	F7J090264-005	DB1010RD*	S	10/07/07	9:45															
TA-Irvine	DBSA-15-Q-150	IQJ0945-06	IQJ0945	S	10/07/07	9:45															
TA-St. Louis	DBSA-15-Q-160	F7J090259-007	DB101007*	S	10/07/07	10:05					X					X	X	X	X	X	X
TA-Richland	DBSA-15-Q-160	F7J090264-006	DB1010RD*	S	10/07/07	10:05															
TA-Irvine	DBSA-15-Q-160	IQJ0945-07	IQJ0945	S	10/07/07	10:05															
TA-St. Louis	DBSA-15-Q-20	F7J090244-004	DB100907*	S	10/06/07	11:25					X					X	X	X	X	X	X
TA-Richland	DBSA-15-Q-20	F7J090251-001	DB1009RD*	S	10/06/07	11:25															
TA-Richland	DBSA-15-Q-20	F8A140155-016	F8A140155	S	10/06/07	11:25															
TA-Richland	DBSA-15-Q-20	F8B090125-006	F8B090125	S	10/06/07	11:25															
TA-Irvine	DBSA-15-Q-20	IQJ0935-01	IQJ0935	S	10/06/07	11:25															
TA-St. Louis	DBSA-15-Q-20 FD	F7J090244-005	DB100907*	S	10/06/07	11:25					X					X	X	X	X	X	X
TA-Richland	DBSA-15-Q-20 FD	F7J090251-002	DB1009RD*	S	10/06/07	11:25															
TA-Richland	DBSA-15-Q-20 FD	F8A140155-017	F8A140155	S	10/06/07	11:25															
TA-Richland	DBSA-15-Q-20 FD	F8B090125-007	F8B090125	S	10/06/07	11:25															
TA-Irvine	DBSA-15-Q-20 FD	IQJ0935-02	IQJ0935	S	10/06/07	11:25															
TA-St. Louis	DBSA-15-Q-30	F7J090244-006	DB100907*	S	10/06/07	12:00					X					X	X	X	X	X	X
TA-Richland	DBSA-15-Q-30	F7J090251-003	DB1009RD*	S	10/06/07	12:00															
TA-Richland	DBSA-15-Q-30	F8A140155-018	F8A140155	S	10/06/07	12:00															
TA-Richland	DBSA-15-Q-30	F8B090125-008	F8B090125	S	10/06/07	12:00															
TA-Irvine	DBSA-15-Q-30	IQJ0935-03	IQJ0935	S	10/06/07	12:00															
TA-St. Louis	DBSA-15-Q-40	F7J090244-007	DB100907*	S	10/06/07	12:40					X					X	X	X	X	X	X
TA-Richland	DBSA-15-Q-40	F7J090251-004	DB1009RD*	S	10/06/07	12:40															
TA-Richland	DBSA-15-Q-40	F8A140155-019	F8A140155	S	10/06/07	12:40															

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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-15-Q-40	F8B090125-009	F8B090125	S	10/06/07	12:40															
TA-Irvine	DBSA-15-Q-40	IQJ0935-04	IQJ0935	S	10/06/07	12:40															
TA-St. Louis	DBSA-15-Q-5	F7J090244-002	DB100907*	S	10/06/07	10:35					X									X	
TA-St. Louis	DBSA-15-Q-50	F7J090244-008	DB100907*	S	10/06/07	14:20					X					X	X	X	X	X	X
TA-Richland	DBSA-15-Q-50	F7J090251-005	DB1009RD*	S	10/06/07	14:20															
TA-Richland	DBSA-15-Q-50	F8A140155-020	F8A140155	S	10/06/07	14:20															
TA-Richland	DBSA-15-Q-50	F8B090125-010	F8B090125	S	10/06/07	14:20															
TA-Irvine	DBSA-15-Q-50	IQJ0935-05	IQJ0935	S	10/06/07	14:20															
TA-St. Louis	DBSA-17-GW	F7J090279-013	DB100807*	W	10/05/07	16:30	X	X	X	X		X	X	X	X	X	X	X	X	X	X
TA-Richland	DBSA-17-GW	F7J090293-013	DB1008RD*	W	10/05/07	16:30															
Alpha	DBSA-17-GW	ERM07100951-01	ERM07100951	W	10/05/07	16:30															
TA-Irvine	DBSA-17-GW	IQJ0901-01	IQJ0901	W	10/05/07	16:30															
TA-St. Louis	DBSA-17-Q-10	F7J060109-002	DB100807*	S	10/04/07	16:50					X									X	
TA-St. Louis	DBSA-17-Q-100	F7J090279-007	DB100807*	S	10/05/07	10:30					X					X	X	X	X	X	X
TA-Richland	DBSA-17-Q-100	F7J090293-007	DB1008RD*	S	10/05/07	10:30															
TA-St. Louis	DBSA-17-Q-110	F7J090279-008	DB100807*	S	10/05/07	11:40					X					X	X	X	X	X	X
TA-Richland	DBSA-17-Q-110	F7J090293-008	DB1008RD*	S	10/05/07	11:40															
TA-St. Louis	DBSA-17-Q-120	F7J090279-009	DB100807*	S	10/05/07	12:10					X					X	X	X	X	X	X
TA-Richland	DBSA-17-Q-120	F7J090293-009	DB1008RD*	S	10/05/07	12:10															
TA-Irvine	DBSA17-Q-20	IQJ0761-01	IQJ0761	S	10/04/07	17:15															
TA-St. Louis	DBSA-17-Q-20	F7J060109-003	DB100807*	S	10/04/07	17:00					X					X	X	X	X	X	X
TA-Richland	DBSA-17-Q-20	F7J060111-001	DB1008RD*	S	10/04/07	17:00															
TA-Richland	DBSA-17-Q-20	F8B090125-012	F8B090125	S	10/04/07	17:00															
TA-Irvine	DBSA-17-Q-30	IQJ0761-02	IQJ0761	S	10/04/07	17:35															
TA-St. Louis	DBSA-17-Q-30	F7J060109-004	DB100807*	S	10/04/07	17:15					X					X	X	X	X	X	X
TA-Richland	DBSA-17-Q-30	F7J060111-002	DB1008RD*	S	10/04/07	17:15															
TA-Richland	DBSA-17-Q-30	F8B090125-013	F8B090125	S	10/04/07	17:15															
TA-Irvine	DBSA-17-Q-40	IQJ0761-03	IQJ0761	S	10/04/07	17:55															
TA-St. Louis	DBSA-17-Q-40	F7J060109-005	DB100807*	S	10/04/07	17:35					X					X	X	X	X	X	X
TA-Richland	DBSA-17-Q-40	F7J060111-003	DB1008RD*	S	10/04/07	17:35															
TA-Richland	DBSA-17-Q-40	F8B090125-014	F8B090125	S	10/04/07	17:35															
TA-St. Louis	DBSA-17-Q-5	F7J060109-001	DB100807*	S	10/04/07	16:45					X									X	
TA-St. Louis	DBSA-17-Q-50	F7J090279-001	DB100807*	S	10/05/07	7:45					X					X	X	X	X	X	X
TA-Richland	DBSA-17-Q-50	F7J090293-001	DB1008RD*	S	10/05/07	7:45															

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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-17-Q-50	F8B090125-015	F8B090125	S	10/05/07	7:45															
TA-St. Louis	DBSA-17-Q-60	F7J090279-002	DB100807*	S	10/05/07	8:15					X					X	X	X	X	X	X
TA-Richland	DBSA-17-Q-60	F7J090293-002	DB1008RD*	S	10/05/07	8:15															
TA-Richland	DBSA-17-Q-60	F8B090125-016	F8B090125	S	10/05/07	8:15															
TA-St. Louis	DBSA-17-Q-70	F7J090279-003	DB100807*	S	10/05/07	8:45					X					X	X	X	X	X	X
TA-Richland	DBSA-17-Q-70	F7J090293-003	DB1008RD*	S	10/05/07	8:45															
TA-St. Louis	DBSA-17-Q-80	F7J090279-004	DB100807*	S	10/05/07	9:30					X					X	X	X	X	X	X
TA-Richland	DBSA-17-Q-80	F7J090293-004	DB1008RD*	S	10/05/07	9:30															
TA-St. Louis	DBSA-17-Q-80-DUP	F7J090279-005	DB100807*	S	10/05/07	9:30					X					X	X	X	X	X	X
TA-Richland	DBSA-17-Q-80-DUP	F7J090293-005	DB1008RD*	S	10/05/07	9:30															
TA-St. Louis	DBSA-17-Q-90	F7J090279-006	DB100807*	S	10/05/07	10:00					X					X	X	X	X	X	X
TA-Richland	DBSA-17-Q-90	F7J090293-006	DB1008RD*	S	10/05/07	10:00															
TA-St. Louis	DBSA-17-T-130	F7J090279-010	DB100807*	S	10/05/07	14:20					X					X	X	X	X	X	X
TA-Richland	DBSA-17-T-130	F7J090293-010	DB1008RD*	S	10/05/07	14:20															
TA-Richland	DBSA-17-T-130	F8B090159-014	F8B090159	S	10/05/07	14:20															
TA-St. Louis	DBSA-17-T-140	F7J090279-011	DB100807*	S	10/05/07	15:15					X					X	X	X	X	X	X
TA-Richland	DBSA-17-T-140	F7J090293-011	DB1008RD*	S	10/05/07	15:15															
TA-Richland	DBSA-17-T-140	F8B090159-015	F8B090159	S	10/05/07	15:15															
TA-St. Louis	DBSA-17-T-150	F7J090279-012	DB100807*	S	10/05/07	15:30					X					X	X	X	X	X	X
TA-Richland	DBSA-17-T-150	F7J090293-012	DB1008RD*	S	10/05/07	15:30															
TA-Richland	DBSA-17-T-150	F8A150205-015	F8A150205	S	10/05/07	15:30															
TA-Richland	DBSA-17-T-150	F8B090159-016	F8B090159	S	10/05/07	15:30															
TA-St. Louis	DBSA-1-Q-0	F7H070367-001	DB080807*	S	08/06/07	8:00					X										X
TA-Irvine	DBSA-1-Q-0	IQH1020-01	IQH1020	S	08/06/07	8:00					X										
TA-St. Louis	DBSA-1-Q-10	F7H070367-003	DB080807*	S	08/06/07	10:30					X									X	X
TA-Irvine	DBSA-1-Q-10	IQH1020-03	IQH1020	S	08/06/07	10:30					X										
TA-St. Louis	DBSA-1-Q-20	F7H070367-004	DB080807*	S	08/06/07	10:55					X					X	X	X	X	X	X
TA-Richland	DBSA-1-Q-20	F7H070375-001	DB0808RD*	S	08/06/07	10:55															
TA-Richland	DBSA-1-Q-20	F8A140146-001	F8A140146	S	08/06/07	10:55															
TA-Richland	DBSA-1-Q-20	F8B090125-017	F8B090125	S	08/06/07	10:55															
TA-Irvine	DBSA-1-Q-20	IQH1020-04	IQH1020	S	08/06/07	10:55					X										
TA-St. Louis	DBSA-1-Q-30	F7H070367-005	DB080807*	S	08/06/07	11:40					X					X	X	X	X	X	X
TA-Richland	DBSA-1-Q-30	F7H070375-002	DB0808RD*	S	08/06/07	11:40															
TA-Richland	DBSA-1-Q-30	F8A140146-002	F8A140146	S	08/06/07	11:40															

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-1-Q-30	F8B090125-018	F8B090125	S	08/06/07	11:40															
TA-Irvine	DBSA-1-Q-30	IQH1020-05	IQH1020	S	08/06/07	11:40					X										
TA-St. Louis	DBSA-1-Q-40	F7H070367-007	DB080807*	S	08/06/07	12:15					X					X	X	X	X	X	X
TA-Richland	DBSA-1-Q-40	F7H070375-004	DB0808RD*	S	08/06/07	12:15															
TA-Richland	DBSA-1-Q-40	F8A140146-003	F8A140146	S	08/06/07	12:15															
TA-Richland	DBSA-1-Q-40	F8B090125-019	F8B090125	S	08/06/07	12:15															
TA-Irvine	DBSA-1-Q-40	IQH1020-07	IQH1020	S	08/06/07	12:15					X										
TA-St. Louis	DBSA-1-Q-5	F7H070367-002	DB080807*	S	08/06/07	10:00					X									X	X
TA-Irvine	DBSA-1-Q-5	IQH1020-02	IQH1020	S	08/06/07	10:00					X										
TA-St. Louis	DBSA-1-Q-50	F7H070367-008	DB080807*	S	08/06/07	12:40					X					X	X	X	X	X	X
TA-Richland	DBSA-1-Q-50	F7H070375-005	DB0808RD*	S	08/06/07	12:40															
TA-Richland	DBSA-1-Q-50	F8A140146-004	F8A140146	S	08/06/07	12:40															
TA-Richland	DBSA-1-Q-50	F8B090125-020	F8B090125	S	08/06/07	12:40															
TA-Irvine	DBSA-1-Q-50	IQH1020-08	IQH1020	S	08/06/07	12:40					X										
TA-St. Louis	DBSA-1-Q-60	F7H070367-009	DB080807*	S	08/06/07	13:00					X					X	X	X	X	X	X
TA-Richland	DBSA-1-Q-60	F7H070375-006	DB0808RD*	S	08/06/07	13:00															
TA-Richland	DBSA-1-Q-60	F8A140146-005	F8A140146	S	08/06/07	13:00															
TA-Richland	DBSA-1-Q-60	F8B090159-001	F8B090159	S	08/06/07	13:00															
TA-Irvine	DBSA-1-Q-60	IQH1020-09	IQH1020	S	08/06/07	13:00					X										
TA-St. Louis	DBSA-1-Q-70	F7H070367-010	DB080807*	S	08/06/07	13:30					X					X	X	X	X	X	X
TA-Richland	DBSA-1-Q-70	F7H070375-007	DB0808RD*	S	08/06/07	13:30															
TA-Richland	DBSA-1-Q-70	F8A140146-006	F8A140146	S	08/06/07	13:30															
TA-Irvine	DBSA-1-Q-70	IQH1020-10	IQH1020	S	08/06/07	13:30					X										
TA-St. Louis	DBSA-1-Q-80	F7H070367-011	DB080807*	S	08/06/07	14:10					X					X	X	X	X	X	X
TA-Richland	DBSA-1-Q-80	F7H070375-008	DB0808RD*	S	08/06/07	14:10															
TA-Richland	DBSA-1-Q-80	F8A140146-007	F8A140146	S	08/06/07	14:10															
TA-Irvine	DBSA-1-Q-80	IQH1020-11	IQH1020	S	08/06/07	14:10					X										
TA-St. Louis	DBSA-1-Q-90	F7H070367-012	DB080807*	S	08/06/07	14:40					X					X	X	X	X	X	X
TA-Richland	DBSA-1-Q-90	F7H070375-009	DB0808RD*	S	08/06/07	14:40															
TA-Richland	DBSA-1-Q-90	F8A140146-008	F8A140146	S	08/06/07	14:40															
TA-Irvine	DBSA-1-Q-90	IQH1020-12	IQH1020	S	08/06/07	14:40					X										
TA-St. Louis	DBSA-20-GW	F7J050251-014	DB100507*	W	10/04/07	10:00	X	X	X	X		X	X	X	X	X	X	X	X	X	X
TA-Richland	DBSA-20-GW	F7J050268-011	DB1005RD*	W	10/04/07	10:00															
Alpha	DBSA-20-GW	ERM07100532-01A	ERM07100532	W	10/04/07	10:00															

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LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Irvine	DBSA-20-GW	IQJ0573-01	IQJ0573	W	10/04/07	10:00															
TA-Irvine	DBSA-20-GW	IQJ0610-01	IQJ0610	W	10/04/07	10:00															
TA-St. Louis	DBSA-20-Q-10	F7J050251-002	DB100507*	S	10/03/07	14:00					X									X	
TA-St. Louis	DBSA-20-Q-20	F7J050251-003	DB100507*	S	10/03/07	14:20					X					X	X	X	X	X	X
TA-Richland	DBSA-20-Q-20	F7J050268-001	DB1005RD*	S	10/03/07	14:20															
TA-Richland	DBSA-20-Q-20	F8A140155-006	F8A140155	S	10/03/07	14:20															
TA-Richland	DBSA-20-Q-20	F8B090159-002	F8B090159	S	10/03/07	14:20															
TA-Irvine	DBSA-20-Q-20	IQJ0623-01	IQJ0623	S	10/03/07	14:20															
TA-St. Louis	DBSA-20-Q-30	F7J050251-004	DB100507*	S	10/03/07	15:00					X					X	X	X	X	X	X
TA-Richland	DBSA-20-Q-30	F7J050268-002	DB1005RD*	S	10/03/07	15:00															
TA-Richland	DBSA-20-Q-30	F8A140155-007	F8A140155	S	10/03/07	15:00															
TA-Richland	DBSA-20-Q-30	F8B090159-003	F8B090159	S	10/03/07	15:00															
TA-Irvine	DBSA-20-Q-30	IQJ0623-02	IQJ0623	S	10/03/07	15:00															
TA-St. Louis	DBSA-20-Q-40	F7J050251-005	DB100507*	S	10/03/07	16:00					X					X	X	X	X	X	X
TA-Richland	DBSA-20-Q-40	F7J050268-003	DB1005RD*	S	10/03/07	16:00															
TA-Richland	DBSA-20-Q-40	F8A140155-008	F8A140155	S	10/03/07	16:00															
TA-Richland	DBSA-20-Q-40	F8B090159-004	F8B090159	S	10/03/07	16:00															
TA-Irvine	DBSA-20-Q-40	IQJ0623-03	IQJ0623	S	10/03/07	16:00															
TA-St. Louis	DBSA-20-Q-5	F7J050251-001	DB100507*	S	10/03/07	13:55					X									X	
TA-St. Louis	DBSA-20-Q-50	F7J050251-006	DB100507*	S	10/03/07	16:30					X					X	X	X	X	X	X
TA-Richland	DBSA-20-Q-50	F7J050268-004	DB1005RD*	S	10/03/07	16:30															
TA-Richland	DBSA-20-Q-50	F8A140155-009	F8A140155	S	10/03/07	16:30															
TA-Richland	DBSA-20-Q-50	F8B090159-005	F8B090159	S	10/03/07	16:30															
TA-Irvine	DBSA-20-Q-50	IQJ0623-04	IQJ0623	S	10/03/07	16:30															
TA-St. Louis	DBSA-20-Q-60	F7J050251-007	DB100507*	S	10/03/07	17:00					X										
TA-St. Louis	DBSA-20-Q-70	F7J050251-008	DB100507*	S	10/03/07	17:35					X					X	X	X		X	X
TA-Richland	DBSA-20-Q-70	F7J050268-006	DB1005RD*	S	10/03/07	17:35															
TA-Richland	DBSA-20-Q-70	F8A140155-011	F8A140155	S	10/03/07	17:35															
TA-Irvine	DBSA-20-Q-70	IQJ0623-06	IQJ0623	S	10/03/07	17:35															
TA-St. Louis	DBSA-20-Q-80	F7J050251-009	DB100507*	S	10/03/07	18:00					X					X	X	X	X	X	X
TA-Richland	DBSA-20-Q-80	F7J050268-007	DB1005RD*	S	10/03/07	18:00															
TA-Richland	DBSA-20-Q-80	F8A140155-012	F8A140155	S	10/03/07	18:00															
TA-Irvine	DBSA-20-Q-80	IQJ0623-07	IQJ0623	S	10/03/07	18:00															
TA-St. Louis	DBSA-20-T-100	F7J050251-012	DB100507*	S	10/04/07	9:30					X					X	X	X	X	X	X

TABLE C-1
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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-20-T-100	F8A140155-015	F8A140155	S	10/04/07	9:30															
TA-Richland	DBSA-20-T-100	F8B090159-017	F8B090159	S	10/04/07	9:30															
TA-Irvine	DBSA-20-T-100	IQJ0625-03	IQJ0625	S	10/04/07	9:30															
TA-St. Louis	DBSA-20-T-90	F7J050251-010	DB100507*	S	10/04/07	9:15					X					X	X	X	X	X	X
TA-Richland	DBSA-20-T-90	F7J050268-008	DB1005RD*	S	10/04/07	9:15															
TA-Richland	DBSA-20-T-90	F8A140155-013	F8A140155	S	10/04/07	9:15															
TA-Richland	DBSA-20-T-90	F8B090159-018	F8B090159	S	10/04/07	9:15															
TA-Irvine	DBSA-20-T-90	IQJ0625-01	IQJ0625	S	10/04/07	9:15															
TA-Irvine	DBSA-20-T-90 DUP	IQJ0625-02	IQJ0625	S	10/04/07	9:15															
TA-St. Louis	DBSA-20-T-90-DUP	F7J050251-011	DB100507*	S	10/04/07	9:15					X					X	X	X	X	X	X
TA-Richland	DBSA-20-T-90-DUP	F7J050268-009	DB1005RD*	S	10/04/07	9:15															
TA-Richland	DBSA-20-T-90-DUP	F8A140155-014	F8A140155	S	10/04/07	9:15															
TA-Richland	DBSA-20-T-90-DUP	F8B090159-019	F8B090159	S	10/04/07	9:15															
TA-St. Louis	DBSA-21-GW	F7J040245-013	DB100507*	W	10/02/07	7:30	X		X	X		X	X	X	X	X	X	X	X	X	X
TA-Richland	DBSA-21-GW	F7J040280-011	DB1005RD*	W	10/02/07	7:30															
Alpha	DBSA-21-GW	ERM07100430-01A	ERM07100430	W	10/03/07	7:30															
TA-Irvine	DBSA-21-GW	IQJ0414-01	IQJ0414	W	10/03/07	7:30															
TA-Irvine	DBSA-21-GW	IQJ0430-01	IQJ0430	W	10/03/07	7:30															
TA-St. Louis	DBSA-21-Q-10	F7J040245-002	DB100507*	S	10/02/07	12:30					X									X	
TA-St. Louis	DBSA-21-Q-20	F7J040245-003	DB100507*	S	10/02/07	12:55					X					X	X	X	X	X	X
TA-Richland	DBSA-21-Q-20	F7J040280-001	DB1005RD*	S	10/02/07	12:55															
TA-Richland	DBSA-21-Q-20	F8A140153-016	F8A140153	S	10/02/07	12:55															
TA-Richland	DBSA-21-Q-20	F8B090159-007	F8B090159	S	10/02/07	12:55															
TA-St. Louis	DBSA-21-Q-20-DUP	F7J040245-004	DB100507*	S	10/02/07	12:55					X					X	X	X	X	X	X
TA-Richland	DBSA-21-Q-20-DUP	F7J040280-002	DB1005RD*	S	10/02/07	12:55															
TA-Richland	DBSA-21-Q-20-DUP	F8A140153-017	F8A140153	S	10/02/07	12:55															
TA-Richland	DBSA-21-Q-20-DUP	F8B090159-008	F8B090159	S	10/02/07	12:55															
TA-St. Louis	DBSA-21-Q-30	F7J040245-005	DB100507*	S	10/02/07	13:30					X					X	X	X	X	X	X
TA-Richland	DBSA-21-Q-30	F7J040280-003	DB1005RD*	S	10/02/07	13:30															
TA-Richland	DBSA-21-Q-30	F8A140153-018	F8A140153	S	10/02/07	13:30															
TA-Richland	DBSA-21-Q-30	F8B090159-009	F8B090159	S	10/02/07	13:30															
TA-St. Louis	DBSA-21-Q-40	F7J040245-006	DB100507*	S	10/02/07	13:50					X					X	X	X	X	X	X
TA-Richland	DBSA-21-Q-40	F7J040280-004	DB1005RD*	S	10/02/07	13:50															
TA-Richland	DBSA-21-Q-40	F8A140153-019	F8A140153	S	10/02/07	13:50															

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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-21-Q-40	F8B090159-010	F8B090159	S	10/02/07	13:50															
TA-St. Louis	DBSA-21-Q-5	F7J040245-001	DB100507*	S	10/02/07	12:25					X									X	
TA-St. Louis	DBSA-21-Q-50	F7J040245-007	DB100507*	S	10/02/07	14:15					X					X	X	X	X	X	X
TA-Richland	DBSA-21-Q-50	F7J040280-005	DB1005RD*	S	10/02/07	14:15															
TA-Richland	DBSA-21-Q-50	F8A140153-020	F8A140153	S	10/02/07	14:15															
TA-Richland	DBSA-21-Q-50	F8B090159-005	F8B090159	S	10/02/07	14:15															
TA-St. Louis	DBSA-21-Q-70	F7J040245-009	DB100507*	S	10/02/07	16:00					X					X	X	X	X	X	X
TA-St. Louis	DBSA-21-T-80	F7J040245-011	DB100507*	S	10/02/07	16:30					X					X	X	X	X	X	X
TA-Richland	DBSA-21-T-80	F7J040280-009	DB1005RD*	S	10/02/07	16:30															
TA-Richland	DBSA-21-T-80	F8A140155-004	F8A140155	S	10/02/07	16:30															
TA-Richland	DBSA-21-T-80	F8B090159-020	F8B090159	S	10/02/07	16:30															
TA-Irvine	DBSA-21-T-80	IQJ0456-09	IQJ0456	S	10/02/07	16:30															
TA-St. Louis	DBSA-21-T-90	F7J040245-012	DB100507*	S	10/02/07	17:05					X					X	X	X	X	X	X
TA-Richland	DBSA-21-T-90	F7J040280-010	DB1005RD*	S	10/02/07	17:05															
TA-Richland	DBSA-21-T-90	F8A140155-005	F8A140155	S	10/02/07	17:05															
TA-Richland	DBSA-21-T-90	F8B090161-001	F8B090161	S	10/02/07	17:05															
TA-Irvine	DBSA-21-T-90	IQJ0456-10	IQJ0456	S	10/02/07	17:05															
TA-St. Louis	DBSA-23-Q-10	F7I250260-007	DB092707*	S	09/23/07	9:55					X									X	
TA-St. Louis	DBSA-23-Q-20	F7I250260-008	DB092707*	S	09/23/07	10:20					X					X	X	X	X	X	X
TA-Richland	DBSA-23-Q-20	F7I250279-001	DB0927RD*	S	09/23/07	10:20															
TA-Richland	DBSA-23-Q-20	F8A140153-001	F8A140153	S	09/23/07	10:20															
TA-Richland	DBSA-23-Q-20	F8A140153-006	F8A140153	S	09/23/07	10:20															
TA-Richland	DBSA-23-Q-20	F8B090161-009	F8B090161	S	09/23/07	10:20															
TA-St. Louis	DBSA-23-Q-30	F7I250260-009	DB092707*	S	09/23/07	10:45					X					X	X	X	X	X	X
TA-Richland	DBSA-23-Q-30	F8A140153-002	F8A140153	S	09/23/07	10:45															
TA-Richland	DBSA-23-Q-30	F8A140153-007	F8A140153	S	09/23/07	10:45															
TA-Richland	DBSA-23-Q-30	F8B090161-010	F8B090161	S	09/23/07	10:45															
TA-Irvine	DBSA-23-Q-30	IQI2160-07	IQI2160	S	09/23/07	10:45															
TA-St. Louis	DBSA-23-Q-30 (FD)	F7I250260-010	DB092707*	S	09/23/07	10:45					X					X	X	X	X	X	X
TA-Richland	DBSA-23-Q-30 (FD)	F7I250279-003	DB0927RD*	S	09/23/07	10:45															
TA-Richland	DBSA-23-Q-30 (FD)	F8A140153-008	F8A140153	S	09/23/07	10:45															
TA-Richland	DBSA-23-Q-30 (FD)	F8B090161-011	F8B090161	S	09/23/07	10:45															
TA-Irvine	DBSA-23-Q-30 (MS/MSD)	IQI2160-09	IQI2160	S	09/23/07	10:45															
TA-Irvine	DBSA-23-Q-30 (FD)	IQI2160-08	IQI2160	S	09/23/07	10:45															

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CLARK COUNTY, NEVADA

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TA-St. Louis	DBSA-23-Q-40	F7I250260-011	DB092707*	S	09/23/07	11:15					X					X	X	X	X	X	X
TA-Richland	DBSA-23-Q-40	F7I250279-004	DB0927RD*	S	09/23/07	11:15															
TA-Richland	DBSA-23-Q-40	F8A140153-009	F8A140153	S	09/23/07	11:15															
TA-Richland	DBSA-23-Q-40	F8B090161-012	F8B090161	S	09/23/07	11:15															
TA-Irvine	DBSA-23-Q-40	IQI2160-10	IQI2160	S	09/23/07	11:15															
TA-St. Louis	DBSA-23-Q-5	F7I250260-006	DB092707*	S	09/23/07	9:50					X									X	
TA-St. Louis	DBSA-23-Q-50	F7I250260-012	DB092707*	S	09/23/07	12:00					X					X	X	X	X	X	X
TA-Richland	DBSA-23-Q-50	F7I250279-005	DB0927RD*	S	09/23/07	12:00															
TA-Richland	DBSA-23-Q-50	F8A140153-010	F8A140153	S	09/23/07	12:00															
TA-Richland	DBSA-23-Q-50	F8B090161-013	F8B090161	S	09/23/07	12:00															
TA-St. Louis	DBSA23-T-140	F7I270301-001	DB092707*	S	09/26/07	8:10	X				X					X	X	X	X	X	X
TA-Richland	DBSA23-T-140	F7I270314-001	DB0927RD*	S	09/26/07	8:10															
TA-Richland	DBSA23-T-140	F8A140153-014	F8A140153	S	09/26/07	8:10															
TA-Richland	DBSA23-T-140	F8B090161-002	F8B090161	S	09/26/07	8:10															
TA-Irvine	DBSA23-T-140	IQI2439-01	IQI2439	S	09/26/07	8:10															
TA-St. Louis	DBSA23-T-150	F7I270301-002	DB092707*	S	09/26/07	8:40					X					X	X	X	X	X	X
TA-Richland	DBSA23-T-150	F7I270314-002	DB0927RD*	S	09/26/07	8:40															
TA-Richland	DBSA23-T-150	F8A140153-015	F8A140153	S	09/26/07	8:40															
TA-Richland	DBSA23-T-150	F8B090161-003	F8B090161	S	09/26/07	8:40															
TA-Irvine	DBSA23-T-150	IQI2439-02	IQI2439	S	09/26/07	8:40															
TA-St. Louis	DBSA-23-TRIP BLANK	F7I250260-015	DB092707*	WQ	09/23/07	--															
TA-St. Louis	DBSA-26 TRIP BLANK	F7I250235-008	DB092507*	WQ	09/21/07	15:30															
TA-St. Louis	DBSA-26-Q-0	F7I250235-001	DB092507*	S	09/21/07	15:30					X										
TA-St. Louis	DBSA-26-Q-10	F7I250235-003	DB092507*	S	09/21/07	16:05					X									X	
TA-Irvine	DBSA-26-Q-100	IQI2147-09	IQI2147	S	09/22/07	10:25															
TA-Irvine	DBSA-26-Q-110	IQI2147-10	IQI2147	S	09/22/07	11:05															
TA-Richland	DBSA-26-Q-150	F7I250173-014	DB0925RD*	S	09/22/07	15:45															
TA-St. Louis	DBSA-26-Q-150	F7I250235-018	DB092507*	S	09/22/07	15:45										X	X	X	X	X	X
TA-Richland	DBSA-26-Q-150	F8A140153-005	F8A140153	S	09/22/07	15:45															
TA-Irvine	DBSA-26-Q-150	IQI2160-04	IQI2160	S	09/22/07	15:45															
TA-St. Louis	DBSA-26-Q-160	F7I250235-019	DB092507*	S	09/22/07	16:20										X	X	X	X	X	X
TA-Richland	DBSA-26-Q-20	F7I250173-001	DB0925RD*	S	09/21/07	16:40															
TA-St. Louis	DBSA-26-Q-20	F7I250235-004	DB092507*	S	09/21/07	16:40					X					X	X	X	X	X	X
TA-Richland	DBSA-26-Q-20	F8B090161-015	F8B090161	S	09/21/07	16:40															

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CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Irvine	DBSA-26-Q-20	IQI2147-01	IQI2147	S	09/21/07	16:40															
TA-Richland	DBSA-26-Q-30	F7I250173-002	DB0925RD*	S	09/21/07	16:55															
TA-St. Louis	DBSA-26-Q-30	F7I250235-005	DB092507*	S	09/21/07	16:55					X					X	X	X	X	X	X
TA-Richland	DBSA-23-Q-30	F7I250279-002	DB0927RD*	S	09/23/07	10:45															
TA-Richland	DBSA-26-Q-30	F8B090161-016	F8B090161	S	09/21/07	16:55															
TA-Irvine	DBSA-26-Q-30	IQI2147-02	IQI2147	S	09/21/07	16:55															
TA-Richland	DBSA-26-Q-40	F7I250173-003	DB0925RD*	S	09/21/07	17:30															
TA-St. Louis	DBSA-26-Q-40	F7I250235-006	DB092507*	S	09/21/07	17:30					X					X	X	X	X	X	X
TA-Richland	DBSA-26-Q-40	F8A140153-003	F8A140153	S	09/21/07	17:30															
TA-Richland	DBSA-26-Q-40	F8B090161-017	F8B090161	S	09/21/07	17:30															
TA-Irvine	DBSA-26-Q-40	IQI2147-03	IQI2147	S	09/21/07	17:30															
TA-St. Louis	DBSA-26-Q-5	F7I250235-002	DB092507*	S	09/21/07	16:00					X									X	
TA-Richland	DBSA-26-Q-50	F7I250173-004	DB0925RD*	S	09/21/07	17:50															
TA-St. Louis	DBSA-26-Q-50	F7I250235-007	DB092507*	S	09/21/07	17:50					X					X	X	X	X	X	X
TA-Richland	DBSA-26-Q-50	F8A140153-004	F8A140153	S	09/21/07	17:50															
TA-Richland	DBSA-26-Q-50	F8B090161-018	F8B090161	S	09/21/07	17:50															
TA-Irvine	DBSA-26-Q-50	IQI2147-04	IQI2147	S	09/21/07	17:50															
TA-Irvine	DBSA-26-Q-60	IQI2147-05	IQI2147	S	09/22/07	8:10															
TA-Irvine	DBSA-26-Q-70	IQI2147-06	IQI2147	S	09/22/07	8:40															
TA-Irvine	DBSA-26-Q-80	IQI2147-07	IQI2147	S	09/22/07	9:05															
TA-Irvine	DBSA-26-Q-90	IQI2147-08	IQI2147	S	09/22/07	10:00															
TA-St. Louis	DBSA-27-Q-0	F7H100305-001	DB081007*	S	08/09/07	7:50					X										
TA-St. Louis	DBSA-27-Q-10	F7H100305-004	DB081007*	S	08/09/07	9:00					X									X	
TA-St. Louis	DBSA-27-Q-10 (PP/GS)	F7H100305-003	DB081007*	S	08/09/07	9:00					X										
TA-St. Louis	DBSA-27-Q-20	F7H100305-005	DB081007*	S	08/09/07	9:20					X					X	X	X	X	X	X
TA-Richland	DBSA-27-Q-20	F7H100325-001	DB0810RD*	S	08/09/07	9:20															
TA-Richland	DBSA-27-Q-20	F8A140148-005	F8A140148	S	08/09/07	9:20															
TA-Richland	DBSA-27-Q-20	F8B090161-019	F8B090161	S	08/09/07	9:20															
TA-Irvine	DBSA-27-Q-20	IQH1104-01	IQH1104	S	08/09/07	9:20															
TA-St. Louis	DBSA-27-Q-20 (FD)	F7H100305-006	DB081007*	S	08/09/07	9:20					X					X	X	X	X	X	X
TA-Richland	DBSA-27-Q-20 (FD)	F7H100325-002	DB0810RD*	S	08/09/07	9:20															
TA-Richland	DBSA-27-Q-20 (FD)	F8A140148-006	F8A140148	S	08/09/07	9:20															
TA-Richland	DBSA-27-Q-20 (FD)	F8B090161-020	F8B090161	S	08/09/07	9:20															
TA-Irvine	DBSA-27-Q-20 (FD)	IQH1104-02	IQH1104	S	08/09/07	9:20															

TABLE C-1
DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 15 of 54)

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-St. Louis	DBSA-27-Q-30	F7H100305-007	DB081007*	S	08/09/07	9:55					X					X	X	X	X	X	X
TA-Richland	DBSA-27-Q-30	F7H100325-003	DB0810RD*	S	08/09/07	9:55															
TA-Richland	DBSA-27-Q-30	F8A140148-007	F8A140148	S	08/09/07	9:55															
TA-Richland	DBSA-27-Q-30	F8B090162-001	F8B090162	S	08/09/07	9:55															
TA-Irvine	DBSA-27-Q-30	IQH1104-03	IQH1104	S	08/09/07	9:55															
TA-St. Louis	DBSA-27-Q-40	F7H100305-008	DB081007*	S	08/09/07	10:15					X					X	X	X	X	X	X
TA-Richland	DBSA-27-Q-40	F7H100325-004	DB0810RD*	S	08/09/07	10:15															
TA-Richland	DBSA-27-Q-40	F8A140148-008	F8A140148	S	08/09/07	10:15															
TA-Richland	DBSA-27-Q-40	F8B090162-002	F8B090162	S	08/09/07	10:15															
TA-Irvine	DBSA-27-Q-40	IQH1104-04	IQH1104	S	08/09/07	10:15															
TA-St. Louis	DBSA-27-Q-5	F7H100305-002	DB081007*	S	08/09/07	8:15					X									X	
TA-St. Louis	DBSA-27-Q-50	F7H100305-009	DB081007*	S	08/09/07	11:00					X					X	X	X	X	X	X
TA-Richland	DBSA-27-Q-50	F7H100325-005	DB0810RD*	S	08/09/07	11:00															
TA-Richland	DBSA-27-Q-50	F8A140148-009	F8A140148	S	08/09/07	11:00															
TA-Richland	DBSA-27-Q-50	F8B090162-003	F8B090162	S	08/09/07	11:00															
TA-Irvine	DBSA-27-Q-50	IQH1104-05	IQH1104	S	08/09/07	11:00															
TA-St. Louis	DBSA-27-Q-60	F7H140268-001	DB081607*	S	08/13/07	8:35					X					X	X	X	X	X	X
TA-Richland	DBSA-27-Q-60	F7H140276-001	DB08016RD*	S	08/13/07	8:35															
TA-Richland	DBSA-27-Q-60	F8A140148-010	F8A140148	S	08/13/07	8:35															
TA-Richland	DBSA-27-Q-60	F8B090162-004	F8B090162	S	08/13/07	8:35															
TA-Irvine	DBSA-27-Q-60	IQH1410-01	IQH1410	S	08/13/07	8:35															
TA-St. Louis	DBSA-27-Q-70	F7H140268-002	DB081607*	S	08/13/07	9:00					X					X	X	X	X	X	X
TA-Richland	DBSA-27-Q-70	F7H140276-002	DB08016RD*	S	08/13/07	9:00															
TA-Richland	DBSA-27-Q-70	F8A140148-011	F8A140148	S	08/13/07	9:00															
TA-Irvine	DBSA-27-Q-70	IQH1410-02	IQH1410	S	08/13/07	9:00															
TA-St. Louis	DBSA-27-Q-80	F7H140268-003	DB081607*	S	08/13/07	9:10					X					X	X	X	X	X	X
TA-Richland	DBSA-27-Q-80	F7H140276-003	DB08016RD*	S	08/13/07	9:10															
TA-Richland	DBSA-27-Q-80	F8A140148-012	F8A140148	S	08/13/07	9:10															
TA-Irvine	DBSA-27-Q-80	IQH1410-03	IQH1410	S	08/13/07	9:10															
TA-St. Louis	DBSA-27-Q-90	F7H140268-004	DB081607*	S	08/13/07	9:35					X					X	X	X	X	X	X
TA-Richland	DBSA-27-Q-90	F7H140276-004	DB08016RD*	S	08/13/07	9:35															
TA-Richland	DBSA-27-Q-90	F8A140148-013	F8A140148	S	08/13/07	9:35															
TA-Irvine	DBSA-27-Q-90	IQH1410-04	IQH1410	S	08/13/07	9:35															
TA-Irvine	DBSA-27-T-100	IQH1410-05	IQH1410	S	08/13/07	12:35															

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-St. Louis	DBSA-27-T-100	F7H140268-006	DB081607*	S	08/13/07	12:35					X					X	X	X	X	X	X
TA-Richland	DBSA-27-T-100	F8A140148-014	F8A140148	S	08/13/07	12:35															
TA-Richland	DBSA-27-T-100 (MS/MSD)	F7H140276-005	DB08016RD*	S	08/13/07	12:35															
TA-St. Louis	DBSA-27-T-100 (PP/GS)	F7H140268-005	DB081607*	S	08/13/07	10:10					X										
TA-St. Louis	DBSA-29-A-160(FD)	F7I240171-022	DB092207*	S	09/21/07	8:10										X	X	X	X	X	X
TA-Richland	DBSA-29-A-160(FD)	F7I240189-018	DB0922RD*	S	09/21/07	8:10															
TA-St. Louis	DBSA-29-GW	F7I240171-002	DB092207*	W	09/21/07	--	X	X	X	X		X	X	X	X	X	X	X	X	X	X
TA-Richland	DBSA-29-GW	F7I240189-002	DB0922RD*	W	09/21/07	8:30															
Alpha	DBSA-29-GW	ERM07092429-01A	ERM07092429	W	09/21/07	8:30															
TA-Irvine	DBSA-29-GW	IQI2030-01	IQI2030	W	09/21/07	8:30															
TA-St. Louis	DBSA-29-Q-10	F7I240171-004	DB092207*	S	09/20/07	8:05					X									X	
TA-St. Louis	DBSA-29-Q-10-FD	F7I240171-005	DB092207*	S	09/20/07	8:05					X									X	
TA-St. Louis	DBSA-29-Q-150	F7I240171-020	DB092207*	S	09/21/07	7:40										X	X	X	X	X	X
TA-Richland	DBSA-29-Q-150	F7I240189-016	DB0922RD*	S	09/21/07	7:40															
TA-Irvine	DBSA-29-Q-150	IQI2027-01	IQI2028	S	09/21/07	7:40															
TA-St. Louis	DBSA-29-Q-160	F7I240171-021	DB092207*	S	09/21/07	8:10										X	X	X	X	X	X
TA-Richland	DBSA-29-Q-160	F7I240189-017	DB0922RD*	S	09/21/07	8:10															
TA-Irvine	DBSA-29-Q-160	IQI2027-02	IQI2028	S	09/21/07	8:10															
TA-Irvine	DBSA-29-Q-160 (FD)	IQI2027-03	IQI2028	S	09/21/07	8:10															
TA-St. Louis	DBSA-29-Q-20	F7I240171-007	DB092207*	S	09/20/07	8:35					X					X	X	X	X	X	X
TA-Richland	DBSA-29-Q-20	F7I240189-003	DB0922RD*	S	09/20/07	8:35															
TA-Richland	DBSA-29-Q-20	F8A140150-014	F8A140150	S	09/20/07	8:35															
TA-Richland	DBSA-29-Q-20	F8B090162-005	F8B090162	S	09/20/07	8:35															
TA-Irvine	DBSA-29-Q-20	IQI2047-01	IQI2047	S	09/20/07	8:35															
TA-St. Louis	DBSA-29-Q-30	F7I240171-008	DB092207*	S	09/20/07	9:00					X					X	X	X	X	X	X
TA-Richland	DBSA-29-Q-30	F7I240189-004	DB0922RD*	S	09/20/07	9:00															
TA-Richland	DBSA-29-Q-30	F8A140150-015	F8A140150	S	09/20/07	9:00															
TA-Richland	DBSA-29-Q-30	F8B090162-006	F8B090162	S	09/20/07	9:00															
TA-Irvine	DBSA-29-Q-30	IQI2047-02	IQI2047	S	09/20/07	9:00															
TA-St. Louis	DBSA-29-Q-40	F7I240171-009	DB092207*	S	09/20/07	9:30					X					X	X	X	X	X	X
TA-Richland	DBSA-29-Q-40	F7I240189-005	DB0922RD*	S	09/20/07	9:30															
TA-Richland	DBSA-29-Q-40	F8A140150-016	F8A140150	S	09/20/07	9:30															
TA-Richland	DBSA-29-Q-40	F8B090162-007	F8B090162	S	09/20/07	9:30															
TA-Irvine	DBSA-29-Q-40	IQI2047-03	IQI2047	S	09/20/07	9:30															

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-St. Louis	DBSA-29-Q-5	F7I240171-003	DB092207*	S	09/20/07	8:00					X									X	
TA-St. Louis	DBSA-29-Q-50	F7I240171-010	DB092207*	S	09/20/07	9:55					X					X	X	X	X	X	X
TA-Richland	DBSA-29-Q-50	F7I240189-006	DB0922RD*	S	09/20/07	9:55															
TA-Richland	DBSA-29-Q-50	F8A140150-017	F8A140150	S	09/20/07	9:55															
TA-Richland	DBSA-29-Q-50	F8B090162-008	F8B090162	S	09/20/07	9:55															
TA-Irvine	DBSA-29-Q-50	IQI2047-04	IQI2047	S	09/20/07	9:55															
TA-Irvine	DBSA-2B-Q-20	IQI2160-06	IQI2160	S	09/23/07	10:20															
TA-St. Louis	DBSA-2-Q-10	F7H080321-002	DB080807*	S	08/07/07	8:55					X									X	
TA-Irvine	DBSA-2-Q-10	IQH1019-02	IQH1019	S	08/07/07	8:55					X										
TA-St. Louis	DBSA-2-Q-20	F7H080321-003	DB080807*	S	08/07/07	9:45					X					X	X	X	X	X	X
TA-Richland	DBSA-2-Q-20	F7H080330-001	DB0808RD*	S	08/07/07	9:45															
TA-Richland	DBSA-2-Q-20	F8A140146-009	F8A140146	S	08/07/07	9:45															
TA-Richland	DBSA-2-Q-20	F8B090162-009	F8B090162	S	08/07/07	9:45															
TA-Irvine	DBSA-2-Q-20	IQH1019-03	IQH1019	S	08/07/07	9:45					X										
TA-St. Louis	DBSA-2-Q-20 (FD)	F7H080321-004	DB080807*	S	08/07/07	9:45					X					X	X	X	X	X	X
TA-Richland	DBSA-2-Q-20 (FD)	F7H080330-002	DB0808RD*	S	08/07/07	9:45															
TA-Richland	DBSA-2-Q-20 (FD)	F8A140146-010	F8A140146	S	08/07/07	9:45															
TA-Irvine	DBSA-2-Q-20 (FD)	IQH1019-04	IQH1019	S	08/07/07	9:45					X										
TA-Richland	DBSA-2-Q-20 (FD)	F8B090162-010	F8B090162	S	08/07/07	9:45															
TA-St. Louis	DBSA-2-Q-30	F7H080321-005	DB080807*	S	08/07/07	10:05					X					X	X	X	X	X	X
TA-Richland	DBSA-2-Q-30	F7H080330-003	DB0808RD*	S	08/07/07	10:05															
TA-Richland	DBSA-2-Q-30	F8A140146-011	F8A140146	S	08/07/07	10:05															
TA-Richland	DBSA-2-Q-30	F8B090162-011	F8B090162	S	08/07/07	10:05															
TA-Irvine	DBSA-2-Q-30	IQH1019-05	IQH1019	S	08/07/07	10:05					X										
TA-St. Louis	DBSA-2-Q-40	F7H080321-006	DB080807*	S	08/07/07	10:55					X					X	X	X	X	X	X
TA-Richland	DBSA-2-Q-40	F7H080330-004	DB0808RD*	S	08/07/07	10:55															
TA-Richland	DBSA-2-Q-40	F8A140146-012	F8A140146	S	08/07/07	10:55															
TA-Richland	DBSA-2-Q-40	F8B090162-012	F8B090162	S	08/07/07	10:55															
TA-Irvine	DBSA-2-Q-40	IQH1019-06	IQH1019	S	08/07/07	10:55					X										
TA-St. Louis	DBSA-2-Q-5	F7H080321-001	DB080807*	S	08/07/07	8:45					X									X	
TA-Irvine	DBSA-2-Q-5	IQH1019-01	IQH1019	S	08/07/07	8:45					X										
TA-St. Louis	DBSA-2-Q-50	F7H080321-007	DB080807*	S	08/07/07	11:15					X					X	X	X	X	X	X
TA-Richland	DBSA-2-Q-50	F7H080330-005	DB0808RD*	S	08/07/07	11:15															
TA-Richland	DBSA-2-Q-50	F8A140146-013	F8A140146	S	08/07/07	11:15															

TABLE C-1
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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-2-Q-50	F8B090162-013	F8B090162	S	08/07/07	11:15															
TA-Irvine	DBSA-2-Q-50	IQH1019-07	IQH1019	S	08/07/07	11:15					X										
TA-St. Louis	DBSA-2-Q-60	F7H080321-007	DB080807*	S	08/07/07	11:40					X					X	X	X	X	X	X
TA-Richland	DBSA-2-Q-60	F7H080330-006	DB0808RD*	S	08/07/07	11:40															
TA-Richland	DBSA-2-Q-60	F8A140146-014	F8A140146	S	08/07/07	11:40															
TA-Richland	DBSA-2-Q-60	F8B090162-014	F8B090162	S	08/07/07	11:40															
TA-Irvine	DBSA-2-Q-60	IQH1019-08	IQH1019	S	08/07/07	11:40					X										
TA-St. Louis	DBSA-2-Q-70	F7H080321-010	DB080807*	S	08/07/07	12:00					X					X	X	X	X	X	X
TA-Richland	DBSA-2-Q-70	F7H080330-008	DB0808RD*	S	08/07/07	12:00															
TA-Richland	DBSA-2-Q-70	F8A140146-015	F8A140146	S	08/07/07	12:00															
TA-Irvine	DBSA-2-Q-70	IQH1019-10	IQH1019	S	08/07/07	12:00					X										
TA-St. Louis	DBSA-2-Q-80	F7H080321-009	DB080807*	S	08/07/07	12:40					X					X	X	X	X	X	X
TA-Richland	DBSA-2-Q-80	F7H080330-007	DB0808RD*	S	08/07/07	12:40															
TA-Richland	DBSA-2-Q-80	F8A140146-016	F8A140146	S	08/07/07	12:40															
TA-Irvine	DBSA-2-Q-80	IQH1019-09	IQH1019	S	08/07/07	12:40					X										
TA-St. Louis	DBSA-30-GW	F7I200305-015	DB092007*	W	09/19/07	7:30					X					X	X	X	X	X	X
TA-Richland	DBSA-30-GW	F7I200323-012	DB0920RD*	W	09/19/07	7:30															
Alpha	DBSA-30-GW	ERM07092056-01A	ERM07092056	W	09/19/07	7:30															
TA-Irvine	DBSA-30-GW	IQI1772-01	IQI1772	W	09/19/07	7:30															
TA-Irvine	DBSA-30-GW	IQI2028-02	IQI2028	W	09/21/07	8:30															
TA-St. Louis	DBSA-30-Q-10	F7I190183-002	DB092007*	S	09/18/07	8:12					X									X	
TA-St. Louis	DBSA-30-Q-100	F7I200305-008	DB092007*	S	09/18/07	14:30					X										
TA-St. Louis	DBSA-30-Q-110	F7I200305-009	DB092007*	S	09/18/07	15:15					X										
TA-St. Louis	DBSA-30-Q-120	F7I200305-010	DB092007*	S	09/18/07	16:10					X										
TA-St. Louis	DBSA-30-Q-130	F7I200305-011	DB092007*	S	09/18/07	16:55					X					X	X	X	X	X	X
TA-Richland	DBSA-30-Q-130	F7I200323-008	DB0920RD*	S	09/18/07	16:55															
TA-Richland	DBSA-30-Q-130	F8A140150-010	F8A140150	S	09/18/07	16:55															
TA-Irvine	DBSA-30-Q-130	IQI1801-05	IQI1801	S	09/18/07	16:55															
TA-St. Louis	DBSA-30-Q-140	F7I200305-012	DB092007*	S	09/19/07	9:35					X					X	X	X	X	X	X
TA-Richland	DBSA-30-Q-140	F7I200323-009	DB0920RD*	S	09/19/07	9:35															
TA-Richland	DBSA-30-Q-140	F8A140150-011	F8A140150	S	09/19/07	9:35															
TA-Irvine	DBSA-30-Q-140	IQI1801-06	IQI1801	S	09/18/07	9:35															
TA-Richland	DBSA-30-Q-150	F8A140150-012	F8A140150	S	09/19/07	10:30															
TA-Richland	DBSA-30-Q-160	F8A140150-013	F8A140150	S	09/19/07	11:00															

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DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-St. Louis	DBSA-30-Q-20	F7I190183-003	DB092007*	S	09/18/07	8:50					X					X	X	X	X	X	X
TA-Richland	DBSA-30-Q-20	F7I190249-001	DB0920RD*	S	09/18/07	8:50															
TA-Richland	DBSA-30-Q-20	F8A140150-003	F8A140150	S	09/18/07	8:50															
TA-Richland	DBSA-30-Q-20	F8B090162-015	F8B090162	S	09/18/07	8:50															
TA-Irvine	DBSA-30-Q-20	IQI1639-01	IQI1639	S	09/18/07	8:50															
TA-St. Louis	DBSA-30-Q-30	F7I190183-004	DB092007*	S	09/18/07	9:15					X					X	X	X	X	X	X
TA-Richland	DBSA-30-Q-30	F7I190249-002	DB0920RD*	S	09/18/07	9:15															
TA-Richland	DBSA-30-Q-30	F8A140150-004	F8A140150	S	09/18/07	9:15															
TA-Richland	DBSA-30-Q-30	F8B090162-016	F8B090162	S	09/18/07	9:15															
TA-Irvine	DBSA-30-Q-30	IQI1639-02	IQI1639	S	09/18/07	9:15															
TA-St. Louis	DBSA-30-Q-40	F7I190183-005	DB092007*	S	09/18/07	9:40					X					X	X	X	X	X	X
TA-Richland	DBSA-30-Q-40	F7I190249-003	DB0920RD*	S	09/18/07	9:40															
TA-Richland	DBSA-30-Q-40	F8A140150-005	F8A140150	S	09/18/07	9:40															
TA-Richland	DBSA-30-Q-40	F8B090162-017	F8B090162	S	09/18/07	9:40															
TA-Irvine	DBSA-30-Q-40	IQI1639-03	IQI1639	S	09/18/07	9:40															
TA-St. Louis	DBSA-30-Q-5	F7I190183-001	DB092007*	S	09/18/07	8:10					X									X	
TA-St. Louis	DBSA-30-Q-50	F7I190183-006	DB092007*	S	09/18/07	10:05					X					X	X	X	X	X	X
TA-Richland	DBSA-30-Q-50	F7I190249-004	DB0920RD*	S	09/18/07	10:05															
TA-Richland	DBSA-30-Q-50	F8A140150-006	F8A140150	S	09/18/07	10:05															
TA-Richland	DBSA-30-Q-50	F8B090162-018	F8B090162	S	09/18/07	10:05															
TA-Irvine	DBSA-30-Q-50	IQI1639-04	IQI1639	S	09/18/07	10:05															
TA-St. Louis	DBSA-30-Q-90	F7I200305-007	DB092007*	S	09/18/07	12:40					X										
TA-St. Louis	DBSA-30-T-150	F7I200305-013	DB092007*	S	09/19/07	10:30					X					X	X	X	X	X	X
TA-Richland	DBSA-30-T-150	F7I200323-010	DB0920RD*	S	09/19/07	10:30															
TA-Irvine	DBSA-30-T-150	IQI1801-07	IQI1801	S	09/18/07	10:30															
TA-St. Louis	DBSA-30-T-160	F7I200305-014	DB092007*	S	09/19/07	11:00					X					X	X	X	X	X	X
TA-Richland	DBSA-30-T-160	F7I200323-011	DB0920RD*	S	09/19/07	11:00															
TA-Richland	DBSA-30-T-160	F8B090161-004	F8B090161	S	09/19/07	11:00															
TA-Irvine	DBSA-30-T-160	IQI1801-08	IQI1801	S	09/18/07	11:00															
TA-St. Louis	DBSA-32-GW	F7H150153-011	DB081607*	W	08/14/07	11:30	X	X	X	X		X	X	X	X	X	X	X	X	X	X
TA-Richland	DBSA-32-GW	F7H150340-007	DB08016RD*	W	08/14/07	11:30															
Alpha	DBSA-32-GW	ERM07082029-01A	ERM07082029	W	08/14/07	11:30															
TA-Irvine	DBSA-32-GW	IQH1407-01	IQH1407	W	08/14/07	11:30															
TA-St. Louis	DBSA-32-Q-0	F7H150153-001	DB081607*	S	08/14/07	7:45					X										

TABLE C-1
DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-St. Louis	DBSA-32-Q-10	F7H150153-004	DB081607*	S	08/14/07	8:30					X										
TA-St. Louis	DBSA-32-Q-20	F7H150153-005	DB081607*	S	08/14/07	8:50					X					X	X	X	X	X	X
TA-Richland	DBSA-32-Q-20	F7H150340-001	DB08016RD*	S	08/14/07	8:50															
TA-Richland	DBSA-32-Q-20	F8A140148-015	F8A140148	S	08/14/07	8:50															
TA-Richland	DBSA-32-Q-20	F8B090162-019	F8B090162	S	08/14/07	8:50															
TA-Irvine	DBSA-32-Q-20	IQH1574-06	IQH1574	S	08/14/07	8:50															
TA-St. Louis	DBSA-32-Q-30	F7H150153-006	DB081607*	S	08/14/07	9:10					X					X	X	X	X	X	X
TA-Richland	DBSA-32-Q-30	F7H150340-002	DB08016RD*	S	08/14/07	9:10															
TA-Richland	DBSA-32-Q-30	F8A140148-016	F8A140148	S	08/14/07	9:10															
TA-Richland	DBSA-32-Q-30	F8B090162-020	F8B090162	S	08/14/07	9:10															
TA-Irvine	DBSA-32-Q-30	IQH1574-07	IQH1574	S	08/14/07	9:10															
TA-St. Louis	DBSA-32-Q-40	F7H150153-007	DB081607*	S	08/14/07	9:30					X					X	X	X	X	X	X
TA-Richland	DBSA-32-Q-40	F7H150340-003	DB08016RD*	S	08/14/07	9:30															
TA-Richland	DBSA-32-Q-40	F8A140148-017	F8A140148	S	08/14/07	9:30															
TA-Richland	DBSA-32-Q-40	F8B090163-001	F8B090163	S	08/14/07	9:30															
TA-Irvine	DBSA-32-Q-40	IQH1574-08	IQH1574	S	08/14/07	9:30															
TA-St. Louis	DBSA-32-Q-5	F7H150153-002	DB081607*	S	08/14/07	8:15					X									X	
TA-St. Louis	DBSA-32-Q-5(FD)	F7H150153-003	DB081607*	S	08/14/07	8:15					X									X	
TA-St. Louis	DBSA-32-Q-50	F7H150153-008	DB081607*	S	08/14/07	9:55					X					X	X	X	X	X	X
TA-Richland	DBSA-32-Q-50	F7H150340-004	DB08016RD*	S	08/14/07	9:55															
TA-Richland	DBSA-32-Q-50	F8A140148-018	F8A140148	S	08/14/07	9:55															
TA-Richland	DBSA-32-Q-50	F8B090163-002	F8B090163	S	08/14/07	9:55															
TA-Irvine	DBSA-32-Q-50	IQH1574-01	IQH1574	S	08/14/07	9:55															
TA-St. Louis	DBSA-32-Q-60	F7H150153-009	DB081607*	S	08/14/07	10:30					X					X	X	X	X	X	X
TA-Richland	DBSA-32-Q-60	F7H150340-005	DB08016RD*	S	08/14/07	10:30															
TA-Richland	DBSA-32-Q-60	F8A140148-019	F8A140148	S	08/14/07	10:30															
TA-Richland	DBSA-32-Q-60	F8B090163-003	F8B090163	S	08/14/07	10:30															
TA-Irvine	DBSA-32-Q-60	IQH1574-02	IQH1574	S	08/14/07	10:30															
TA-St. Louis	DBSA-32-Q-70	F7H150153-010	DB081607*	S	08/14/07	11:00					X					X	X	X	X	X	X
TA-Richland	DBSA-32-Q-70	F7H150340-006	DB08016RD*	S	08/14/07	11:00															
TA-Richland	DBSA-32-Q-70	F8A140148-020	F8A140148	S	08/14/07	11:00															
TA-Irvine	DBSA-32-Q-70	IQH1574-03	IQH1574	S	08/14/07	11:00															
TA-St. Louis	DBSA-32-T-80	F7H150153-012	DB081607*	S	08/14/07	13:40					X					X	X	X	X	X	X
TA-Richland	DBSA-32-T-80	F7H150340-008	DB08016RD*	S	08/14/07	13:40															

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-32-T-80	F8A140150-001	F8A140150	S	08/14/07	13:40															
TA-Richland	DBSA-32-T-80	F8B090161-005	F8B090161	S	08/14/07	13:40															
TA-Irvine	DBSA-32-T-80	IQH1574-04	IQH1574	S	08/14/07	13:40															
TA-St. Louis	DBSA-32-T-95	F7H150153-013	DB081607*	S	08/14/07	14:50					X					X	X	X	X	X	X
TA-Richland	DBSA-32-T-95	F7H150340-009	DB08016RD*	S	08/14/07	14:50															
TA-Richland	DBSA-32-T-95	F8A140150-002	F8A140150	S	08/14/07	14:50															
TA-Richland	DBSA-32-T-95	F8B090161-006	F8B090161	S	08/14/07	14:50															
TA-Irvine	DBSA-32-T-95	IQH1574-05	IQH1574	S	08/14/07	14:50															
TA-St. Louis	DBSA-33-0	F7I200305-001	DB092007*	S	09/17/07	9:55					X										
TA-St. Louis	DBSA-33-10	F7I200305-003	DB092007*	S	09/17/07	15:10					X									X	
TA-St. Louis	DBSA-33-20	F7I200305-004	DB092007*	S	09/17/07	15:40					X					X	X	X	X	X	X
TA-Richland	DBSA-33-20	F7I200323-001	DB0920RD*	S	09/17/07	15:40															
TA-Richland	DBSA-33-20	F8A140150-007	F8A140150	S	09/17/07	15:40															
TA-Richland	DBSA-33-20	F8B090163-004	F8B090163	S	09/17/07	15:40															
TA-Irvine	DBSA-33-20	IQI1682-01	IQI1682	S	09/17/07	15:40															
TA-St. Louis	DBSA-33-20 (FD)	F7I200305-005	DB092007*	S	09/17/07	15:40					X					X	X	X	X	X	X
TA-Richland	DBSA-33-20 (FD)	F7I200323-002	DB0920RD*	S	09/17/07	15:40															
TA-Richland	DBSA-33-20 (FD)	F8A140150-008	F8A140150	S	09/17/07	15:40															
TA-Richland	DBSA-33-20 (FD)	F8B090163-005	F8B090163	S	09/17/07	15:40															
TA-Irvine	DBSA-33-20 (FD)	IQI1682-02	IQI1682	S	09/17/07	15:40															
TA-St. Louis	DBSA-33-5	F7I200305-002	DB092007*	S	09/17/07	15:05					X									X	
TA-St. Louis	DBSA-33-T-30	F7I200305-006	DB092007*	S	09/17/07	16:05					X					X	X	X	X	X	X
TA-Richland	DBSA-33-T-30	F7I200323-003	DB0920RD*	S	09/17/07	16:05															
TA-Richland	DBSA-33-T-30	F8A140150-009	F8A140150	S	09/17/07	16:05															
TA-Richland	DBSA-33-T-30	F8B090161-007	F8B090161	S	09/17/07	16:05															
TA-Irvine	DBSA-33-T-30	IQI1682-03	IQI1682	S	09/17/07	16:05															
TA-St. Louis	DBSA-3-Q-10	F7H090308-002	DB081007*	S	08/08/07	8:10					X									X	
TA-St. Louis	DBSA-3-Q-20	F7H090308-003	DB081007*	S	08/08/07	9:00					X					X	X	X	X	X	X
TA-Richland	DBSA-3-Q-20	F7H090316-001	DB0810RD*	S	08/08/07	9:00															
TA-Richland	DBSA-3-Q-20	F8A140146-017	F8A140146	S	08/08/07	9:00															
TA-Richland	DBSA-3-Q-20	F8B090163-006	F8B090163	S	08/08/07	9:00															
TA-Irvine	DBSA-3-Q-20	IQH1005-01	IQH1005	S	08/08/07	9:00					X										
TA-St. Louis	DBSA-3-Q-20 (FD)	F7H090308-004	DB081007*	S	08/08/07	9:00					X					X	X	X	X	X	X
TA-Richland	DBSA-3-Q-20 (FD)	F7H090316-002	DB0810RD*	S	08/08/07	9:00															

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LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-3-Q-20 (FD)	F8A140146-018	F8A140146	S	08/08/07	9:00															
TA-Richland	DBSA-3-Q-20 (FD)	F8B090163-007	F8B090163	S	08/08/07	9:00															
TA-Irvine	DBSA-3-Q-20 (FD)	IQH1005-02	IQH1005	S	08/08/07	9:00					X										
TA-St. Louis	DBSA-3-Q-30	F7H090308-005	DB081007*	S	08/08/07	9:15					X					X	X	X	X	X	X
TA-Richland	DBSA-3-Q-30	F7H090316-003	DB0810RD*	S	08/08/07	9:15															
TA-Richland	DBSA-3-Q-30	F8A140146-019	F8A140146	S	08/08/07	9:15															
TA-Richland	DBSA-3-Q-30	F8B090163-008	F8B090163	S	08/08/07	9:15															
TA-Irvine	DBSA-3-Q-30	IQH1005-03	IQH1005	S	08/08/07	9:15					X										
TA-St. Louis	DBSA-3-Q-40	F7H090308-006	DB081007*	S	08/08/07	9:30					X					X	X	X	X	X	X
TA-Richland	DBSA-3-Q-40	F7H090316-004	DB0810RD*	S	08/08/07	9:30															
TA-Richland	DBSA-3-Q-40	F8A140146-020	F8A140146	S	08/08/07	9:30															
TA-Richland	DBSA-3-Q-40	F8B090163-009	F8B090163	S	08/08/07	9:30															
TA-Irvine	DBSA-3-Q-40	IQH1005-04	IQH1005	S	08/08/07	9:30					X										
TA-St. Louis	DBSA-3-Q-5	F7H090308-001	DB081007*	S	08/08/07	7:50					X									X	
TA-St. Louis	DBSA-3-Q-50	F7H090308-007	DB081007*	S	08/08/07	9:45					X					X	X	X	X	X	X
TA-Richland	DBSA-3-Q-50	F7H090316-005	DB0810RD*	S	08/08/07	9:45															
TA-Richland	DBSA-3-Q-50	F8A140148-001	F8A140148	S	08/08/07	9:45															
TA-Richland	DBSA-3-Q-50	F8B090163-010	F8B090163	S	08/08/07	9:45															
TA-Irvine	DBSA-3-Q-50	IQH1005-05	IQH1005	S	08/08/07	9:45					X										
TA-St. Louis	DBSA-3-Q-60	F7H090308-008	DB081007*	S	08/08/07	10:00					X					X	X	X	X	X	X
TA-Richland	DBSA-3-Q-60	F7H090316-006	DB0810RD*	S	08/08/07	10:00															
TA-Richland	DBSA-3-Q-60	F8A140148-002	F8A140148	S	08/08/07	10:00															
TA-Richland	DBSA-3-Q-60	F8B090163-011	F8B090163	S	08/08/07	10:00															
TA-Irvine	DBSA-3-Q-60	IQH1005-06	IQH1005	S	08/08/07	10:00					X										
TA-St. Louis	DBSA-3-Q-70	F7H090308-009	DB081007*	S	08/08/07	10:20					X					X	X	X	X	X	X
TA-Richland	DBSA-3-Q-70	F7H090316-007	DB0810RD*	S	08/08/07	10:20															
TA-Richland	DBSA-3-Q-70	F8A140148-003	F8A140148	S	08/08/07	10:20															
TA-Irvine	DBSA-3-Q-70	IQH1005-07	IQH1005	S	08/08/07	10:20					X										
TA-St. Louis	DBSA-3-Q-80	F7H090308-010	DB081007*	S	08/08/07	10:40					X					X	X	X	X	X	X
TA-Richland	DBSA-3-Q-80	F7H090316-008	DB0810RD*	S	08/08/07	10:40															
TA-Richland	DBSA-3-Q-80	F8A140148-004	F8A140148	S	08/08/07	10:40															
TA-Irvine	DBSA-3-Q-80	IQH1005-08	IQH1005	S	08/08/07	10:40					X										
TA-St. Louis	DBSA-4-Q-10	F7J230236-003	DB102307*	S	10/19/07	16:10					X									X	
TA-St. Louis	DBSA-4-Q-20	F7J230236-004	DB102307*	S	10/19/07	16:30					X					X	X	X	X	X	X

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LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-4-Q-20	F7J230250-001	DB1023RD*	S	10/19/07	16:30															
TA-Richland	DBSA-4-Q-20	F8A150224-018	F8A150224	S	10/19/07	16:30															
TA-Richland	DBSA-4-Q-20	F8B090163-012	F8B090163	S	10/19/07	16:30															
TA-Irvine	DBSA-4-Q-20	IQJ2384-01	IQJ2384	S	10/19/07	16:30															
TA-St. Louis	DBSA-4-Q-20-FD	F7J230236-005	DB102307*	S	10/19/07	16:30					X					X	X	X	X	X	X
TA-Richland	DBSA-4-Q-20-FD	F7J230250-002	DB1023RD*	S	10/19/07	16:30															
TA-Richland	DBSA-4-Q-20-FD	F8A150224-019	F8A150224	S	10/19/07	16:30															
TA-Richland	DBSA-4-Q-20-FD	F8B090163-013	F8B090163	S	10/19/07	16:30															
TA-Irvine	DBSA-4-Q-20-FD	IQJ2384-02	IQJ2384	S	10/19/07	16:30															
TA-St. Louis	DBSA-4-Q-30	F7J230236-006	DB102307*	S	10/19/07	16:45					X					X	X	X	X	X	X
TA-Richland	DBSA-4-Q-30	F7J230250-003	DB1023RD*	S	10/19/07	16:45															
TA-Richland	DBSA-4-Q-30	F8A150224-020	F8A150224	S	10/19/07	16:45															
TA-Richland	DBSA-4-Q-30	F8B090163-014	F8B090163	S	10/19/07	16:45															
TA-Irvine	DBSA-4-Q-30	IQJ2384-03	IQJ2384	S	10/19/07	16:45															
TA-St. Louis	DBSA-4-Q-40	F7J230236-007	DB102307*	S	10/19/07	17:00					X					X	X	X	X	X	X
TA-Richland	DBSA-4-Q-40	F7J230250-004	DB1023RD*	S	10/19/07	17:00															
TA-Richland	DBSA-4-Q-40	F8A150237-001	F8A150237	S	10/19/07	17:00															
TA-Richland	DBSA-4-Q-40	F8B090163-015	F8B090163	S	10/19/07	17:00															
TA-Irvine	DBSA-4-Q-40	IQJ2384-04	IQJ2384	S	10/19/07	17:00															
TA-St. Louis	DBSA-4-Q-5	F7J230236-002	DB102307*	S	10/19/07	16:05					X									X	
TA-St. Louis	DBSA-4-Q-50	F7J230236-008	DB102307*	S	10/19/07	17:30					X					X	X	X	X	X	X
TA-Richland	DBSA-4-Q-50	F7J230250-005	DB1023RD*	S	10/19/07	17:30															
TA-Richland	DBSA-4-Q-50	F8A150237-002	F8A150237	S	10/19/07	17:30															
TA-Richland	DBSA-4-Q-50	F8B090163-016	F8B090163	S	10/19/07	17:30															
TA-Irvine	DBSA-4-Q-50	IQJ2384-05	IQJ2384	S	10/19/07	17:30															
TA-St. Louis	DBSA-4-Q-50-FD	F7J230236-009	DB102307*	S	10/19/07	17:30					X					X	X	X	X	X	X
TA-Richland	DBSA-4-Q-50-FD	F7J230250-006	DB1023RD*	S	10/19/07	17:30															
TA-Richland	DBSA-4-Q-50-FD	F8A150237-003	F8A150237	S	10/19/07	17:30															
TA-Richland	DBSA-4-Q-50-FD	F8B090163-017	F8B090163	S	10/19/07	17:30															
TA-Irvine	DBSA-4-Q-50-FD	IQJ2384-06	IQJ2384	S	10/19/07	17:30															
TA-St. Louis	DBSA-8-Q-10	F7J190206-003	DB101907*	S	10/17/07	14:00					X									X	
TA-St. Louis	DBSA-8-Q-20	F7J190206-004	DB101907*	S	10/17/07	14:30					X					X	X	X	X	X	X
TA-Richland	DBSA-8-Q-20	F7J190236-001	DB1019RD*	S	10/17/07	14:30															
TA-Richland	DBSA-8-Q-20	F8A150224-003	F8A150224	S	10/17/07	14:30															

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CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Richland	DBSA-8-Q-20	F8B090163-018	F8B090163	S	10/17/07	14:30															
TA-Irvine	DBSA-8-Q-20	IQJ2192-01	IQJ2192	S	10/17/07	14:30															
TA-St. Louis	DBSA-8-Q-20-FD	F7J190206-005	DB101907*	S	10/17/07	14:30					X					X	X	X	X	X	X
TA-Richland	DBSA-8-Q-20-FD	F7J190236-002	DB1019RD*	S	10/17/07	14:30															
TA-Richland	DBSA-8-Q-20-FD	F8A150224-004	F8A150224	S	10/17/07	14:30															
TA-Richland	DBSA-8-Q-20-FD	F8B090163-019	F8B090163	S	10/17/07	14:30															
TA-Irvine	DBSA-8-Q-20-FD	IQJ2192-02	IQJ2192	S	10/17/07	14:30															
TA-St. Louis	DBSA-8-Q-30	F7J190206-006	DB101907*	S	10/17/07	14:50					X					X	X	X	X	X	X
TA-Richland	DBSA-8-Q-30	F7J190236-003	DB1019RD*	S	10/17/07	14:50															
TA-Richland	DBSA-8-Q-30	F8A150224-005	F8A150224	S	10/17/07	14:50															
TA-Richland	DBSA-8-Q-30	F8B090163-020	F8B090163	S	10/17/07	14:50															
TA-Irvine	DBSA-8-Q-30	IQJ2192-03	IQJ2192	S	10/17/07	14:50															
TA-St. Louis	DBSA-8-Q-40	F7J190206-007	DB101907*	S	10/17/07	15:15					X					X	X	X	X	X	X
TA-Richland	DBSA-8-Q-40	F7J190236-004	DB1019RD*	S	10/17/07	15:15															
TA-Richland	DBSA-8-Q-40	F8A150224-006	F8A150224	S	10/17/07	15:15															
TA-Richland	DBSA-8-Q-40	F8B0910165-001	F8B090165	S	10/17/07	15:15															
TA-Irvine	DBSA-8-Q-40	IQJ2192-04	IQJ2192	S	10/17/07	15:15															
TA-St. Louis	DBSA-8-Q-5	F7J190206-002	DB101907*	S	10/17/07	13:50					X									X	
TA-St. Louis	DBSA-8-Q-50	F7J190206-008	DB101907*	S	10/17/07	15:40					X					X	X	X	X	X	X
TA-Richland	DBSA-8-Q-50	F7J190236-005	DB1019RD*	S	10/17/07	15:40															
TA-Richland	DBSA-8-Q-50	F8A150224-007	F8A150224	S	10/17/07	15:40															
TA-Richland	DBSA-8-Q-50	F8B0910165-002	F8B090165	S	10/17/07	15:40															
TA-Irvine	DBSA-8-Q-50	IQJ2192-05	IQJ2192	S	10/17/07	15:40															
TA-St. Louis	DBSA-8-Q-50-FD	F7J190206-009	DB101907*	S	10/17/07	15:40					X					X	X	X	X	X	X
TA-Richland	DBSA-8-Q-50-FD	F7J190236-006	DB1019RD*	S	10/17/07	15:40															
TA-Richland	DBSA-8-Q-50-FD	F8A150224-008	F8A150224	S	10/17/07	15:40															
TA-Richland	DBSA-8-Q-50-FD	F8B0910165-003	F8B090165	S	10/17/07	15:40															
TA-Irvine	DBSA-8-Q-50-FD	IQJ2192-06	IQJ2192	S	10/17/07	15:40															
TA-St. Louis	DBSA-9-Q-10	F7J170181-004	DB101707*	S	10/15/07	8:00					X									X	
TA-Irvine	DBSA-9-Q-160	IQJ1813-18	IQJ1813	S	10/15/07	7:50															
TA-St. Louis	DBSA-9-Q-20	F7J170181-005	DB101707*	S	10/15/07	8:30					X					X	X	X	X	X	X
TA-Richland	DBSA-9-Q-20	F7J170219-002	DB1017RD*	S	10/15/07	8:30															
TA-Richland	DBSA-9-Q-20	F8A150214-010	F8A150214	S	10/15/07	8:30															
TA-Richland	DBSA-9-Q-20	F8B0910165-004	F8B090165	S	10/15/07	8:30															

TABLE C-1
DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-Irvine	DBSA-9-Q-20	IQJ1813-01	IQJ1813	S	10/15/07	8:30															
TA-St. Louis	DBSA-9-Q-20-FD	F7J170181-006	DB101707*	S	10/15/07	8:30					X					X	X	X	X	X	X
TA-Richland	DBSA-9-Q-20-FD	F7J170219-003	DB1017RD*	S	10/15/07	8:30															
TA-Richland	DBSA-9-Q-20-FD	F8A150214-011	F8A150214	S	10/15/07	8:30															
TA-Richland	DBSA-9-Q-20-FD	F8B0910165-005	F8B090165	S	10/15/07	8:30															
TA-Irvine	DBSA-9-Q-20-FD	IQJ1813-02	IQJ1813	S	10/15/07	8:30															
TA-St. Louis	DBSA-9-Q-30	F7J170181-007	DB101707*	S	10/15/07	9:15					X					X	X	X	X	X	X
TA-Richland	DBSA-9-Q-30	F7J170219-004	DB1017RD*	S	10/15/07	9:15															
TA-Richland	DBSA-9-Q-30	F8A150214-012	F8A150214	S	10/15/07	9:15															
TA-Richland	DBSA-9-Q-30	F8B0910165-006	F8B090165	S	10/15/07	9:15															
TA-Irvine	DBSA-9-Q-30	IQJ1813-03	IQJ1813	S	10/15/07	9:15															
TA-St. Louis	DBSA-9-Q-40	F7J170181-008	DB101707*	S	10/15/07	9:35					X					X	X	X	X	X	X
TA-Richland	DBSA-9-Q-40	F7J170219-005	DB1017RD*	S	10/15/07	9:35															
TA-Richland	DBSA-9-Q-40	F8A150214-013	F8A150214	S	10/15/07	9:35															
TA-Richland	DBSA-9-Q-40	F8B0910165-007	F8B090165	S	10/15/07	9:35															
TA-Irvine	DBSA-9-Q-40	IQJ1813-04	IQJ1813	S	10/15/07	9:35															
TA-St. Louis	DBSA-9-Q-5	F7J170181-003	DB101707*	S	10/15/07	7:55					X									X	
TA-St. Louis	DBSA-9-Q-50	F7J170181-009	DB101707*	S	10/15/07	9:55					X					X	X	X	X	X	X
TA-Richland	DBSA-9-Q-50	F7J170219-006	DB1017RD*	S	10/15/07	9:55															
TA-Richland	DBSA-9-Q-50	F8A150214-014	F8A150214	S	10/15/07	9:55															
TA-Richland	DBSA-9-Q-50	F8B0910165-008	F8B090165	S	10/15/07	9:55															
TA-Irvine	DBSA-9-Q-50	IQJ1813-05	IQJ1813	S	10/15/07	9:55															
TA-St. Louis	DBSA-9-Q-50-FD	F7J170181-010	DB101707*	S	10/15/07	9:55					X					X	X	X	X	X	X
TA-Richland	DBSA-9-Q-50-FD	F7J170219-007	DB1017RD*	S	10/15/07	9:55															
TA-Richland	DBSA-9-Q-50-FD	F8A150214-015	F8A150214	S	10/15/07	9:55															
TA-Richland	DBSA-9-Q-50-FD	F8B0910165-009	F8B090165	S	10/15/07	9:55															
TA-Irvine	DBSA-9-Q-50-FD	IQJ1813-06	IQJ1813	S	10/15/07	9:55															
TA-St. Louis	DBSA-9-T-160	F7J170181-022	DB101707*	S	10/16/07	7:50					X					X	X	X	X	X	X
TA-Richland	DBSA-9-T-160	F7J170219-019	DB1017RD*	S	10/16/07	7:50															
TA-Richland	DBSA-9-T-160	F8A150214-016	F8A150214	S	10/16/07	7:50															
TA-Richland	DBSA-9-T-160	F8B090161-008	F8B090161	S	10/16/07	7:50															
TA-Irvine	RINSATE 3	IQH1543-01	IQH1543	WQ	08/15/07	14:00															
TA-Richland	RINSATE 3	F7H160221-001	DB08016RD*	WQ	08/15/07	14:00															
TA-St. Louis	RINSATE 3	F7H160211-001	DB081607*	WQ	08/15/07	14:00										X	X	X	X	X	X

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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-St. Louis	RINSATE 3	F7I190183-010	DB092007*	WQ	09/18/07	12:10										X	X	X	X	X	X
TA-Richland	RINSATE 3	F7I190249-008	DB0920RD*	WQ	09/18/07	12:10															
TA-Irvine	RINSATE 3	IQI1639-08	IQI1639	WQ	09/18/07	12:10															
TA-St. Louis	RINSATE 4	F7I240171-001	DB092207*	WQ	09/21/07	--	X		X	X		X	X	X	X	X	X	X	X	X	X
TA-Richland	RINSATE 4	F7I240189-001	DB0922RD*	WQ	09/21/07	7:20															
TA-Irvine	RINSATE 4	IQI2028-01	IQI2028	WQ	09/21/07	7:20															
TA-St. Louis	RINSATE 5	F7I250260-016	DB092707*	WQ	09/24/07	9:00										X			X	X	X
TA-Richland	RINSATE 5	F7I250279-008	DB0927RD*	WQ	09/24/07	9:00															
TA-Irvine	RINSATE 5	IQI2147-11	IQI2147	WQ	09/24/07	9:00															
TA-St. Louis	RINSATE 6	F7J100176-012	DB101007*	WQ	10/08/07	7:45	X	X	X	X		X	X	X	X	X	X	X	X	X	X
TA-Richland	RINSATE 6	F7J100192-012	DB1010RD*	WQ	10/08/07	7:45															
TA-Irvine	RINSATE 6	IQJ1059-01	IQJ1059	WQ	10/09/07	7:45															
TA-St. Louis	RINSATE 7	F7J170181-001	DB101707*	WQ	10/16/07	10:30	X	X	X	X		X	X	X	X	X	X	X	X	X	X
TA-Richland	RINSATE 7	F7J170219-001	DB1017RD*	WQ	10/16/07	10:30															
TA-St. Louis	RINSATE 8	F7J190206-015	DB101907*	WQ	10/18/07	5:00	X	X	X	X		X	X	X	X	X	X	X	X	X	X
TA-Richland	RINSATE 8	F7J190236-012	DB1019RD*	WQ	10/18/07	5:00															
TA-St. Louis	RINSATE-1-8-6-07	F7H070367-006	DB080807*	WQ	08/06/07	12:00											X	X	X	X	
TA-Richland	RINSATE-1-8-6-07	F7H070375-003	DB0808RD*	WQ	08/06/07	12:00															
TA-Irvine	RINSATE-1-8-6-07	IQH1020-06	IQH1020	WQ	08/06/07	12:00															
TA-St. Louis	RINSATE-2-8-8-07	F7H090308-011	DB081007*	WQ	08/08/07	11:30										X	X	X	X	X	X
TA-Richland	RINSATE-2-8-8-07	F7H090316-009	DB0810RD*	WQ	08/08/07	11:30															
TA-Irvine	RINSATE-7	IQJ1772-01	IQJ1772	W	10/16/07	10:30															
TA-Irvine	RINSATE-8	IQJ2098-01	IQJ2098	W	10/18/07	5:00															
TA-St. Louis	TRIP BLANK	F7H070367-013	DB080807*	WQ	08/06/07	--															
TA-St. Louis	TRIP BLANK	F7H080321-011	DB080807*	WQ	08/07/07	--															
TA-St. Louis	TRIP BLANK	F7H090308-012	DB081007*	WQ	08/08/07	--															
TA-St. Louis	TRIP BLANK	F7H150153-014	DB081607*	WQ	08/14/07	--															
TA-St. Louis	TRIP BLANK	F7H160211-002	DB081607*	WQ	08/15/07	--															
TA-St. Louis	TRIP BLANK	F7I190183-011	DB092007*	WQ	09/18/07	--															
TA-St. Louis	TRIP BLANK	F7I240171-006	DB092207*	WQ	09/20/07	--															
TA-St. Louis	TRIP BLANK	F7J040245-014	DB100507*	WQ	10/02/07	--															
TA-St. Louis	TRIP BLANK	F7J060109-006	DB100807*	WQ	10/04/07	17:55															
TA-St. Louis	TRIP BLANK	F7J170181-002	DB101707*	WQ	10/15/07	7:45															
TA-St. Louis	TRIP BLANK	F7J180242-001	DB101807*	WQ	10/16/07	13:00															

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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Conductivity	Hardness	Total dissolved solids	Total suspended solids	Total Solids	Alkalinity	Bicarbonate	Carbonate	Hydroxide	NH3/TKN	pH	TOC	Anions	Perchlorate	Metals
TA-St. Louis	TRIP BLANK	F7J190206-001	DB101907*	WQ	10/17/07	13:30															
TA-St. Louis	TRIP BLANK	F7J200153-001	DB102007*	WQ	10/18/07	15:00															
TA-St. Louis	TRIP BLANK	F7J230236-001	DB102307*	WQ	10/19/07	15:55															
TA-Irvine	TRIP BLANK	IQI2030-02	IQI2030	WQ	09/21/07	--															
TA-St. Louis	TRIP BLANK 1	F7J040245-015	DB100507*	WQ	10/02/07	--															
TA-St. Louis	TRIP BLANK FOR DBSA-11	F7J090254-001	DB100907*	WQ	10/07/07	15:55															
TA-St. Louis	TRIP BLANK FOR DBSA-15 SOILS	F7J090244-001	DB100907*	WQ	10/06/07	10:00															
TA-St. Louis	TRIP BLANK FOR DBSA-17-GW	F7J090279-014	DB100807*	WQ	10/05/07	--															
TA-St. Louis	TRIP BLANK SOIL	F7J050251-013	DB100507*	WQ	10/03/07	13:50															
TA-St. Louis	TRIP BLANK SOIL	F7J110226-001	DB101107*	WQ	10/09/07	9:50															
TA-St. Louis	TRIP BLANK W/RINSATE	F7I200305-016	DB092007*	WQ	09/18/07	--															
TA-St. Louis	TRIP BLANK WATER	F7J050251-015	DB100507*	WQ	10/04/07	10:00															
TA-St. Louis	TRIP BLANK WITH DBSA-33-0	F7I200305-017	DB092007*	WQ	09/18/07	--															
TA-St. Louis	TRIP BLANK WITH DBSA-33-Q-90	F7I200305-018	DB092007*	WQ	09/18/07	--															

Notes:
*- TA-St. Louis references SDGs as "DB(date)RD" and "DB(date)"
NH3- Ammonia
TKN-Total Kjeldahl Nitrogen
SVOCs - Semivolatile Organic Compounds
TOC- Total Organic Carbon
OCPs- Organochlorine Pesticides
SVOCs - Semivolatile Organic Compounds
VOCs - Volatile Organic Compounds
S-Soil
WQ - Water quality
DUP- Duplicate
FD- Field duplicate

TABLE C-1
DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Irvine	DBSA 11-Q-20	IQJ0948-01	IQJ0948	S	10/07/07	16:20														X	
TA-Irvine	DBSA 11-Q-30	IQJ0948-02	IQJ0948	S	10/07/07	16:40														X	
TA-Irvine	DBSA 11-Q-40	IQJ0948-03	IQJ0948	S	10/07/07	17:00														X	
TA-Irvine	DBSA 11-Q-40-FD	IQJ0948-04	IQJ0948	S	10/07/07	17:00														X	
TA-Irvine	DBSA 11-Q-50	IQJ0948-05	IQJ0948	S	10/07/07	17:20														X	
TA-Irvine	DBSA 11-Q-60	IQJ0948-06	IQJ0948	S	10/07/07	17:45														X	
TA-Irvine	DBSA 11-T-150	IQJ1106-01	IQJ1106	S	10/08/07	15:10														X	
TA-Irvine	DBSA 11-T-160	IQJ1106-02	IQJ1106	S	10/08/07	15:40														X	
TA-Irvine	DBSA 14-Q-150	IQJ1215-01	IQJ1215	S	10/10/07	8:00														X	
TA-Irvine	DBSA 14-Q-160	IQJ1215-02	IQJ1215	S	10/10/07	8:20														X	
TA-Irvine	DBSA 14-Q-160FD	IQJ1215-03	IQJ1215	S	10/10/07	8:20														X	
TA-St. Louis	DBSA 15 TRIP BLANK	F7J090259-001	DB101007*	WQ	10/07/07	6:45								X							
TA-St. Louis	DBSA 15-Q-120	F7J090259-002	DB101007*	S	10/07/07	6:50	X	X								X					
TA-Richland	DBSA 15-Q-120	F7J090264-001	DB1010RD*	S	10/07/07	6:50						X									
TA-Irvine	DBSA 17-T-130	IQJ0952-01	IQJ0952	S	10/05/07	14:20														X	
TA-Irvine	DBSA 17-T-140	IQJ0952-02	IQJ0952	S	10/05/07	15:15														X	
TA-Irvine	DBSA 17-T-150	IQJ0952-03	IQJ0952	S	10/05/07	15:30														X	
TA-Irvine	DBSA 21-Q-20	IQJ0456-01	IQJ0456	S	10/02/07	12:55														X	
TA-Irvine	DBSA 21-Q-20 DUP	IQJ0456-02	IQJ0456	S	10/02/07	12:55														X	
TA-Irvine	DBSA 21-Q-30	IQJ0456-03	IQJ0456	S	10/02/07	13:30														X	
TA-Irvine	DBSA 21-Q-40	IQJ0456-04	IQJ0456	S	10/02/07	13:50														X	
TA-Irvine	DBSA 21-Q-50	IQJ0456-05	IQJ0456	S	10/02/07	14:15														X	
TA-St. Louis	DBSA-10-Q-10	F7J180242-003	DB101807*	S	10/16/07	13:15								X		X					
TA-St. Louis	DBSA-10-Q-20	F7J180242-004	DB101807*	S	10/16/07	13:30	X	X								X					
TA-Richland	DBSA-10-Q-20	F7J180263-001	DB1018RD*	S	10/16/07	13:30						X									
TA-Richland	DBSA-10-Q-20	F8A150214-017	F8A150214	S	10/16/07	13:30						X									
TA-Richland	DBSA-10-Q-20	F8B080335-001	F8B080335	S	10/16/07	13:30						X									
TA-Irvine	DBSA-10-Q-20	IQJ1944-01	IQJ1944	S	10/16/07	13:30														X	
TA-St. Louis	DBSA-10-Q-20-FD	F7J180242-005	DB101807*	S	10/16/07	13:30	X	X								X					
TA-Richland	DBSA-10-Q-20-FD	F7J180263-002	DB1018RD*	S	10/16/07	13:30						X									
TA-Richland	DBSA-10-Q-20-FD	F8A150214-018	F8A150214	S	10/16/07	13:30						X									
TA-Richland	DBSA-10-Q-20-FD	F8B080335-002	F8B080335	S	10/16/07	13:30						X									
TA-Irvine	DBSA-10-Q-20-FD	IQJ1944-02	IQJ1944	S	10/16/07	13:30														X	
TA-St. Louis	DBSA-10-Q-30	F7J180242-006	DB101807*	S	10/16/07	13:50	X	X								X					

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-10-Q-30	F7J180263-003	DB1018RD*	S	10/16/07	13:50						X									
TA-Richland	DBSA-10-Q-30	F8A150214-019	F8A150214	S	10/16/07	13:50						X									
TA-Richland	DBSA-10-Q-30	F8B080335-003	F8B080335	S	10/16/07	13:50						X									
TA-Irvine	DBSA-10-Q-30	IQJ1944-03	IQJ1944	S	10/16/07	13:50														X	
TA-St. Louis	DBSA-10-Q-40	F7J180242-007	DB101807*	S	10/16/07	14:05	X	X								X					
TA-Richland	DBSA-10-Q-40	F7J180263-004	DB1018RD*	S	10/16/07	14:05						X									
TA-Richland	DBSA-10-Q-40	F8A150214-020	F8A150214	S	10/16/07	14:05						X									
TA-Richland	DBSA-10-Q-40	F8B080335-004	F8B080335	S	10/16/07	14:05						X									
TA-Irvine	DBSA-10-Q-40	IQJ1944-04	IQJ1944	S	10/16/07	14:05														X	
TA-St. Louis	DBSA-10-Q-5	F7J180242-002	DB101807*	S	10/16/07	13:10								X		X					
TA-St. Louis	DBSA-10-Q-50	F7J180242-008	DB101807*	S	10/16/07	14:30	X	X								X					
TA-Richland	DBSA-10-Q-50	F7J180263-005	DB1018RD*	S	10/16/07	14:30						X									
TA-Richland	DBSA-10-Q-50	F8A150224-001	F8A150224	S	10/16/07	14:30						X									
TA-Richland	DBSA-10-Q-50	F8B080335-005	F8B080335	S	10/16/07	14:30						X									
TA-Irvine	DBSA-10-Q-50	IQJ1944-05	IQJ1944	S	10/16/07	14:30														X	
TA-St. Louis	DBSA-10-Q-50-FD	F7J180242-009	DB101807*	S	10/16/07	14:30	X	X								X					
TA-Richland	DBSA-10-Q-50-FD	F7J180263-006	DB1018RD*	S	10/16/07	14:30						X									
TA-Richland	DBSA-10-Q-50-FD	F8A150224-002	F8A150224	S	10/16/07	14:30						X									
TA-Richland	DBSA-10-Q-50-FD	F8B080335-006	F8B080335	S	10/16/07	14:30						X									
TA-Irvine	DBSA-10-Q-50-FD	IQJ1944-06	IQJ1944	S	10/16/07	14:30														X	
TA-St. Louis	DBSA-11-Q-10	F7J090254-003	DB100907*	S	10/07/07	16:05								X		X					
TA-St. Louis	DBSA-11-Q-120	F7J100176-006	DB101007*	S	10/08/07	11:45	X	X								X					
TA-Richland	DBSA-11-Q-120	F7J100192-006	DB1010RD*	S	10/08/07	11:45						X									
TA-Richland	DBSA-11-Q-120	F8A150205-016	F8A150205	S	10/08/07	11:45						X									
TA-St. Louis	DBSA-11-Q-120-FD	F7J100176-007	DB101007*	S	10/08/07	11:45										X					
TA-St. Louis	DBSA-11-Q-20	F7J090254-004	DB100907**	S	10/07/07	16:20	X	X								X					
TA-Richland	DBSA-11-Q-20	F7J090257-001	DB1009RD*	S	10/07/07	16:20						X									
TA-Richland	DBSA-11-Q-20	F8A150205-007	F8A150205	S	10/07/07	16:20						X									
TA-Richland	DBSA-11-Q-20	F8B080335-007	F8B080335	S	10/07/07	16:20						X									
TA-Irvine	DBSA-11-Q-20	IQJ1814-01	IQJ1814	S	10/08/07	16:20														X	
TA-St. Louis	DBSA-11-Q-30	F7J090254-005	DB100907*	S	10/07/07	16:40	X	X								X					
TA-Richland	DBSA-11-Q-30	F7J090257-002	DB1009RD*	S	10/07/07	16:40						X									
TA-Richland	DBSA-11-Q-30	F8A150205-008	F8A150205	S	10/07/07	16:40						X									
TA-Richland	DBSA-11-Q-30	F8B080335-008	F8B080335	S	10/07/07	16:40						X									

TABLE C-1
DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Irvine	DBSA-11-Q-30	IQJ1814-02	IQJ1814	S	10/08/07	16:40														X	
TA-St. Louis	DBSA-11-Q-40	F7J090254-006	DB100907*	S	10/07/07	17:00	X	X								X					
TA-Richland	DBSA-11-Q-40	F7J090257-003	DB1009RD*	S	10/07/07	17:00						X									
TA-Richland	DBSA-11-Q-40	F8A150205-009	F8A150205	S	10/07/07	17:00						X									
TA-Richland	DBSA-11-Q-40	F8B080335-009	F8B080335	S	10/07/07	17:00						X									
TA-Irvine	DBSA-11-Q-40	IQJ1814-03	IQJ1814	S	10/08/07	17:00														X	
TA-St. Louis	DBSA-11-Q-40FD	F7J090254-007	DB100907*	S	10/07/07	17:00	X	X								X					
TA-Richland	DBSA-11-Q-40FD	F7J090257-004	DB1009RD*	S	10/07/07	17:00						X									
TA-Richland	DBSA-11-Q-40FD	F8A150205-010	F8A150205	S	10/07/07	17:00						X									
TA-Richland	DBSA-11-Q-40FD	F8B080335-010	F8B080335	S	10/07/07	17:00						X									
TA-Irvine	DBSA-11-Q-40FD	IQJ1814-04	IQJ1814	S	10/08/07	17:00														X	
TA-St. Louis	DBSA-11-Q-5	F7J090254-002	DB100907*	S	10/07/07	16:00								X		X					
TA-St. Louis	DBSA-11-Q-50	F7J090254-008	DB100907*	S	10/07/07	17:20	X	X								X					
TA-Richland	DBSA-11-Q-50	F7J090257-005	DB1009RD*	S	10/07/07	17:20						X									
TA-Richland	DBSA-11-Q-50	F8A150205-011	F8A150205	S	10/07/07	17:20						X									
TA-Richland	DBSA-11-Q-50	F8B080335-011	F8B080335	S	10/07/07	17:20						X									
TA-Irvine	DBSA-11-Q-50	IQJ1814-05	IQJ1814	S	10/08/07	17:20														X	
TA-St. Louis	DBSA-11-Q-60	F7J090254-009	DB100907*	S	10/07/07	17:45	X	X								X					
TA-Richland	DBSA-11-Q-60	F7J090257-006	DB1009RD*	S	10/07/07	17:45						X									
TA-Richland	DBSA-11-Q-60	F8A150205-012	F8A150205	S	10/07/07	17:45						X									
TA-Richland	DBSA-11-Q-60	F8B080335-012	F8B080335	S	10/07/07	17:45						X									
TA-Irvine	DBSA-11-Q-60	IQJ1814-06	IQJ1814	S	10/08/07	17:45														X	
TA-St. Louis	DBSA-11-T-150	F7J100176-010	DB101007*	S	10/08/07	15:10	X	X								X					
TA-Richland	DBSA-11-T-150	F7J100192-010	DB1010RD*	S	10/08/07	15:10						X									
TA-Richland	DBSA-11-T-150	F8A150205-018	F8A150205	S	10/08/07	15:10						X									
TA-Richland	DBSA-11-T-150	F8B090159-013	F8B090159	S	10/08/07	15:10						X									
TA-St. Louis	DBSA-11-T-160	F7J100176-011	DB101007*	S	10/08/07	15:40	X	X								X					
TA-Richland	DBSA-11-T-160	F7J100192-011	DB1010RD*	S	10/08/07	15:40						X									
TA-Richland	DBSA-11-T-160	F8A150205-019	F8A150205	S	10/08/07	15:40						X									
TA-St. Louis	DBSA-13-Q-10	F7J200153-003	DB102007*	S	10/18/07	15:10								X		X					
TA-St. Louis	DBSA-13-Q-20	F7J200153-004	DB102007*	S	10/18/07	15:25	X	X								X					
TA-Richland	DBSA-13-Q-20	F7J200157-001	DB102RD*	S	10/18/07	15:25						X									
TA-Richland	DBSA-13-Q-20	F8A150224-009	F8A150224	S	10/18/07	15:25						X									
TA-Richland	DBSA-13-Q-20	F8B080335-013	F8B080335	S	10/18/07	15:25						X									

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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Irvine	DBSA-13-Q-20	IQJ2234-01	IQJ2234	S	10/18/07	15:25														X	
TA-St. Louis	DBSA-13-Q-20-FD	F7J200153-005	DB102007*	S	10/18/07	15:25	X	X								X					
TA-Richland	DBSA-13-Q-20-FD	F7J200157-002	DB102RD*	S	10/18/07	15:25						X									
TA-Richland	DBSA-13-Q-20-FD	F8A150224-010	F8A150224	S	10/18/07	15:25						X									
TA-Richland	DBSA-13-Q-20-FD	F8B080335-014	F8B080335	S	10/18/07	15:25						X									
TA-Irvine	DBSA-13-Q-20-FD	IQJ2234-02	IQJ2234	S	10/18/07	15:25														X	
TA-St. Louis	DBSA-13-Q-30	F7J200153-006	DB102007*	S	10/18/07	15:40	X	X								X					
TA-Richland	DBSA-13-Q-30	F7J200157-003	DB102RD*	S	10/18/07	15:40						X									
TA-Richland	DBSA-13-Q-30	F8A150224-011	F8A150224	S	10/18/07	15:40						X									
TA-Richland	DBSA-13-Q-30	F8B080335-015	F8B080335	S	10/18/07	15:40						X									
TA-Irvine	DBSA-13-Q-30	IQJ2234-03	IQJ2234	S	10/18/07	15:40														X	
TA-St. Louis	DBSA-13-Q-40	F7J200153-007	DB102007*	S	10/18/07	16:00	X	X								X					
TA-Richland	DBSA-13-Q-40	F7J200157-004	DB102RD*	S	10/18/07	16:00						X									
TA-Richland	DBSA-13-Q-40	F8A150224-012	F8A150224	S	10/18/07	16:00						X									
TA-Richland	DBSA-13-Q-40	F8B080335-016	F8B080335	S	10/18/07	16:00						X									
TA-Irvine	DBSA-13-Q-40	IQJ2234-04	IQJ2234	S	10/18/07	16:00														X	
TA-St. Louis	DBSA-13-Q-5	F7J200153-002	DB102007*	S	10/18/07	15:00								X		X					
TA-St. Louis	DBSA-13-Q-50	F7J200153-008	DB102007*	S	10/18/07	16:25	X	X								X					
TA-Richland	DBSA-13-Q-50	F7J200157-005	DB102RD*	S	10/18/07	16:25						X									
TA-Richland	DBSA-13-Q-50	F8A150224-013	F8A150224	S	10/18/07	16:25						X									
TA-Richland	DBSA-13-Q-50	F8B080335-017	F8B080335	S	10/18/07	16:25						X									
TA-Irvine	DBSA-13-Q-50	IQJ2234-05	IQJ2234	S	10/18/07	16:25														X	
TA-St. Louis	DBSA-13-Q-50-FD	F7J200153-019	DB102007*	S	10/18/07	16:25	X	X								X					
TA-Richland	DBSA-13-Q-50-FD	F7J200157-006	DB102RD*	S	10/18/07	16:25						X									
TA-Richland	DBSA-13-Q-50-FD	F8A150224-014	F8A150224	S	10/18/07	16:25						X									
TA-Richland	DBSA-13-Q-50-FD	F8B080335-018	F8B080335	S	10/18/07	16:25						X									
TA-Irvine	DBSA-13-Q-50-FD	IQJ2234-06	IQJ2234	S	10/18/07	16:25														X	
TA-St. Louis	DBSA-13-Q-60	F7J200153-009	DB102007*	S	10/18/07	16:45	X	X								X					
TA-Richland	DBSA-13-Q-60	F7J200157-007	DB102RD*	S	10/18/07	16:45						X									
TA-Richland	DBSA-13-Q-60	F8A150224-015	F8A150224	S	10/18/07	16:45						X									
TA-Richland	DBSA-13-Q-60	F8B080335-019	F8B080335	S	10/18/07	16:45						X									
TA-Irvine	DBSA-13-Q-60	IQJ2234-07	IQJ2234	S	10/18/07	16:45														X	
TA-St. Louis	DBSA-13-Q-70	F7J200153-010	DB102007*	S	10/18/07	17:10	X	X								X					
TA-Richland	DBSA-13-Q-70	F7J200157-008	DB102RD*	S	10/18/07	17:10						X									

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DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-13-Q-70	F8A150224-016	F8A150224	S	10/18/07	17:10						X									
TA-Irvine	DBSA-13-Q-70	IQJ2234-08	IQJ2234	S	10/18/07	17:10														X	
TA-St. Louis	DBSA-13-Q-80	F7J200153-011	DB102007*	S	10/18/07	17:40	X	X								X					
TA-Richland	DBSA-13-Q-80	F7J200157-009	DB102RD*	S	10/18/07	17:40						X									
TA-Richland	DBSA-13-Q-80	F8A150224-017	F8A150224	S	10/18/07	17:40						X									
TA-Irvine	DBSA-13-Q-80	IQJ2234-09	IQJ2234	S	10/18/07	17:40														X	
TA-St. Louis	DBSA-14-Q-10	F7J110226-003	DB101107*	S	10/09/07	10:55								X							
TA-St. Louis	DBSA-14-Q-140	F7J110226-018	DB101107*	S	10/10/07	17:55	X	X								X					
TA-Richland	DBSA-14-Q-140	F7J110245-015	DB1011RD*	S	10/10/07	17:55						X									
TA-Irvine	DBSA-14-Q-140	IQJ1216-15	IQJ1216	S	10/09/07	17:55														X	
TA-St. Louis	DBSA-14-Q-20	F7J110226-004	DB101107*	S	10/09/07	11:15	X	X								X					
TA-Richland	DBSA-14-Q-20	F7J110245-001	DB1011RD*	S	10/09/07	11:15						X									
TA-Richland	DBSA-14-Q-20	F8A150205-020	F8A150205	S	10/09/07	11:15						X									
TA-Richland	DBSA-14-Q-20	F8A150214-006	F8A150214	S	10/09/07	11:15						X									
TA-Richland	DBSA-14-Q-20	F8B080335-020	F8B080335	S	10/09/07	11:15						X									
TA-Irvine	DBSA-14-Q-20	IQJ1216-01	IQJ1216	S	10/09/07	11:15														X	
TA-St. Louis	DBSA-14-Q-20 FD	F7J110226-005	DB101107*	S	10/09/07	11:15	X	X								X					
TA-Richland	DBSA-14-Q-20 FD	F7J110245-002	DB1011RD*	S	10/09/07	11:15						X									
TA-Richland	DBSA-14-Q-20 FD	F8A150214-001	F8A150214	S	10/09/07	11:15						X									
TA-Irvine	DBSA-14-Q-20 FD	IQJ1216-02	IQJ1216	S	10/09/07	11:15														X	
TA-Richland	DBSA-14-Q-20-FD	F8B090125-001	F8B090125	S	10/09/07	11:15						X									
TA-St. Louis	DBSA-14-Q-30	F7J110226-006	DB101107*	S	10/09/07	11:40	X	X								X					
TA-Richland	DBSA-14-Q-30	F7J110245-003	DB1011RD*	S	10/09/07	11:40						X									
TA-Richland	DBSA-14-Q-30	F8A150214-002	F8A150214	S	10/09/07	11:40						X									
TA-Richland	DBSA-14-Q-30	F8B090125-002	F8B090125	S	10/09/07	11:40						X									
TA-Irvine	DBSA-14-Q-30	IQJ1216-03	IQJ1216	S	10/09/07	11:40														X	
TA-St. Louis	DBSA-14-Q-40	F7J110226-007	DB101107*	S	10/09/07	12:05	X	X								X					
TA-Richland	DBSA-14-Q-40	F7J110245-004	DB1011RD*	S	10/09/07	12:05						X									
TA-Richland	DBSA-14-Q-40	F8A150214-003	F8A150214	S	10/09/07	12:05						X									
TA-Richland	DBSA-14-Q-40	F8B090125-003	F8B090125	S	10/09/07	12:05						X									
TA-Irvine	DBSA-14-Q-40	IQJ1216-04	IQJ1216	S	10/09/07	12:05														X	
TA-St. Louis	DBSA-14-Q-5	F7J110226-002	DB101107*	S	10/09/07	10:45								X							
TA-St. Louis	DBSA-14-Q-50	F7J110226-008	DB101107*	S	10/09/07	12:30	X	X								X					
TA-Richland	DBSA-14-Q-50	F7J110245-005	DB1011RD*	S	10/09/07	12:30						X									

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CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-14-Q-50	F8A150214-004	F8A150214	S	10/09/07	12:30						X									
TA-Richland	DBSA-14-Q-50	F8B090125-004	F8B090125	S	10/09/07	12:30						X									
TA-Irvine	DBSA-14-Q-50	IQJ1216-05	IQJ1216	S	10/09/07	12:30														X	
TA-St. Louis	DBSA-14-Q-50 FD	F7J110226-009	DB101107*	S	10/09/07	12:30	X	X								X					
TA-Richland	DBSA-14-Q-50 FD	F7J110245-006	DB1011RD*	S	10/09/07	12:30						X									
TA-Richland	DBSA-14-Q-50 FD	F8A150214-005	F8A150214	S	10/09/07	12:30						X									
TA-Richland	DBSA-14-Q-50 FD	F8B090125-005	F8B090125	S	10/09/07	12:30						X									
TA-Irvine	DBSA-14-Q-50 FD	IQJ1216-06	IQJ1216	S	10/09/07	12:30														X	
TA-St. Louis	DBSA-14-Q-60	F7J110226-010	DB101107*	S	10/09/07	13:40															
TA-St. Louis	DBSA-15-Q-10	F7J090244-003	DB100907*	S	10/06/07	10:40								X							
TA-St. Louis	DBSA-15-Q-150	F7J090259-006	DB101007*	S	10/07/07	9:45	X	X								X					
TA-Richland	DBSA-15-Q-150	F7J090264-005	DB1010RD*	S	10/07/07	9:45						X									
TA-Irvine	DBSA-15-Q-150	IQJ0945-06	IQJ0945	S	10/07/07	9:45														X	
TA-St. Louis	DBSA-15-Q-160	F7J090259-007	DB101007*	S	10/07/07	10:05	X	X								X					
TA-Richland	DBSA-15-Q-160	F7J090264-006	DB1010RD*	S	10/07/07	10:05						X									
TA-Irvine	DBSA-15-Q-160	IQJ0945-07	IQJ0945	S	10/07/07	10:05														X	
TA-St. Louis	DBSA-15-Q-20	F7J090244-004	DB100907*	S	10/06/07	11:25	X	X								X					
TA-Richland	DBSA-15-Q-20	F7J090251-001	DB1009RD*	S	10/06/07	11:25						X									
TA-Richland	DBSA-15-Q-20	F8A140155-016	F8A140155	S	10/06/07	11:25						X									
TA-Richland	DBSA-15-Q-20	F8B090125-006	F8B090125	S	10/06/07	11:25						X									
TA-Irvine	DBSA-15-Q-20	IQJ0935-01	IQJ0935	S	10/06/07	11:25														X	
TA-St. Louis	DBSA-15-Q-20 FD	F7J090244-005	DB100907*	S	10/06/07	11:25	X	X								X					
TA-Richland	DBSA-15-Q-20 FD	F7J090251-002	DB1009RD*	S	10/06/07	11:25						X									
TA-Richland	DBSA-15-Q-20 FD	F8A140155-017	F8A140155	S	10/06/07	11:25						X									
TA-Richland	DBSA-15-Q-20 FD	F8B090125-007	F8B090125	S	10/06/07	11:25						X									
TA-Irvine	DBSA-15-Q-20 FD	IQJ0935-02	IQJ0935	S	10/06/07	11:25														X	
TA-St. Louis	DBSA-15-Q-30	F7J090244-006	DB100907*	S	10/06/07	12:00	X	X								X					
TA-Richland	DBSA-15-Q-30	F7J090251-003	DB1009RD*	S	10/06/07	12:00						X									
TA-Richland	DBSA-15-Q-30	F8A140155-018	F8A140155	S	10/06/07	12:00						X									
TA-Richland	DBSA-15-Q-30	F8B090125-008	F8B090125	S	10/06/07	12:00						X									
TA-Irvine	DBSA-15-Q-30	IQJ0935-03	IQJ0935	S	10/06/07	12:00														X	
TA-St. Louis	DBSA-15-Q-40	F7J090244-007	DB100907*	S	10/06/07	12:40	X	X								X					
TA-Richland	DBSA-15-Q-40	F7J090251-004	DB1009RD*	S	10/06/07	12:40						X									
TA-Richland	DBSA-15-Q-40	F8A140155-019	F8A140155	S	10/06/07	12:40						X									

TABLE C-1
DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-15-Q-40	F8B090125-009	F8B090125	S	10/06/07	12:40						X									
TA-Irvine	DBSA-15-Q-40	IQJ0935-04	IQJ0935	S	10/06/07	12:40														X	
TA-St. Louis	DBSA-15-Q-5	F7J090244-002	DB100907*	S	10/06/07	10:35								X							
TA-St. Louis	DBSA-15-Q-50	F7J090244-008	DB100907*	S	10/06/07	14:20	X	X								X					
TA-Richland	DBSA-15-Q-50	F7J090251-005	DB1009RD*	S	10/06/07	14:20						X									
TA-Richland	DBSA-15-Q-50	F8A140155-020	F8A140155	S	10/06/07	14:20						X									
TA-Richland	DBSA-15-Q-50	F8B090125-010	F8B090125	S	10/06/07	14:20						X									
TA-Irvine	DBSA-15-Q-50	IQJ0935-05	IQJ0935	S	10/06/07	14:20														X	
TA-St. Louis	DBSA-17-GW	F7J090279-013	DB100807*	W	10/05/07	16:30	X	X		X	X			X							
TA-Richland	DBSA-17-GW	F7J090293-013	DB1008RD*	W	10/05/07	16:30						X									
Alpha	DBSA-17-GW	ERM07100951-01	ERM07100951	W	10/05/07	16:30											X				
TA-Irvine	DBSA-17-GW	IQJ0901-01	IQJ0901	W	10/05/07	16:30												X	X	X	X
TA-St. Louis	DBSA-17-Q-10	F7J060109-002	DB100807*	S	10/04/07	16:50								X		X					
TA-St. Louis	DBSA-17-Q-100	F7J090279-007	DB100807*	S	10/05/07	10:30	X	X								X					
TA-Richland	DBSA-17-Q-100	F7J090293-007	DB1008RD*	S	10/05/07	10:30						X									
TA-St. Louis	DBSA-17-Q-110	F7J090279-008	DB100807*	S	10/05/07	11:40	X	X								X					
TA-Richland	DBSA-17-Q-110	F7J090293-008	DB1008RD*	S	10/05/07	11:40						X									
TA-St. Louis	DBSA-17-Q-120	F7J090279-009	DB100807*	S	10/05/07	12:10	X	X								X					
TA-Richland	DBSA-17-Q-120	F7J090293-009	DB1008RD*	S	10/05/07	12:10						X									
TA-Irvine	DBSA17-Q-20	IQJ0761-01	IQJ0761	S	10/04/07	17:15														X	
TA-St. Louis	DBSA-17-Q-20	F7J060109-003	DB100807*	S	10/04/07	17:00	X	X						X		X					
TA-Richland	DBSA-17-Q-20	F7J060111-001	DB1008RD*	S	10/04/07	17:00						X									
TA-Richland	DBSA-17-Q-20	F8B090125-012	F8B090125	S	10/04/07	17:00						X									
TA-Irvine	DBSA-17-Q-30	IQJ0761-02	IQJ0761	S	10/04/07	17:35														X	
TA-St. Louis	DBSA-17-Q-30	F7J060109-004	DB100807*	S	10/04/07	17:15	X	X							X	X					
TA-Richland	DBSA-17-Q-30	F7J060111-002	DB1008RD*	S	10/04/07	17:15						X									
TA-Richland	DBSA-17-Q-30	F8B090125-013	F8B090125	S	10/04/07	17:15						X									
TA-Irvine	DBSA-17-Q-40	IQJ0761-03	IQJ0761	S	10/04/07	17:55														X	
TA-St. Louis	DBSA-17-Q-40	F7J060109-005	DB100807*	S	10/04/07	17:35	X	X								X					
TA-Richland	DBSA-17-Q-40	F7J060111-003	DB1008RD*	S	10/04/07	17:35						X									
TA-Richland	DBSA-17-Q-40	F8B090125-014	F8B090125	S	10/04/07	17:35						X									
TA-St. Louis	DBSA-17-Q-5	F7J060109-001	DB100807*	S	10/04/07	16:45								X							
TA-St. Louis	DBSA-17-Q-50	F7J090279-001	DB100807*	S	10/05/07	7:45	X	X								X					
TA-Richland	DBSA-17-Q-50	F7J090293-001	DB1008RD*	S	10/05/07	7:45						X									

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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-17-Q-50	F8B090125-015	F8B090125	S	10/05/07	7:45						X									
TA-St. Louis	DBSA-17-Q-60	F7J090279-002	DB100807*	S	10/05/07	8:15	X	X								X					
TA-Richland	DBSA-17-Q-60	F7J090293-002	DB1008RD*	S	10/05/07	8:15						X									
TA-Richland	DBSA-17-Q-60	F8B090125-016	F8B090125	S	10/05/07	8:15						X									
TA-St. Louis	DBSA-17-Q-70	F7J090279-003	DB100807*	S	10/05/07	8:45	X	X								X					
TA-Richland	DBSA-17-Q-70	F7J090293-003	DB1008RD*	S	10/05/07	8:45						X									
TA-St. Louis	DBSA-17-Q-80	F7J090279-004	DB100807*	S	10/05/07	9:30	X	X								X					
TA-Richland	DBSA-17-Q-80	F7J090293-004	DB1008RD*	S	10/05/07	9:30						X									
TA-St. Louis	DBSA-17-Q-80-DUP	F7J090279-005	DB100807*	S	10/05/07	9:30	X	X								X					
TA-Richland	DBSA-17-Q-80-DUP	F7J090293-005	DB1008RD*	S	10/05/07	9:30						X									
TA-St. Louis	DBSA-17-Q-90	F7J090279-006	DB100807*	S	10/05/07	10:00	X	X								X					
TA-Richland	DBSA-17-Q-90	F7J090293-006	DB1008RD*	S	10/05/07	10:00						X									
TA-St. Louis	DBSA-17-T-130	F7J090279-010	DB100807*	S	10/05/07	14:20	X	X								X					
TA-Richland	DBSA-17-T-130	F7J090293-010	DB1008RD*	S	10/05/07	14:20						X									
TA-Richland	DBSA-17-T-130	F8B090159-014	F8B090159	S	10/05/07	14:20						X									
TA-St. Louis	DBSA-17-T-140	F7J090279-011	DB100807*	S	10/05/07	15:15	X	X							X	X					
TA-Richland	DBSA-17-T-140	F7J090293-011	DB1008RD*	S	10/05/07	15:15						X									
TA-Richland	DBSA-17-T-140	F8B090159-015	F8B090159	S	10/05/07	15:15						X									
TA-St. Louis	DBSA-17-T-150	F7J090279-012	DB100807*	S	10/05/07	15:30	X	X								X					
TA-Richland	DBSA-17-T-150	F7J090293-012	DB1008RD*	S	10/05/07	15:30						X									
TA-Richland	DBSA-17-T-150	F8A150205-015	F8A150205	S	10/05/07	15:30						X									
TA-Richland	DBSA-17-T-150	F8B090159-016	F8B090159	S	10/05/07	15:30						X									
TA-St. Louis	DBSA-1-Q-0	F7H070367-001	DB080807*	S	08/06/07	8:00					X					X					
TA-Irvine	DBSA-1-Q-0	IQH1020-01	IQH1020	S	08/06/07	8:00														X	
TA-St. Louis	DBSA-1-Q-10	F7H070367-003	DB080807*	S	08/06/07	10:30	X						X	X		X					
TA-Irvine	DBSA-1-Q-10	IQH1020-03	IQH1020	S	08/06/07	10:30													X	X	
TA-St. Louis	DBSA-1-Q-20	F7H070367-004	DB080807*	S	08/06/07	10:55	X	X								X					
TA-Richland	DBSA-1-Q-20	F7H070375-001	DB0808RD*	S	08/06/07	10:55						X									
TA-Richland	DBSA-1-Q-20	F8A140146-001	F8A140146	S	08/06/07	10:55						X									
TA-Richland	DBSA-1-Q-20	F8B090125-017	F8B090125	S	08/06/07	10:55						X									
TA-Irvine	DBSA-1-Q-20	IQH1020-04	IQH1020	S	08/06/07	10:55														X	
TA-St. Louis	DBSA-1-Q-30	F7H070367-005	DB080807*	S	08/06/07	11:40	X	X								X					
TA-Richland	DBSA-1-Q-30	F7H070375-002	DB0808RD*	S	08/06/07	11:40						X									
TA-Richland	DBSA-1-Q-30	F8A140146-002	F8A140146	S	08/06/07	11:40						X									

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LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-1-Q-30	F8B090125-018	F8B090125	S	08/06/07	11:40						X									
TA-Irvine	DBSA-1-Q-30	IQH1020-05	IQH1020	S	08/06/07	11:40														X	
TA-St. Louis	DBSA-1-Q-40	F7H070367-007	DB080807*	S	08/06/07	12:15	X	X								X					
TA-Richland	DBSA-1-Q-40	F7H070375-004	DB0808RD*	S	08/06/07	12:15						X									
TA-Richland	DBSA-1-Q-40	F8A140146-003	F8A140146	S	08/06/07	12:15						X									
TA-Richland	DBSA-1-Q-40	F8B090125-019	F8B090125	S	08/06/07	12:15						X									
TA-Irvine	DBSA-1-Q-40	IQH1020-07	IQH1020	S	08/06/07	12:15														X	
TA-St. Louis	DBSA-1-Q-5	F7H070367-002	DB080807*	S	08/06/07	10:00							X	X		X					
TA-Irvine	DBSA-1-Q-5	IQH1020-02	IQH1020	S	08/06/07	10:00													X	X	
TA-St. Louis	DBSA-1-Q-50	F7H070367-008	DB080807*	S	08/06/07	12:40	X	X								X					
TA-Richland	DBSA-1-Q-50	F7H070375-005	DB0808RD*	S	08/06/07	12:40						X									
TA-Richland	DBSA-1-Q-50	F8A140146-004	F8A140146	S	08/06/07	12:40						X									
TA-Richland	DBSA-1-Q-50	F8B090125-020	F8B090125	S	08/06/07	12:40						X									
TA-Irvine	DBSA-1-Q-50	IQH1020-08	IQH1020	S	08/06/07	12:40														X	
TA-St. Louis	DBSA-1-Q-60	F7H070367-009	DB080807*	S	08/06/07	13:00	X	X								X					
TA-Richland	DBSA-1-Q-60	F7H070375-006	DB0808RD*	S	08/06/07	13:00						X									
TA-Richland	DBSA-1-Q-60	F8A140146-005	F8A140146	S	08/06/07	13:00						X									
TA-Richland	DBSA-1-Q-60	F8B090159-001	F8B090159	S	08/06/07	13:00						X									
TA-Irvine	DBSA-1-Q-60	IQH1020-09	IQH1020	S	08/06/07	13:00														X	
TA-St. Louis	DBSA-1-Q-70	F7H070367-010	DB080807*	S	08/06/07	13:30	X	X								X					
TA-Richland	DBSA-1-Q-70	F7H070375-007	DB0808RD*	S	08/06/07	13:30						X									
TA-Richland	DBSA-1-Q-70	F8A140146-006	F8A140146	S	08/06/07	13:30						X									
TA-Irvine	DBSA-1-Q-70	IQH1020-10	IQH1020	S	08/06/07	13:30														X	
TA-St. Louis	DBSA-1-Q-80	F7H070367-011	DB080807*	S	08/06/07	14:10	X	X								X					
TA-Richland	DBSA-1-Q-80	F7H070375-008	DB0808RD*	S	08/06/07	14:10						X									
TA-Richland	DBSA-1-Q-80	F8A140146-007	F8A140146	S	08/06/07	14:10						X									
TA-Irvine	DBSA-1-Q-80	IQH1020-11	IQH1020	S	08/06/07	14:10														X	
TA-St. Louis	DBSA-1-Q-90	F7H070367-012	DB080807*	S	08/06/07	14:40	X	X								X					
TA-Richland	DBSA-1-Q-90	F7H070375-009	DB0808RD*	S	08/06/07	14:40						X									
TA-Richland	DBSA-1-Q-90	F8A140146-008	F8A140146	S	08/06/07	14:40						X									
TA-Irvine	DBSA-1-Q-90	IQH1020-12	IQH1020	S	08/06/07	14:40														X	
TA-St. Louis	DBSA-20-GW	F7J050251-014	DB100507*	W	10/04/07	10:00	X	X	X	X	X			X		X					
TA-Richland	DBSA-20-GW	F7J050268-011	DB1005RD*	W	10/04/07	10:00						X									
Alpha	DBSA-20-GW	ERM07100532-01A	ERM07100532	W	10/04/07	10:00											X				

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LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Irvine	DBSA-20-GW	IQJ0573-01	IQJ0573	W	10/04/07	10:00												X			
TA-Irvine	DBSA-20-GW	IQJ0610-01	IQJ0610	W	10/04/07	10:00													X	X	X
TA-St. Louis	DBSA-20-Q-10	F7J050251-002	DB100507*	S	10/03/07	14:00								X		X					
TA-St. Louis	DBSA-20-Q-20	F7J050251-003	DB100507*	S	10/03/07	14:20	X	X								X					
TA-Richland	DBSA-20-Q-20	F7J050268-001	DB1005RD*	S	10/03/07	14:20						X									
TA-Richland	DBSA-20-Q-20	F8A140155-006	F8A140155	S	10/03/07	14:20						X									
TA-Richland	DBSA-20-Q-20	F8B090159-002	F8B090159	S	10/03/07	14:20						X									
TA-Irvine	DBSA-20-Q-20	IQJ0623-01	IQJ0623	S	10/03/07	14:20														X	
TA-St. Louis	DBSA-20-Q-30	F7J050251-004	DB100507*	S	10/03/07	15:00	X	X								X					
TA-Richland	DBSA-20-Q-30	F7J050268-002	DB1005RD*	S	10/03/07	15:00						X									
TA-Richland	DBSA-20-Q-30	F8A140155-007	F8A140155	S	10/03/07	15:00						X									
TA-Richland	DBSA-20-Q-30	F8B090159-003	F8B090159	S	10/03/07	15:00						X									
TA-Irvine	DBSA-20-Q-30	IQJ0623-02	IQJ0623	S	10/03/07	15:00														X	
TA-St. Louis	DBSA-20-Q-40	F7J050251-005	DB100507*	S	10/03/07	16:00	X	X								X					
TA-Richland	DBSA-20-Q-40	F7J050268-003	DB1005RD*	S	10/03/07	16:00						X									
TA-Richland	DBSA-20-Q-40	F8A140155-008	F8A140155	S	10/03/07	16:00						X									
TA-Richland	DBSA-20-Q-40	F8B090159-004	F8B090159	S	10/03/07	16:00						X									
TA-Irvine	DBSA-20-Q-40	IQJ0623-03	IQJ0623	S	10/03/07	16:00														X	
TA-St. Louis	DBSA-20-Q-5	F7J050251-001	DB100507*	S	10/03/07	13:55								X		X					
TA-St. Louis	DBSA-20-Q-50	F7J050251-006	DB100507*	S	10/03/07	16:30	X	X								X					
TA-Richland	DBSA-20-Q-50	F7J050268-004	DB1005RD*	S	10/03/07	16:30						X									
TA-Richland	DBSA-20-Q-50	F8A140155-009	F8A140155	S	10/03/07	16:30						X									
TA-Richland	DBSA-20-Q-50	F8B090159-005	F8B090159	S	10/03/07	16:30						X									
TA-Irvine	DBSA-20-Q-50	IQJ0623-04	IQJ0623	S	10/03/07	16:30														X	
TA-St. Louis	DBSA-20-Q-60	F7J050251-007	DB100507*	S	10/03/07	17:00										X					
TA-St. Louis	DBSA-20-Q-70	F7J050251-008	DB100507*	S	10/03/07	17:35	X	X								X					
TA-Richland	DBSA-20-Q-70	F7J050268-006	DB1005RD*	S	10/03/07	17:35						X									
TA-Richland	DBSA-20-Q-70	F8A140155-011	F8A140155	S	10/03/07	17:35						X									
TA-Irvine	DBSA-20-Q-70	IQJ0623-06	IQJ0623	S	10/03/07	17:35														X	
TA-St. Louis	DBSA-20-Q-80	F7J050251-009	DB100507*	S	10/03/07	18:00	X	X								X					
TA-Richland	DBSA-20-Q-80	F7J050268-007	DB1005RD*	S	10/03/07	18:00						X									
TA-Richland	DBSA-20-Q-80	F8A140155-012	F8A140155	S	10/03/07	18:00						X									
TA-Irvine	DBSA-20-Q-80	IQJ0623-07	IQJ0623	S	10/03/07	18:00														X	
TA-St. Louis	DBSA-20-T-100	F7J050251-012	DB100507*	S	10/04/07	9:30	X	X								X					

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LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-20-T-100	F8A140155-015	F8A140155	S	10/04/07	9:30						X									
TA-Richland	DBSA-20-T-100	F8B090159-017	F8B090159	S	10/04/07	9:30						X									
TA-Irvine	DBSA-20-T-100	IQJ0625-03	IQJ0625	S	10/04/07	9:30														X	
TA-St. Louis	DBSA-20-T-90	F7J050251-010	DB100507*	S	10/04/07	9:15	X	X								X					
TA-Richland	DBSA-20-T-90	F7J050268-008	DB1005RD*	S	10/04/07	9:15						X				X					
TA-Richland	DBSA-20-T-90	F8A140155-013	F8A140155	S	10/04/07	9:15						X									
TA-Richland	DBSA-20-T-90	F8B090159-018	F8B090159	S	10/04/07	9:15						X									
TA-Irvine	DBSA-20-T-90	IQJ0625-01	IQJ0625	S	10/04/07	9:15														X	
TA-Irvine	DBSA-20-T-90 DUP	IQJ0625-02	IQJ0625	S	10/04/07	9:15														X	
TA-St. Louis	DBSA-20-T-90-DUP	F7J050251-011	DB100507*	S	10/04/07	9:15	X	X								X					
TA-Richland	DBSA-20-T-90-DUP	F7J050268-009	DB1005RD*	S	10/04/07	9:15						X				X					
TA-Richland	DBSA-20-T-90-DUP	F8A140155-014	F8A140155	S	10/04/07	9:15						X									
TA-Richland	DBSA-20-T-90-DUP	F8B090159-019	F8B090159	S	10/04/07	9:15						X									
TA-St. Louis	DBSA-21-GW	F7J040245-013	DB100507*	W	10/02/07	7:30	X	X		X	X		X	X		X					
TA-Richland	DBSA-21-GW	F7J040280-011	DB1005RD*	W	10/02/07	7:30						X									
Alpha	DBSA-21-GW	ERM07100430-01A	ERM07100430	W	10/03/07	7:30											X				
TA-Irvine	DBSA-21-GW	IQJ0414-01	IQJ0414	W	10/03/07	7:30												X			
TA-Irvine	DBSA-21-GW	IQJ0430-01	IQJ0430	W	10/03/07	7:30													X	X	X
TA-St. Louis	DBSA-21-Q-10	F7J040245-002	DB100507*	S	10/02/07	12:30								X	X	X					
TA-St. Louis	DBSA-21-Q-20	F7J040245-003	DB100507*	S	10/02/07	12:55	X	X								X					
TA-Richland	DBSA-21-Q-20	F7J040280-001	DB1005RD*	S	10/02/07	12:55						X									
TA-Richland	DBSA-21-Q-20	F8A140153-016	F8A140153	S	10/02/07	12:55						X									
TA-Richland	DBSA-21-Q-20	F8B090159-007	F8B090159	S	10/02/07	12:55						X									
TA-St. Louis	DBSA-21-Q-20-DUP	F7J040245-004	DB100507*	S	10/02/07	12:55	X	X								X					
TA-Richland	DBSA-21-Q-20-DUP	F7J040280-002	DB1005RD*	S	10/02/07	12:55						X									
TA-Richland	DBSA-21-Q-20-DUP	F8A140153-017	F8A140153	S	10/02/07	12:55						X									
TA-Richland	DBSA-21-Q-20-DUP	F8B090159-008	F8B090159	S	10/02/07	12:55						X									
TA-St. Louis	DBSA-21-Q-30	F7J040245-005	DB100507*	S	10/02/07	13:30	X	X								X					
TA-Richland	DBSA-21-Q-30	F7J040280-003	DB1005RD*	S	10/02/07	13:30						X									
TA-Richland	DBSA-21-Q-30	F8A140153-018	F8A140153	S	10/02/07	13:30						X									
TA-Richland	DBSA-21-Q-30	F8B090159-009	F8B090159	S	10/02/07	13:30						X									
TA-St. Louis	DBSA-21-Q-40	F7J040245-006	DB100507*	S	10/02/07	13:50	X	X								X					
TA-Richland	DBSA-21-Q-40	F7J040280-004	DB1005RD*	S	10/02/07	13:50						X									
TA-Richland	DBSA-21-Q-40	F8A140153-019	F8A140153	S	10/02/07	13:50						X									

TABLE C-1
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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-21-Q-40	F8B090159-010	F8B090159	S	10/02/07	13:50						X									
TA-St. Louis	DBSA-21-Q-5	F7J040245-001	DB100507*	S	10/02/07	12:25								X		X					
TA-St. Louis	DBSA-21-Q-50	F7J040245-007	DB100507*	S	10/02/07	14:15	X	X								X					
TA-Richland	DBSA-21-Q-50	F7J040280-005	DB1005RD*	S	10/02/07	14:15						X									
TA-Richland	DBSA-21-Q-50	F8A140153-020	F8A140153	S	10/02/07	14:15						X									
TA-Richland	DBSA-21-Q-50	F8B090159-005	F8B090159	S	10/02/07	14:15						X									
TA-St. Louis	DBSA-21-Q-70	F7J040245-009	DB100507*	S	10/02/07	16:00	X	X								X					
TA-St. Louis	DBSA-21-T-80	F7J040245-011	DB100507*	S	10/02/07	16:30	X	X								X					
TA-Richland	DBSA-21-T-80	F7J040280-009	DB1005RD*	S	10/02/07	16:30						X									
TA-Richland	DBSA-21-T-80	F8A140155-004	F8A140155	S	10/02/07	16:30						X									
TA-Richland	DBSA-21-T-80	F8B090159-020	F8B090159	S	10/02/07	16:30						X									
TA-Irvine	DBSA-21-T-80	IQJ0456-09	IQJ0456	S	10/02/07	16:30														X	
TA-St. Louis	DBSA-21-T-90	F7J040245-012	DB100507*	S	10/02/07	17:05	X	X								X					
TA-Richland	DBSA-21-T-90	F7J040280-010	DB1005RD*	S	10/02/07	17:05						X									
TA-Richland	DBSA-21-T-90	F8A140155-005	F8A140155	S	10/02/07	17:05						X									
TA-Richland	DBSA-21-T-90	F8B090161-001	F8B090161	S	10/02/07	17:05						X									
TA-Irvine	DBSA-21-T-90	IQJ0456-10	IQJ0456	S	10/02/07	17:05														X	
TA-St. Louis	DBSA-23-Q-10	F7I250260-007	DB092707*	S	09/23/07	9:55								X							
TA-St. Louis	DBSA-23-Q-20	F7I250260-008	DB092707*	S	09/23/07	10:20	X	X								X					
TA-Richland	DBSA-23-Q-20	F7I250279-001	DB0927RD*	S	09/23/07	10:20						X									
TA-Richland	DBSA-23-Q-20	F8A140153-001	F8A140153	S	09/23/07	10:20						X									
TA-Richland	DBSA-23-Q-20	F8A140153-006	F8A140153	S	09/23/07	10:20						X									
TA-Richland	DBSA-23-Q-20	F8B090161-009	F8B090161	S	09/23/07	10:20						X									
TA-St. Louis	DBSA-23-Q-30	F7I250260-009	DB092707*	S	09/23/07	10:45	X	X								X					
TA-Richland	DBSA-23-Q-30	F8A140153-002	F8A140153	S	09/23/07	10:45						X									
TA-Richland	DBSA-23-Q-30	F8A140153-007	F8A140153	S	09/23/07	10:45						X									
TA-Richland	DBSA-23-Q-30	F8B090161-010	F8B090161	S	09/23/07	10:45						X									
TA-Irvine	DBSA-23-Q-30	IQI2160-07	IQI2160	S	09/23/07	10:45														X	
TA-St. Louis	DBSA-23-Q-30 (FD)	F7I250260-010	DB092707*	S	09/23/07	10:45	X	X								X					
TA-Richland	DBSA-23-Q-30 (FD)	F7I250279-003	DB0927RD*	S	09/23/07	10:45						X									
TA-Richland	DBSA-23-Q-30 (FD)	F8A140153-008	F8A140153	S	09/23/07	10:45						X									
TA-Richland	DBSA-23-Q-30 (FD)	F8B090161-011	F8B090161	S	09/23/07	10:45						X									
TA-Irvine	DBSA-23-Q-30 (MS/MSD)	IQI2160-09	IQI2160	S	09/23/07	10:45														X	
TA-Irvine	DBSA-23-Q-30 (FD)	IQI2160-08	IQI2160	S	09/23/07	10:45														X	

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CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-St. Louis	DBSA-23-Q-40	F7I250260-011	DB092707*	S	09/23/07	11:15	X	X								X					
TA-Richland	DBSA-23-Q-40	F7I250279-004	DB0927RD*	S	09/23/07	11:15						X									
TA-Richland	DBSA-23-Q-40	F8A140153-009	F8A140153	S	09/23/07	11:15						X									
TA-Richland	DBSA-23-Q-40	F8B090161-012	F8B090161	S	09/23/07	11:15						X									
TA-Irvine	DBSA-23-Q-40	IQI2160-10	IQI2160	S	09/23/07	11:15														X	
TA-St. Louis	DBSA-23-Q-5	F7I250260-006	DB092707*	S	09/23/07	9:50								X							
TA-St. Louis	DBSA-23-Q-50	F7I250260-012	DB092707*	S	09/23/07	12:00	X	X								X					
TA-Richland	DBSA-23-Q-50	F7I250279-005	DB0927RD*	S	09/23/07	12:00						X									
TA-Richland	DBSA-23-Q-50	F8A140153-010	F8A140153	S	09/23/07	12:00						X									
TA-Richland	DBSA-23-Q-50	F8B090161-013	F8B090161	S	09/23/07	12:00						X									
TA-St. Louis	DBSA23-T-140	F7I270301-001	DB092707*	S	09/26/07	8:10	X	X							X	X					
TA-Richland	DBSA23-T-140	F7I270314-001	DB0927RD*	S	09/26/07	8:10						X									
TA-Richland	DBSA23-T-140	F8A140153-014	F8A140153	S	09/26/07	8:10						X									
TA-Richland	DBSA23-T-140	F8B090161-002	F8B090161	S	09/26/07	8:10						X									
TA-Irvine	DBSA23-T-140	IQI2439-01	IQI2439	S	09/26/07	8:10														X	
TA-St. Louis	DBSA23-T-150	F7I270301-002	DB092707*	S	09/26/07	8:40	X	X								X					
TA-Richland	DBSA23-T-150	F7I270314-002	DB0927RD*	S	09/26/07	8:40						X									
TA-Richland	DBSA23-T-150	F8A140153-015	F8A140153	S	09/26/07	8:40						X									
TA-Richland	DBSA23-T-150	F8B090161-003	F8B090161	S	09/26/07	8:40						X									
TA-Irvine	DBSA23-T-150	IQI2439-02	IQI2439	S	09/26/07	8:40														X	
TA-St. Louis	DBSA-23-TRIP BLANK	F7I250260-015	DB092707*	WQ	09/23/07	--								X							
TA-St. Louis	DBSA-26 TRIP BLANK	F7I250235-008	DB092507*	WQ	09/21/07	15:30								X							
TA-St. Louis	DBSA-26-Q-0	F7I250235-001	DB092507*	S	09/21/07	15:30					X					X					
TA-St. Louis	DBSA-26-Q-10	F7I250235-003	DB092507*	S	09/21/07	16:05								X		X					
TA-Irvine	DBSA-26-Q-100	IQI2147-09	IQI2147	S	09/22/07	10:25														X	
TA-Irvine	DBSA-26-Q-110	IQI2147-10	IQI2147	S	09/22/07	11:05														X	
TA-Richland	DBSA-26-Q-150	F7I250173-014	DB0925RD*	S	09/22/07	15:45						X									
TA-St. Louis	DBSA-26-Q-150	F7I250235-018	DB092507*	S	09/22/07	15:45	X	X								X					
TA-Richland	DBSA-26-Q-150	F8A140153-005	F8A140153	S	09/22/07	15:45						X									
TA-Irvine	DBSA-26-Q-150	IQI2160-04	IQI2160	S	09/22/07	15:45														X	
TA-St. Louis	DBSA-26-Q-160	F7I250235-019	DB092507*	S	09/22/07	16:20	X	X								X					
TA-Richland	DBSA-26-Q-20	F7I250173-001	DB0925RD*	S	09/21/07	16:40						X									
TA-St. Louis	DBSA-26-Q-20	F7I250235-004	DB092507*	S	09/21/07	16:40	X	X								X					
TA-Richland	DBSA-26-Q-20	F8B090161-015	F8B090161	S	09/21/07	16:40						X									

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TA-Irvine	DBSA-26-Q-20	IQI2147-01	IQI2147	S	09/21/07	16:40														X	
TA-Richland	DBSA-26-Q-30	F7I250173-002	DB0925RD*	S	09/21/07	16:55						X									
TA-St. Louis	DBSA-26-Q-30	F7I250235-005	DB092507*	S	09/21/07	16:55	X	X								X					
TA-Richland	DBSA-23-Q-30	F7I250279-002	DB0927RD*	S	09/23/07	10:45						X									
TA-Richland	DBSA-26-Q-30	F8B090161-016	F8B090161	S	09/21/07	16:55						X									
TA-Irvine	DBSA-26-Q-30	IQI2147-02	IQI2147	S	09/21/07	16:55														X	
TA-Richland	DBSA-26-Q-40	F7I250173-003	DB0925RD*	S	09/21/07	17:30						X									
TA-St. Louis	DBSA-26-Q-40	F7I250235-006	DB092507*	S	09/21/07	17:30	X	X								X					
TA-Richland	DBSA-26-Q-40	F8A140153-003	F8A140153	S	09/21/07	17:30						X									
TA-Richland	DBSA-26-Q-40	F8B090161-017	F8B090161	S	09/21/07	17:30						X									
TA-Irvine	DBSA-26-Q-40	IQI2147-03	IQI2147	S	09/21/07	17:30														X	
TA-St. Louis	DBSA-26-Q-5	F7I250235-002	DB092507*	S	09/21/07	16:00								X		X					
TA-Richland	DBSA-26-Q-50	F7I250173-004	DB0925RD*	S	09/21/07	17:50						X									
TA-St. Louis	DBSA-26-Q-50	F7I250235-007	DB092507*	S	09/21/07	17:50	X	X								X					
TA-Richland	DBSA-26-Q-50	F8A140153-004	F8A140153	S	09/21/07	17:50						X									
TA-Richland	DBSA-26-Q-50	F8B090161-018	F8B090161	S	09/21/07	17:50						X									
TA-Irvine	DBSA-26-Q-50	IQI2147-04	IQI2147	S	09/21/07	17:50														X	
TA-Irvine	DBSA-26-Q-60	IQI2147-05	IQI2147	S	09/22/07	8:10														X	
TA-Irvine	DBSA-26-Q-70	IQI2147-06	IQI2147	S	09/22/07	8:40														X	
TA-Irvine	DBSA-26-Q-80	IQI2147-07	IQI2147	S	09/22/07	9:05														X	
TA-Irvine	DBSA-26-Q-90	IQI2147-08	IQI2147	S	09/22/07	10:00														X	
TA-St. Louis	DBSA-27-Q-0	F7H100305-001	DB081007*	S	08/09/07	7:50					X					X					
TA-St. Louis	DBSA-27-Q-10	F7H100305-004	DB081007*	S	08/09/07	9:00								X		X					
TA-St. Louis	DBSA-27-Q-10 (PP/GS)	F7H100305-003	DB081007*	S	08/09/07	9:00									X	X					
TA-St. Louis	DBSA-27-Q-20	F7H100305-005	DB081007*	S	08/09/07	9:20	X	X								X					
TA-Richland	DBSA-27-Q-20	F7H100325-001	DB0810RD*	S	08/09/07	9:20						X									
TA-Richland	DBSA-27-Q-20	F8A140148-005	F8A140148	S	08/09/07	9:20						X									
TA-Richland	DBSA-27-Q-20	F8B090161-019	F8B090161	S	08/09/07	9:20						X									
TA-Irvine	DBSA-27-Q-20	IQH1104-01	IQH1104	S	08/09/07	9:20														X	
TA-St. Louis	DBSA-27-Q-20 (FD)	F7H100305-006	DB081007*	S	08/09/07	9:20	X	X								X					
TA-Richland	DBSA-27-Q-20 (FD)	F7H100325-002	DB0810RD*	S	08/09/07	9:20						X									
TA-Richland	DBSA-27-Q-20 (FD)	F8A140148-006	F8A140148	S	08/09/07	9:20						X									
TA-Richland	DBSA-27-Q-20 (FD)	F8B090161-020	F8B090161	S	08/09/07	9:20						X									
TA-Irvine	DBSA-27-Q-20 (FD)	IQH1104-02	IQH1104	S	08/09/07	9:20														X	

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LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-St. Louis	DBSA-27-Q-30	F7H100305-007	DB081007*	S	08/09/07	9:55	X	X								X					
TA-Richland	DBSA-27-Q-30	F7H100325-003	DB0810RD*	S	08/09/07	9:55						X									
TA-Richland	DBSA-27-Q-30	F8A140148-007	F8A140148	S	08/09/07	9:55						X									
TA-Richland	DBSA-27-Q-30	F8B090162-001	F8B090162	S	08/09/07	9:55						X									
TA-Irvine	DBSA-27-Q-30	IQH1104-03	IQH1104	S	08/09/07	9:55														X	
TA-St. Louis	DBSA-27-Q-40	F7H100305-008	DB081007*	S	08/09/07	10:15	X	X								X					
TA-Richland	DBSA-27-Q-40	F7H100325-004	DB0810RD*	S	08/09/07	10:15						X									
TA-Richland	DBSA-27-Q-40	F8A140148-008	F8A140148	S	08/09/07	10:15						X									
TA-Richland	DBSA-27-Q-40	F8B090162-002	F8B090162	S	08/09/07	10:15						X									
TA-Irvine	DBSA-27-Q-40	IQH1104-04	IQH1104	S	08/09/07	10:15														X	
TA-St. Louis	DBSA-27-Q-5	F7H100305-002	DB081007*	S	08/09/07	8:15								X		X					
TA-St. Louis	DBSA-27-Q-50	F7H100305-009	DB081007*	S	08/09/07	11:00	X	X								X					
TA-Richland	DBSA-27-Q-50	F7H100325-005	DB0810RD*	S	08/09/07	11:00						X									
TA-Richland	DBSA-27-Q-50	F8A140148-009	F8A140148	S	08/09/07	11:00						X									
TA-Richland	DBSA-27-Q-50	F8B090162-003	F8B090162	S	08/09/07	11:00						X									
TA-Irvine	DBSA-27-Q-50	IQH1104-05	IQH1104	S	08/09/07	11:00														X	
TA-St. Louis	DBSA-27-Q-60	F7H140268-001	DB081607*	S	08/13/07	8:35	X	X								X					
TA-Richland	DBSA-27-Q-60	F7H140276-001	DB08016RD*	S	08/13/07	8:35						X									
TA-Richland	DBSA-27-Q-60	F8A140148-010	F8A140148	S	08/13/07	8:35						X									
TA-Richland	DBSA-27-Q-60	F8B090162-004	F8B090162	S	08/13/07	8:35						X									
TA-Irvine	DBSA-27-Q-60	IQH1410-01	IQH1410	S	08/13/07	8:35														X	
TA-St. Louis	DBSA-27-Q-70	F7H140268-002	DB081607*	S	08/13/07	9:00	X	X								X					
TA-Richland	DBSA-27-Q-70	F7H140276-002	DB08016RD*	S	08/13/07	9:00						X									
TA-Richland	DBSA-27-Q-70	F8A140148-011	F8A140148	S	08/13/07	9:00						X									
TA-Irvine	DBSA-27-Q-70	IQH1410-02	IQH1410	S	08/13/07	9:00														X	
TA-St. Louis	DBSA-27-Q-80	F7H140268-003	DB081607*	S	08/13/07	9:10	X	X								X					
TA-Richland	DBSA-27-Q-80	F7H140276-003	DB08016RD*	S	08/13/07	9:10						X									
TA-Richland	DBSA-27-Q-80	F8A140148-012	F8A140148	S	08/13/07	9:10						X									
TA-Irvine	DBSA-27-Q-80	IQH1410-03	IQH1410	S	08/13/07	9:10														X	
TA-St. Louis	DBSA-27-Q-90	F7H140268-004	DB081607*	S	08/13/07	9:35	X	X								X					
TA-Richland	DBSA-27-Q-90	F7H140276-004	DB08016RD*	S	08/13/07	9:35						X									
TA-Richland	DBSA-27-Q-90	F8A140148-013	F8A140148	S	08/13/07	9:35						X									
TA-Irvine	DBSA-27-Q-90	IQH1410-04	IQH1410	S	08/13/07	9:35														X	
TA-Irvine	DBSA-27-T-100	IQH1410-05	IQH1410	S	08/13/07	12:35														X	

TABLE C-1
DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-St. Louis	DBSA-27-T-100	F7H140268-006	DB081607*	S	08/13/07	12:35	X	X								X					
TA-Richland	DBSA-27-T-100	F8A140148-014	F8A140148	S	08/13/07	12:35						X									
TA-Richland	DBSA-27-T-100 (MS/MSD)	F7H140276-005	DB08016RD*	S	08/13/07	12:35						X									
TA-St. Louis	DBSA-27-T-100 (PP/GS)	F7H140268-005	DB081607*	S	08/13/07	10:10									X						
TA-St. Louis	DBSA-29-A-160(FD)	F7I240171-022	DB092207*	S	09/21/07	8:10	X	X						X		X					
TA-Richland	DBSA-29-A-160(FD)	F7I240189-018	DB0922RD*	S	09/21/07	8:10						X									
TA-St. Louis	DBSA-29-GW	F7I240171-002	DB092207*	W	09/21/07	--	X	X	X	X	X		X	X							
TA-Richland	DBSA-29-GW	F7I240189-002	DB0922RD*	W	09/21/07	8:30						X									
Alpha	DBSA-29-GW	ERM07092429-01A	ERM07092429	W	09/21/07	8:30											X				
TA-Irvine	DBSA-29-GW	IQI2030-01	IQI2030	W	09/21/07	8:30												X			
TA-St. Louis	DBSA-29-Q-10	F7I240171-004	DB092207*	S	09/20/07	8:05								X		X					
TA-St. Louis	DBSA-29-Q-10-FD	F7I240171-005	DB092207*	S	09/20/07	8:05								X		X					
TA-St. Louis	DBSA-29-Q-150	F7I240171-020	DB092207*	S	09/21/07	7:40	X	X						X		X					
TA-Richland	DBSA-29-Q-150	F7I240189-016	DB0922RD*	S	09/21/07	7:40						X									
TA-Irvine	DBSA-29-Q-150	IQI2027-01	IQI2028	S	09/21/07	7:40														X	
TA-St. Louis	DBSA-29-Q-160	F7I240171-021	DB092207*	S	09/21/07	8:10	X	X						X		X					
TA-Richland	DBSA-29-Q-160	F7I240189-017	DB0922RD*	S	09/21/07	8:10						X									
TA-Irvine	DBSA-29-Q-160	IQI2027-02	IQI2028	S	09/21/07	8:10														X	
TA-Irvine	DBSA-29-Q-160 (FD)	IQI2027-03	IQI2028	S	09/21/07	8:10														X	
TA-St. Louis	DBSA-29-Q-20	F7I240171-007	DB092207*	S	09/20/07	8:35	X	X								X					
TA-Richland	DBSA-29-Q-20	F7I240189-003	DB0922RD*	S	09/20/07	8:35						X									
TA-Richland	DBSA-29-Q-20	F8A140150-014	F8A140150	S	09/20/07	8:35						X									
TA-Richland	DBSA-29-Q-20	F8B090162-005	F8B090162	S	09/20/07	8:35						X									
TA-Irvine	DBSA-29-Q-20	IQI2047-01	IQI2047	S	09/20/07	8:35														X	
TA-St. Louis	DBSA-29-Q-30	F7I240171-008	DB092207*	S	09/20/07	9:00	X	X								X					
TA-Richland	DBSA-29-Q-30	F7I240189-004	DB0922RD*	S	09/20/07	9:00						X									
TA-Richland	DBSA-29-Q-30	F8A140150-015	F8A140150	S	09/20/07	9:00						X									
TA-Richland	DBSA-29-Q-30	F8B090162-006	F8B090162	S	09/20/07	9:00						X									
TA-Irvine	DBSA-29-Q-30	IQI2047-02	IQI2047	S	09/20/07	9:00														X	
TA-St. Louis	DBSA-29-Q-40	F7I240171-009	DB092207*	S	09/20/07	9:30	X	X								X					
TA-Richland	DBSA-29-Q-40	F7I240189-005	DB0922RD*	S	09/20/07	9:30						X									
TA-Richland	DBSA-29-Q-40	F8A140150-016	F8A140150	S	09/20/07	9:30						X									
TA-Richland	DBSA-29-Q-40	F8B090162-007	F8B090162	S	09/20/07	9:30						X									
TA-Irvine	DBSA-29-Q-40	IQI2047-03	IQI2047	S	09/20/07	9:30														X	

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-St. Louis	DBSA-29-Q-5	F7I240171-003	DB092207*	S	09/20/07	8:00								X		X					
TA-St. Louis	DBSA-29-Q-50	F7I240171-010	DB092207*	S	09/20/07	9:55	X	X								X					
TA-Richland	DBSA-29-Q-50	F7I240189-006	DB0922RD*	S	09/20/07	9:55						X									
TA-Richland	DBSA-29-Q-50	F8A140150-017	F8A140150	S	09/20/07	9:55						X									
TA-Richland	DBSA-29-Q-50	F8B090162-008	F8B090162	S	09/20/07	9:55						X									
TA-Irvine	DBSA-29-Q-50	IQI2047-04	IQI2047	S	09/20/07	9:55														X	
TA-Irvine	DBSA-2B-Q-20	IQI2160-06	IQI2160	S	09/23/07	10:20														X	
TA-St. Louis	DBSA-2-Q-10	F7H080321-002	DB080807*	S	08/07/07	8:55							X	X							
TA-Irvine	DBSA-2-Q-10	IQH1019-02	IQH1019	S	08/07/07	8:55													X		
TA-St. Louis	DBSA-2-Q-20	F7H080321-003	DB080807*	S	08/07/07	9:45	X	X								X					
TA-Richland	DBSA-2-Q-20	F7H080330-001	DB0808RD*	S	08/07/07	9:45						X									
TA-Richland	DBSA-2-Q-20	F8A140146-009	F8A140146	S	08/07/07	9:45						X									
TA-Richland	DBSA-2-Q-20	F8B090162-009	F8B090162	S	08/07/07	9:45						X									
TA-Irvine	DBSA-2-Q-20	IQH1019-03	IQH1019	S	08/07/07	9:45														X	
TA-St. Louis	DBSA-2-Q-20 (FD)	F7H080321-004	DB080807*	S	08/07/07	9:45	X	X								X					
TA-Richland	DBSA-2-Q-20 (FD)	F7H080330-002	DB0808RD*	S	08/07/07	9:45						X									
TA-Richland	DBSA-2-Q-20 (FD)	F8A140146-010	F8A140146	S	08/07/07	9:45						X									
TA-Irvine	DBSA-2-Q-20 (FD)	IQH1019-04	IQH1019	S	08/07/07	9:45														X	
TA-Richland	DBSA-2-Q-20 (FD)	F8B090162-010	F8B090162	S	08/07/07	9:45						X									
TA-St. Louis	DBSA-2-Q-30	F7H080321-005	DB080807*	S	08/07/07	10:05	X	X								X					
TA-Richland	DBSA-2-Q-30	F7H080330-003	DB0808RD*	S	08/07/07	10:05						X									
TA-Richland	DBSA-2-Q-30	F8A140146-011	F8A140146	S	08/07/07	10:05						X									
TA-Richland	DBSA-2-Q-30	F8B090162-011	F8B090162	S	08/07/07	10:05						X									
TA-Irvine	DBSA-2-Q-30	IQH1019-05	IQH1019	S	08/07/07	10:05														X	
TA-St. Louis	DBSA-2-Q-40	F7H080321-006	DB080807*	S	08/07/07	10:55	X	X								X					
TA-Richland	DBSA-2-Q-40	F7H080330-004	DB0808RD*	S	08/07/07	10:55						X									
TA-Richland	DBSA-2-Q-40	F8A140146-012	F8A140146	S	08/07/07	10:55						X									
TA-Richland	DBSA-2-Q-40	F8B090162-012	F8B090162	S	08/07/07	10:55						X									
TA-Irvine	DBSA-2-Q-40	IQH1019-06	IQH1019	S	08/07/07	10:55														X	
TA-St. Louis	DBSA-2-Q-5	F7H080321-001	DB080807*	S	08/07/07	8:45							X	X							
TA-Irvine	DBSA-2-Q-5	IQH1019-01	IQH1019	S	08/07/07	8:45													X		
TA-St. Louis	DBSA-2-Q-50	F7H080321-007	DB080807*	S	08/07/07	11:15	X	X								X					
TA-Richland	DBSA-2-Q-50	F7H080330-005	DB0808RD*	S	08/07/07	11:15						X									
TA-Richland	DBSA-2-Q-50	F8A140146-013	F8A140146	S	08/07/07	11:15						X									

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CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-2-Q-50	F8B090162-013	F8B090162	S	08/07/07	11:15						X									
TA-Irvine	DBSA-2-Q-50	IQH1019-07	IQH1019	S	08/07/07	11:15														X	
TA-St. Louis	DBSA-2-Q-60	F7H080321-007	DB080807*	S	08/07/07	11:40	X	X								X					
TA-Richland	DBSA-2-Q-60	F7H080330-006	DB0808RD*	S	08/07/07	11:40						X									
TA-Richland	DBSA-2-Q-60	F8A140146-014	F8A140146	S	08/07/07	11:40						X									
TA-Richland	DBSA-2-Q-60	F8B090162-014	F8B090162	S	08/07/07	11:40						X									
TA-Irvine	DBSA-2-Q-60	IQH1019-08	IQH1019	S	08/07/07	11:40														X	
TA-St. Louis	DBSA-2-Q-70	F7H080321-010	DB080807*	S	08/07/07	12:00	X	X								X					
TA-Richland	DBSA-2-Q-70	F7H080330-008	DB0808RD*	S	08/07/07	12:00						X									
TA-Richland	DBSA-2-Q-70	F8A140146-015	F8A140146	S	08/07/07	12:00						X									
TA-Irvine	DBSA-2-Q-70	IQH1019-10	IQH1019	S	08/07/07	12:00														X	
TA-St. Louis	DBSA-2-Q-80	F7H080321-009	DB080807*	S	08/07/07	12:40	X	X								X					
TA-Richland	DBSA-2-Q-80	F7H080330-007	DB0808RD*	S	08/07/07	12:40						X									
TA-Richland	DBSA-2-Q-80	F8A140146-016	F8A140146	S	08/07/07	12:40						X									
TA-Irvine	DBSA-2-Q-80	IQH1019-09	IQH1019	S	08/07/07	12:40														X	
TA-St. Louis	DBSA-30-GW	F7I200305-015	DB092007*	W	09/19/07	7:30	X	X					X								
TA-Richland	DBSA-30-GW	F7I200323-012	DB0920RD*	W	09/19/07	7:30						X									
Alpha	DBSA-30-GW	ERM07092056-01A	ERM07092056	W	09/19/07	7:30											X				
TA-Irvine	DBSA-30-GW	IQI1772-01	IQI1772	W	09/19/07	7:30												X	X	X	X
TA-Irvine	DBSA-30-GW	IQI2028-02	IQI2028	W	09/21/07	8:30													X	X	X
TA-St. Louis	DBSA-30-Q-10	F7I190183-002	DB092007*	S	09/18/07	8:12								X		X					
TA-St. Louis	DBSA-30-Q-100	F7I200305-008	DB092007*	S	09/18/07	14:30															
TA-St. Louis	DBSA-30-Q-110	F7I200305-009	DB092007*	S	09/18/07	15:15															
TA-St. Louis	DBSA-30-Q-120	F7I200305-010	DB092007*	S	09/18/07	16:10															
TA-St. Louis	DBSA-30-Q-130	F7I200305-011	DB092007*	S	09/18/07	16:55	X	X													
TA-Richland	DBSA-30-Q-130	F7I200323-008	DB0920RD*	S	09/18/07	16:55						X									
TA-Richland	DBSA-30-Q-130	F8A140150-010	F8A140150	S	09/18/07	16:55						X									
TA-Irvine	DBSA-30-Q-130	IQI1801-05	IQI1801	S	09/18/07	16:55														X	
TA-St. Louis	DBSA-30-Q-140	F7I200305-012	DB092007*	S	09/19/07	9:35	X	X													
TA-Richland	DBSA-30-Q-140	F7I200323-009	DB0920RD*	S	09/19/07	9:35						X									
TA-Richland	DBSA-30-Q-140	F8A140150-011	F8A140150	S	09/19/07	9:35						X									
TA-Irvine	DBSA-30-Q-140	IQI1801-06	IQI1801	S	09/18/07	9:35														X	
TA-Richland	DBSA-30-Q-150	F8A140150-012	F8A140150	S	09/19/07	10:30						X									
TA-Richland	DBSA-30-Q-160	F8A140150-013	F8A140150	S	09/19/07	11:00						X									

TABLE C-1
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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-St. Louis	DBSA-30-Q-20	F7I190183-003	DB092007*	S	09/18/07	8:50	X	X						X		X					
TA-Richland	DBSA-30-Q-20	F7I190249-001	DB0920RD*	S	09/18/07	8:50						X									
TA-Richland	DBSA-30-Q-20	F8A140150-003	F8A140150	S	09/18/07	8:50						X									
TA-Richland	DBSA-30-Q-20	F8B090162-015	F8B090162	S	09/18/07	8:50						X									
TA-Irvine	DBSA-30-Q-20	IQI1639-01	IQI1639	S	09/18/07	8:50														X	
TA-St. Louis	DBSA-30-Q-30	F7I190183-004	DB092007*	S	09/18/07	9:15	X	X								X					
TA-Richland	DBSA-30-Q-30	F7I190249-002	DB0920RD*	S	09/18/07	9:15						X									
TA-Richland	DBSA-30-Q-30	F8A140150-004	F8A140150	S	09/18/07	9:15						X									
TA-Richland	DBSA-30-Q-30	F8B090162-016	F8B090162	S	09/18/07	9:15						X									
TA-Irvine	DBSA-30-Q-30	IQI1639-02	IQI1639	S	09/18/07	9:15														X	
TA-St. Louis	DBSA-30-Q-40	F7I190183-005	DB092007*	S	09/18/07	9:40	X	X								X					
TA-Richland	DBSA-30-Q-40	F7I190249-003	DB0920RD*	S	09/18/07	9:40						X									
TA-Richland	DBSA-30-Q-40	F8A140150-005	F8A140150	S	09/18/07	9:40						X									
TA-Richland	DBSA-30-Q-40	F8B090162-017	F8B090162	S	09/18/07	9:40						X									
TA-Irvine	DBSA-30-Q-40	IQI1639-03	IQI1639	S	09/18/07	9:40														X	
TA-St. Louis	DBSA-30-Q-5	F7I190183-001	DB092007*	S	09/18/07	8:10								X		X					
TA-St. Louis	DBSA-30-Q-50	F7I190183-006	DB092007*	S	09/18/07	10:05	X	X								X					
TA-Richland	DBSA-30-Q-50	F7I190249-004	DB0920RD*	S	09/18/07	10:05						X									
TA-Richland	DBSA-30-Q-50	F8A140150-006	F8A140150	S	09/18/07	10:05						X									
TA-Richland	DBSA-30-Q-50	F8B090162-018	F8B090162	S	09/18/07	10:05						X									
TA-Irvine	DBSA-30-Q-50	IQI1639-04	IQI1639	S	09/18/07	10:05														X	
TA-St. Louis	DBSA-30-Q-90	F7I200305-007	DB092007*	S	09/18/07	12:40															
TA-St. Louis	DBSA-30-T-150	F7I200305-013	DB092007*	S	09/19/07	10:30	X	X													
TA-Richland	DBSA-30-T-150	F7I200323-010	DB0920RD*	S	09/19/07	10:30						X									
TA-Irvine	DBSA-30-T-150	IQI1801-07	IQI1801	S	09/18/07	10:30														X	
TA-St. Louis	DBSA-30-T-160	F7I200305-014	DB092007*	S	09/19/07	11:00	X	X													
TA-Richland	DBSA-30-T-160	F7I200323-011	DB0920RD*	S	09/19/07	11:00						X									
TA-Richland	DBSA-30-T-160	F8B090161-004	F8B090161	S	09/19/07	11:00						X									
TA-Irvine	DBSA-30-T-160	IQI1801-08	IQI1801	S	09/18/07	11:00														X	
TA-St. Louis	DBSA-32-GW	F7H150153-011	DB081607*	W	08/14/07	11:30	X	X	X	X			X	X							
TA-Richland	DBSA-32-GW	F7H150340-007	DB08016RD*	W	08/14/07	11:30						X									
Alpha	DBSA-32-GW	ERM07082029-01A	ERM07082029	W	08/14/07	11:30											X				
TA-Irvine	DBSA-32-GW	IQH1407-01	IQH1407	W	08/14/07	11:30												X	X	X	
TA-St. Louis	DBSA-32-Q-0	F7H150153-001	DB081607*	S	08/14/07	7:45					X					X					

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LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-St. Louis	DBSA-32-Q-10	F7H150153-004	DB081607*	S	08/14/07	8:30								X		X					
TA-St. Louis	DBSA-32-Q-20	F7H150153-005	DB081607*	S	08/14/07	8:50	X	X								X					
TA-Richland	DBSA-32-Q-20	F7H150340-001	DB08016RD*	S	08/14/07	8:50						X									
TA-Richland	DBSA-32-Q-20	F8A140148-015	F8A140148	S	08/14/07	8:50						X									
TA-Richland	DBSA-32-Q-20	F8B090162-019	F8B090162	S	08/14/07	8:50						X									
TA-Irvine	DBSA-32-Q-20	IQH1574-06	IQH1574	S	08/14/07	8:50														X	
TA-St. Louis	DBSA-32-Q-30	F7H150153-006	DB081607*	S	08/14/07	9:10	X	X								X					
TA-Richland	DBSA-32-Q-30	F7H150340-002	DB08016RD*	S	08/14/07	9:10						X									
TA-Richland	DBSA-32-Q-30	F8A140148-016	F8A140148	S	08/14/07	9:10						X									
TA-Richland	DBSA-32-Q-30	F8B090162-020	F8B090162	S	08/14/07	9:10						X									
TA-Irvine	DBSA-32-Q-30	IQH1574-07	IQH1574	S	08/14/07	9:10														X	
TA-St. Louis	DBSA-32-Q-40	F7H150153-007	DB081607*	S	08/14/07	9:30	X	X								X					
TA-Richland	DBSA-32-Q-40	F7H150340-003	DB08016RD*	S	08/14/07	9:30						X									
TA-Richland	DBSA-32-Q-40	F8A140148-017	F8A140148	S	08/14/07	9:30						X									
TA-Richland	DBSA-32-Q-40	F8B090163-001	F8B090163	S	08/14/07	9:30						X									
TA-Irvine	DBSA-32-Q-40	IQH1574-08	IQH1574	S	08/14/07	9:30														X	
TA-St. Louis	DBSA-32-Q-5	F7H150153-002	DB081607*	S	08/14/07	8:15								X		X					
TA-St. Louis	DBSA-32-Q-5(FD)	F7H150153-003	DB081607*	S	08/14/07	8:15								X		X					
TA-St. Louis	DBSA-32-Q-50	F7H150153-008	DB081607*	S	08/14/07	9:55	X	X								X					
TA-Richland	DBSA-32-Q-50	F7H150340-004	DB08016RD*	S	08/14/07	9:55						X									
TA-Richland	DBSA-32-Q-50	F8A140148-018	F8A140148	S	08/14/07	9:55						X									
TA-Richland	DBSA-32-Q-50	F8B090163-002	F8B090163	S	08/14/07	9:55						X									
TA-Irvine	DBSA-32-Q-50	IQH1574-01	IQH1574	S	08/14/07	9:55														X	
TA-St. Louis	DBSA-32-Q-60	F7H150153-009	DB081607*	S	08/14/07	10:30	X	X								X					
TA-Richland	DBSA-32-Q-60	F7H150340-005	DB08016RD*	S	08/14/07	10:30						X									
TA-Richland	DBSA-32-Q-60	F8A140148-019	F8A140148	S	08/14/07	10:30						X									
TA-Richland	DBSA-32-Q-60	F8B090163-003	F8B090163	S	08/14/07	10:30						X									
TA-Irvine	DBSA-32-Q-60	IQH1574-02	IQH1574	S	08/14/07	10:30														X	
TA-St. Louis	DBSA-32-Q-70	F7H150153-010	DB081607*	S	08/14/07	11:00	X	X								X					
TA-Richland	DBSA-32-Q-70	F7H150340-006	DB08016RD*	S	08/14/07	11:00						X									
TA-Richland	DBSA-32-Q-70	F8A140148-020	F8A140148	S	08/14/07	11:00						X									
TA-Irvine	DBSA-32-Q-70	IQH1574-03	IQH1574	S	08/14/07	11:00														X	
TA-St. Louis	DBSA-32-T-80	F7H150153-012	DB081607*	S	08/14/07	13:40	X	X								X					
TA-Richland	DBSA-32-T-80	F7H150340-008	DB08016RD*	S	08/14/07	13:40						X									

TABLE C-1
DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-32-T-80	F8A140150-001	F8A140150	S	08/14/07	13:40						X									
TA-Richland	DBSA-32-T-80	F8B090161-005	F8B090161	S	08/14/07	13:40						X									
TA-Irvine	DBSA-32-T-80	IQH1574-04	IQH1574	S	08/14/07	13:40														X	
TA-St. Louis	DBSA-32-T-95	F7H150153-013	DB081607*	S	08/14/07	14:50	X	X								X					
TA-Richland	DBSA-32-T-95	F7H150340-009	DB08016RD*	S	08/14/07	14:50						X									
TA-Richland	DBSA-32-T-95	F8A140150-002	F8A140150	S	08/14/07	14:50						X									
TA-Richland	DBSA-32-T-95	F8B090161-006	F8B090161	S	08/14/07	14:50						X									
TA-Irvine	DBSA-32-T-95	IQH1574-05	IQH1574	S	08/14/07	14:50														X	
TA-St. Louis	DBSA-33-0	F7I200305-001	DB092007*	S	09/17/07	9:55					X					X					
TA-St. Louis	DBSA-33-10	F7I200305-003	DB092007*	S	09/17/07	15:10								X		X					
TA-St. Louis	DBSA-33-20	F7I200305-004	DB092007*	S	09/17/07	15:40	X	X								X					
TA-Richland	DBSA-33-20	F7I200323-001	DB0920RD*	S	09/17/07	15:40						X									
TA-Richland	DBSA-33-20	F8A140150-007	F8A140150	S	09/17/07	15:40						X									
TA-Richland	DBSA-33-20	F8B090163-004	F8B090163	S	09/17/07	15:40						X									
TA-Irvine	DBSA-33-20	IQI1682-01	IQI1682	S	09/17/07	15:40														X	
TA-St. Louis	DBSA-33-20 (FD)	F7I200305-005	DB092007*	S	09/17/07	15:40	X	X								X					
TA-Richland	DBSA-33-20 (FD)	F7I200323-002	DB0920RD*	S	09/17/07	15:40						X									
TA-Richland	DBSA-33-20 (FD)	F8A140150-008	F8A140150	S	09/17/07	15:40						X									
TA-Richland	DBSA-33-20 (FD)	F8B090163-005	F8B090163	S	09/17/07	15:40						X									
TA-Irvine	DBSA-33-20 (FD)	IQI1682-02	IQI1682	S	09/17/07	15:40														X	
TA-St. Louis	DBSA-33-5	F7I200305-002	DB092007*	S	09/17/07	15:05								X		X					
TA-St. Louis	DBSA-33-T-30	F7I200305-006	DB092007*	S	09/17/07	16:05	X	X								X					
TA-Richland	DBSA-33-T-30	F7I200323-003	DB0920RD*	S	09/17/07	16:05						X									
TA-Richland	DBSA-33-T-30	F8A140150-009	F8A140150	S	09/17/07	16:05						X									
TA-Richland	DBSA-33-T-30	F8B090161-007	F8B090161	S	09/17/07	16:05						X									
TA-Irvine	DBSA-33-T-30	IQI1682-03	IQI1682	S	09/17/07	16:05														X	
TA-St. Louis	DBSA-3-Q-10	F7H090308-002	DB081007*	S	08/08/07	8:10								X		X					
TA-St. Louis	DBSA-3-Q-20	F7H090308-003	DB081007*	S	08/08/07	9:00	X	X								X					
TA-Richland	DBSA-3-Q-20	F7H090316-001	DB0810RD*	S	08/08/07	9:00						X									
TA-Richland	DBSA-3-Q-20	F8A140146-017	F8A140146	S	08/08/07	9:00						X									
TA-Richland	DBSA-3-Q-20	F8B090163-006	F8B090163	S	08/08/07	9:00						X									
TA-Irvine	DBSA-3-Q-20	IQH1005-01	IQH1005	S	08/08/07	9:00														X	
TA-St. Louis	DBSA-3-Q-20 (FD)	F7H090308-004	DB081007*	S	08/08/07	9:00	X	X								X					
TA-Richland	DBSA-3-Q-20 (FD)	F7H090316-002	DB0810RD*	S	08/08/07	9:00						X									

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DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-3-Q-20 (FD)	F8A140146-018	F8A140146	S	08/08/07	9:00						X									
TA-Richland	DBSA-3-Q-20 (FD)	F8B090163-007	F8B090163	S	08/08/07	9:00						X									
TA-Irvine	DBSA-3-Q-20 (FD)	IQH1005-02	IQH1005	S	08/08/07	9:00														X	
TA-St. Louis	DBSA-3-Q-30	F7H090308-005	DB081007*	S	08/08/07	9:15	X	X								X					
TA-Richland	DBSA-3-Q-30	F7H090316-003	DB0810RD*	S	08/08/07	9:15						X									
TA-Richland	DBSA-3-Q-30	F8A140146-019	F8A140146	S	08/08/07	9:15						X									
TA-Richland	DBSA-3-Q-30	F8B090163-008	F8B090163	S	08/08/07	9:15						X									
TA-Irvine	DBSA-3-Q-30	IQH1005-03	IQH1005	S	08/08/07	9:15														X	
TA-St. Louis	DBSA-3-Q-40	F7H090308-006	DB081007*	S	08/08/07	9:30	X	X								X					
TA-Richland	DBSA-3-Q-40	F7H090316-004	DB0810RD*	S	08/08/07	9:30						X									
TA-Richland	DBSA-3-Q-40	F8A140146-020	F8A140146	S	08/08/07	9:30						X									
TA-Richland	DBSA-3-Q-40	F8B090163-009	F8B090163	S	08/08/07	9:30						X									
TA-Irvine	DBSA-3-Q-40	IQH1005-04	IQH1005	S	08/08/07	9:30														X	
TA-St. Louis	DBSA-3-Q-5	F7H090308-001	DB081007*	S	08/08/07	7:50								X		X					
TA-St. Louis	DBSA-3-Q-50	F7H090308-007	DB081007*	S	08/08/07	9:45	X	X								X					
TA-Richland	DBSA-3-Q-50	F7H090316-005	DB0810RD*	S	08/08/07	9:45						X									
TA-Richland	DBSA-3-Q-50	F8A140148-001	F8A140148	S	08/08/07	9:45						X									
TA-Richland	DBSA-3-Q-50	F8B090163-010	F8B090163	S	08/08/07	9:45						X									
TA-Irvine	DBSA-3-Q-50	IQH1005-05	IQH1005	S	08/08/07	9:45														X	
TA-St. Louis	DBSA-3-Q-60	F7H090308-008	DB081007*	S	08/08/07	10:00	X	X								X					
TA-Richland	DBSA-3-Q-60	F7H090316-006	DB0810RD*	S	08/08/07	10:00						X									
TA-Richland	DBSA-3-Q-60	F8A140148-002	F8A140148	S	08/08/07	10:00						X									
TA-Richland	DBSA-3-Q-60	F8B090163-011	F8B090163	S	08/08/07	10:00						X									
TA-Irvine	DBSA-3-Q-60	IQH1005-06	IQH1005	S	08/08/07	10:00														X	
TA-St. Louis	DBSA-3-Q-70	F7H090308-009	DB081007*	S	08/08/07	10:20	X	X								X					
TA-Richland	DBSA-3-Q-70	F7H090316-007	DB0810RD*	S	08/08/07	10:20						X									
TA-Richland	DBSA-3-Q-70	F8A140148-003	F8A140148	S	08/08/07	10:20						X									
TA-Irvine	DBSA-3-Q-70	IQH1005-07	IQH1005	S	08/08/07	10:20														X	
TA-St. Louis	DBSA-3-Q-80	F7H090308-010	DB081007*	S	08/08/07	10:40	X	X								X					
TA-Richland	DBSA-3-Q-80	F7H090316-008	DB0810RD*	S	08/08/07	10:40						X									
TA-Richland	DBSA-3-Q-80	F8A140148-004	F8A140148	S	08/08/07	10:40						X									
TA-Irvine	DBSA-3-Q-80	IQH1005-08	IQH1005	S	08/08/07	10:40														X	
TA-St. Louis	DBSA-4-Q-10	F7J230236-003	DB102307*	S	10/19/07	16:10								X	X	X					
TA-St. Louis	DBSA-4-Q-20	F7J230236-004	DB102307*	S	10/19/07	16:30	X	X								X					

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CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-4-Q-20	F7J230250-001	DB1023RD*	S	10/19/07	16:30						X									
TA-Richland	DBSA-4-Q-20	F8A150224-018	F8A150224	S	10/19/07	16:30						X									
TA-Richland	DBSA-4-Q-20	F8B090163-012	F8B090163	S	10/19/07	16:30						X									
TA-Irvine	DBSA-4-Q-20	IQJ2384-01	IQJ2384	S	10/19/07	16:30														X	
TA-St. Louis	DBSA-4-Q-20-FD	F7J230236-005	DB102307*	S	10/19/07	16:30	X	X								X					
TA-Richland	DBSA-4-Q-20-FD	F7J230250-002	DB1023RD*	S	10/19/07	16:30						X									
TA-Richland	DBSA-4-Q-20-FD	F8A150224-019	F8A150224	S	10/19/07	16:30						X									
TA-Richland	DBSA-4-Q-20-FD	F8B090163-013	F8B090163	S	10/19/07	16:30						X									
TA-Irvine	DBSA-4-Q-20-FD	IQJ2384-02	IQJ2384	S	10/19/07	16:30														X	
TA-St. Louis	DBSA-4-Q-30	F7J230236-006	DB102307*	S	10/19/07	16:45	X	X								X					
TA-Richland	DBSA-4-Q-30	F7J230250-003	DB1023RD*	S	10/19/07	16:45						X									
TA-Richland	DBSA-4-Q-30	F8A150224-020	F8A150224	S	10/19/07	16:45						X									
TA-Richland	DBSA-4-Q-30	F8B090163-014	F8B090163	S	10/19/07	16:45						X									
TA-Irvine	DBSA-4-Q-30	IQJ2384-03	IQJ2384	S	10/19/07	16:45														X	
TA-St. Louis	DBSA-4-Q-40	F7J230236-007	DB102307*	S	10/19/07	17:00	X	X								X					
TA-Richland	DBSA-4-Q-40	F7J230250-004	DB1023RD*	S	10/19/07	17:00						X									
TA-Richland	DBSA-4-Q-40	F8A150237-001	F8A150237	S	10/19/07	17:00						X									
TA-Richland	DBSA-4-Q-40	F8B090163-015	F8B090163	S	10/19/07	17:00						X									
TA-Irvine	DBSA-4-Q-40	IQJ2384-04	IQJ2384	S	10/19/07	17:00														X	
TA-St. Louis	DBSA-4-Q-5	F7J230236-002	DB102307*	S	10/19/07	16:05								X		X					
TA-St. Louis	DBSA-4-Q-50	F7J230236-008	DB102307*	S	10/19/07	17:30	X	X								X					
TA-Richland	DBSA-4-Q-50	F7J230250-005	DB1023RD*	S	10/19/07	17:30						X									
TA-Richland	DBSA-4-Q-50	F8A150237-002	F8A150237	S	10/19/07	17:30						X									
TA-Richland	DBSA-4-Q-50	F8B090163-016	F8B090163	S	10/19/07	17:30						X									
TA-Irvine	DBSA-4-Q-50	IQJ2384-05	IQJ2384	S	10/19/07	17:30														X	
TA-St. Louis	DBSA-4-Q-50-FD	F7J230236-009	DB102307*	S	10/19/07	17:30	X	X								X					
TA-Richland	DBSA-4-Q-50-FD	F7J230250-006	DB1023RD*	S	10/19/07	17:30						X									
TA-Richland	DBSA-4-Q-50-FD	F8A150237-003	F8A150237	S	10/19/07	17:30						X									
TA-Richland	DBSA-4-Q-50-FD	F8B090163-017	F8B090163	S	10/19/07	17:30						X									
TA-Irvine	DBSA-4-Q-50-FD	IQJ2384-06	IQJ2384	S	10/19/07	17:30														X	
TA-St. Louis	DBSA-8-Q-10	F7J190206-003	DB101907*	S	10/17/07	14:00								X	X	X					
TA-St. Louis	DBSA-8-Q-20	F7J190206-004	DB101907*	S	10/17/07	14:30	X	X								X					
TA-Richland	DBSA-8-Q-20	F7J190236-001	DB1019RD*	S	10/17/07	14:30						X									
TA-Richland	DBSA-8-Q-20	F8A150224-003	F8A150224	S	10/17/07	14:30						X									

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LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Richland	DBSA-8-Q-20	F8B090163-018	F8B090163	S	10/17/07	14:30						X									
TA-Irvine	DBSA-8-Q-20	IQJ2192-01	IQJ2192	S	10/17/07	14:30														X	
TA-St. Louis	DBSA-8-Q-20-FD	F7J190206-005	DB101907*	S	10/17/07	14:30	X	X								X					
TA-Richland	DBSA-8-Q-20-FD	F7J190236-002	DB1019RD*	S	10/17/07	14:30						X									
TA-Richland	DBSA-8-Q-20-FD	F8A150224-004	F8A150224	S	10/17/07	14:30						X									
TA-Richland	DBSA-8-Q-20-FD	F8B090163-019	F8B090163	S	10/17/07	14:30						X									
TA-Irvine	DBSA-8-Q-20-FD	IQJ2192-02	IQJ2192	S	10/17/07	14:30														X	
TA-St. Louis	DBSA-8-Q-30	F7J190206-006	DB101907*	S	10/17/07	14:50	X	X								X					
TA-Richland	DBSA-8-Q-30	F7J190236-003	DB1019RD*	S	10/17/07	14:50						X									
TA-Richland	DBSA-8-Q-30	F8A150224-005	F8A150224	S	10/17/07	14:50						X									
TA-Richland	DBSA-8-Q-30	F8B090163-020	F8B090163	S	10/17/07	14:50						X									
TA-Irvine	DBSA-8-Q-30	IQJ2192-03	IQJ2192	S	10/17/07	14:50														X	
TA-St. Louis	DBSA-8-Q-40	F7J190206-007	DB101907*	S	10/17/07	15:15	X	X								X					
TA-Richland	DBSA-8-Q-40	F7J190236-004	DB1019RD*	S	10/17/07	15:15						X									
TA-Richland	DBSA-8-Q-40	F8A150224-006	F8A150224	S	10/17/07	15:15						X									
TA-Richland	DBSA-8-Q-40	F8B0910165-001	F8B090165	S	10/17/07	15:15						X									
TA-Irvine	DBSA-8-Q-40	IQJ2192-04	IQJ2192	S	10/17/07	15:15														X	
TA-St. Louis	DBSA-8-Q-5	F7J190206-002	DB101907*	S	10/17/07	13:50								X		X					
TA-St. Louis	DBSA-8-Q-50	F7J190206-008	DB101907*	S	10/17/07	15:40	X	X								X					
TA-Richland	DBSA-8-Q-50	F7J190236-005	DB1019RD*	S	10/17/07	15:40						X									
TA-Richland	DBSA-8-Q-50	F8A150224-007	F8A150224	S	10/17/07	15:40						X									
TA-Richland	DBSA-8-Q-50	F8B0910165-002	F8B090165	S	10/17/07	15:40						X									
TA-Irvine	DBSA-8-Q-50	IQJ2192-05	IQJ2192	S	10/17/07	15:40														X	
TA-St. Louis	DBSA-8-Q-50-FD	F7J190206-009	DB101907*	S	10/17/07	15:40	X	X								X					
TA-Richland	DBSA-8-Q-50-FD	F7J190236-006	DB1019RD*	S	10/17/07	15:40						X									
TA-Richland	DBSA-8-Q-50-FD	F8A150224-008	F8A150224	S	10/17/07	15:40						X									
TA-Richland	DBSA-8-Q-50-FD	F8B0910165-003	F8B090165	S	10/17/07	15:40						X									
TA-Irvine	DBSA-8-Q-50-FD	IQJ2192-06	IQJ2192	S	10/17/07	15:40														X	
TA-St. Louis	DBSA-9-Q-10	F7J170181-004	DB101707*	S	10/15/07	8:00								X		X					
TA-Irvine	DBSA-9-Q-160	IQJ1813-18	IQJ1813	S	10/15/07	7:50														X	
TA-St. Louis	DBSA-9-Q-20	F7J170181-005	DB101707*	S	10/15/07	8:30	X	X								X					
TA-Richland	DBSA-9-Q-20	F7J170219-002	DB1017RD*	S	10/15/07	8:30						X									
TA-Richland	DBSA-9-Q-20	F8A150214-010	F8A150214	S	10/15/07	8:30						X									
TA-Richland	DBSA-9-Q-20	F8B0910165-004	F8B090165	S	10/15/07	8:30						X									

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-Irvine	DBSA-9-Q-20	IQJ1813-01	IQJ1813	S	10/15/07	8:30														X	
TA-St. Louis	DBSA-9-Q-20-FD	F7J170181-006	DB101707*	S	10/15/07	8:30	X	X								X					
TA-Richland	DBSA-9-Q-20-FD	F7J170219-003	DB1017RD*	S	10/15/07	8:30						X									
TA-Richland	DBSA-9-Q-20-FD	F8A150214-011	F8A150214	S	10/15/07	8:30						X									
TA-Richland	DBSA-9-Q-20-FD	F8B0910165-005	F8B090165	S	10/15/07	8:30						X									
TA-Irvine	DBSA-9-Q-20-FD	IQJ1813-02	IQJ1813	S	10/15/07	8:30														X	
TA-St. Louis	DBSA-9-Q-30	F7J170181-007	DB101707*	S	10/15/07	9:15	X	X								X					
TA-Richland	DBSA-9-Q-30	F7J170219-004	DB1017RD*	S	10/15/07	9:15						X									
TA-Richland	DBSA-9-Q-30	F8A150214-012	F8A150214	S	10/15/07	9:15						X									
TA-Richland	DBSA-9-Q-30	F8B0910165-006	F8B090165	S	10/15/07	9:15						X									
TA-Irvine	DBSA-9-Q-30	IQJ1813-03	IQJ1813	S	10/15/07	9:15														X	
TA-St. Louis	DBSA-9-Q-40	F7J170181-008	DB101707*	S	10/15/07	9:35	X	X								X					
TA-Richland	DBSA-9-Q-40	F7J170219-005	DB1017RD*	S	10/15/07	9:35						X									
TA-Richland	DBSA-9-Q-40	F8A150214-013	F8A150214	S	10/15/07	9:35						X									
TA-Richland	DBSA-9-Q-40	F8B0910165-007	F8B090165	S	10/15/07	9:35						X									
TA-Irvine	DBSA-9-Q-40	IQJ1813-04	IQJ1813	S	10/15/07	9:35														X	
TA-St. Louis	DBSA-9-Q-5	F7J170181-003	DB101707*	S	10/15/07	7:55								X		X					
TA-St. Louis	DBSA-9-Q-50	F7J170181-009	DB101707*	S	10/15/07	9:55	X	X								X					
TA-Richland	DBSA-9-Q-50	F7J170219-006	DB1017RD*	S	10/15/07	9:55						X									
TA-Richland	DBSA-9-Q-50	F8A150214-014	F8A150214	S	10/15/07	9:55						X									
TA-Richland	DBSA-9-Q-50	F8B0910165-008	F8B090165	S	10/15/07	9:55						X									
TA-Irvine	DBSA-9-Q-50	IQJ1813-05	IQJ1813	S	10/15/07	9:55														X	
TA-St. Louis	DBSA-9-Q-50-FD	F7J170181-010	DB101707*	S	10/15/07	9:55	X	X								X					
TA-Richland	DBSA-9-Q-50-FD	F7J170219-007	DB1017RD*	S	10/15/07	9:55						X									
TA-Richland	DBSA-9-Q-50-FD	F8A150214-015	F8A150214	S	10/15/07	9:55						X									
TA-Richland	DBSA-9-Q-50-FD	F8B0910165-009	F8B090165	S	10/15/07	9:55						X									
TA-Irvine	DBSA-9-Q-50-FD	IQJ1813-06	IQJ1813	S	10/15/07	9:55														X	
TA-St. Louis	DBSA-9-T-160	F7J170181-022	DB101707*	S	10/16/07	7:50	X	X								X					
TA-Richland	DBSA-9-T-160	F7J170219-019	DB1017RD*	S	10/16/07	7:50						X									
TA-Richland	DBSA-9-T-160	F8A150214-016	F8A150214	S	10/16/07	7:50						X									
TA-Richland	DBSA-9-T-160	F8B090161-008	F8B090161	S	10/16/07	7:50						X									
TA-Irvine	RINSATE 3	IQH1543-01	IQH1543	WQ	08/15/07	14:00														X	
TA-Richland	RINSATE 3	F7H160221-001	DB08016RD*	WQ	08/15/07	14:00						X									
TA-St. Louis	RINSATE 3	F7H160211-001	DB081607*	WQ	08/15/07	14:00	X	X						X							

TABLE C-1
DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-St. Louis	RINSATE 3	F7I190183-010	DB092007*	WQ	09/18/07	12:10	X	X						X							
TA-Richland	RINSATE 3	F7I190249-008	DB0920RD*	WQ	09/18/07	12:10						X									
TA-Irvine	RINSATE 3	IQI1639-08	IQI1639	WQ	09/18/07	12:10														X	
TA-St. Louis	RINSATE 4	F7I240171-001	DB092207*	WQ	09/21/07	--	X	X						X							
TA-Richland	RINSATE 4	F7I240189-001	DB0922RD*	WQ	09/21/07	7:20						X									
TA-Irvine	RINSATE 4	IQI2028-01	IQI2028	WQ	09/21/07	7:20														X	
TA-St. Louis	RINSATE 5	F7I250260-016	DB092707*	WQ	09/24/07	9:00	X	X			X										
TA-Richland	RINSATE 5	F7I250279-008	DB0927RD*	WQ	09/24/07	9:00						X									
TA-Irvine	RINSATE 5	IQI2147-11	IQI2147	WQ	09/24/07	9:00														X	
TA-St. Louis	RINSATE 6	F7J100176-012	DB101007*	WQ	10/08/07	7:45	X	X													
TA-Richland	RINSATE 6	F7J100192-012	DB1010RD*	WQ	10/08/07	7:45						X									
TA-Irvine	RINSATE 6	IQJ1059-01	IQJ1059	WQ	10/09/07	7:45														X	
TA-St. Louis	RINSATE 7	F7J170181-001	DB101707*	WQ	10/16/07	10:30	X	X	X						X						
TA-Richland	RINSATE 7	F7J170219-001	DB1017RD*	WQ	10/16/07	10:30						X									
TA-St. Louis	RINSATE 8	F7J190206-015	DB101907*	WQ	10/18/07	5:00	X	X	X												
TA-Richland	RINSATE 8	F7J190236-012	DB1019RD*	WQ	10/18/07	5:00						X									
TA-St. Louis	RINSATE-1-8-6-07	F7H070367-006	DB080807*	WQ	08/06/07	12:00	X	X			X		X	X							
TA-Richland	RINSATE-1-8-6-07	F7H070375-003	DB0808RD*	WQ	08/06/07	12:00						X									
TA-Irvine	RINSATE-1-8-6-07	IQH1020-06	IQH1020	WQ	08/06/07	12:00													X		
TA-St. Louis	RINSATE-2-8-8-07	F7H090308-011	DB081007*	WQ	08/08/07	11:30	X	X			X			X							
TA-Richland	RINSATE-2-8-8-07	F7H090316-009	DB0810RD*	WQ	08/08/07	11:30						X									
TA-Irvine	RINSATE-7	IQJ1772-01	IQJ1772	W	10/16/07	10:30														X	
TA-Irvine	RINSATE-8	IQJ2098-01	IQJ2098	W	10/18/07	5:00														X	
TA-St. Louis	TRIP BLANK	F7H070367-013	DB080807*	WQ	08/06/07	--								X							
TA-St. Louis	TRIP BLANK	F7H080321-011	DB080807*	WQ	08/07/07	--								X							
TA-St. Louis	TRIP BLANK	F7H090308-012	DB081007*	WQ	08/08/07	--								X							
TA-St. Louis	TRIP BLANK	F7H150153-014	DB081607*	WQ	08/14/07	--								X							
TA-St. Louis	TRIP BLANK	F7H160211-002	DB081607*	WQ	08/15/07	--								X							
TA-St. Louis	TRIP BLANK	F7I190183-011	DB092007*	WQ	09/18/07	--								X							
TA-St. Louis	TRIP BLANK	F7I240171-006	DB092207*	WQ	09/20/07	--								X							
TA-St. Louis	TRIP BLANK	F7J040245-014	DB100507*	WQ	10/02/07	--								X							
TA-St. Louis	TRIP BLANK	F7J060109-006	DB100807*	WQ	10/04/07	17:55								X							
TA-St. Louis	TRIP BLANK	F7J170181-002	DB101707*	WQ	10/15/07	7:45								X							
TA-St. Louis	TRIP BLANK	F7J180242-001	DB101807*	WQ	10/16/07	13:00								X							

TABLE C-1
DETAILED SAMPLE ANALYSIS SUMMARY TABLE
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

LAB	Field Sample ID	Lab Sample ID	SDG	MATRIX	SAMPLE DATE	SAMPLE TIME	Cyanide	Sulfide	Dissolved Gases	OP Pesticides	OCPs	Radionuclides	SVOCs	VOCs	Physical Parameters	Percent Moisture	Organic Acids	Aldehydes	Dichlorobenzil	Hexavalent Chromium	Chlorite
TA-St. Louis	TRIP BLANK	F7J190206-001	DB101907*	WQ	10/17/07	13:30								X							
TA-St. Louis	TRIP BLANK	F7J200153-001	DB102007*	WQ	10/18/07	15:00								X							
TA-St. Louis	TRIP BLANK	F7J230236-001	DB102307*	WQ	10/19/07	15:55								X							
TA-Irvine	TRIP BLANK	IQI2030-02	IQI2030	WQ	09/21/07	--												X			
TA-St. Louis	TRIP BLANK 1	F7J040245-015	DB100507*	WQ	10/02/07	--								X							
TA-St. Louis	TRIP BLANK FOR DBSA-11	F7J090254-001	DB100907*	WQ	10/07/07	15:55								X							
TA-St. Louis	TRIP BLANK FOR DBSA-15 SOILS	F7J090244-001	DB100907*	WQ	10/06/07	10:00								X							
TA-St. Louis	TRIP BLANK FOR DBSA-17-GW	F7J090279-014	DB100807*	WQ	10/05/07	--								X							
TA-St. Louis	TRIP BLANK SOIL	F7J050251-013	DB100507*	WQ	10/03/07	13:50								X							
TA-St. Louis	TRIP BLANK SOIL	F7J110226-001	DB101107*	WQ	10/09/07	9:50								X							
TA-St. Louis	TRIP BLANK W/RINSATE	F7I200305-016	DB092007*	WQ	09/18/07	--				X	X			X							
TA-St. Louis	TRIP BLANK WATER	F7J050251-015	DB100507*	WQ	10/04/07	10:00								X							
TA-St. Louis	TRIP BLANK WITH DBSA-33-0	F7I200305-017	DB092007*	WQ	09/18/07	--								X							
TA-St. Louis	TRIP BLANK WITH DBSA-33-Q-90	F7I200305-018	DB092007*	WQ	09/18/07	--								X							

Notes:
*- TA-St. Louis references SDGs as "DB(date)RD" and "DB(date)"
NH3- Ammonia
TKN-Total Kjeldahl Nitrogen
SVOCs - Semivolatile Organic Compounds
TOC- Total Organic Carbon
OCPs- Organochlorine Pesticides
SVOCs - Semivolatile Organic Compounds
VOCs - Volatile Organic Compounds
S-Soil
WQ - Water quality
DUP- Duplicate
FD- Field duplicate

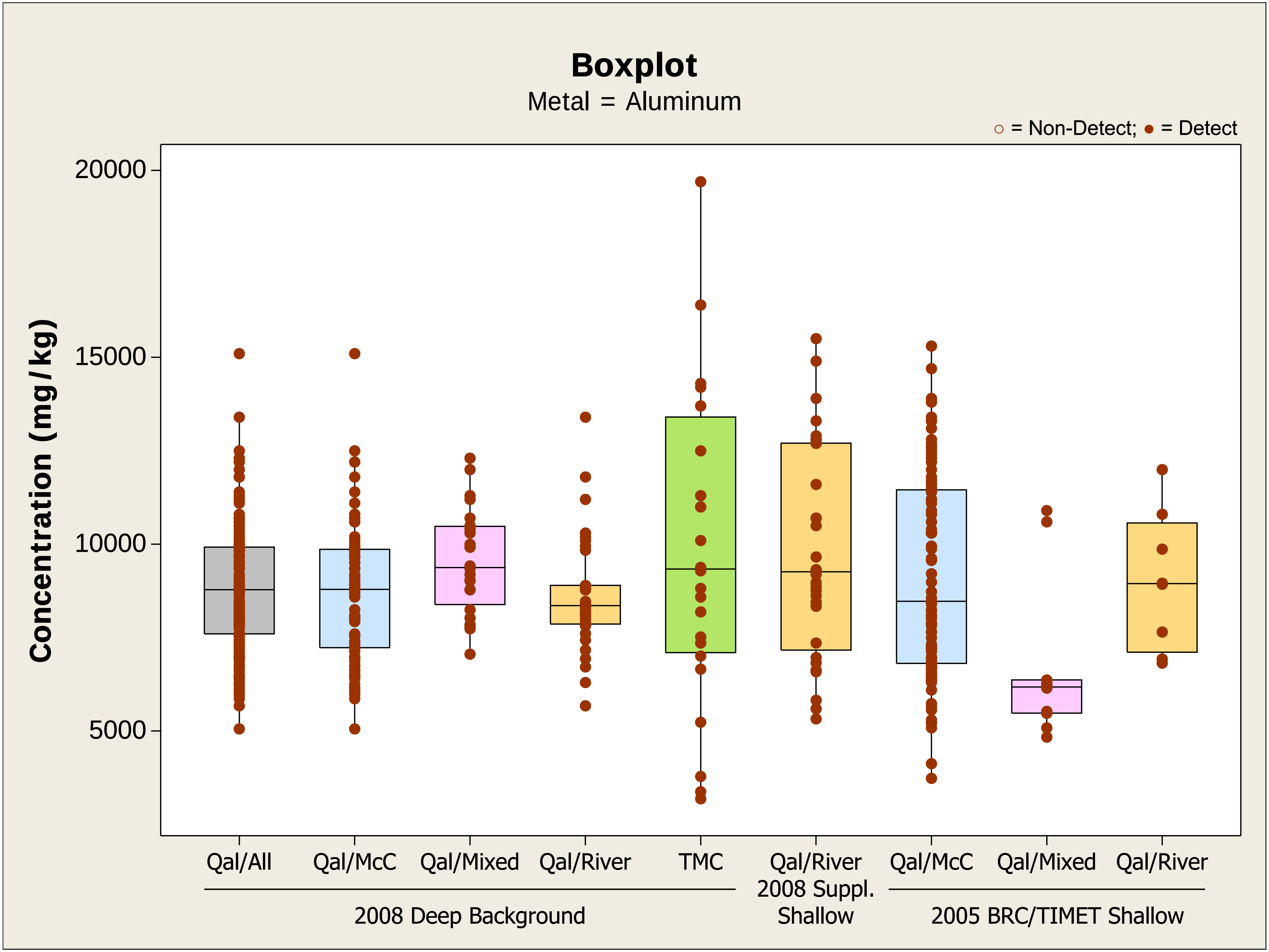
APPENDIX D

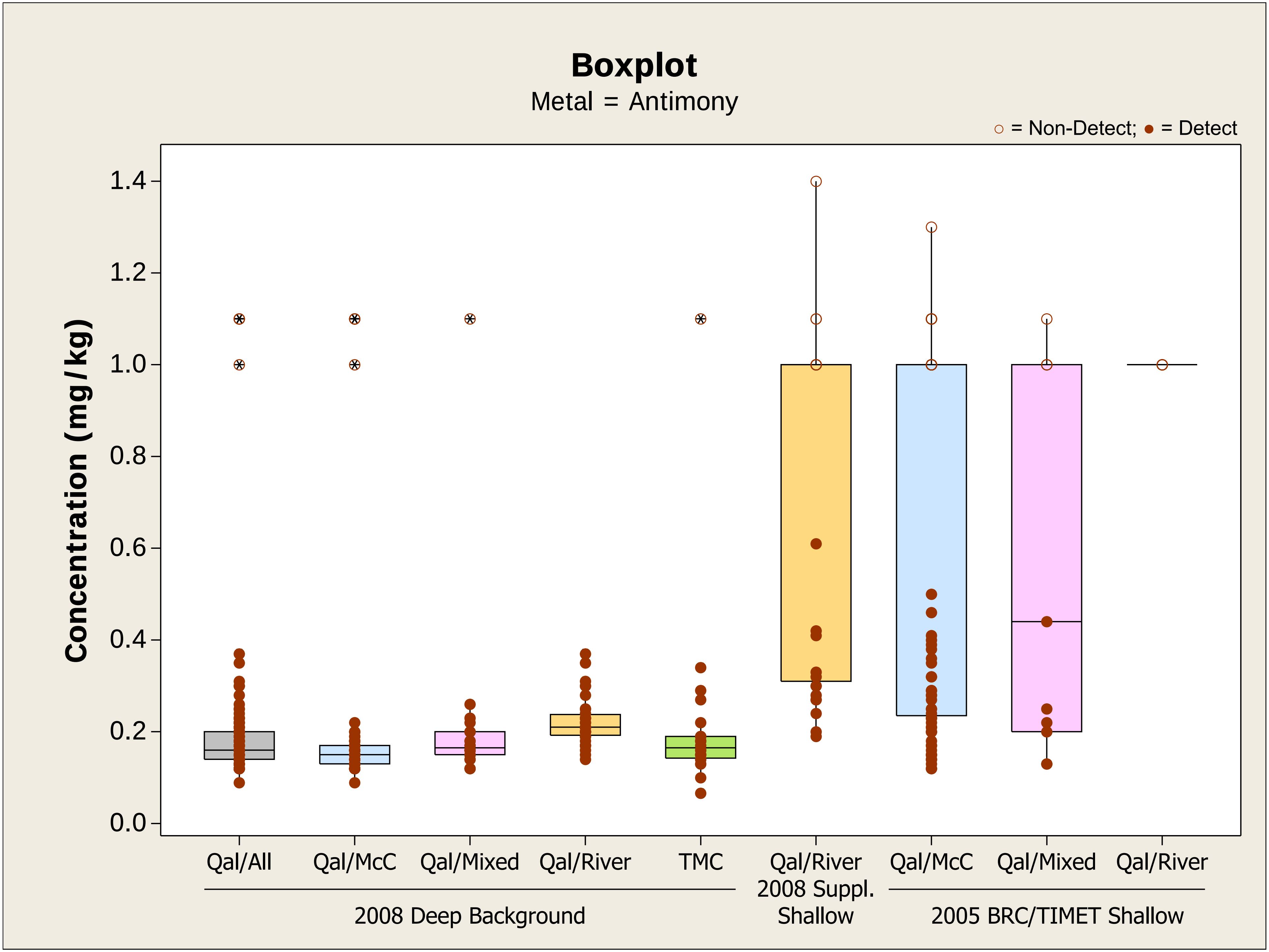
DATA USABILITY TABLES (ON CD)

APPENDIX E

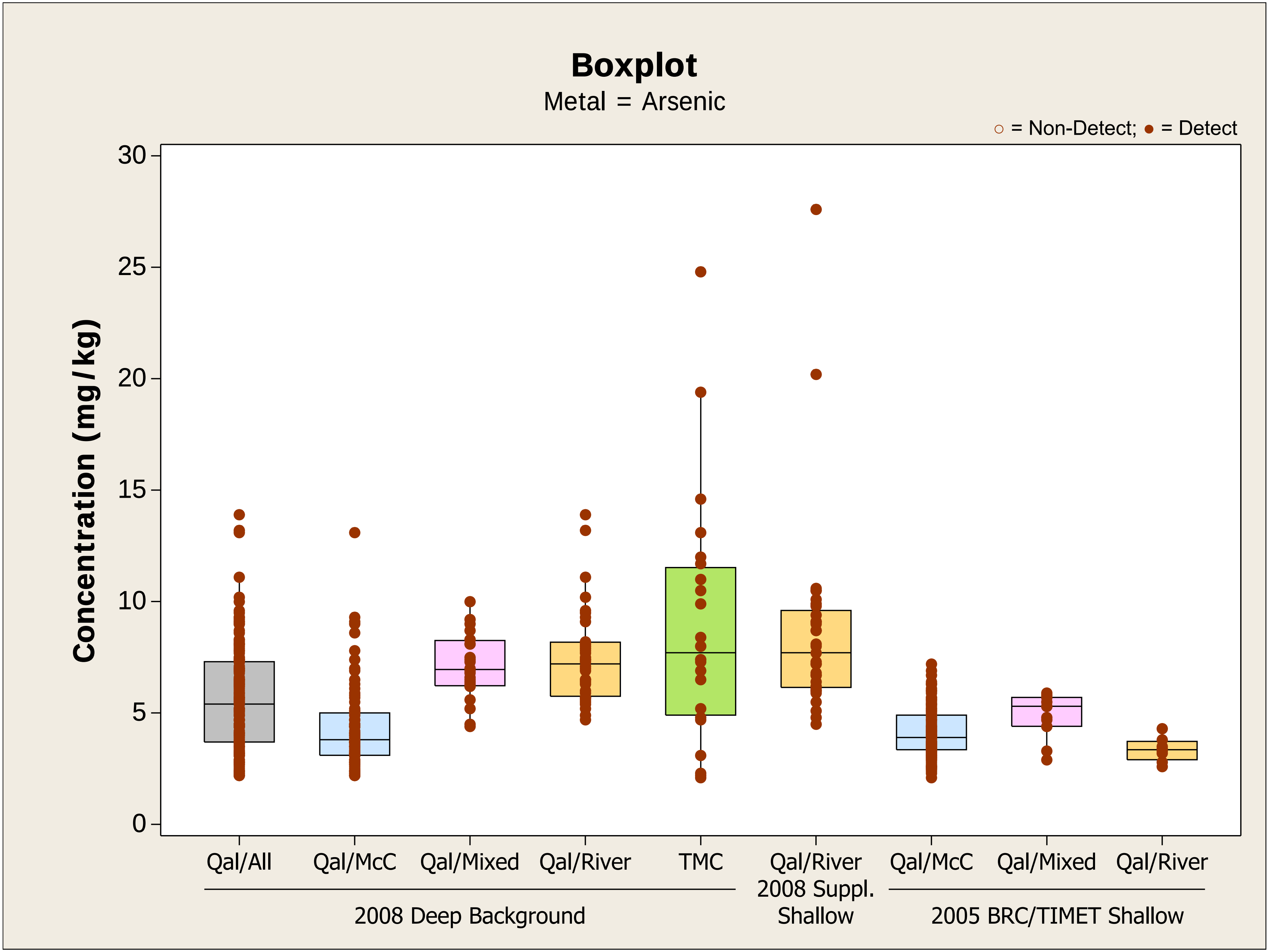
STATISTICAL PLOTS

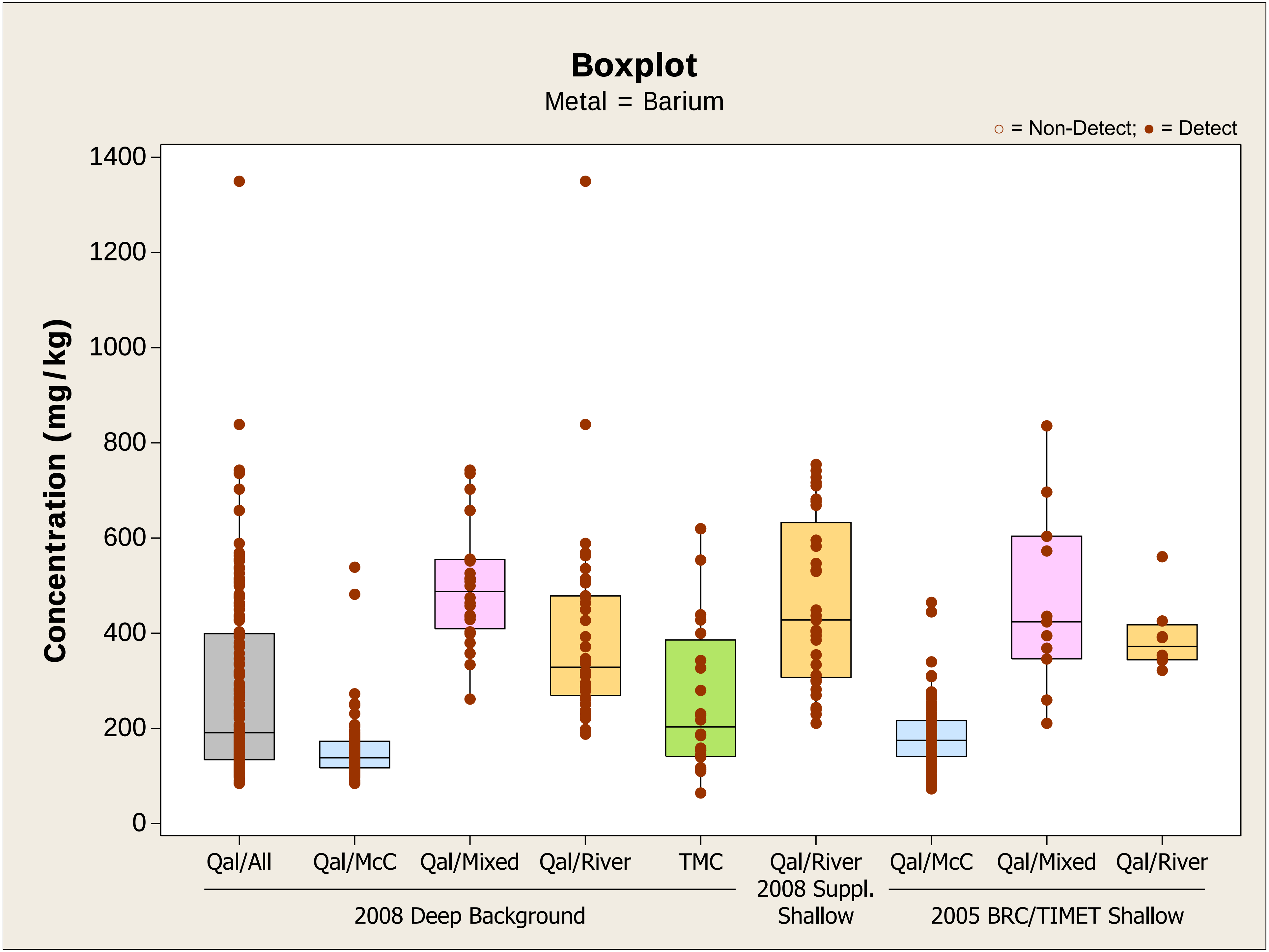
BOXPLOTS (ALL DATASETS)


Boxplot
Metal = Aluminum
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
20000
15000
10000
5000
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl.
Shallow
2005 BRC/TIMET Shallow

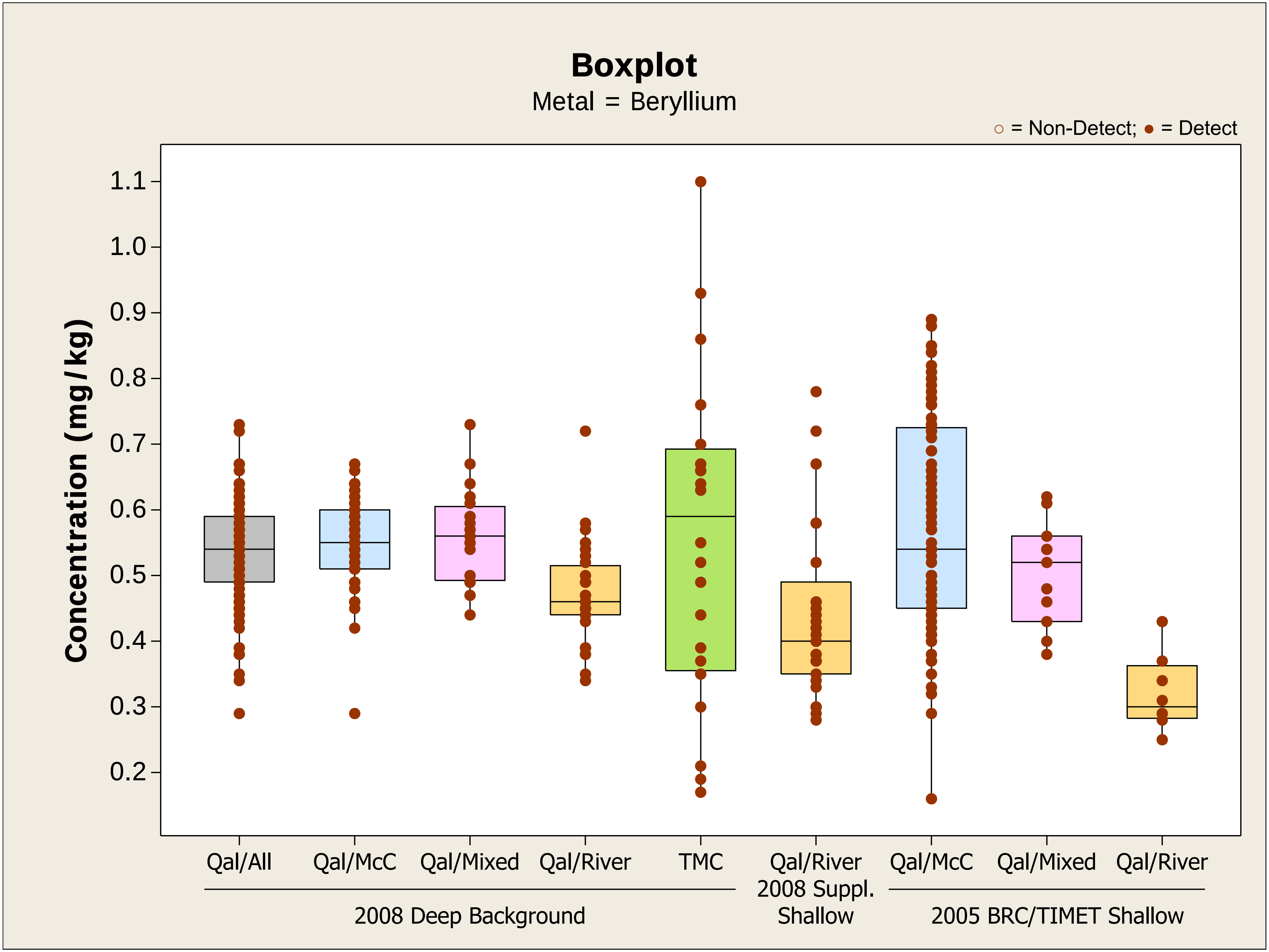


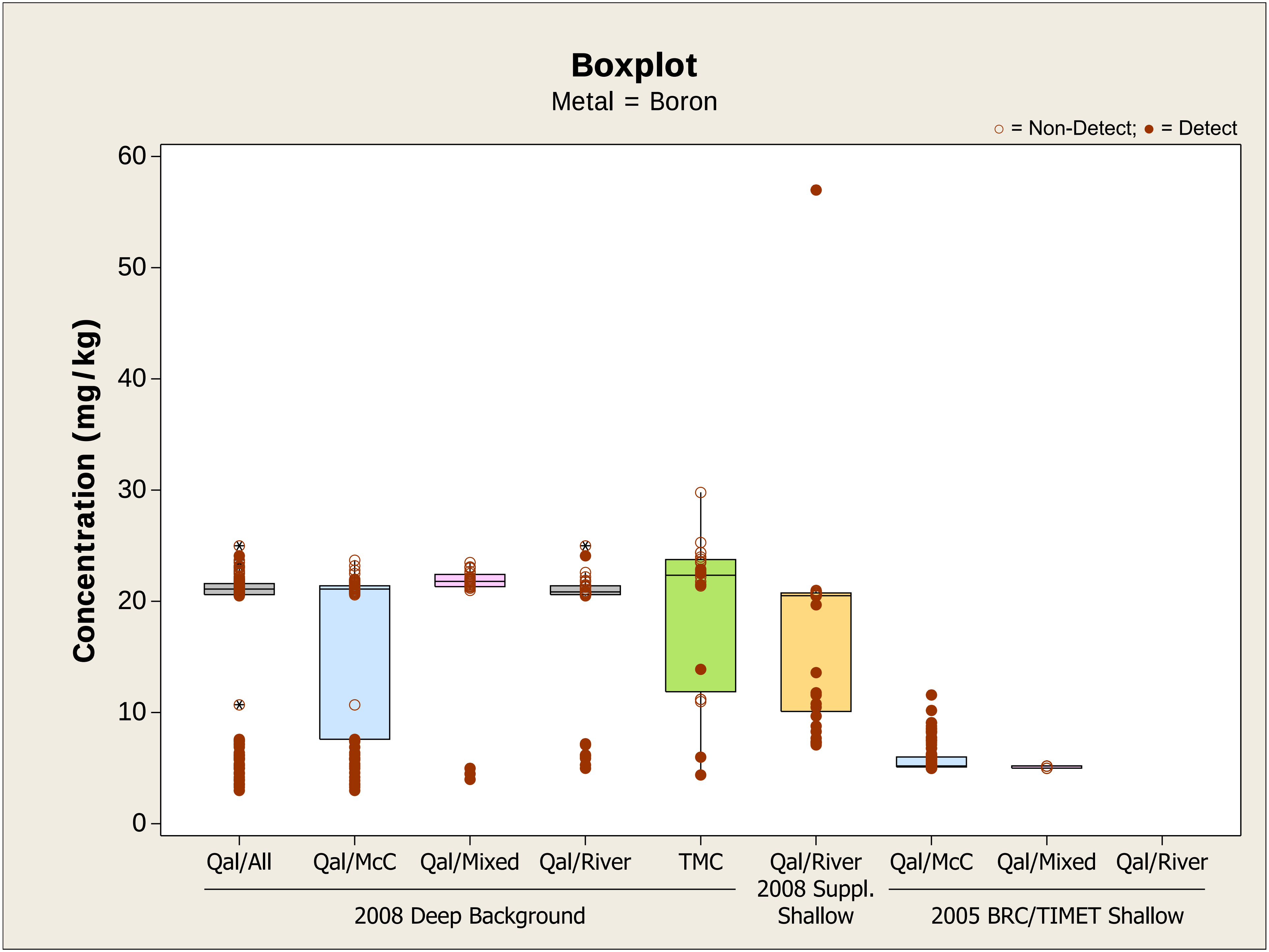
Boxplot
Metal = Antimony
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow


Boxplot
Metal = Arsenic
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
30
25
20
15
10
5
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

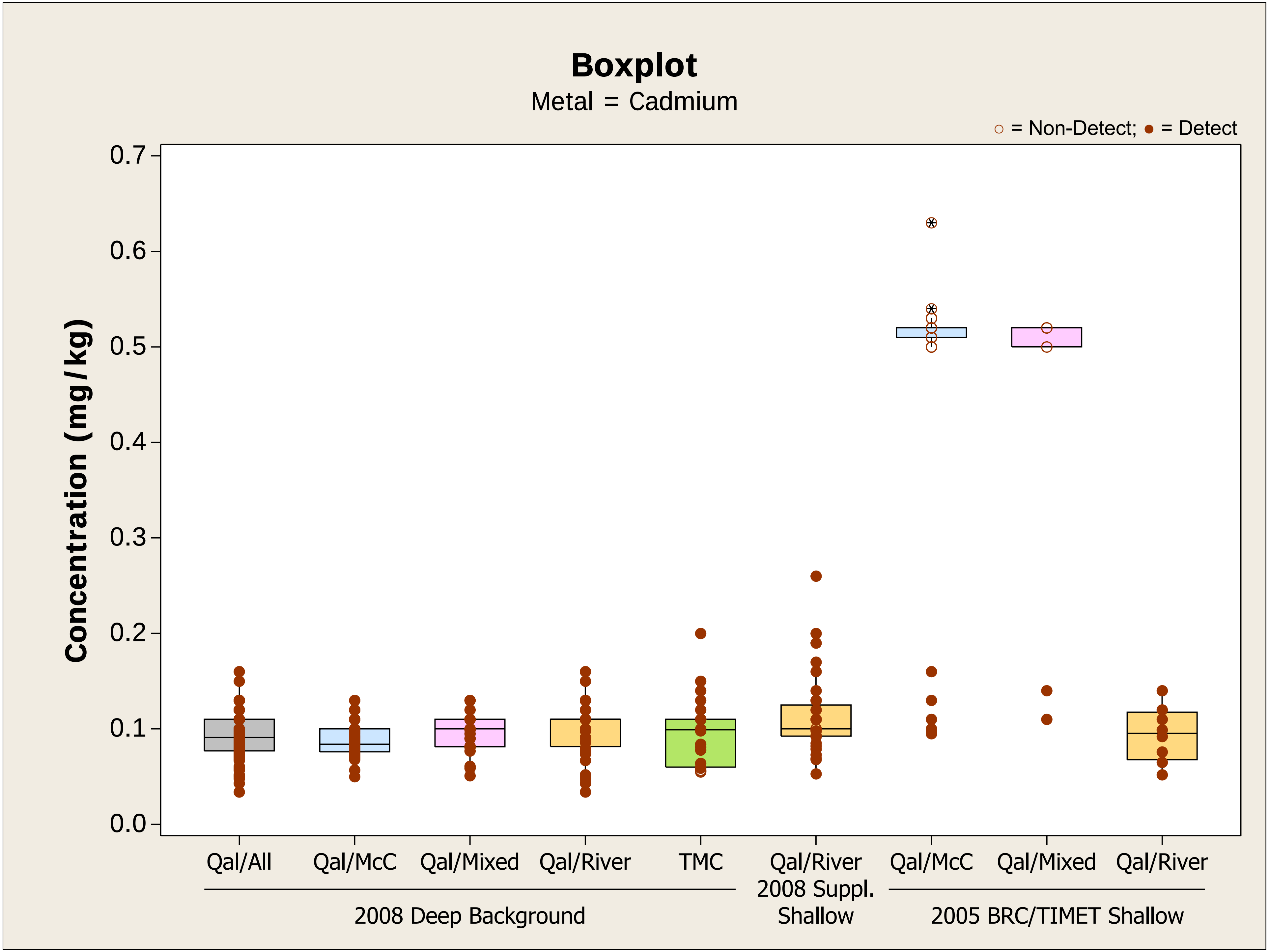


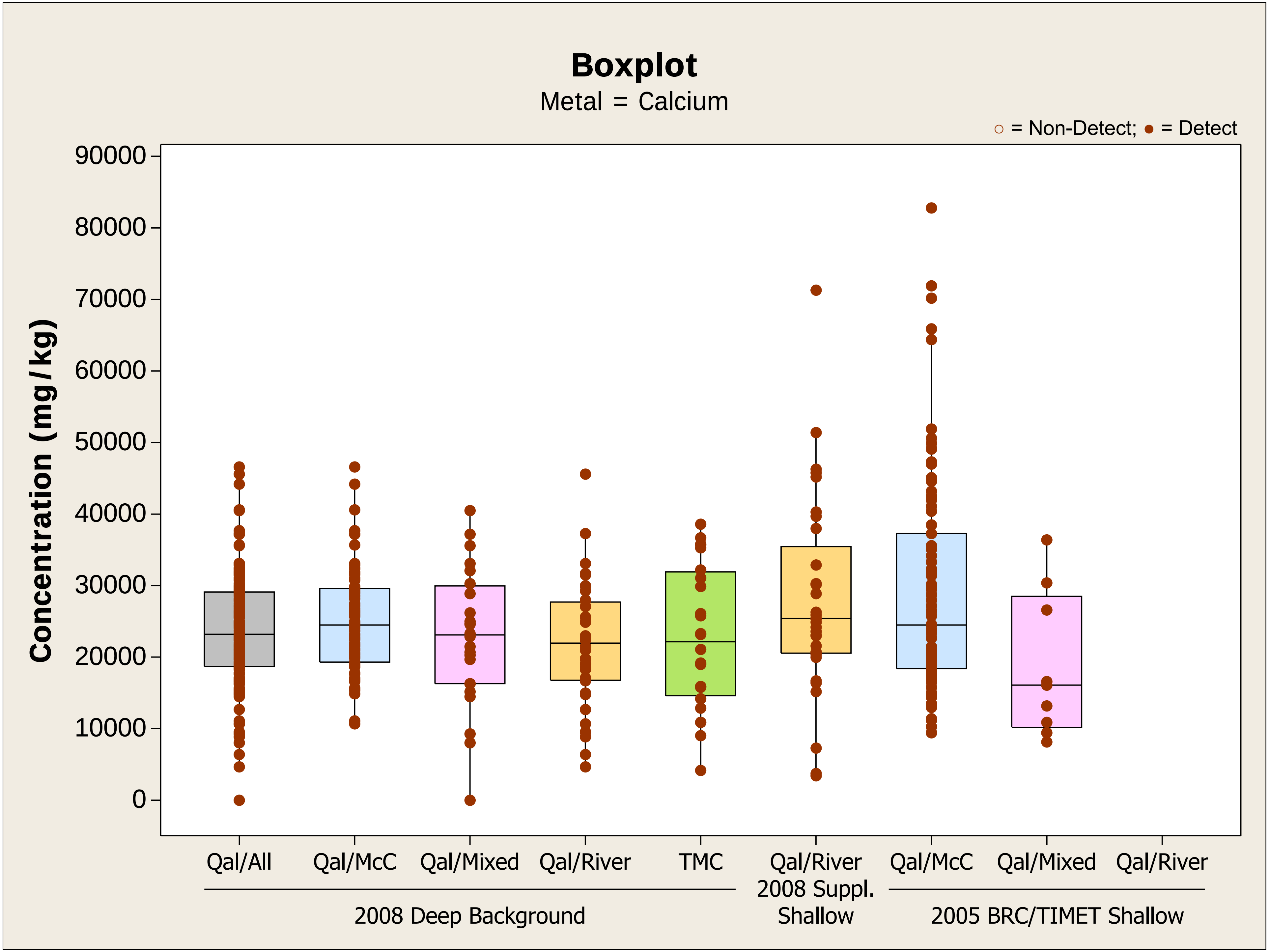
Boxplot
Metal = Barium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1400
1200
1000
800
600
400
200
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

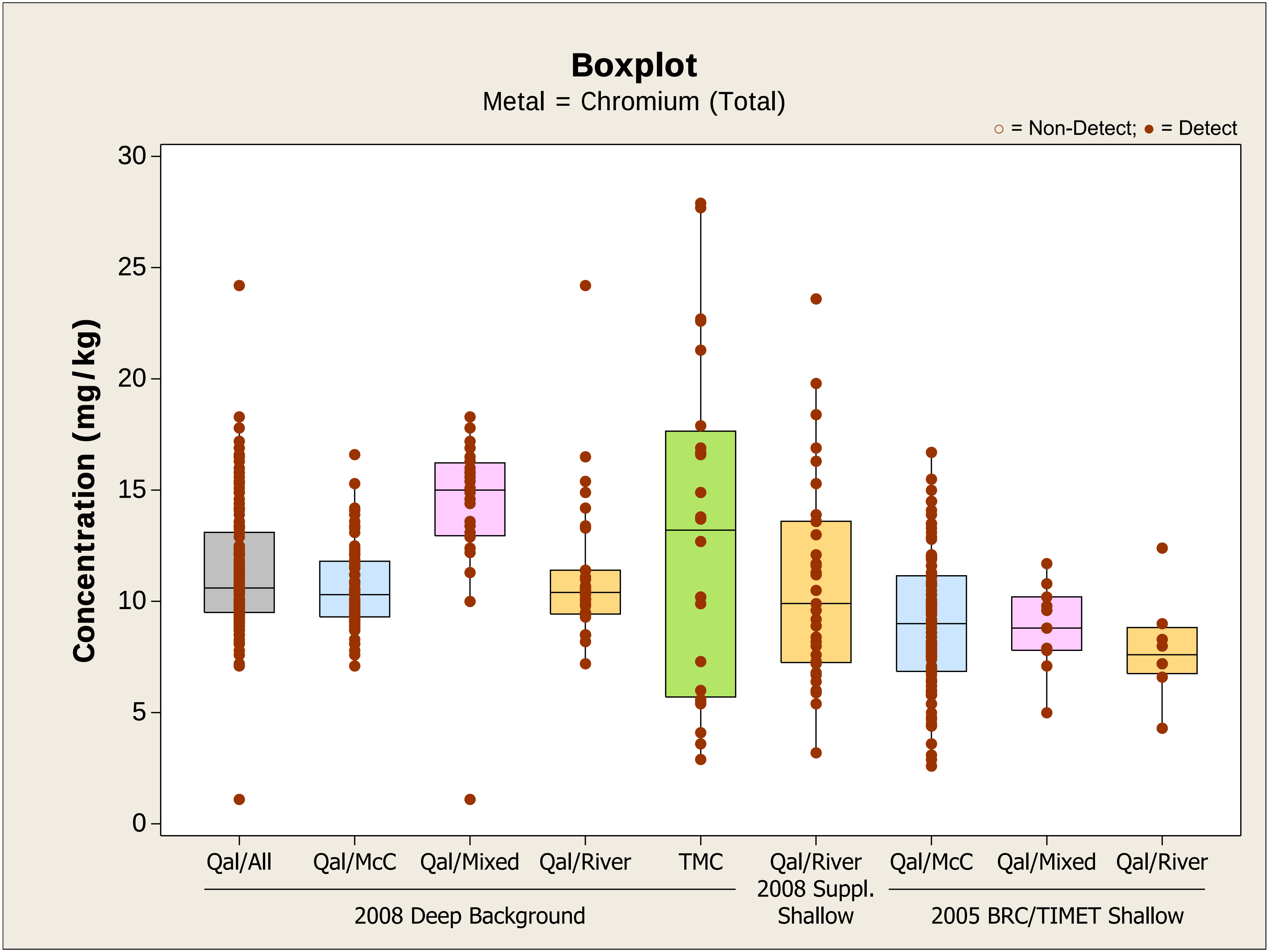

Boxplot
Metal = Beryllium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl.
Shallow
2005 BRC/TIMET Shallow

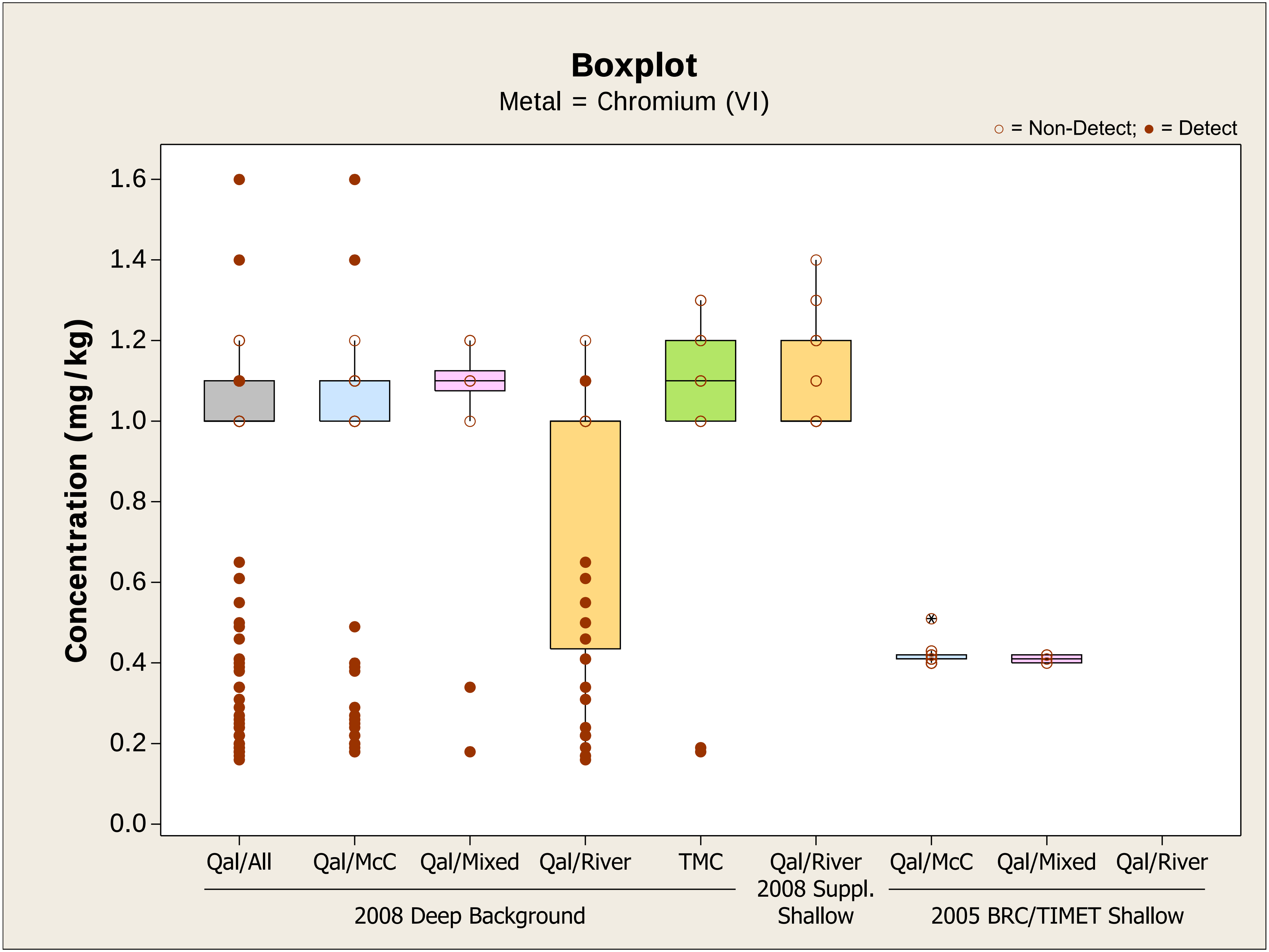


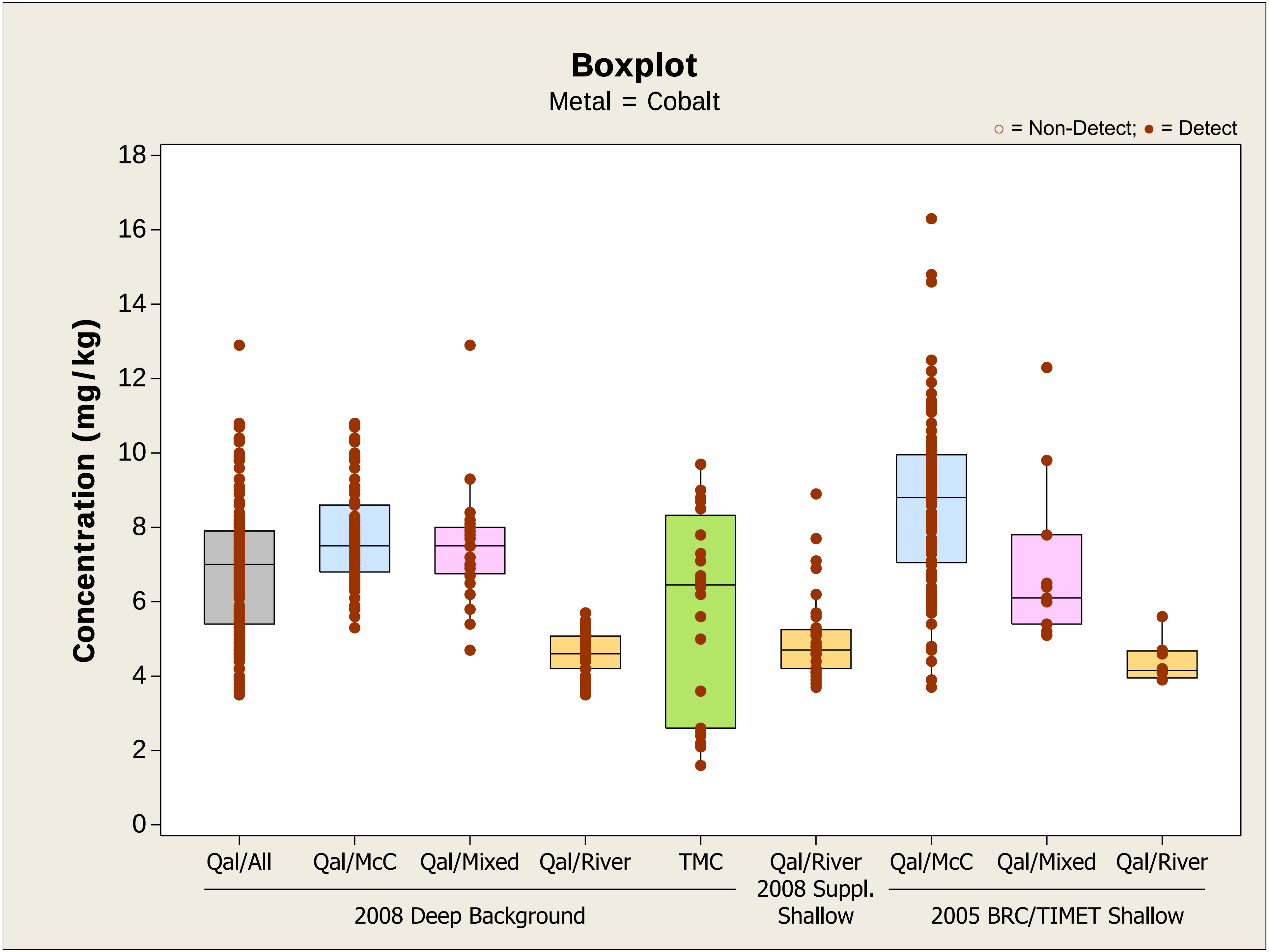
Boxplot
Metal = Boron
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
60
50
40
30
20
10
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl.
Shallow
2005 BRC/TIMET Shallow


Boxplot
Metal = Cadmium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

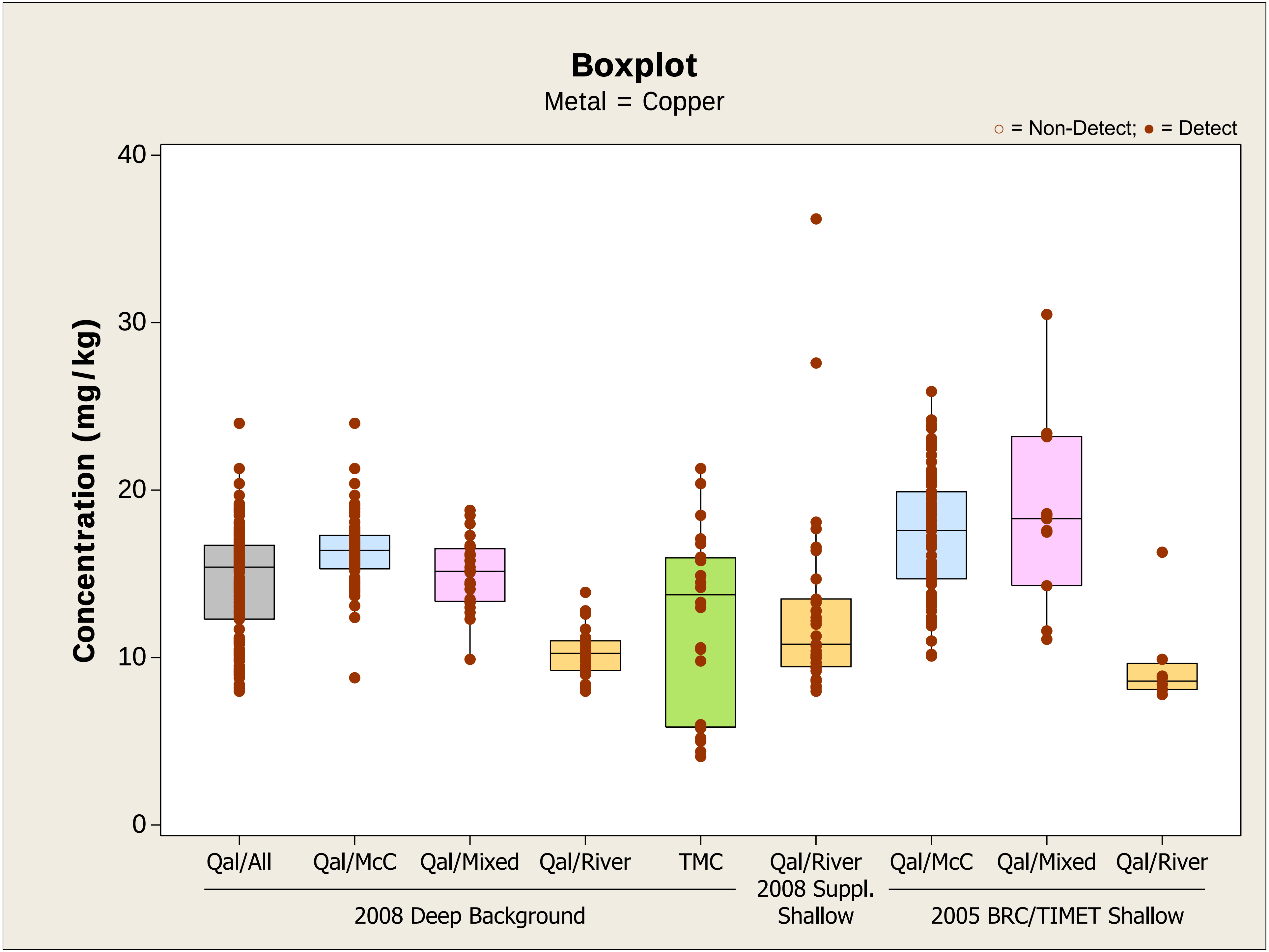

Boxplot
Metal = Calcium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow


Boxplot
Metal = Chromium (Total)
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0
5
10
15
20
25
30
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

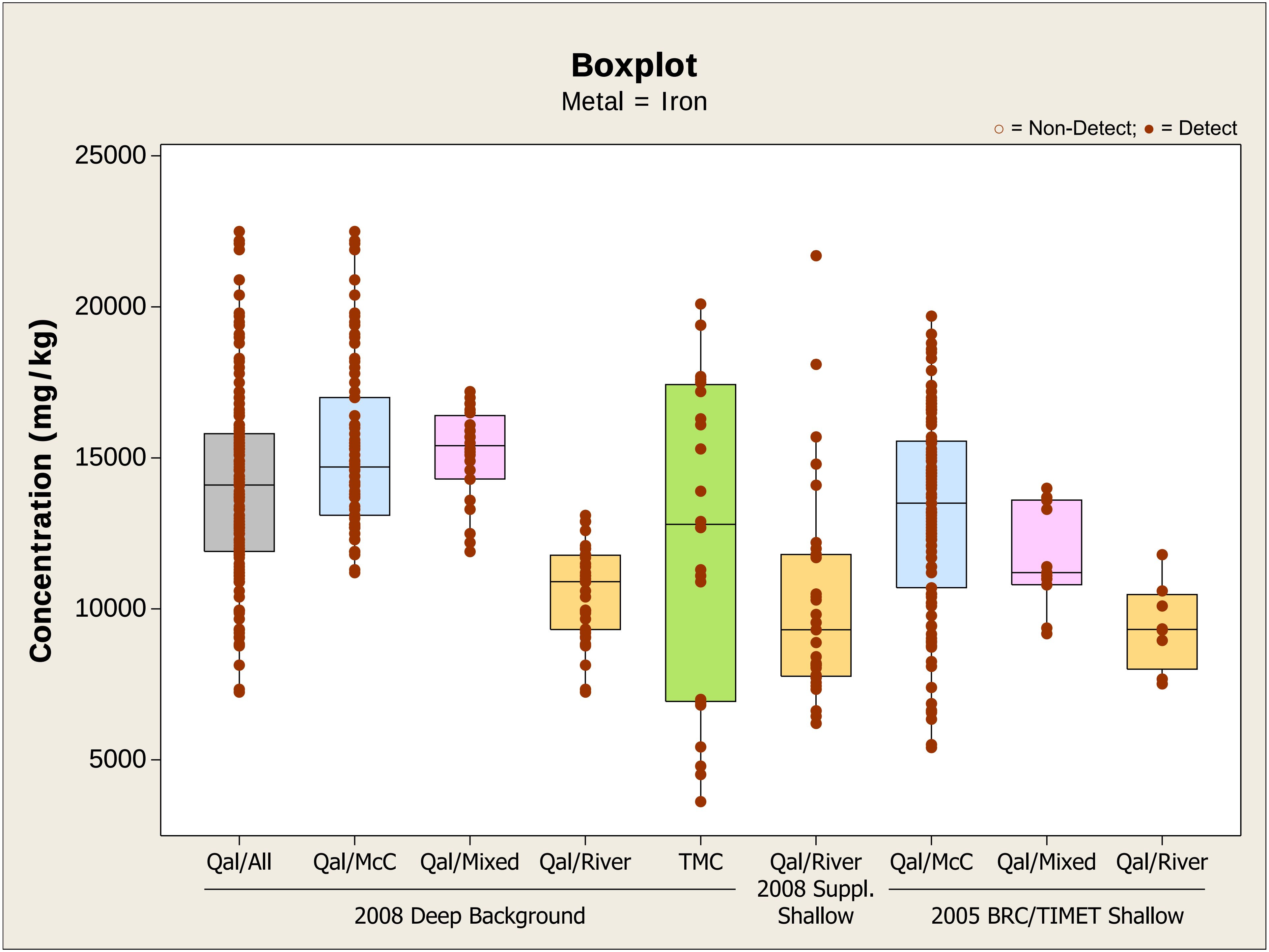

Boxplot
Metal = Chromium (VI)
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

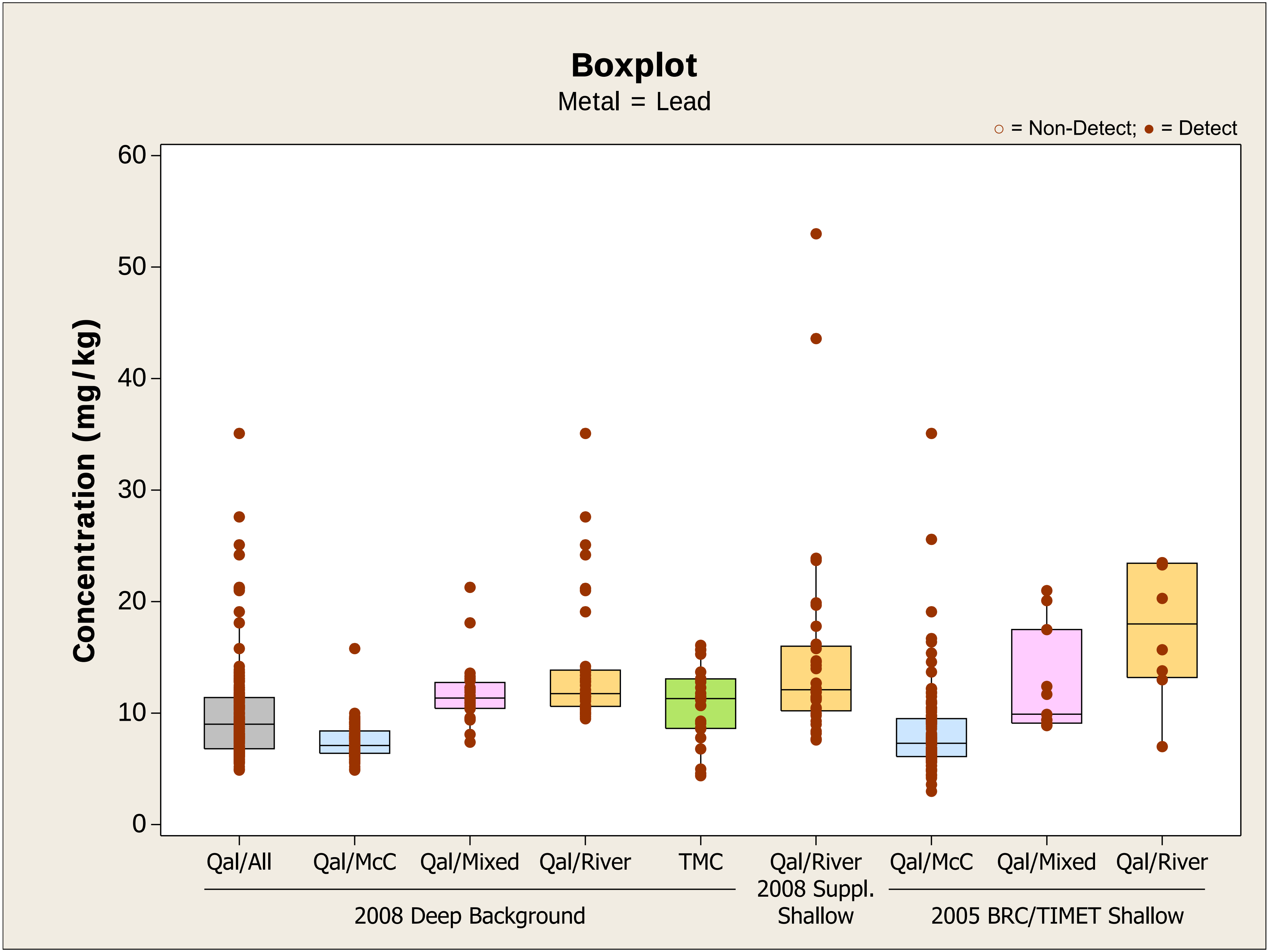


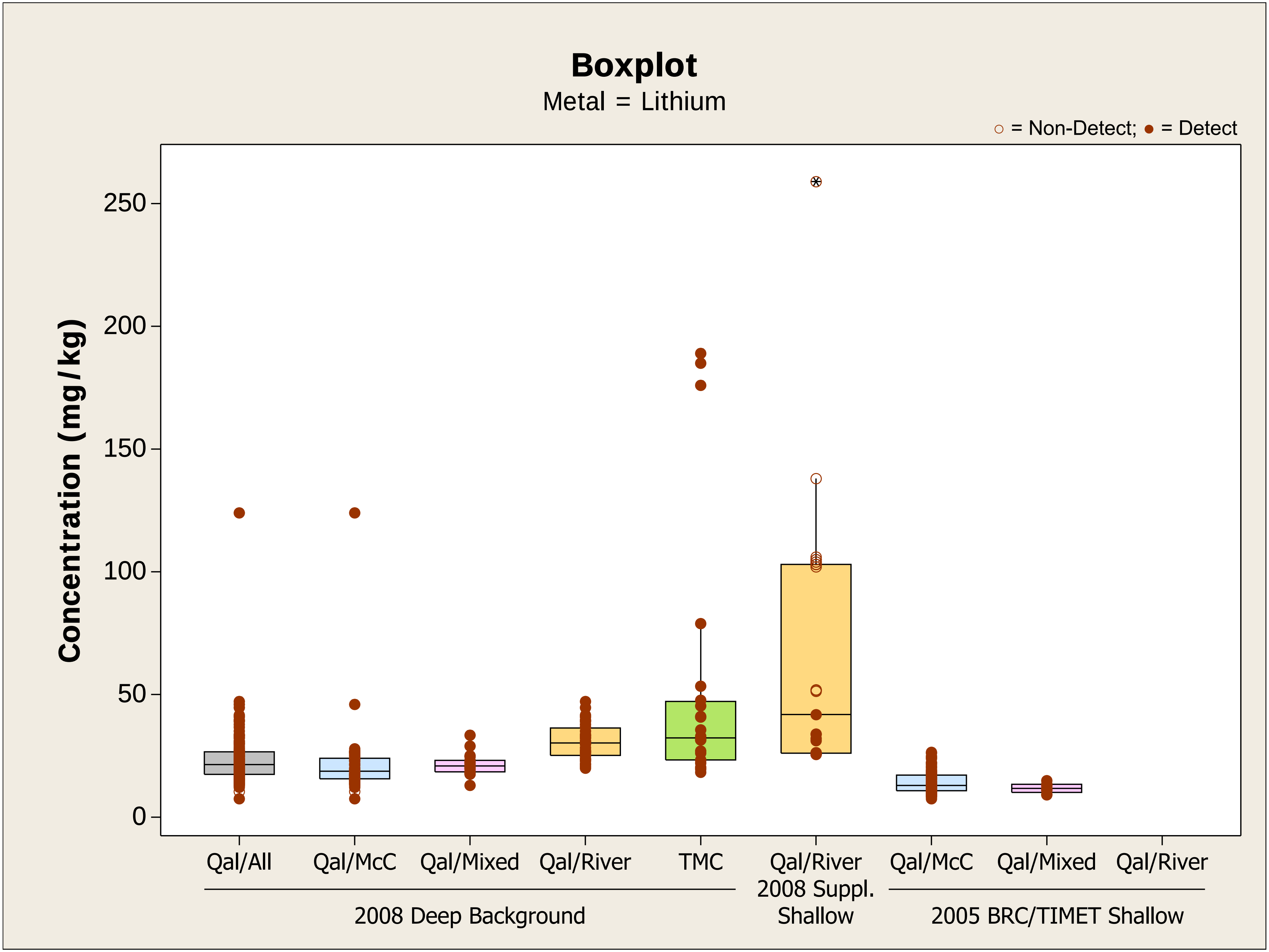
Boxplot
Metal = Cobalt
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0
2
4
6
8
10
12
14
16
18
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

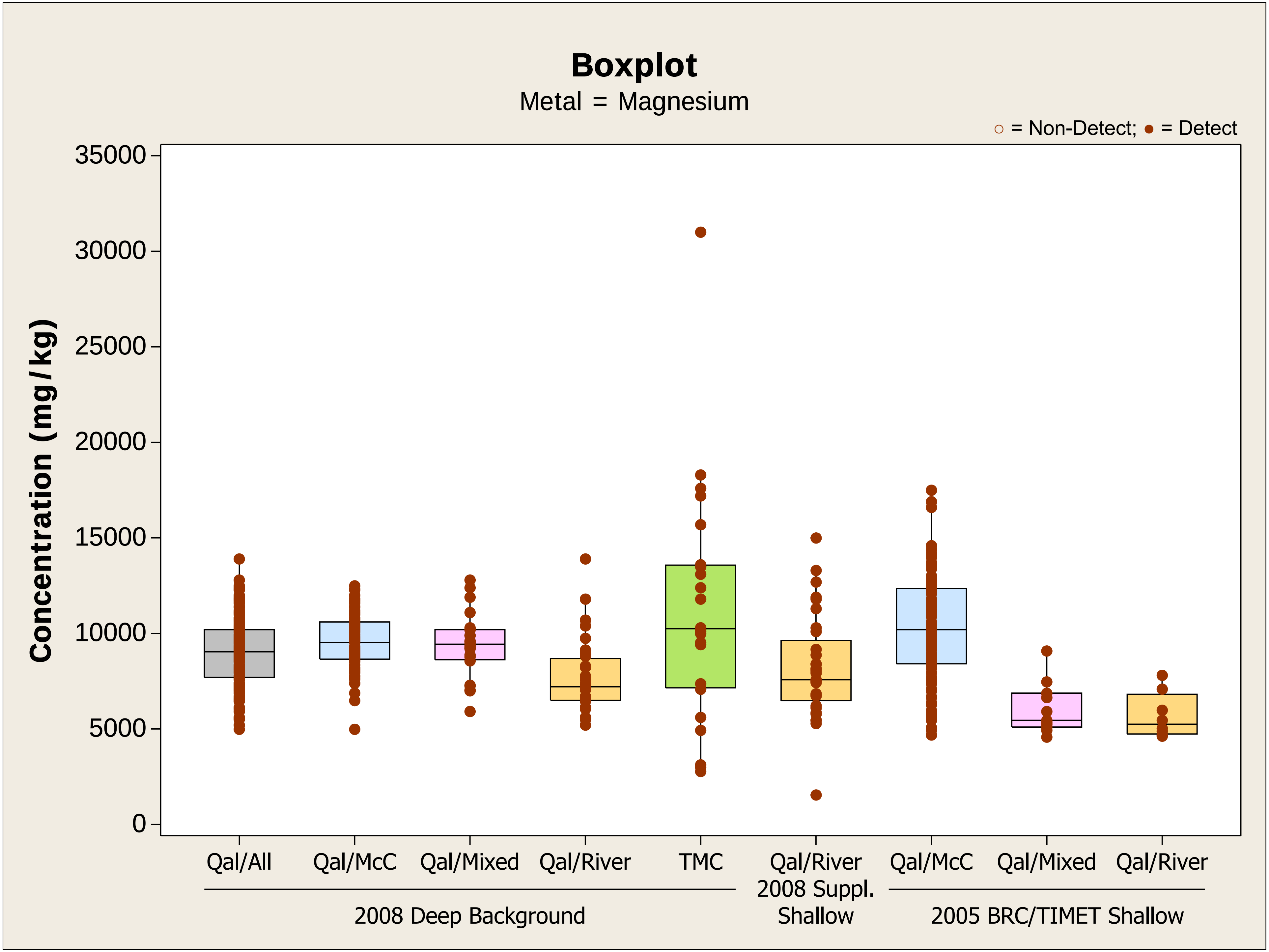


Boxplot
Metal = Copper
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
40
30
20
10
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl.
Shallow
2005 BRC/TIMET Shallow

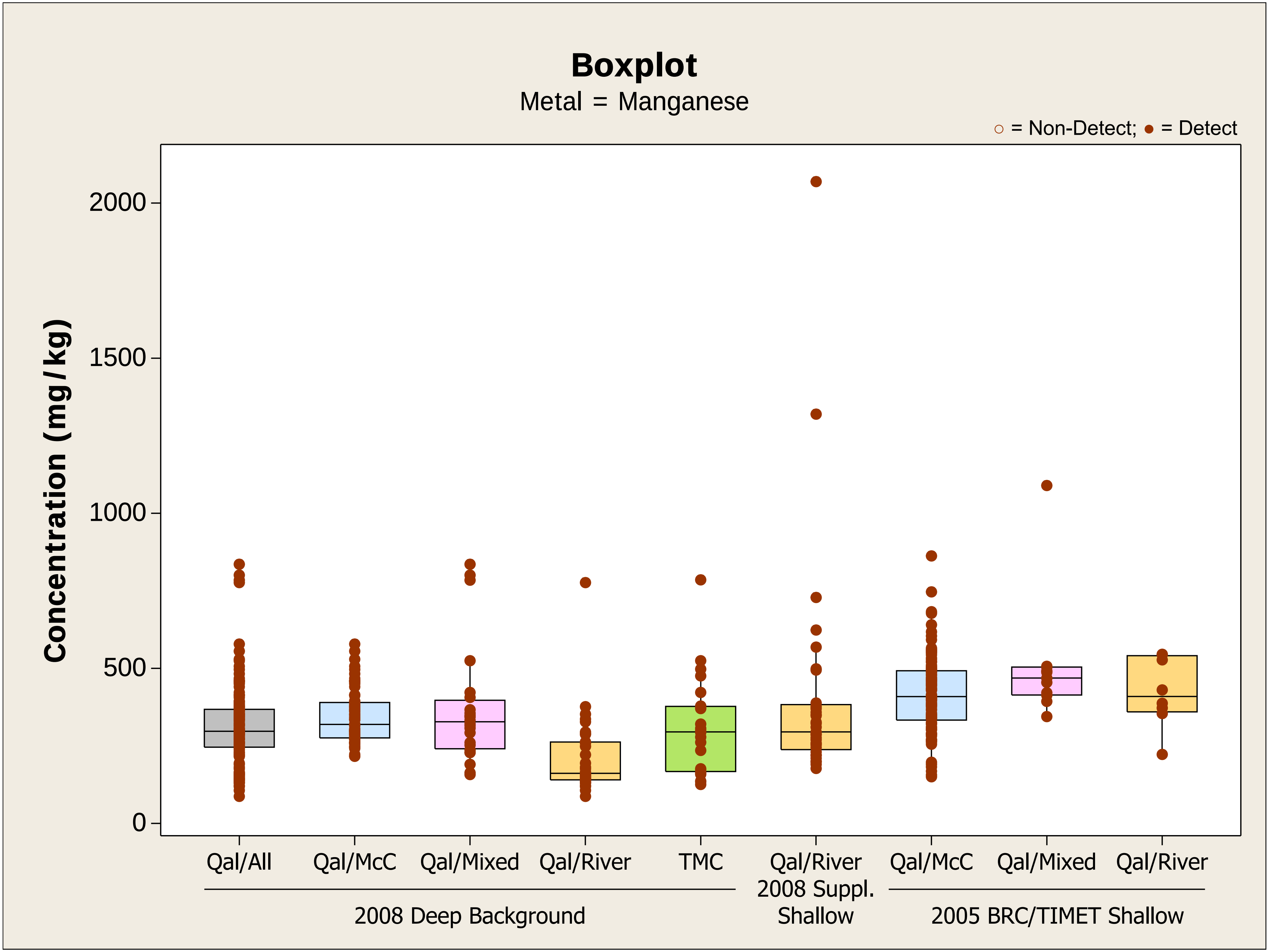

Boxplot
Metal = Iron
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
25000
20000
15000
10000
5000
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

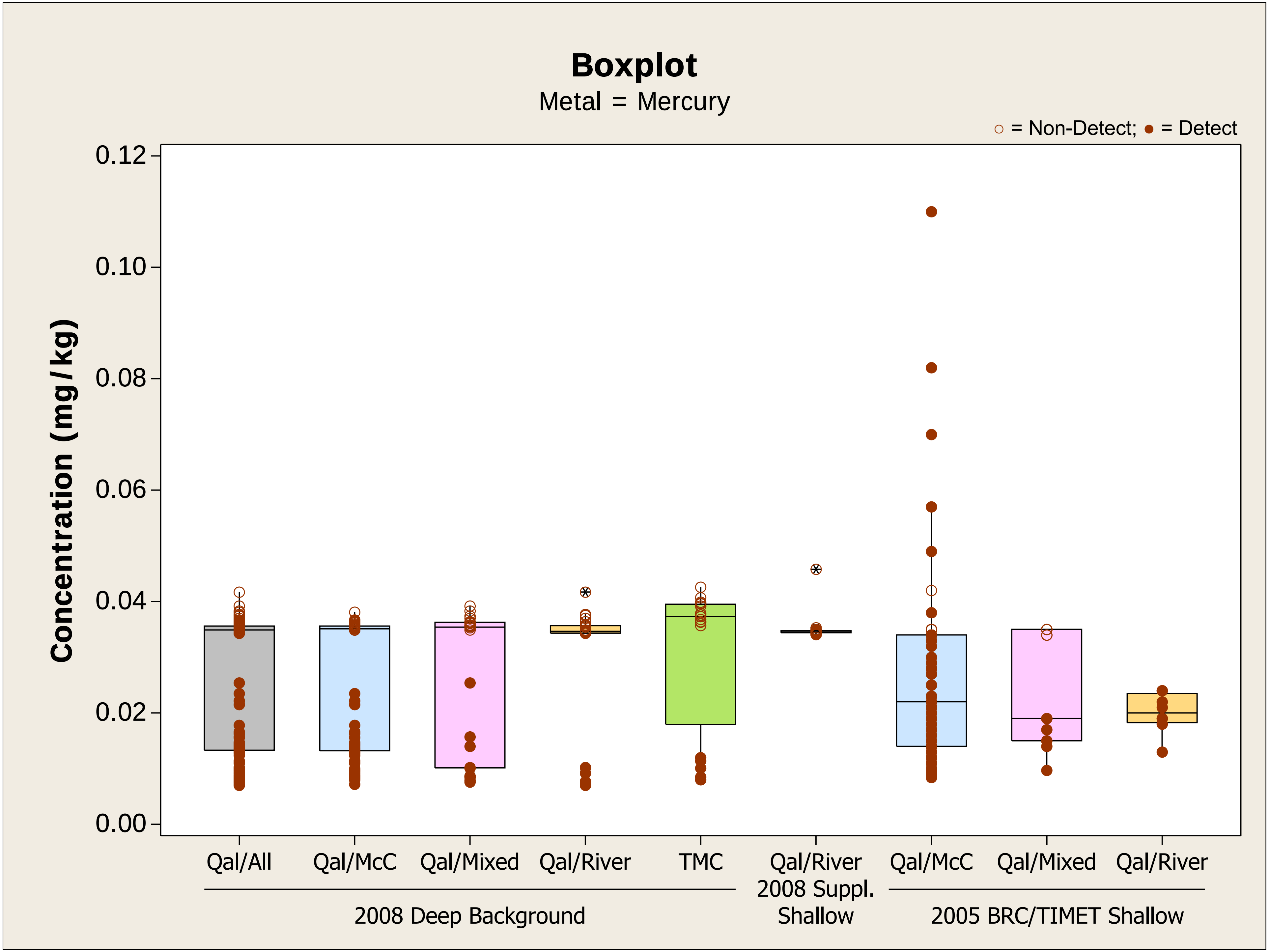

Boxplot
Metal = Lead
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
60
50
40
30
20
10
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

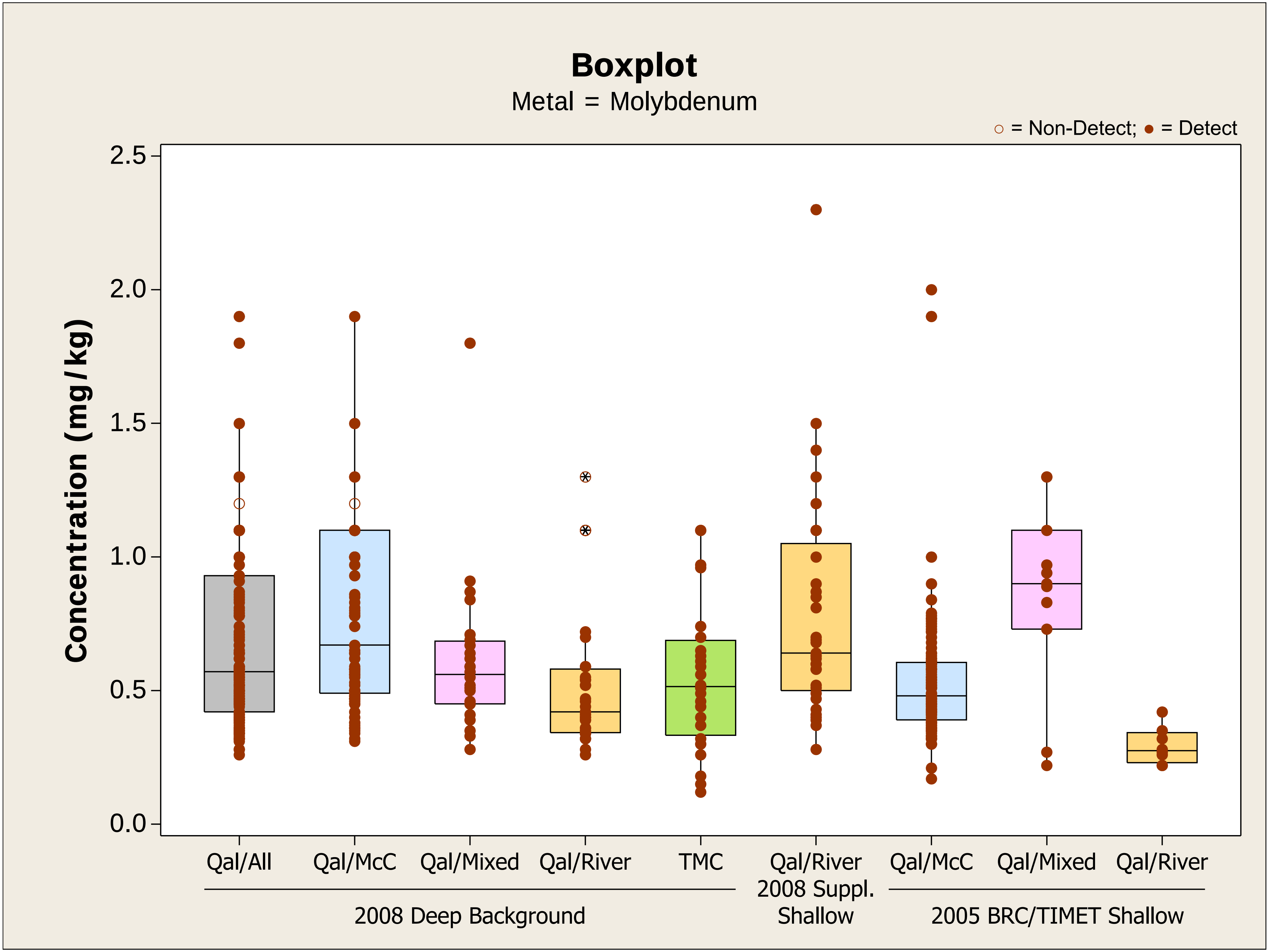

Boxplot
Metal = Lithium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
250
200
150
100
50
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

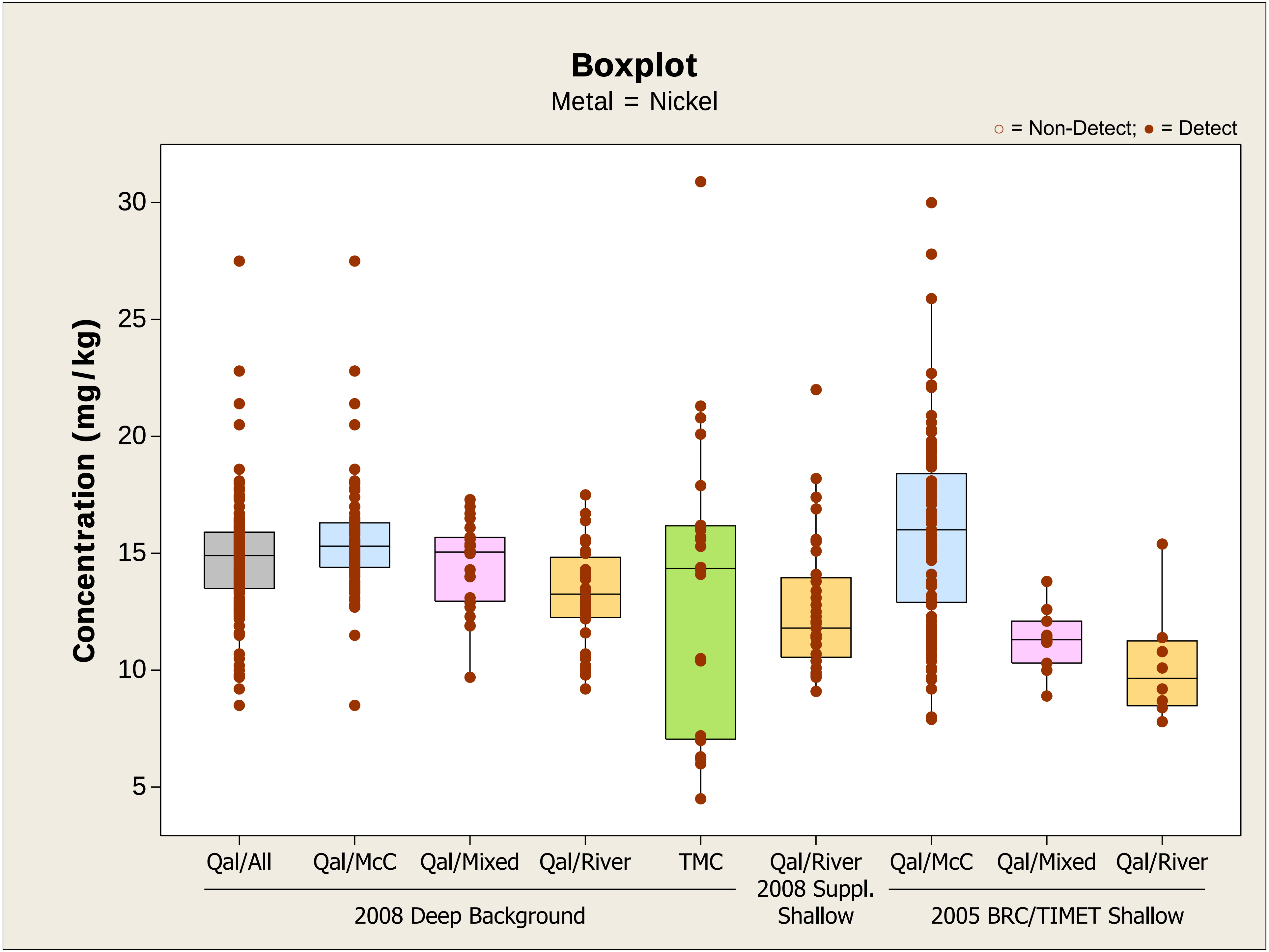


Boxplot
Metal = Magnesium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
35000
30000
25000
20000
15000
10000
5000
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

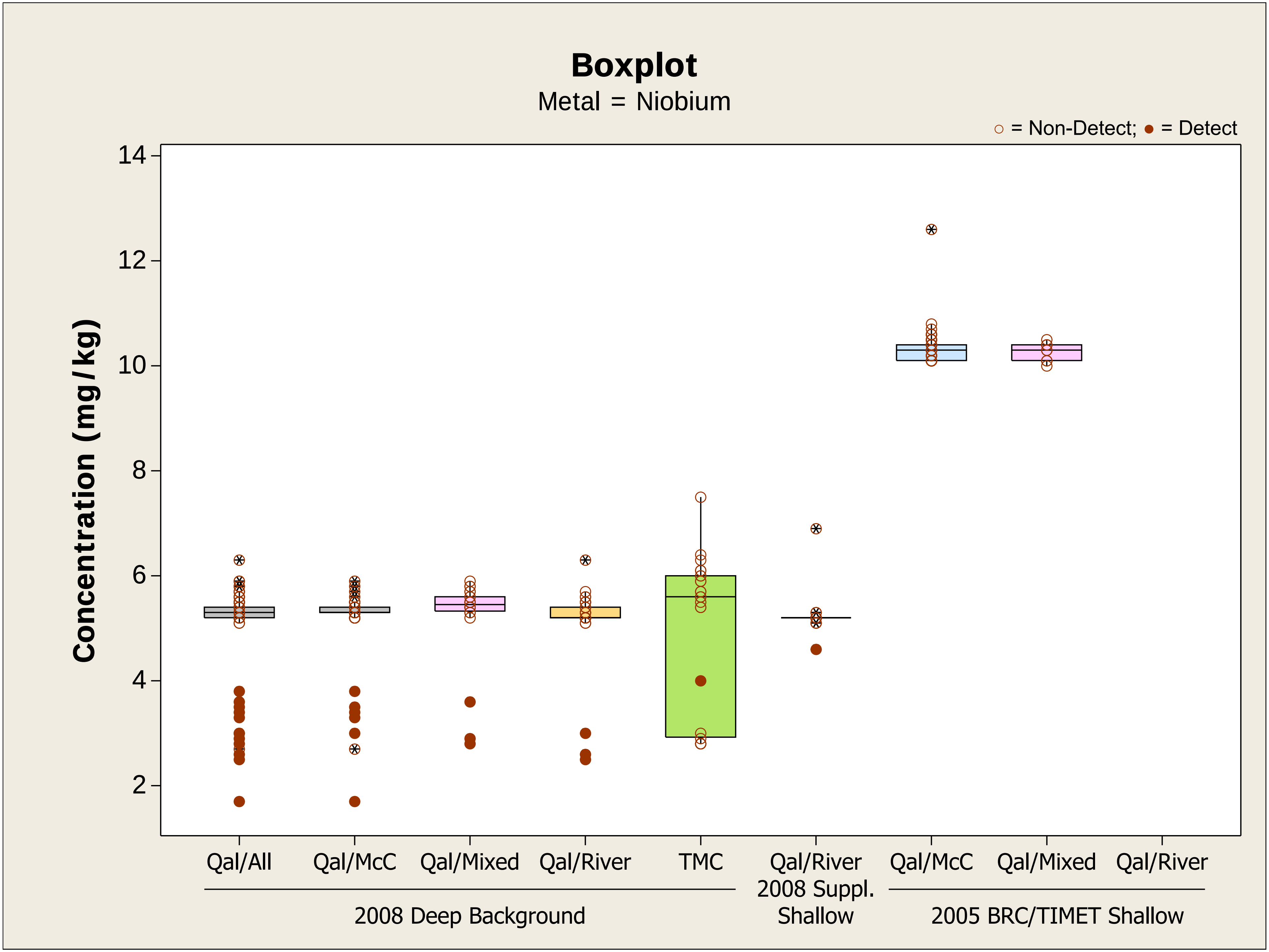

Boxplot
Metal = Manganese
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
2000
1500
1000
500
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl.
Shallow
2005 BRC/TIMET Shallow


Boxplot
Metal = Mercury
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0.12
0.10
0.08
0.06
0.04
0.02
0.00
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

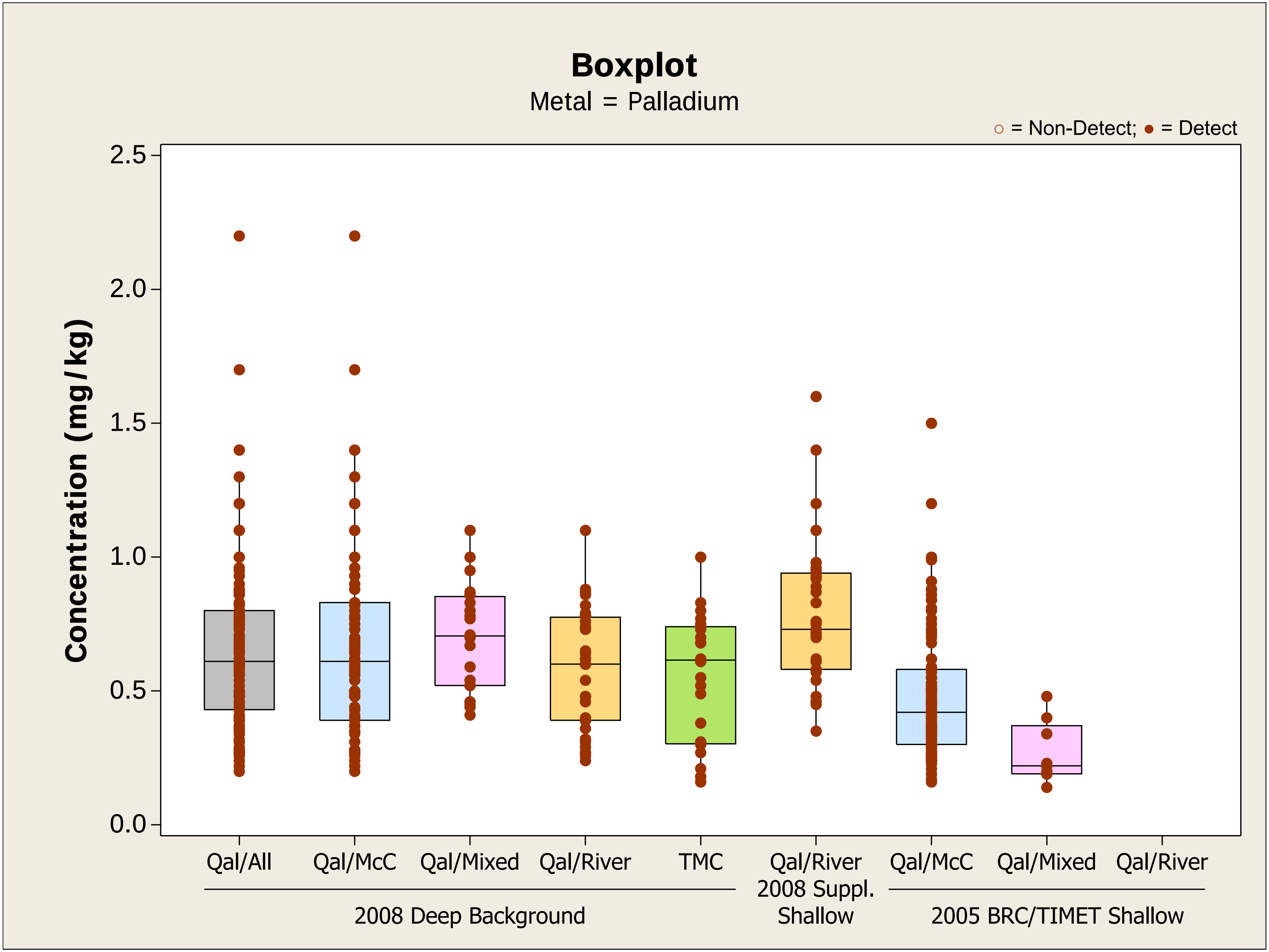

Boxplot
Metal = Molybdenum
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
2.5
2.0
1.5
1.0
0.5
0.0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

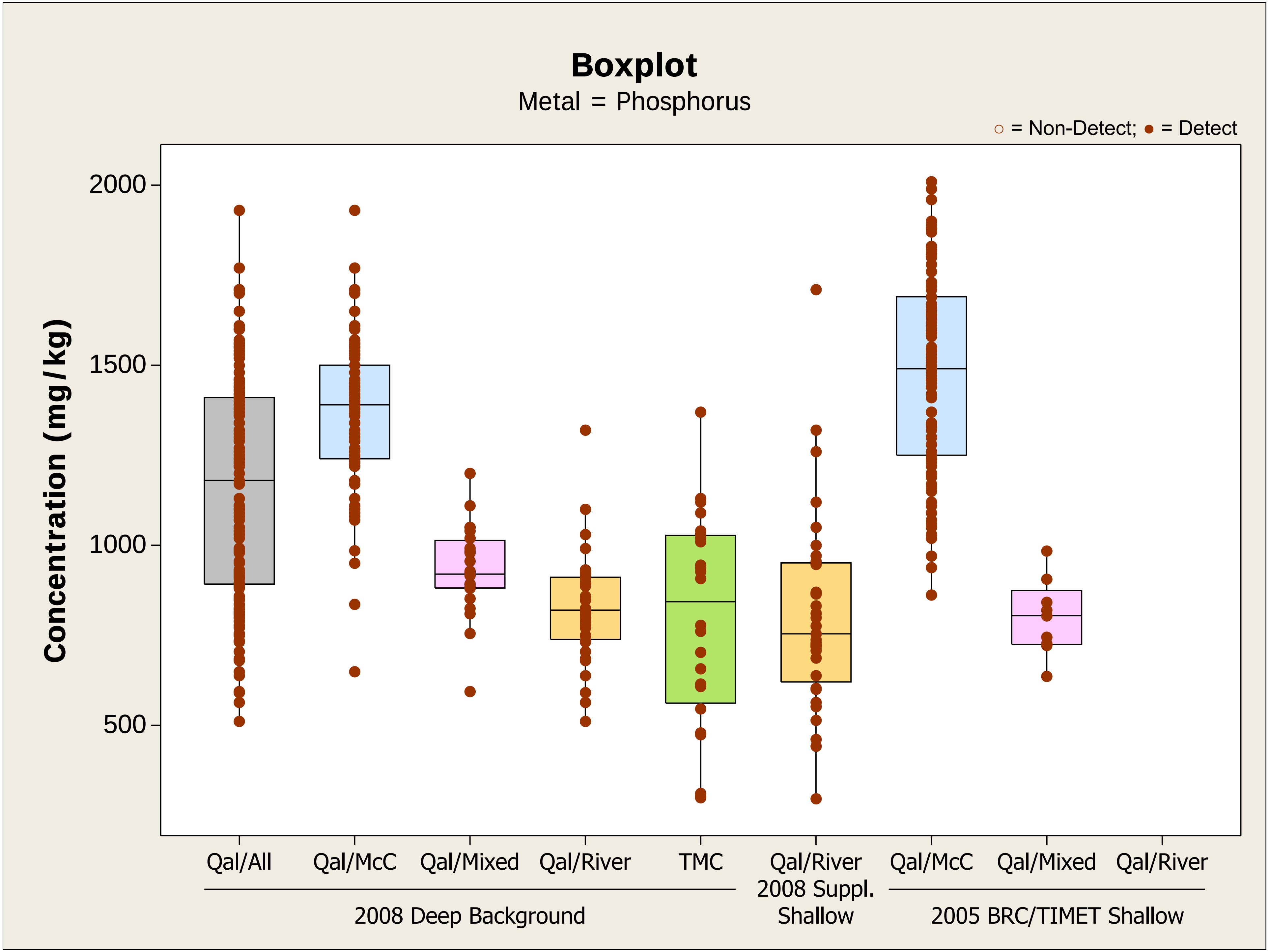


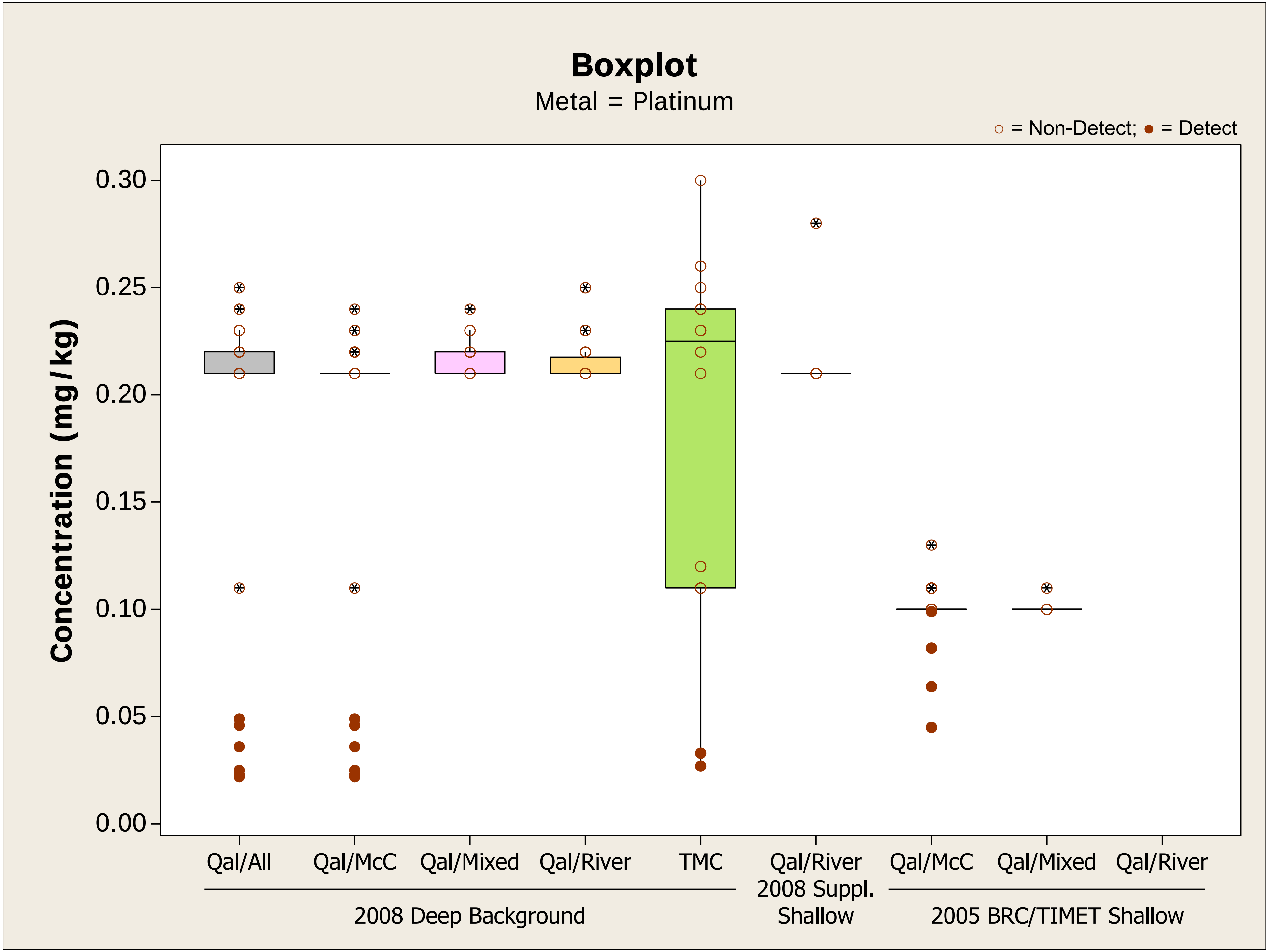
Boxplot
Metal = Nickel
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
30
25
20
15
10
5
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow



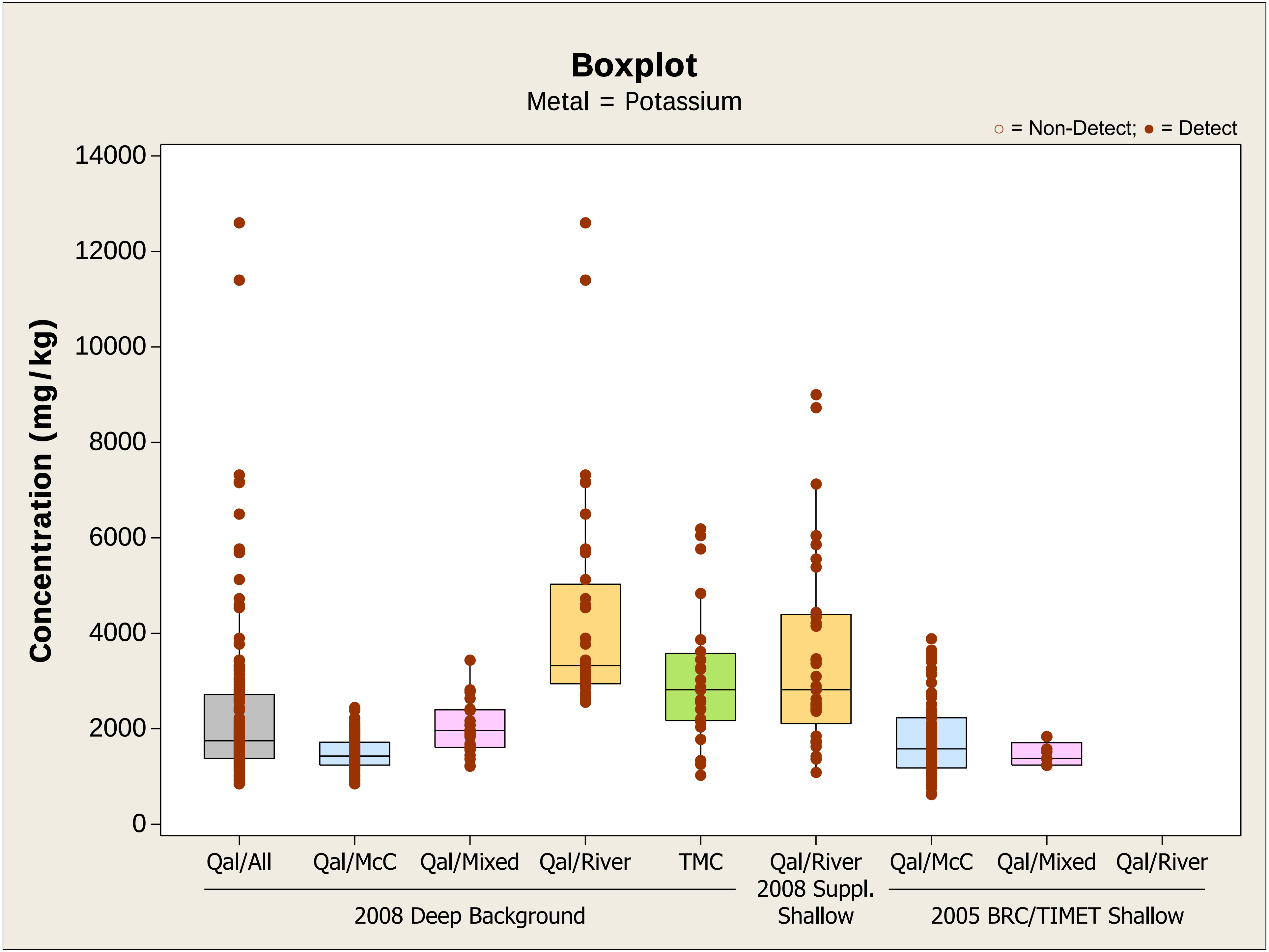
Boxplot
Metal = Niobium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
14
12
10
8
6
4
2
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow


Boxplot
Metal = Palladium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
2.5
2.0
1.5
1.0
0.5
0.0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

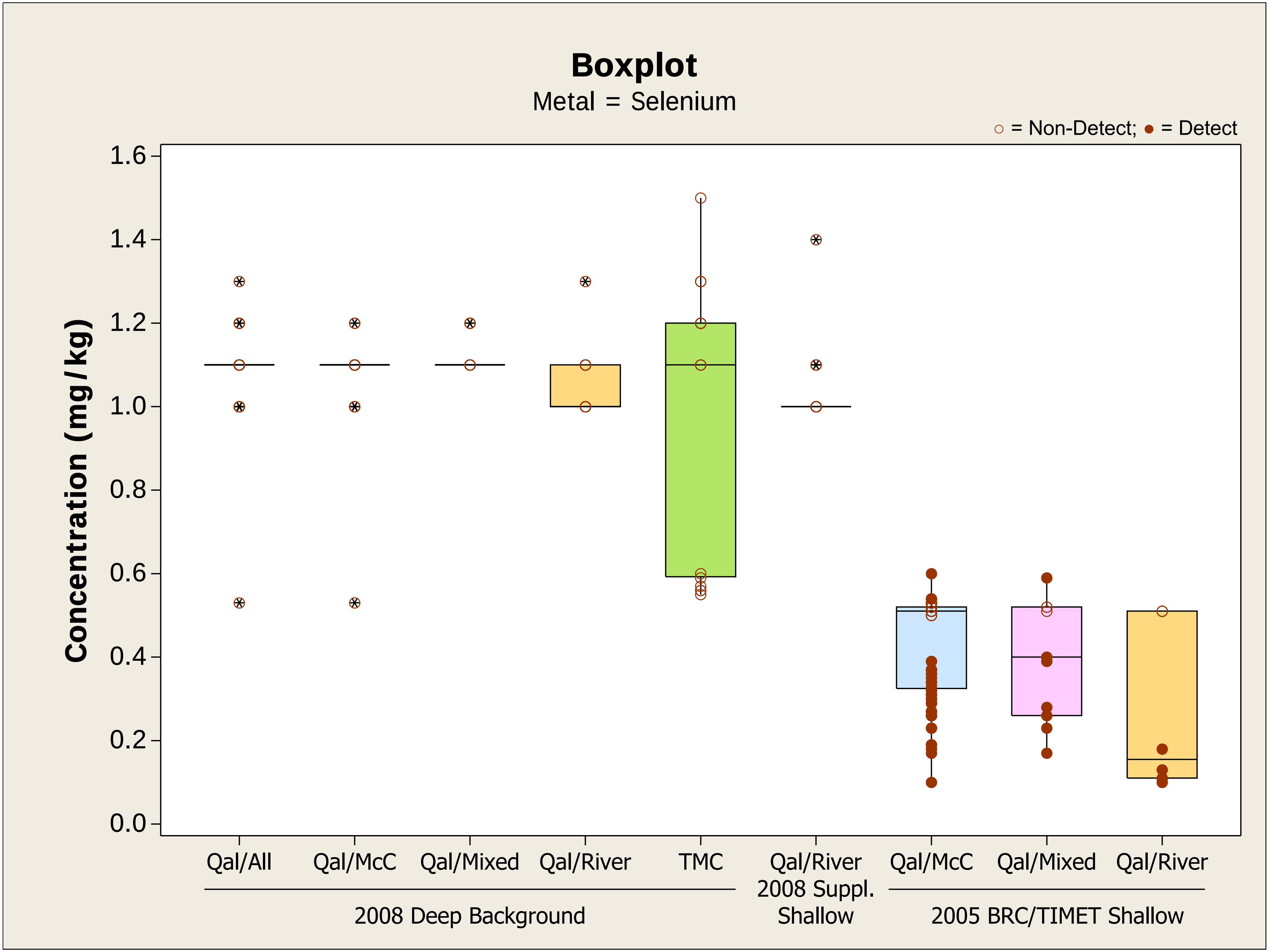

Boxplot
Metal = Phosphorus
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
2000
1500
1000
500
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl.
Shallow
2005 BRC/TIMET Shallow



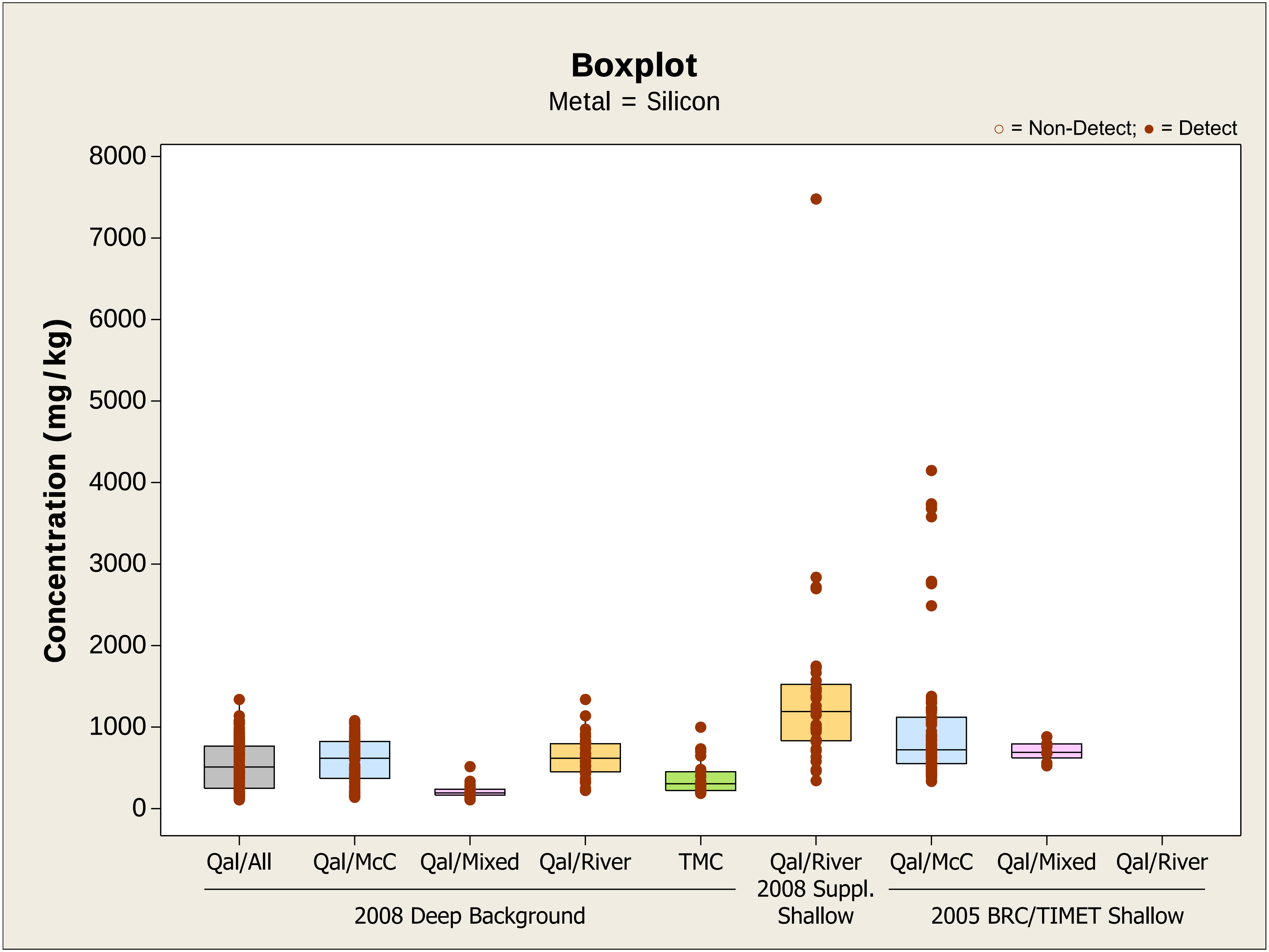
Boxplot
Metal = Platinum
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow



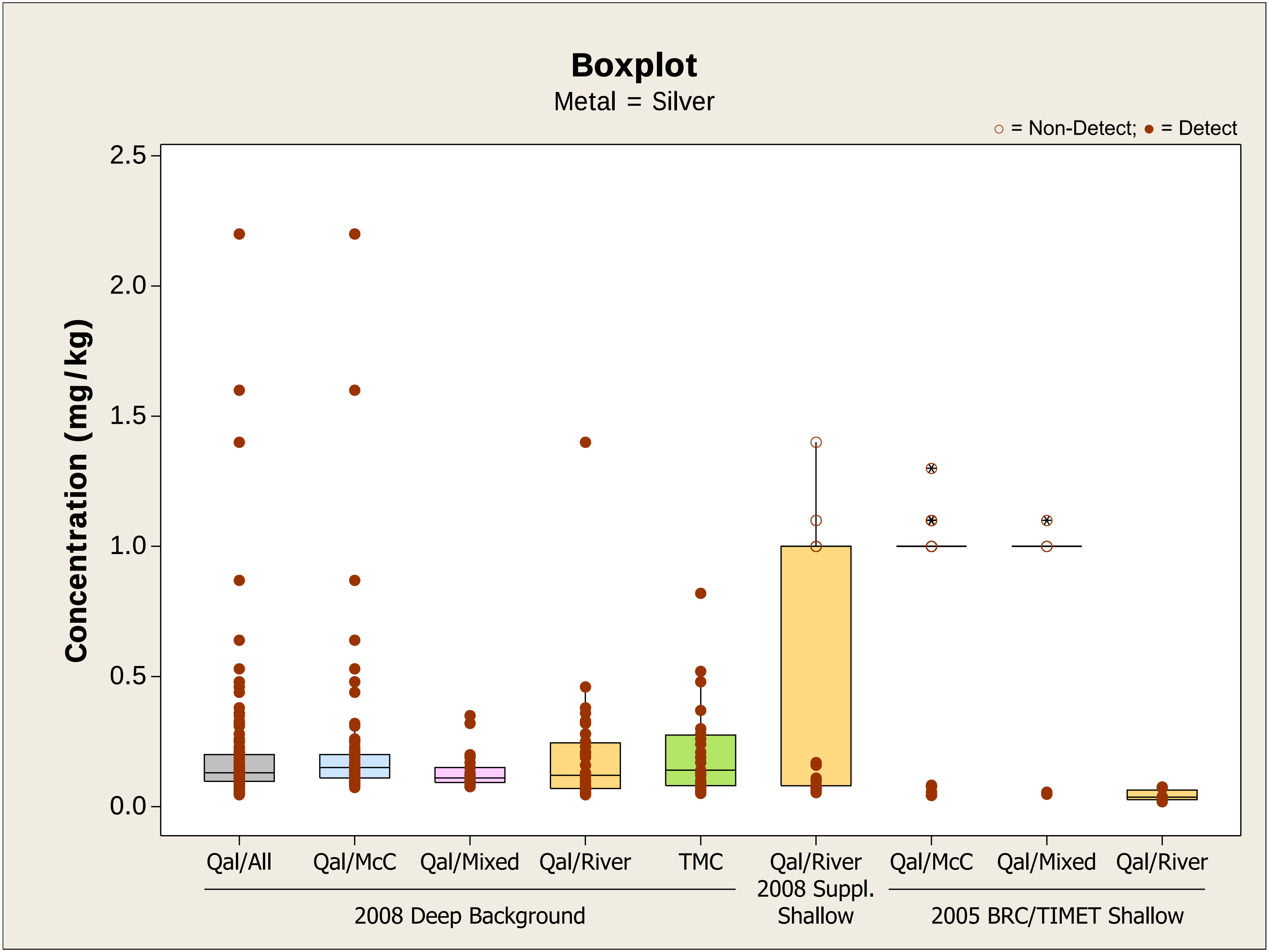
Boxplot
Metal = Potassium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
14000
12000
10000
8000
6000
4000
2000
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow



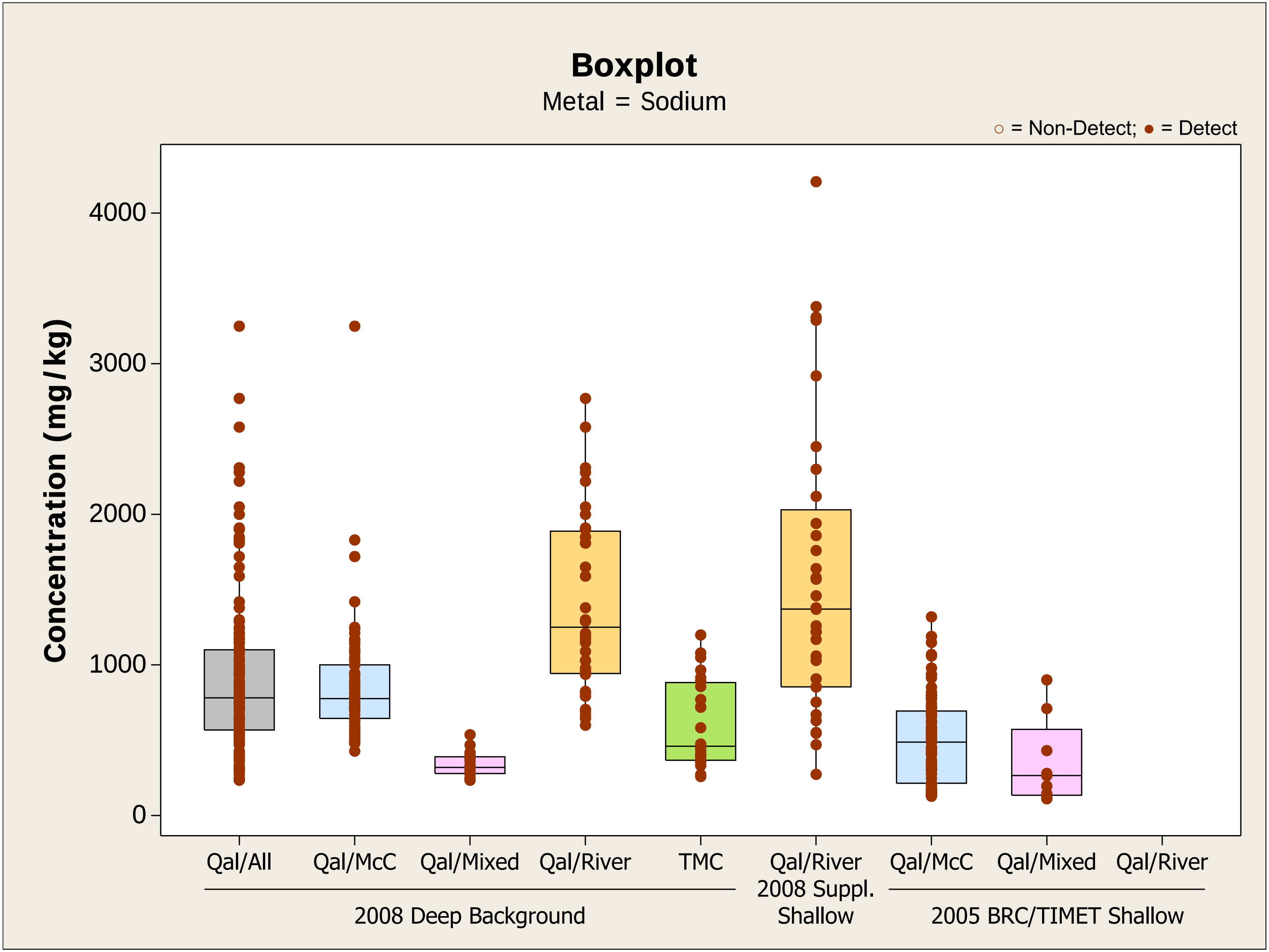
Boxplot
Metal = Selenium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

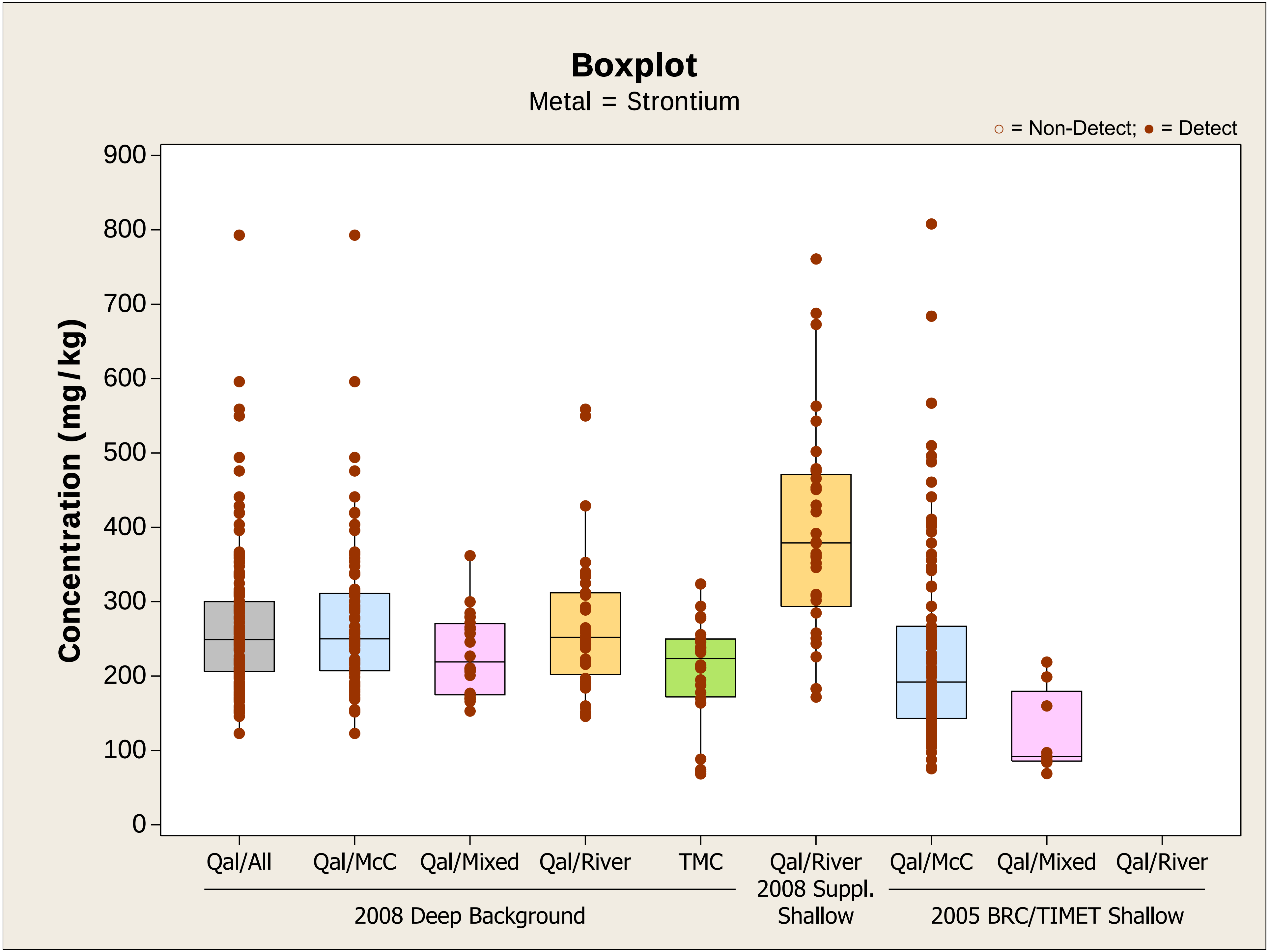


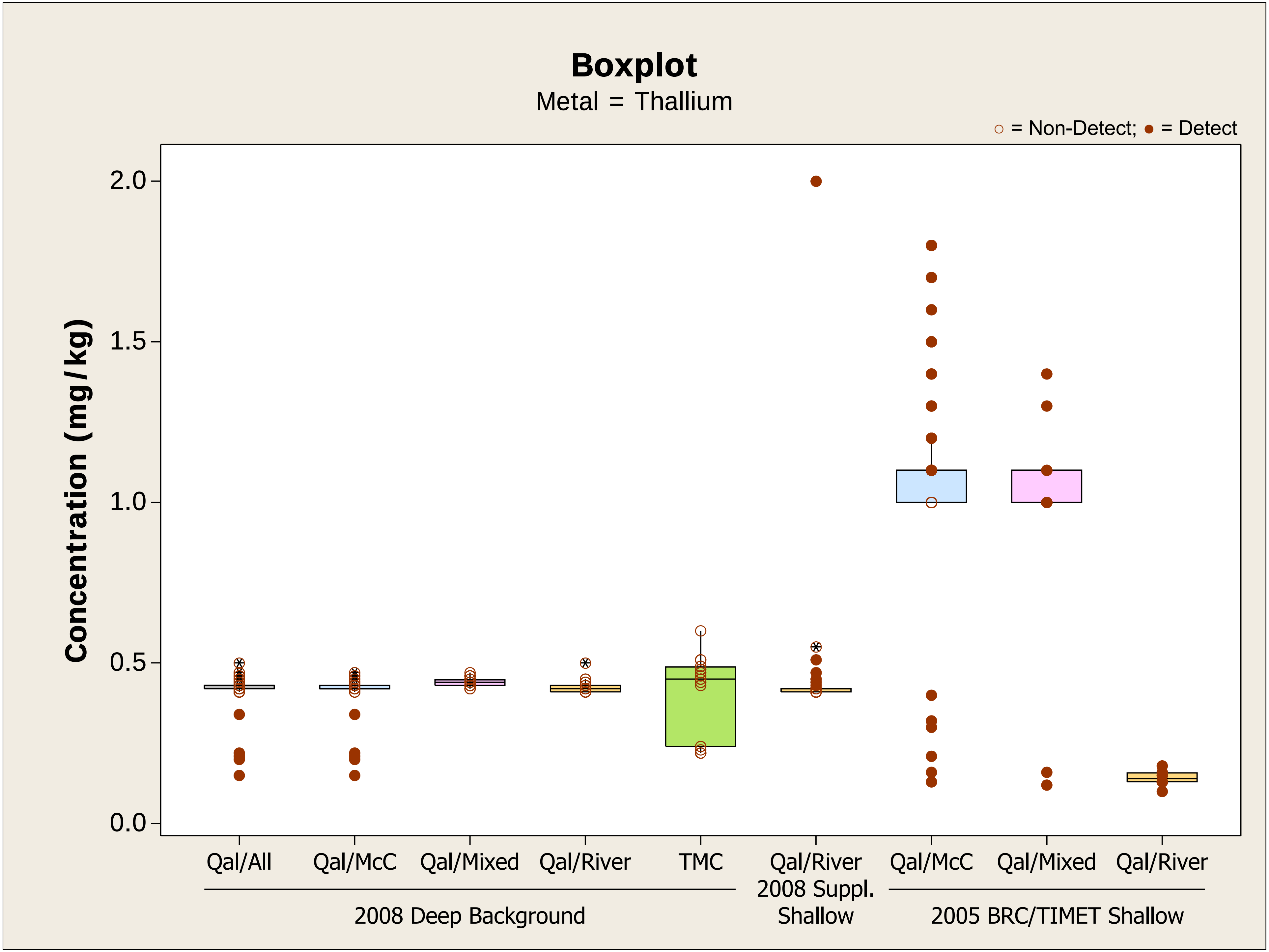
Boxplot
Metal = Silicon
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
8000
7000
6000
5000
4000
3000
2000
1000
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

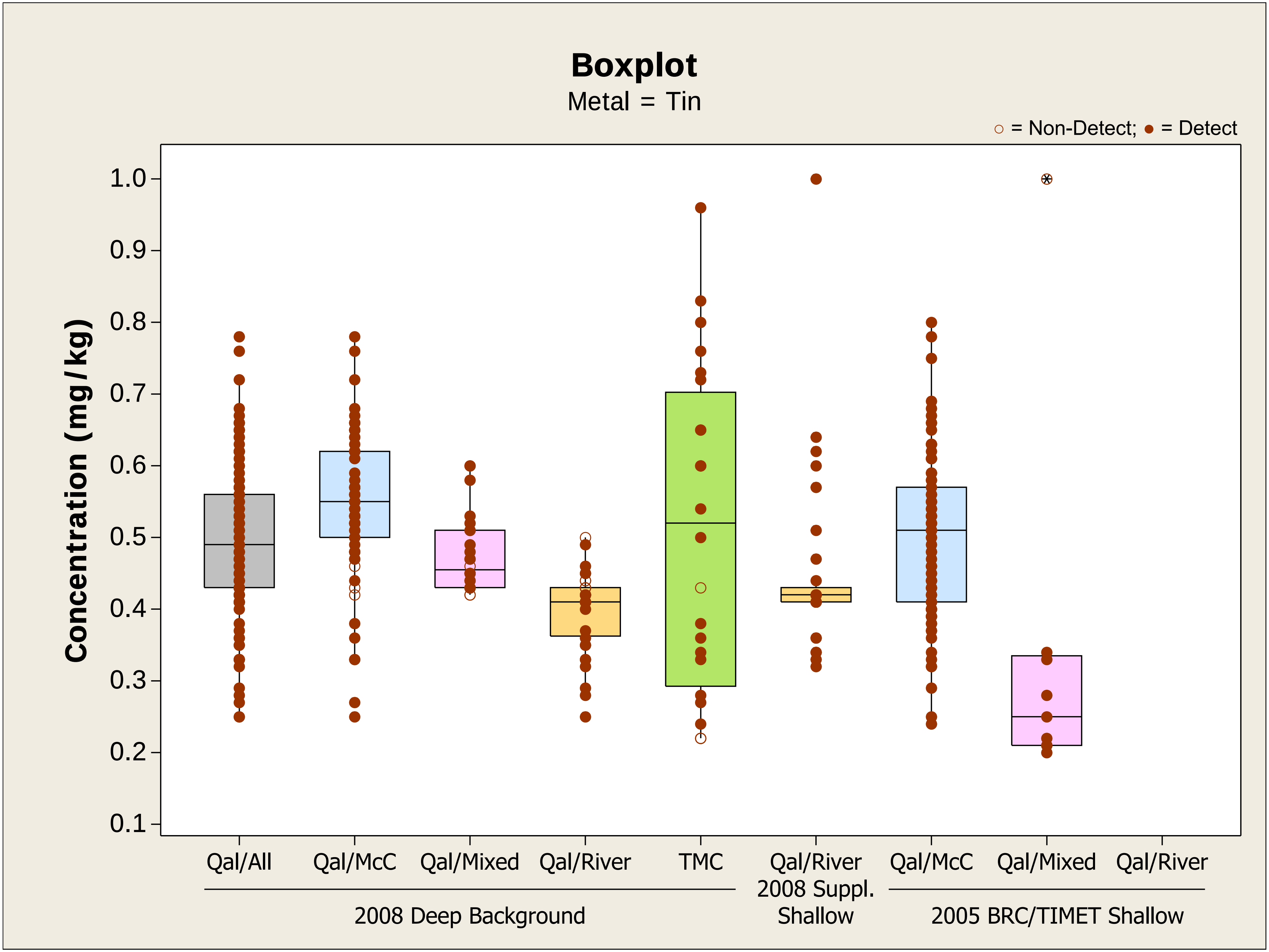


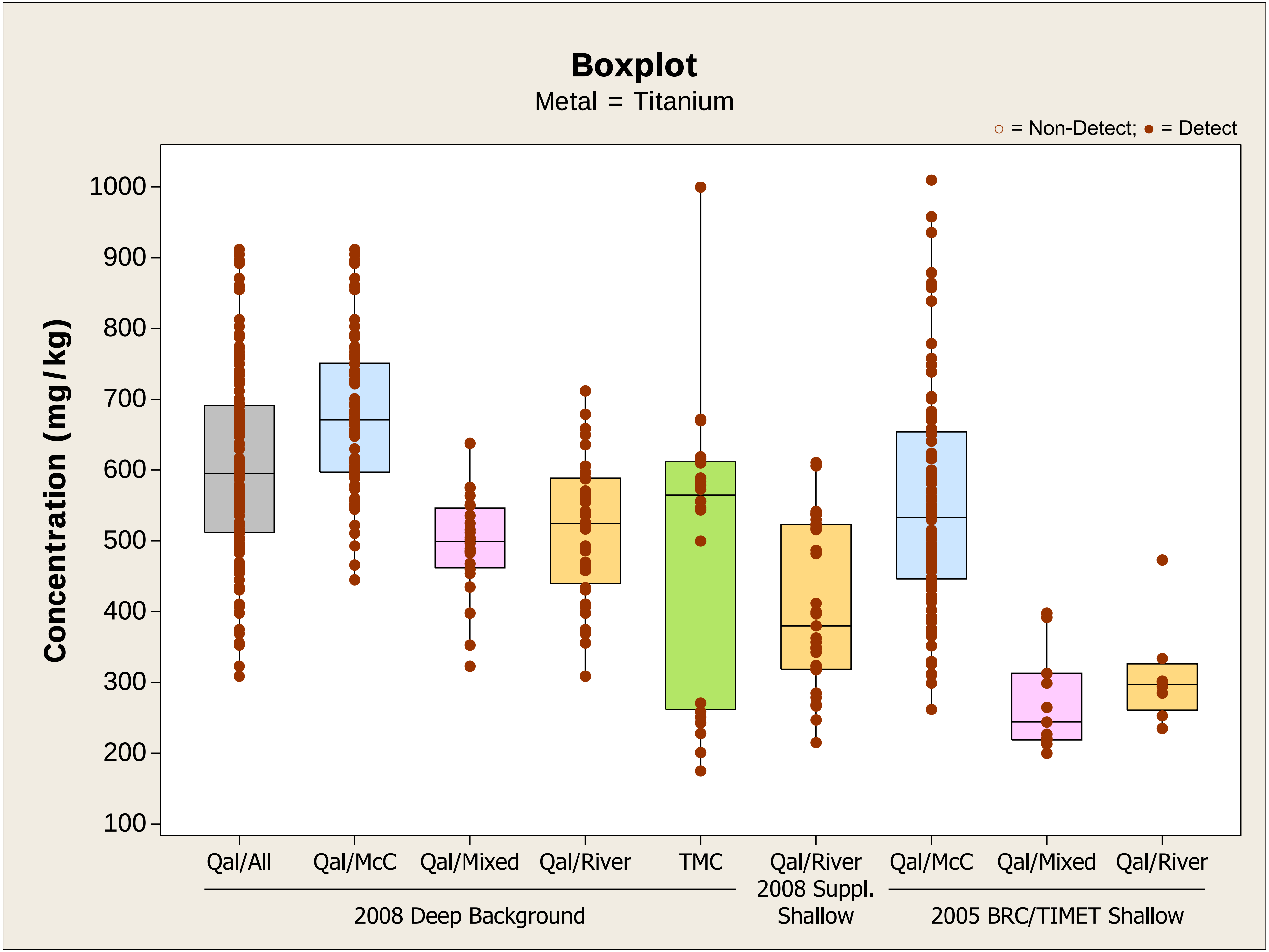
Boxplot
Metal = Silver
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
2.5
2.0
1.5
1.0
0.5
0.0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow


Boxplot
Metal = Sodium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
4000
3000
2000
1000
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

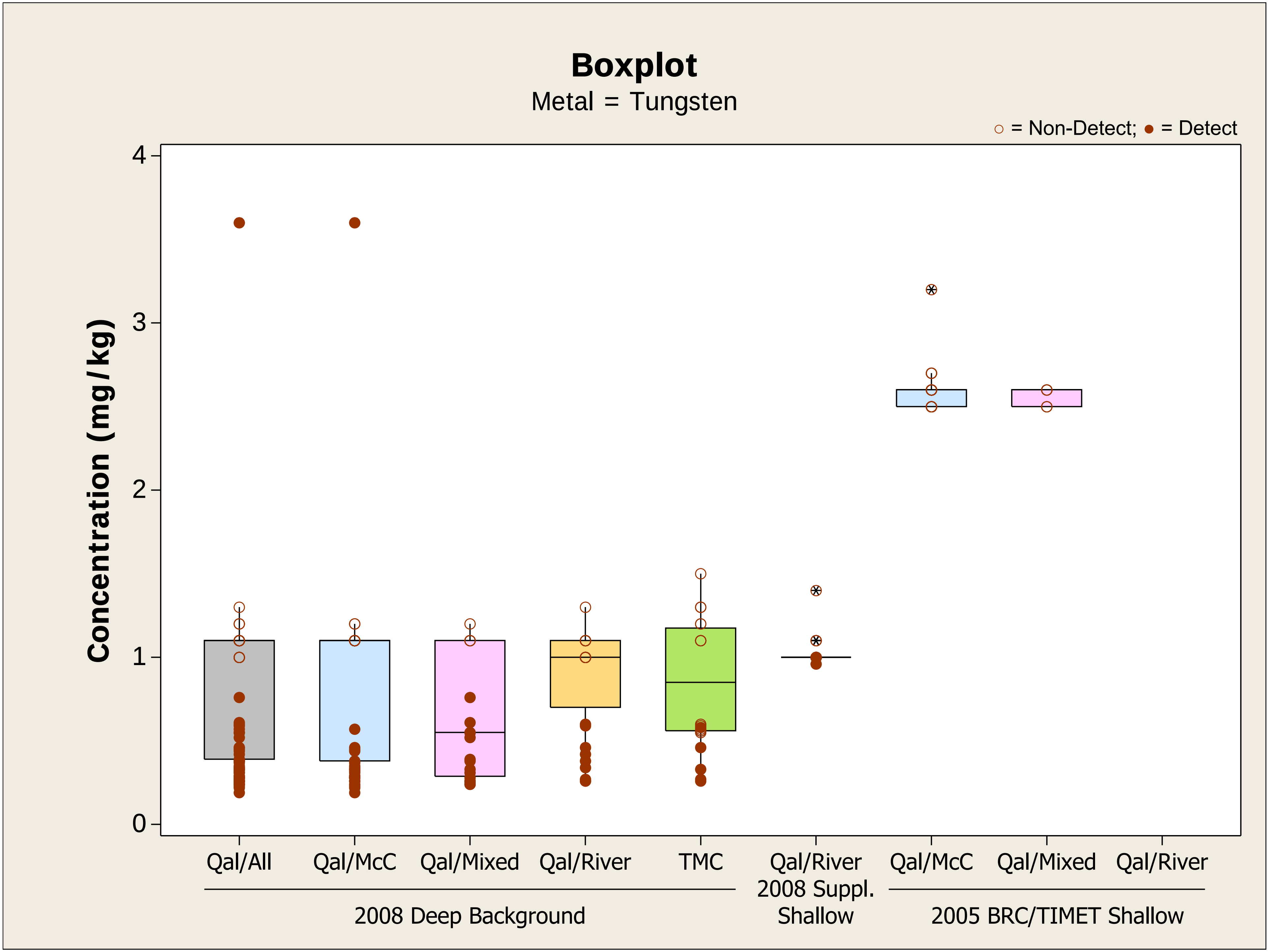

Boxplot
Metal = Strontium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
900
800
700
600
500
400
300
200
100
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow


Boxplot
Metal = Thallium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
2.0
1.5
1.0
0.5
0.0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

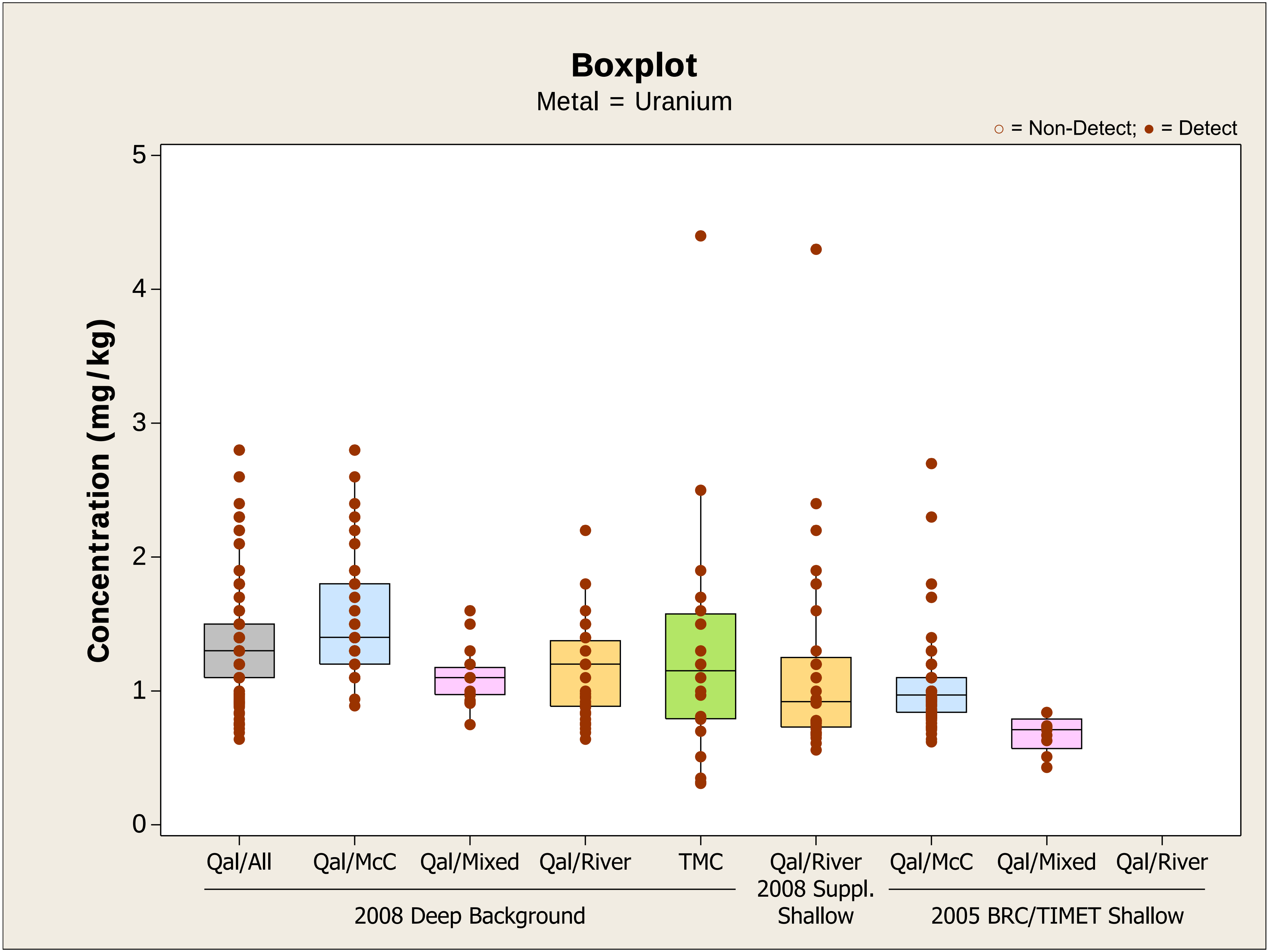

Boxplot
Metal = Tin
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow



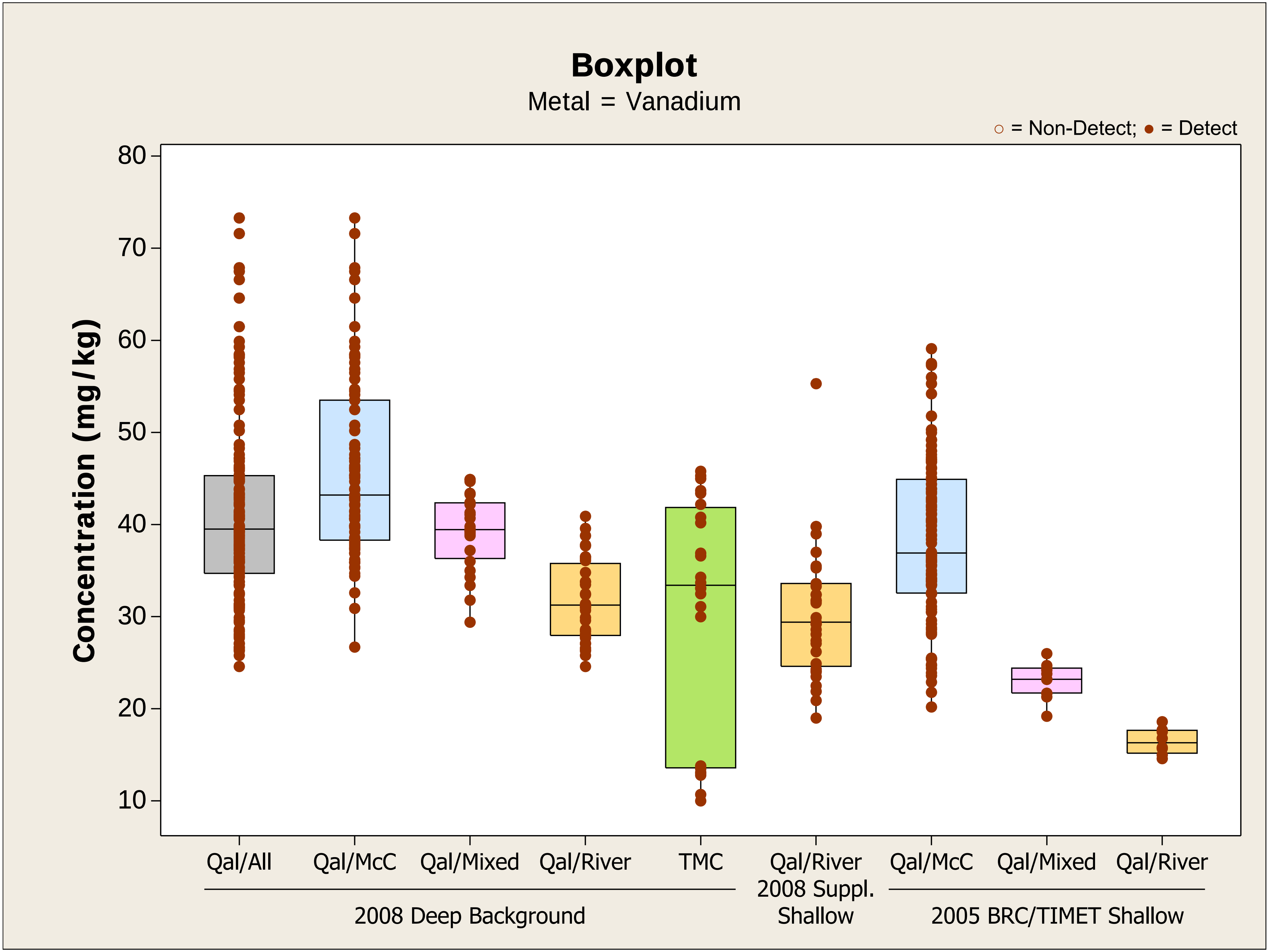
Boxplot
Metal = Titanium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1000
900
800
700
600
500
400
300
200
100
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow



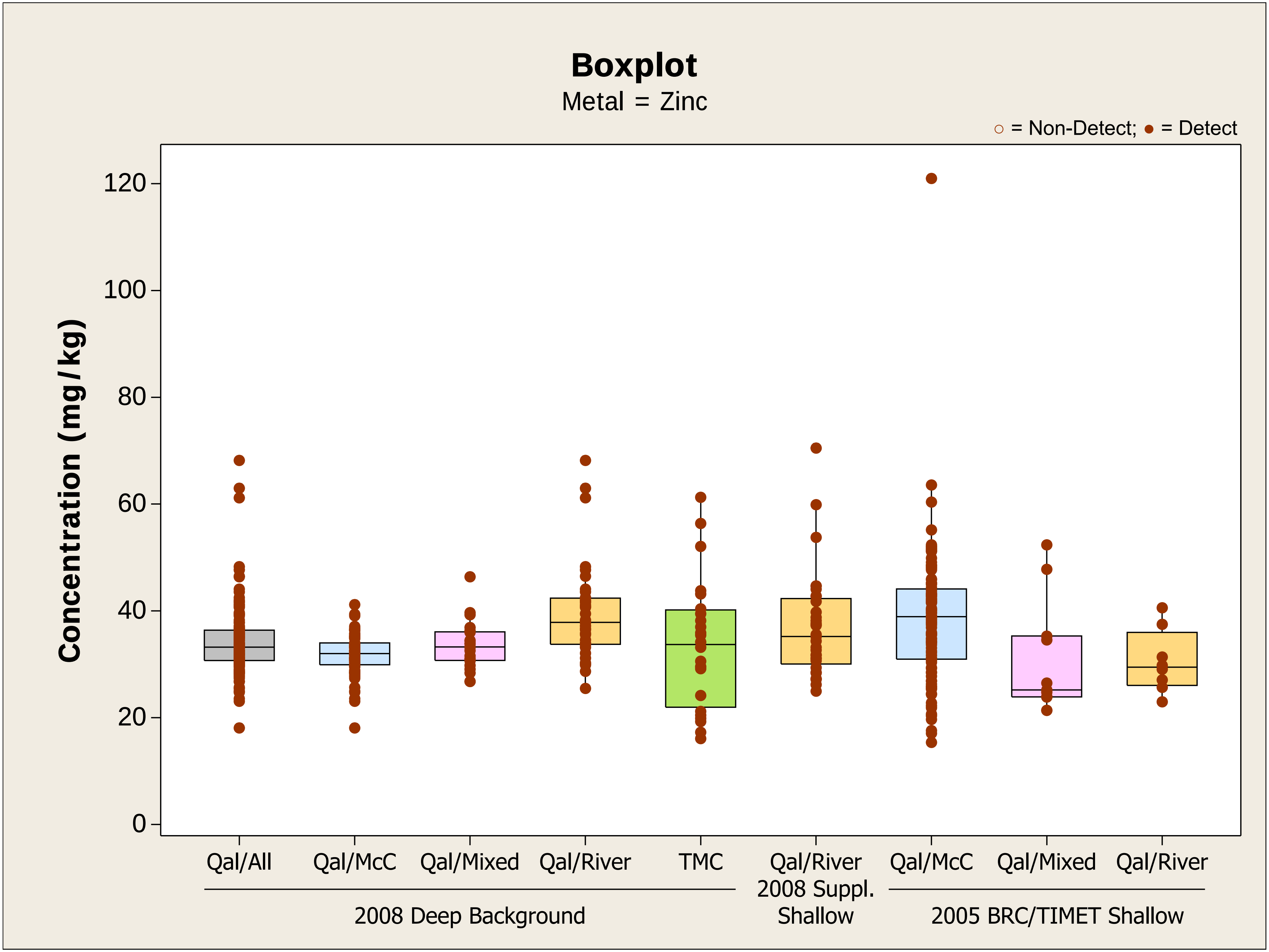
Boxplot
Metal = Tungsten
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0
1
2
3
4
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl.
Shallow
2005 BRC/TIMET Shallow



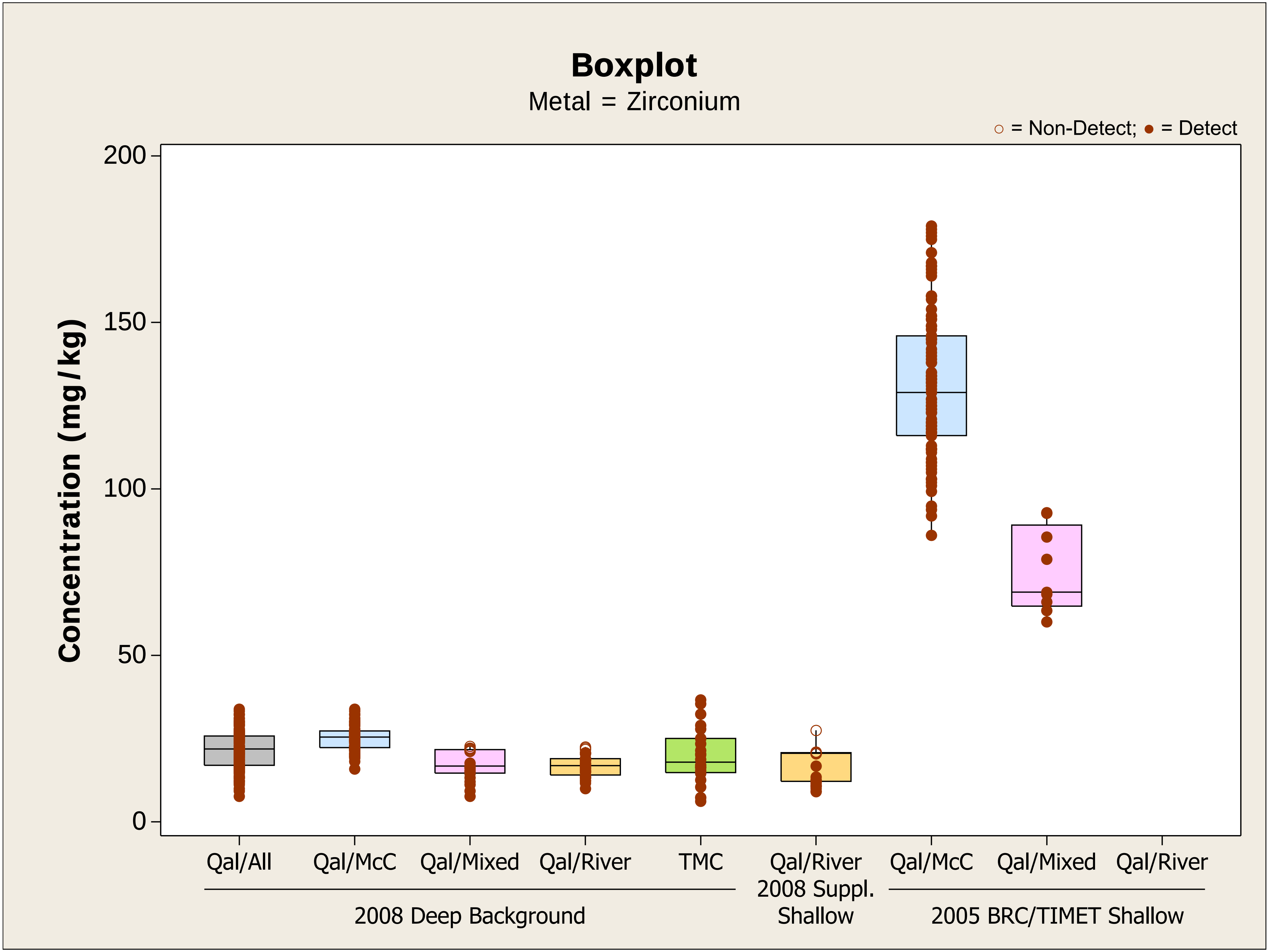
Boxplot
Metal = Uranium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0
1
2
3
4
5
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow



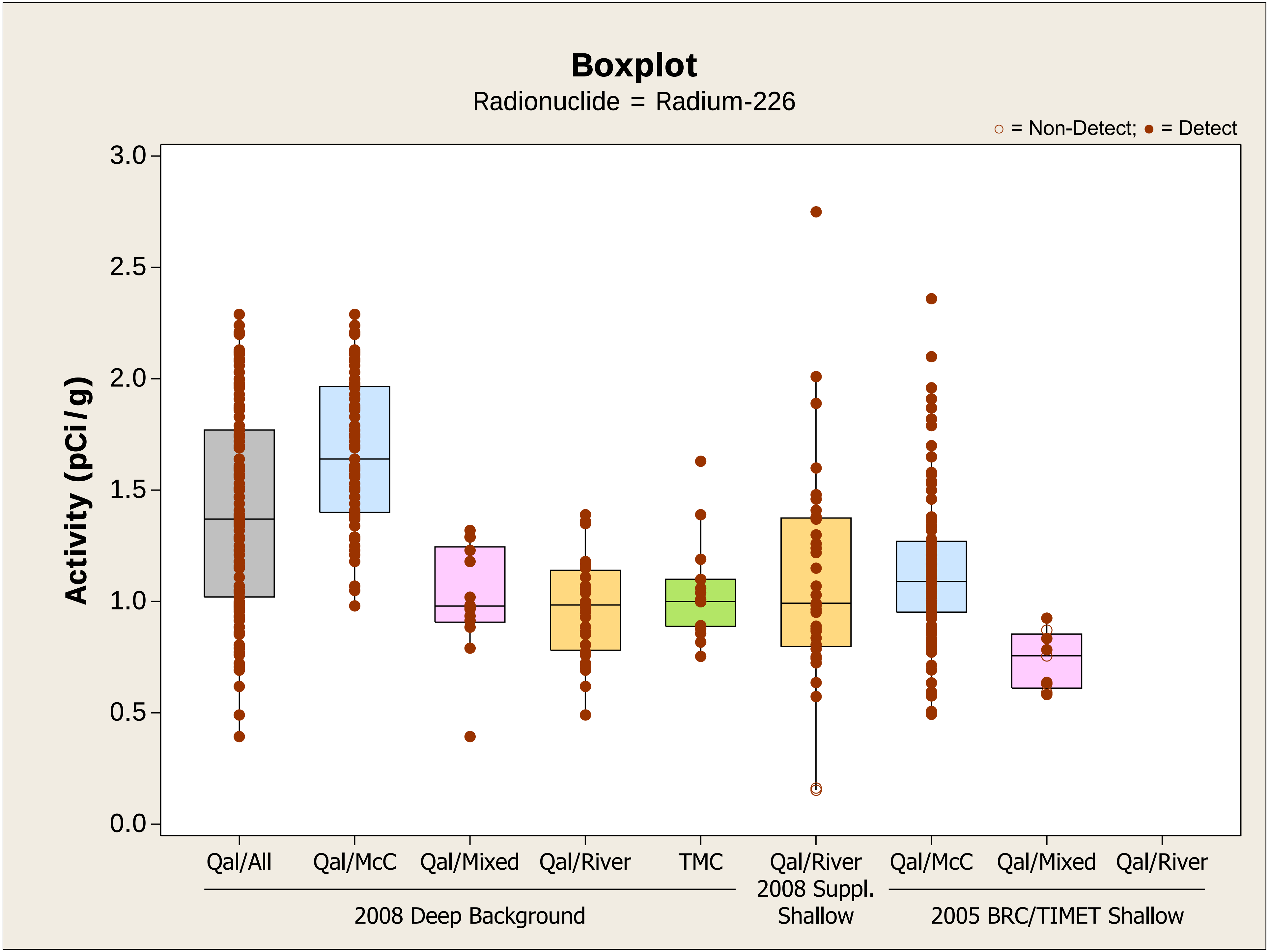
Boxplot
Metal = Vanadium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
80
70
60
50
40
30
20
10
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow



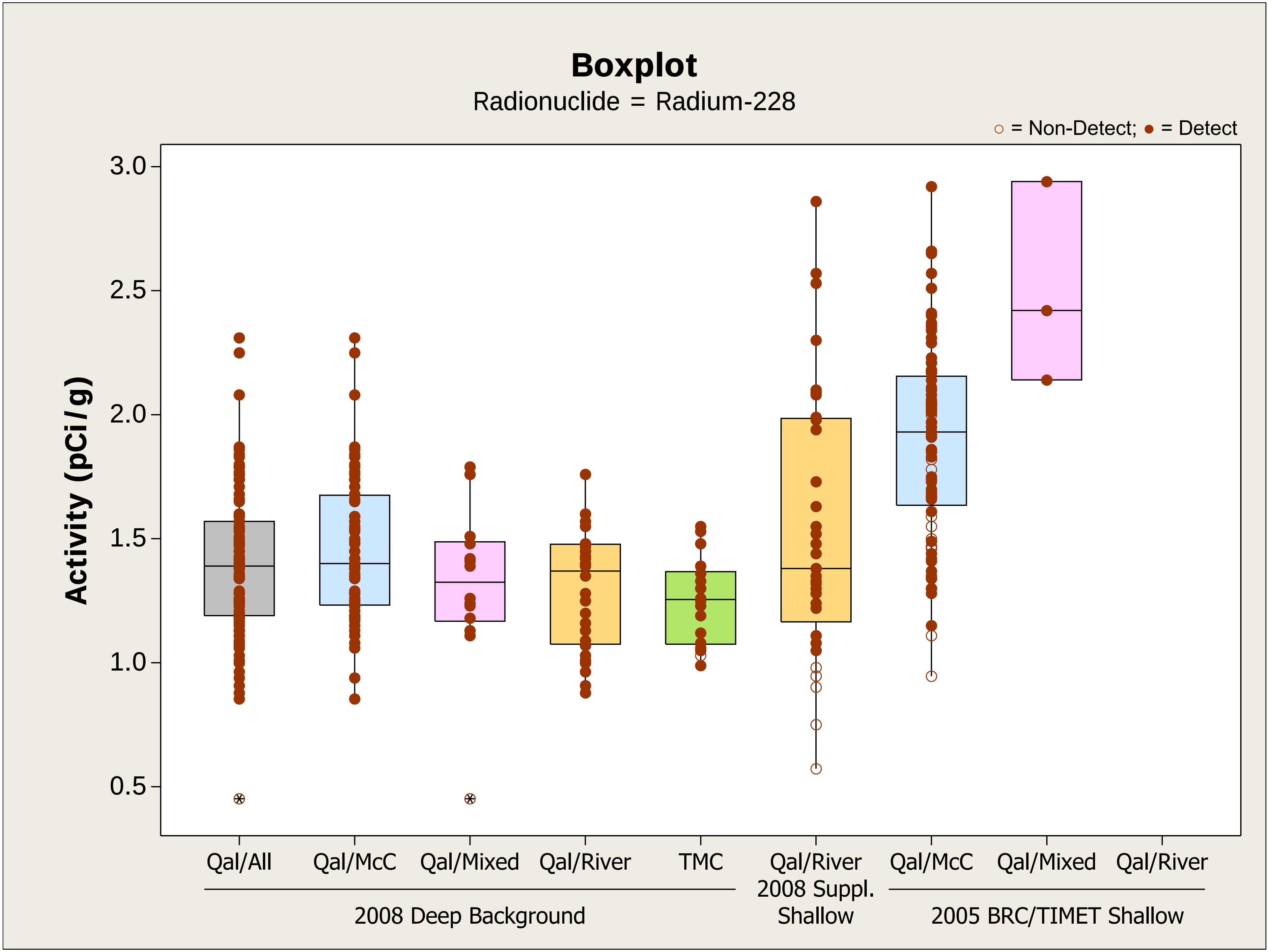
Boxplot
Metal = Zinc
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0
20
40
60
80
100
120
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

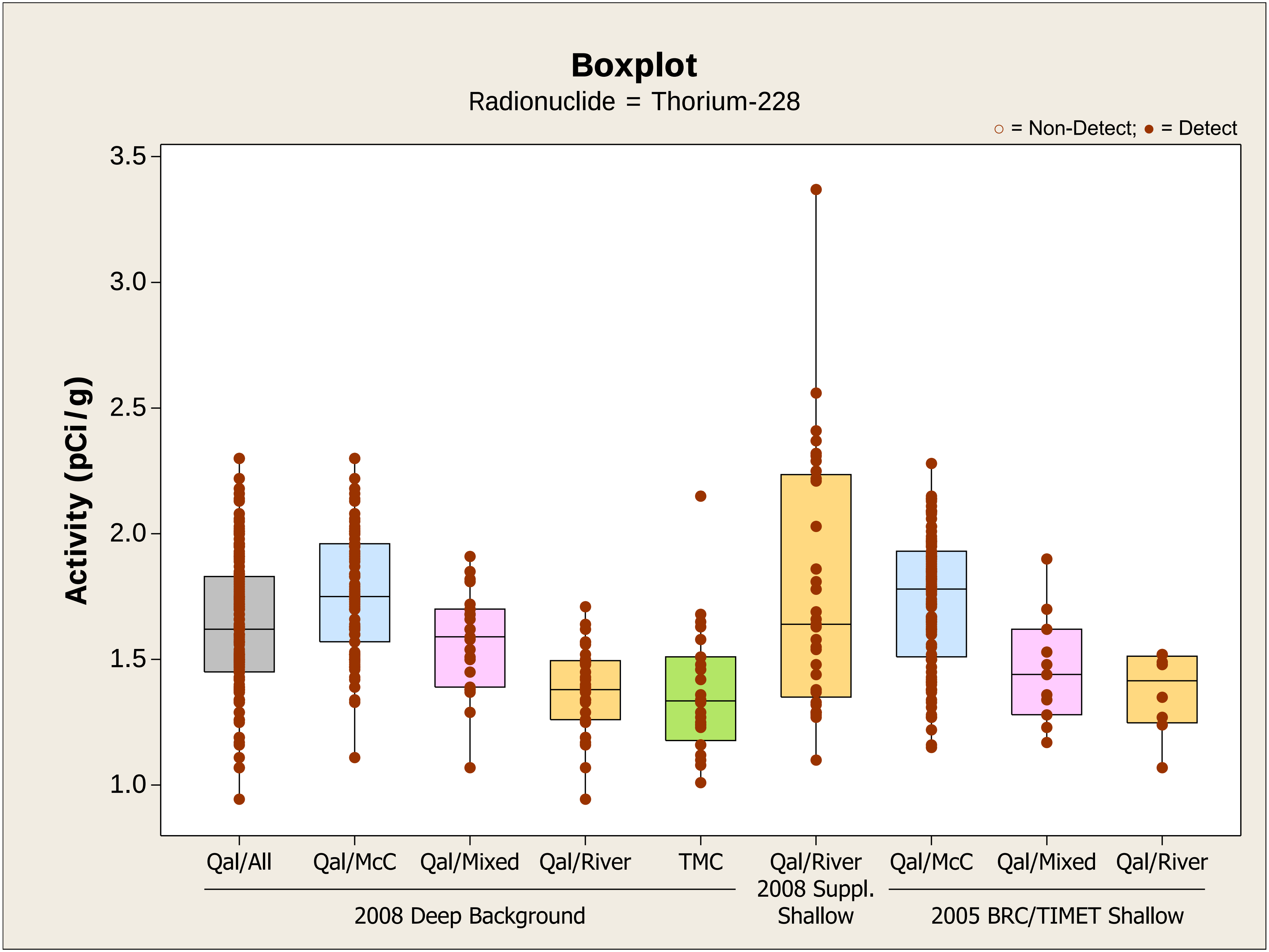


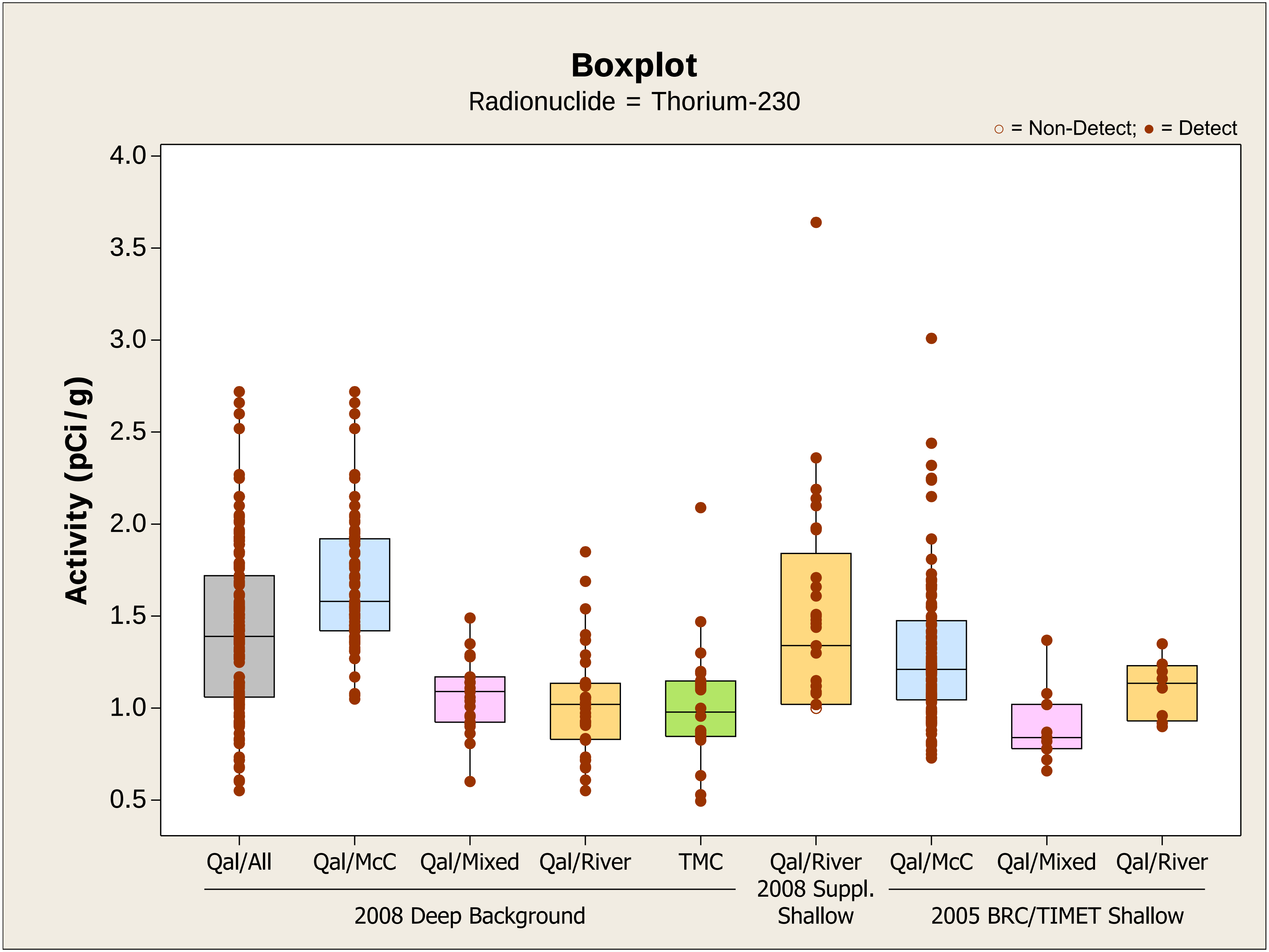
Boxplot
Metal = Zirconium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
200
150
100
50
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

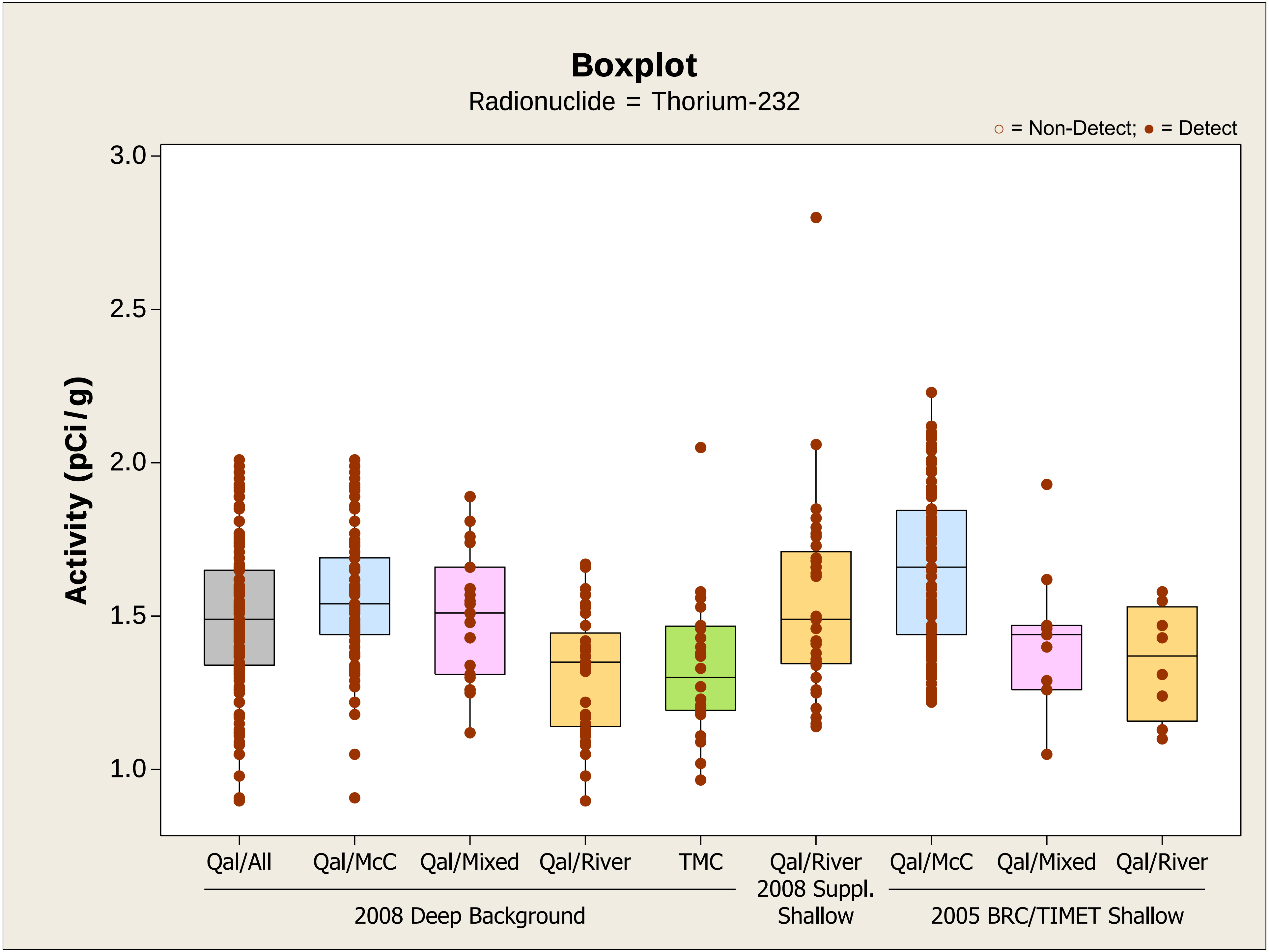


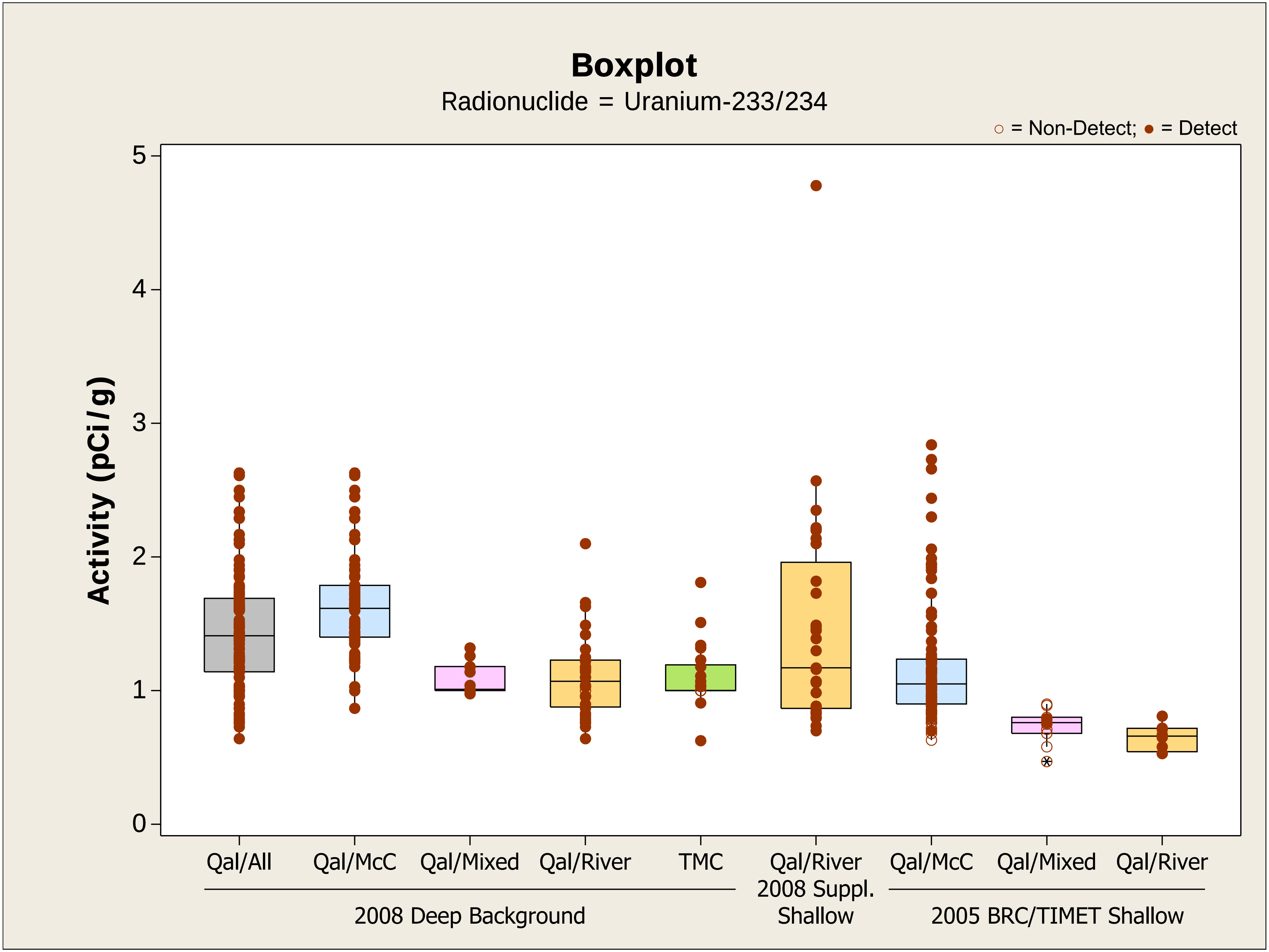
Boxplot
Radionuclide = Radium-226
○ = Non-Detect; ● = Detect
Activity (pCi/g)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow


Boxplot
Radionuclide = Radium-228
○ = Non-Detect; ● = Detect
Activity (pCi/g)
3.0
2.5
2.0
1.5
1.0
0.5
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

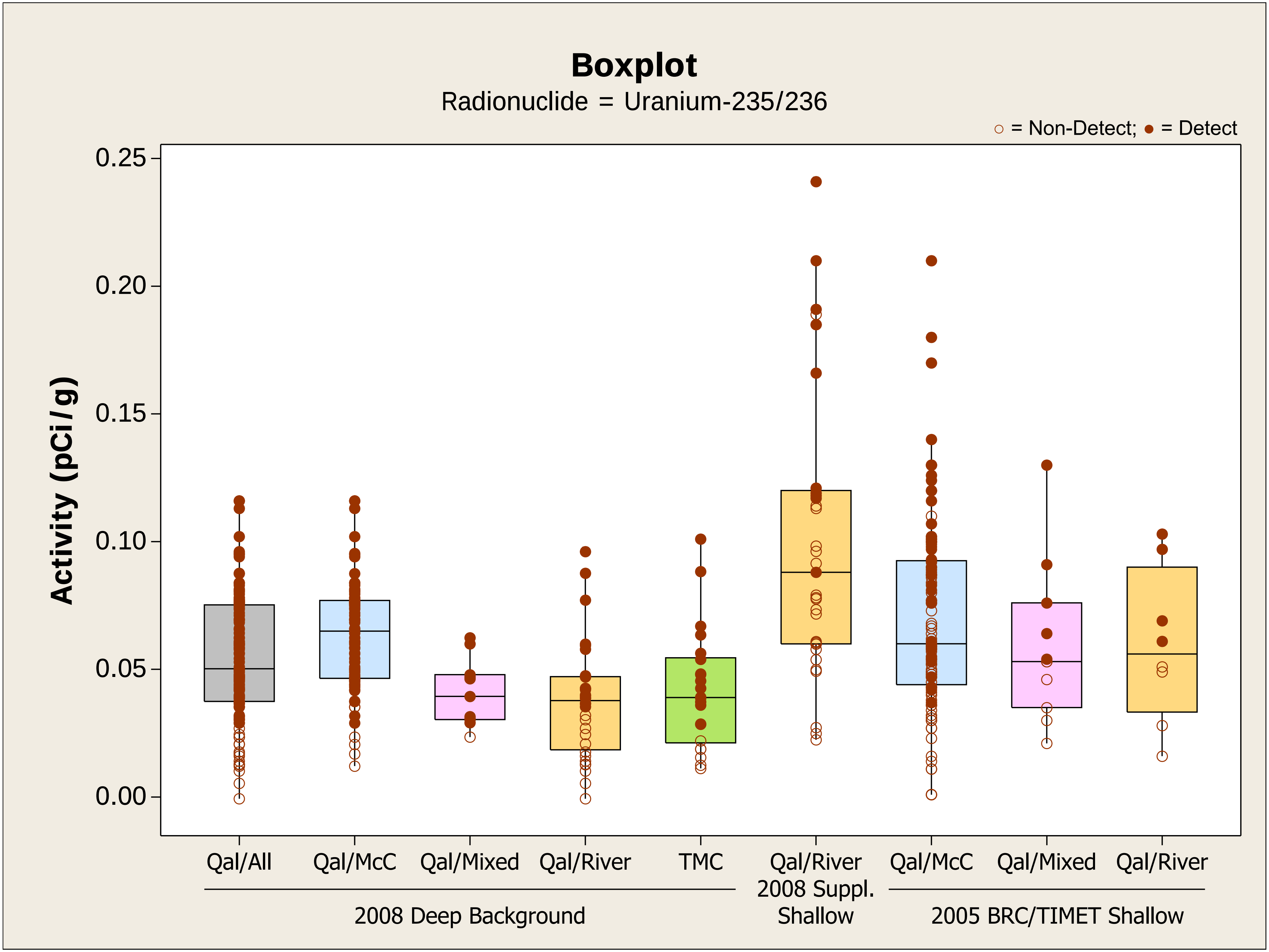

Boxplot
Radionuclide = Thorium-228
○ = Non-Detect; ● = Detect
Activity (pCi / g)
3.5
3.0
2.5
2.0
1.5
1.0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow


Boxplot
Radionuclide = Thorium-230
○ = Non-Detect; ● = Detect
Activity (pCi / g)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl.
Shallow
2005 BRC/TIMET Shallow

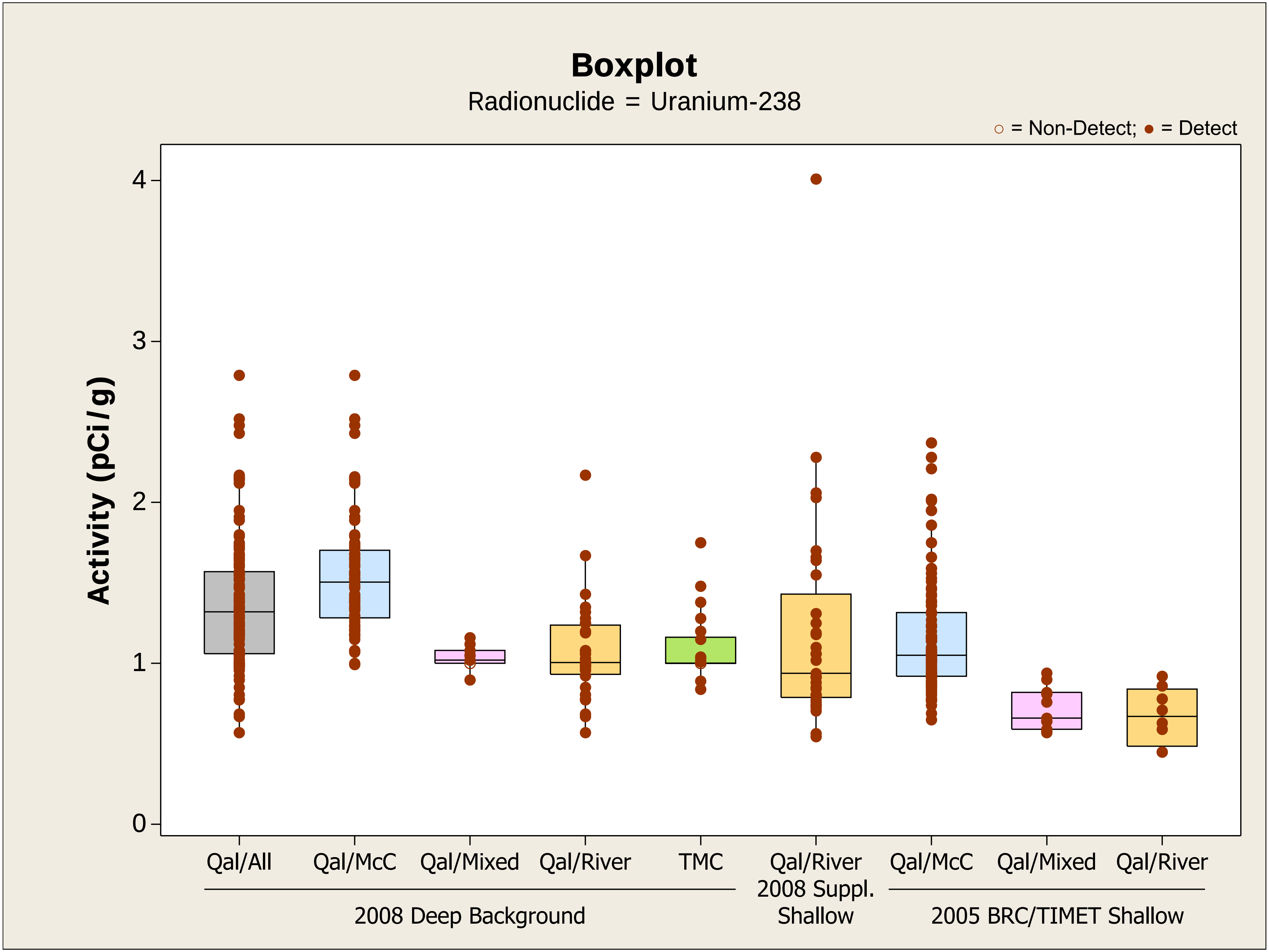

Boxplot
Radionuclide = Thorium-232
○ = Non-Detect; ● = Detect
Activity (pCi / g)
3.0
2.5
2.0
1.5
1.0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow



Boxplot
Radionuclide = Uranium-233/234
○ = Non-Detect; ● = Detect
Activity (pCi / g)
0
1
2
3
4
5
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow

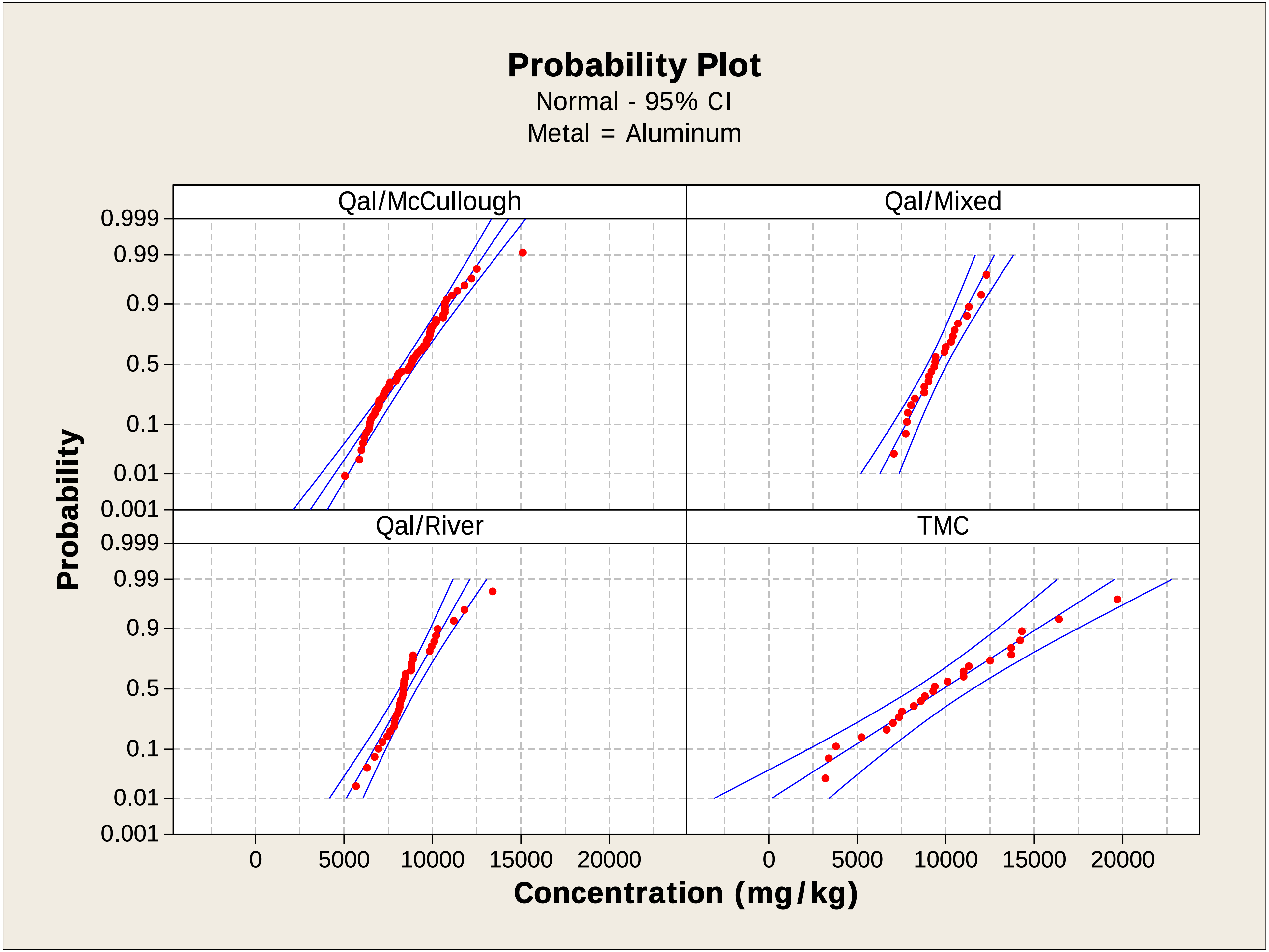


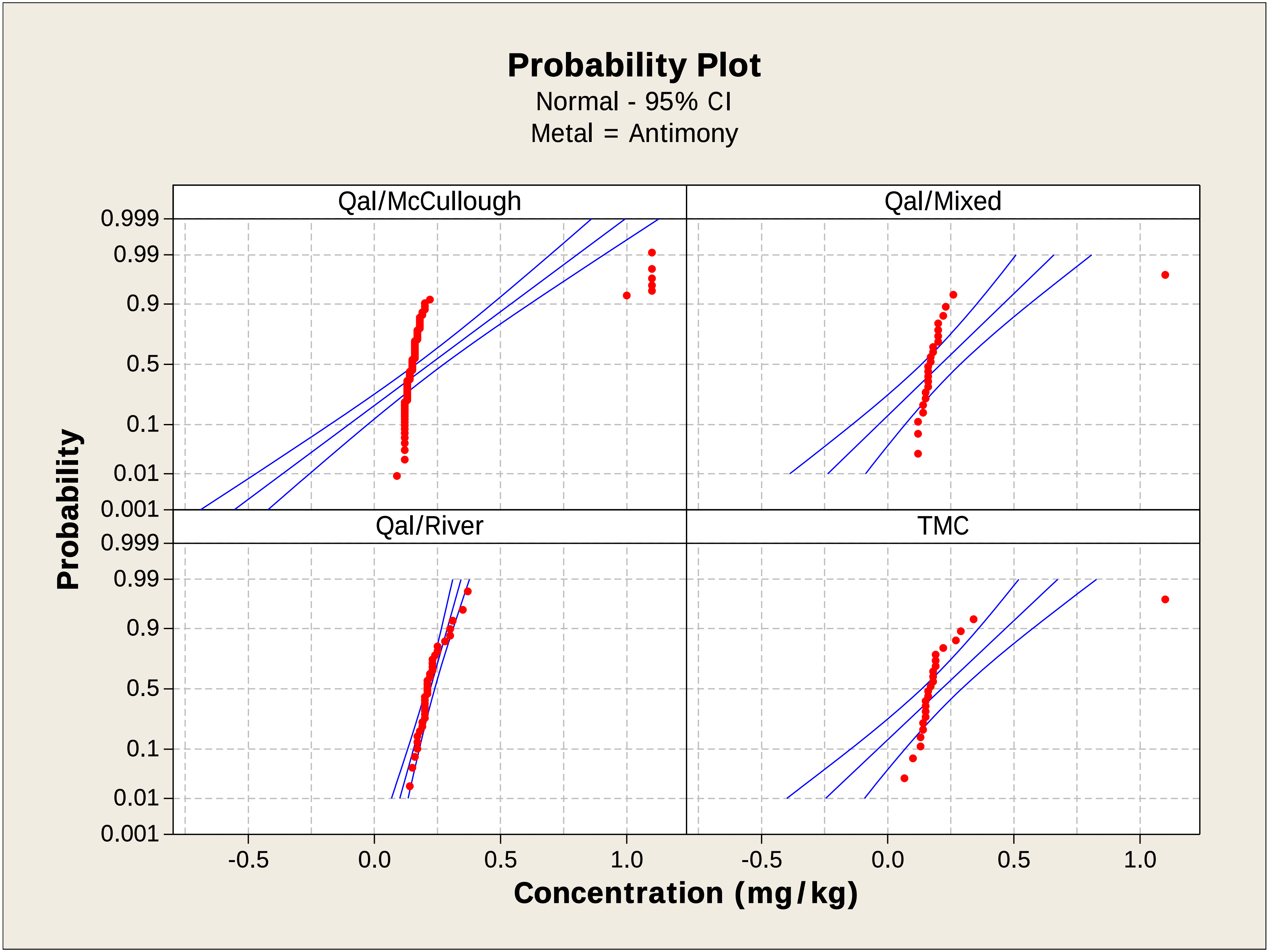
Boxplot
Radionuclide = Uranium-235/236
○ = Non-Detect; ● = Detect
Activity (pCi / g)
0.25
0.20
0.15
0.10
0.05
0.00
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl. Shallow
2005 BRC/TIMET Shallow



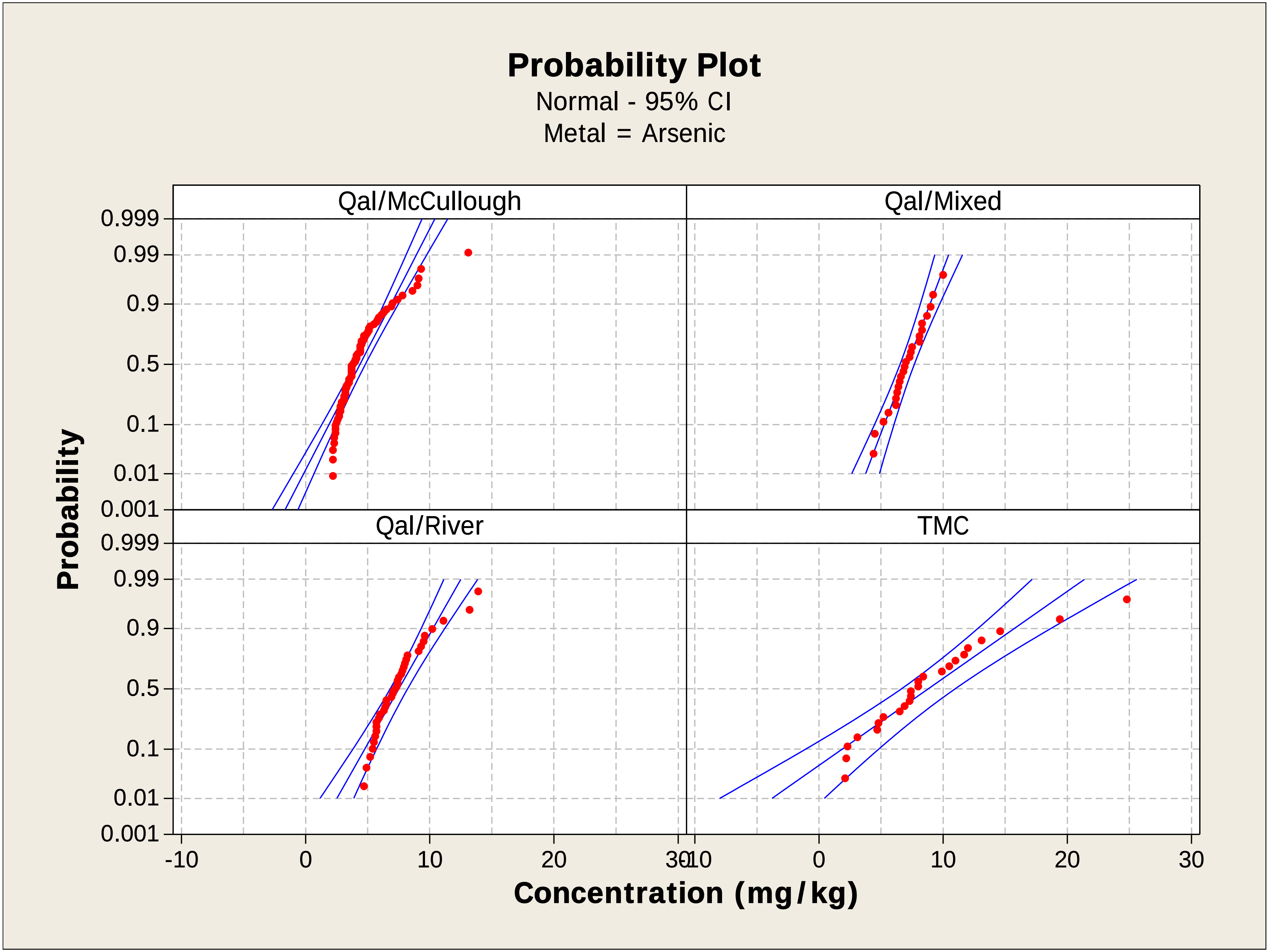
Boxplot
Radionuclide = Uranium-238
○ = Non-Detect; ● = Detect
Activity (pCi / g)
4
3
2
1
0
Qal/All
Qal/McC
Qal/Mixed
Qal/River
TMC
Qal/River
Qal/McC
Qal/Mixed
Qal/River
2008 Deep Background
2008 Suppl.
Shallow
2005 BRC/TIMET Shallow

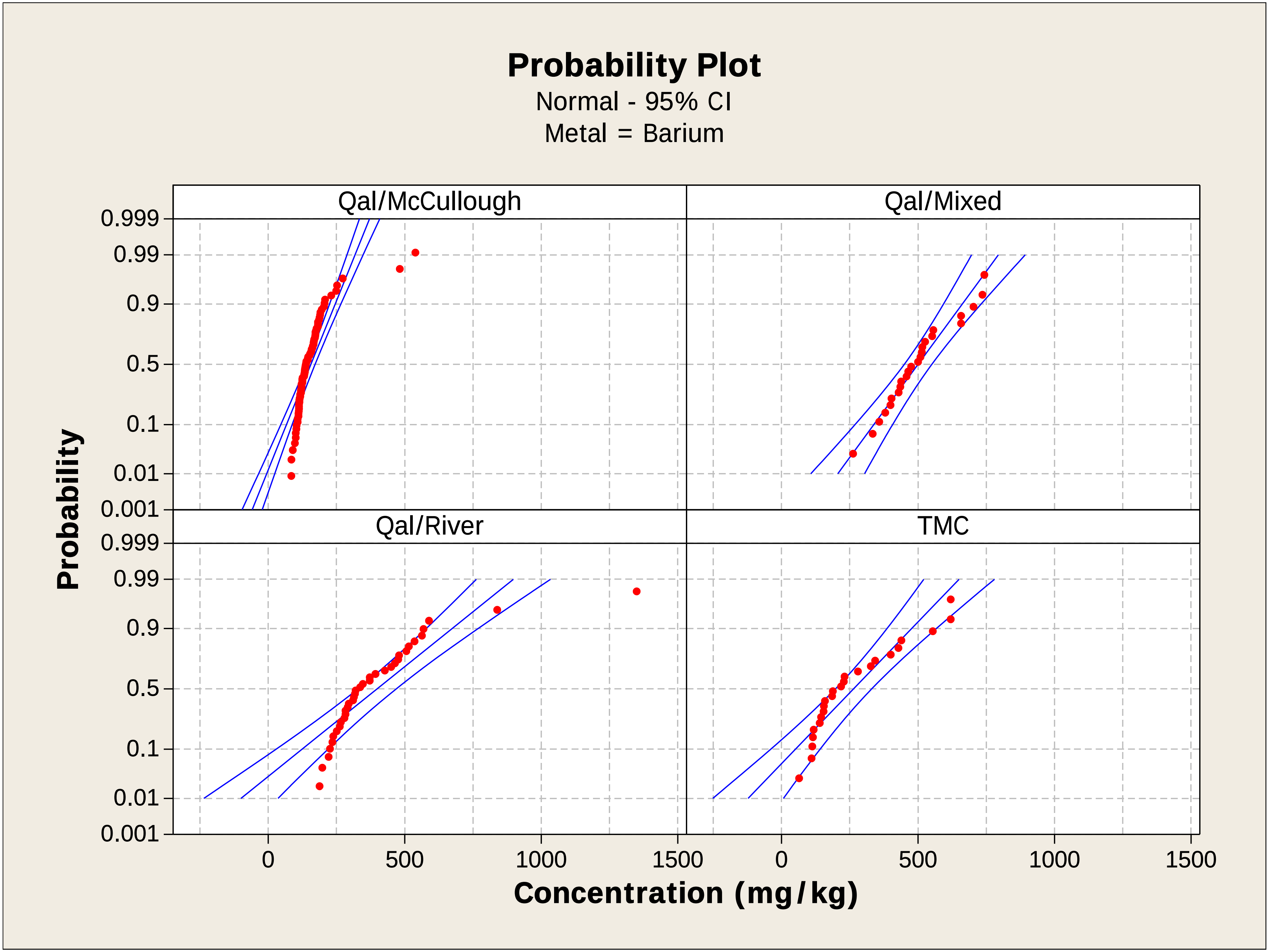
PROBABILITY PLOTS


Probability Plot
Normal - 95% CI
Metal = Aluminum
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
5000
10000
15000
20000
Concentration (mg/kg)

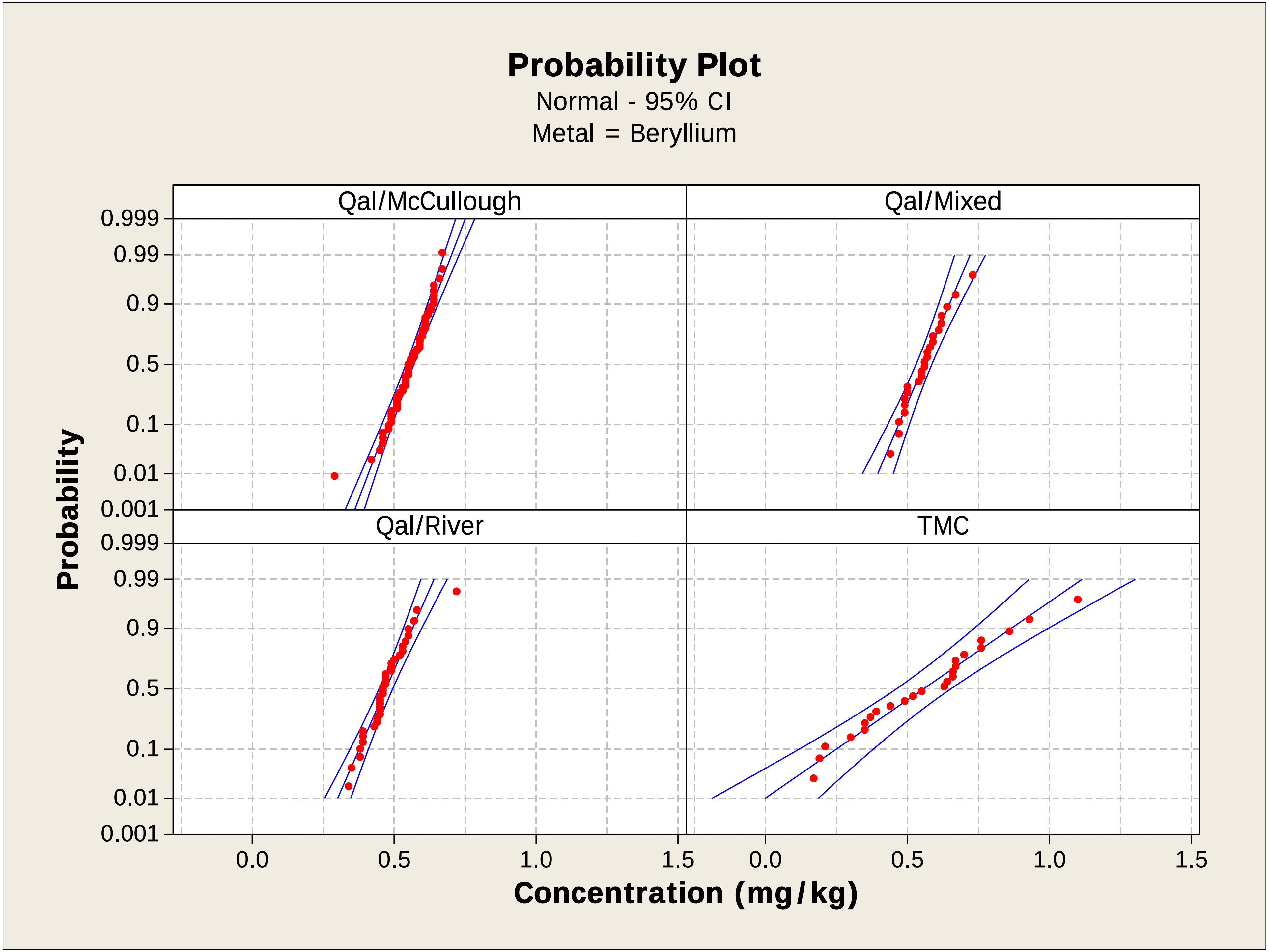


Probability Plot
Normal - 95% CI
Metal = Antimony
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-0.5
0.0
0.5
1.0
Concentration (mg/kg)

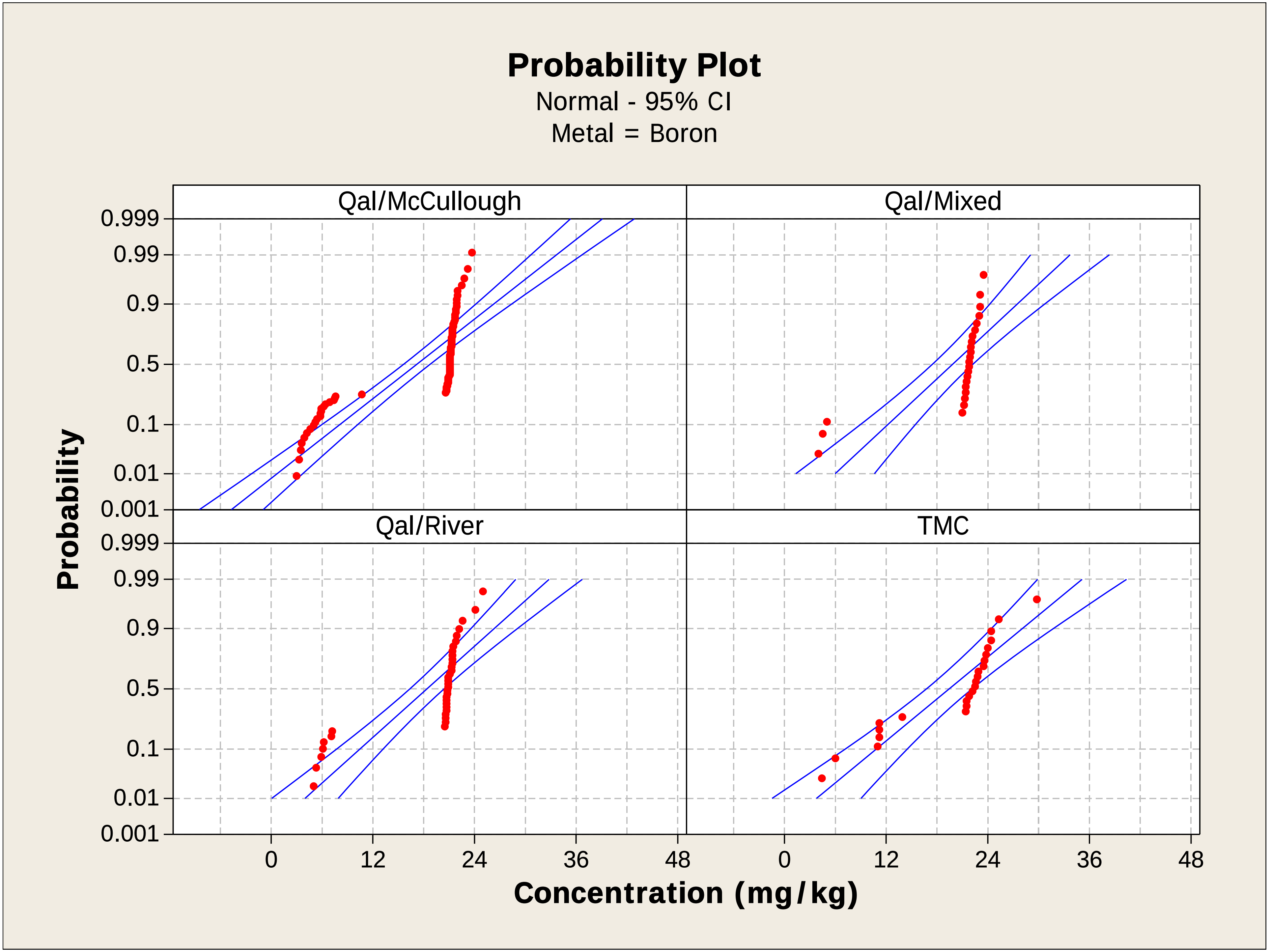

Probability Plot
Normal - 95% CI
Metal = Arsenic
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-10
0
10
20
30
Concentration (mg/kg)

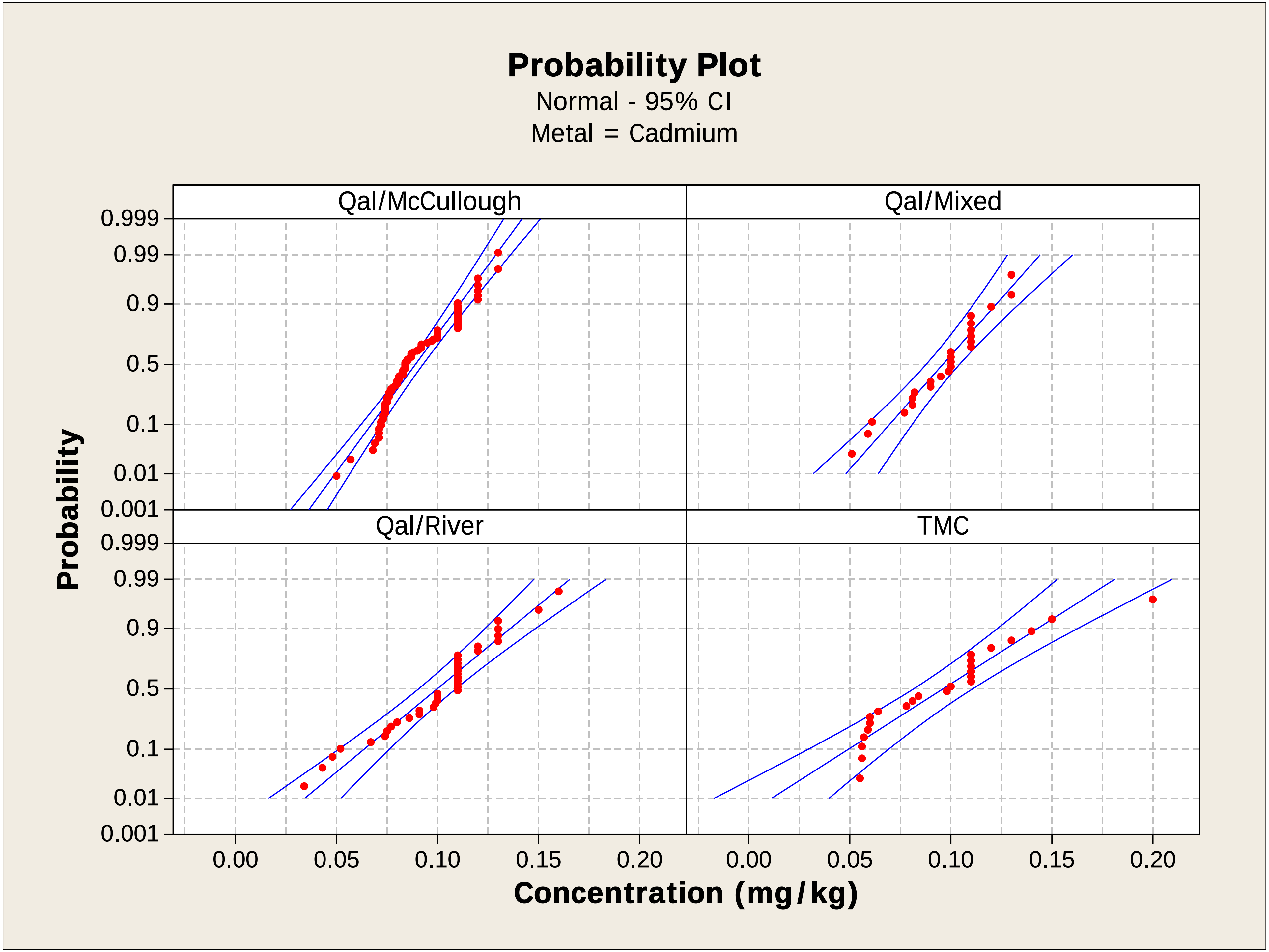


Probability Plot
Normal - 95% CI
Metal = Barium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
500
1000
1500
Probability
Concentration (mg/kg)

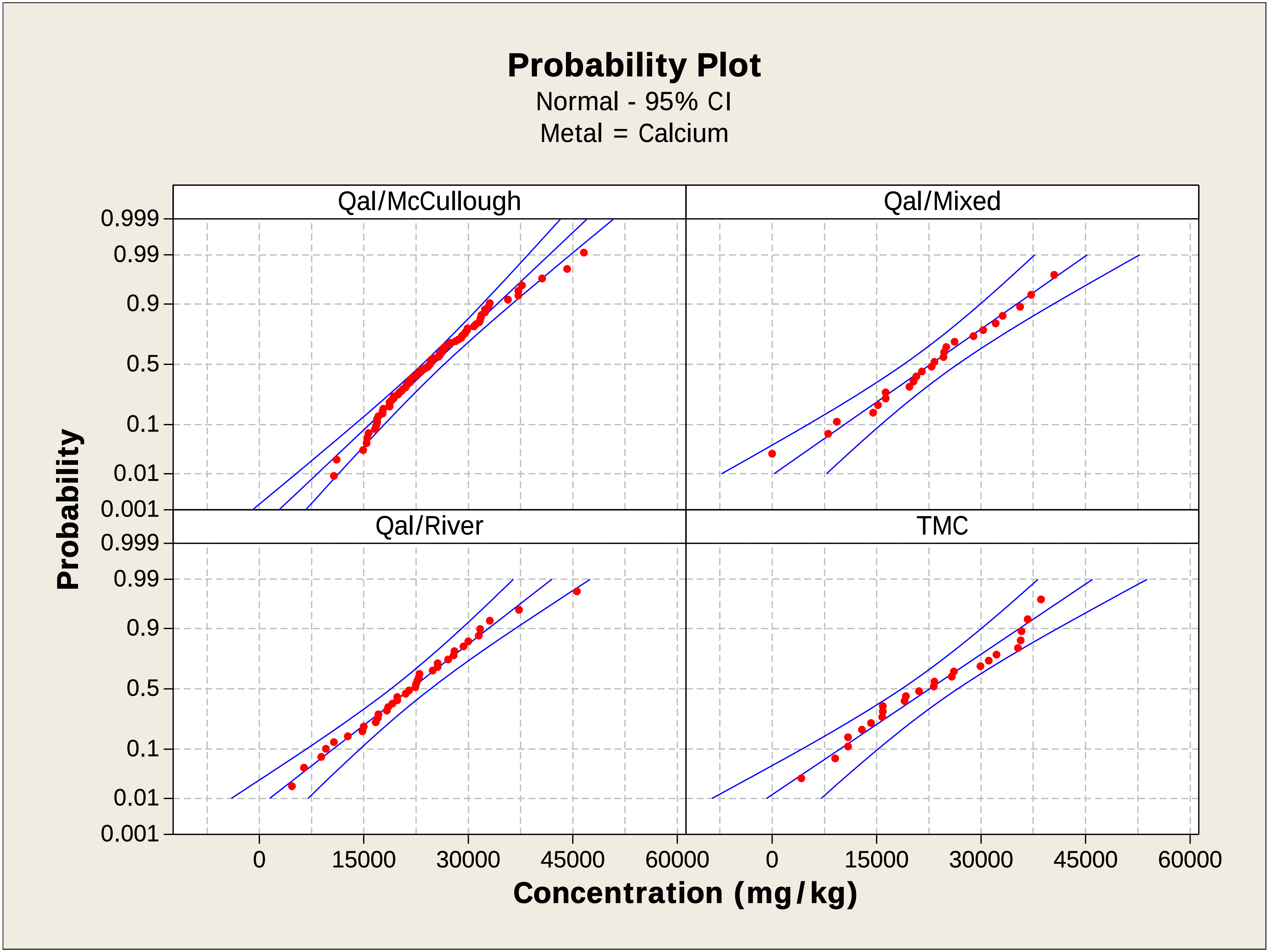


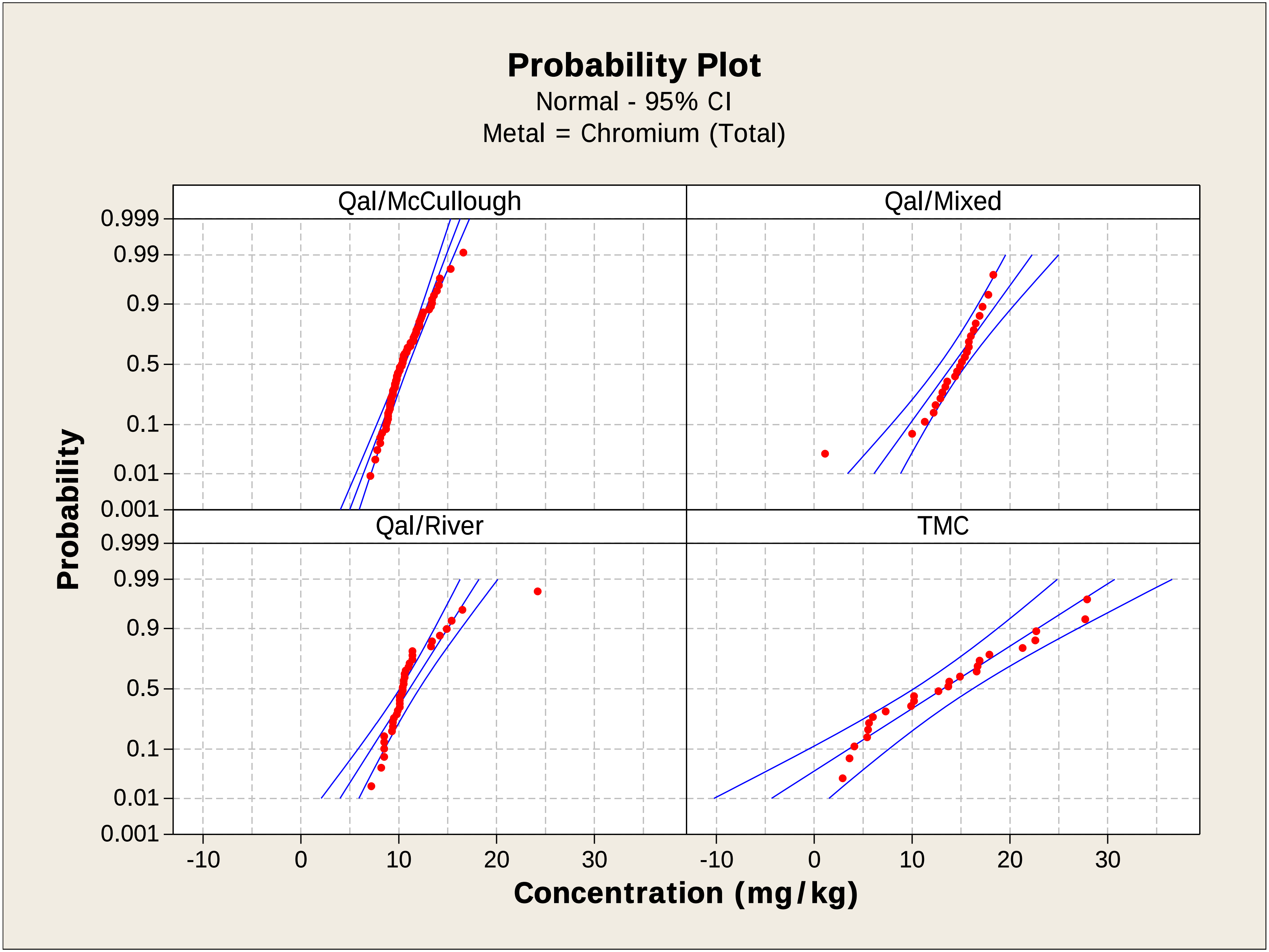
Probability Plot
Normal - 95% CI
Metal = Beryllium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0.0
0.5
1.0
1.5
Concentration (mg/kg)

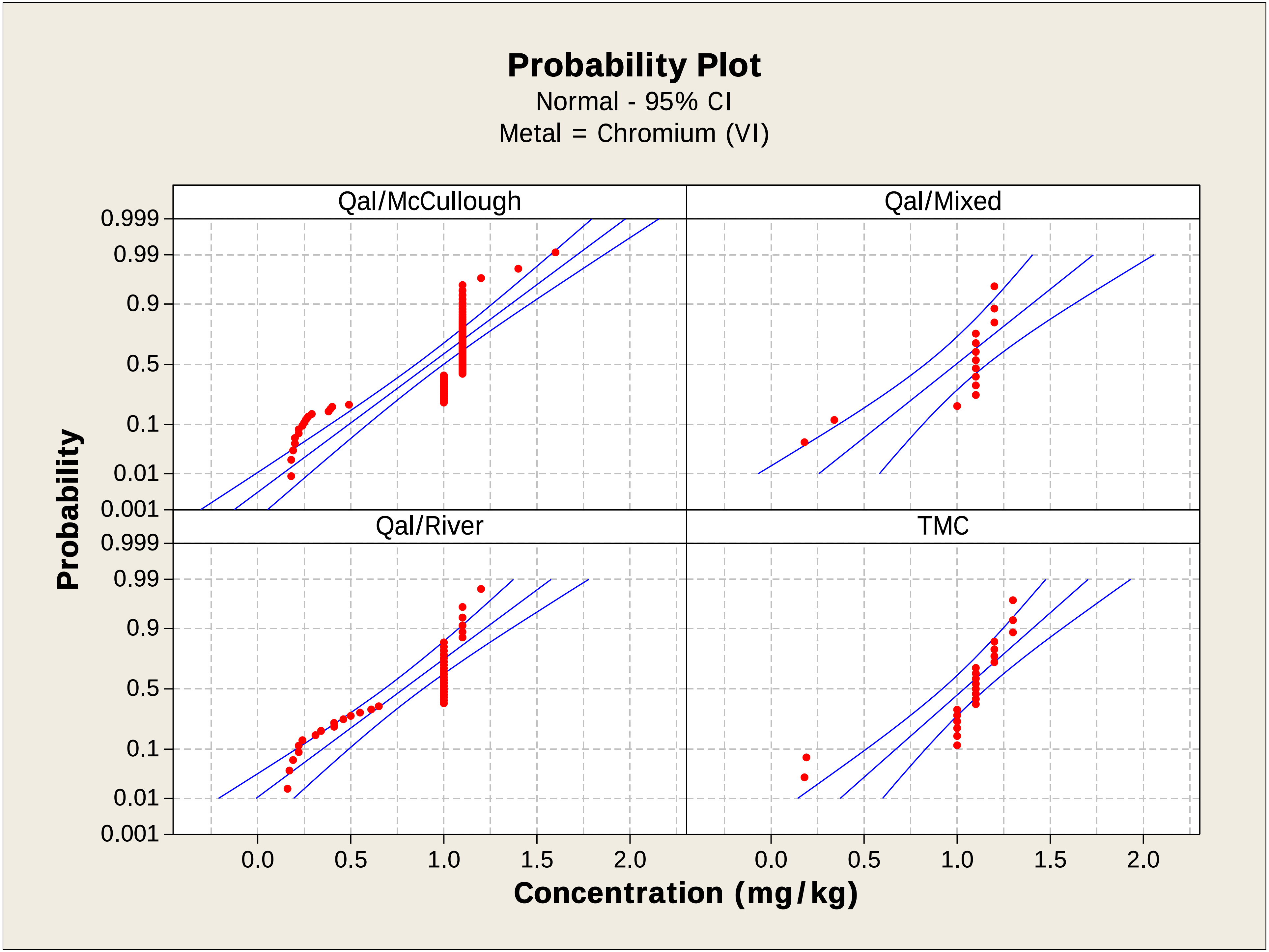

Probability Plot
Normal - 95% CI
Metal = Boron
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
12
24
36
48
Concentration (mg/kg)

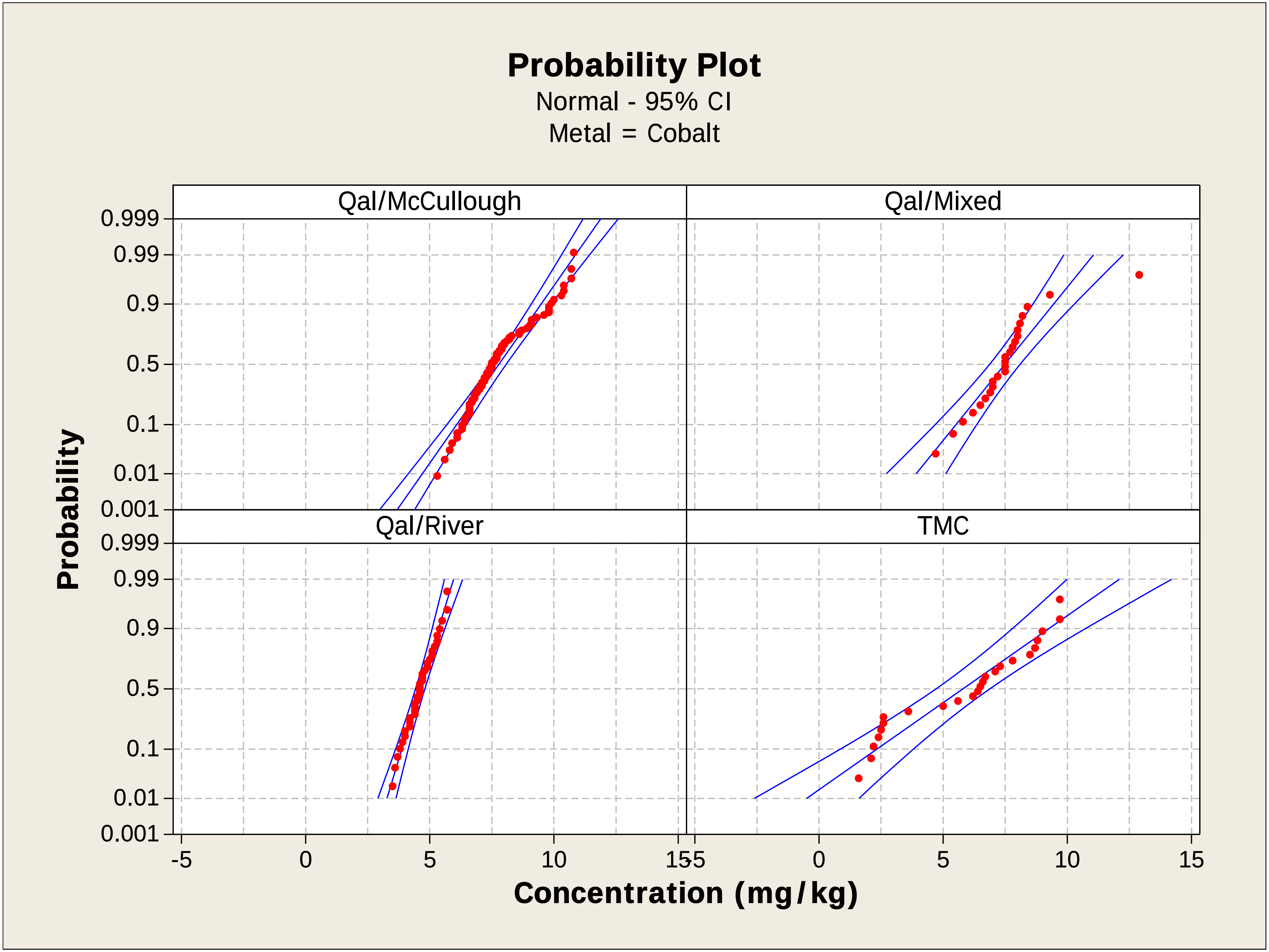


Probability Plot
Normal - 95% CI
Metal = Cadmium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0.00
0.05
0.10
0.15
0.20
Probability
Concentration (mg/kg)

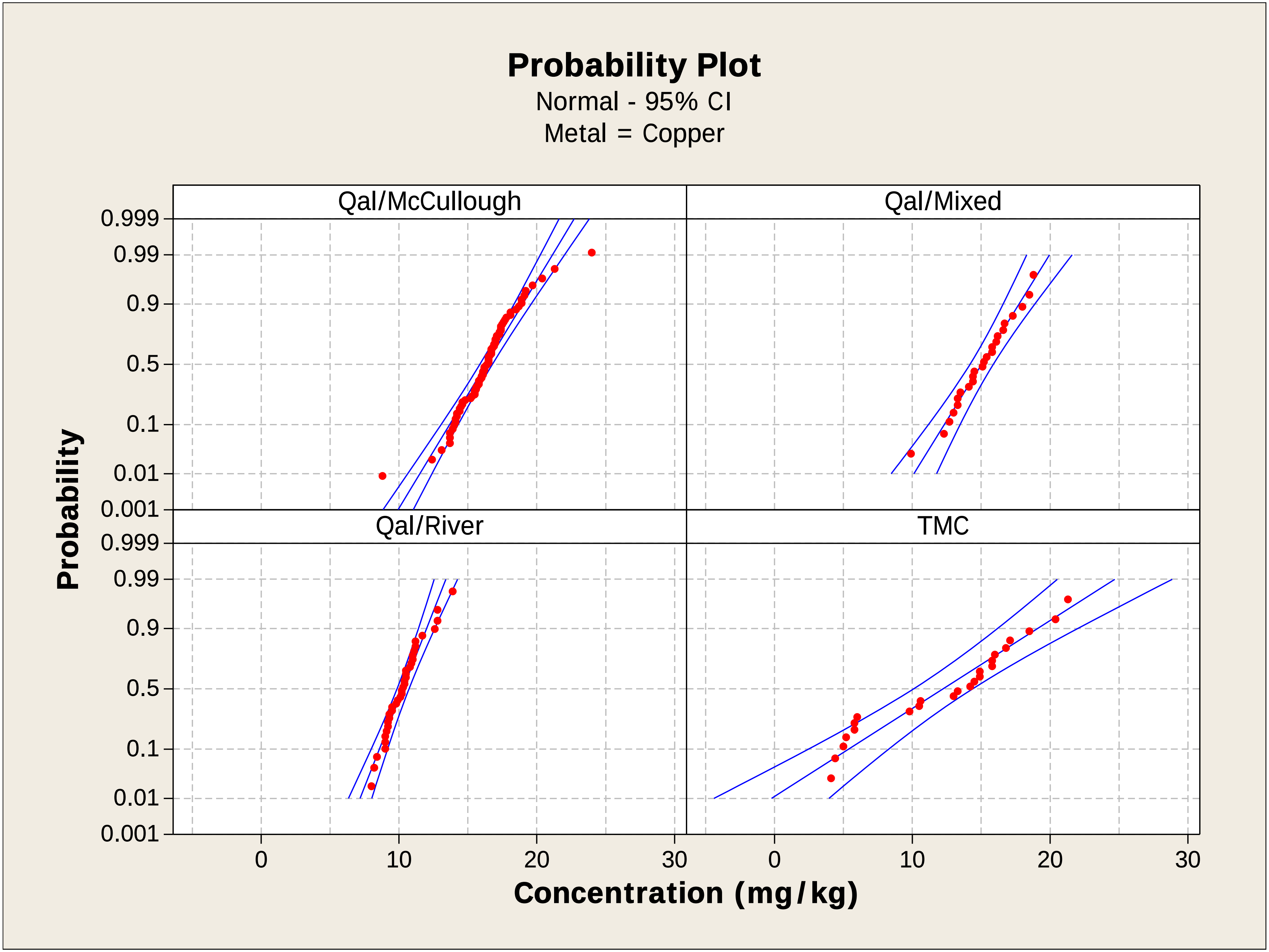

Probability Plot
Normal - 95% CI
Metal = Calcium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
15000
30000
45000
60000
Concentration (mg/kg)


Probability Plot
Normal - 95% CI
Metal = Chromium (Total)
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-10
0
10
20
30
Concentration (mg/kg)

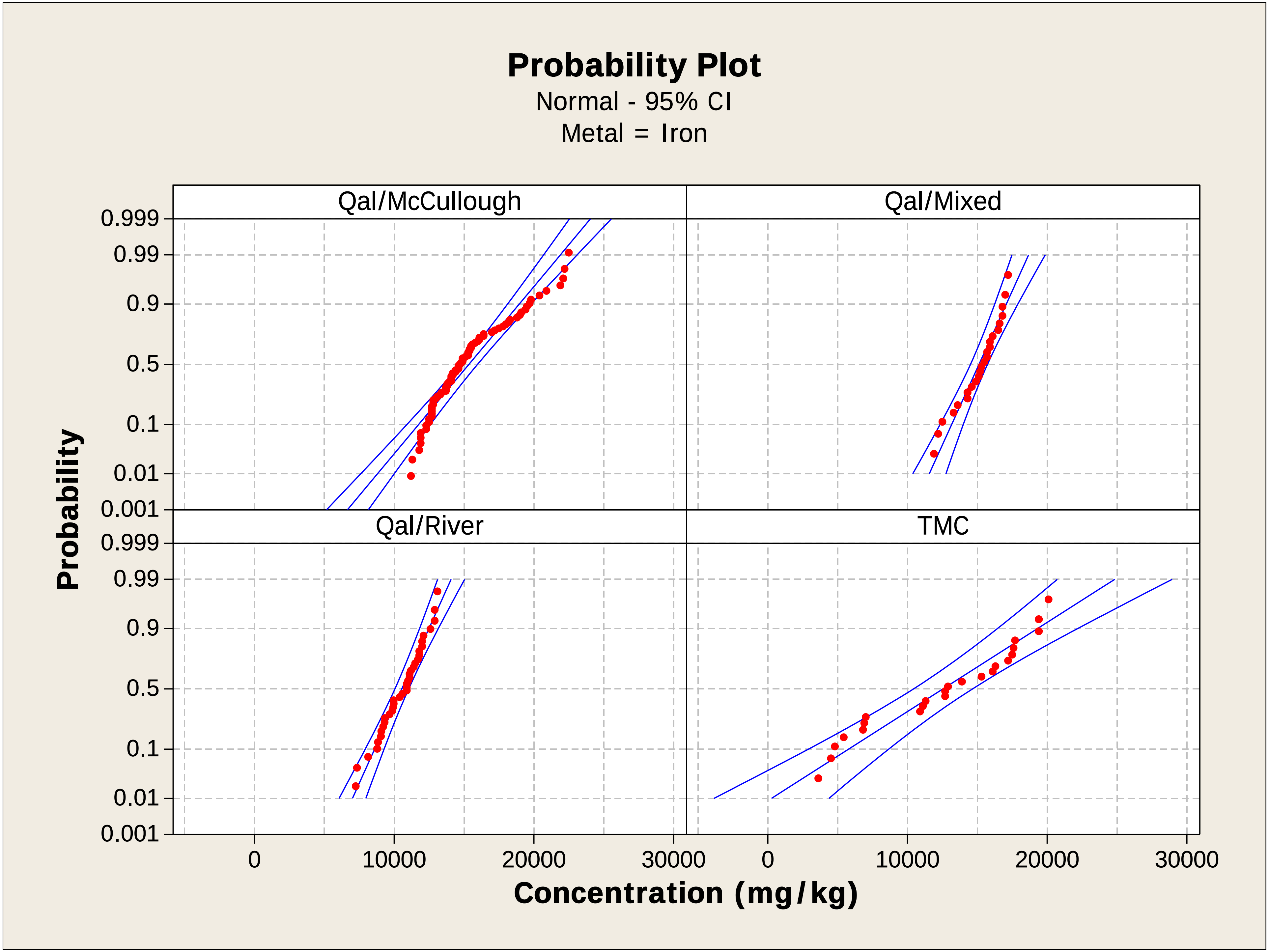

Probability Plot
Normal - 95% CI
Metal = Chromium (VI)
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0.0
0.5
1.0
1.5
2.0
Concentration (mg/kg)



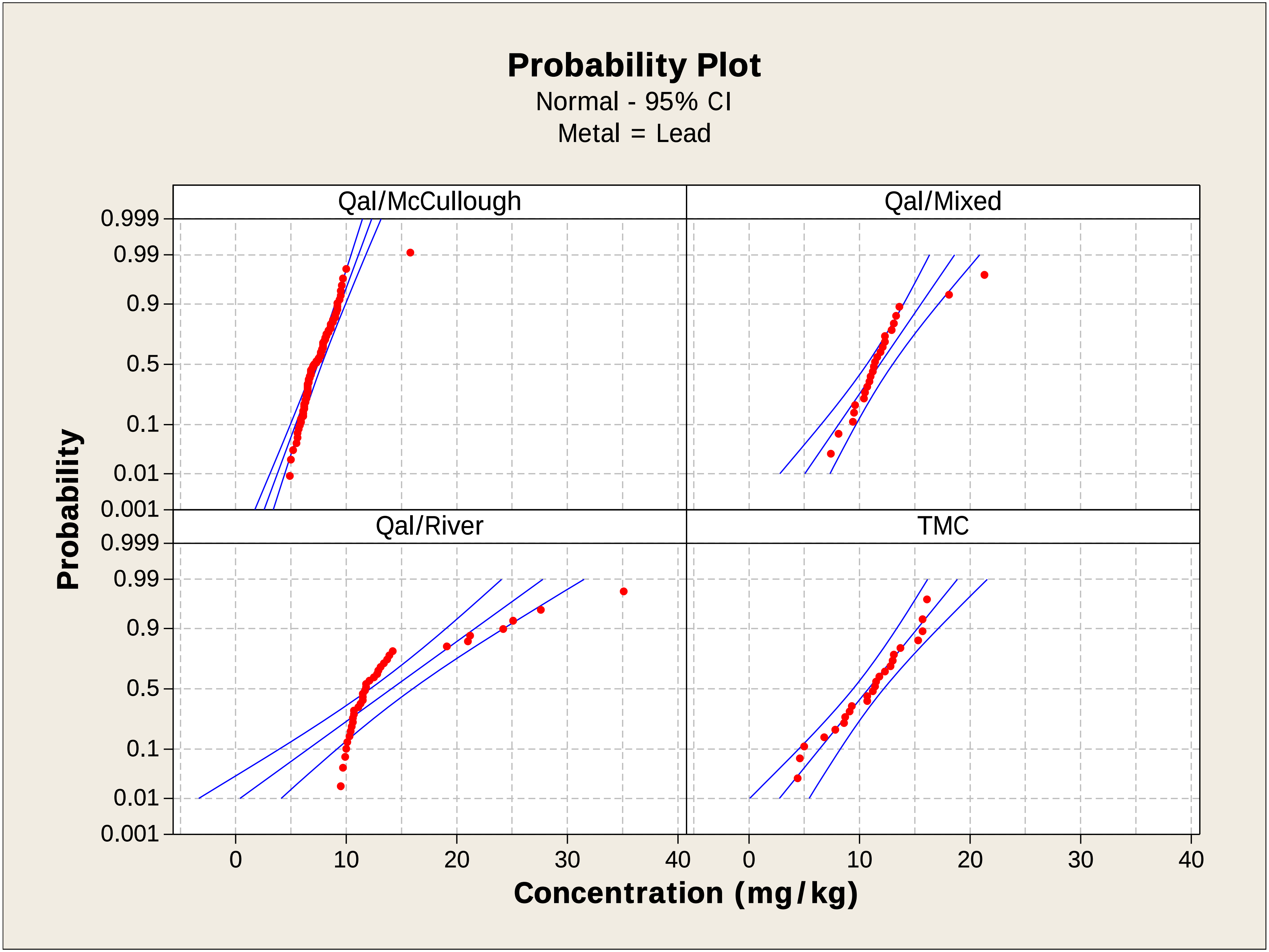
Probability Plot
Normal - 95% CI
Metal = Cobalt
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-5
0
5
10
15
Concentration (mg/kg)

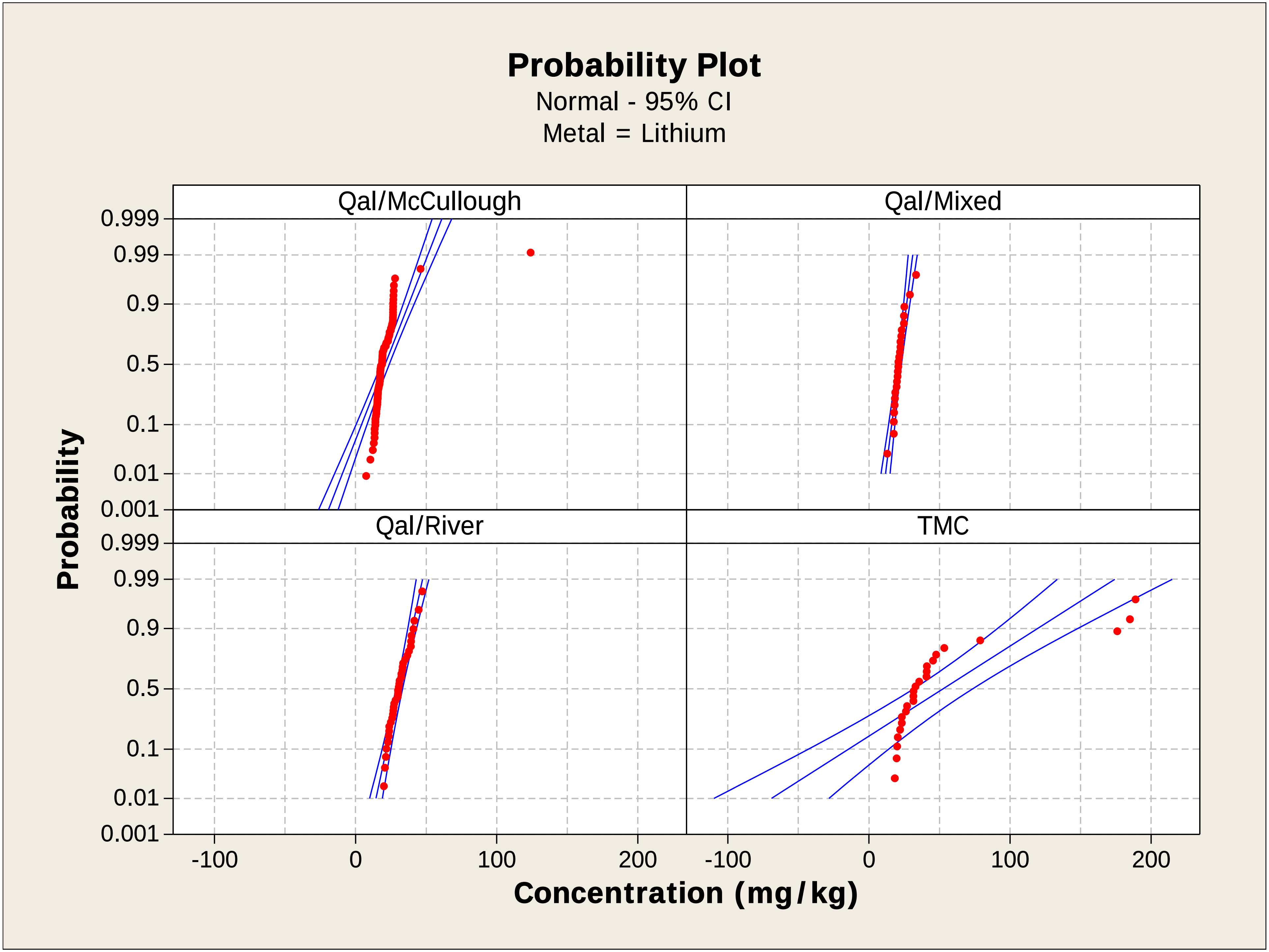


Probability Plot
Normal - 95% CI
Metal = Copper
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
10
20
30
Probability
Concentration (mg/kg)

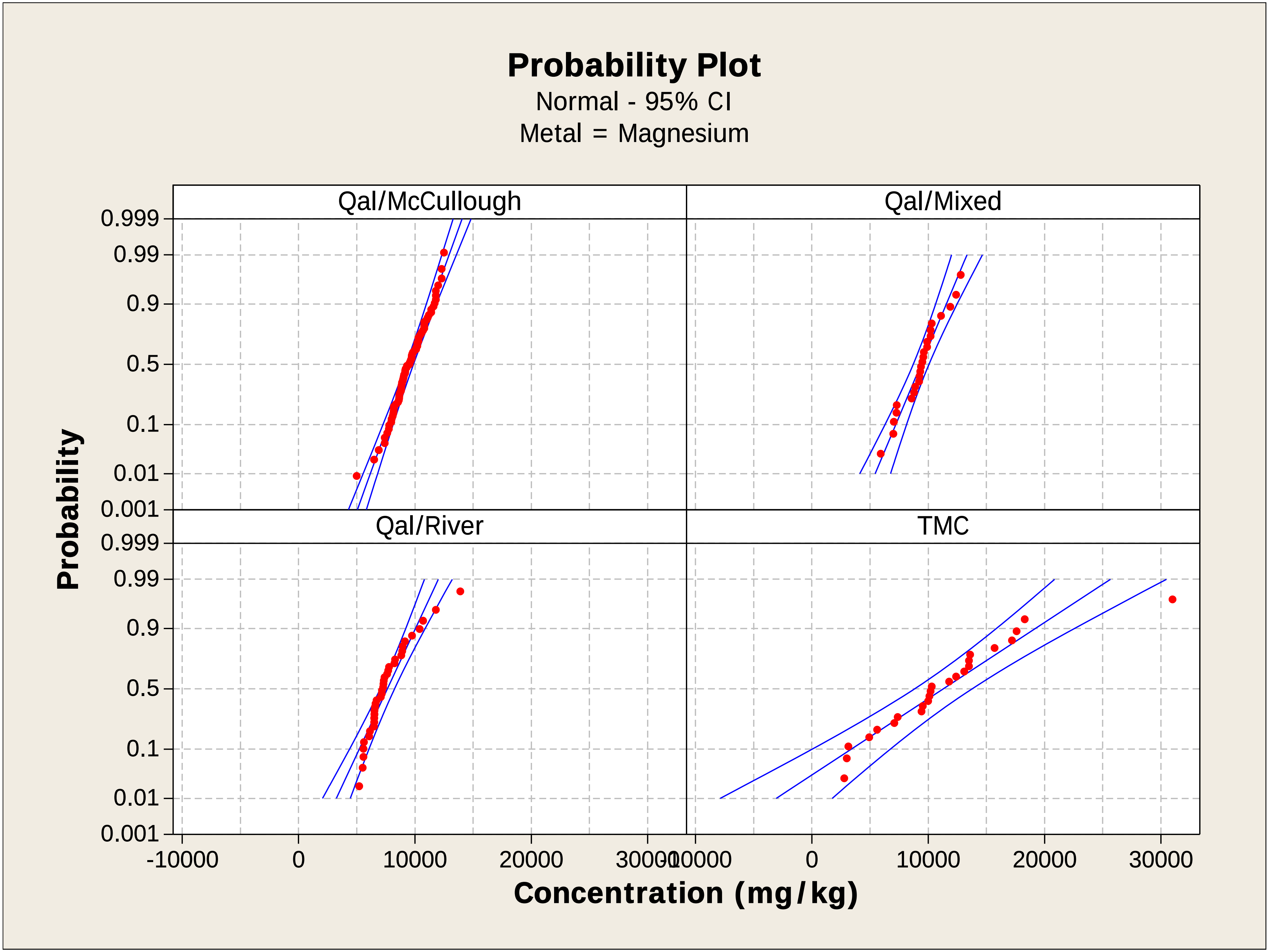


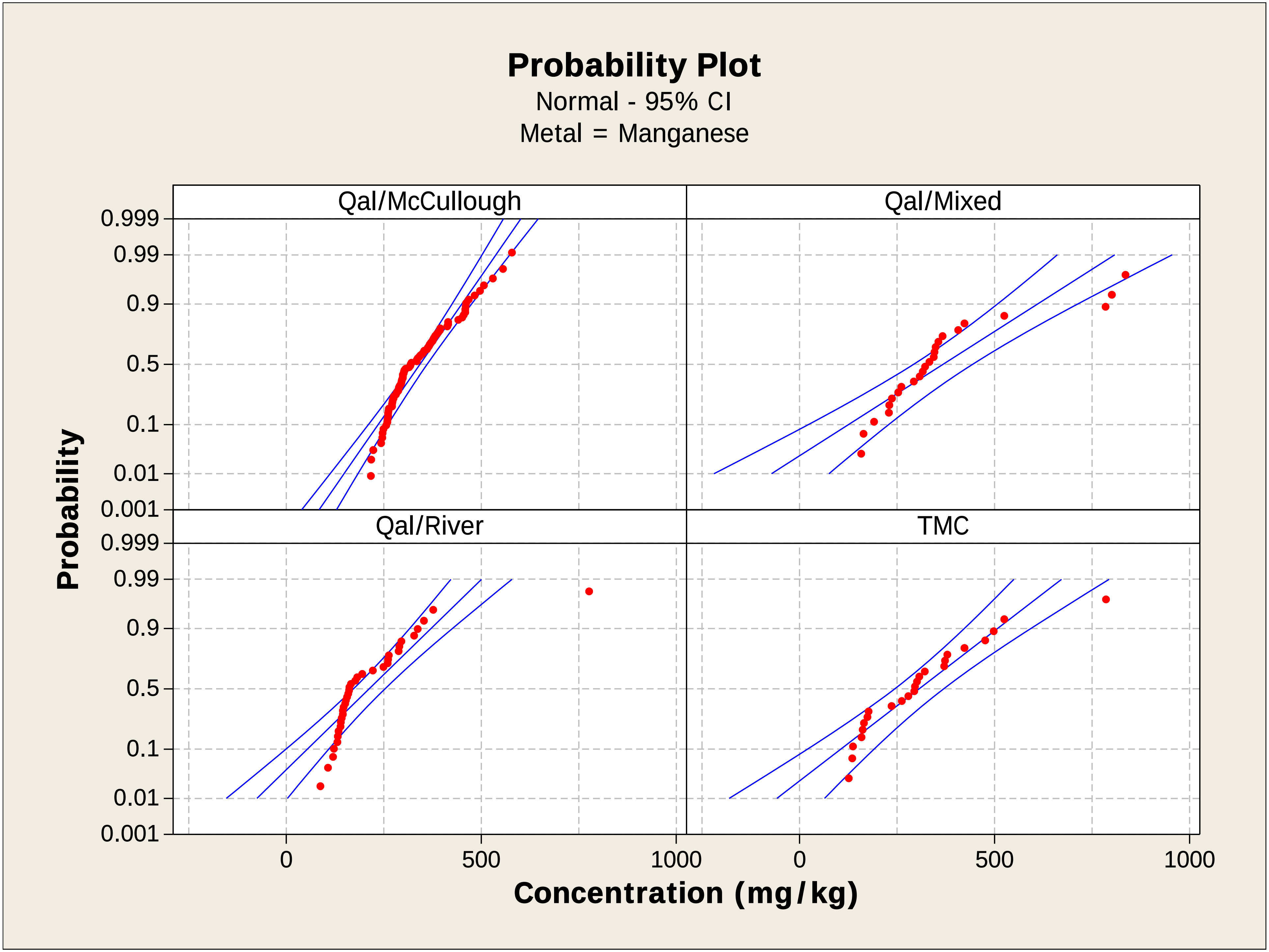
Probability Plot
Normal - 95% CI
Metal = Iron
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
Probability
0
10000
20000
30000
Concentration (mg/kg)


Probability Plot
Normal - 95% CI
Metal = Lead
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
10
20
30
40
Probability
Concentration (mg/kg)

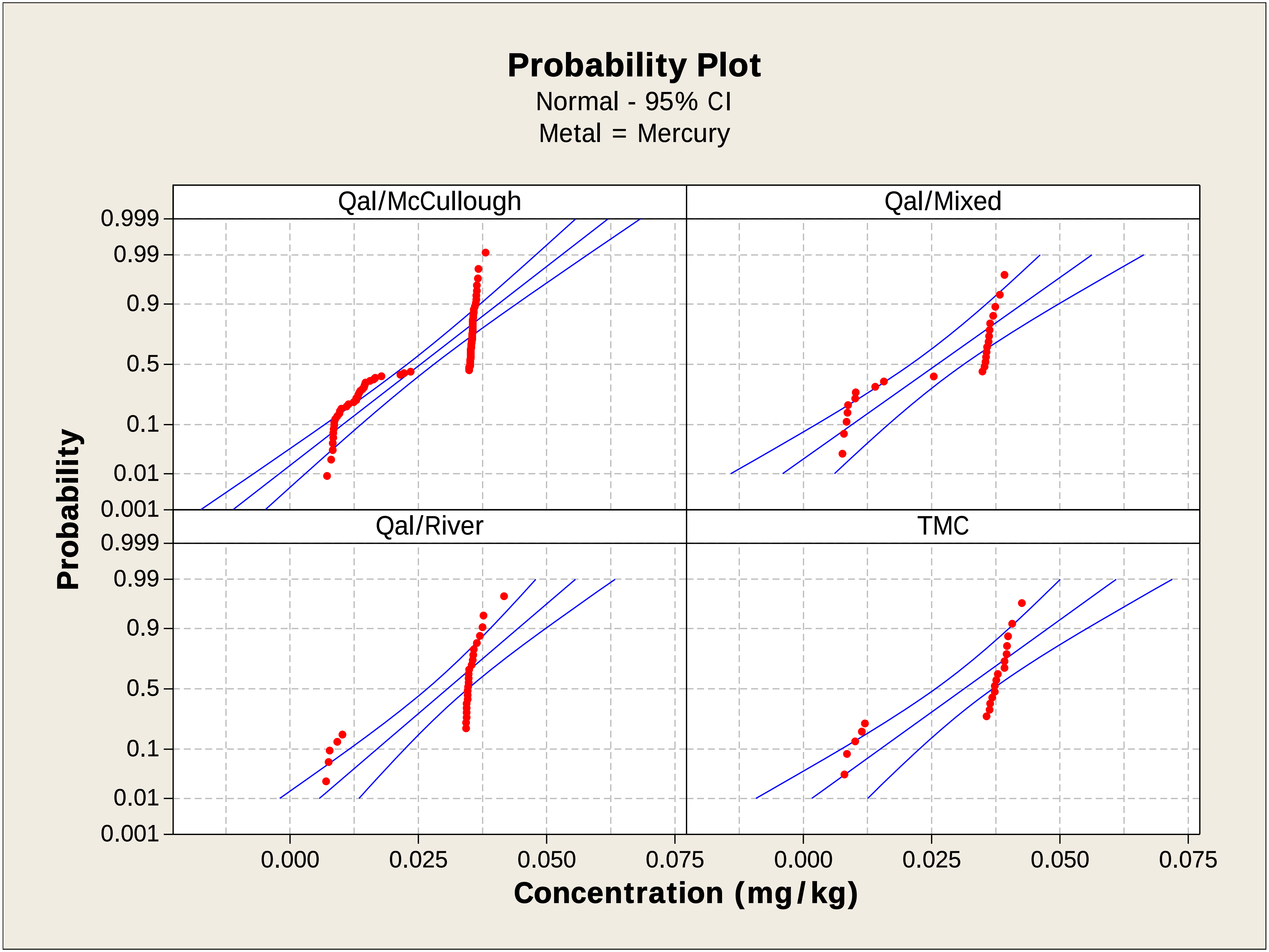


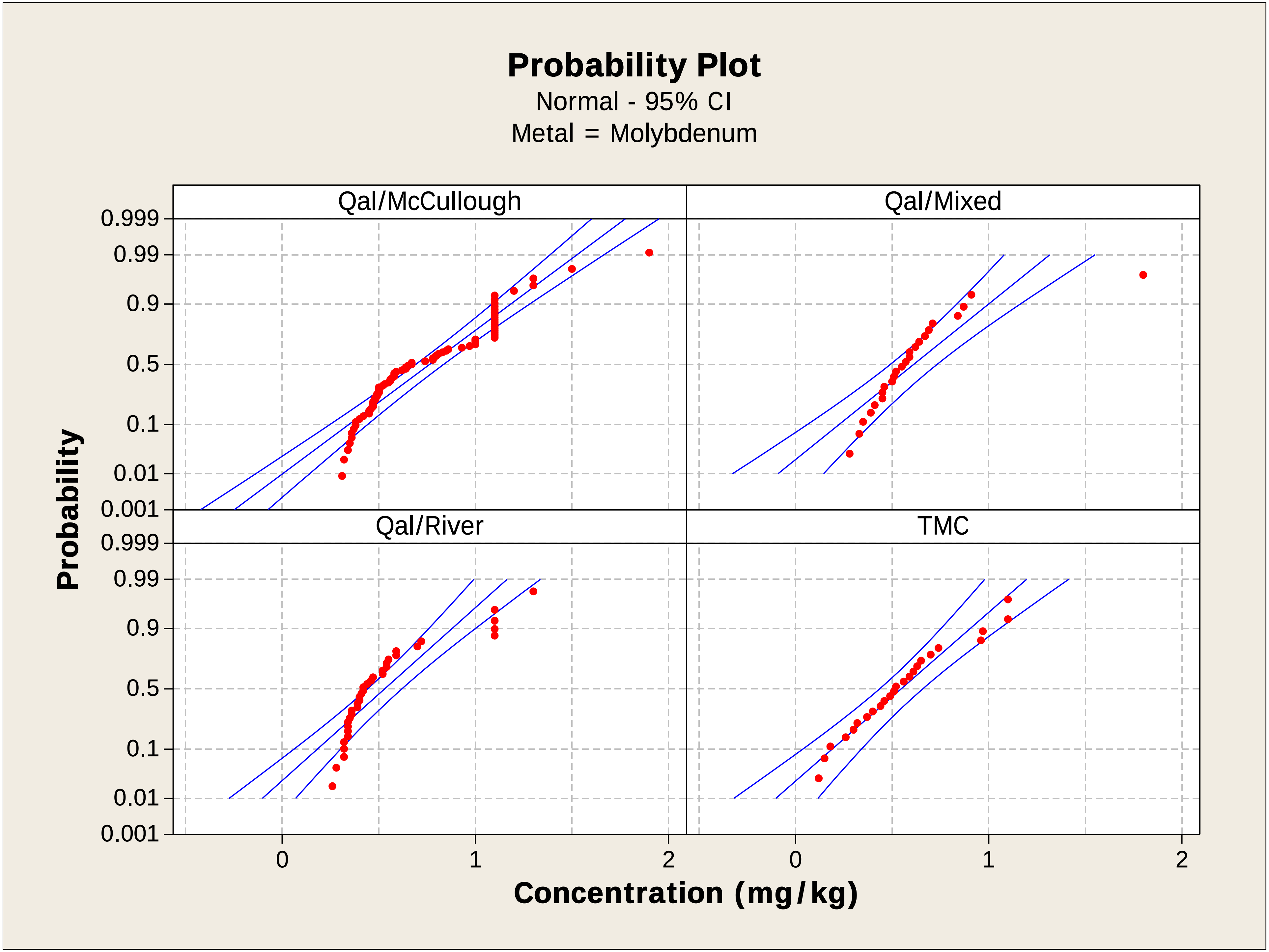
Probability Plot
Normal - 95% CI
Metal = Lithium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-100
0
100
200
Probability
Concentration (mg/kg)


Probability Plot
Normal - 95% CI
Metal = Magnesium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-10000
0
10000
20000
30000
Concentration (mg/kg)

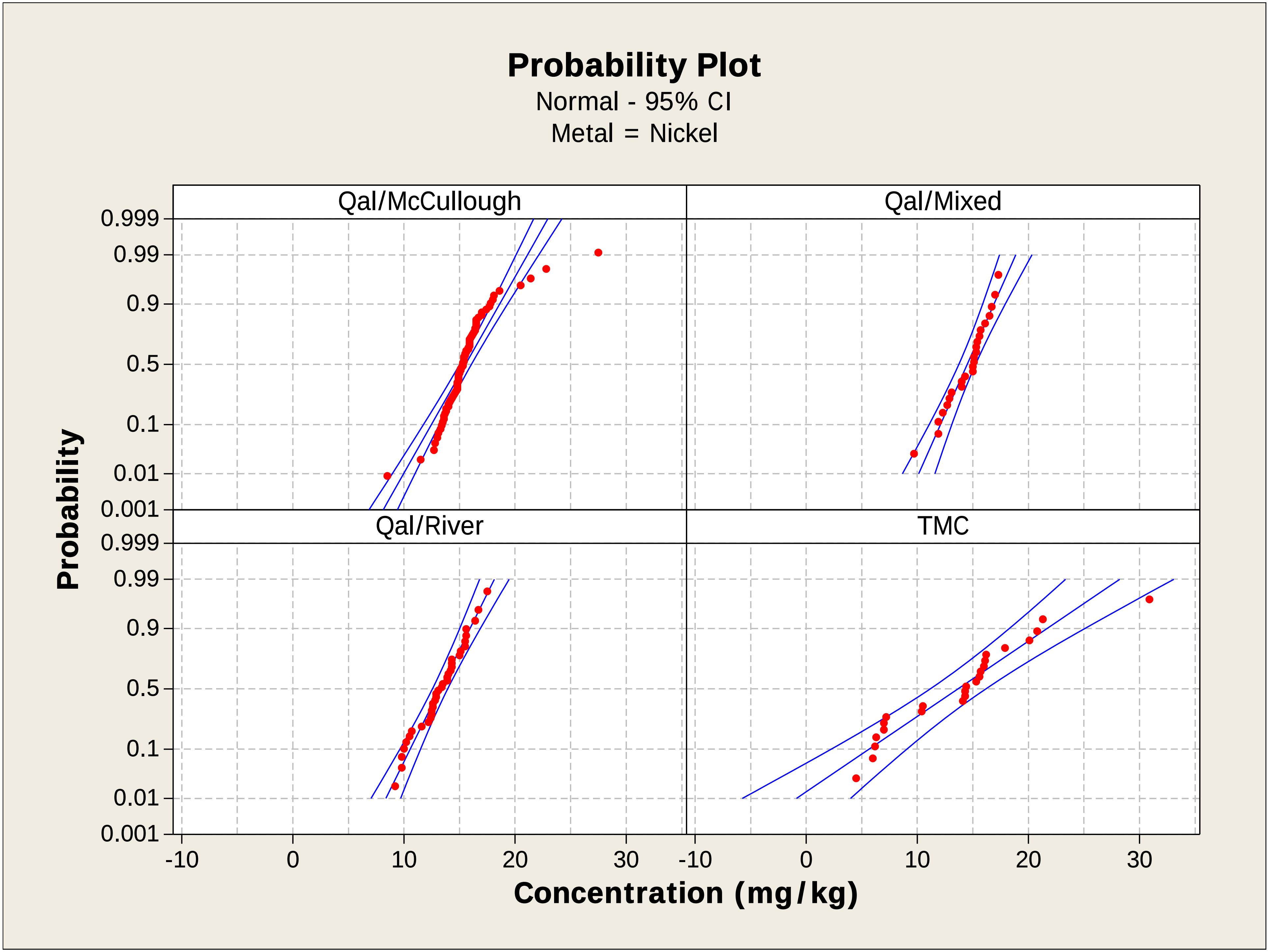


Probability Plot
Normal - 95% CI
Metal = Manganese
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
500
1000
Concentration (mg/kg)

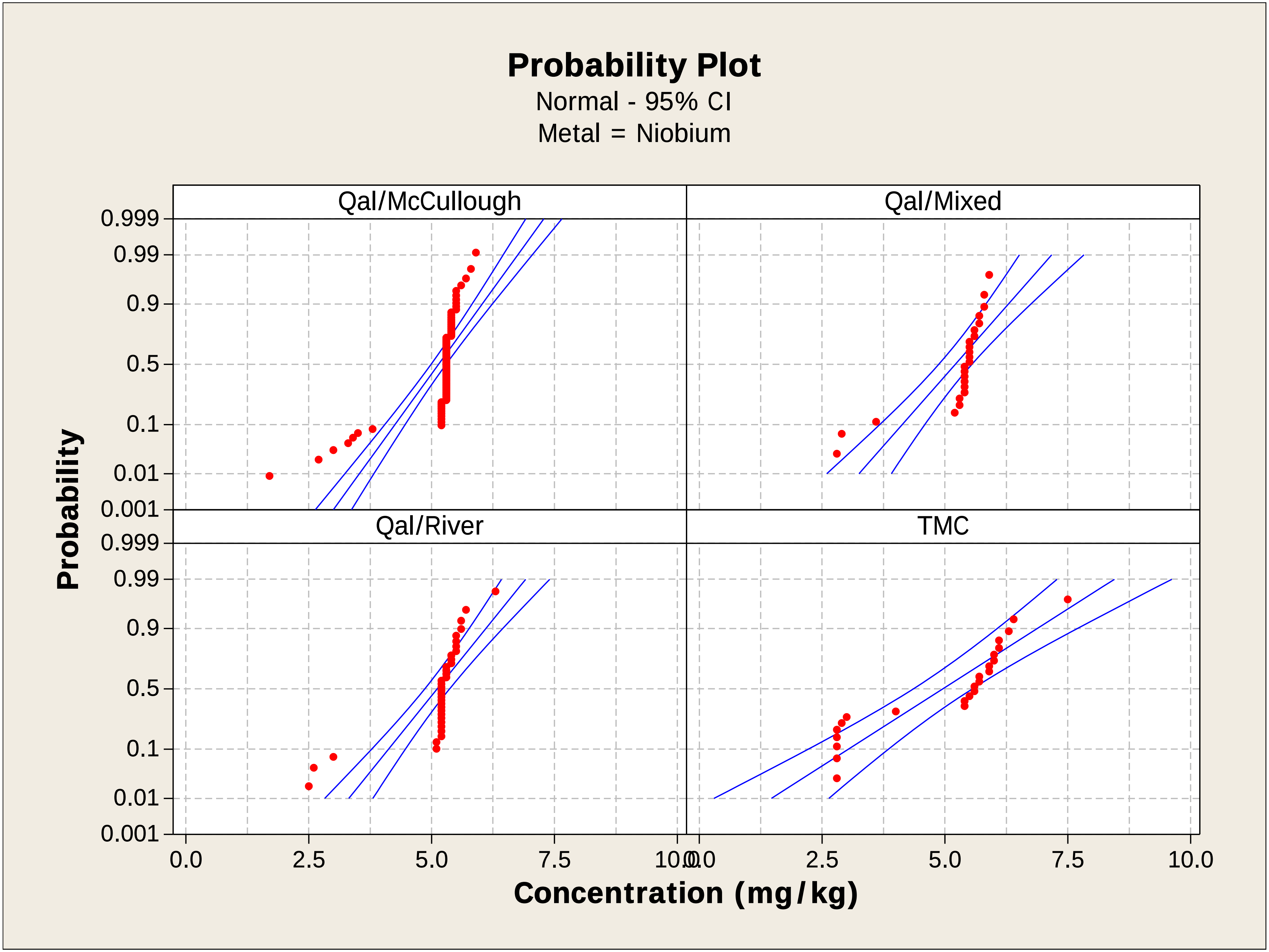

Probability Plot
Normal - 95% CI
Metal = Mercury
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0.000
0.025
0.050
0.075
Probability
Concentration (mg/kg)

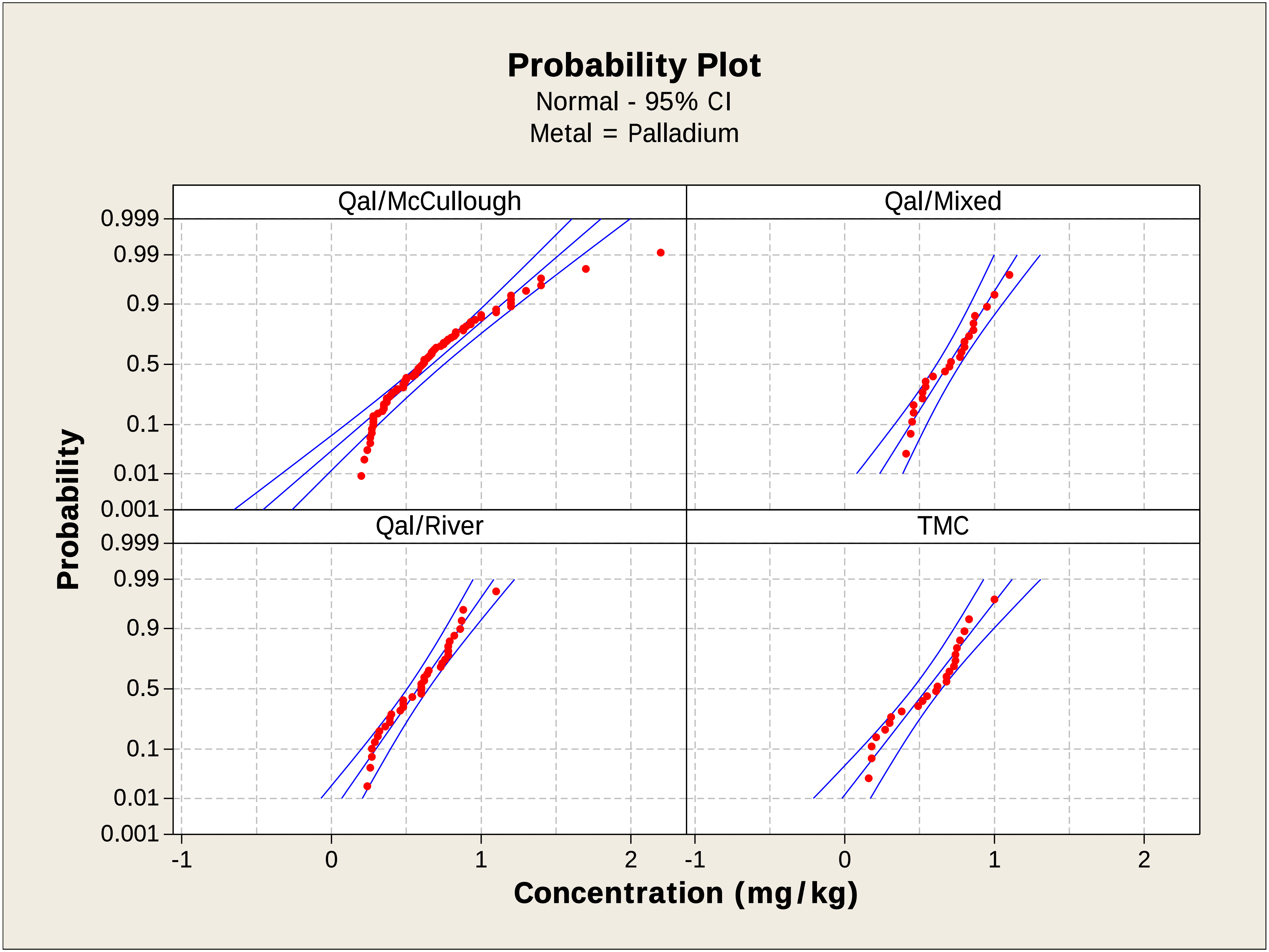


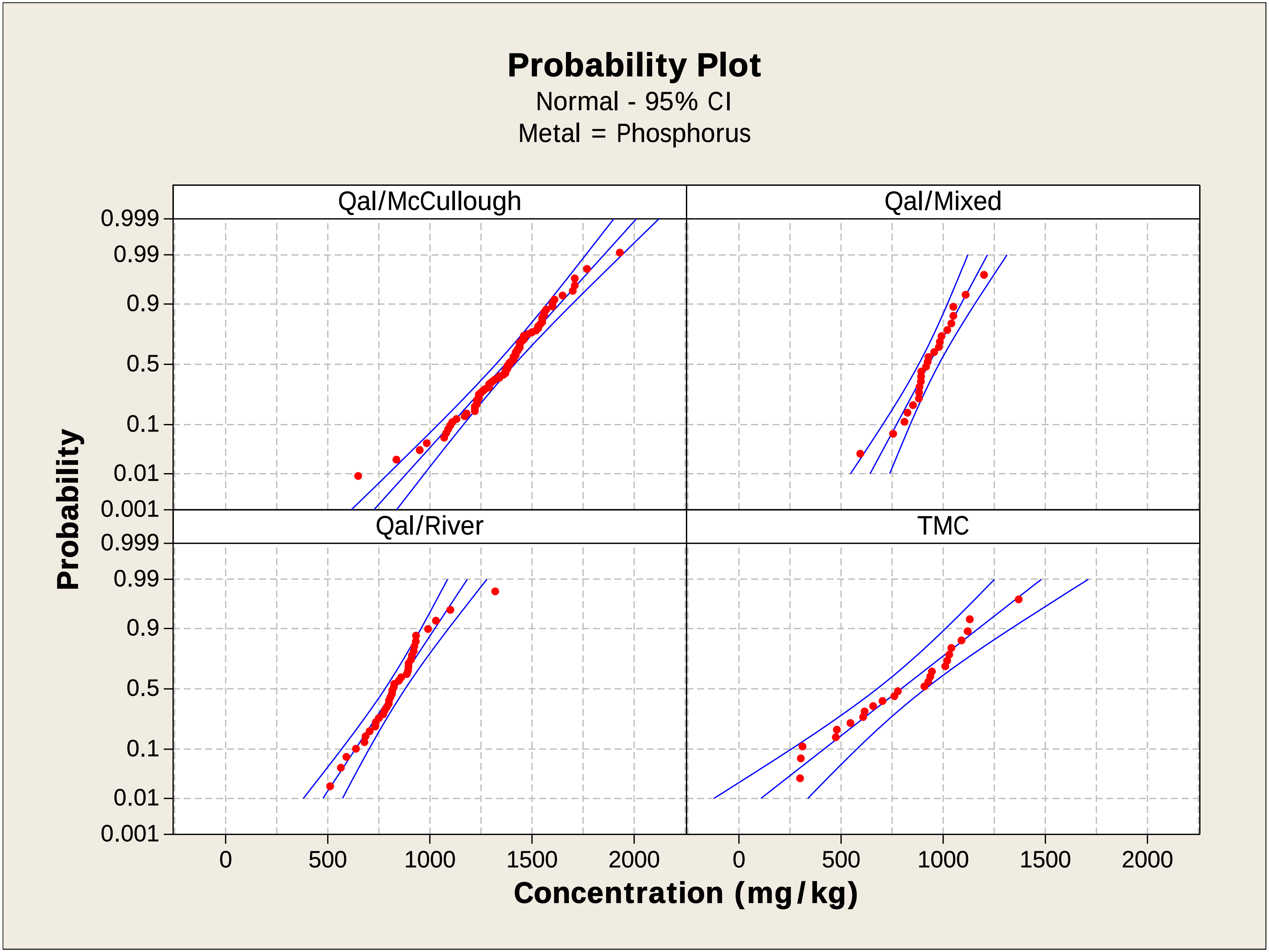
Probability Plot
Normal - 95% CI
Metal = Molybdenum
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
1
2
Concentration (mg/kg)



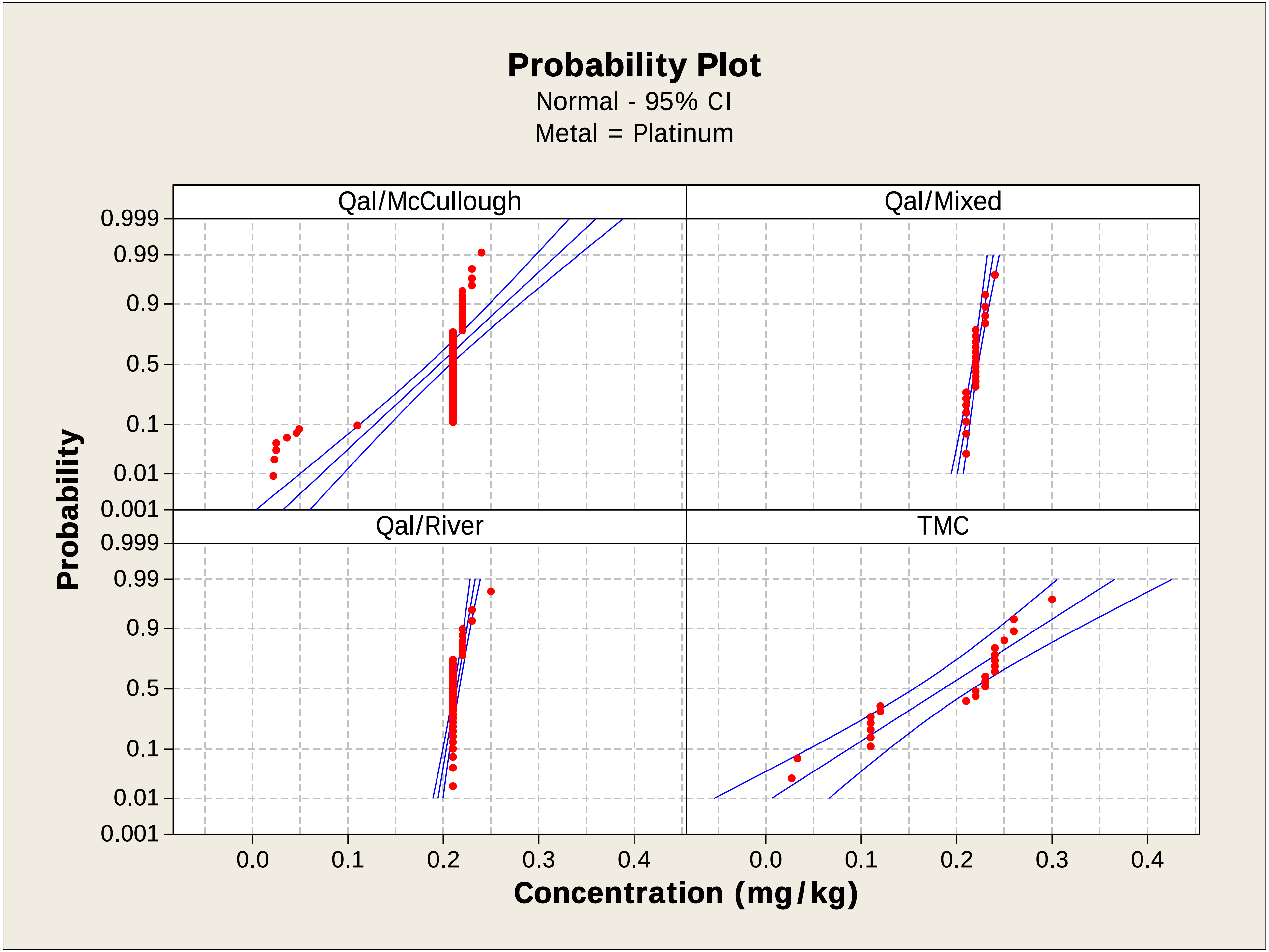
Probability Plot
Normal - 95% CI
Metal = Nickel
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-10
0
10
20
30
Concentration (mg/kg)

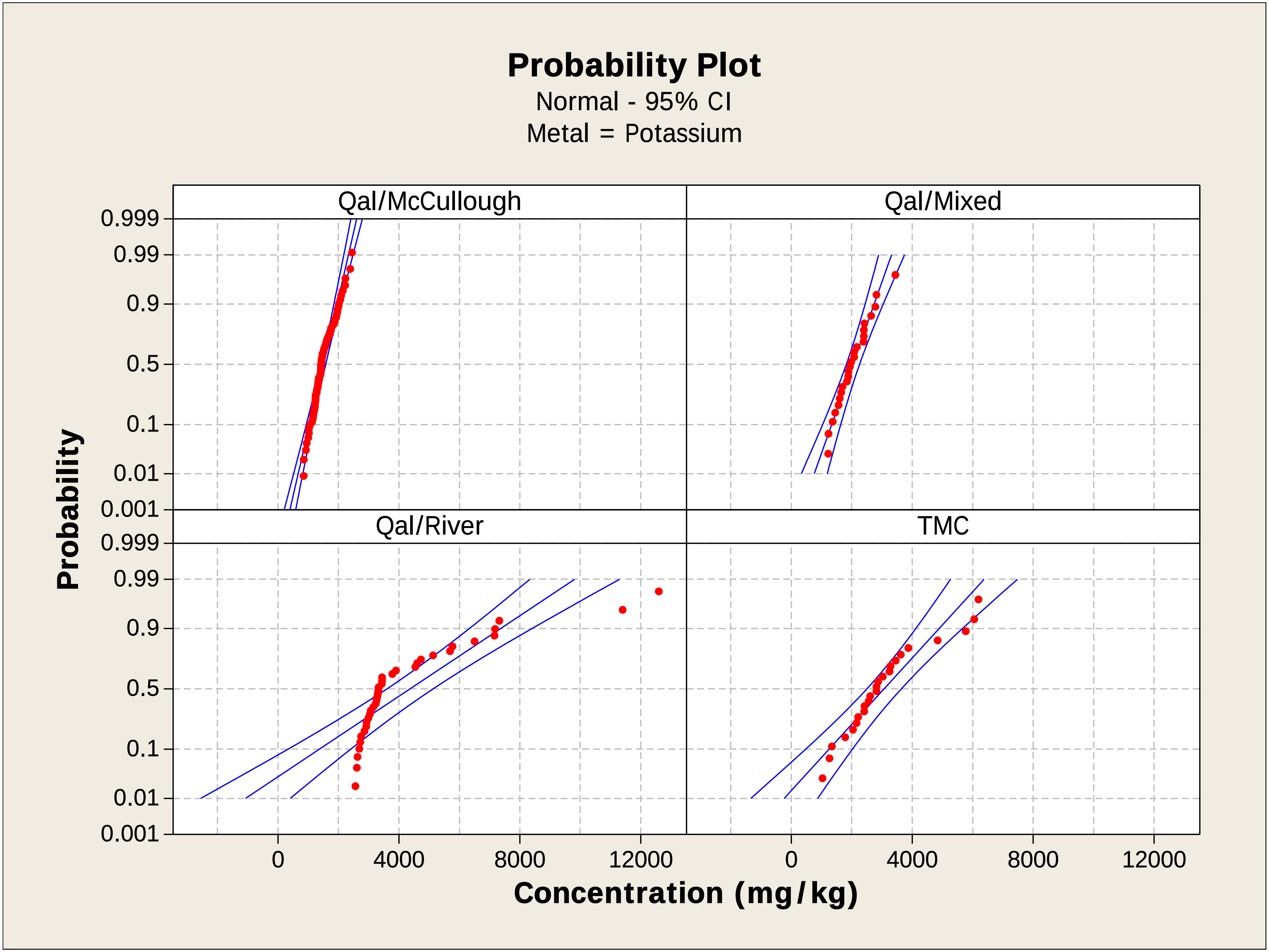

Probability Plot
Normal - 95% CI
Metal = Niobium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0.0
2.5
5.0
7.5
10.0
Concentration (mg/kg)


Probability Plot
Normal - 95% CI
Metal = Palladium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-1
0
1
2
Concentration (mg/kg)

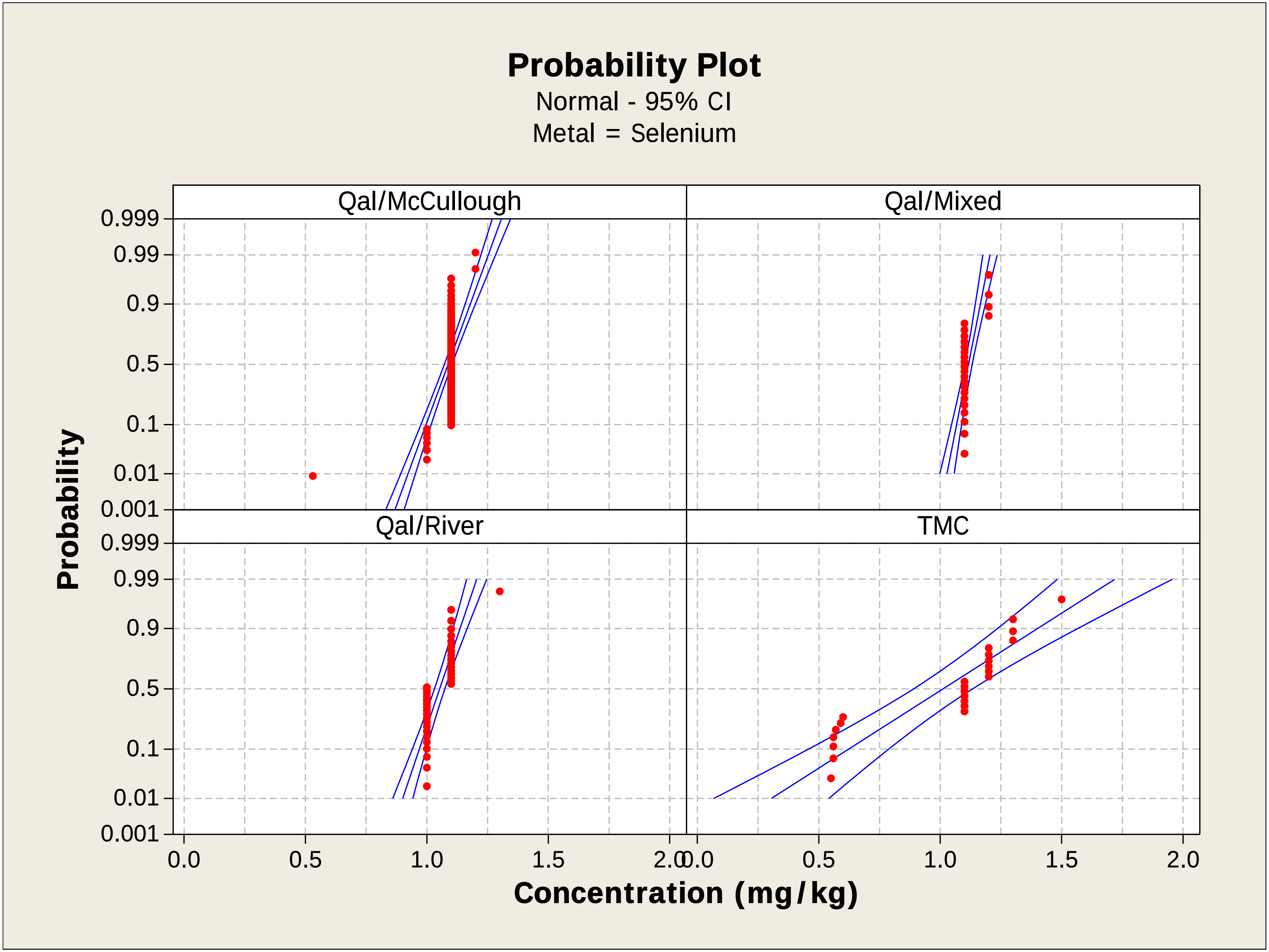


Probability Plot
Normal - 95% CI
Metal = Phosphorus
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
500
1000
1500
2000
Concentration (mg/kg)

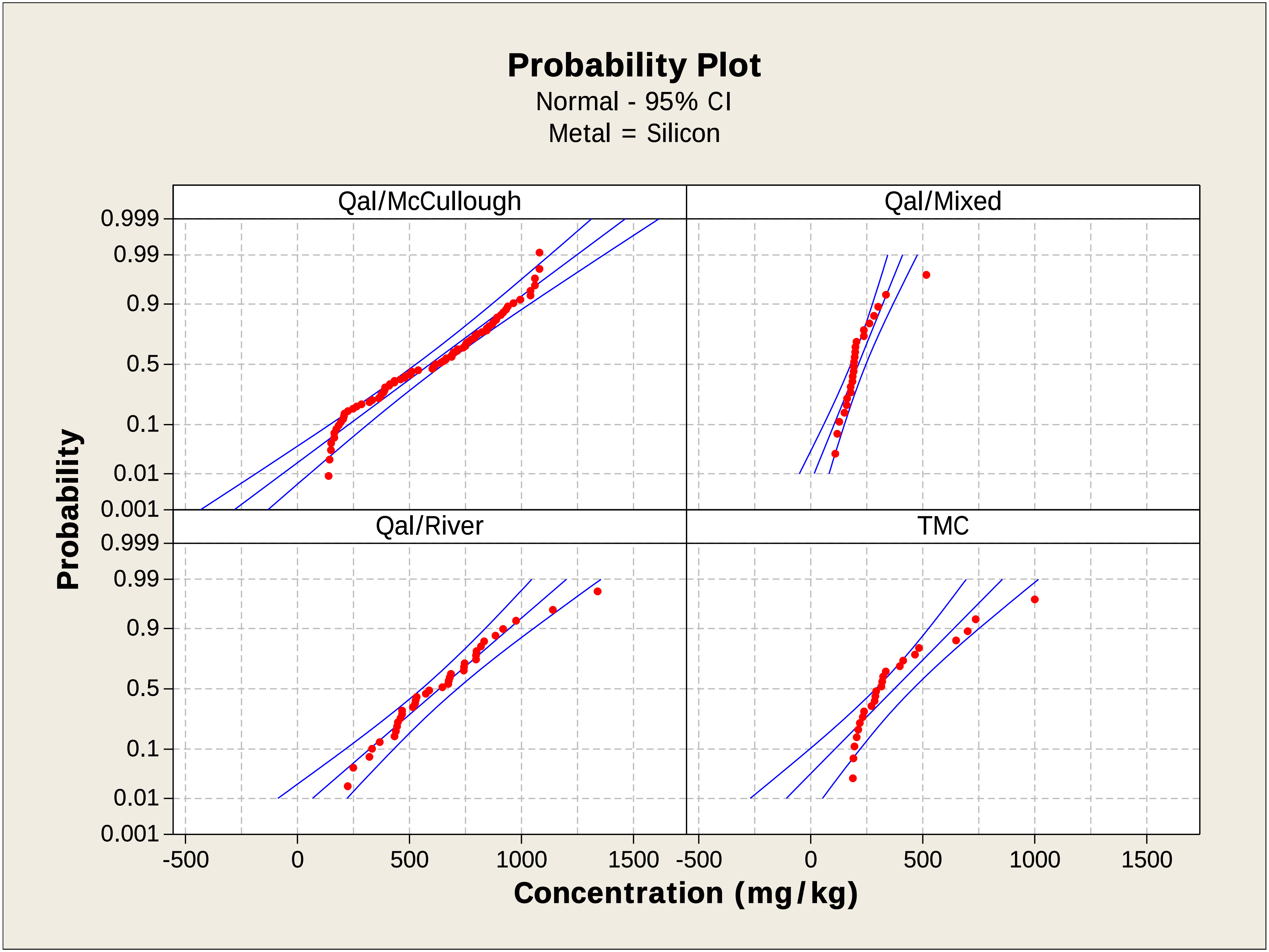

Probability Plot
Normal - 95% CI
Metal = Platinum
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
Probability
0.0
0.1
0.2
0.3
0.4
Concentration (mg/kg)

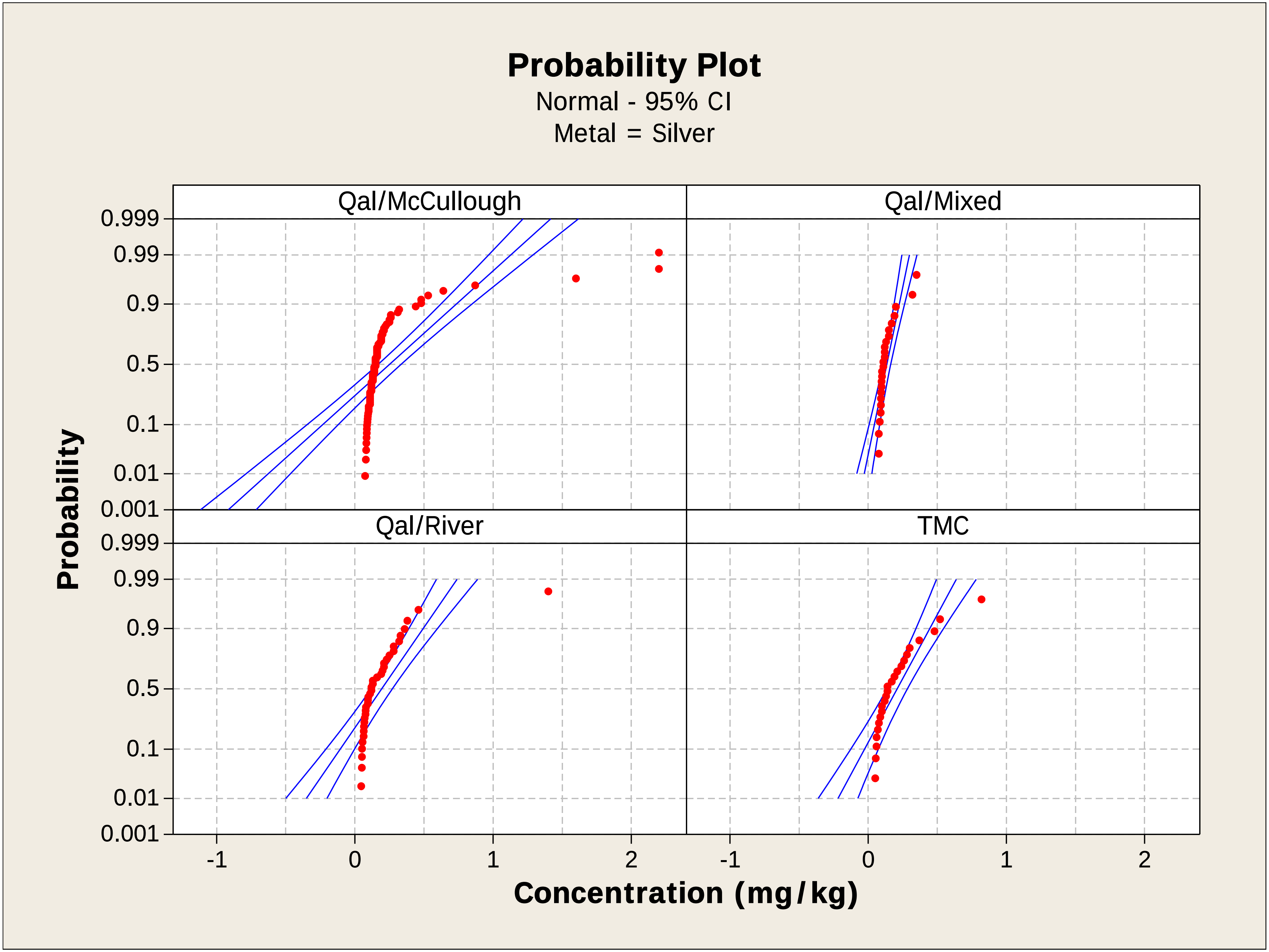


Probability Plot
Normal - 95% CI
Metal = Potassium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
4000
8000
12000
Probability
Concentration (mg/kg)

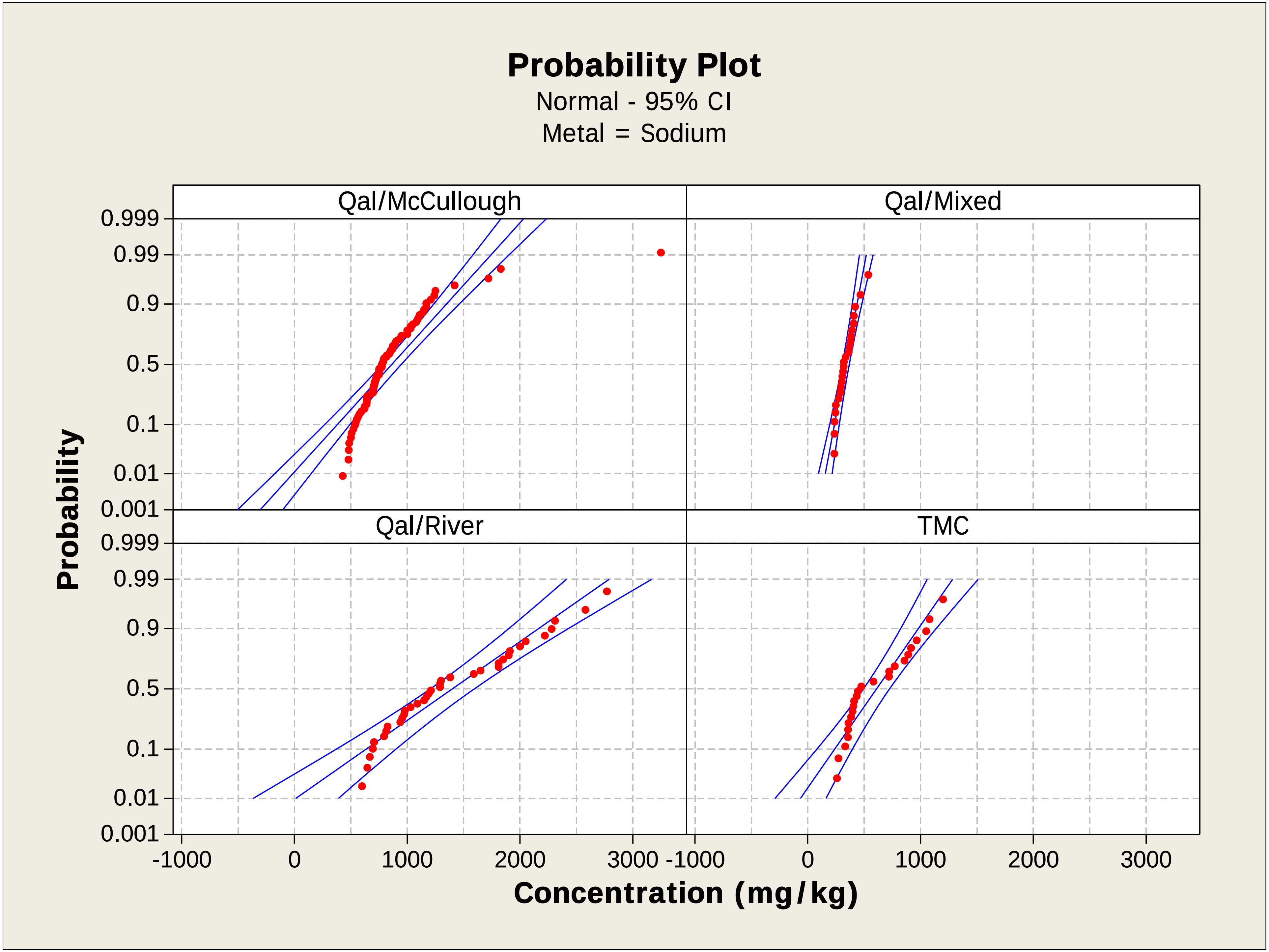


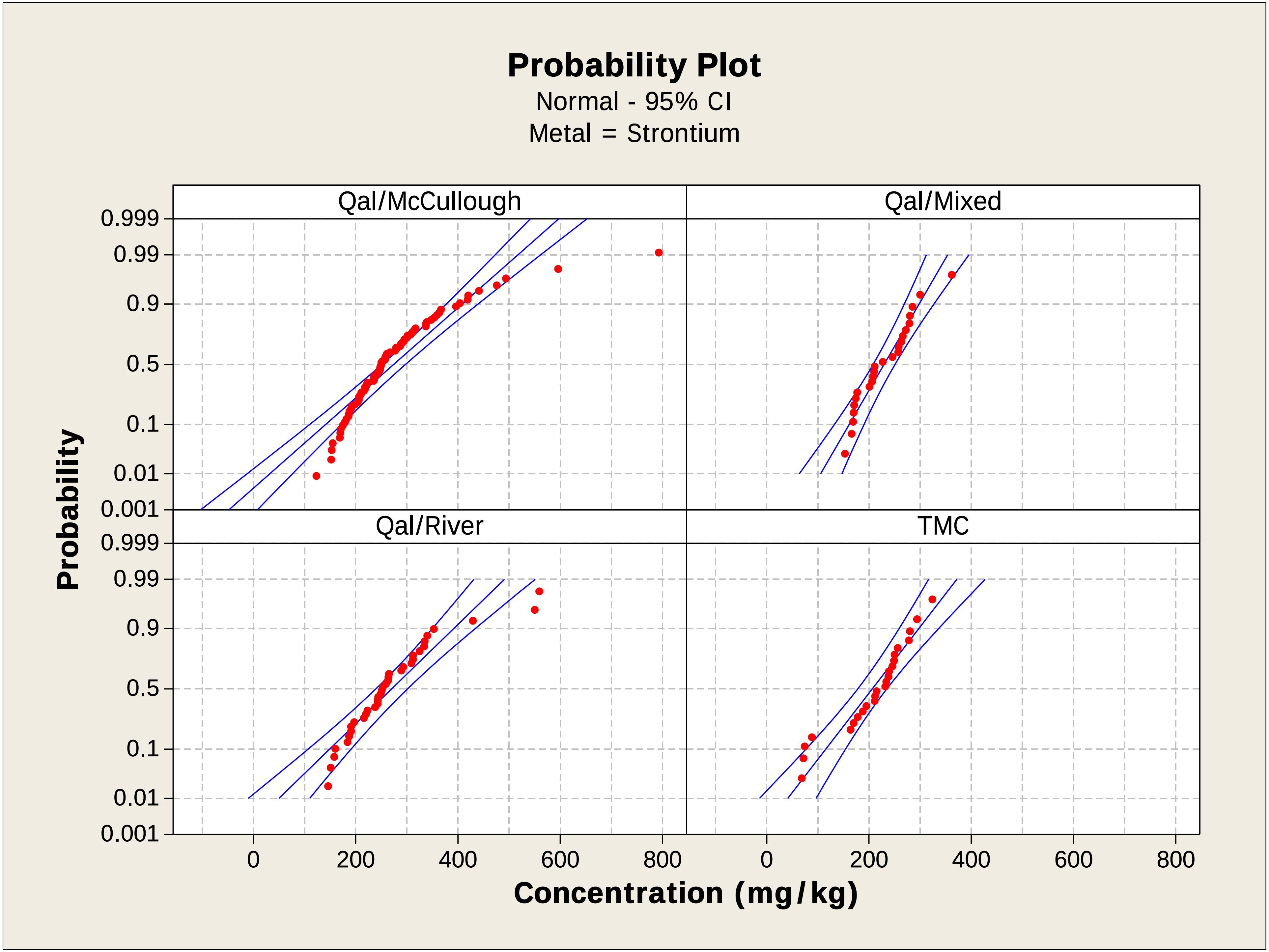
Probability Plot
Normal - 95% CI
Metal = Selenium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
Probability
0.0
0.5
1.0
1.5
2.0
Concentration (mg/kg)

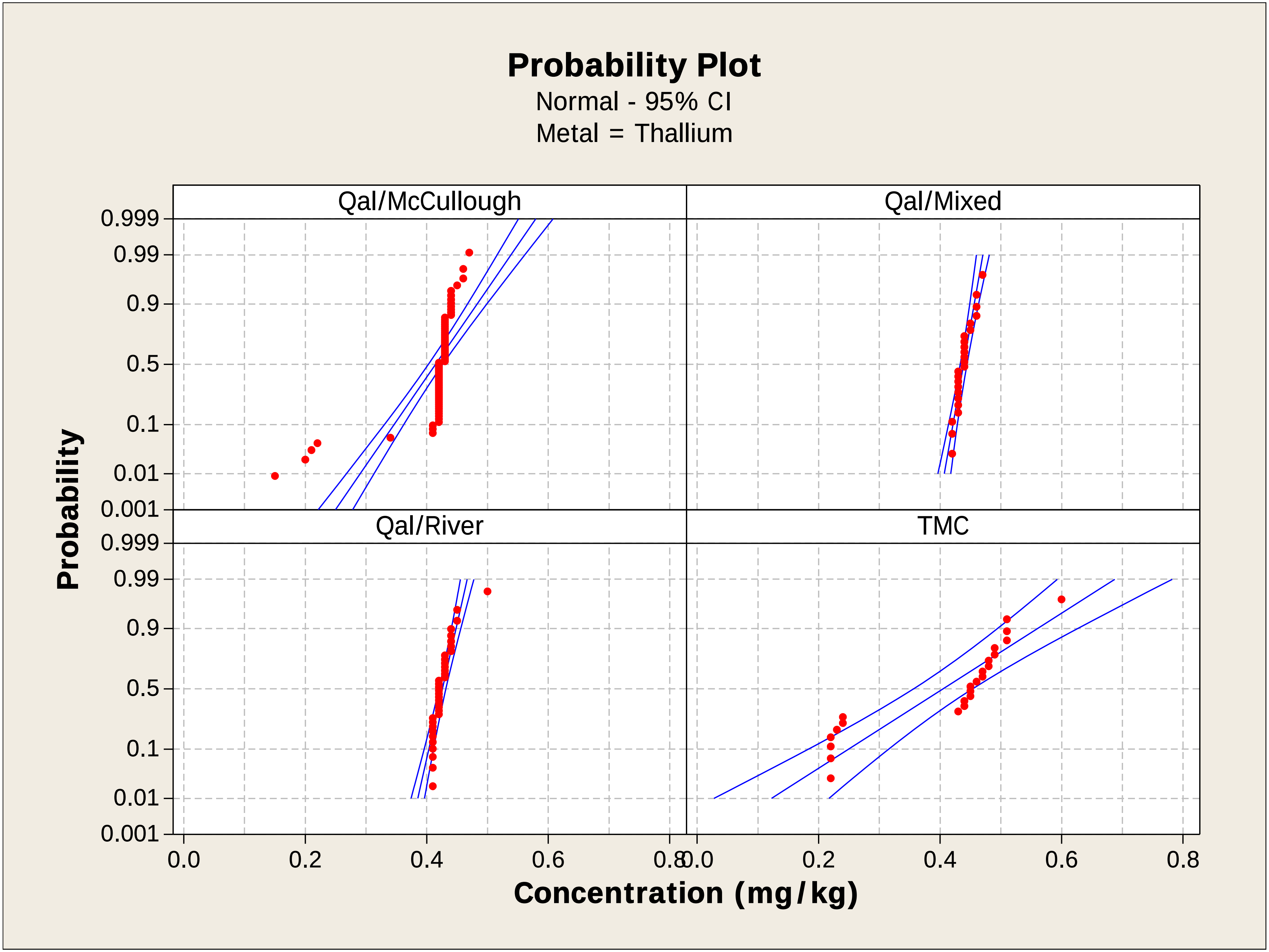

Probability Plot
Normal - 95% CI
Metal = Silicon
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-500
0
500
1000
1500
Probability
Concentration (mg/kg)

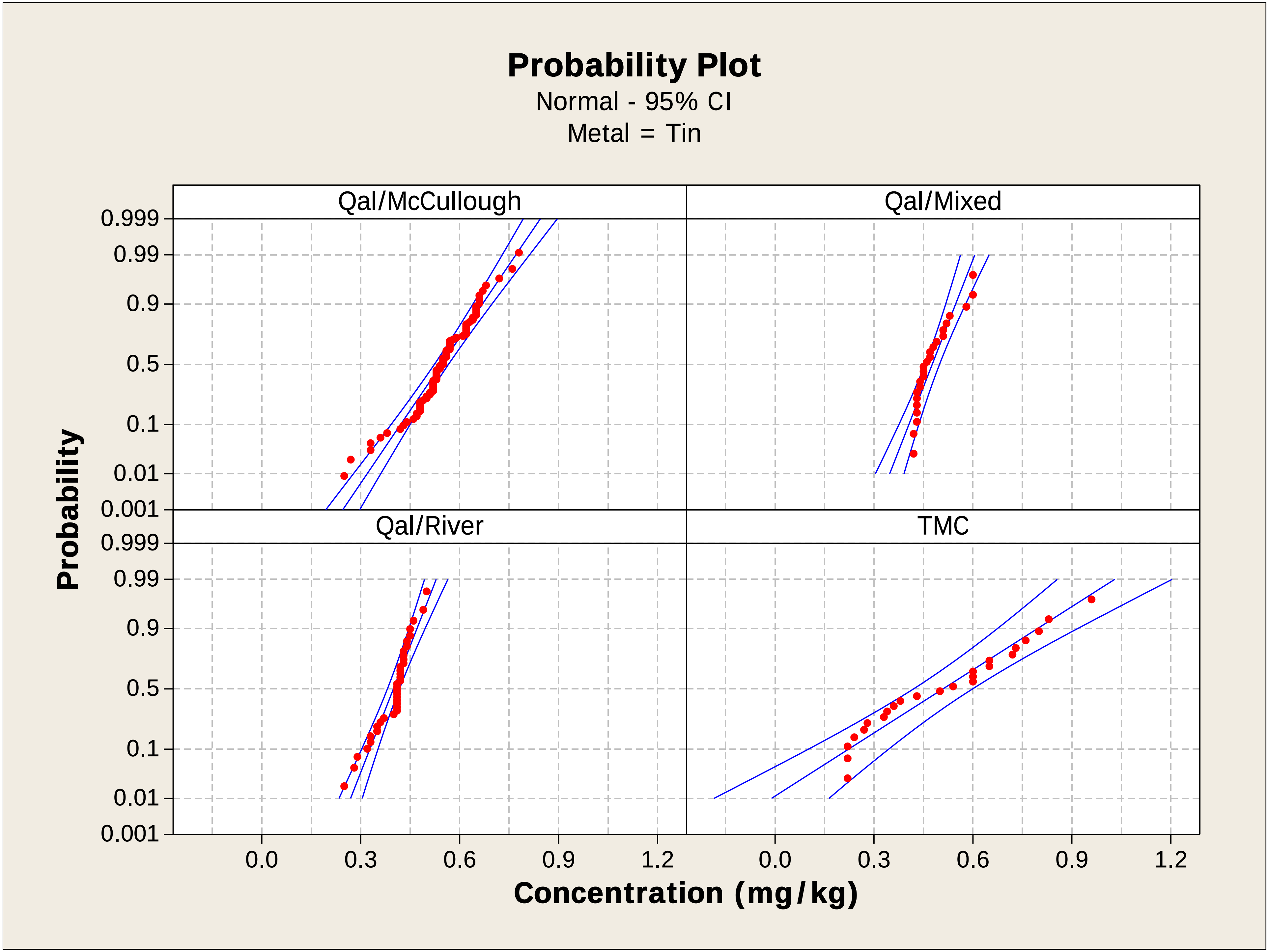


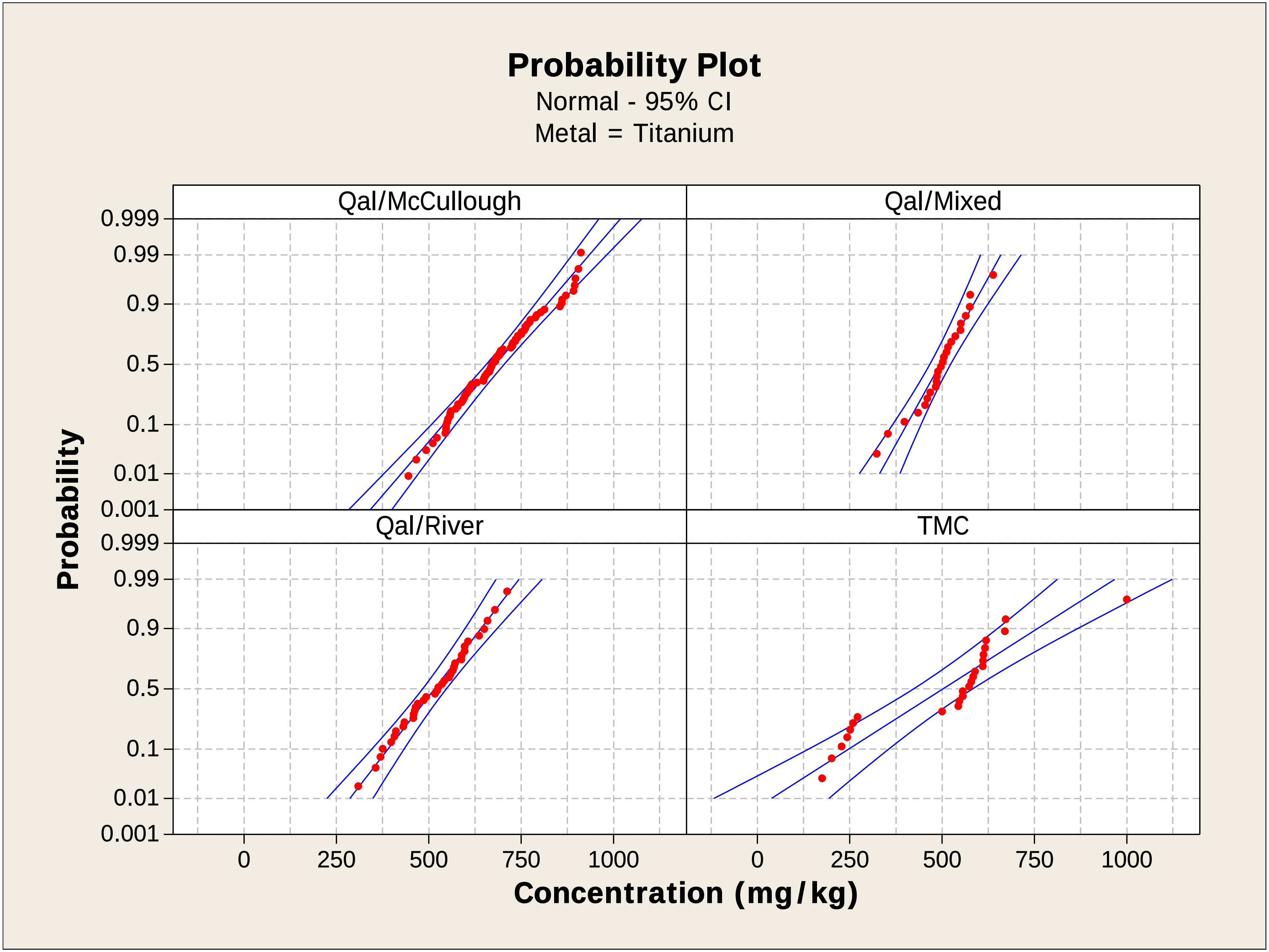
Probability Plot
Normal - 95% CI
Metal = Silver
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-1
0
1
2
Concentration (mg/kg)


Probability Plot
Normal - 95% CI
Metal = Sodium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-1000
0
1000
2000
3000
Concentration (mg/kg)

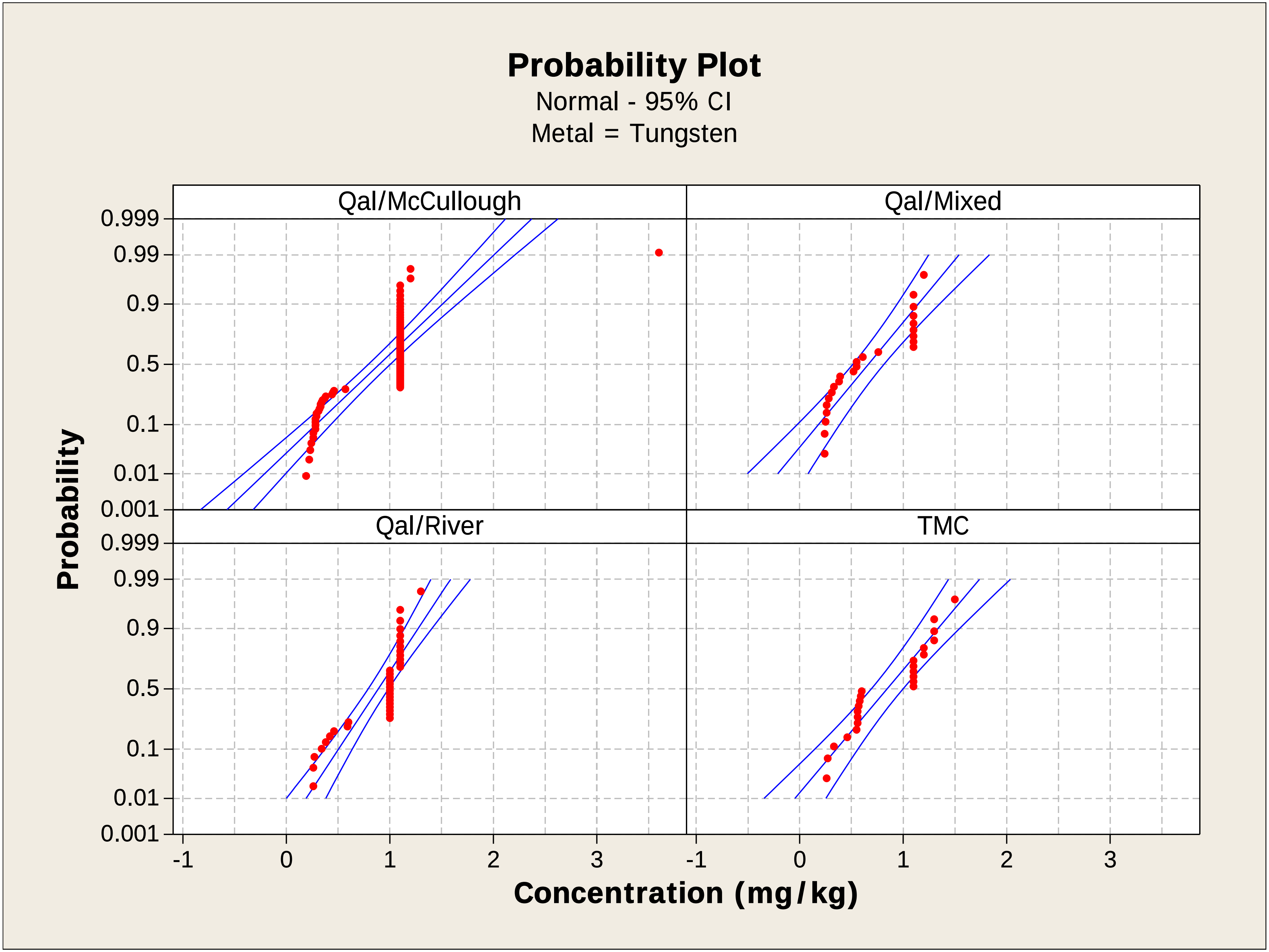

Probability Plot
Normal - 95% CI
Metal = Strontium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
200
400
600
800
Concentration (mg/kg)

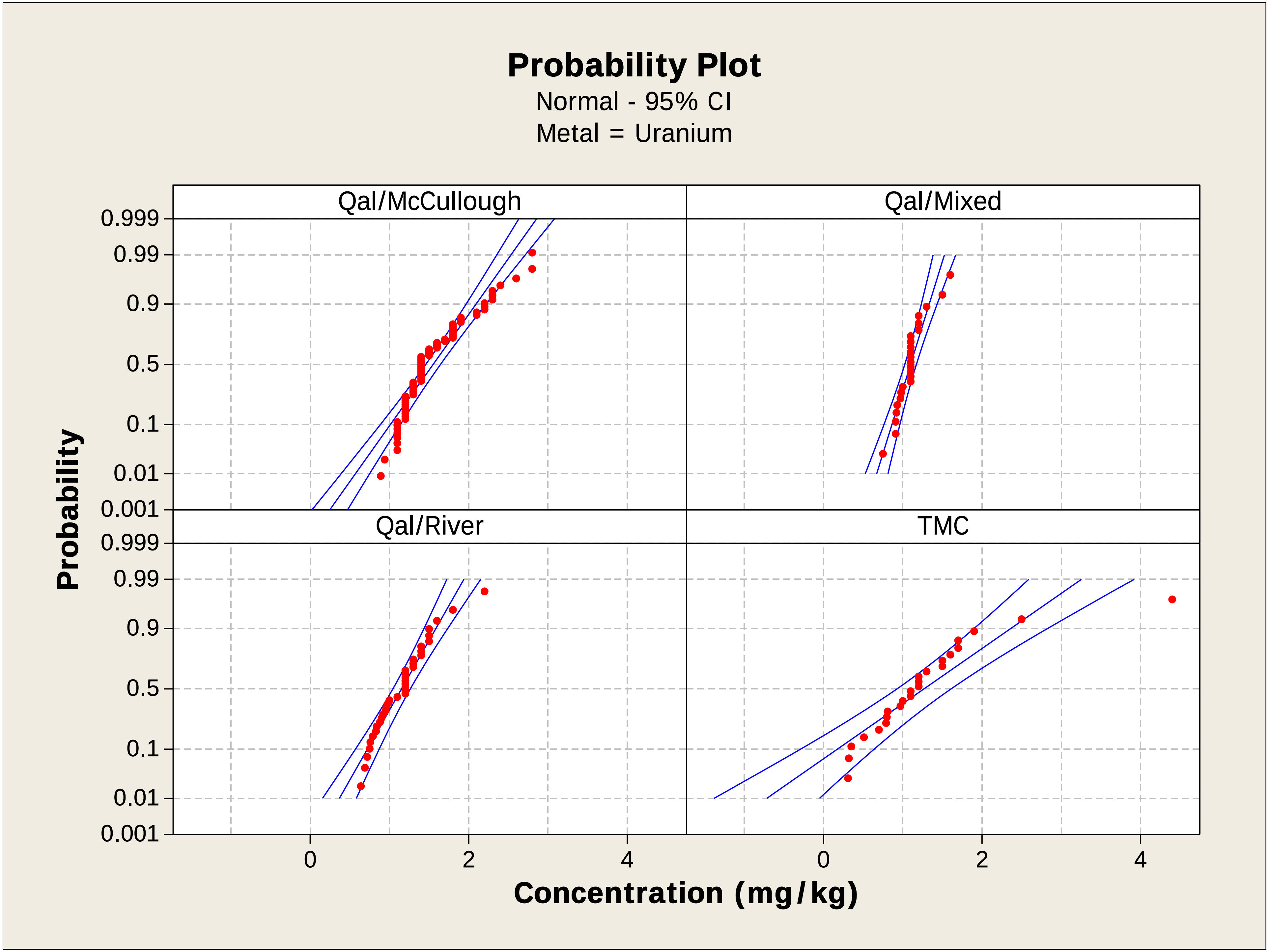

Probability Plot
Normal - 95% CI
Metal = Thallium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0.0
0.2
0.4
0.6
0.8
Concentration (mg/kg)


Probability Plot
Normal - 95% CI
Metal = Tin
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0.0
0.3
0.6
0.9
1.2
Concentration (mg/kg)

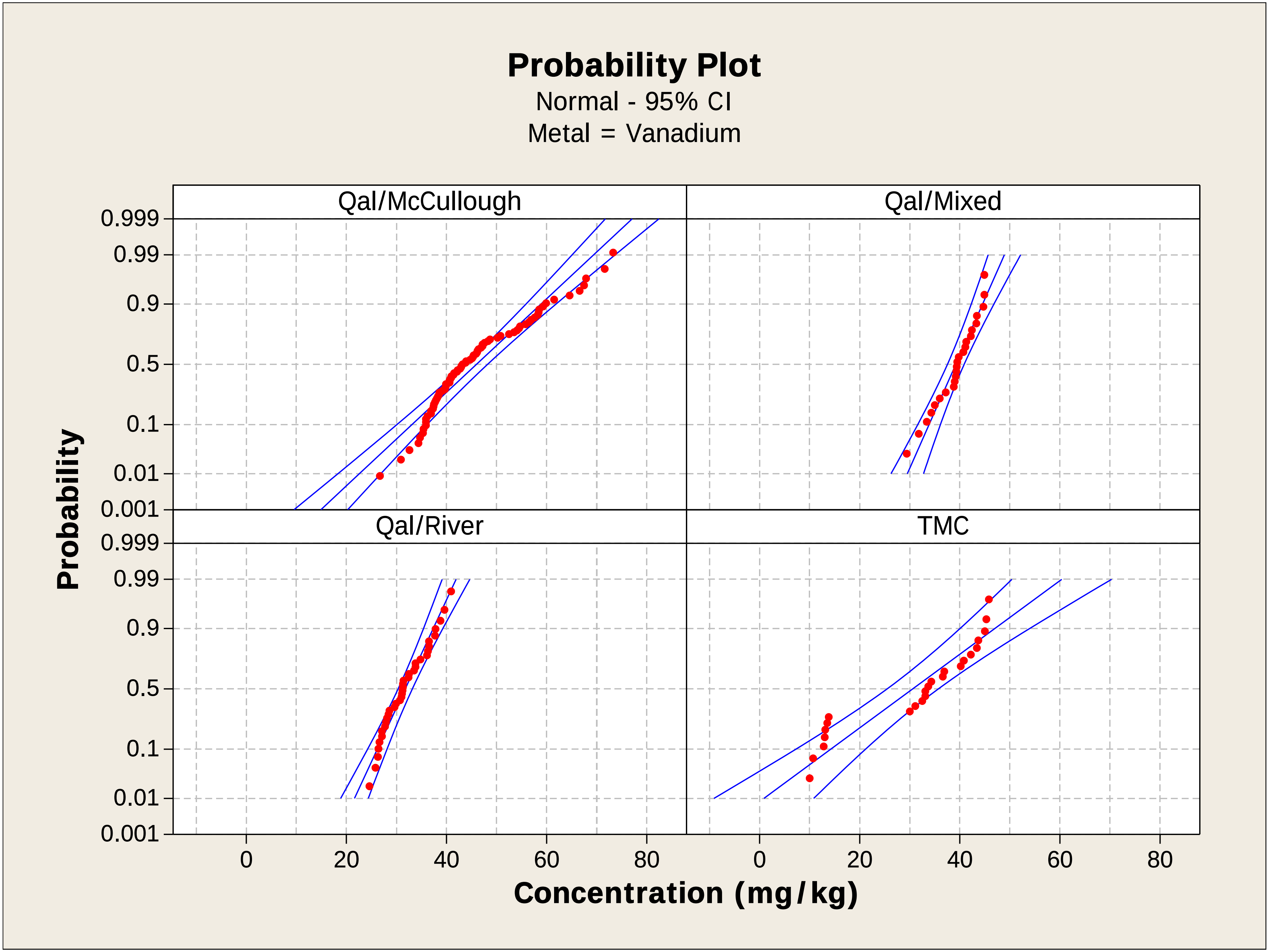


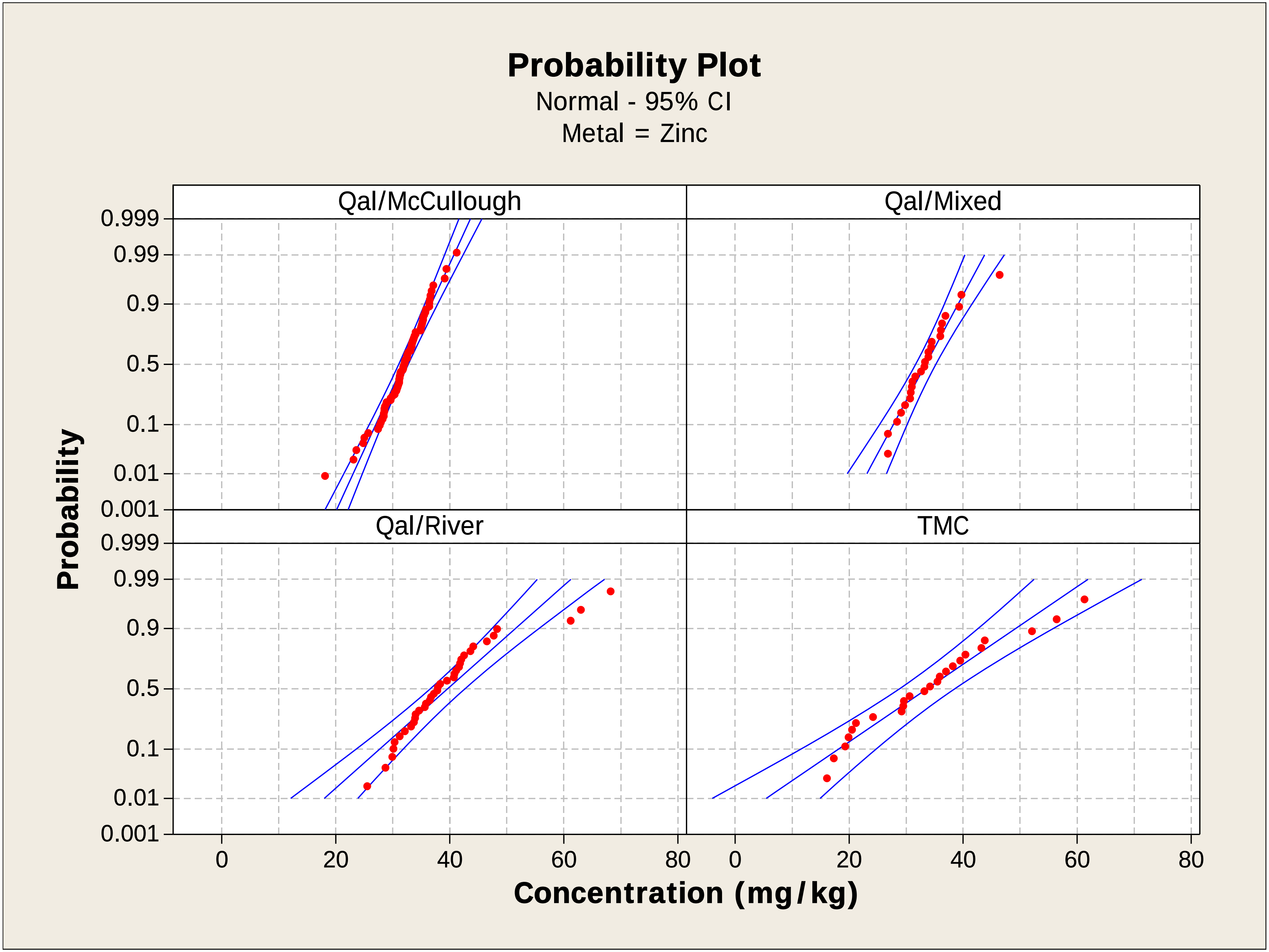
Probability Plot
Normal - 95% CI
Metal = Titanium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
250
500
750
1000
Concentration (mg/kg)


Probability Plot
Normal - 95% CI
Metal = Tungsten
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-1
0
1
2
3
Concentration (mg/kg)

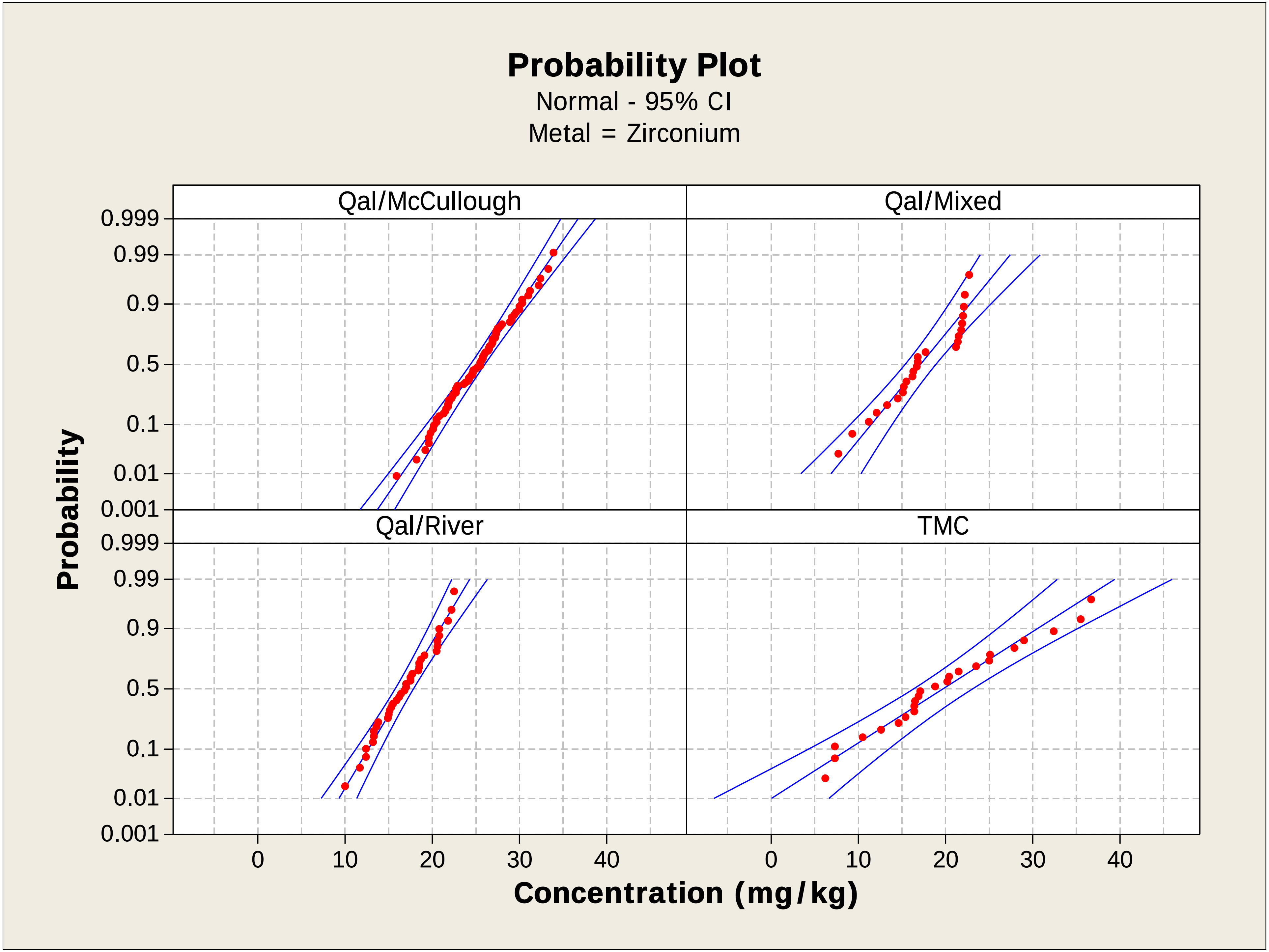


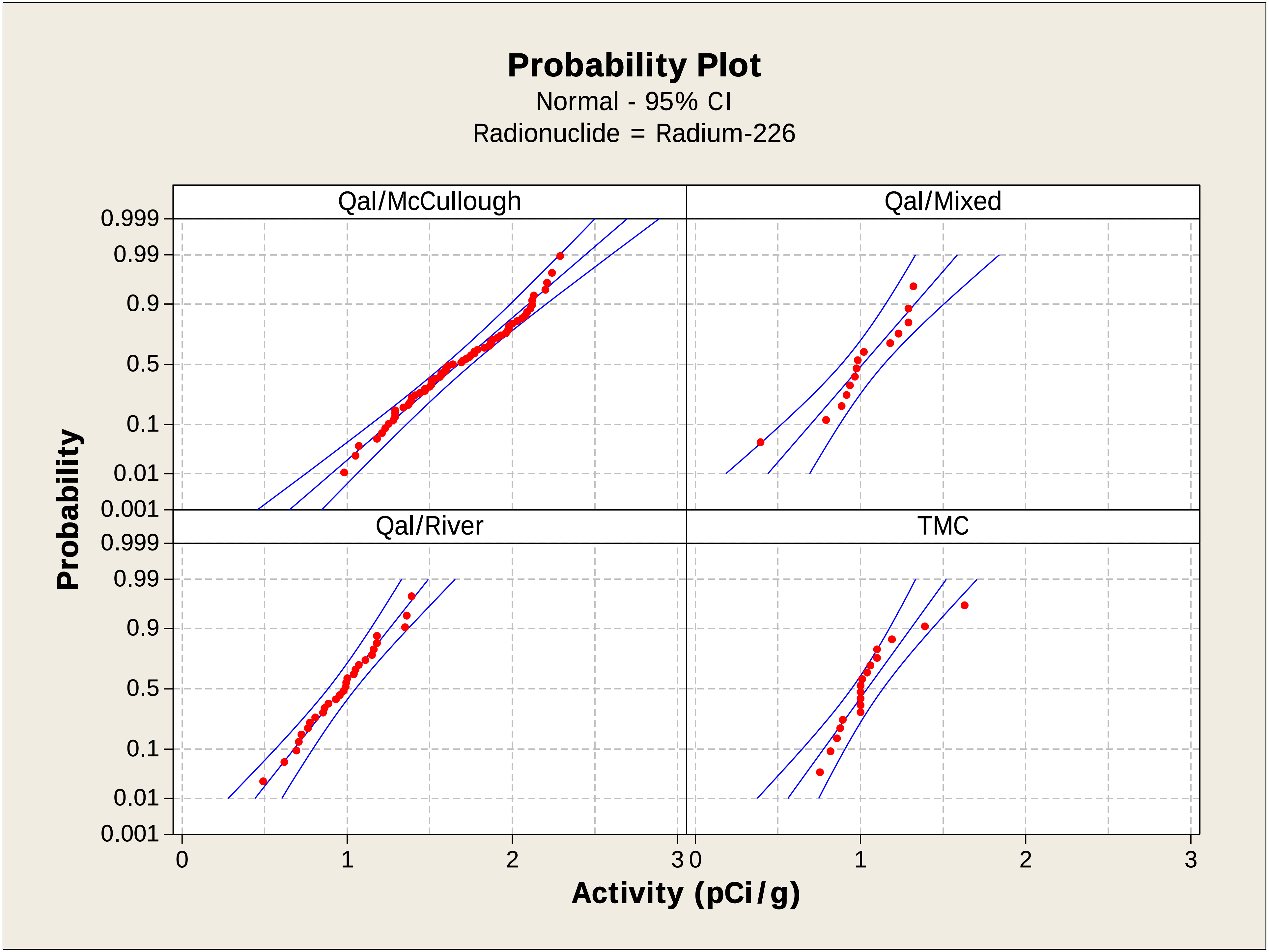
Probability Plot
Normal - 95% CI
Metal = Uranium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
Probability
0
2
4
Concentration (mg/kg)

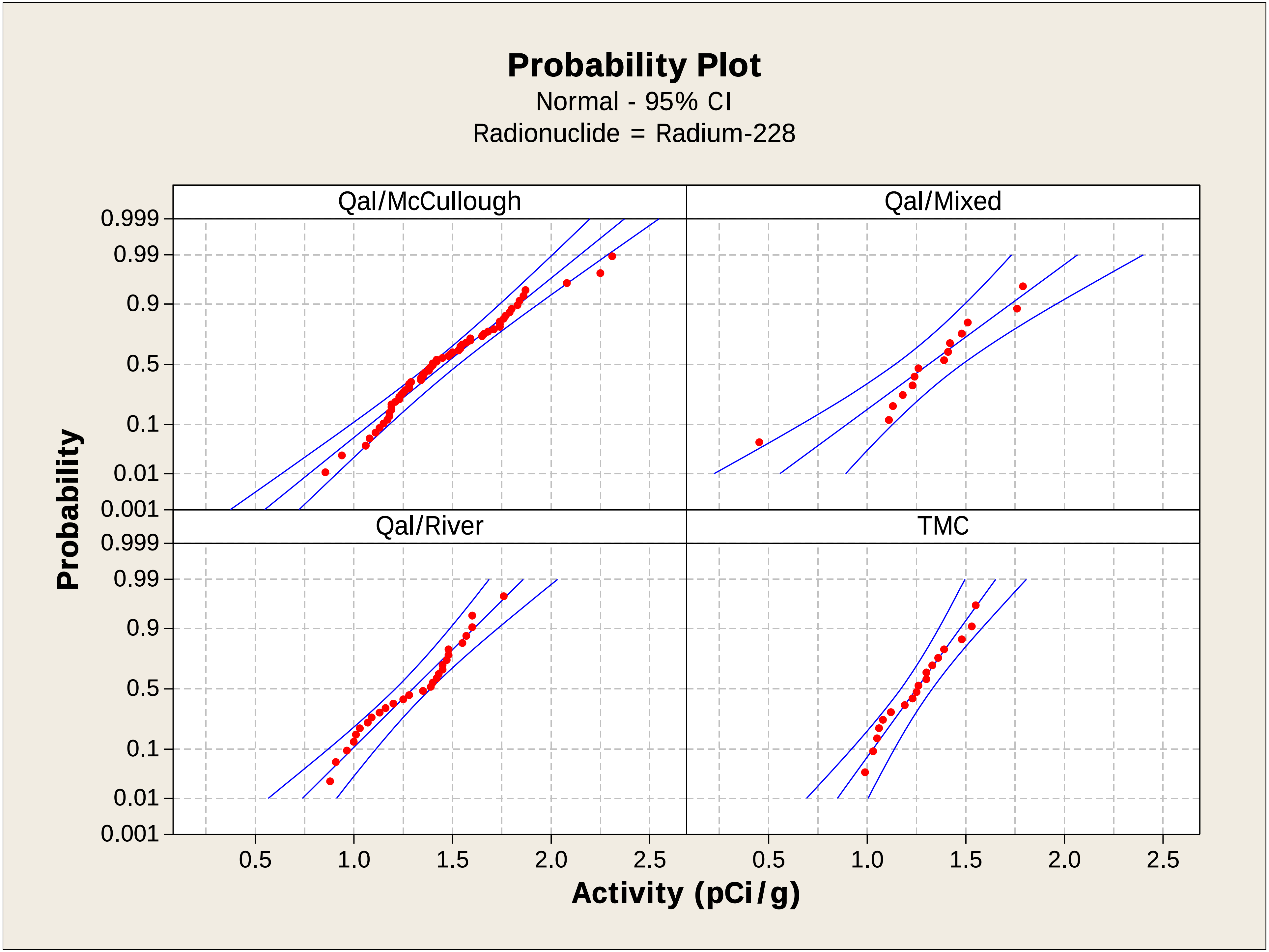

Probability Plot
Normal - 95% CI
Metal = Vanadium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
20
40
60
80
Probability
Concentration (mg/kg)



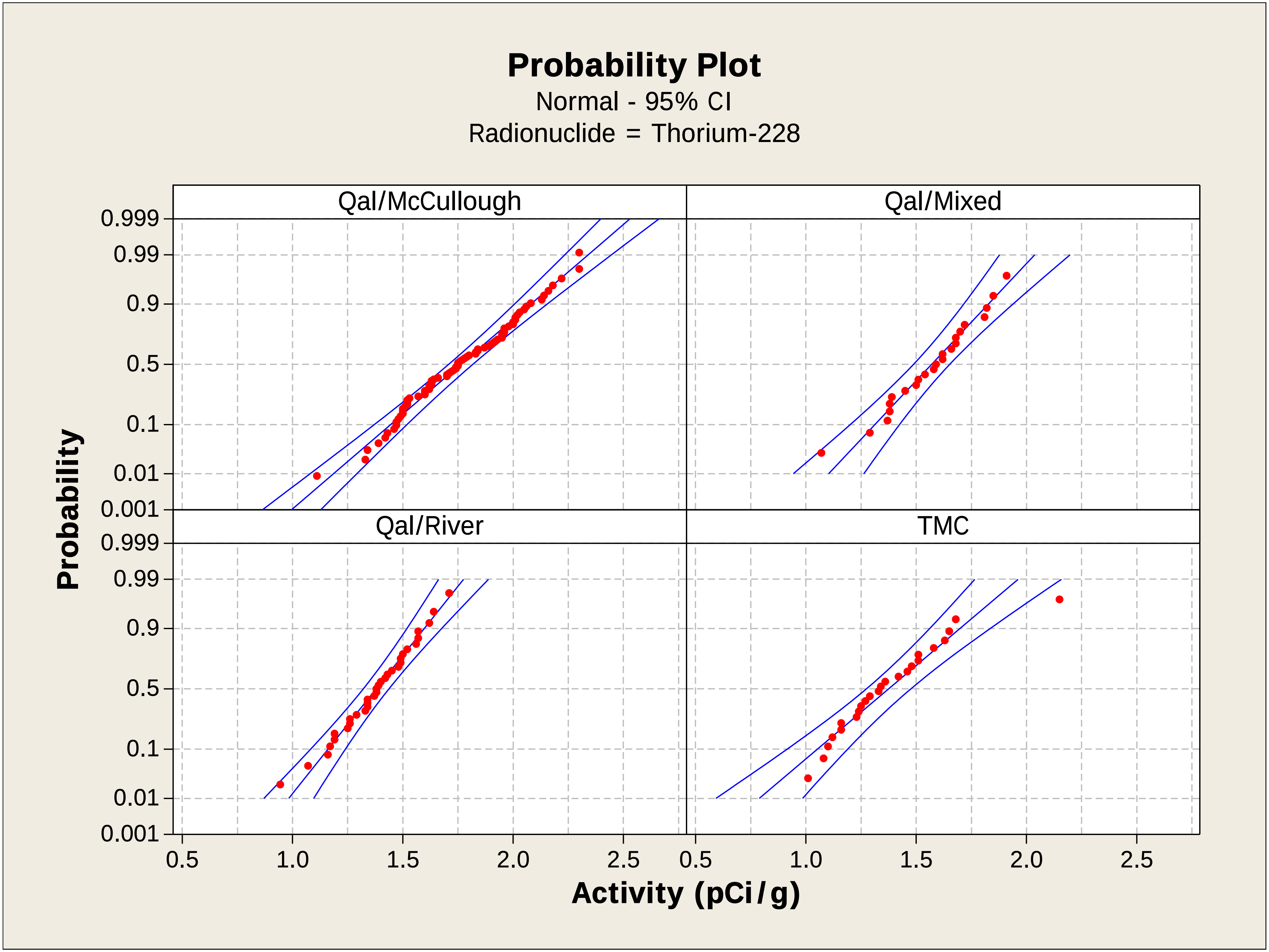
Probability Plot
Normal - 95% CI
Metal = Zinc
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
20
40
60
80
Concentration (mg/kg)


Probability Plot
Normal - 95% CI
Metal = Zirconium
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
10
20
30
40
Concentration (mg/kg)

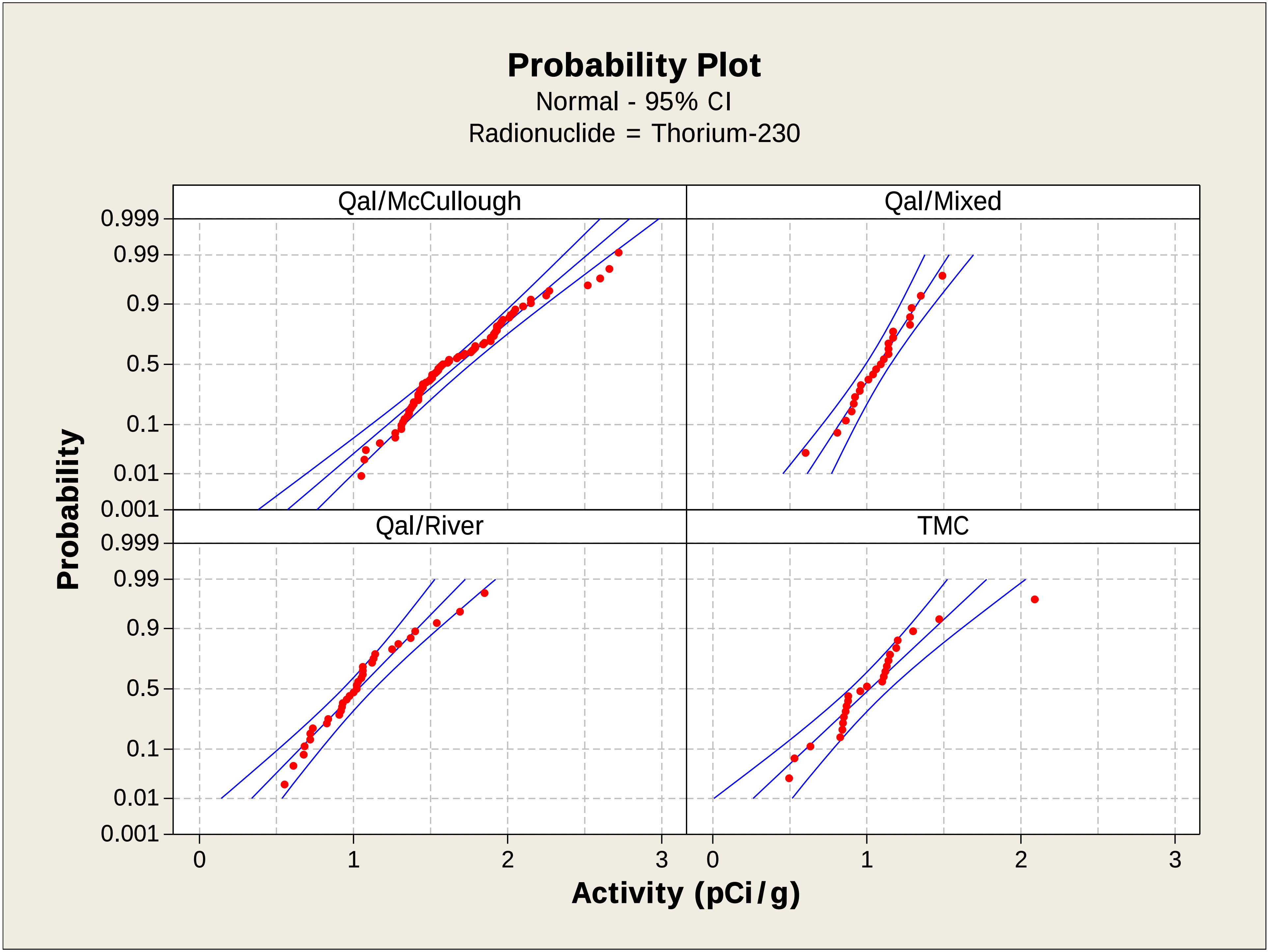

Probability Plot
Normal - 95% CI
Radionuclide = Radium-226
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
1
2
3
Activity (pCi/g)

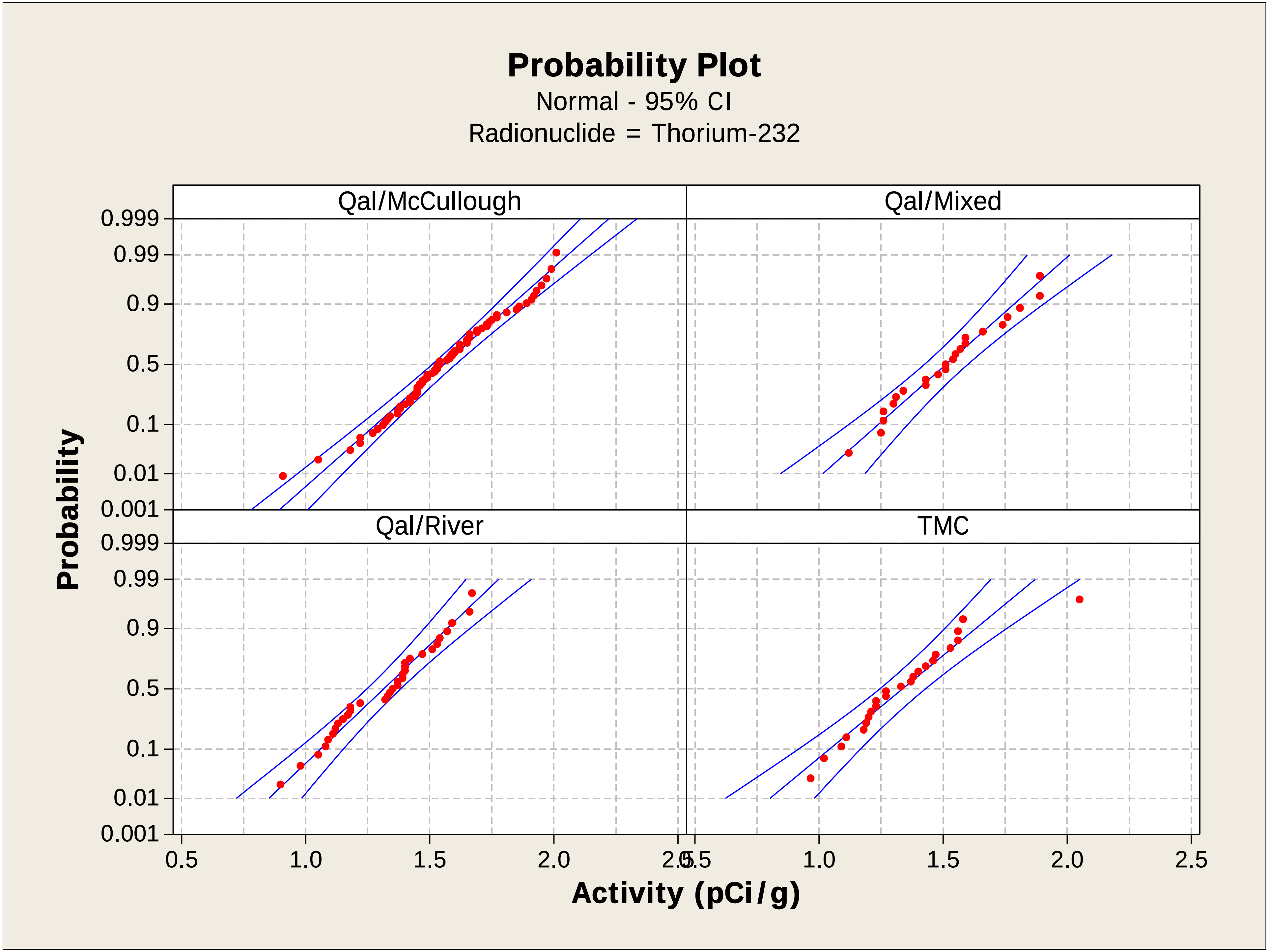


Probability Plot
Normal - 95% CI
Radionuclide = Radium-228
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0.5
1.0
1.5
2.0
2.5
Probability
Activity (pCi/g)

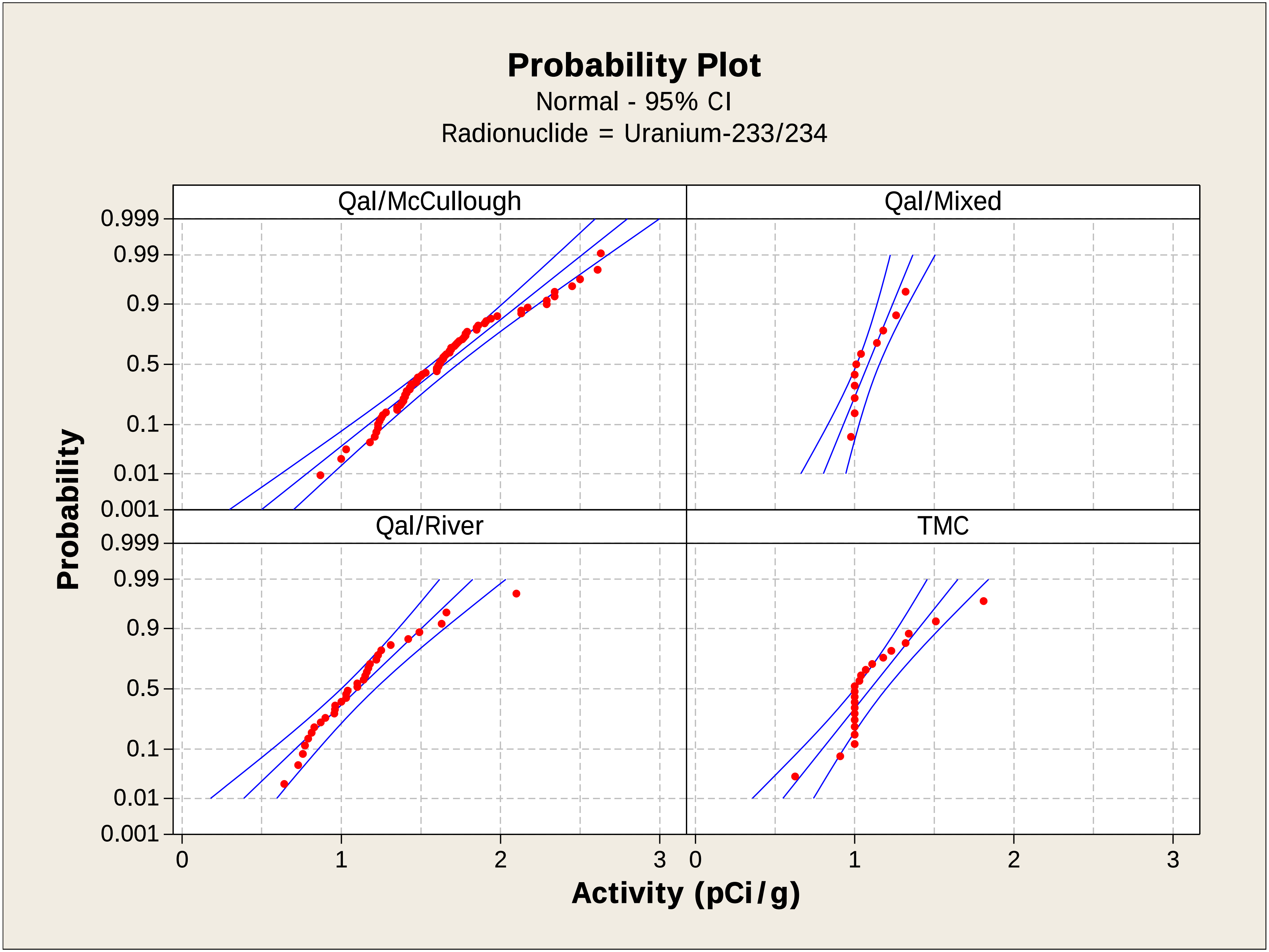


Probability Plot
Normal - 95% CI
Radionuclide = Thorium-228
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0.5
1.0
1.5
2.0
2.5
Activity (pCi/g)

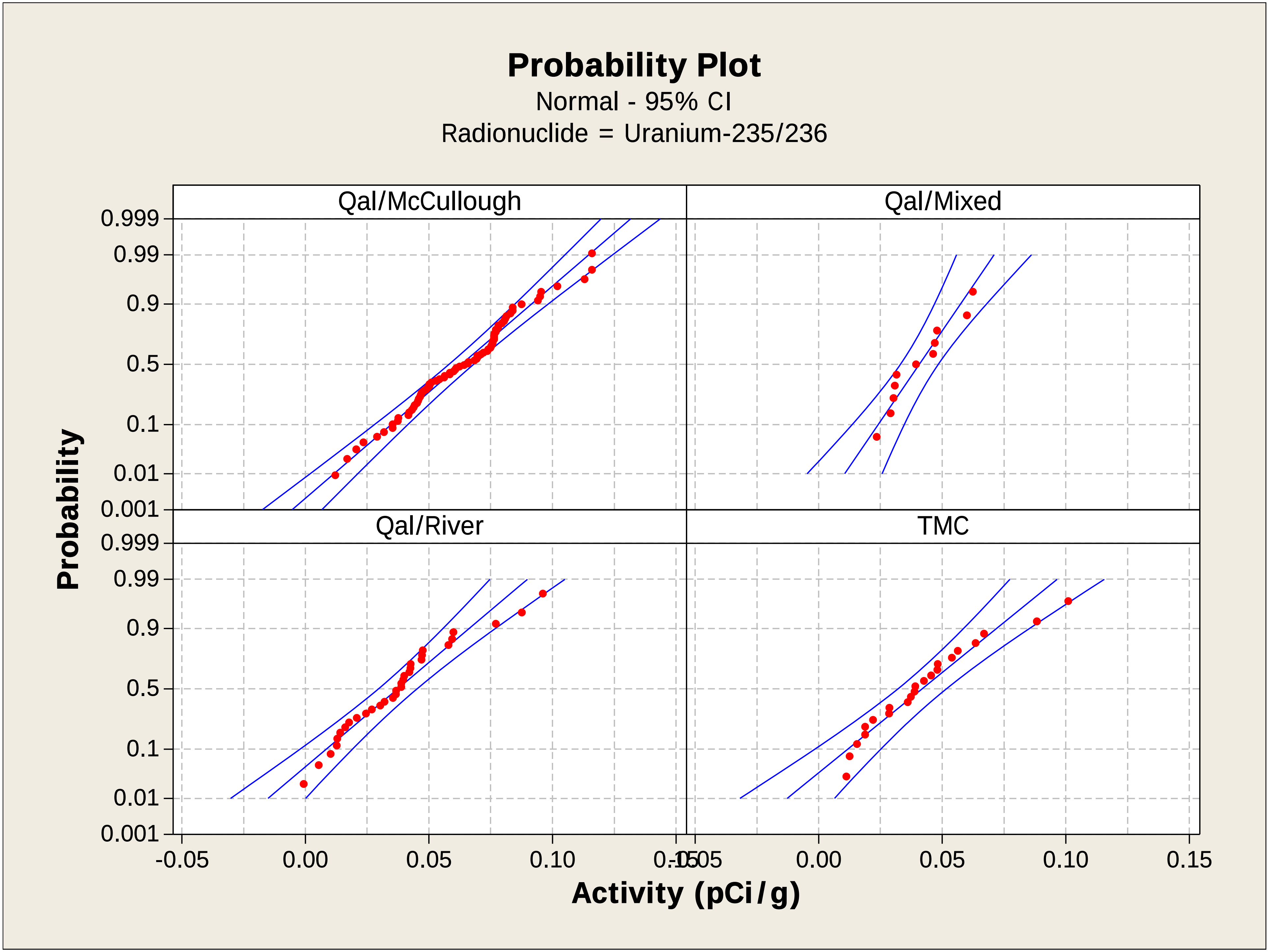

Probability Plot
Normal - 95% CI
Radionuclide = Thorium-230
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
1
2
3
Activity (pCi/g)

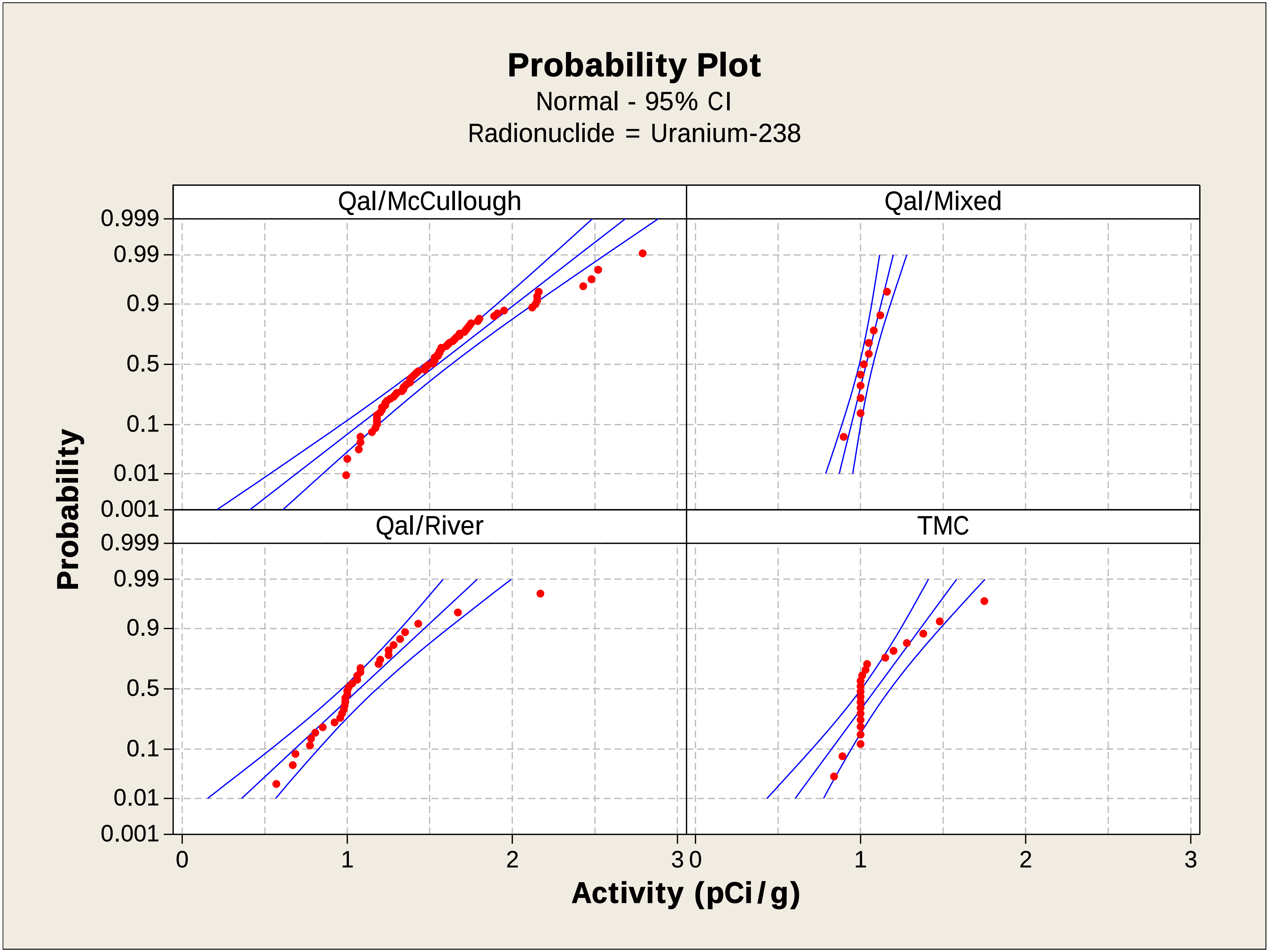


Probability Plot
Normal - 95% CI
Radionuclide = Thorium-232
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
Probability
0.5
1.0
1.5
2.0
2.5
Activity (pCi/g)

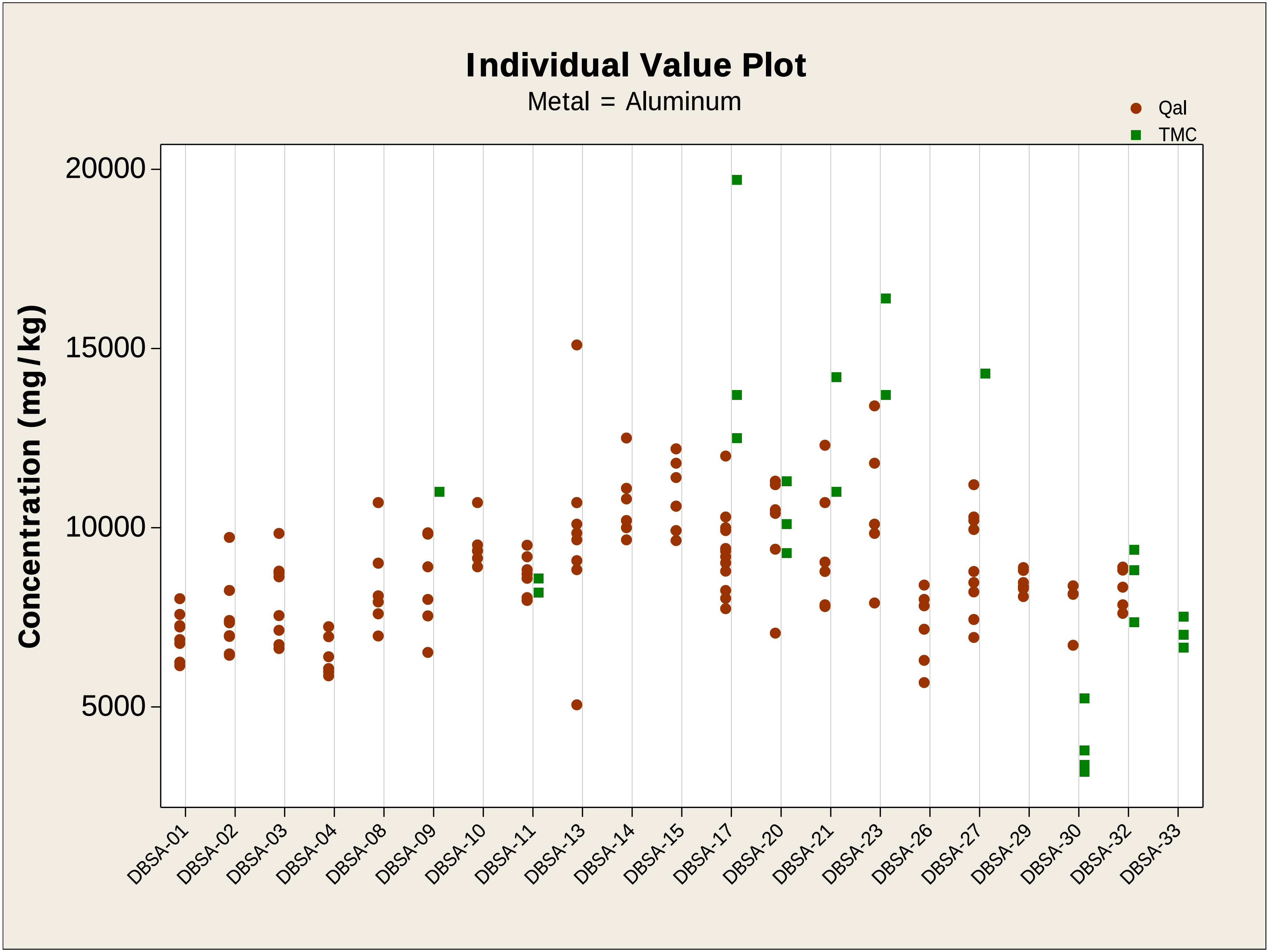


Probability Plot
Normal - 95% CI
Radionuclide = Uranium-233/234
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
1
2
3
Activity (pCi/g)

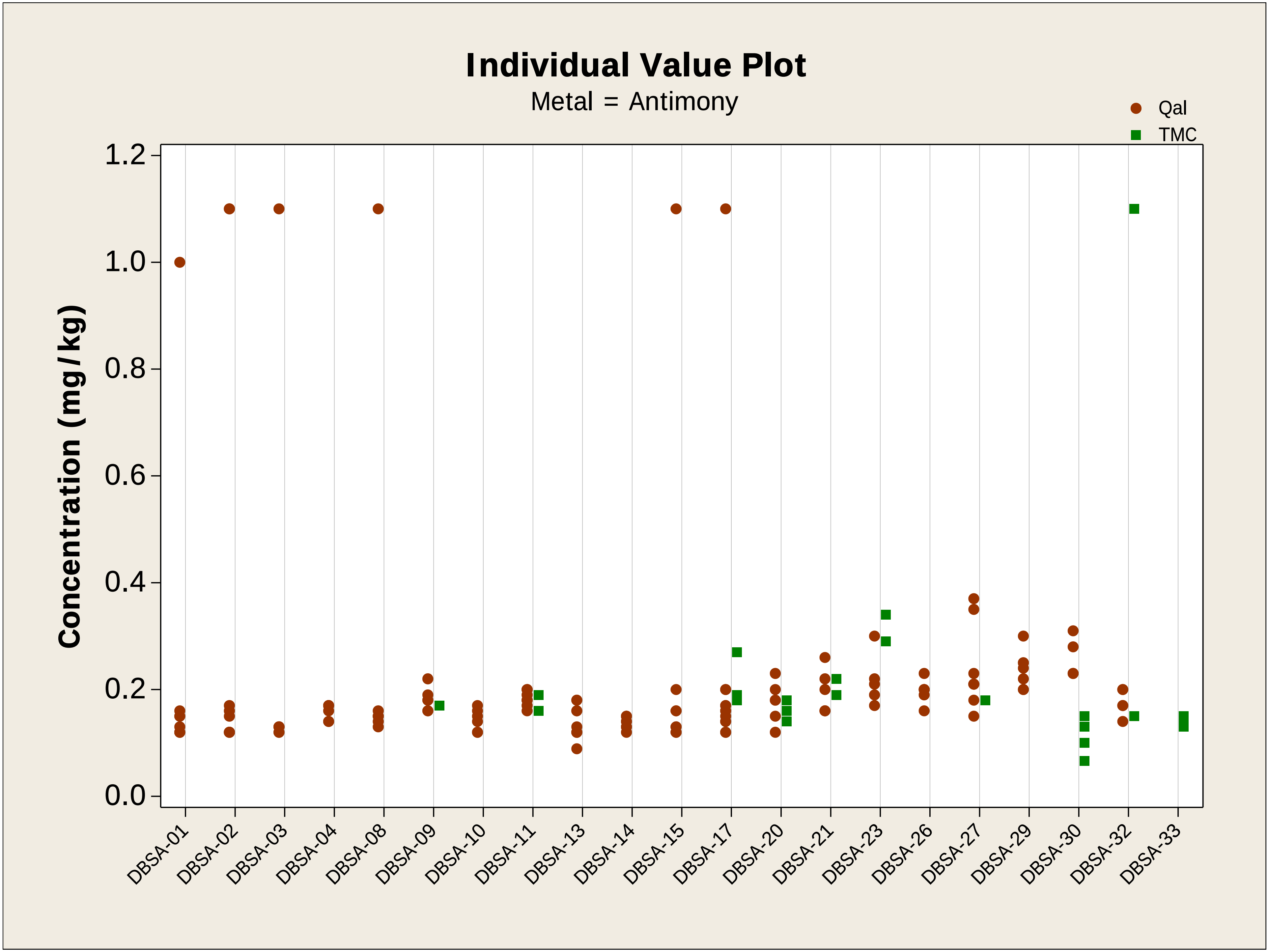

Probability Plot
Normal - 95% CI
Radionuclide = Uranium-235/236
Qal/McCullough
Qal/Mixed
Qal/River
TMC
Probability
0.999
0.99
0.9
0.5
0.1
0.01
0.001
-0.05
0.00
0.05
0.10
0.15
Activity (pCi/g)


Probability Plot
Normal - 95% CI
Radionuclide = Uranium-238
Qal/McCullough
Qal/Mixed
Qal/River
TMC
0.999
0.99
0.9
0.5
0.1
0.01
0.001
0
1
2
3
Probability
Activity (pCi/g)

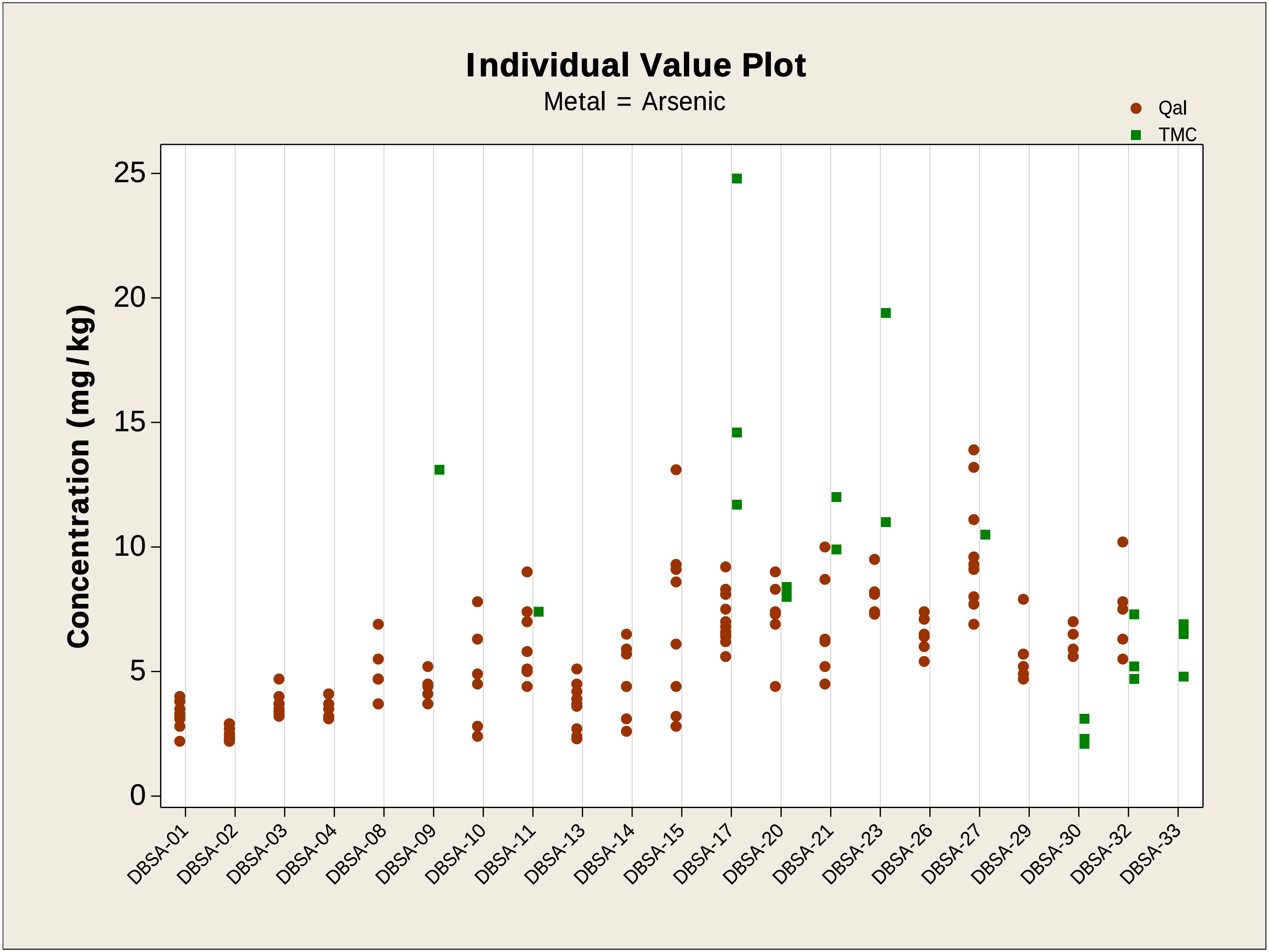
INDIVIDUAL VALUE PLOTS

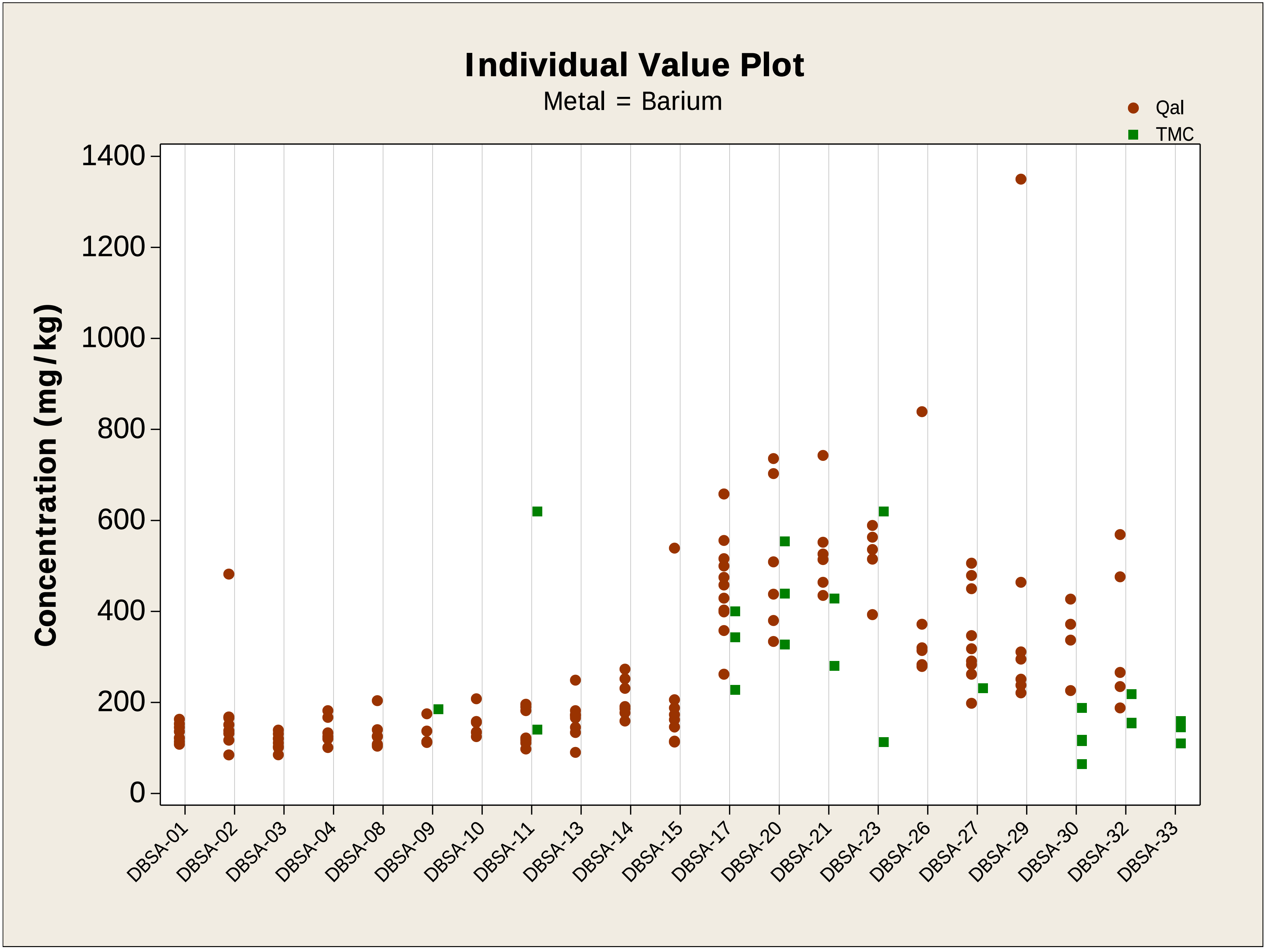


Individual Value Plot
Metal = Aluminum
Qal
TMC
Concentration (mg/kg)
20000
15000
10000
5000
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Metal = Antimony
Qal
TMC
Concentration (mg / kg)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Arsenic
Qal
TMC
Concentration (mg/kg)
0
5
10
15
20
25
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Metal = Barium
Qal
TMC
Concentration (mg/kg)
0
200
400
600
800
1000
1200
1400
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
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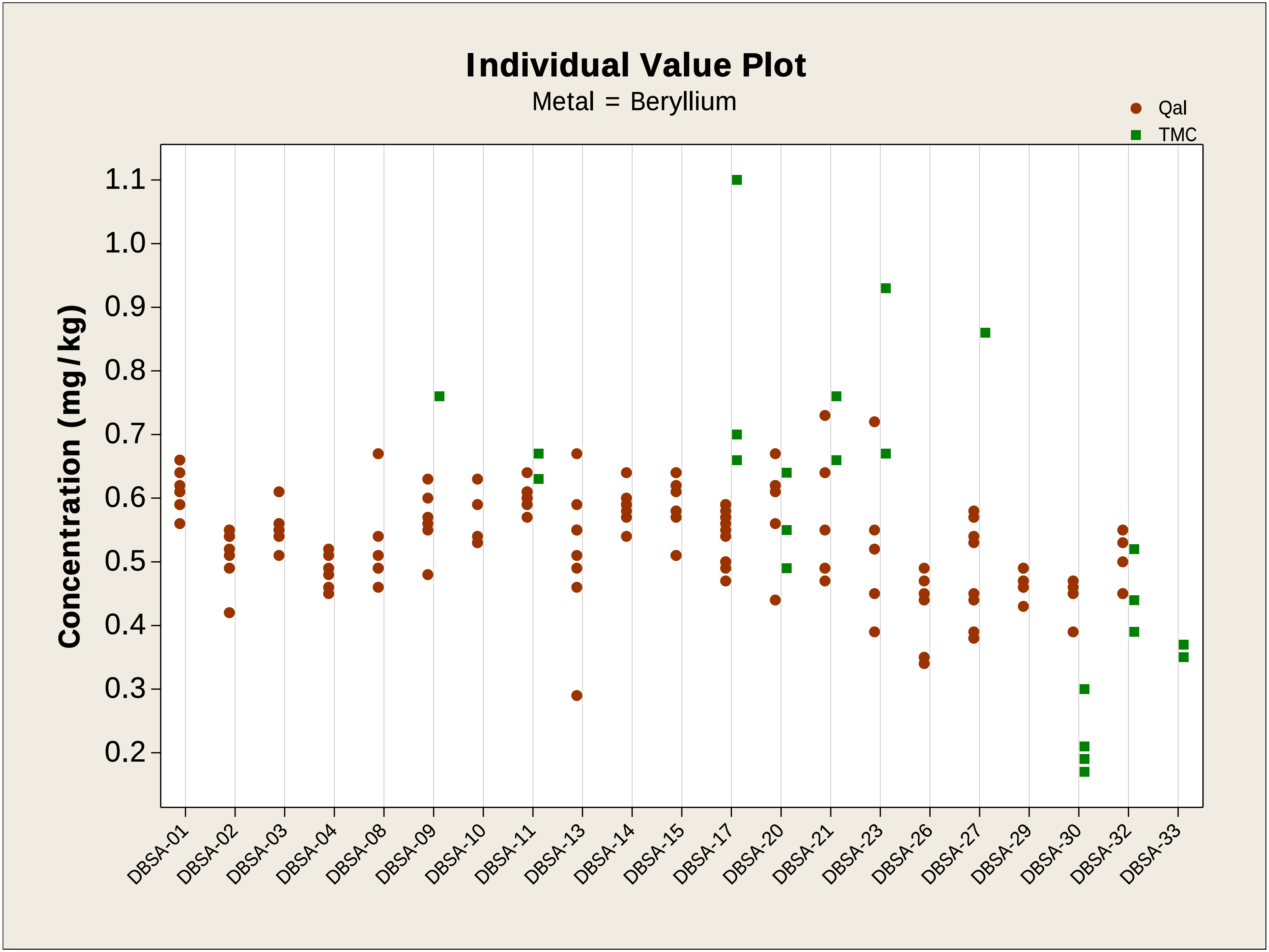
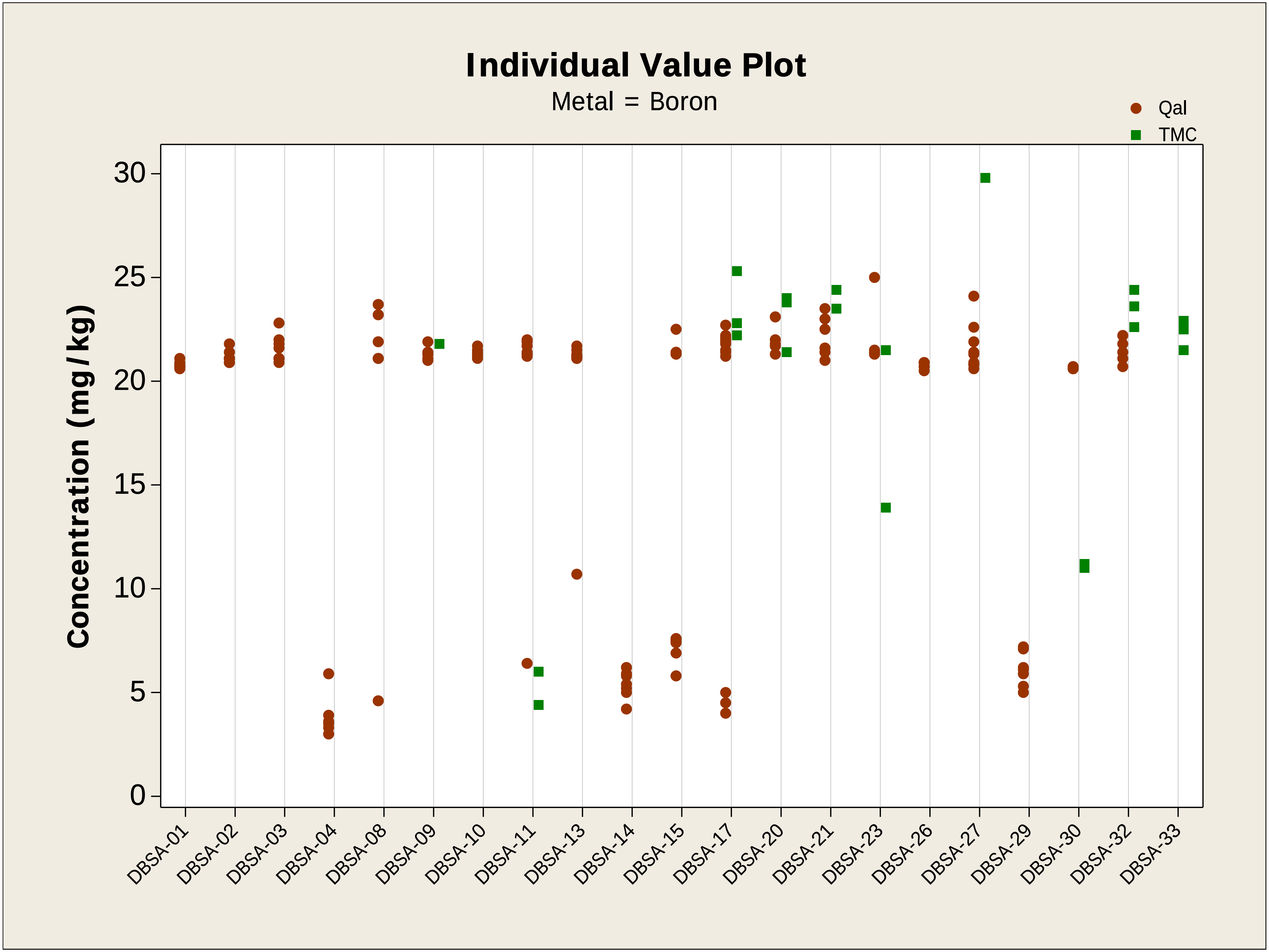
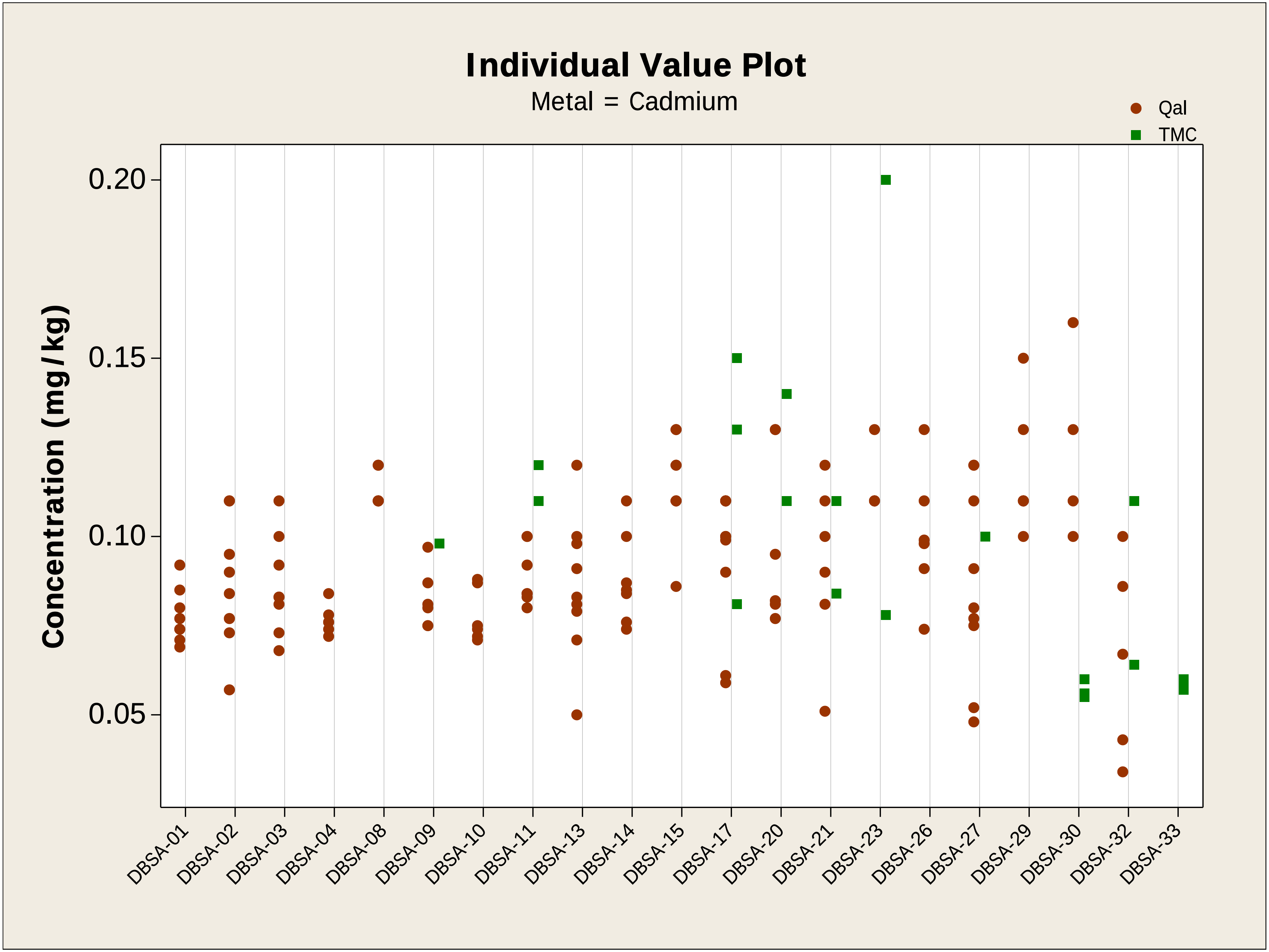
DBSA-29
DBSA-30
DBSA-32
DBSA-33



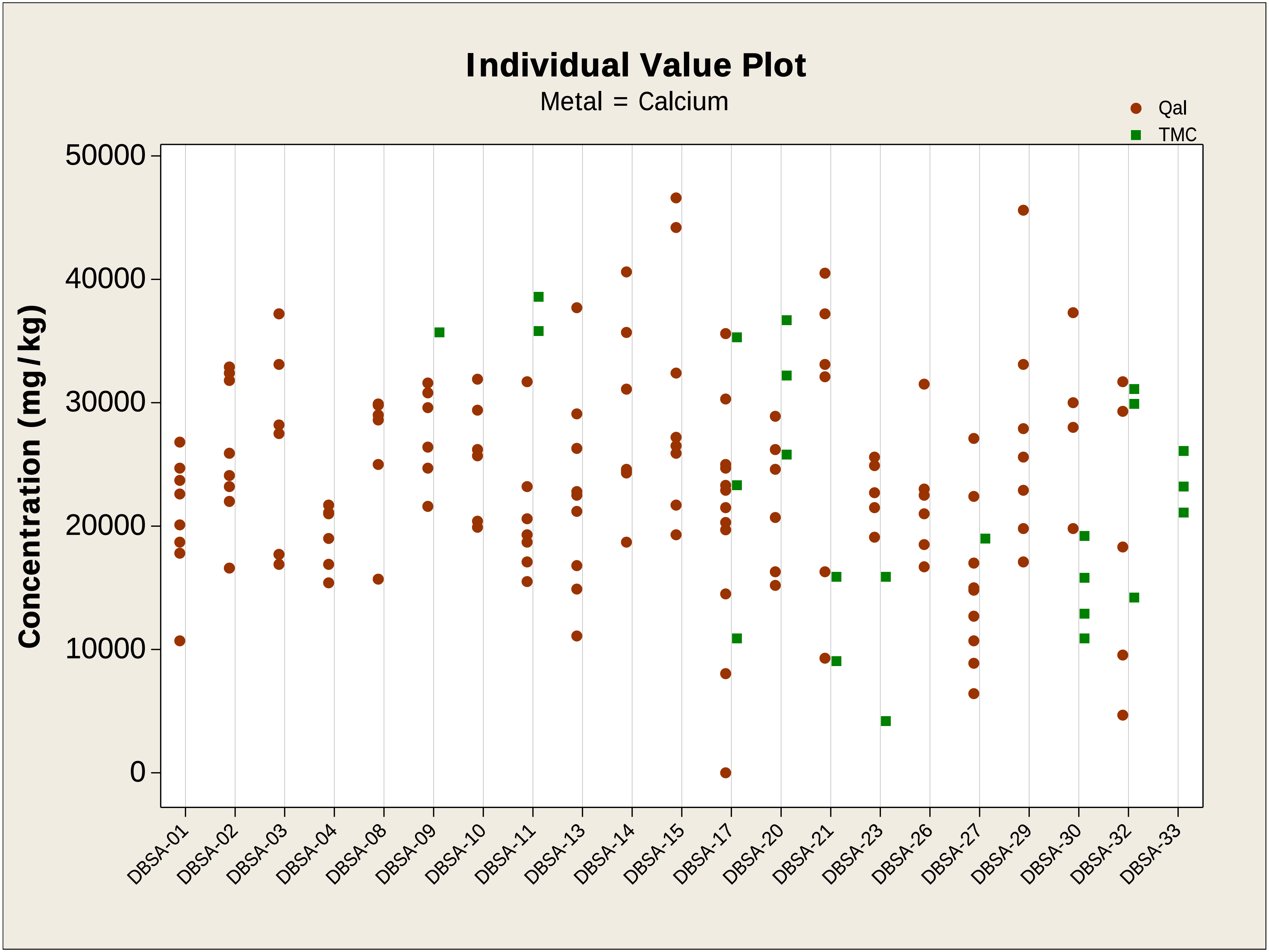
Individual Value Plot
Metal = Beryllium
Qal
TMC
Concentration (mg/kg)
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33

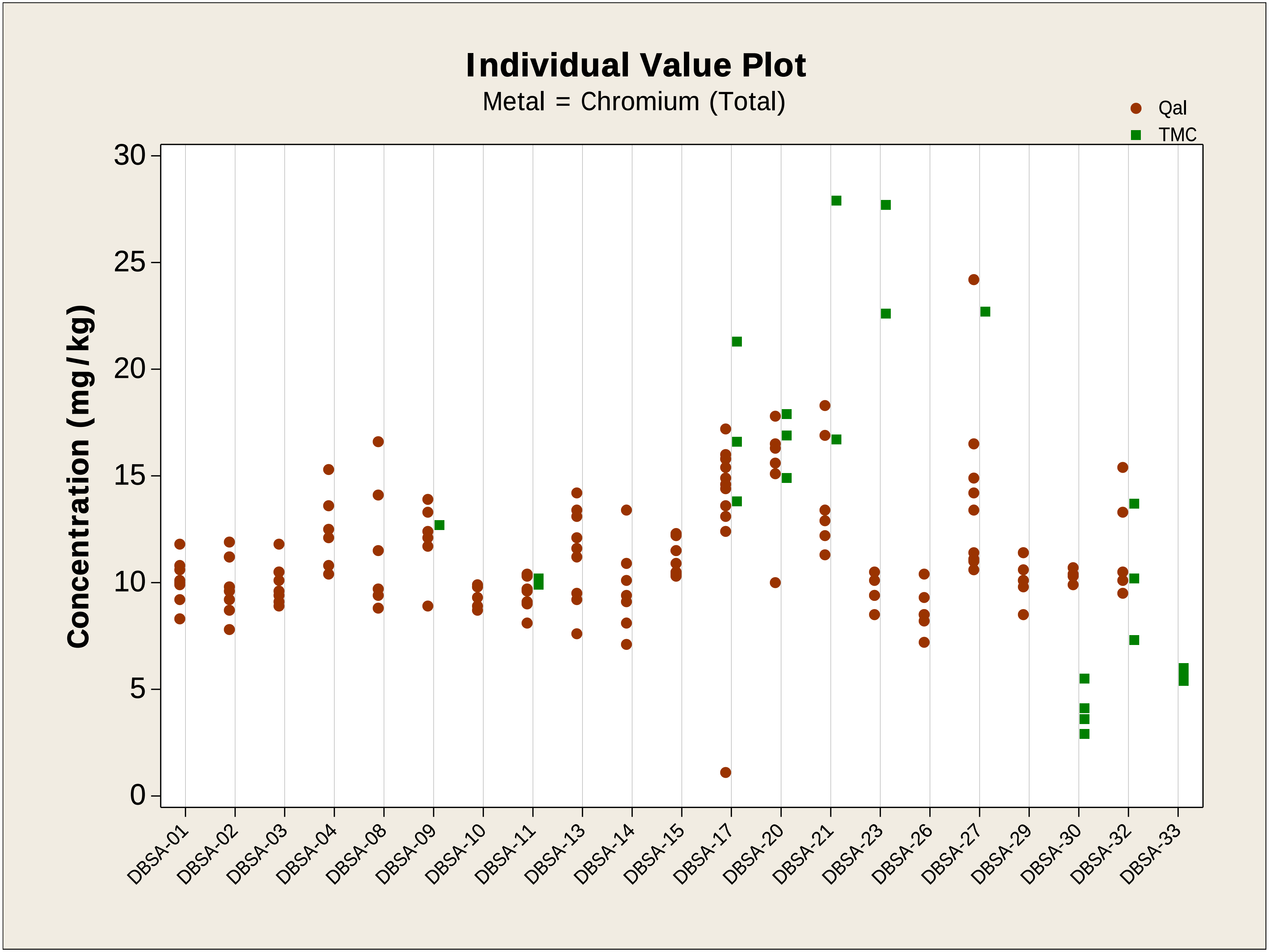


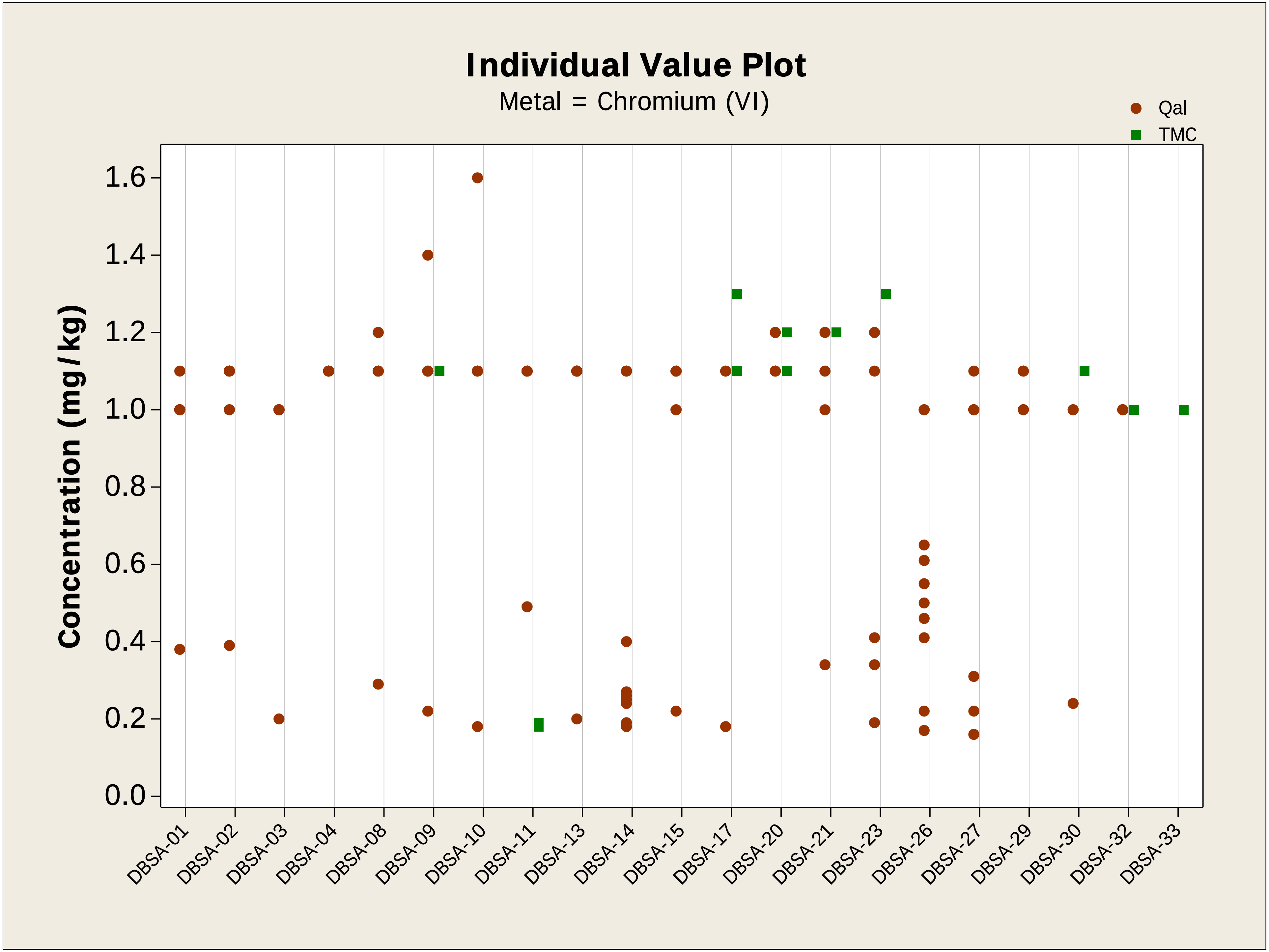
Individual Value Plot
Metal = Boron
Qal
TMC
Concentration (mg/kg)
0
5
10
15
20
25
30
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33

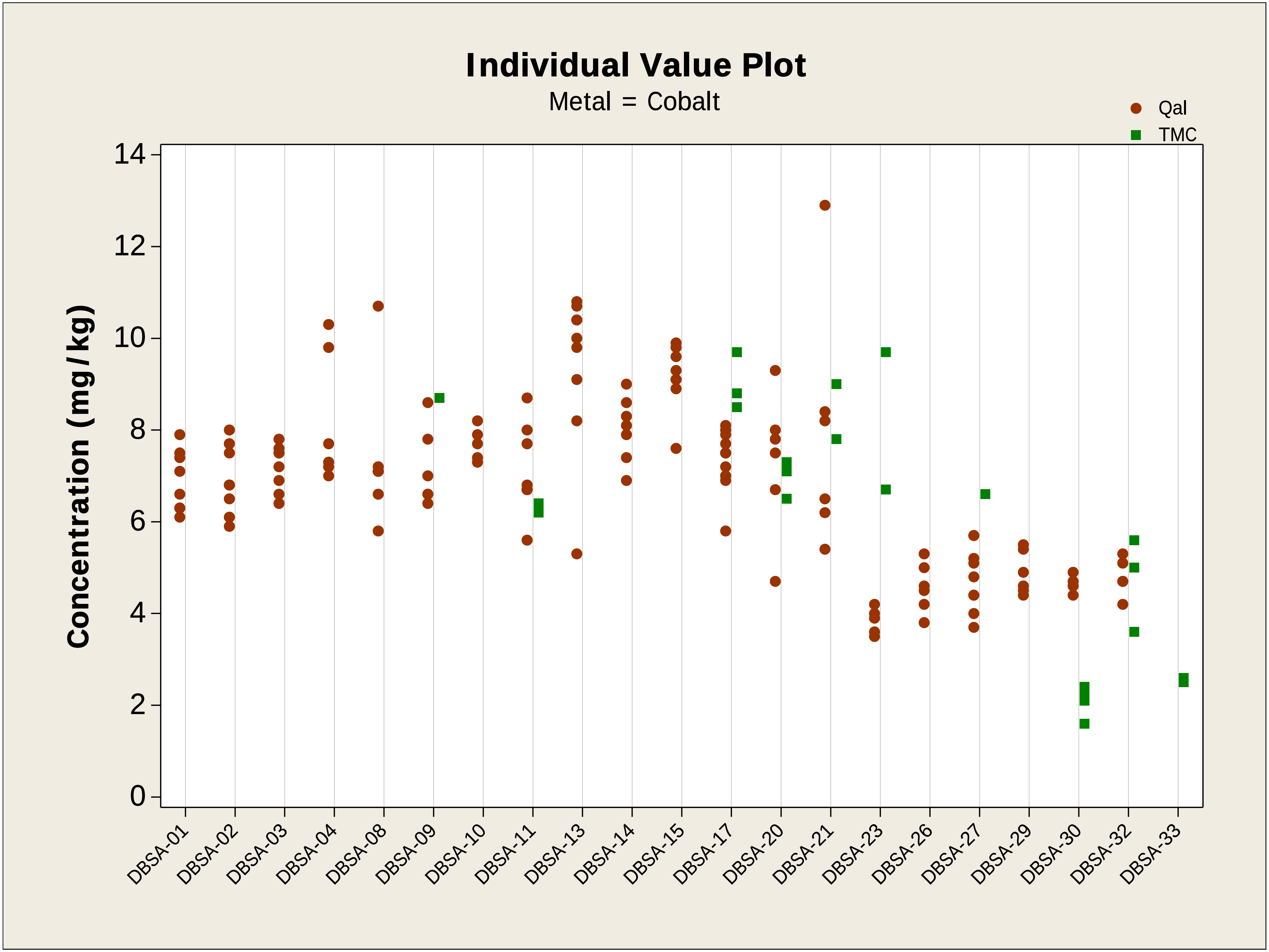


Individual Value Plot
Metal = Cadmium
Qal
TMC
Concentration (mg/kg)
0.20
0.15
0.10
0.05
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33

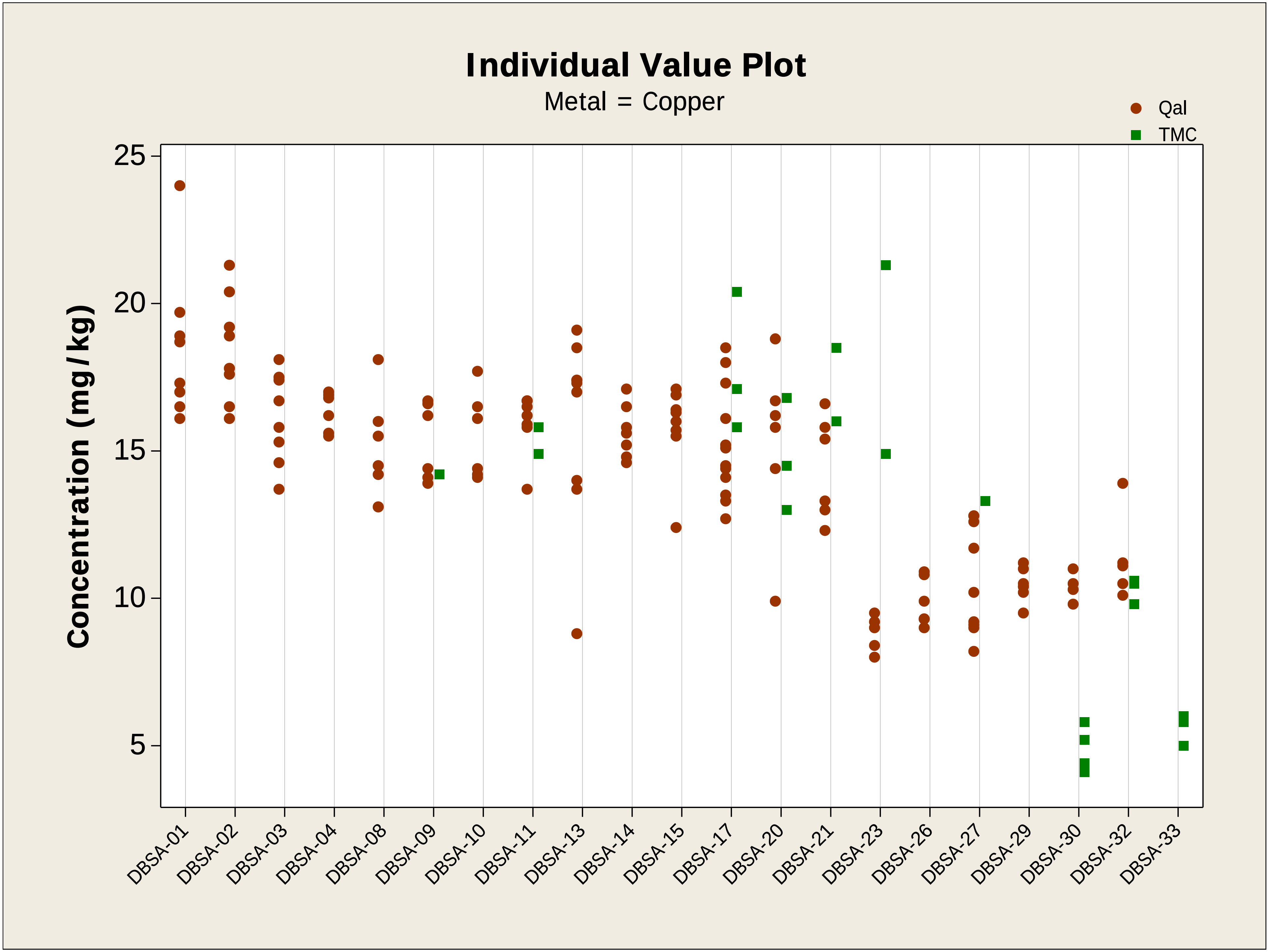

Individual Value Plot
Metal = Calcium
Qal
TMC
Concentration (mg/kg)
50000
40000
30000
20000
10000
0
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Chromium (Total)
Qal
TMC
Concentration (mg/kg)
0
5
10
15
20
25
30
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33

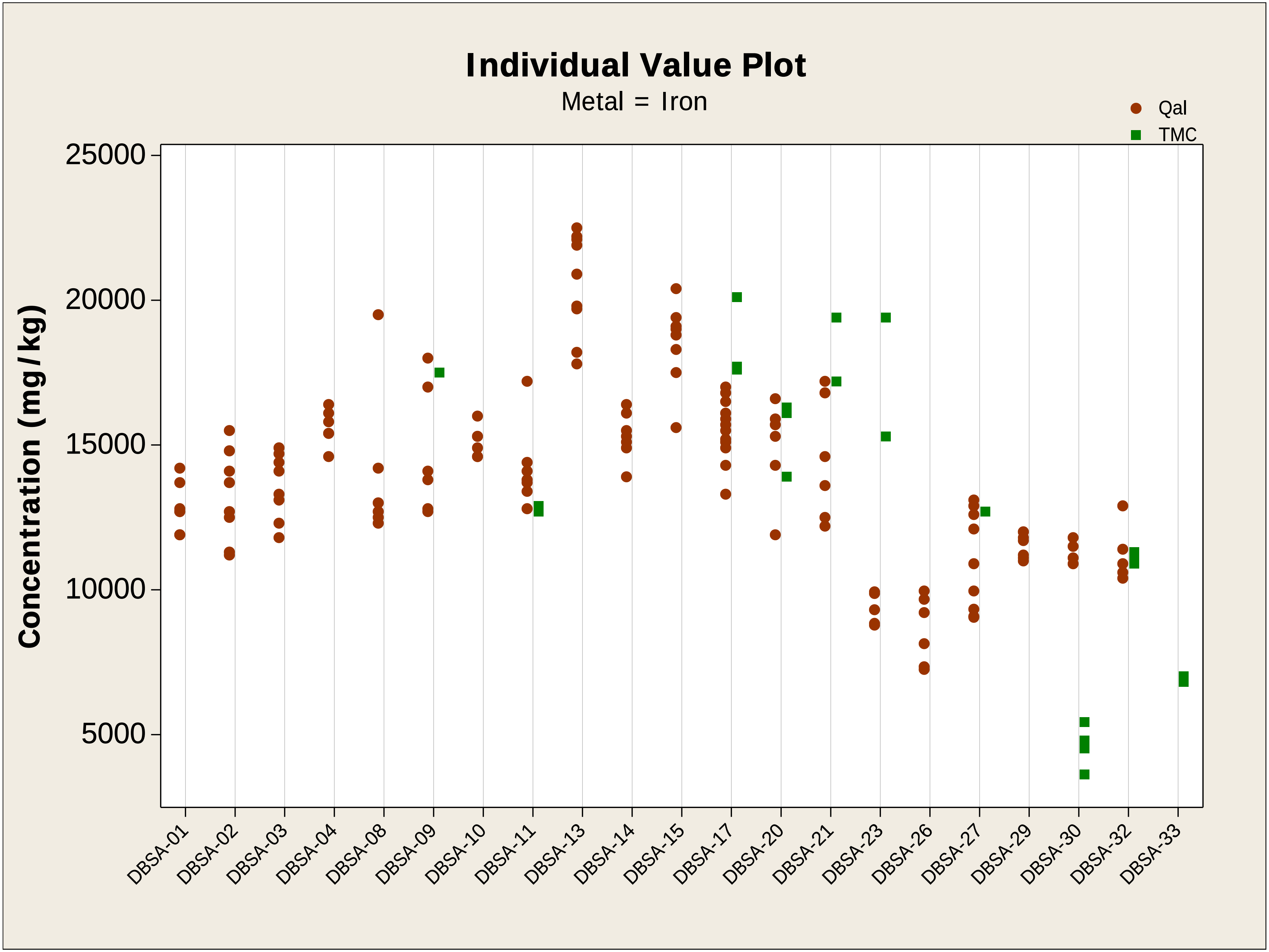

Individual Value Plot
Metal = Chromium (VI)
Qal
TMC
Concentration (mg/kg)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33

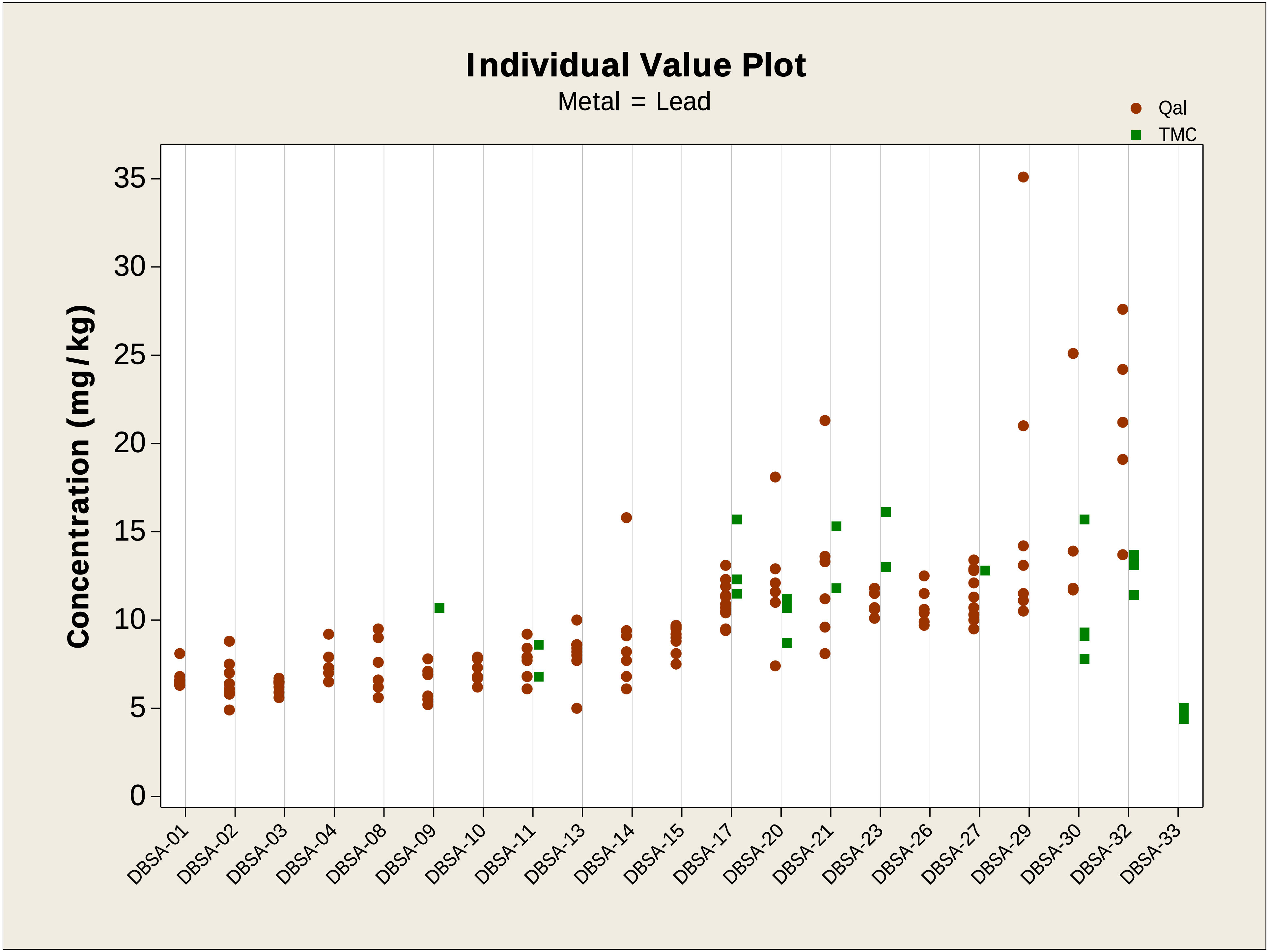


Individual Value Plot
Metal = Cobalt
Qal
TMC
Concentration (mg/kg)
0
2
4
6
8
10
12
14
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33

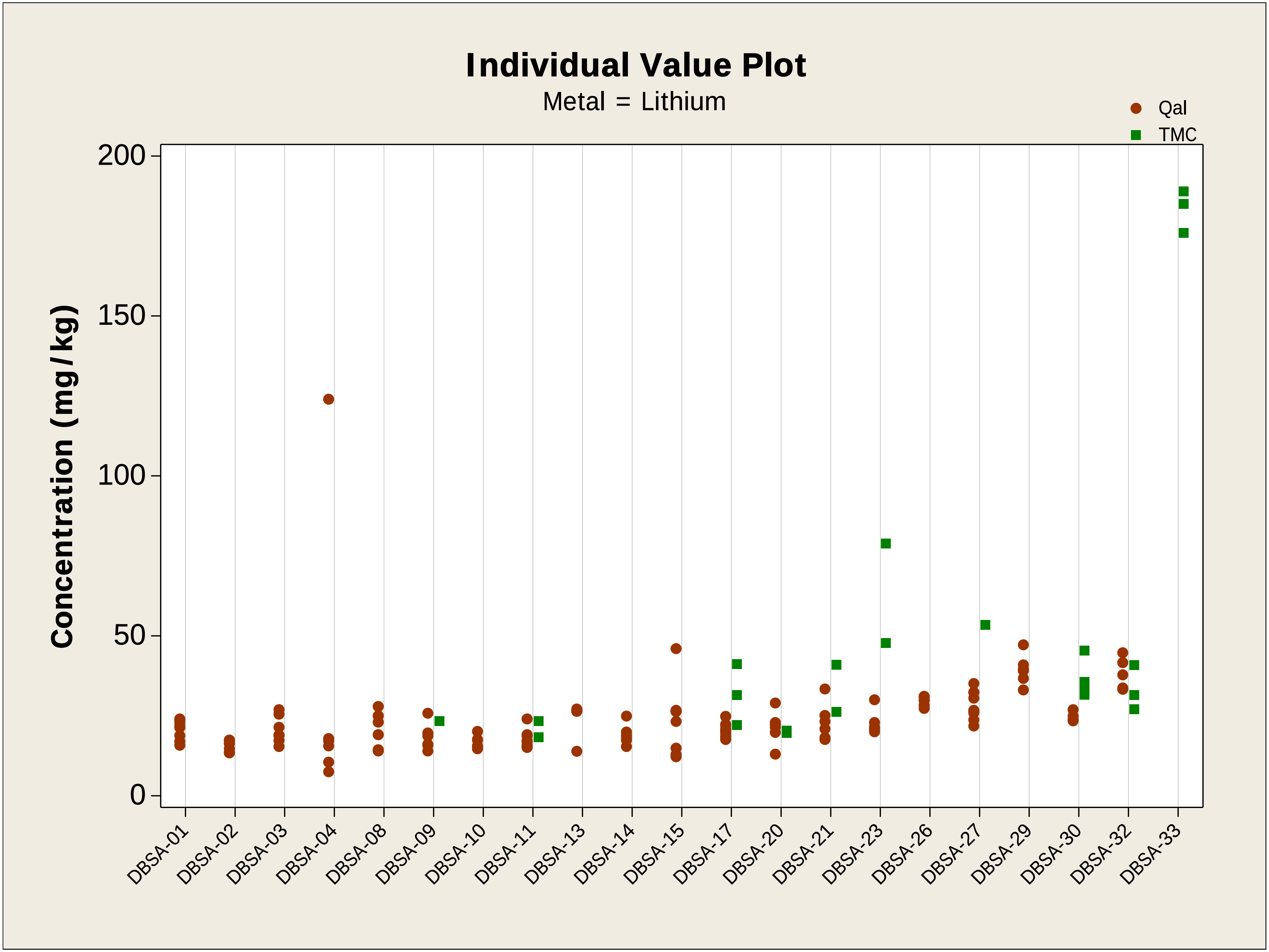


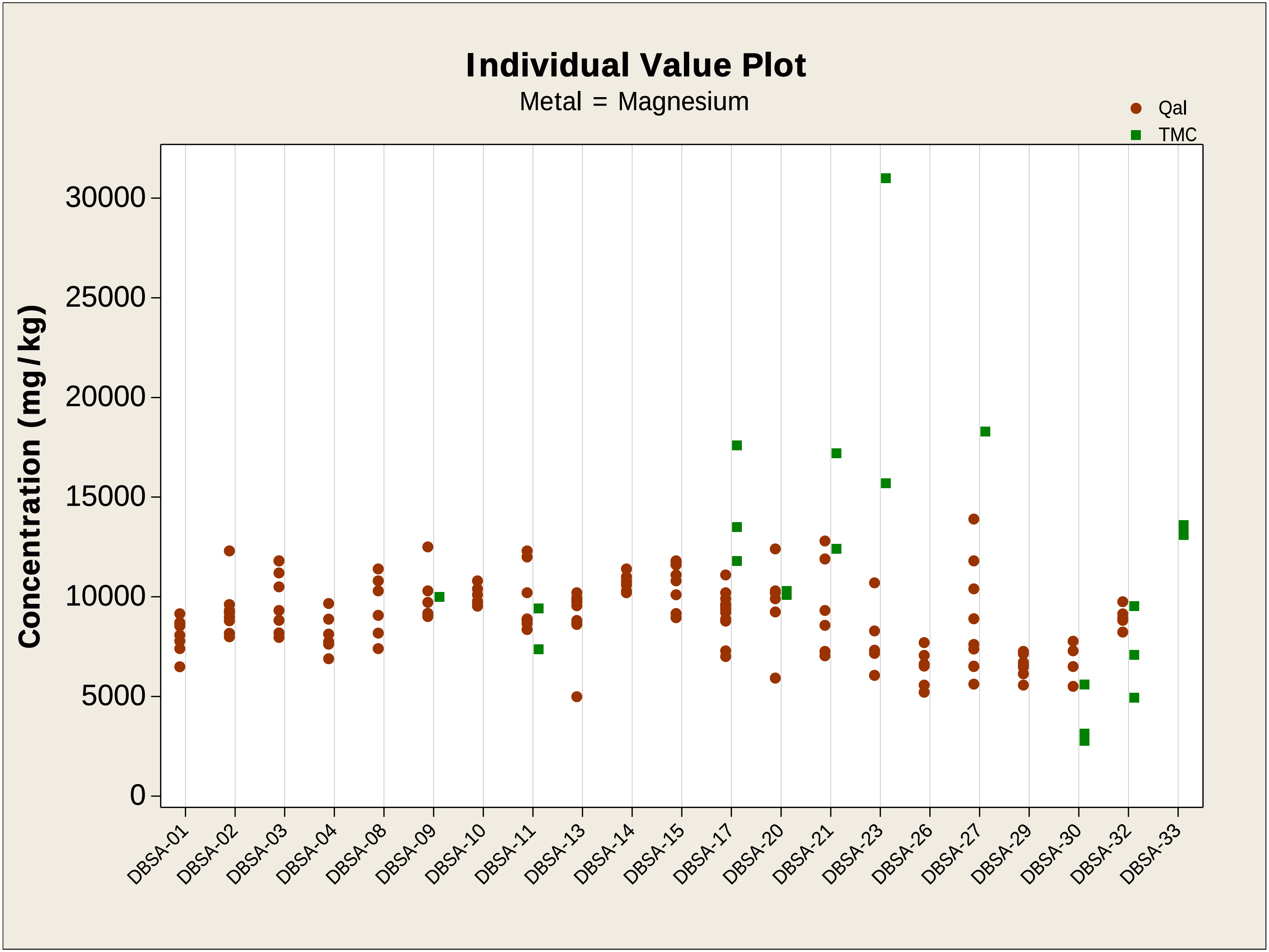
Individual Value Plot
Metal = Copper
Qal
TMC
Concentration (mg/kg)
25
20
15
10
5
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Iron
Qal
TMC
Concentration (mg/kg)
25000
20000
15000
10000
5000
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33

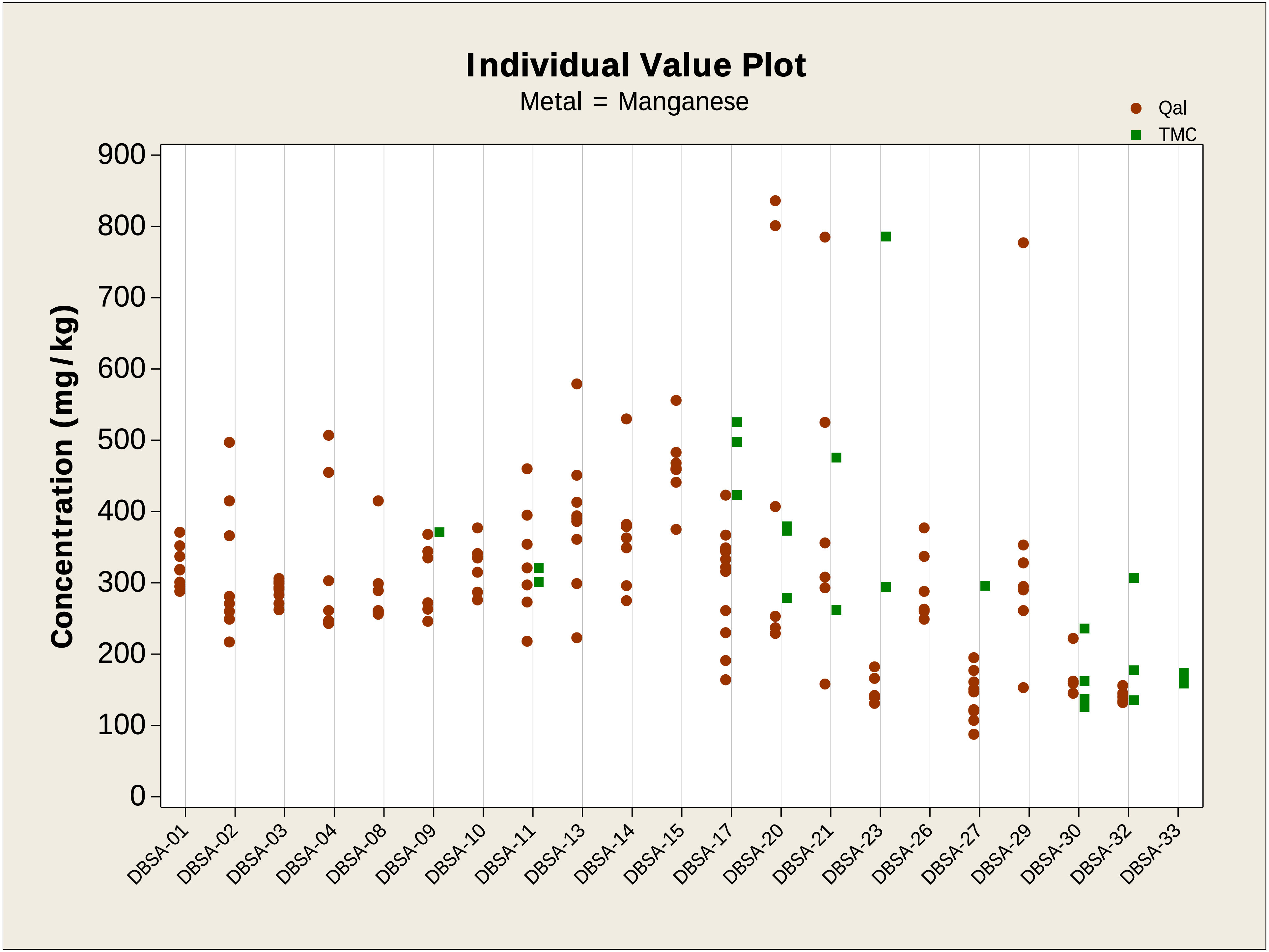


Individual Value Plot
Metal = Lead
Qal
TMC
Concentration (mg/kg)
0
5
10
15
20
25
30
35
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Lithium
Qal
TMC
Concentration (mg/kg)
0
50
100
150
200
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Metal = Magnesium
Qal
TMC
Concentration (mg/kg)
30000
25000
20000
15000
10000
5000
0
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Manganese
Qal
TMC
Concentration (mg/kg)
900
800
700
600
500
400
300
200
100
0
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
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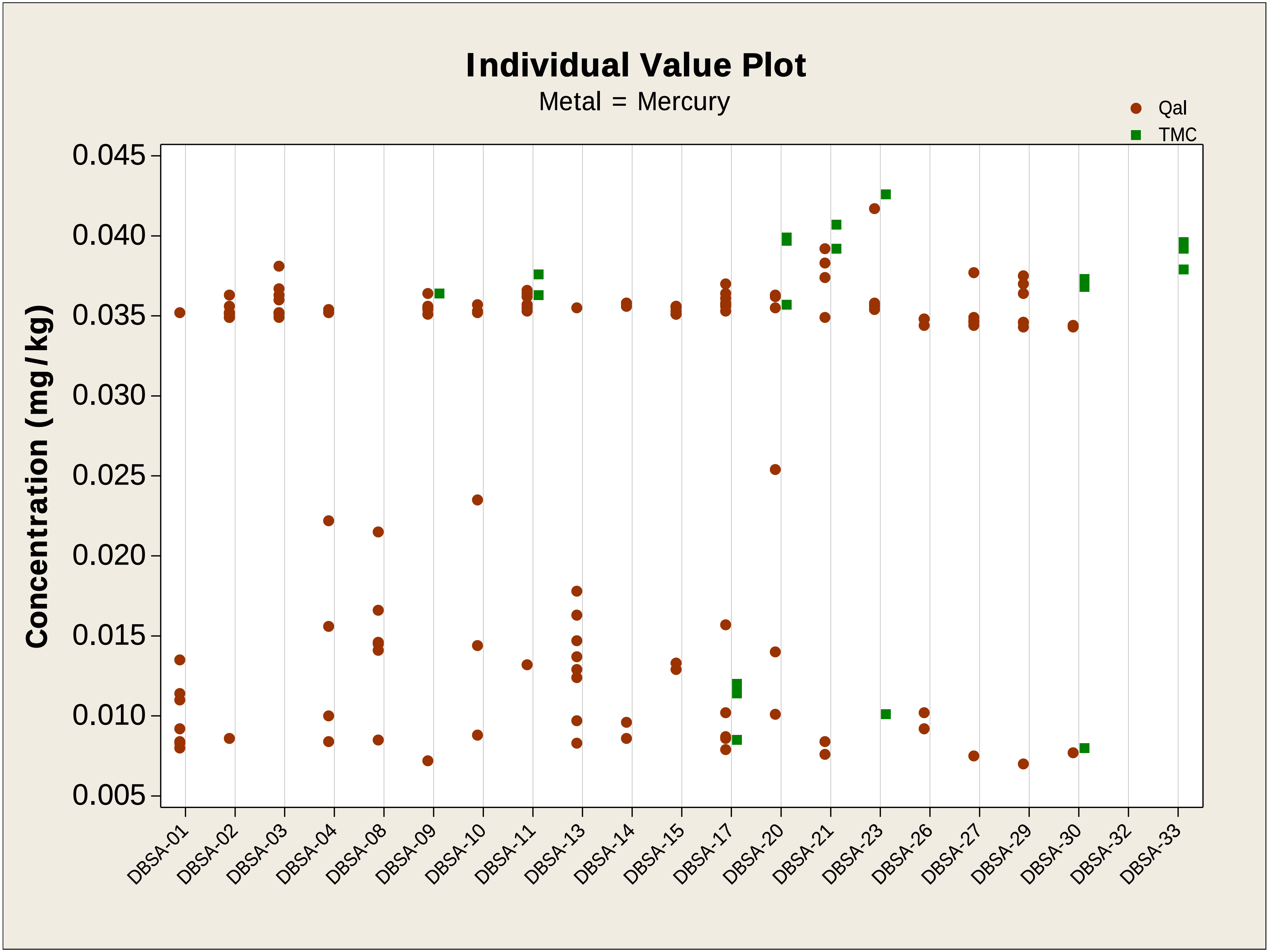
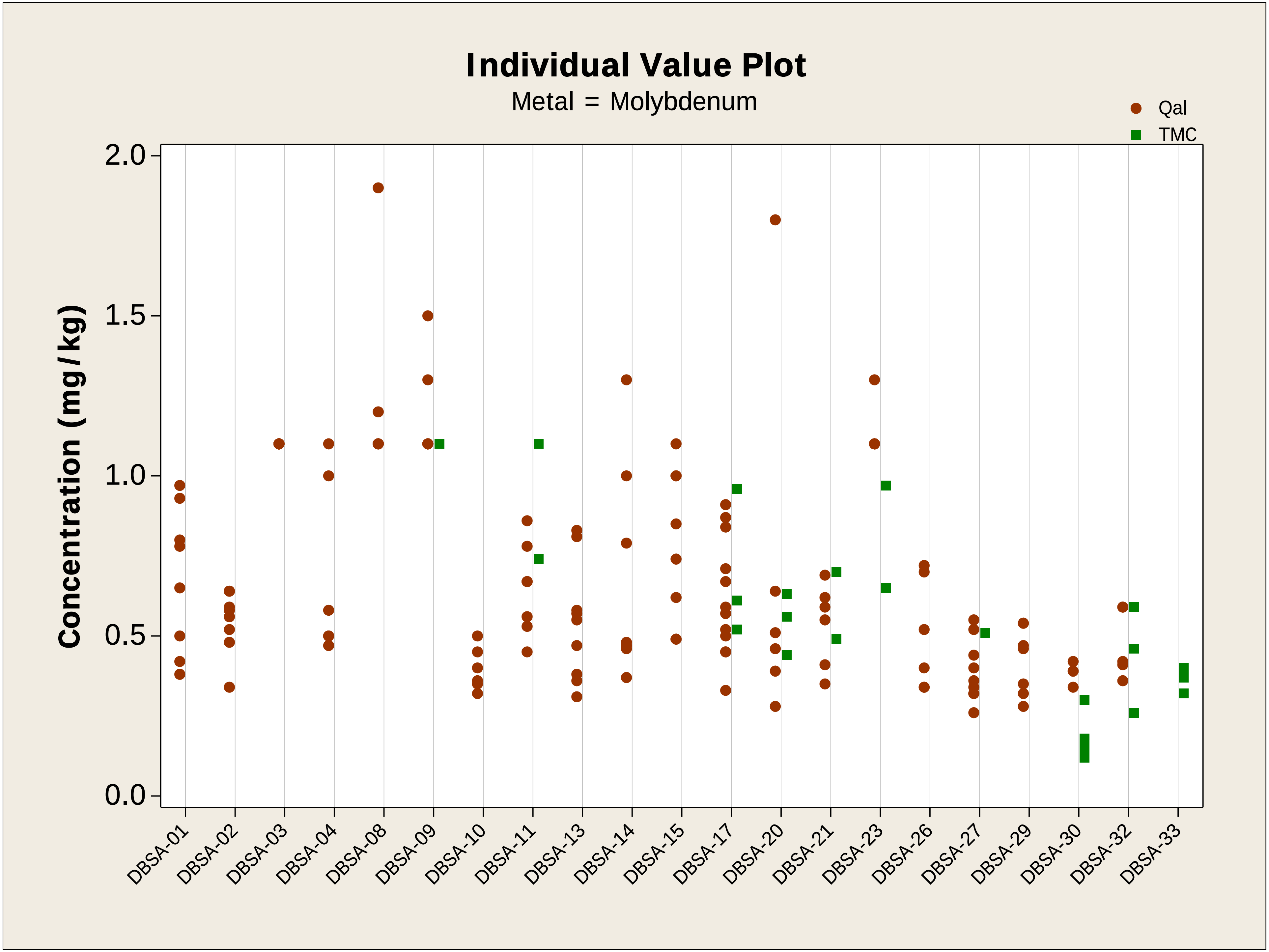
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Metal = Mercury
Qal
TMC
Concentration (mg/kg)
0.045
0.040
0.035
0.030
0.025
0.020
0.015
0.010
0.005
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Molybdenum
Qal
TMC
Concentration (mg/kg)
2.0
1.5
1.0
0.5
0.0
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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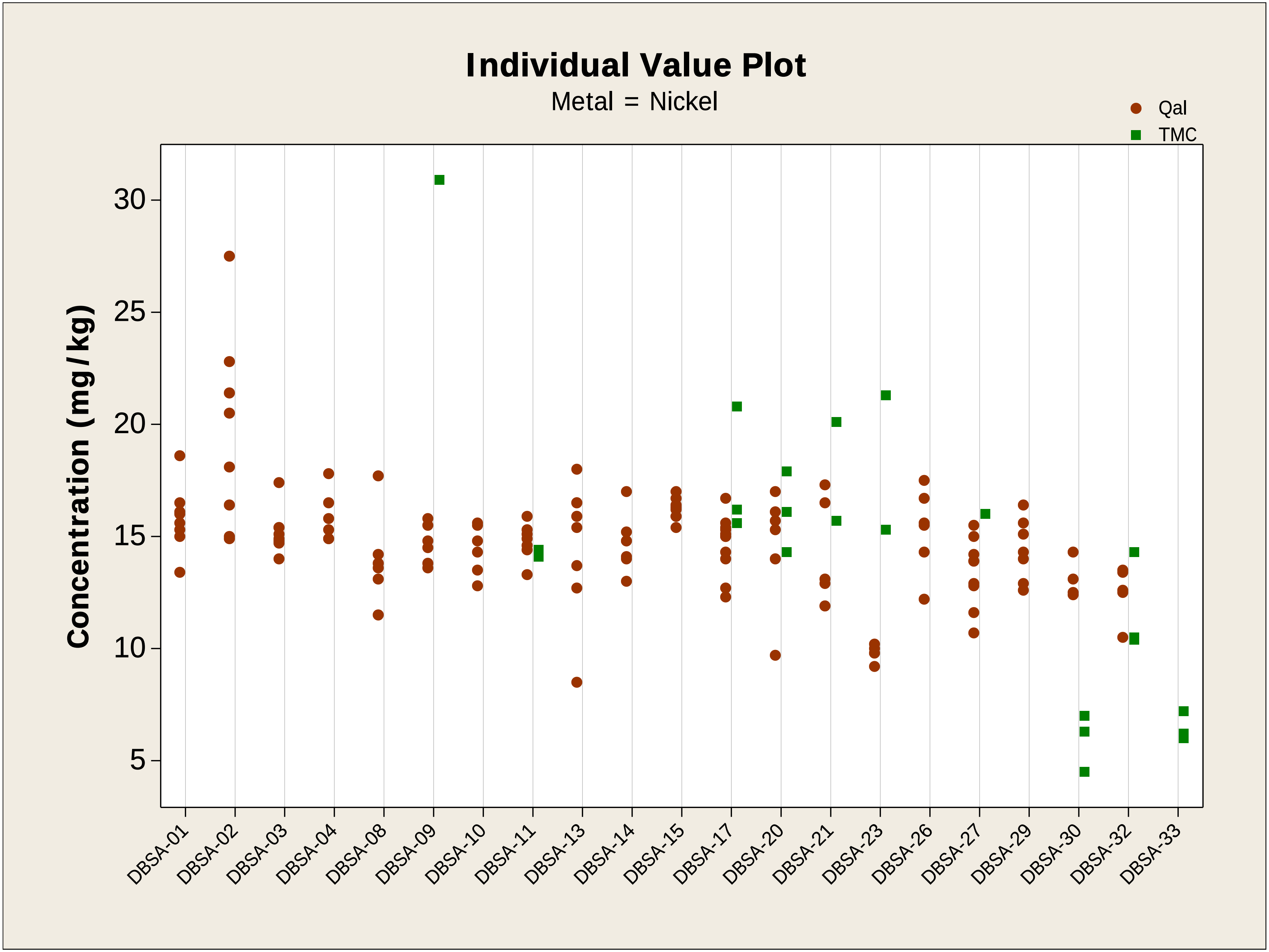
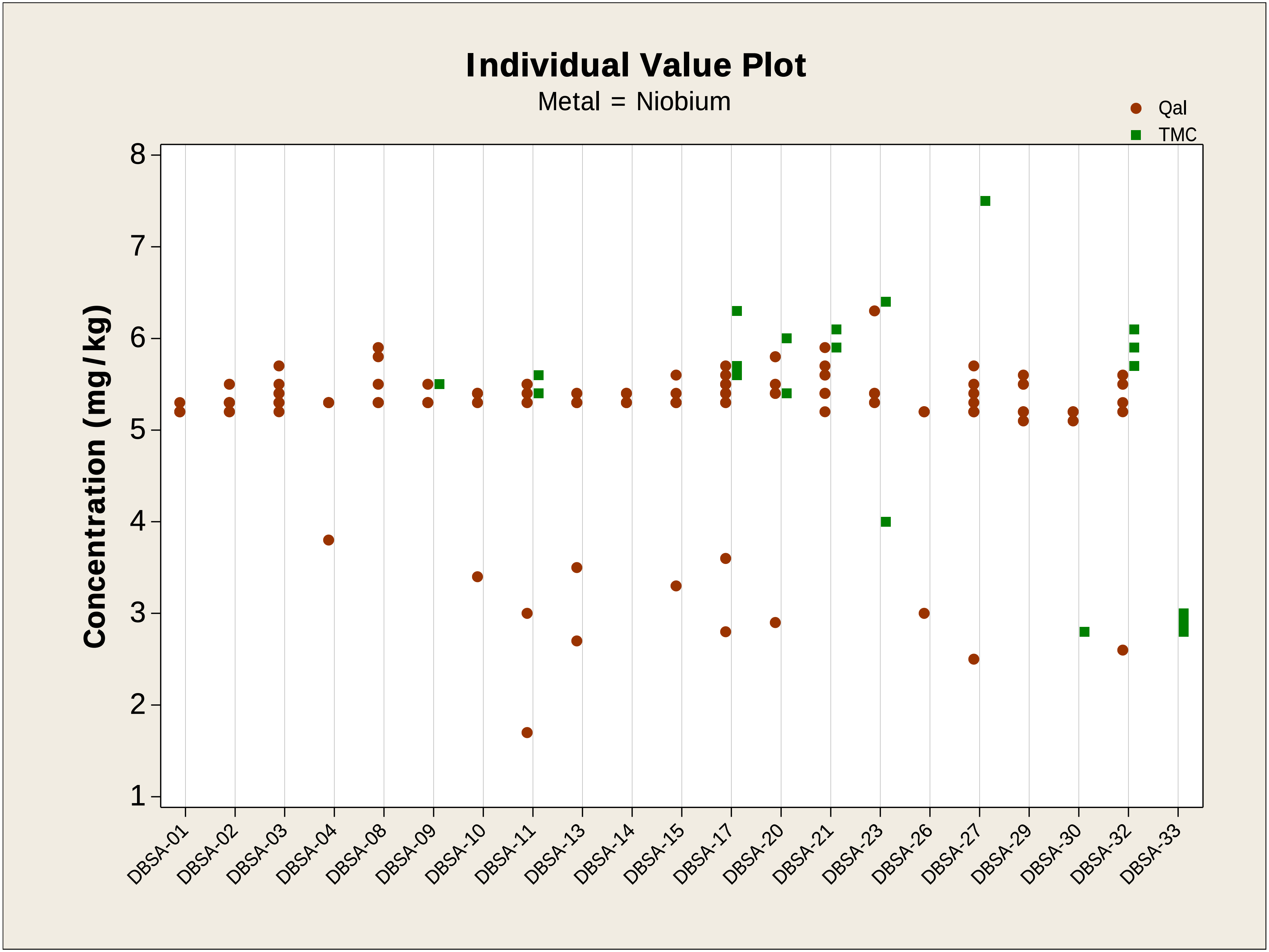
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Nickel
Qal
TMC
Concentration (mg/kg)
30
25
20
15
10
5
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Metal = Niobium
Qal
TMC
Concentration (mg/kg)
8
7
6
5
4
3
2
1
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
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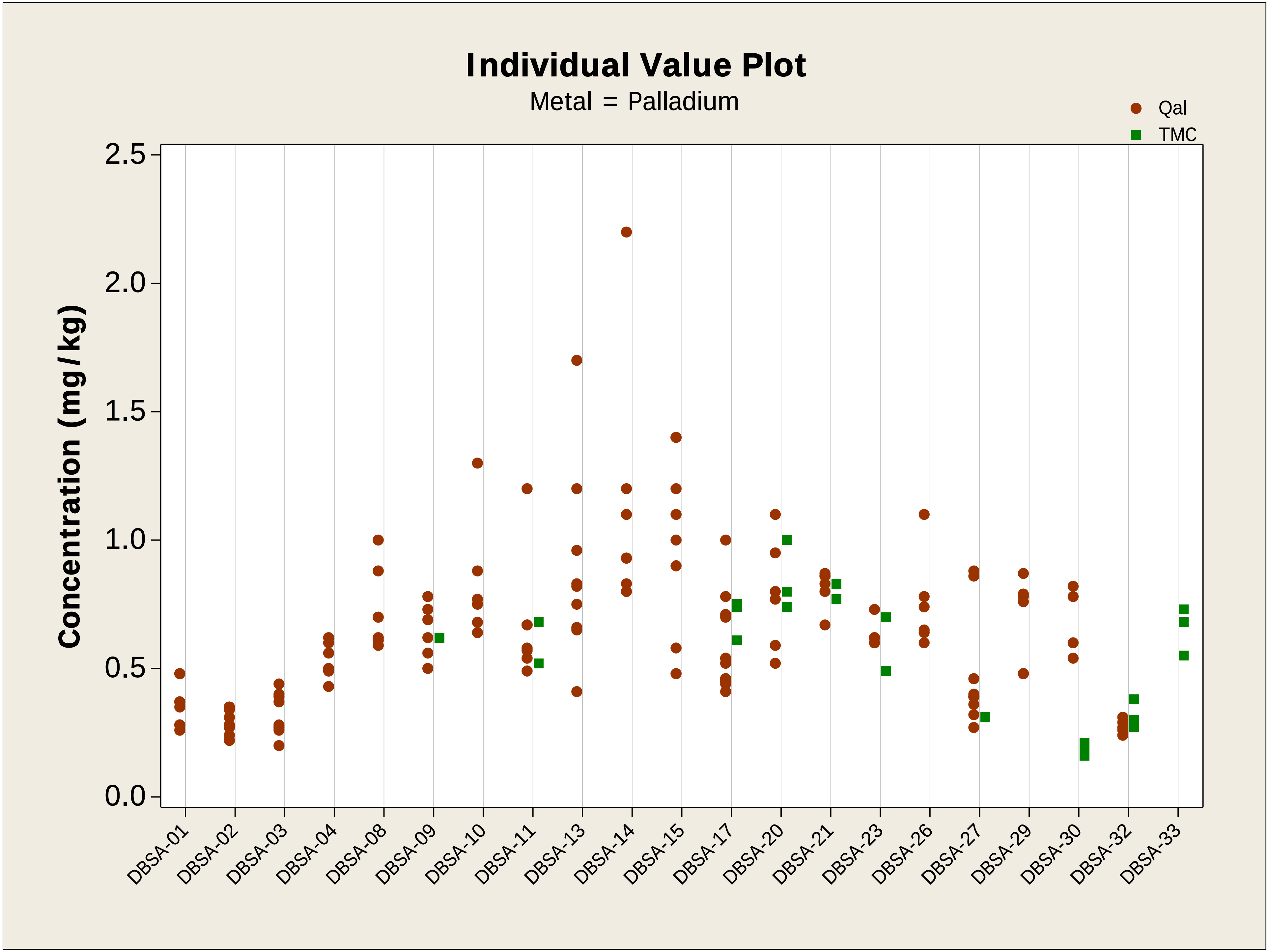
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Metal = Palladium
Qal
TMC
Concentration (mg/kg)
2.5
2.0
1.5
1.0
0.5
0.0
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
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DBSA-27
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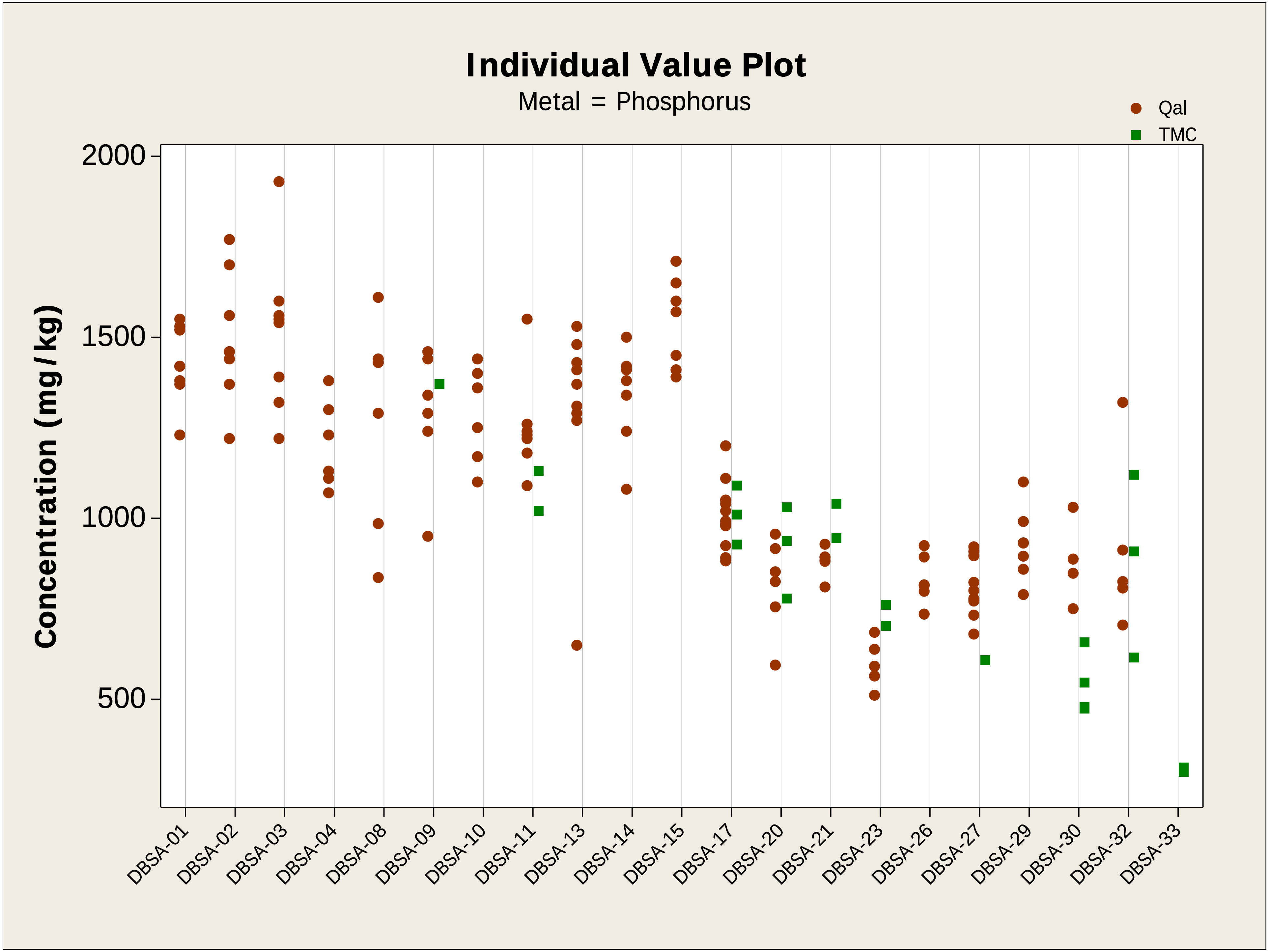
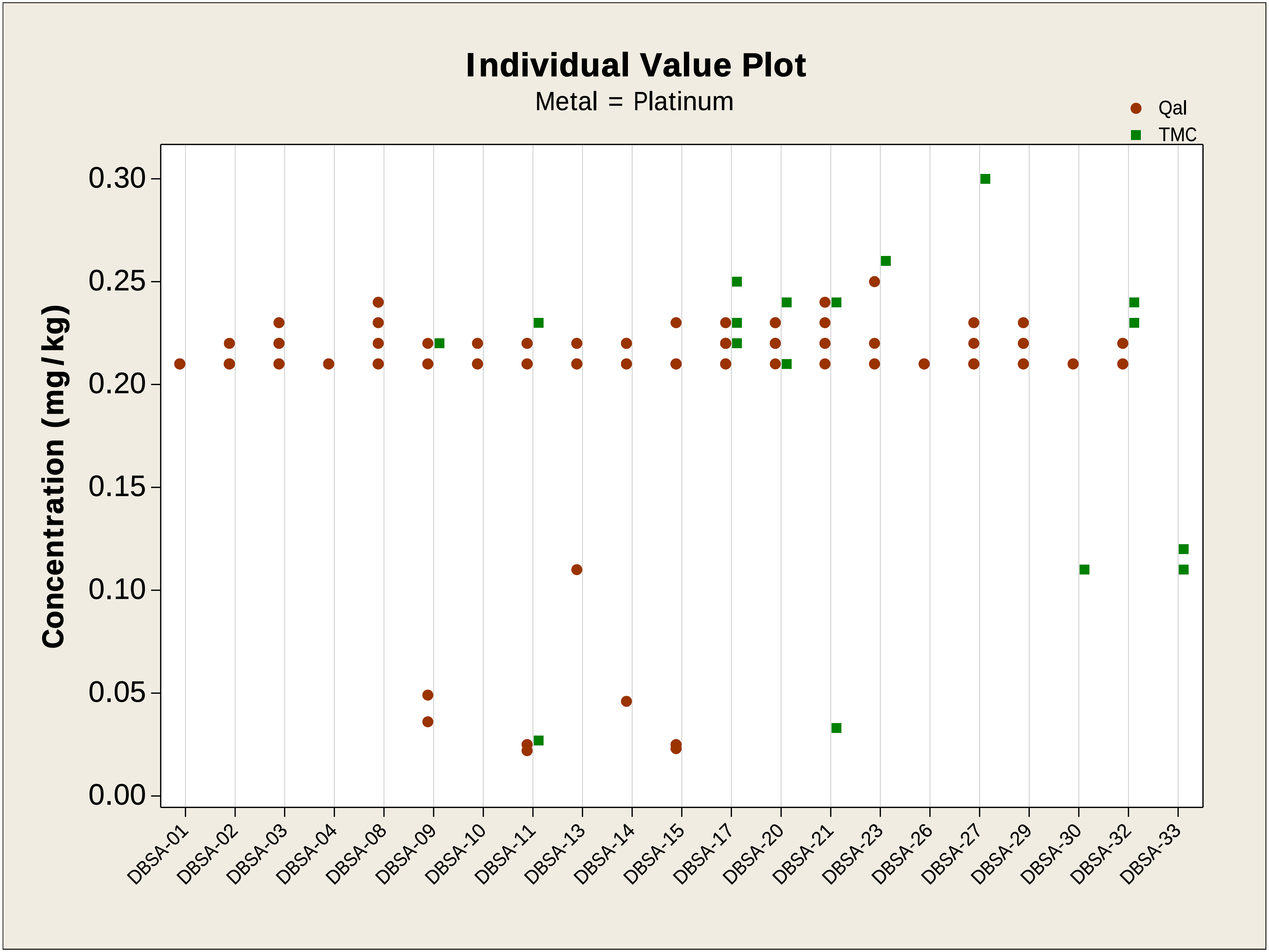
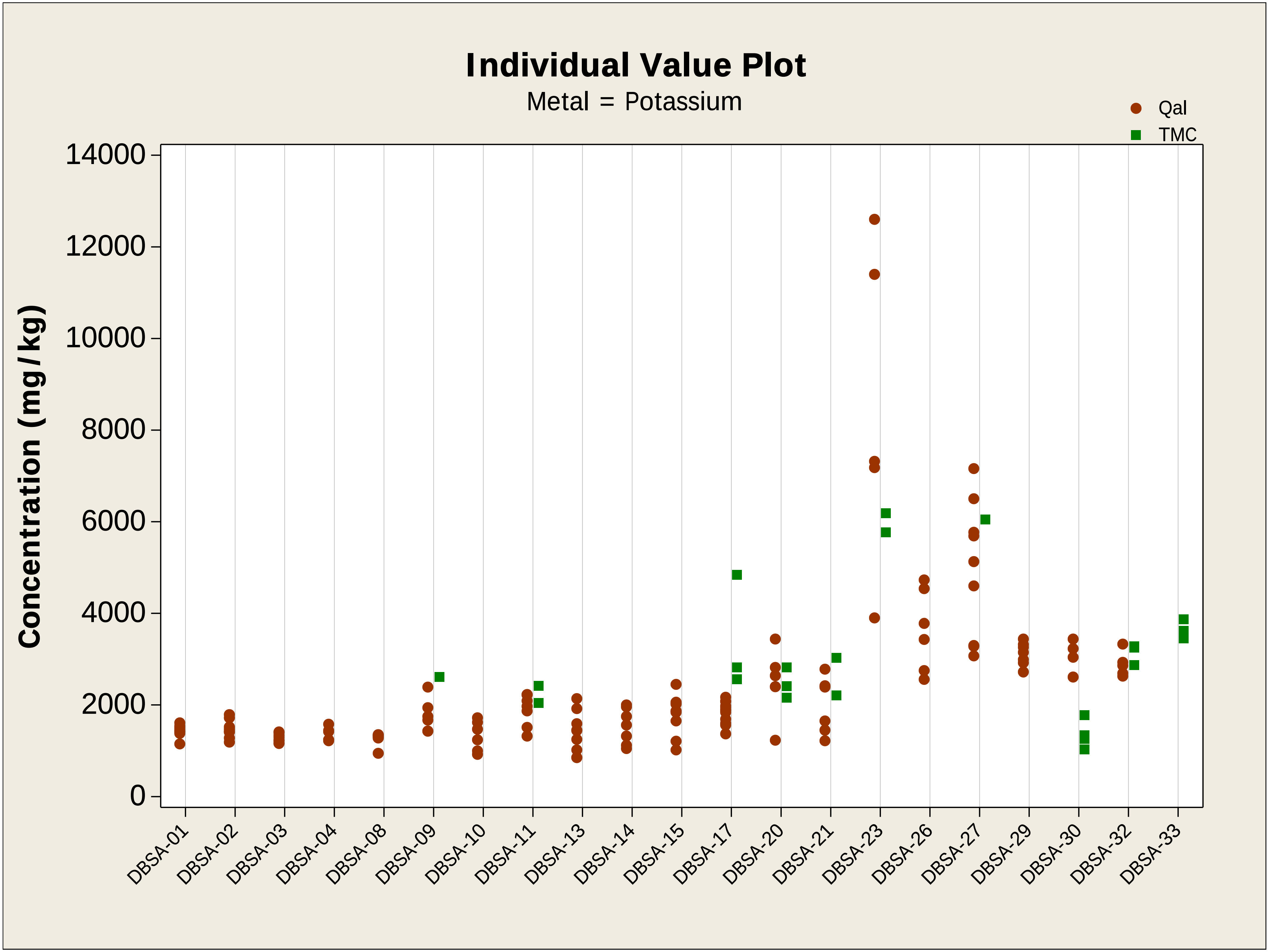
DBSA-30
DBSA-32
DBSA-33

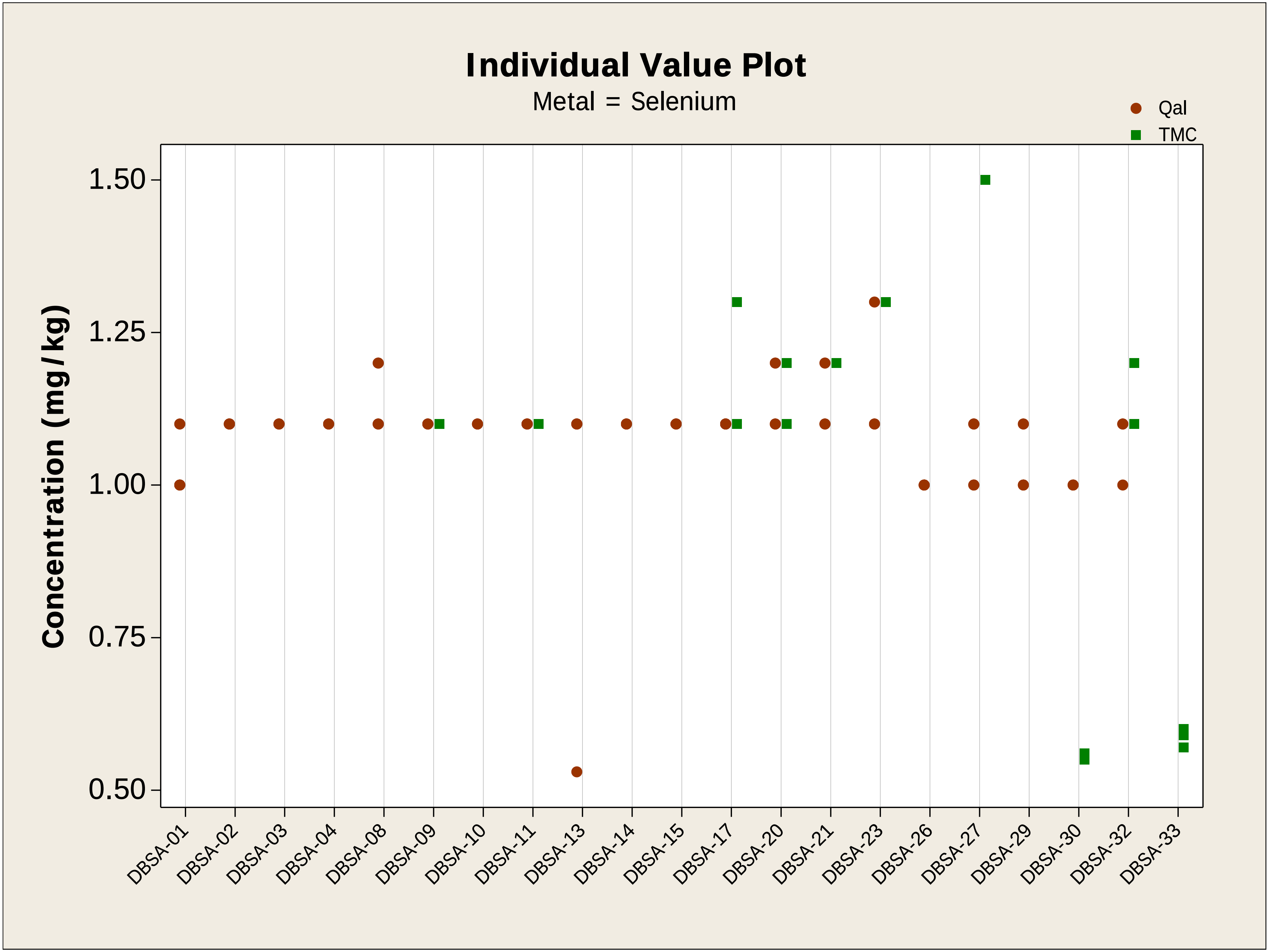


Individual Value Plot
Metal = Phosphorus
Qal
TMC
Concentration (mg/kg)
2000
1500
1000
500
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Platinum
Qal
TMC
Concentration (mg/kg)
0.30
0.25
0.20
0.15
0.10
0.05
0.00
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Metal = Potassium
Qal
TMC
Concentration (mg/kg)
0
2000
4000
6000
8000
10000
12000
14000
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Metal = Selenium
Qal
TMC
Concentration (mg/kg)
1.50
1.25
1.00
0.75
0.50
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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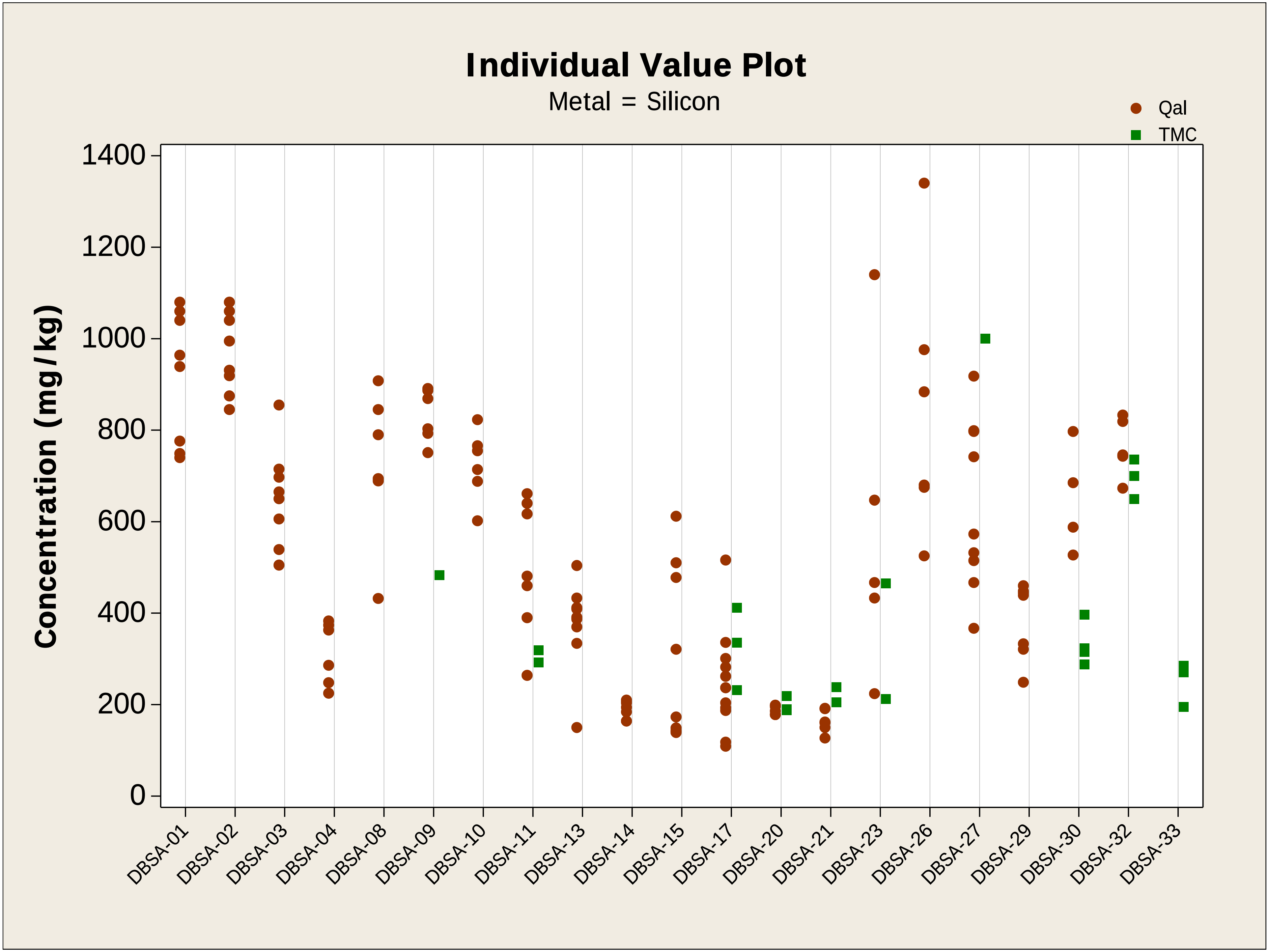
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Silicon
Qal
TMC
Concentration (mg/kg)
0
200
400
600
800
1000
1200
1400
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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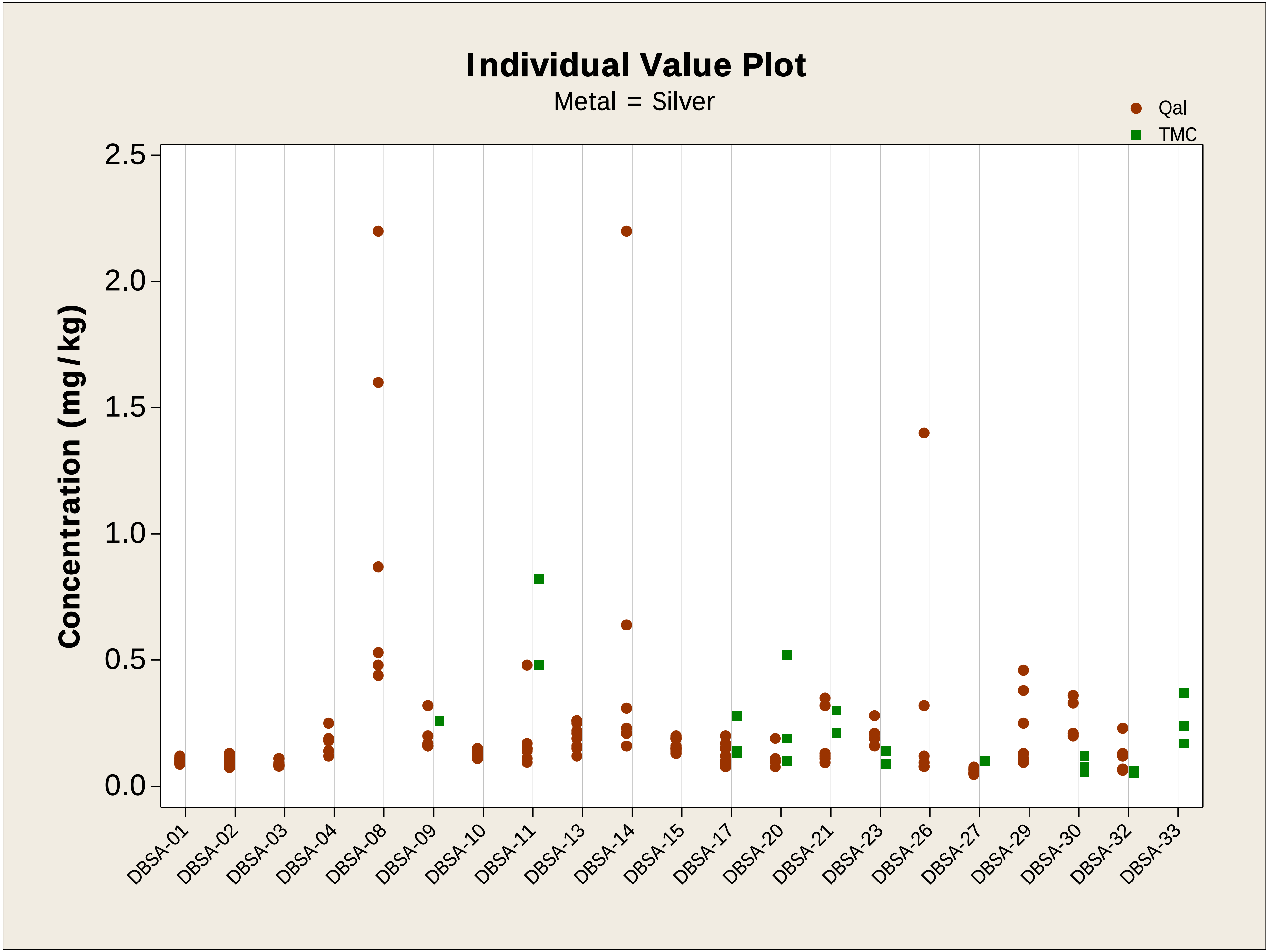
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Metal = Silver
Qal
TMC
Concentration (mg/kg)
0.0
0.5
1.0
1.5
2.0
2.5
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
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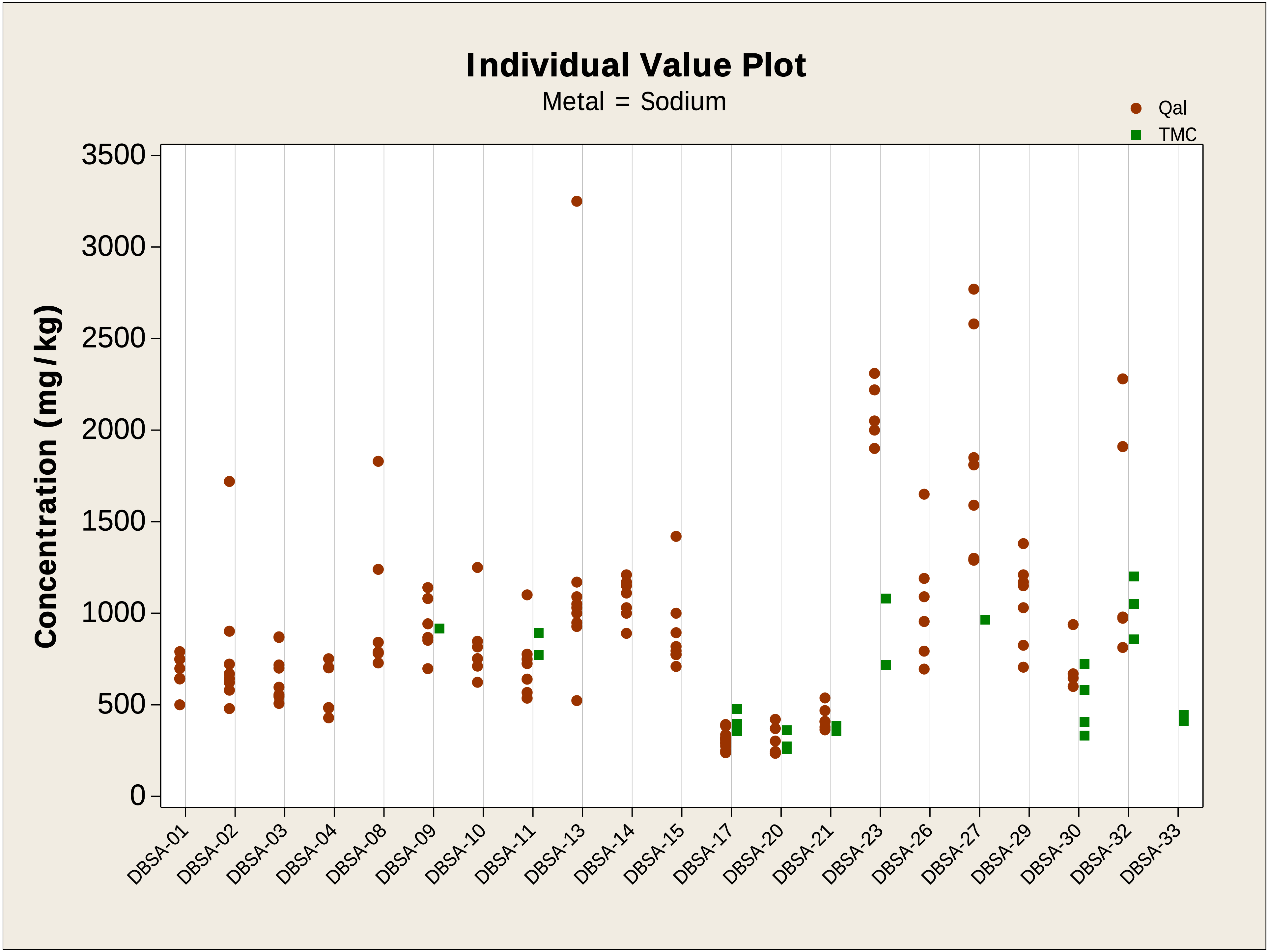
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Sodium
Qal
TMC
Concentration (mg/kg)
0
500
1000
1500
2000
2500
3000
3500
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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DBSA-26
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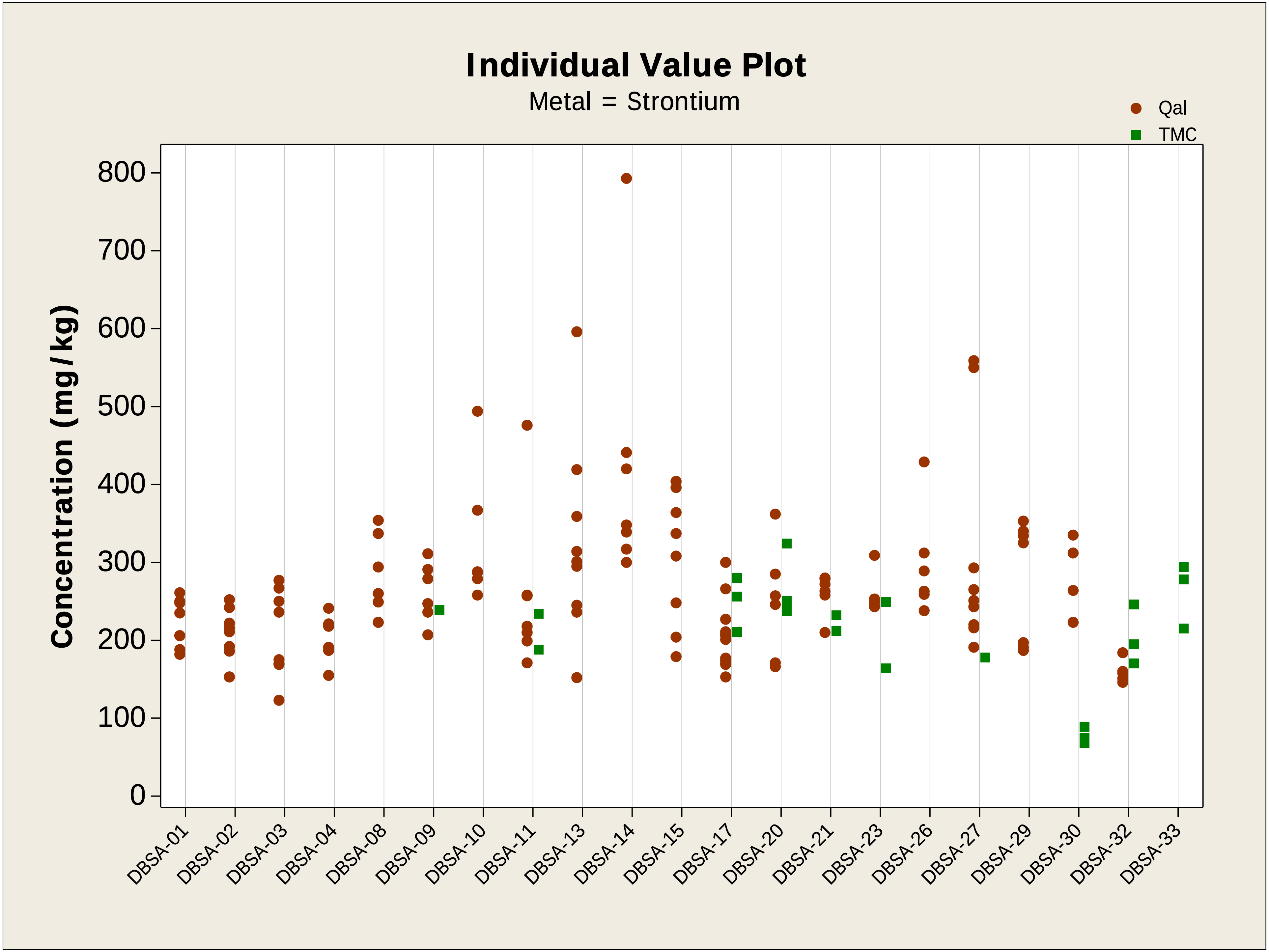
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Strontium
Qal
TMC
Concentration (mg/kg)
0
100
200
300
400
500
600
700
800
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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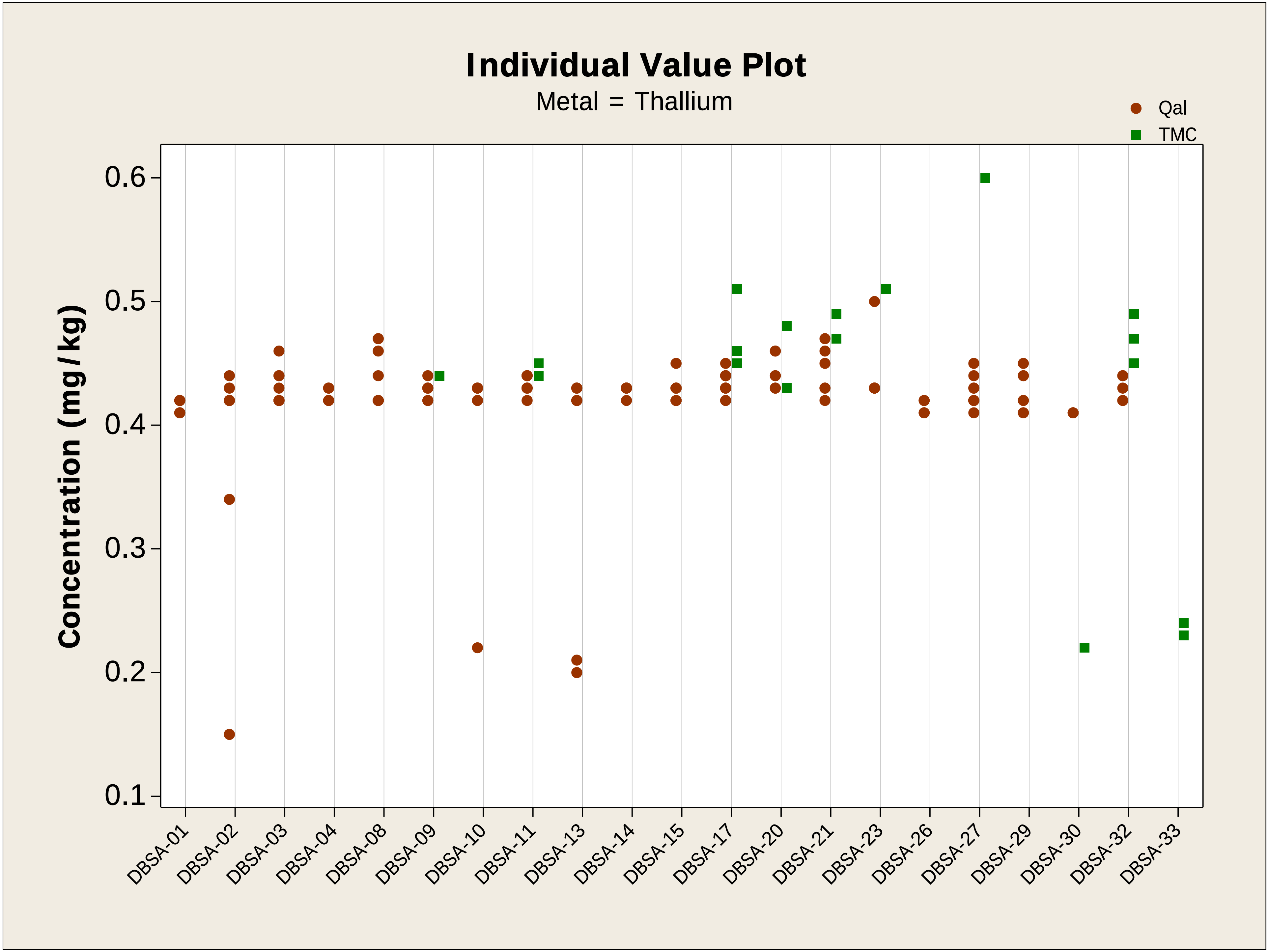
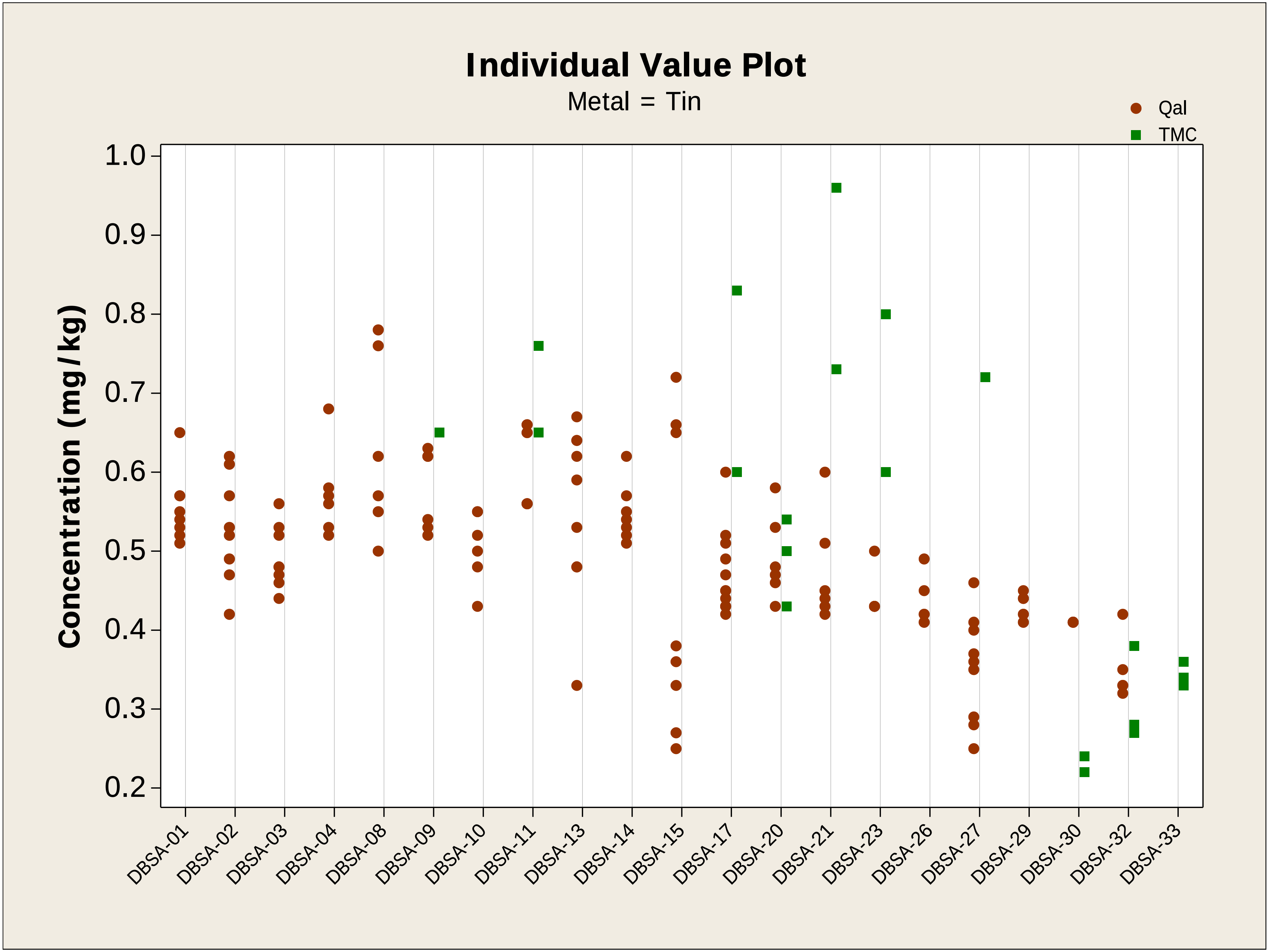
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Thallium
Qal
TMC
Concentration (mg/kg)
0.6
0.5
0.4
0.3
0.2
0.1
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Tin
Qal
TMC
Concentration (mg/kg)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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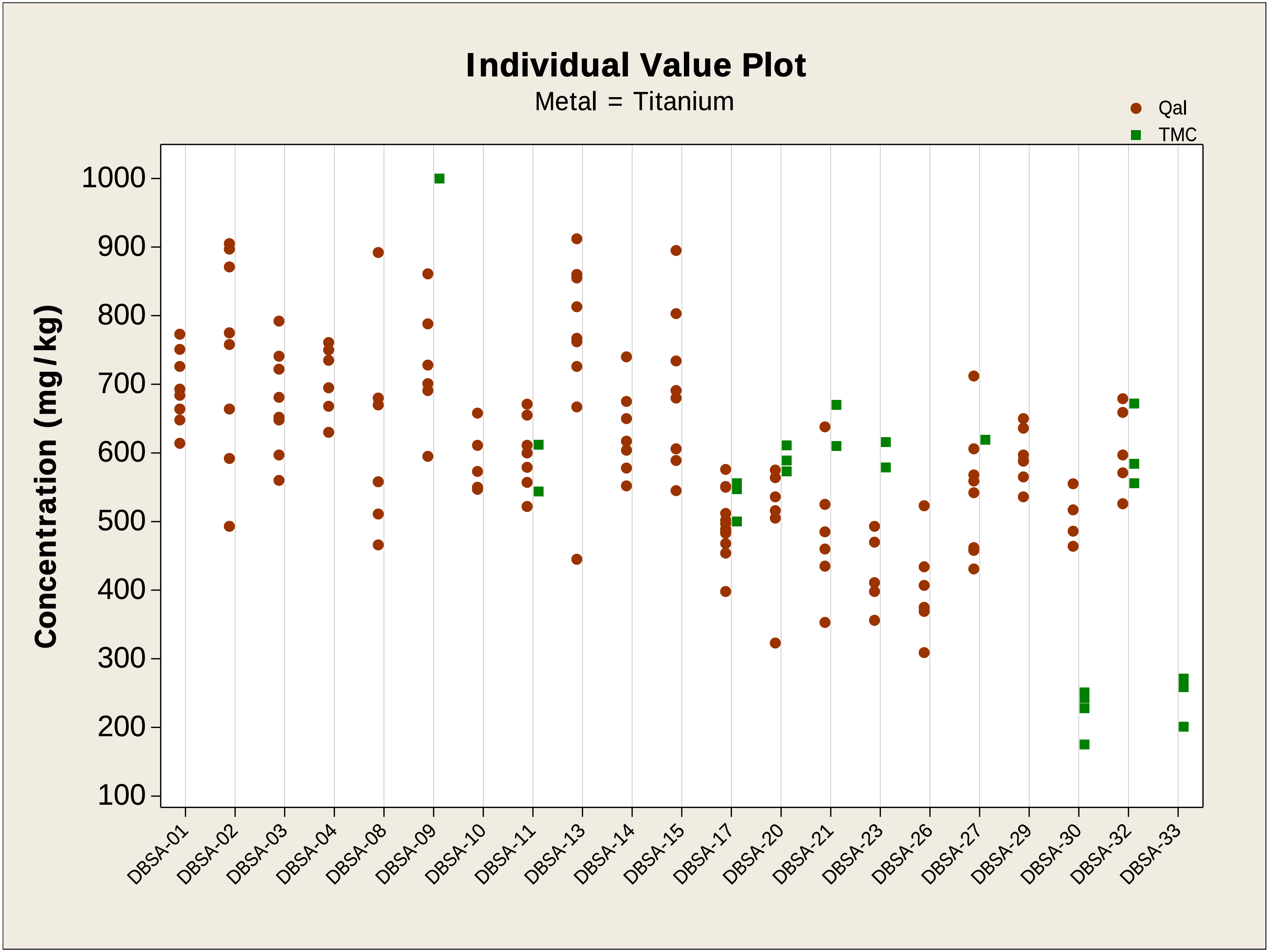
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Titanium
Qal
TMC
Concentration (mg/kg)
1000
900
800
700
600
500
400
300
200
100
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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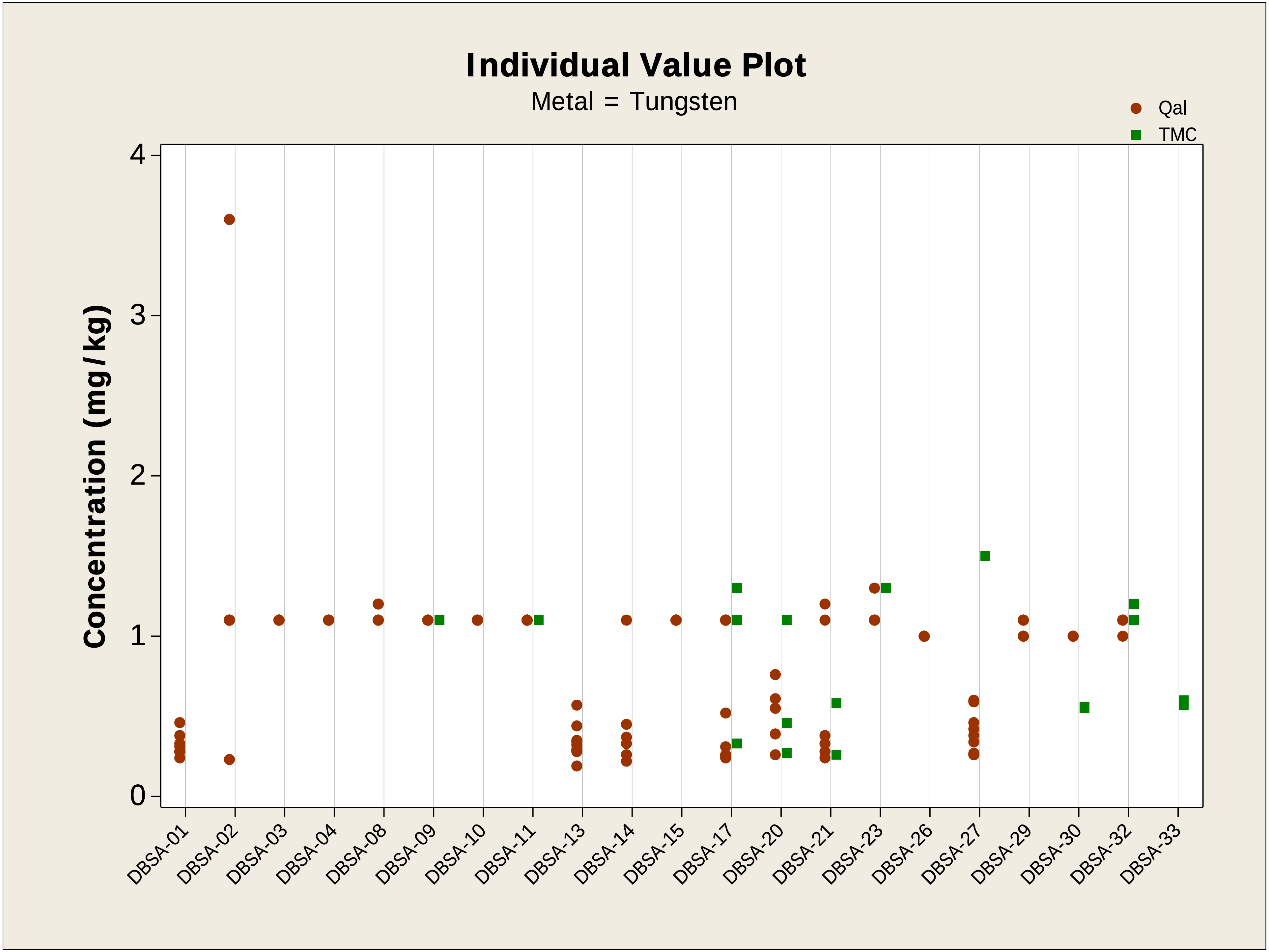
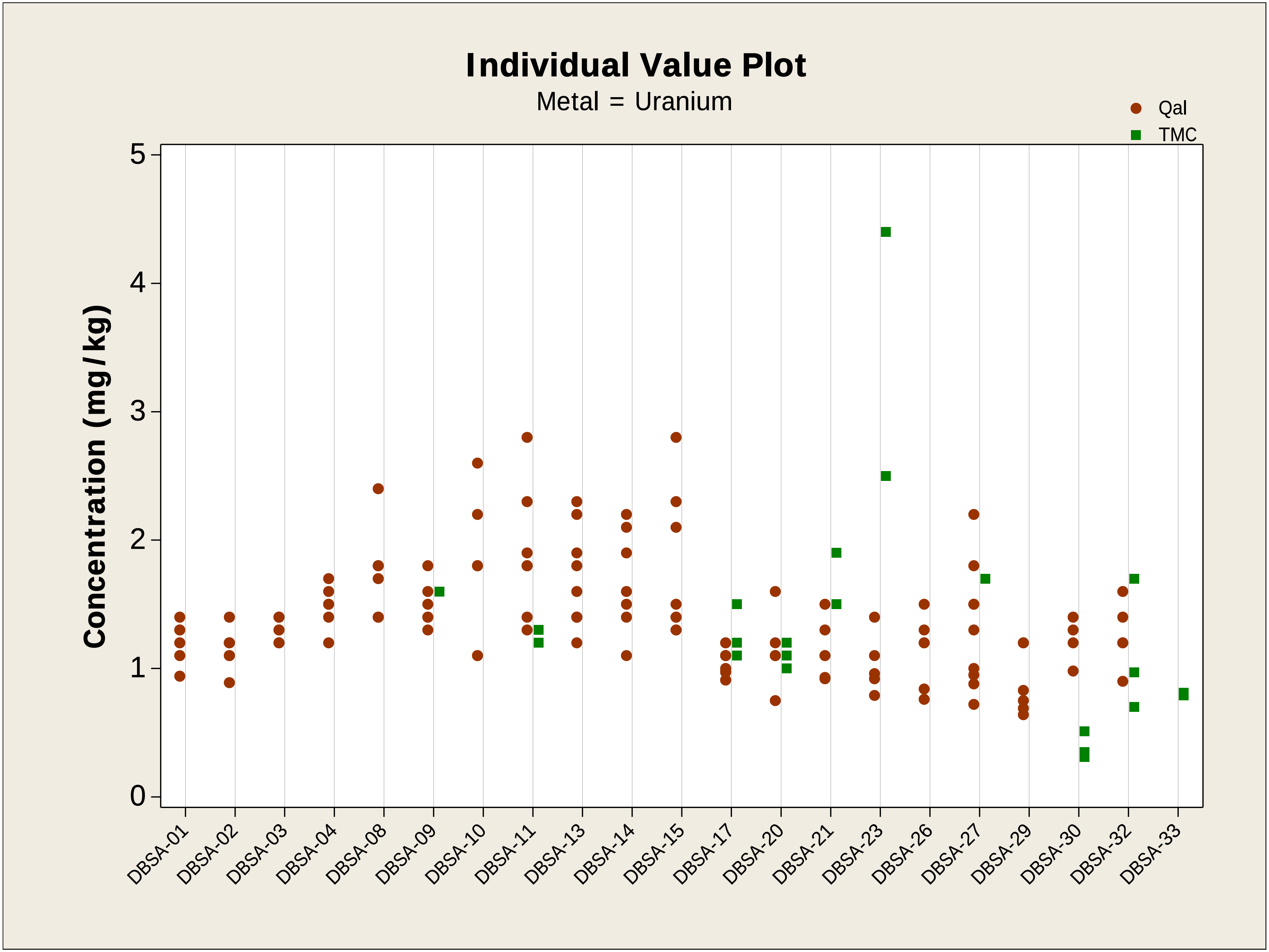
DBSA-29
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Metal = Tungsten
Qal
TMC
Concentration (mg/kg)
0
1
2
3
4
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Metal = Uranium
Qal
TMC
Concentration (mg/kg)
0
1
2
3
4
5
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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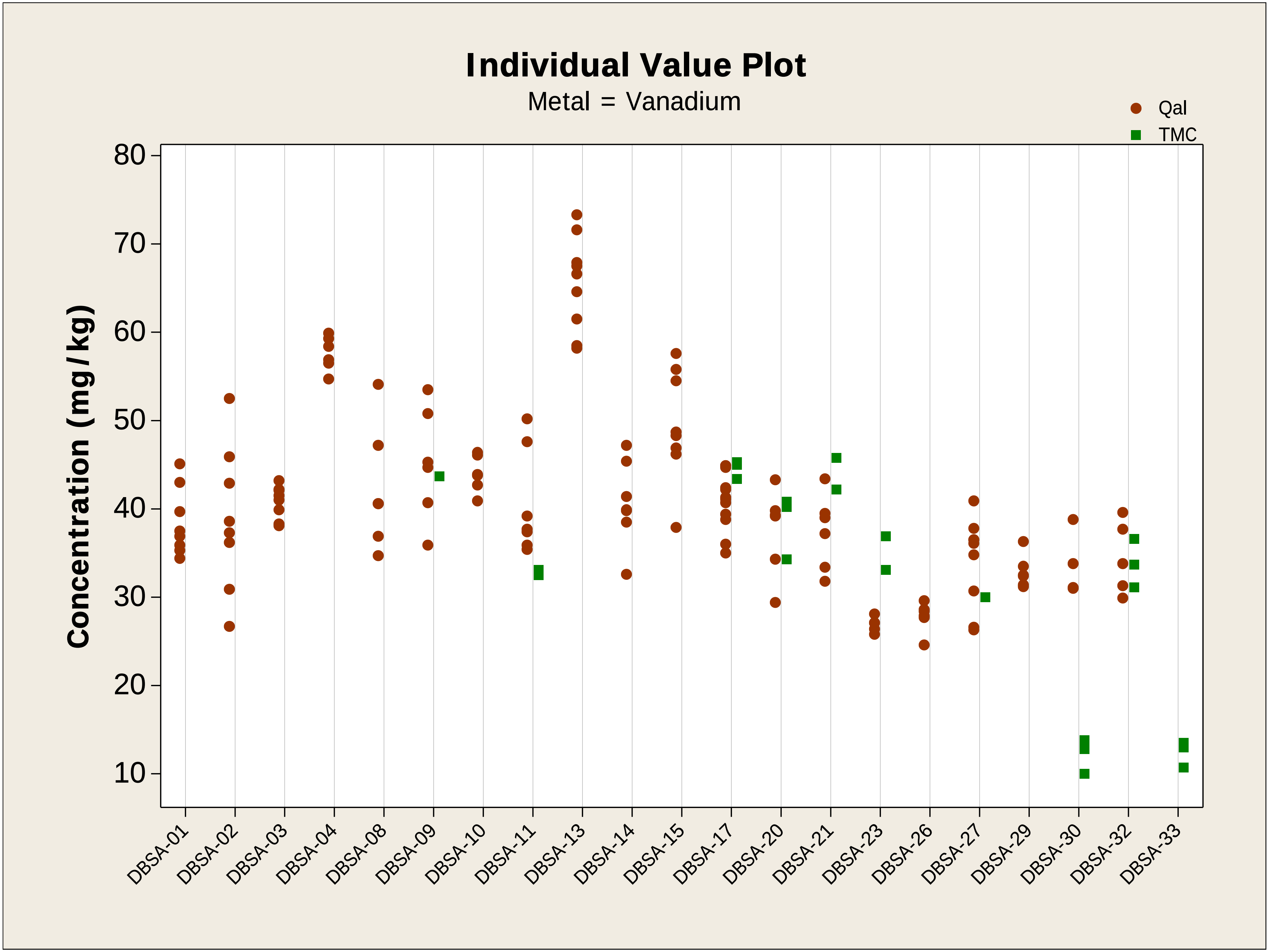
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Vanadium
Qal
TMC
Concentration (mg/kg)
80
70
60
50
40
30
20
10
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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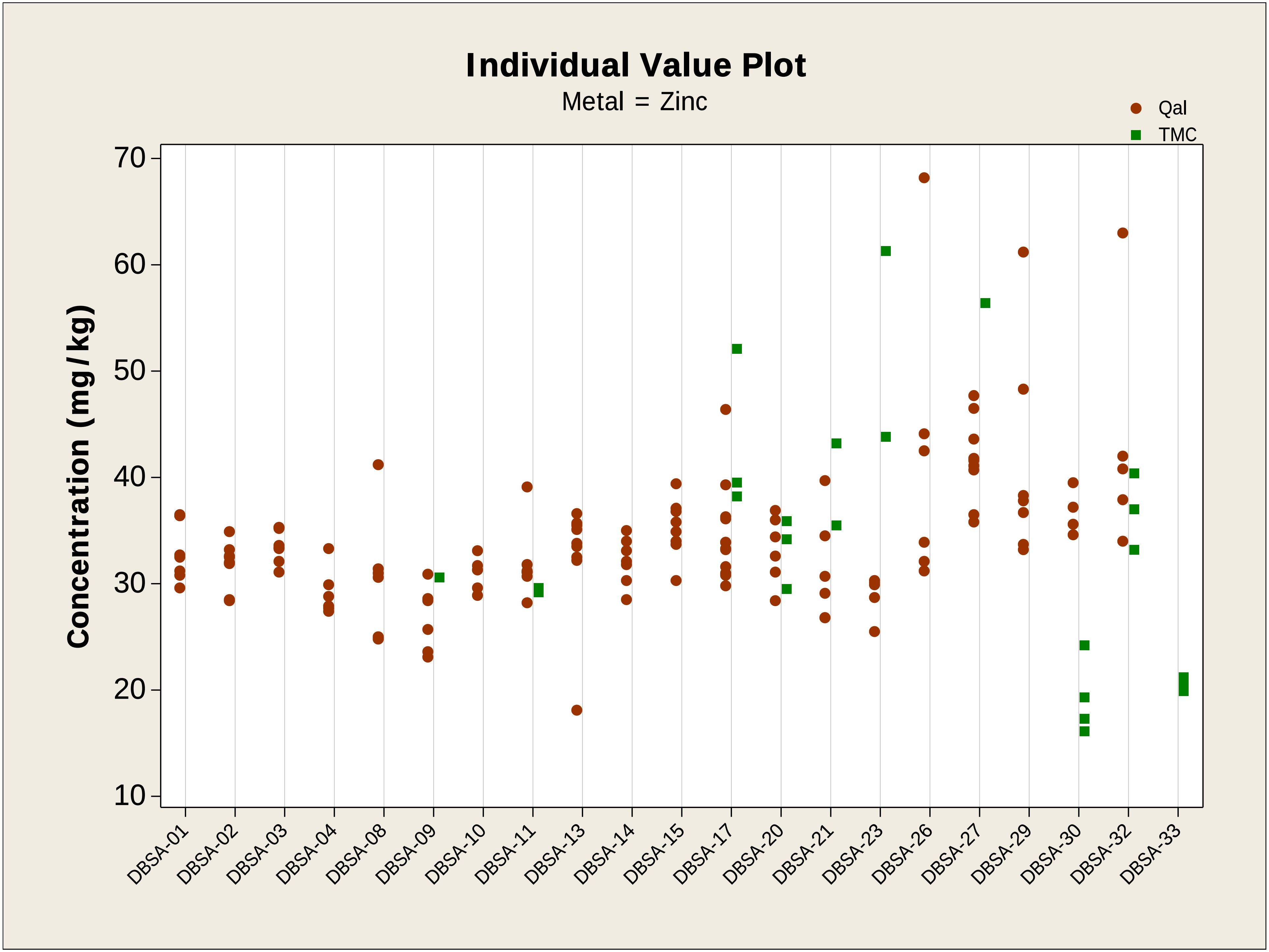
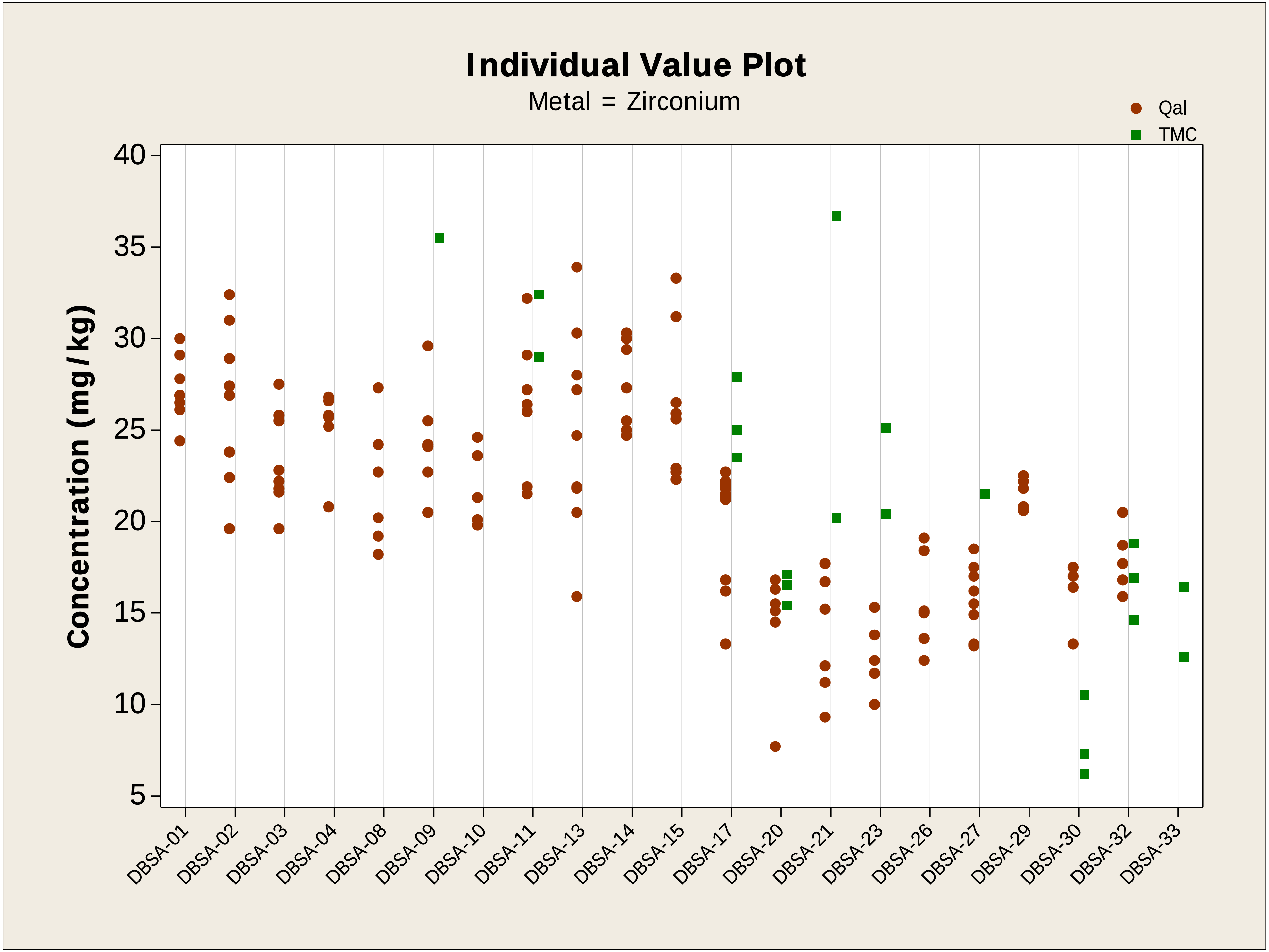
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Metal = Zinc
Qal
TMC
Concentration (mg/kg)
70
60
50
40
30
20
10
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Metal = Zirconium
Qal
TMC
Concentration (mg/kg)
40
35
30
25
20
15
10
5
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
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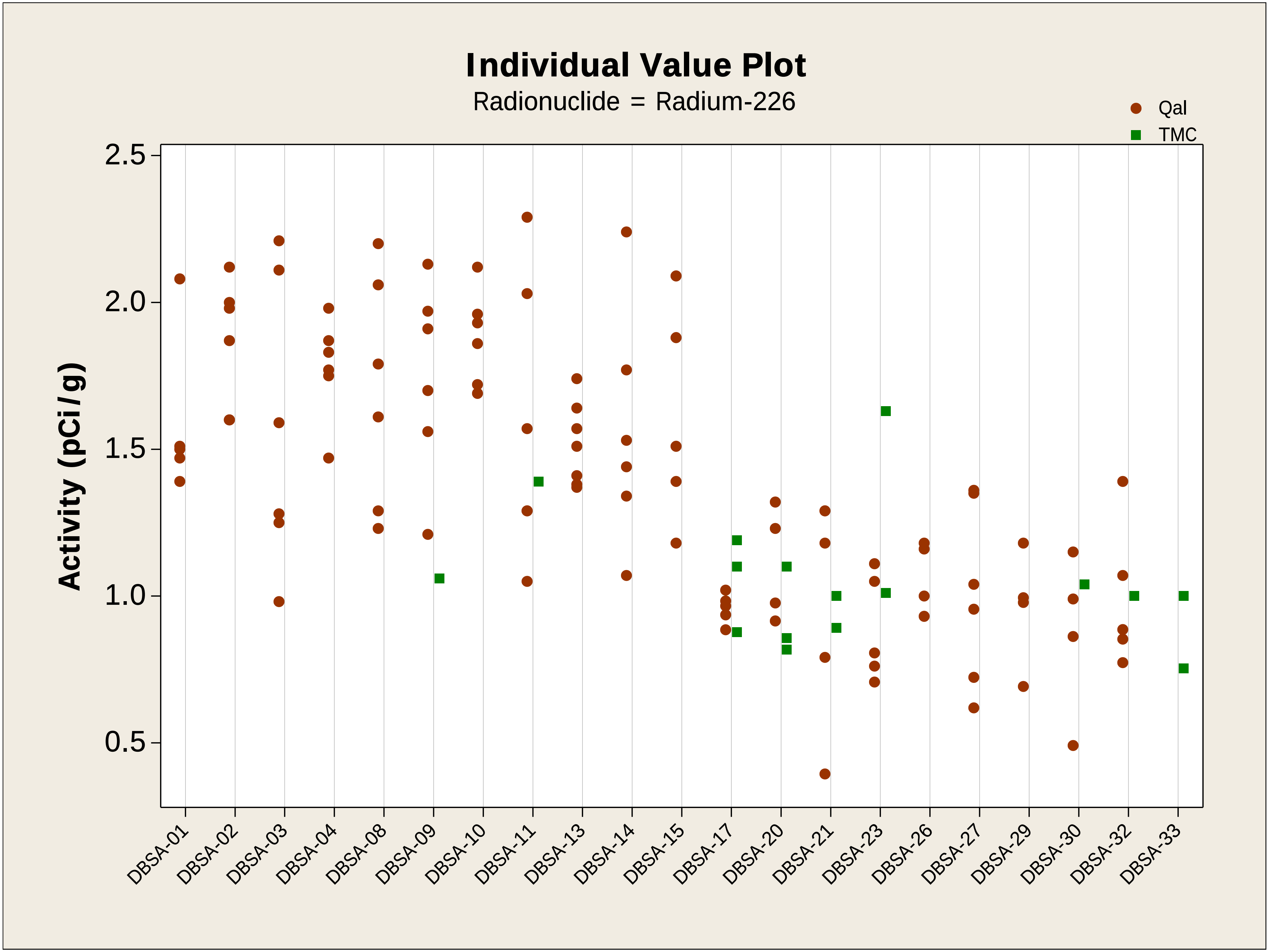
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Radionuclide = Radium-226
Qal
TMC
Activity (pCi/g)
2.5
2.0
1.5
1.0
0.5
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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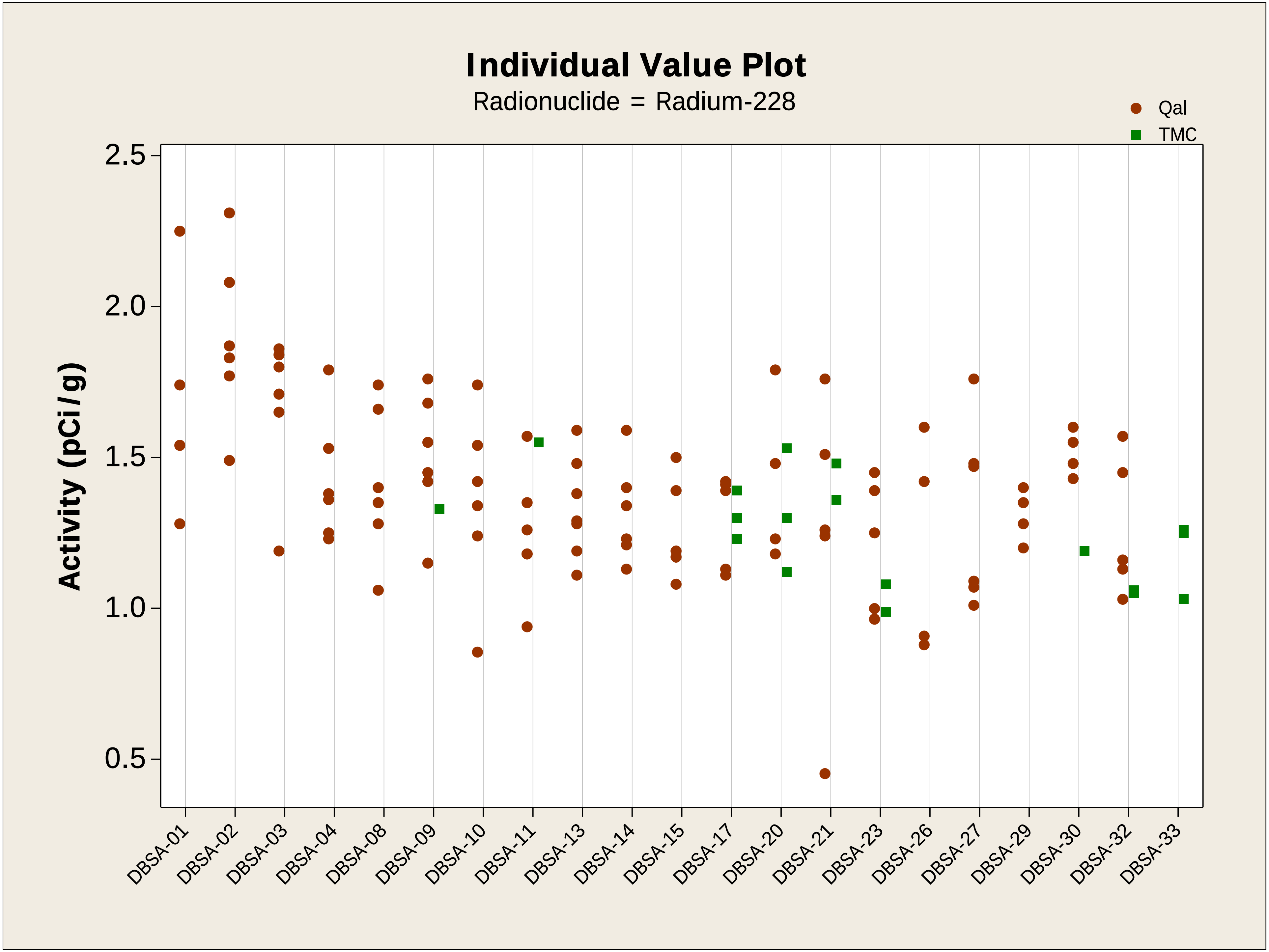
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Radionuclide = Radium-228
Qal
TMC
Activity (pCi/g)
2.5
2.0
1.5
1.0
0.5
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
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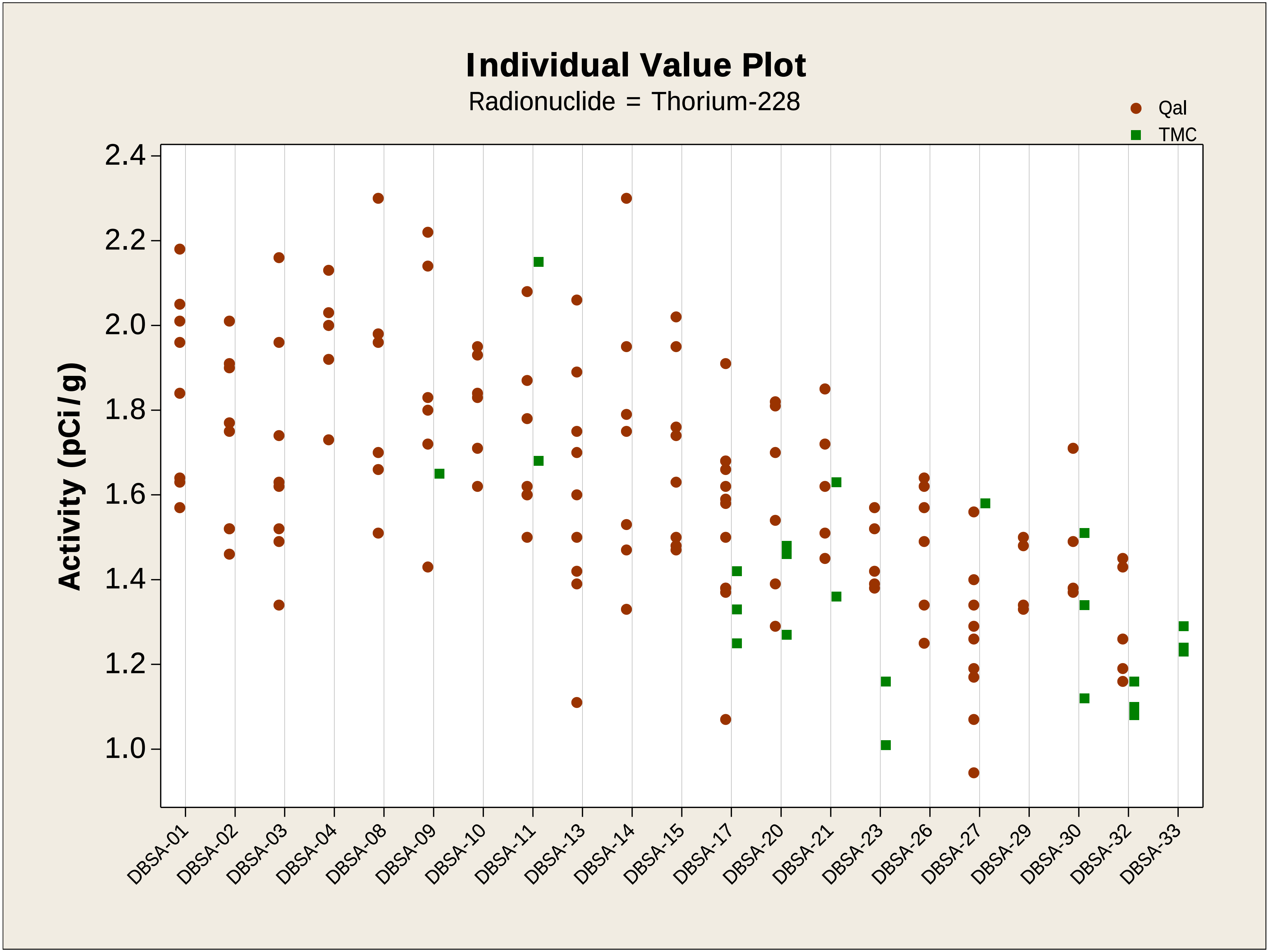
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Radionuclide = Thorium-228
Qal
TMC
Activity (pCi/g)
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
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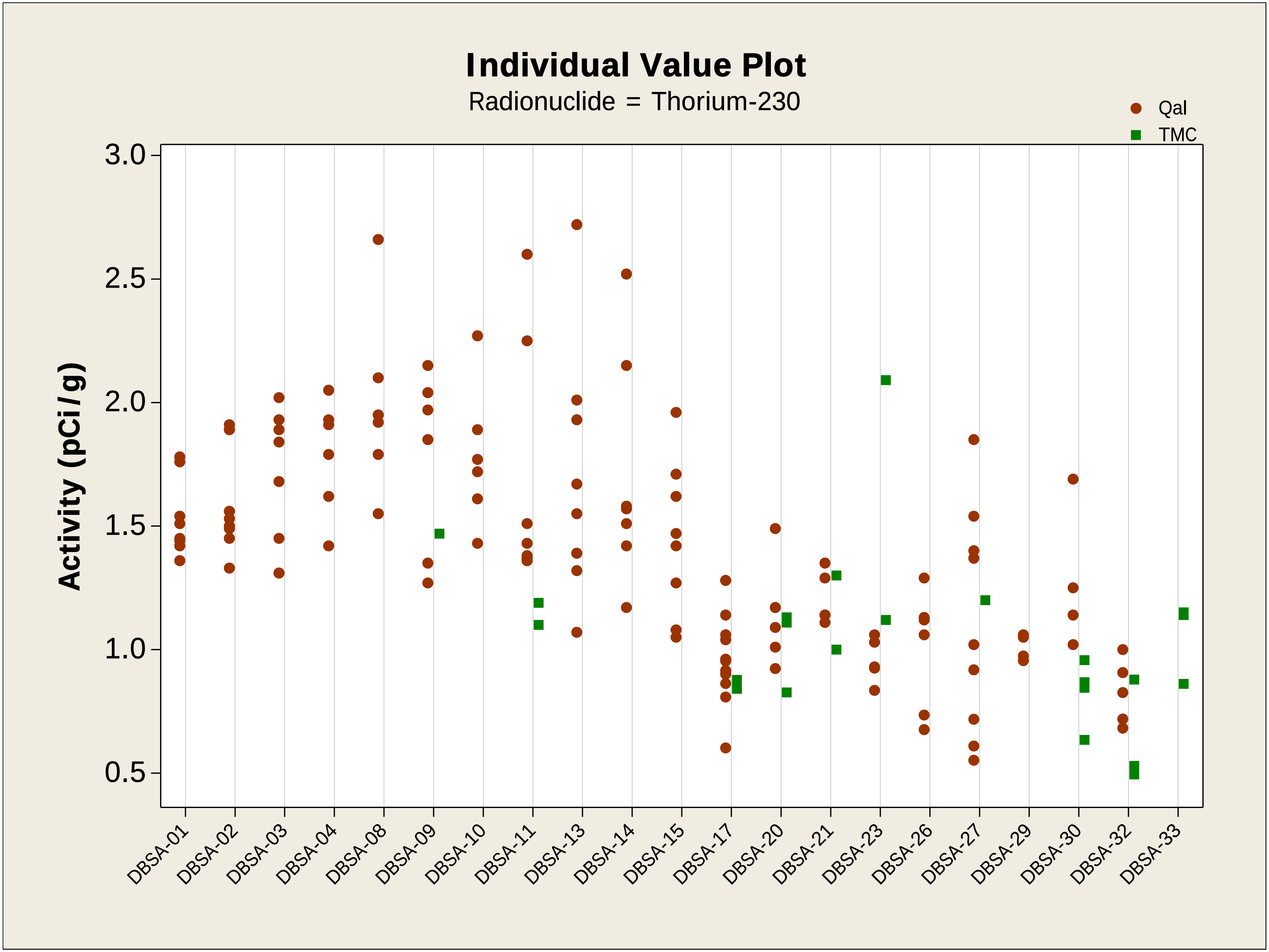
DBSA-32
DBSA-33



Individual Value Plot
Radionuclide = Thorium-230
Qal
TMC
Activity (pCi/g)
3.0
2.5
2.0
1.5
1.0
0.5
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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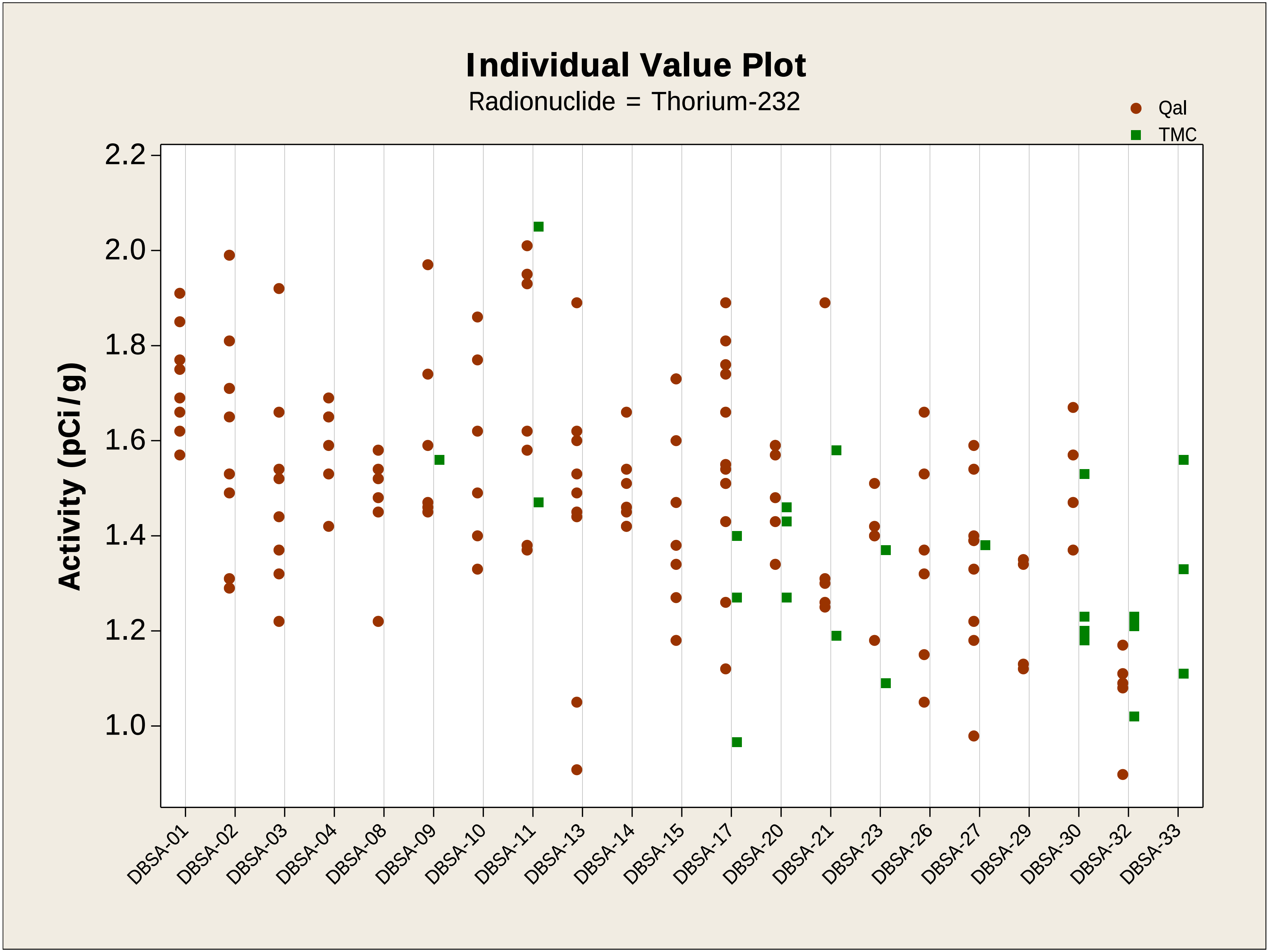
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33


Individual Value Plot
Radionuclide = Thorium-232
Qal
TMC
Activity (pCi/g)
2.2
2.0
1.8
1.6
1.4
1.2
1.0
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
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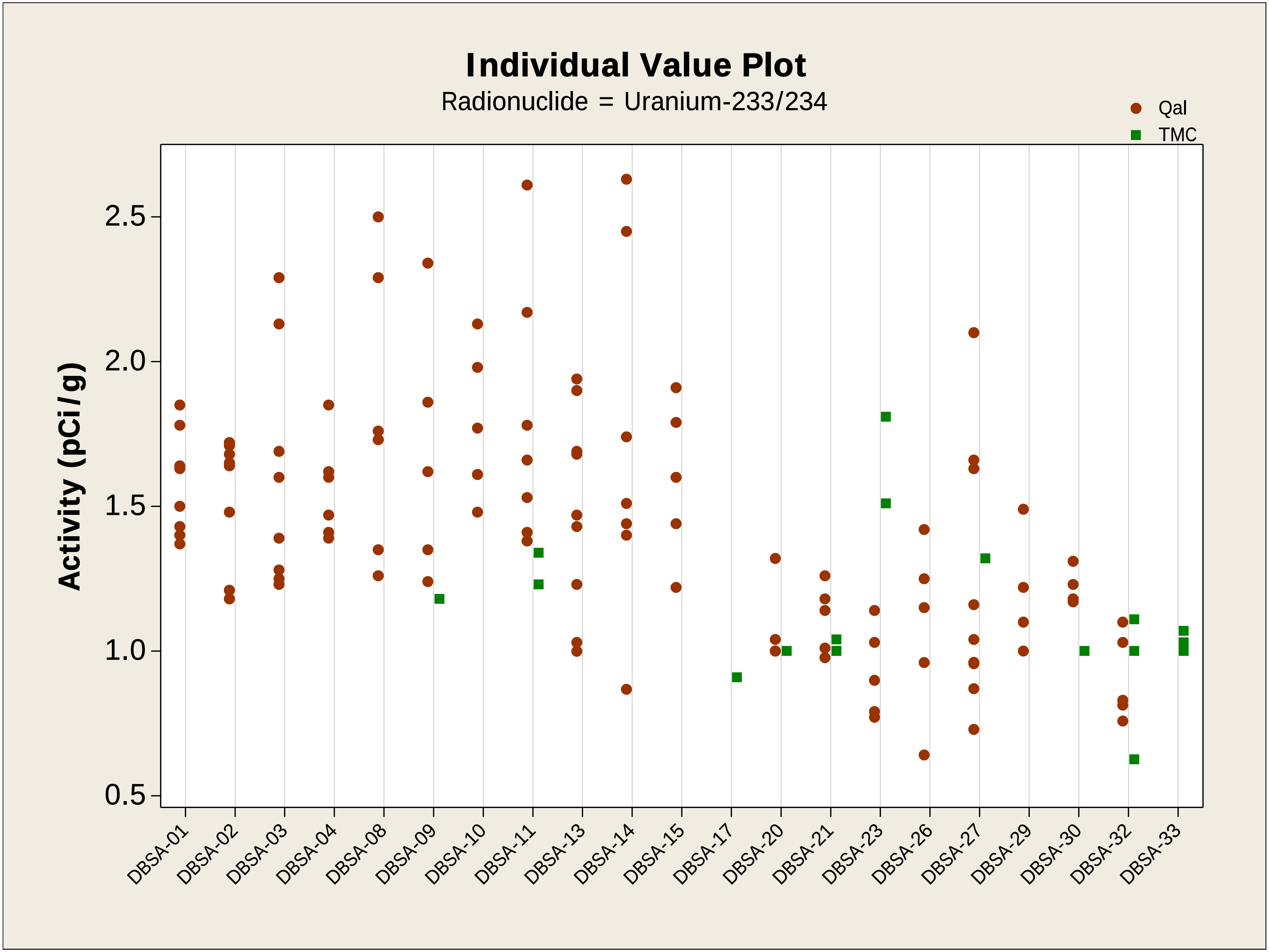
DBSA-32
DBSA-33



Individual Value Plot
Radionuclide = Uranium-233/234
Qal
TMC
Activity (pCi/g)
2.5
2.0
1.5
1.0
0.5
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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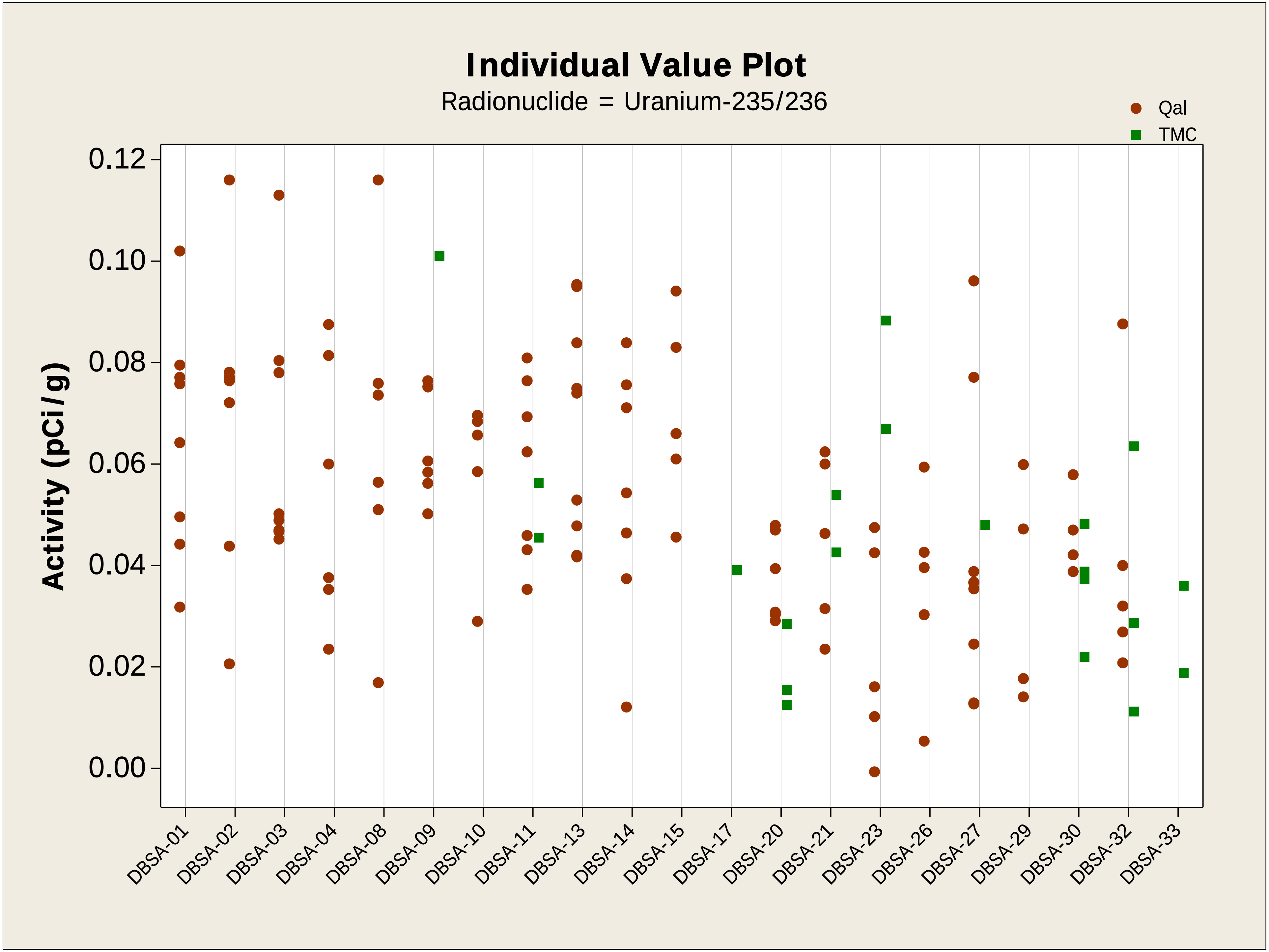
DBSA-30
DBSA-32
DBSA-33



Individual Value Plot
Radionuclide = Uranium-235/236
Qal
TMC
Activity (pCi/g)
0.12
0.10
0.08
0.06
0.04
0.02
0.00
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
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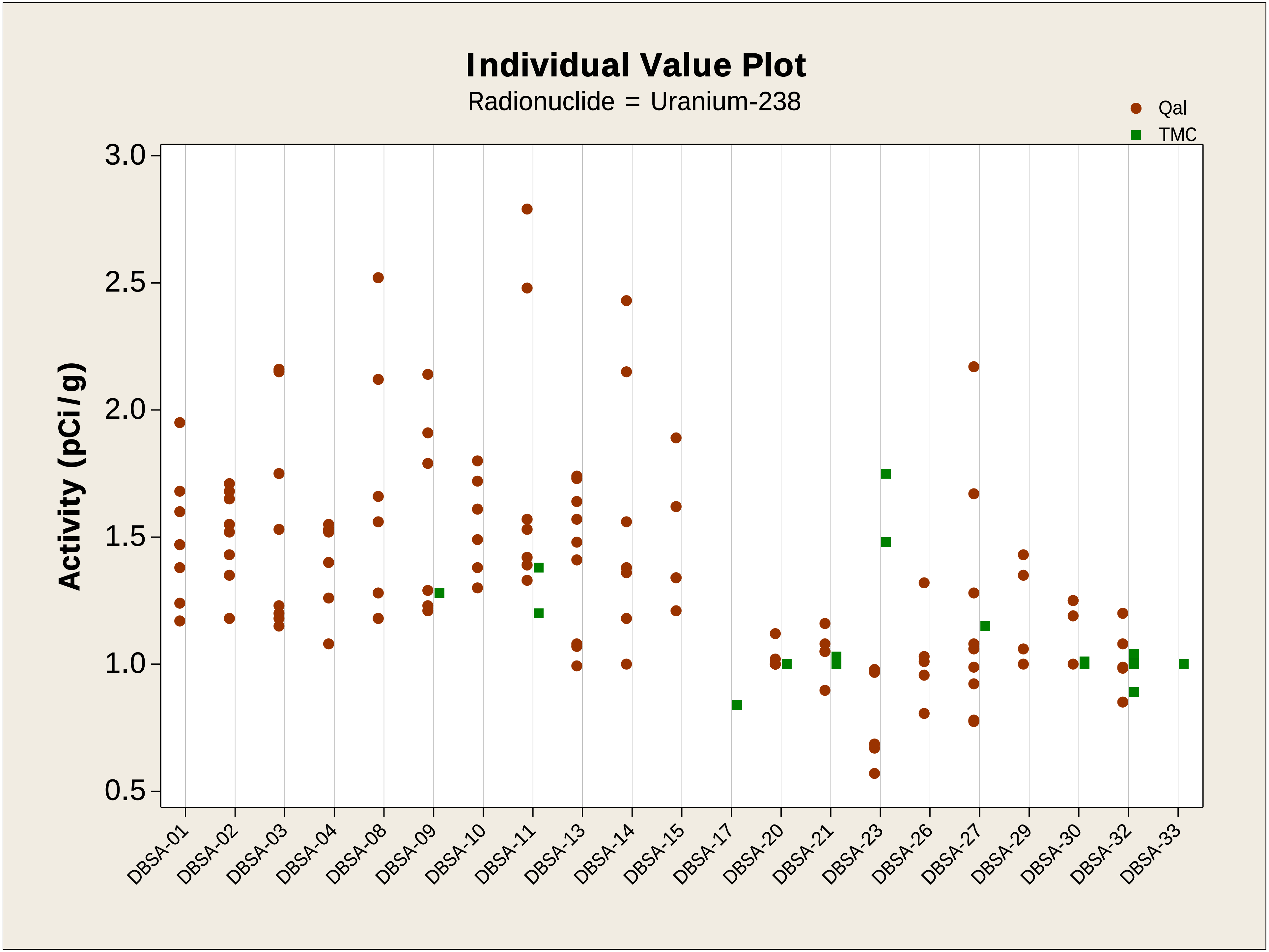
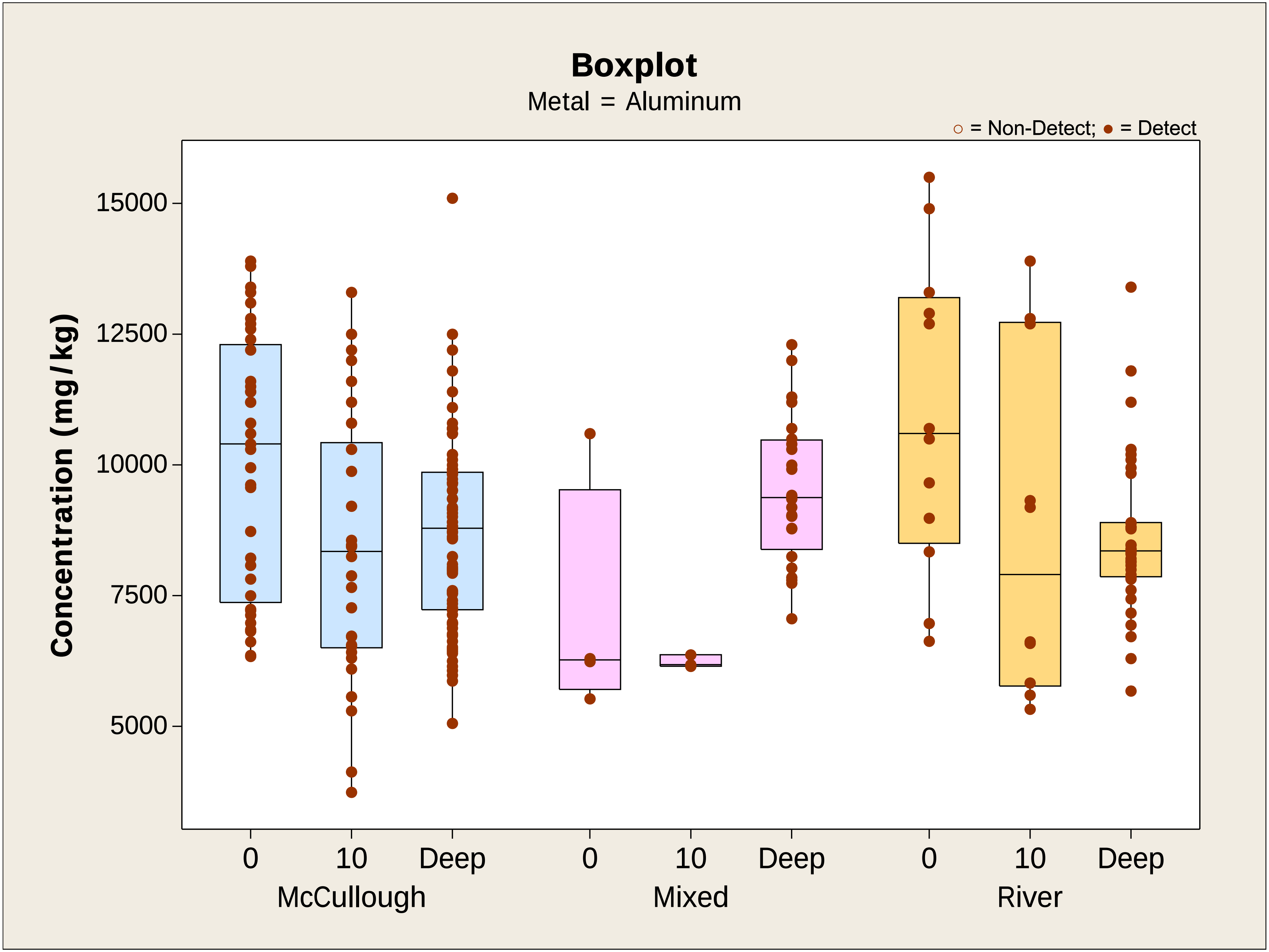
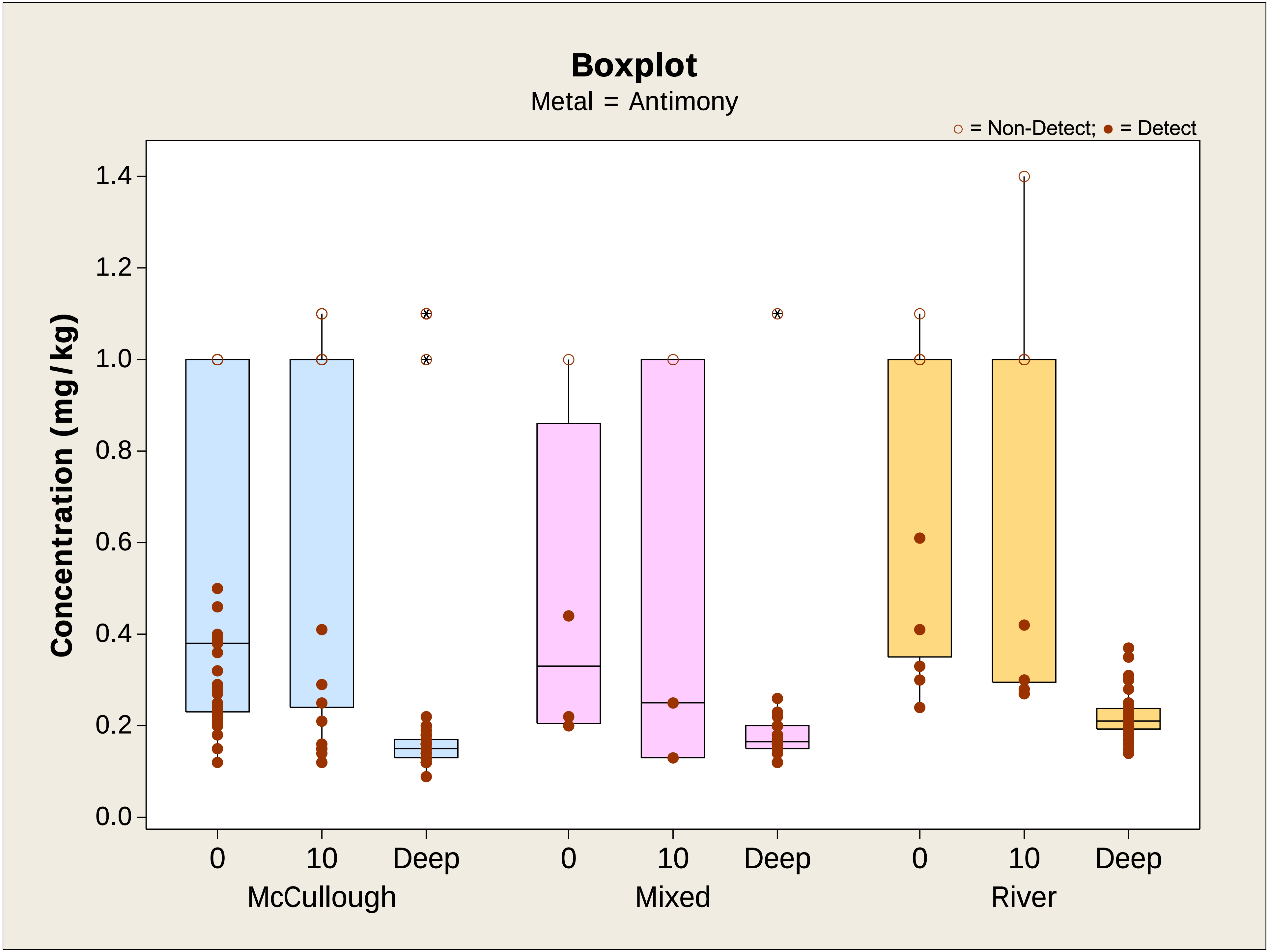
DBSA-30
DBSA-32
DBSA-33

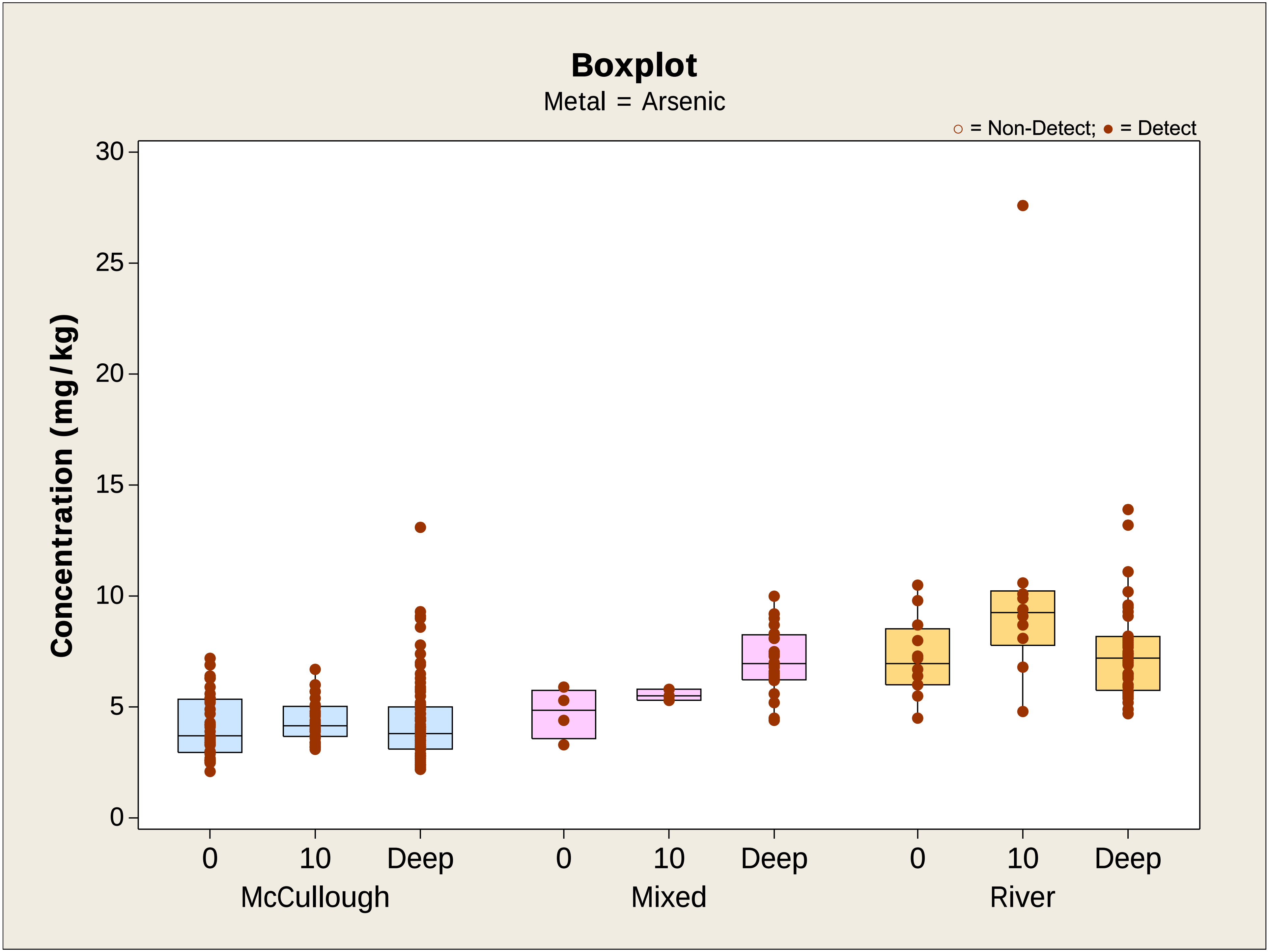


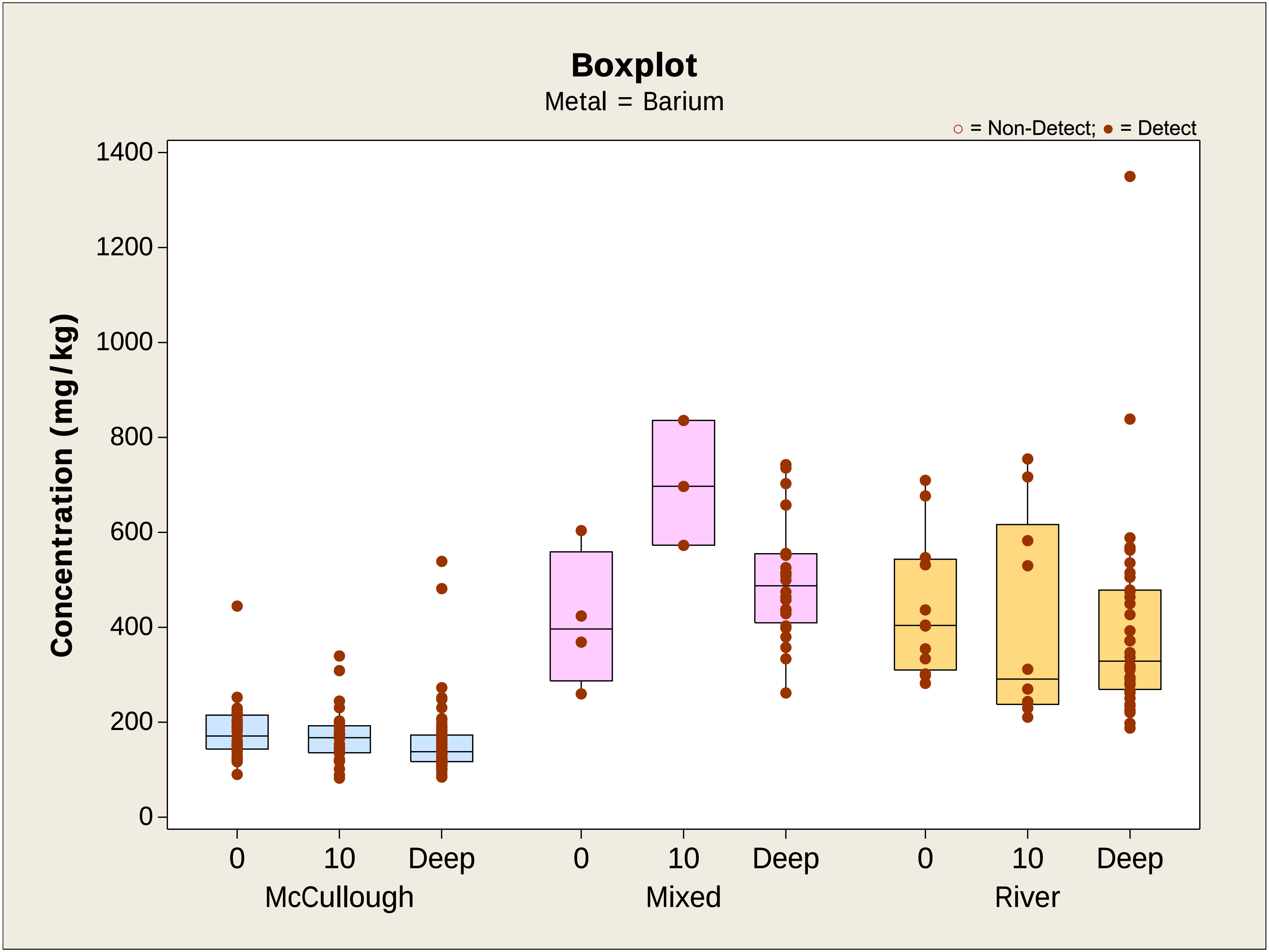
Individual Value Plot
Radionuclide = Uranium-238
Qal
TMC
Activity (pCi/g)
3.0
2.5
2.0
1.5
1.0
0.5
DBSA-01
DBSA-02
DBSA-03
DBSA-04
DBSA-08
DBSA-09
DBSA-10
DBSA-11
DBSA-13
DBSA-14
DBSA-15
DBSA-17
DBSA-20
DBSA-21
DBSA-23
DBSA-26
DBSA-27
DBSA-29
DBSA-30
DBSA-32
DBSA-33

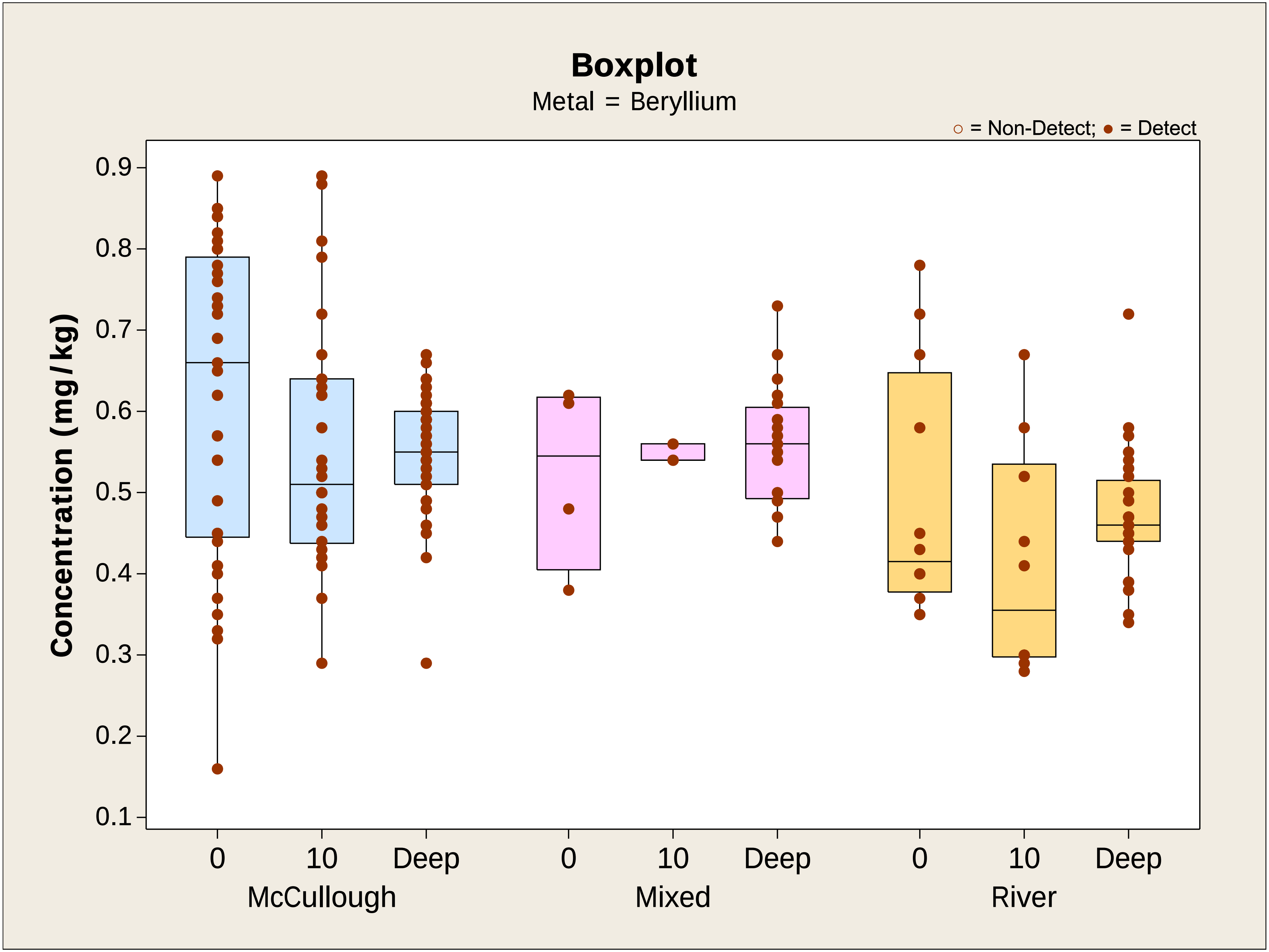
BOXPLOTS (LITHOLOGIES/DEPTHS)

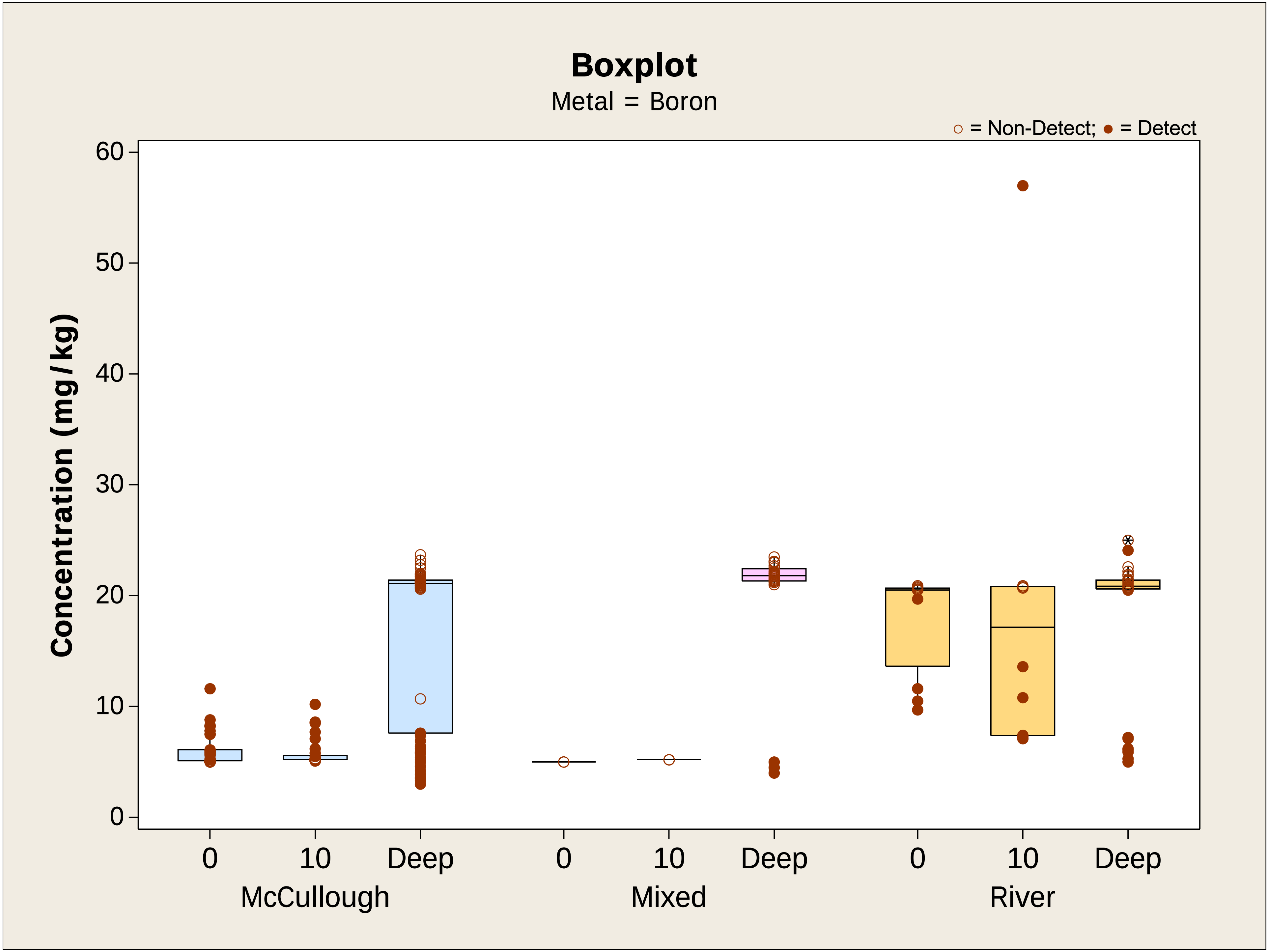

Boxplot
Metal = Aluminum
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
15000
12500
10000
7500
5000
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River


Boxplot
Metal = Antimony
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River

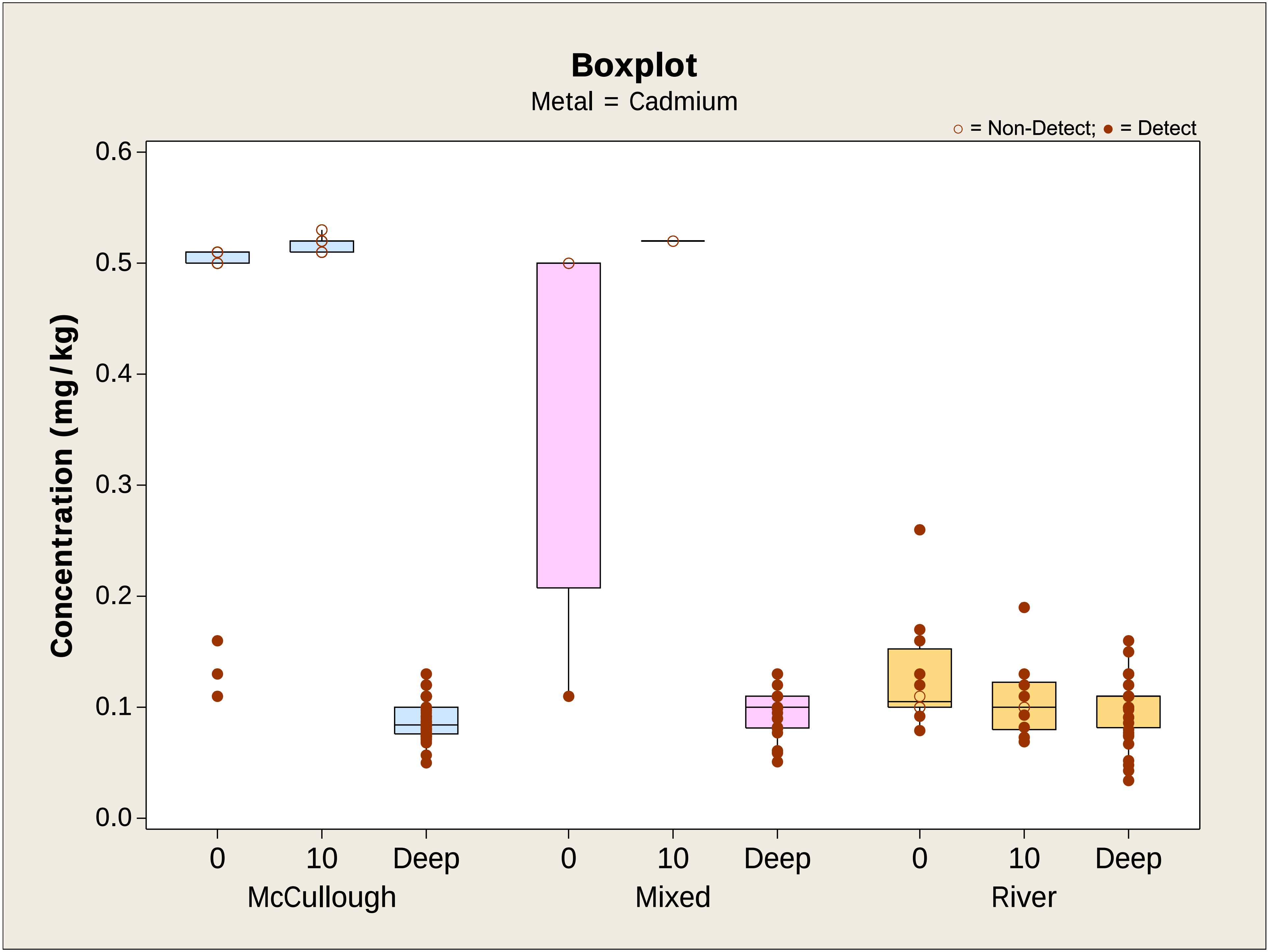

Boxplot
Metal = Arsenic
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0
5
10
15
20
25
30
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River


Boxplot
Metal = Barium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1400
1200
1000
800
600
400
200
0
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River

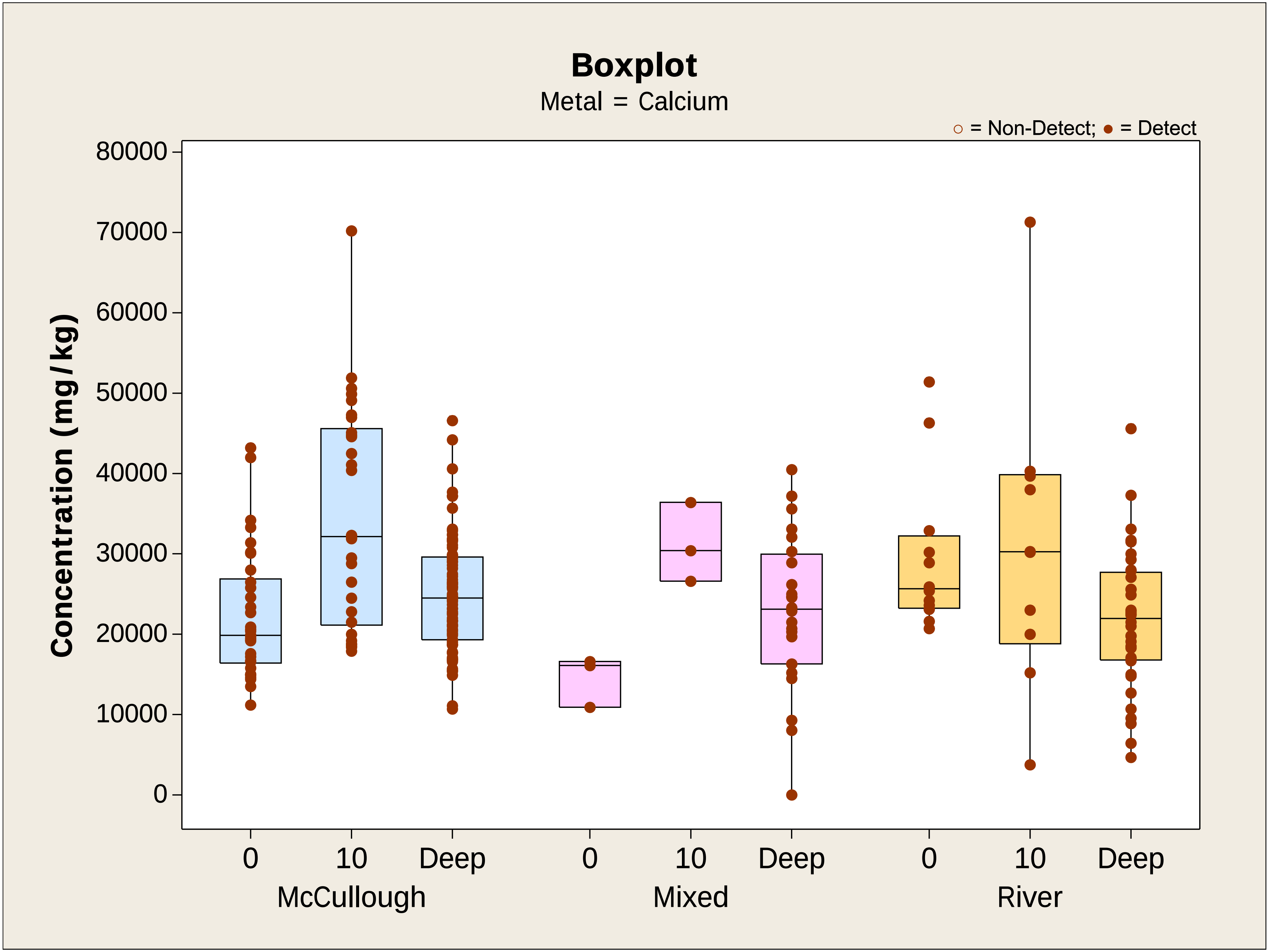

Boxplot
Metal = Beryllium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River



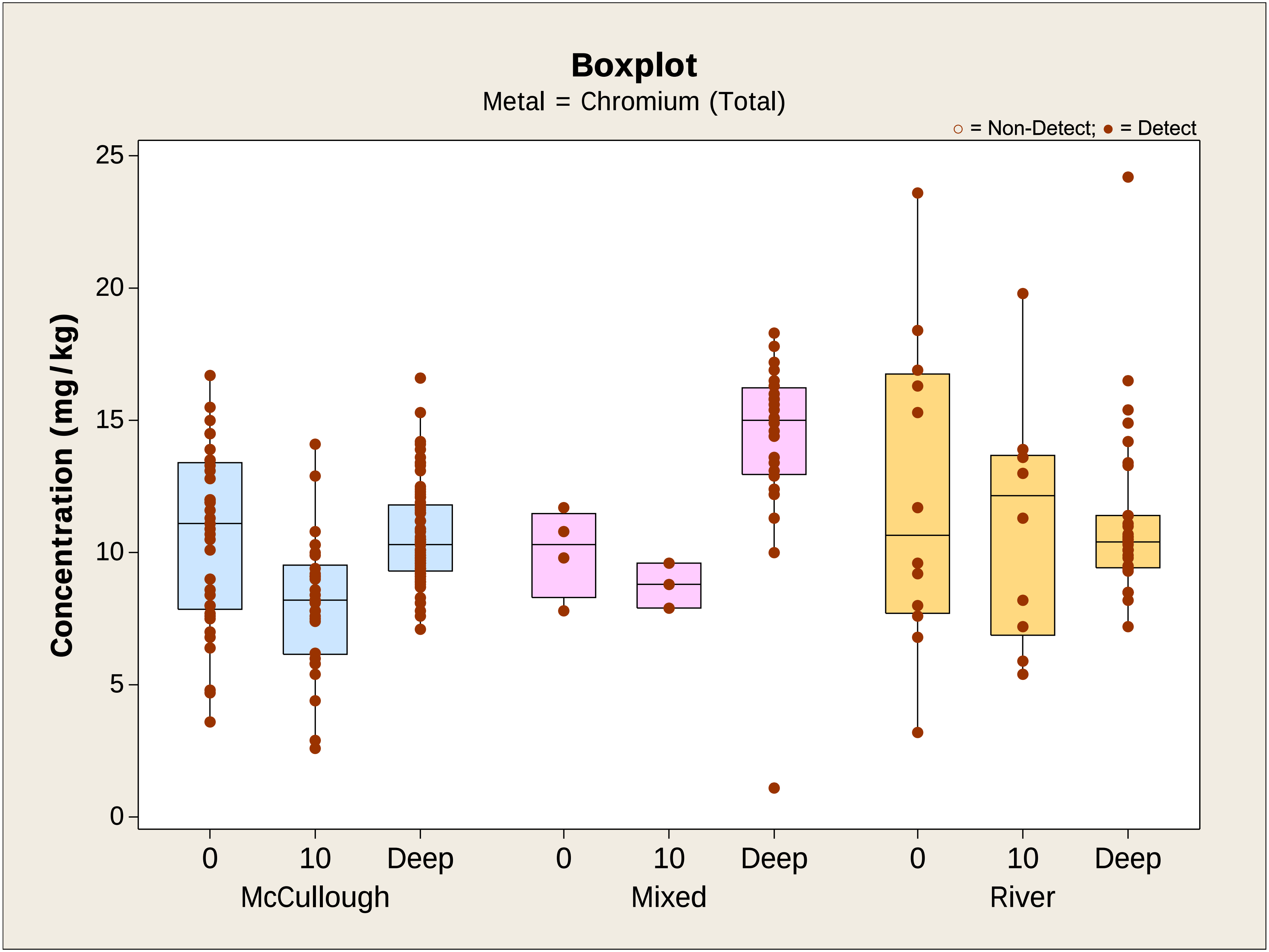
Boxplot
Metal = Boron
○ = Non-Detect; ● = Detect
Concentration (mg / kg)
60
50
40
30
20
10
0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

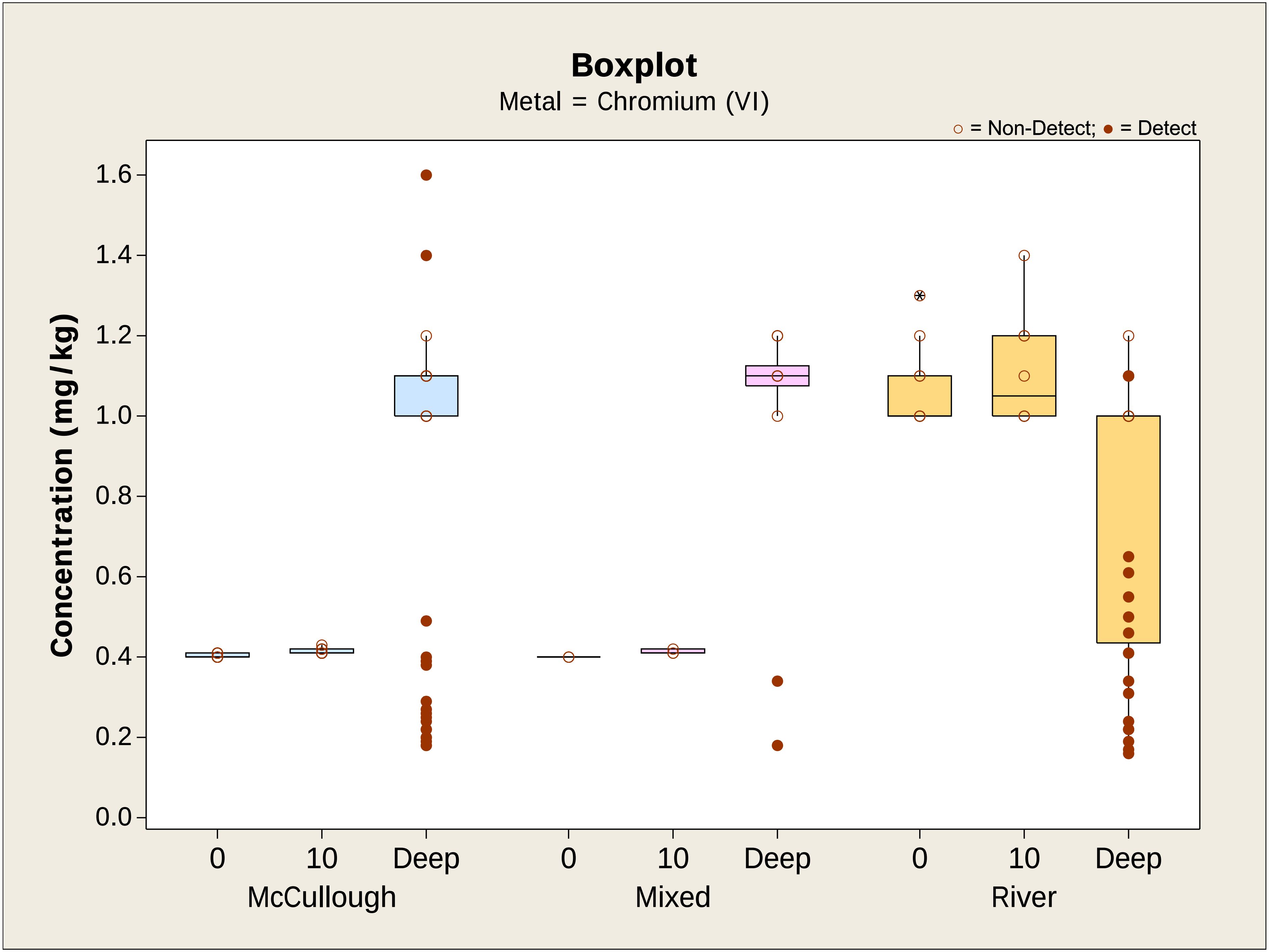


Boxplot
Metal = Cadmium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River

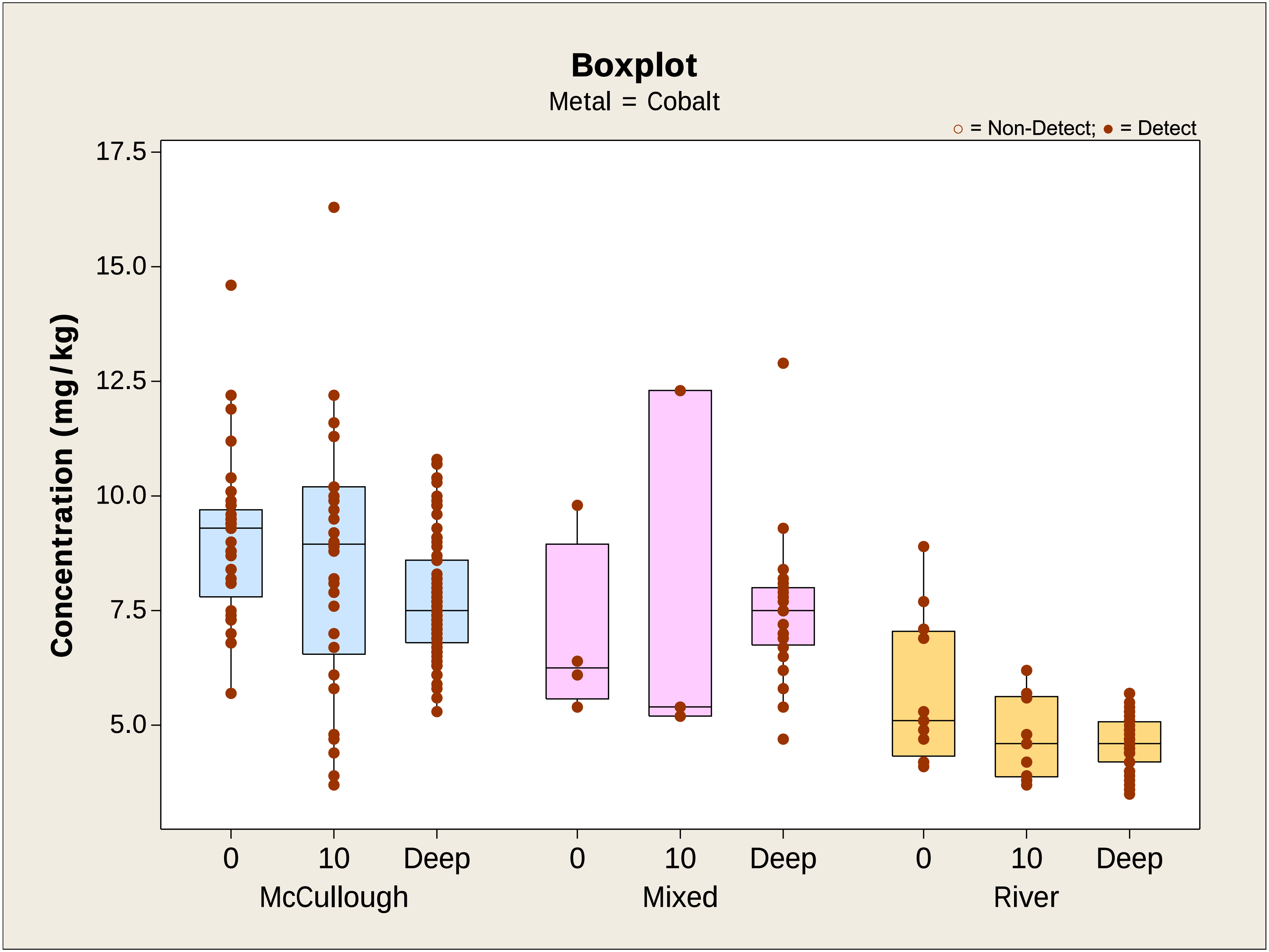


Boxplot
Metal = Calcium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
80000
70000
60000
50000
40000
30000
20000
10000
0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

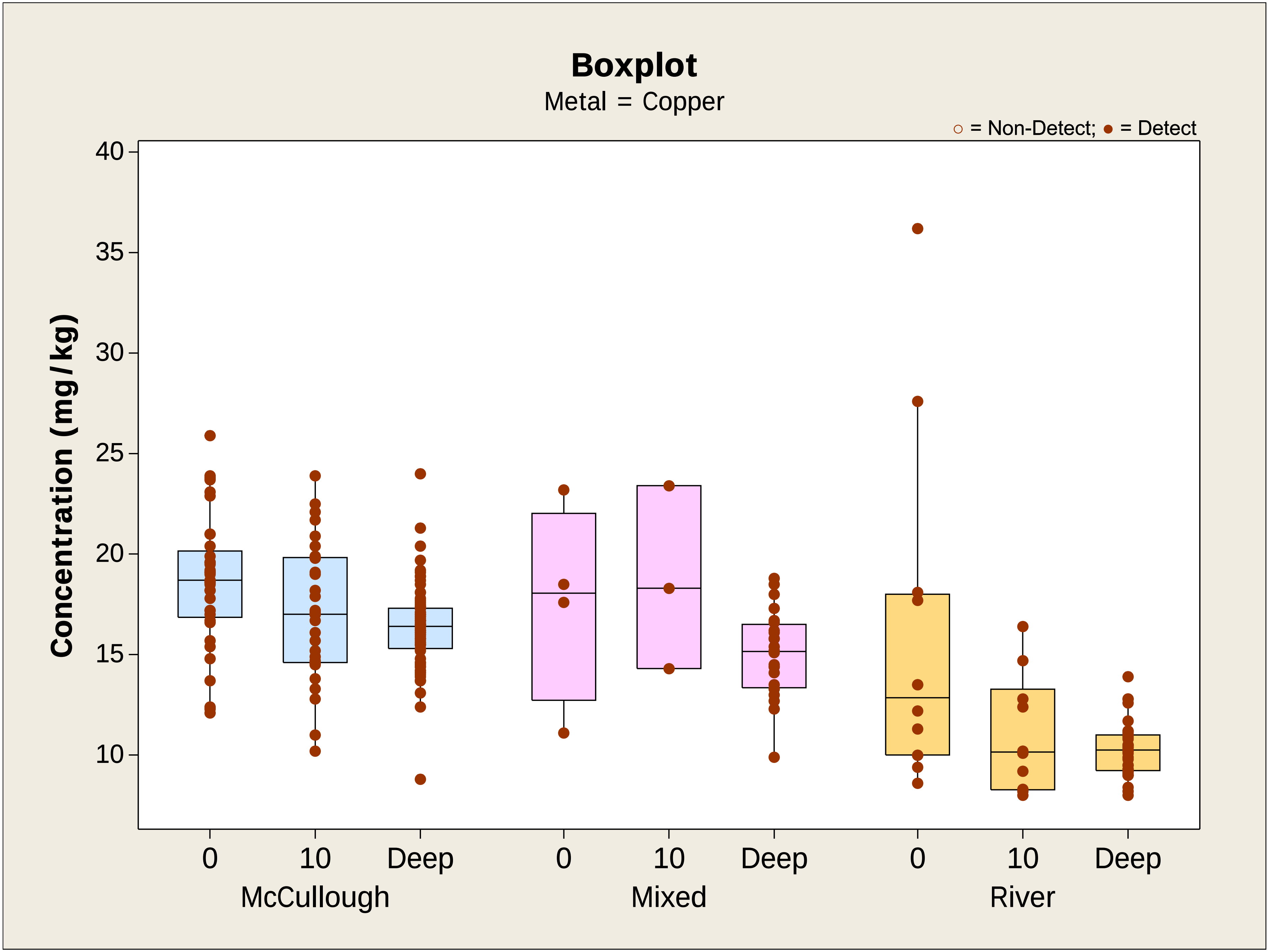

Boxplot
Metal = Chromium (Total)
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0
5
10
15
20
25
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River

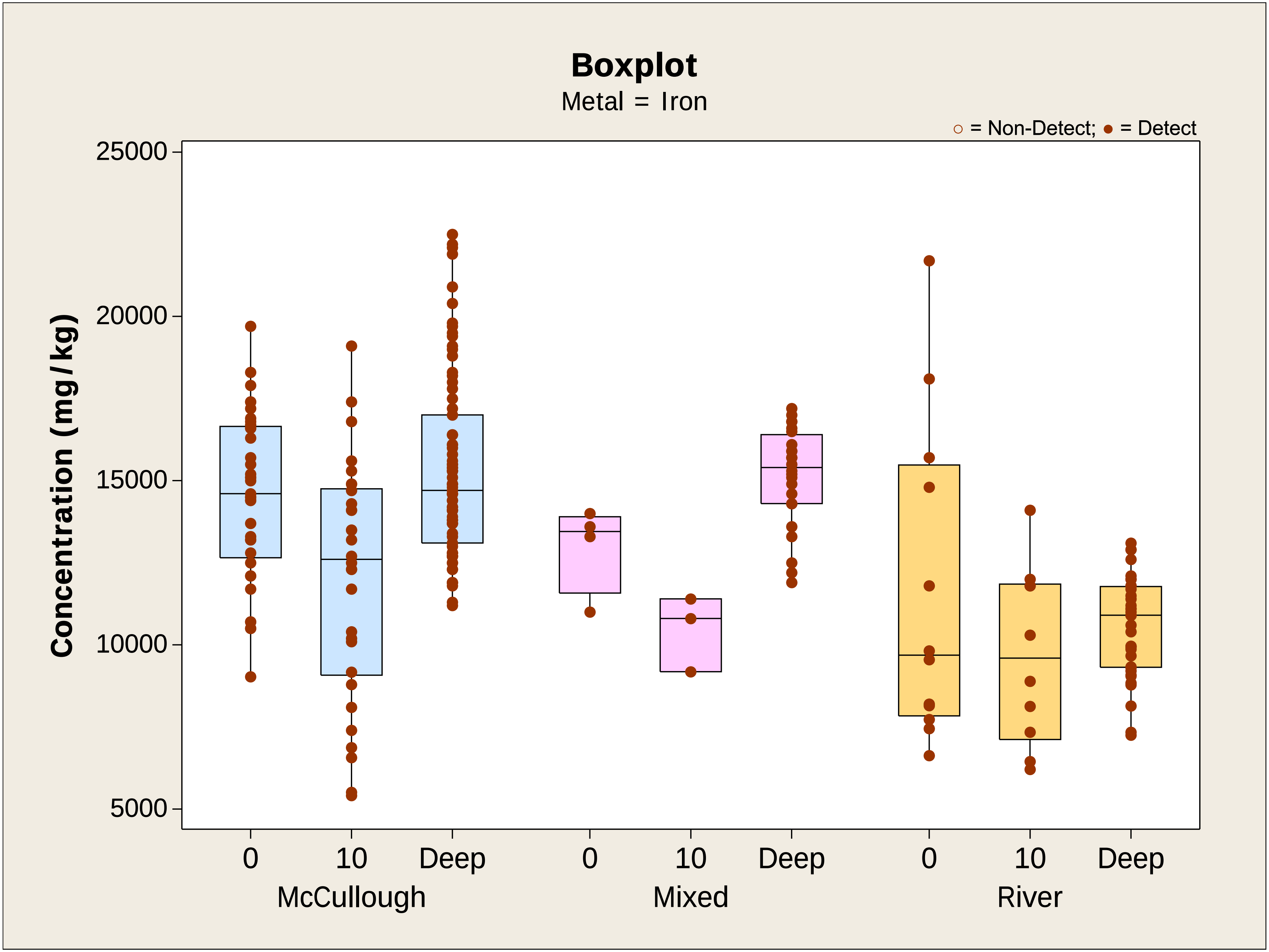


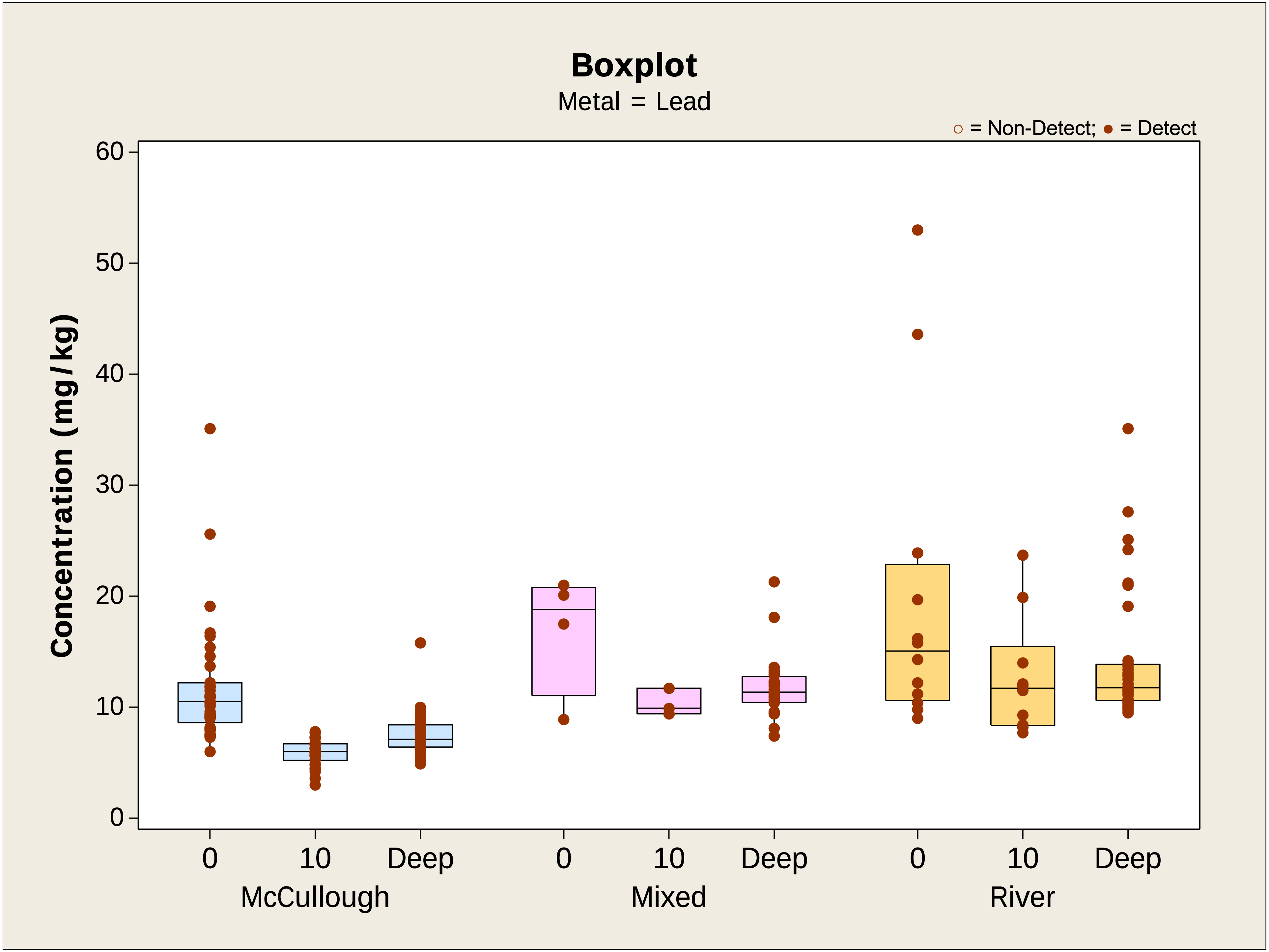
Boxplot
Metal = Chromium (VI)
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River



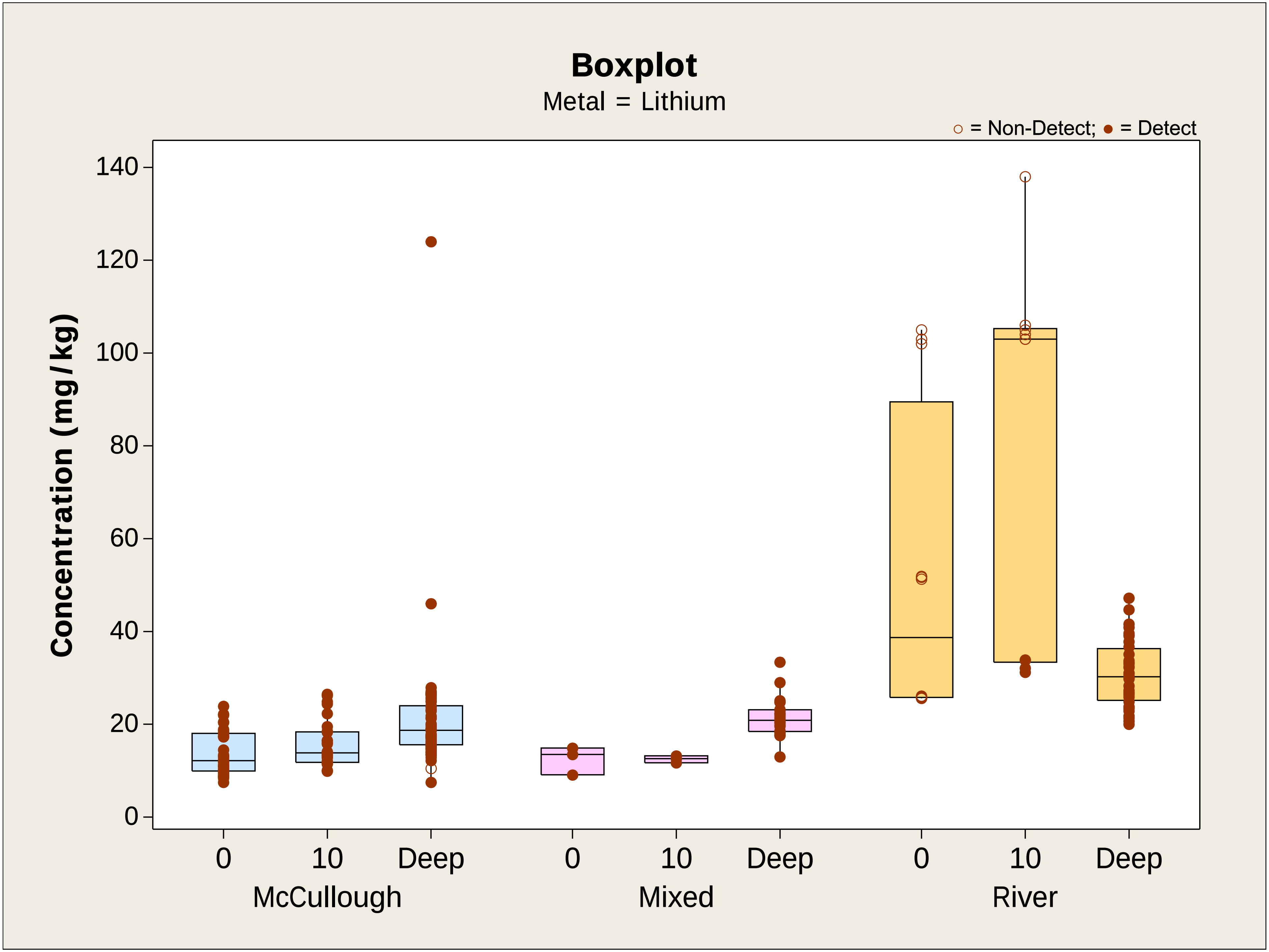
Boxplot
Metal = Cobalt
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
17.5
15.0
12.5
10.0
7.5
5.0
0
10
Deep
McCullough
Mixed
River


Boxplot
Metal = Copper
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
40
35
30
25
20
15
10
0
10
Deep
McCullough
Mixed
River

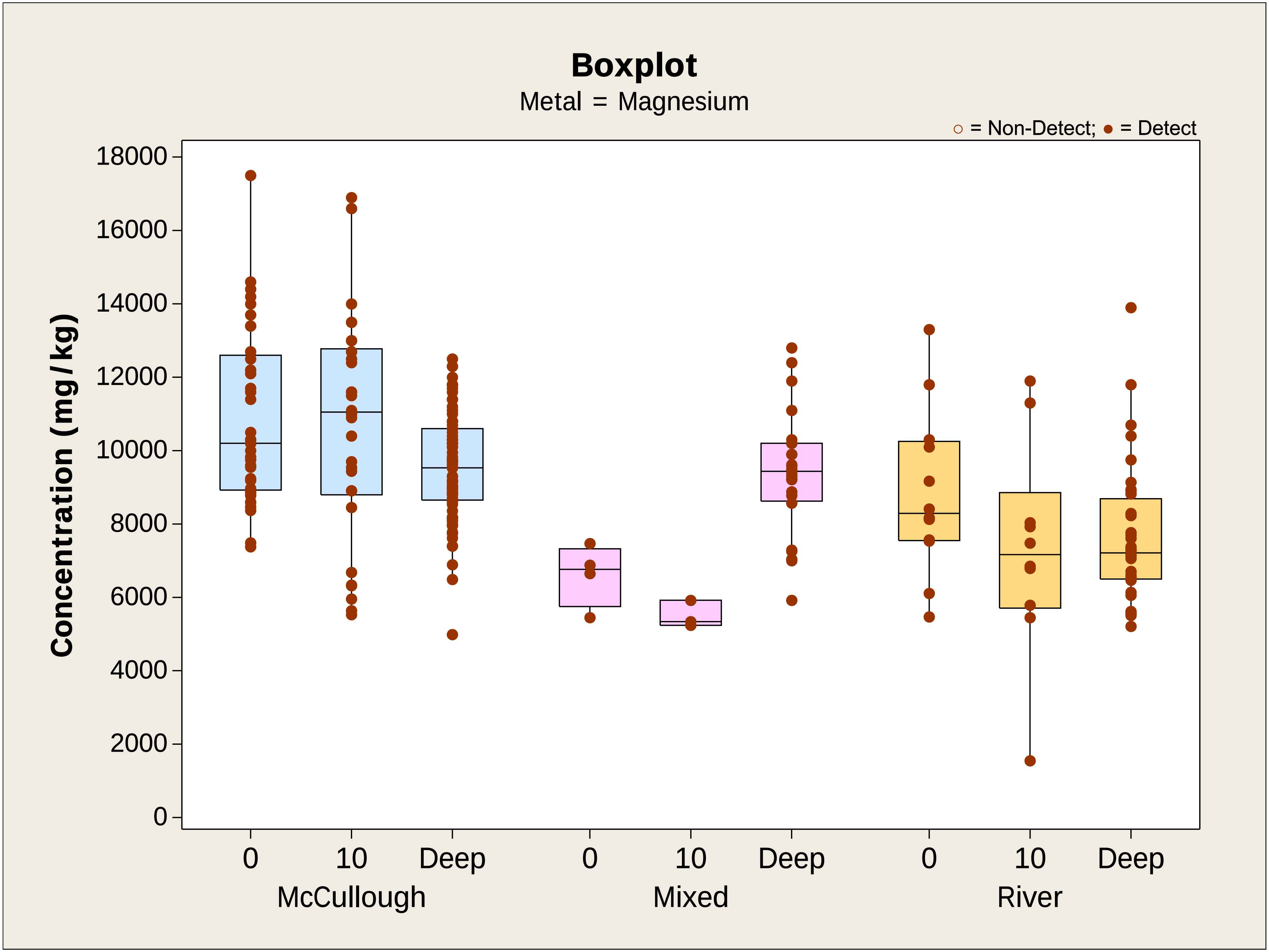

Boxplot
Metal = Iron
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
25000
20000
15000
10000
5000
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River

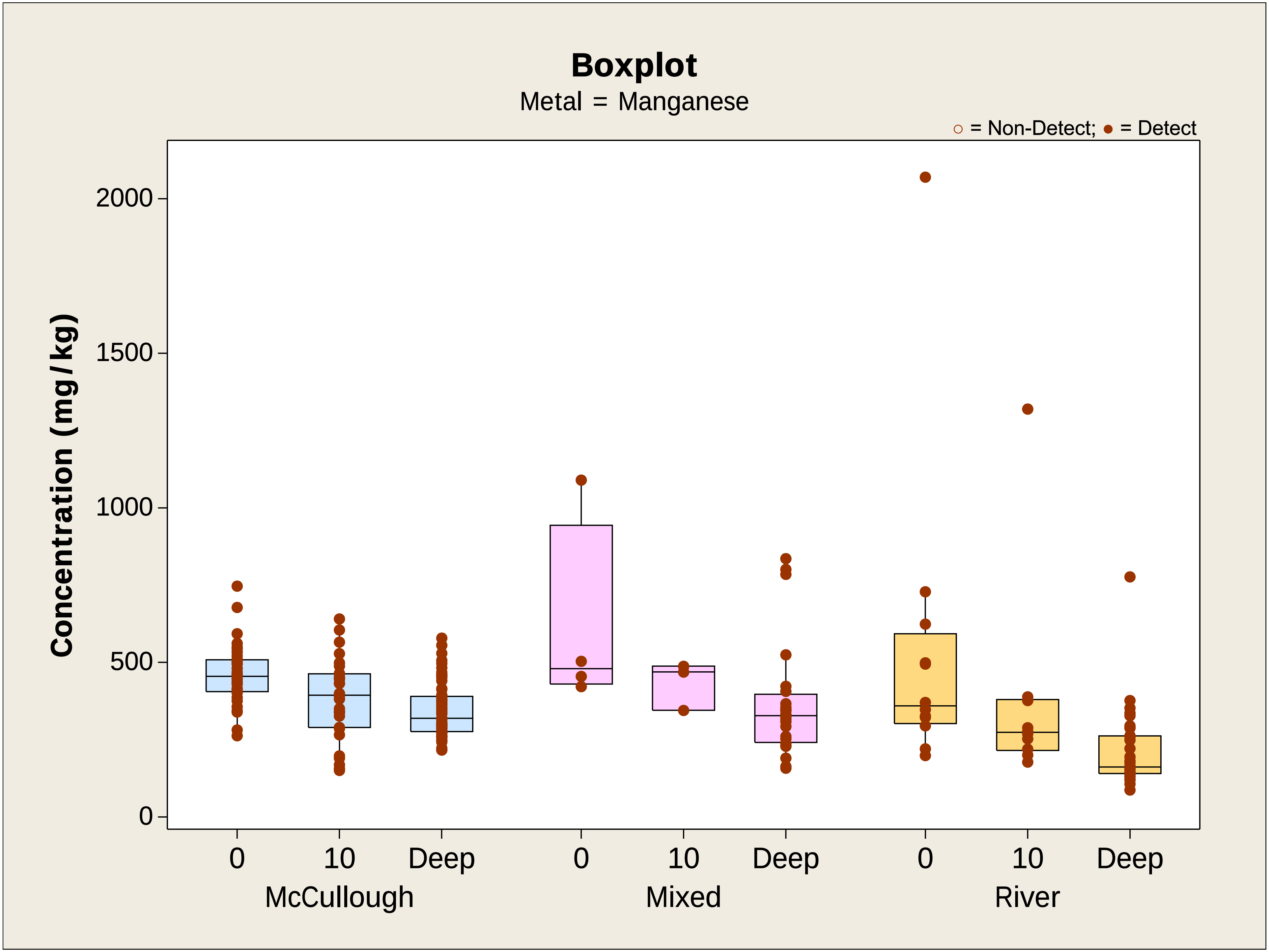


Boxplot
Metal = Lead
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
60
50
40
30
20
10
0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

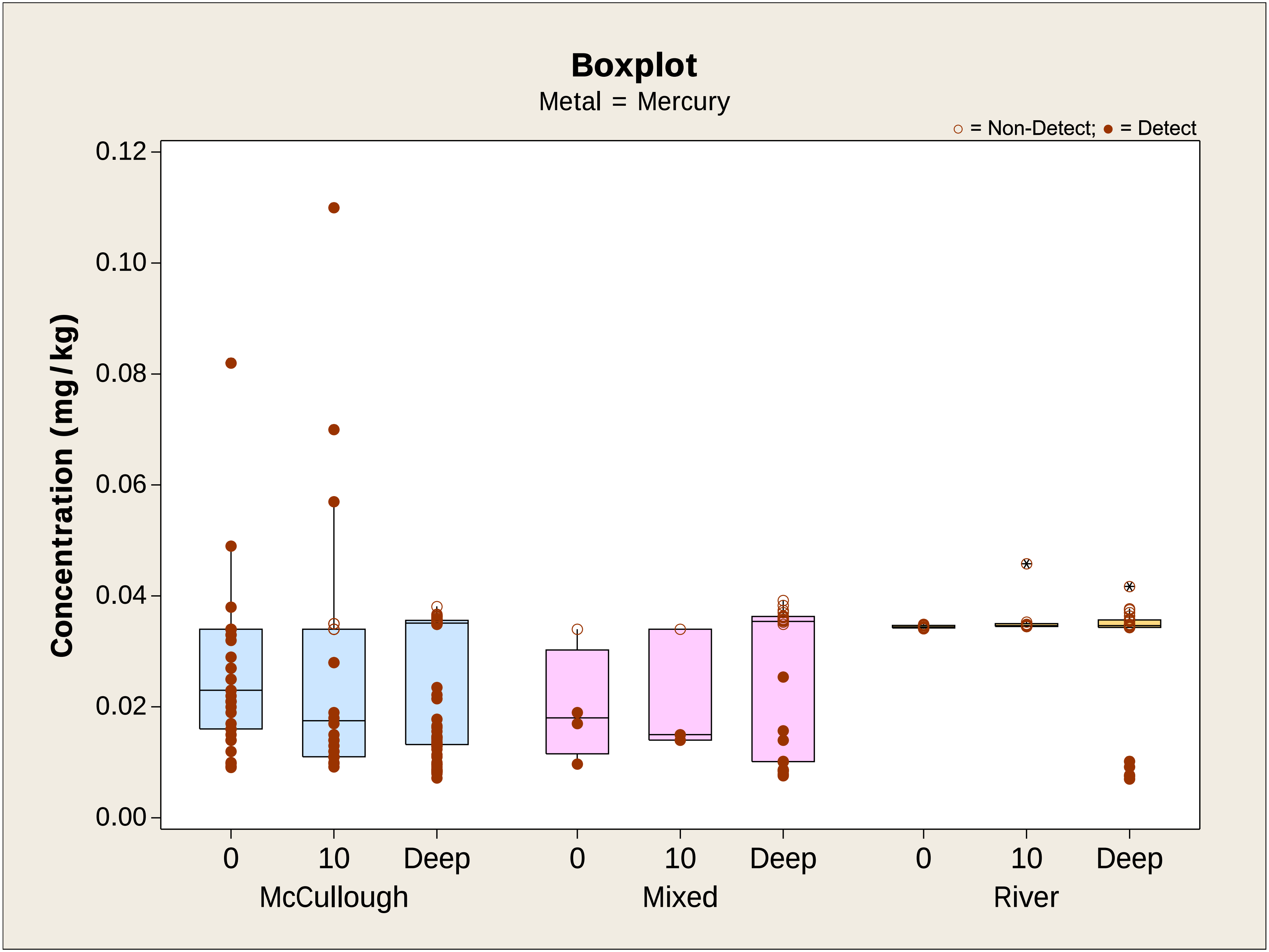


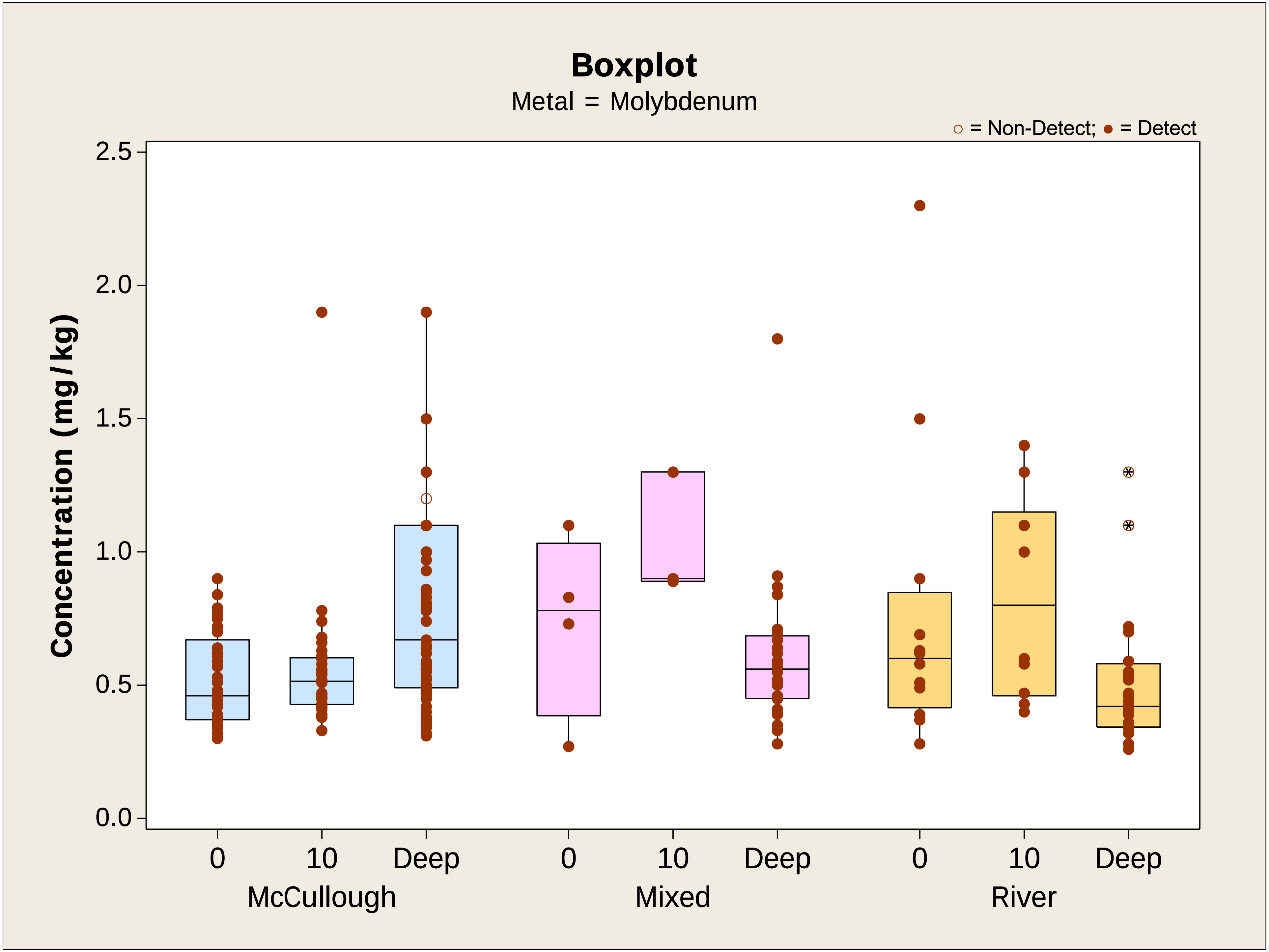
Boxplot
Metal = Lithium
= Non-Detect; = Detect
Concentration (mg/kg)
140
120
100
80
60
40
20
0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

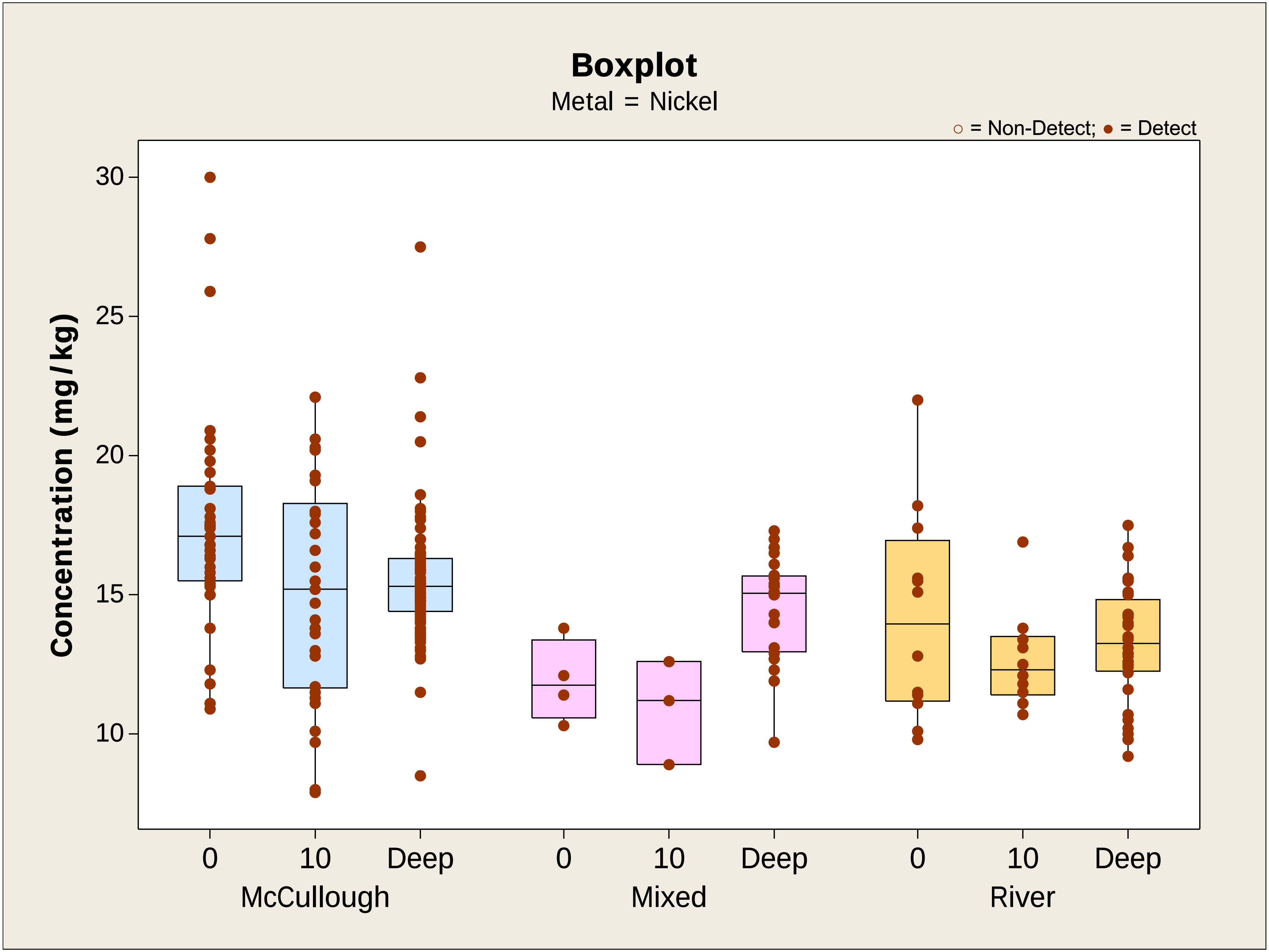

Boxplot
Metal = Magnesium
○ = Non-Detect; ● = Detect
Concentration (mg / kg)
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River



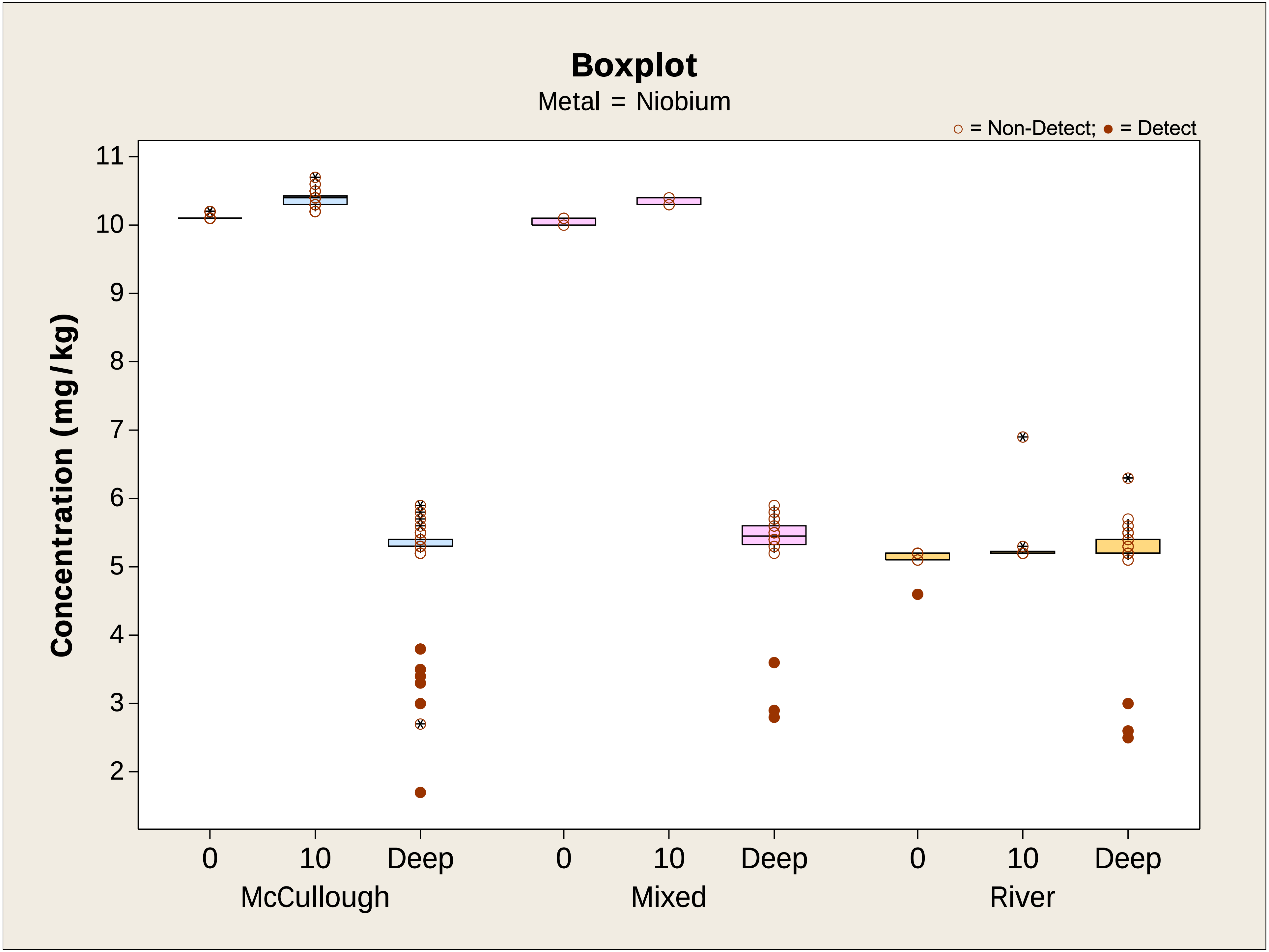
Boxplot
Metal = Manganese
○ = Non-Detect; ● = Detect
Concentration (mg / kg)
2000
1500
1000
500
0
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River

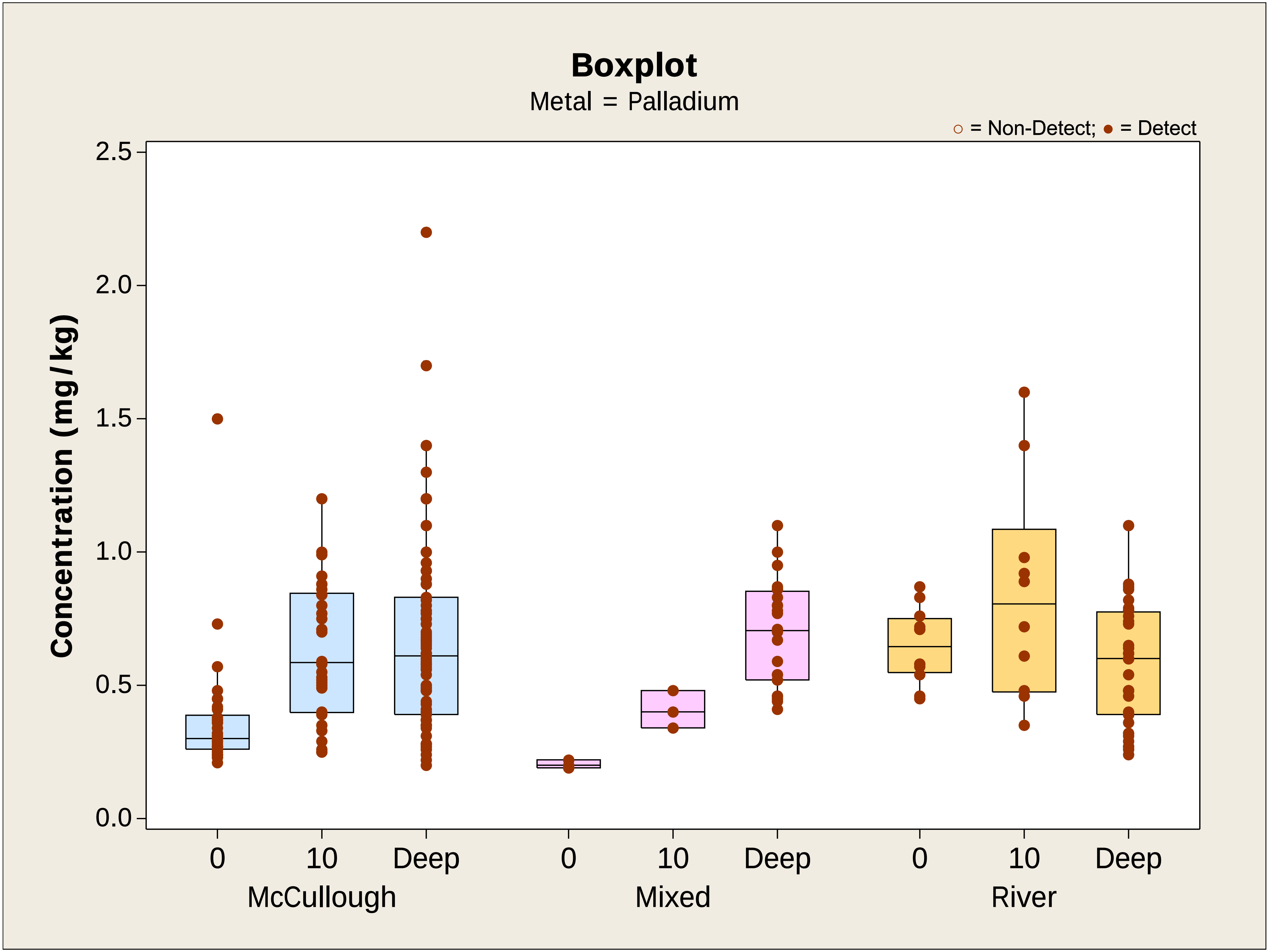

Boxplot
Metal = Mercury
○ = Non-Detect; ● = Detect
Concentration (mg / kg)
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River


Boxplot
Metal = Molybdenum
○ = Non-Detect; ● = Detect
Concentration (mg / kg)
2.5
2.0
1.5
1.0
0.5
0.0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

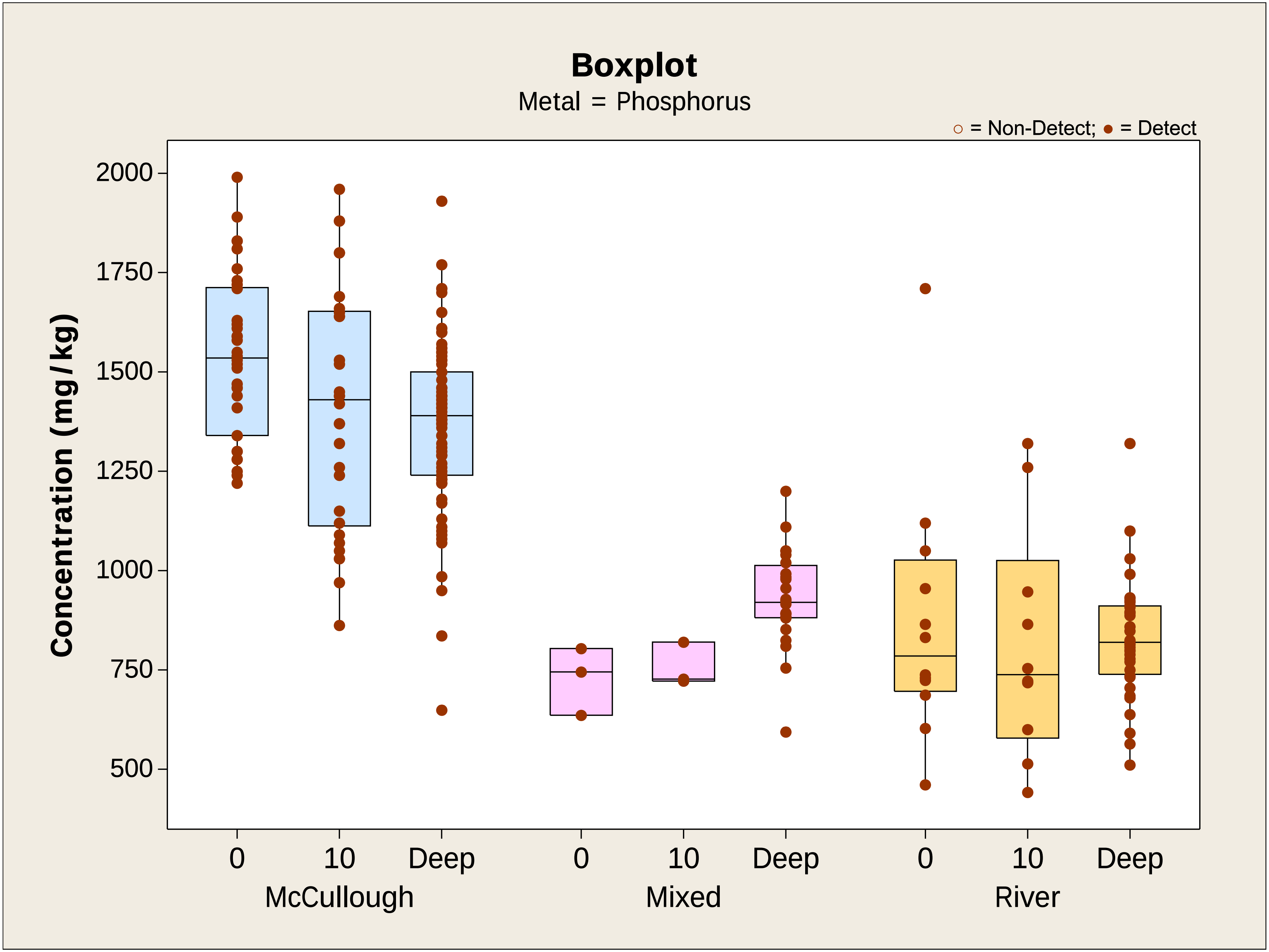


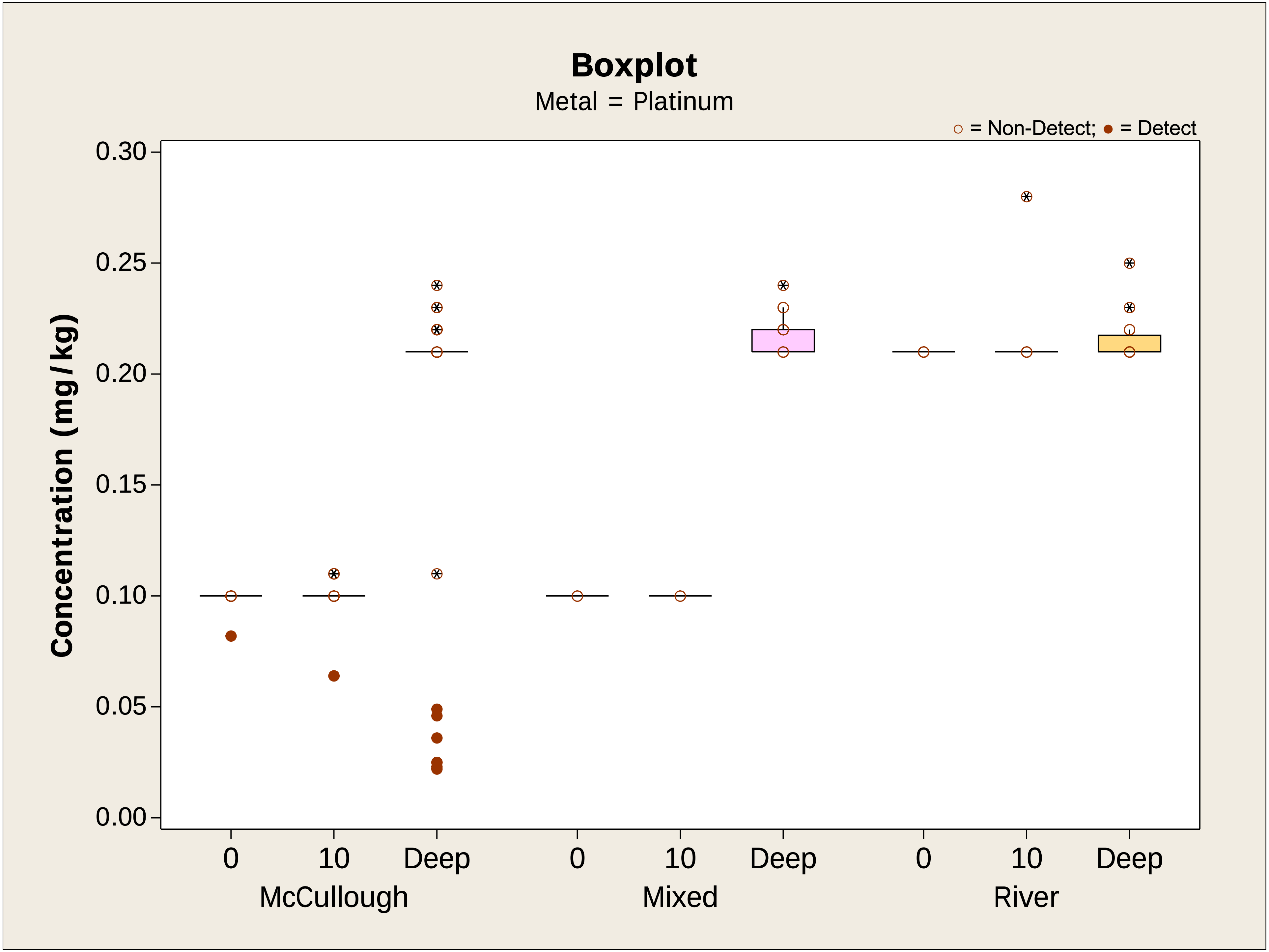
Boxplot
Metal = Nickel
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
30
25
20
15
10
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River


Boxplot
Metal = Niobium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
11
10
9
8
7
6
5
4
3
2
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

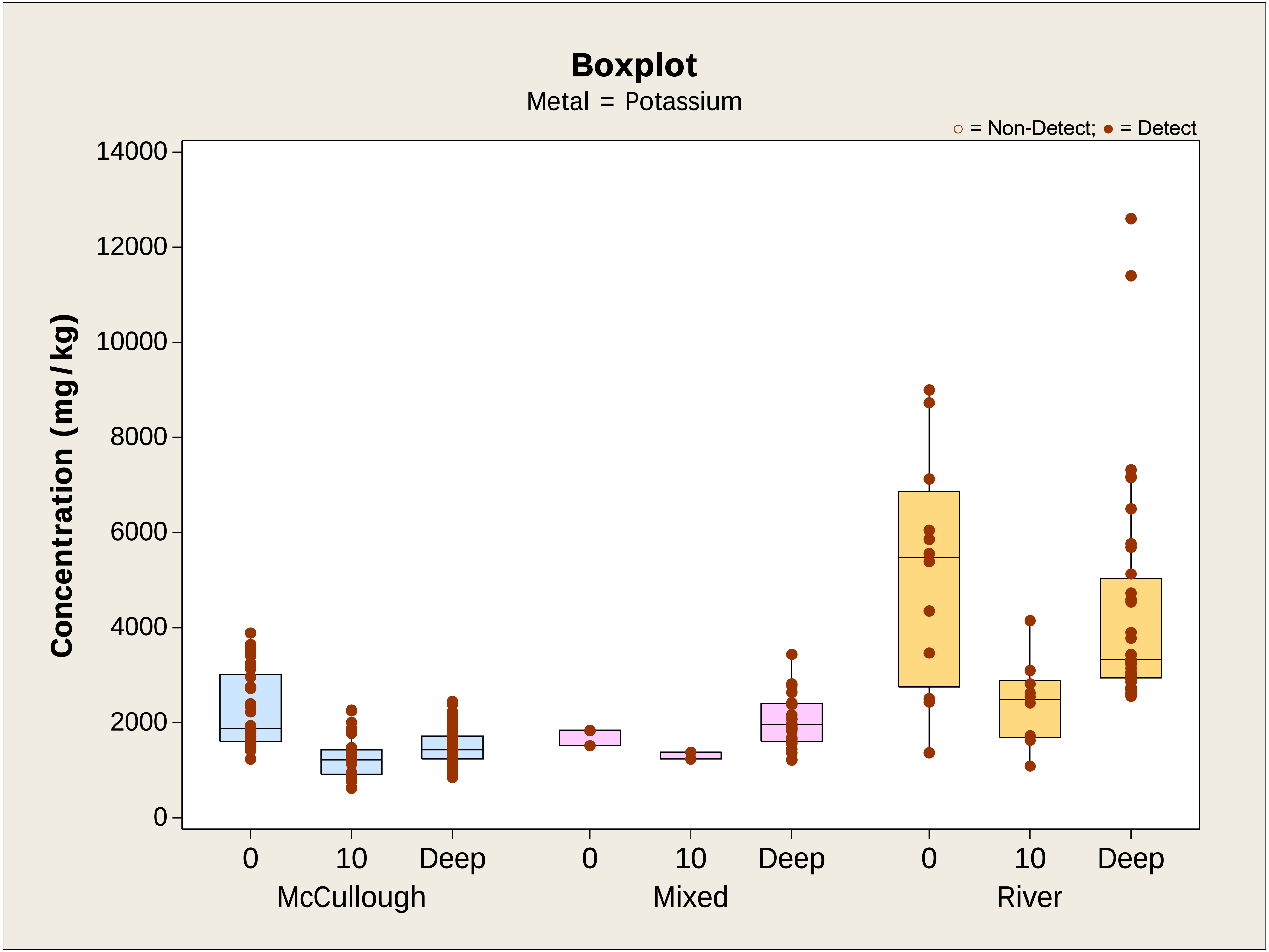


Boxplot
Metal = Palladium
○ = Non-Detect; ● = Detect
Concentration (mg / kg)
2.5
2.0
1.5
1.0
0.5
0.0
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River

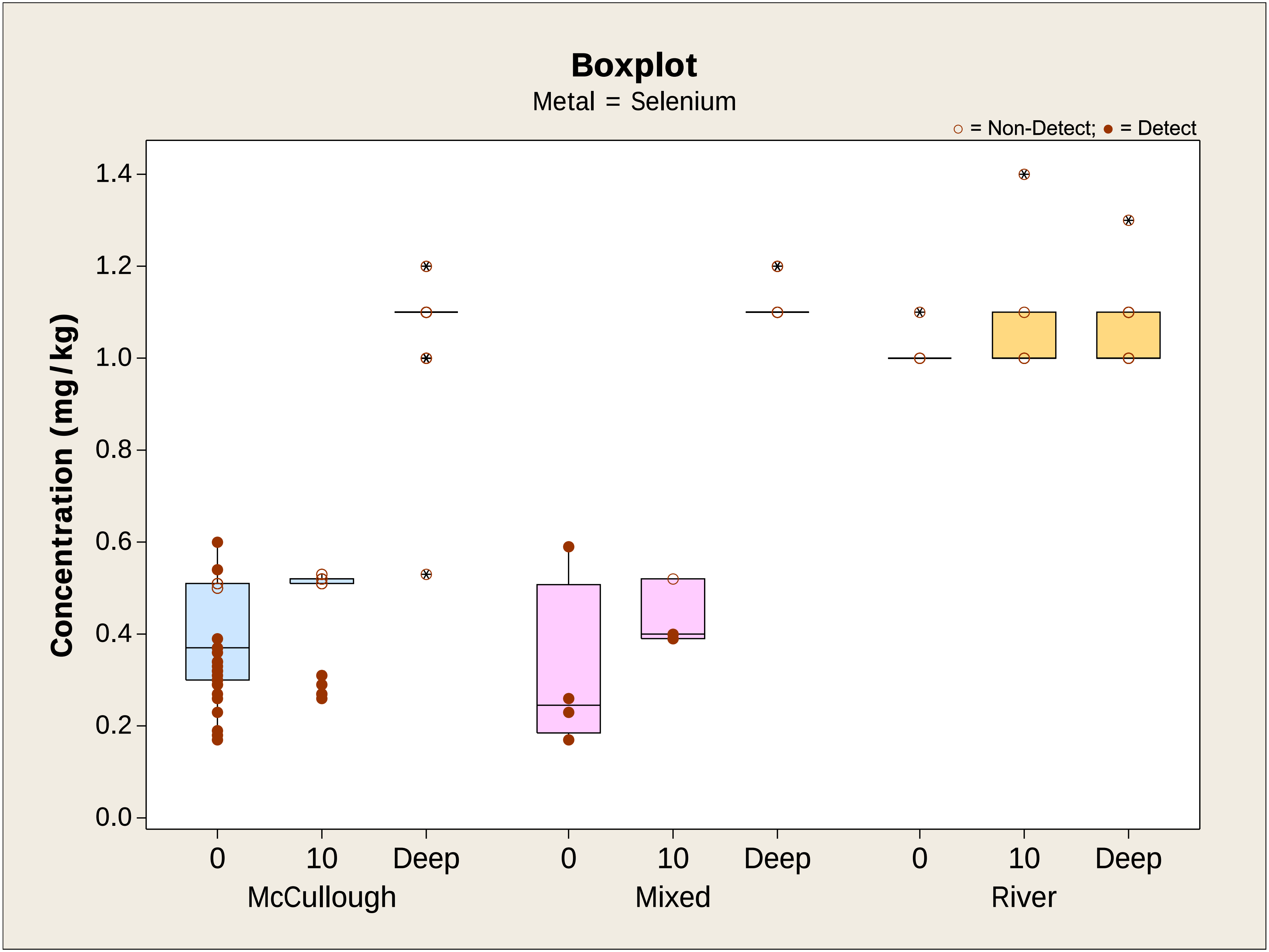

Boxplot
Metal = Phosphorus
○ = Non-Detect; ● = Detect
Concentration (mg / kg)
2000
1750
1500
1250
1000
750
500
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River

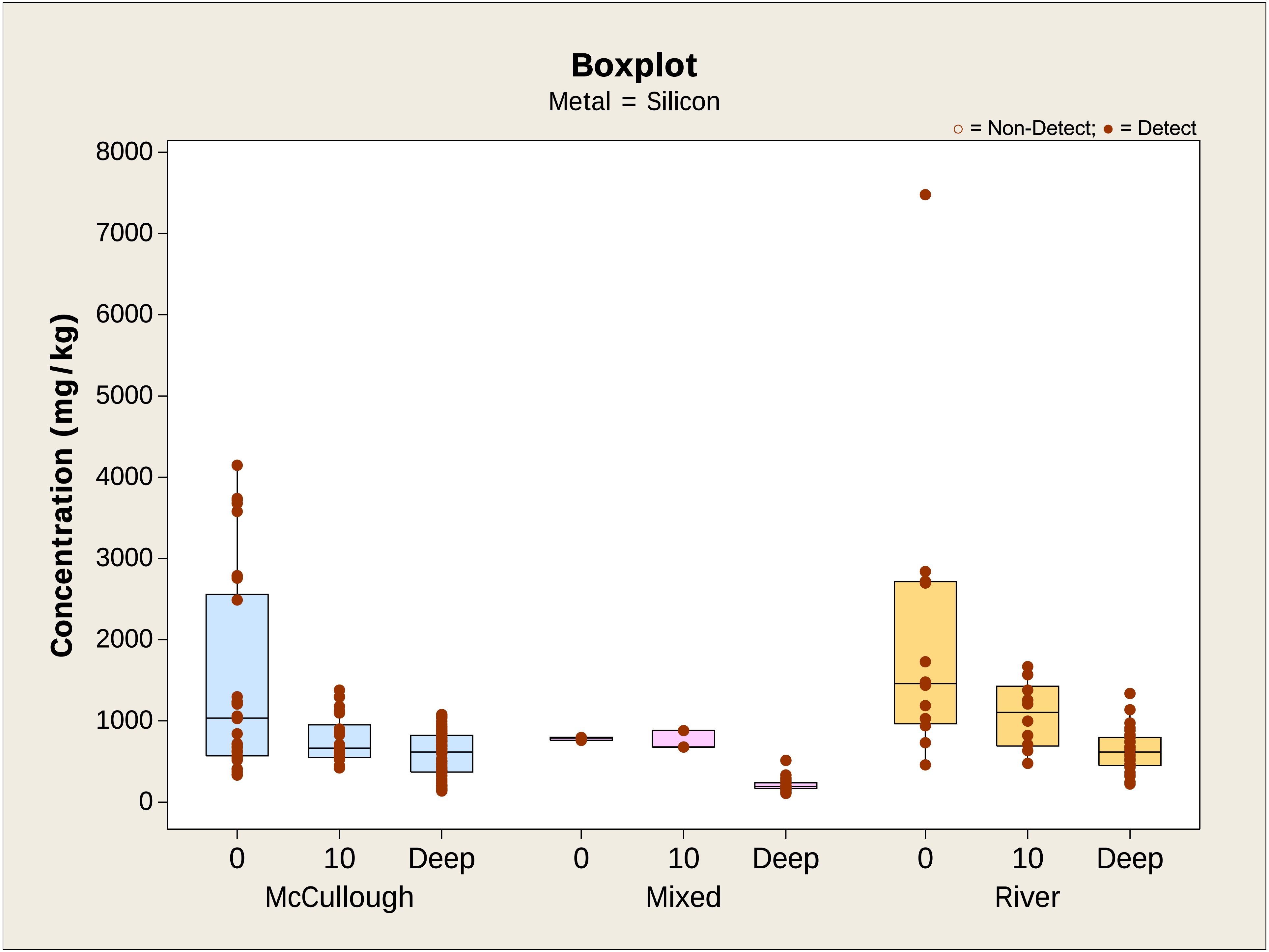


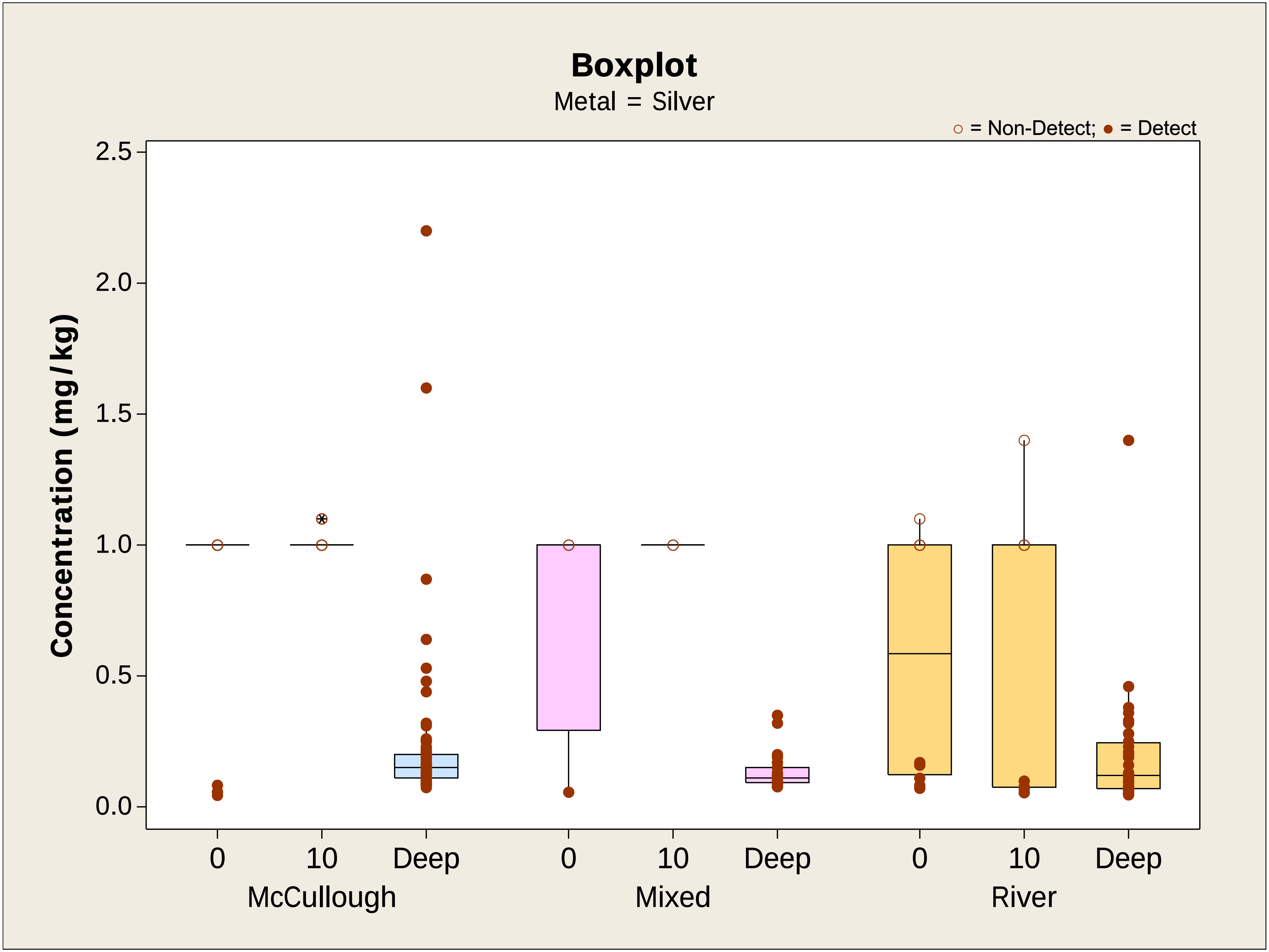
Boxplot
Metal = Platinum
○ = Non-Detect; ● = Detect
Concentration (mg / kg)
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River

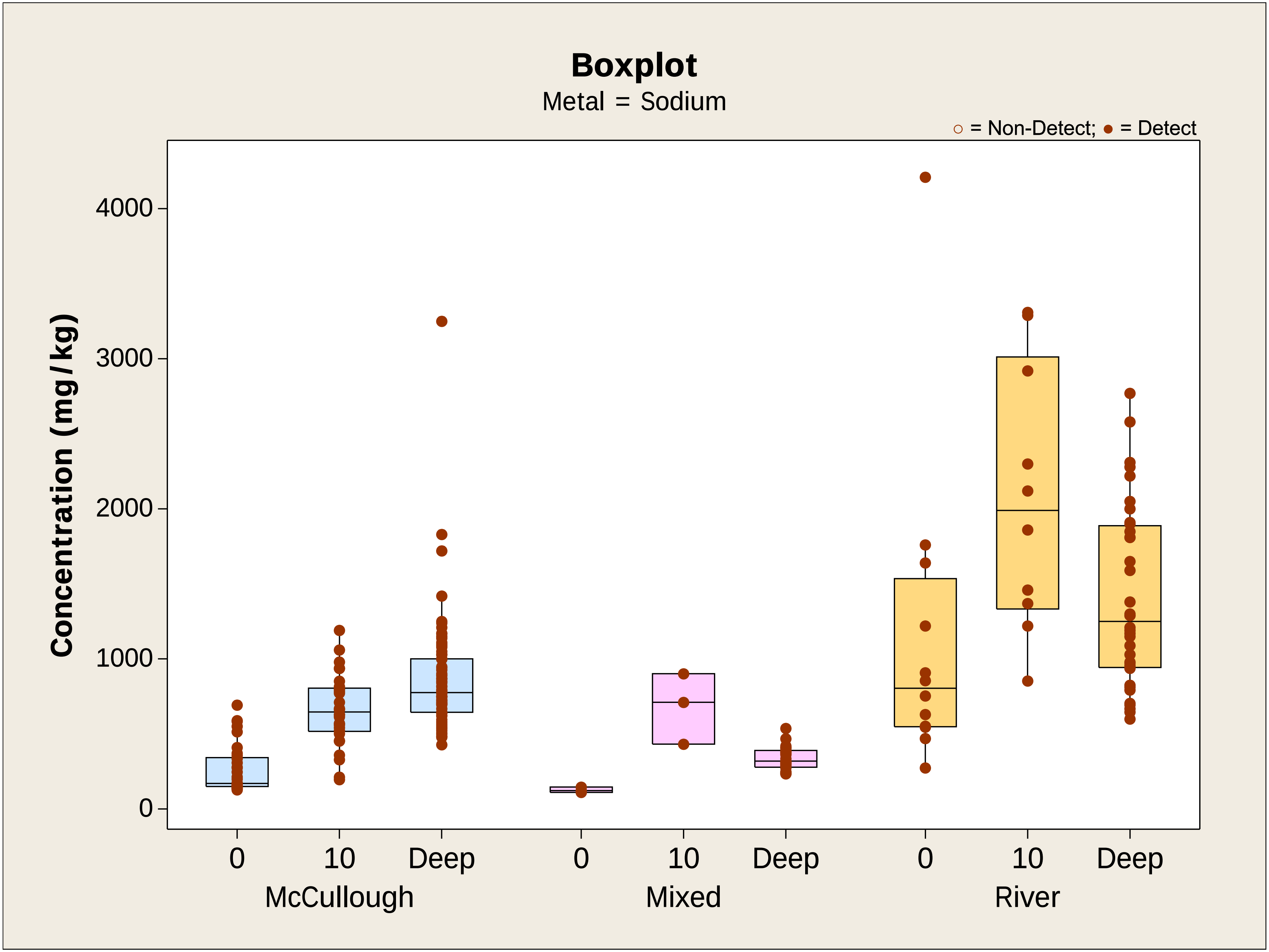


Boxplot
Metal = Potassium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
14000
12000
10000
8000
6000
4000
2000
0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

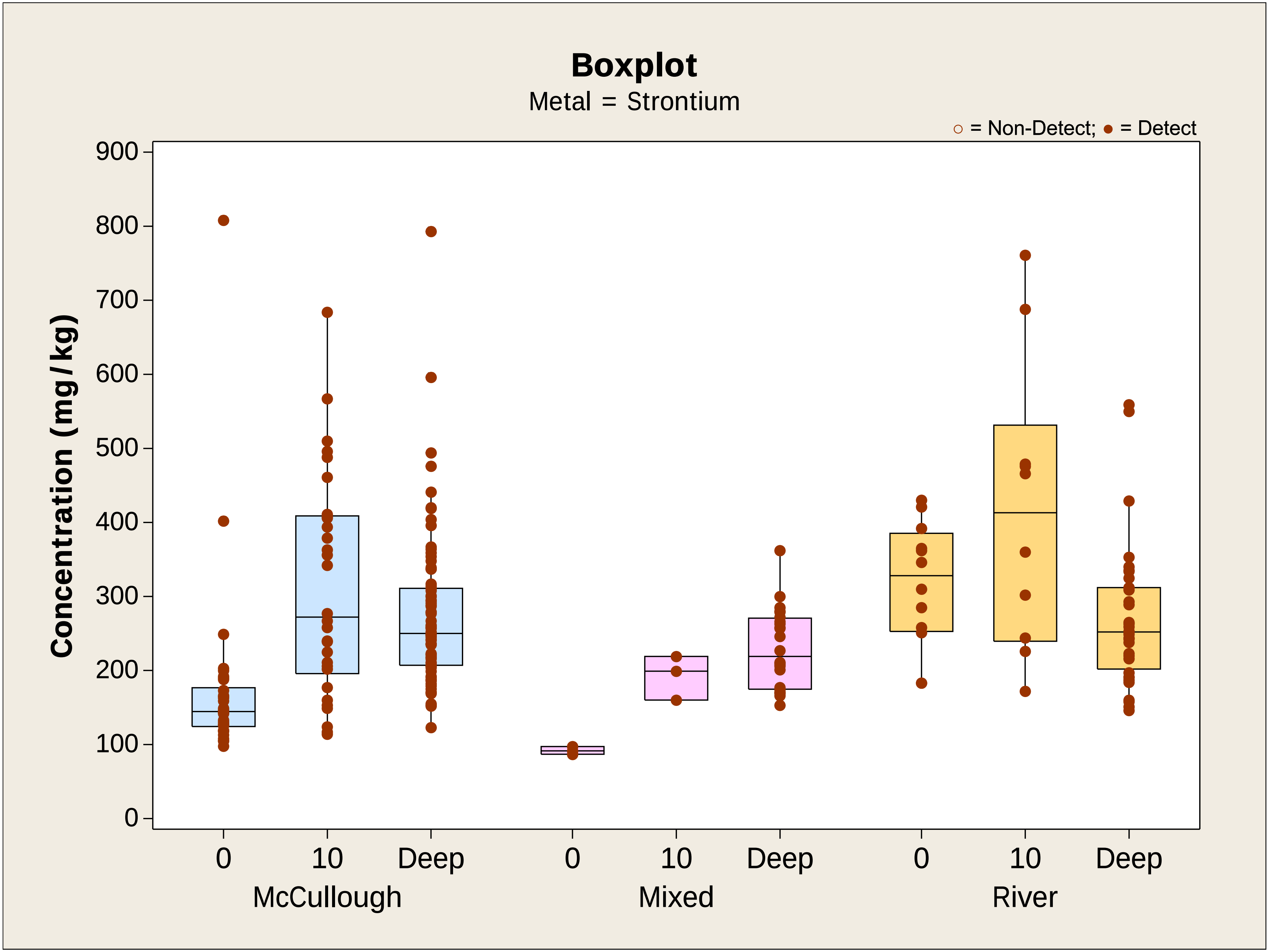

Boxplot
Metal = Selenium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River

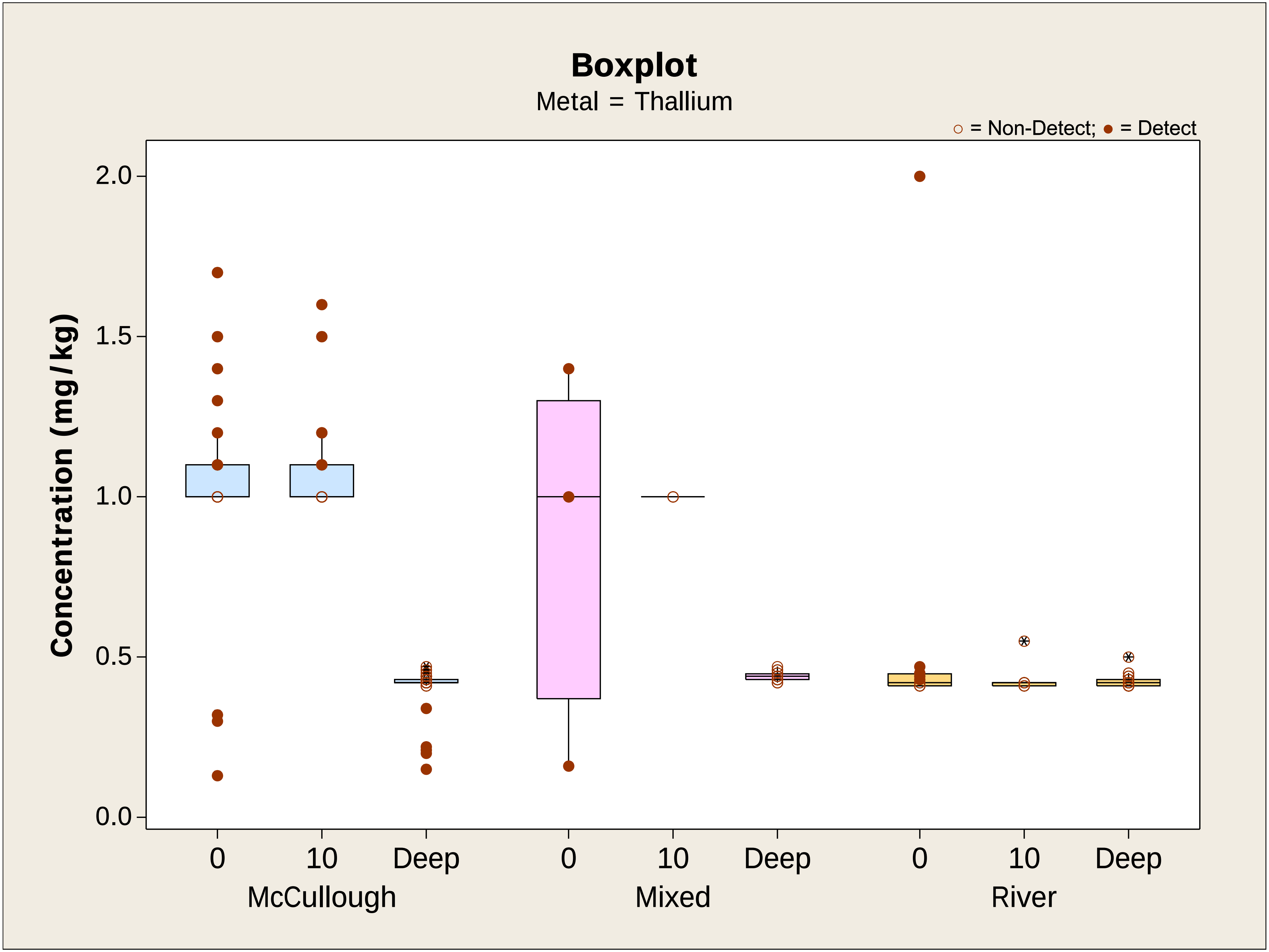

Boxplot
Metal = Silicon
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
8000
7000
6000
5000
4000
3000
2000
1000
0
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River


Boxplot
Metal = Silver
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
2.5
2.0
1.5
1.0
0.5
0.0
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River

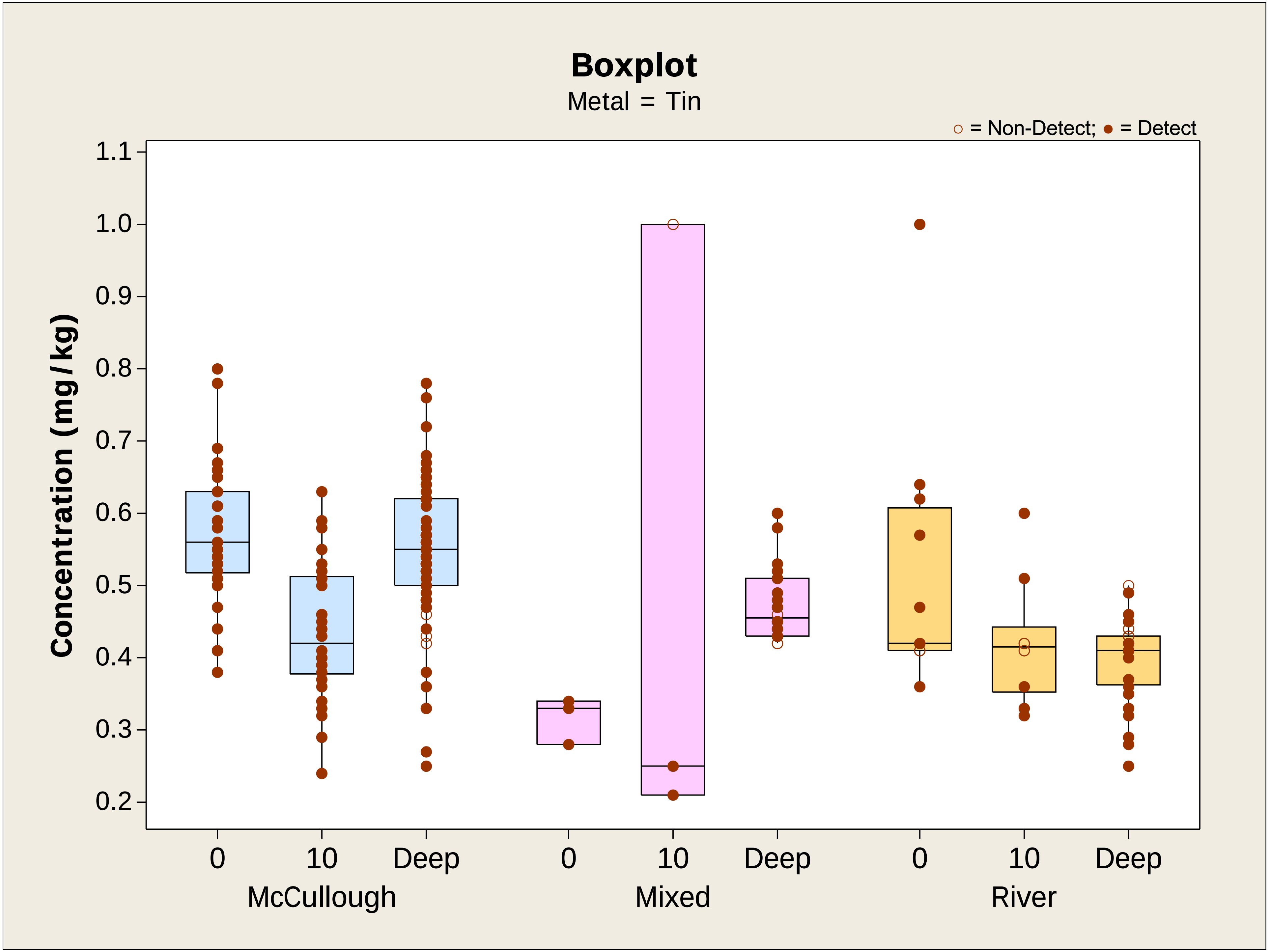


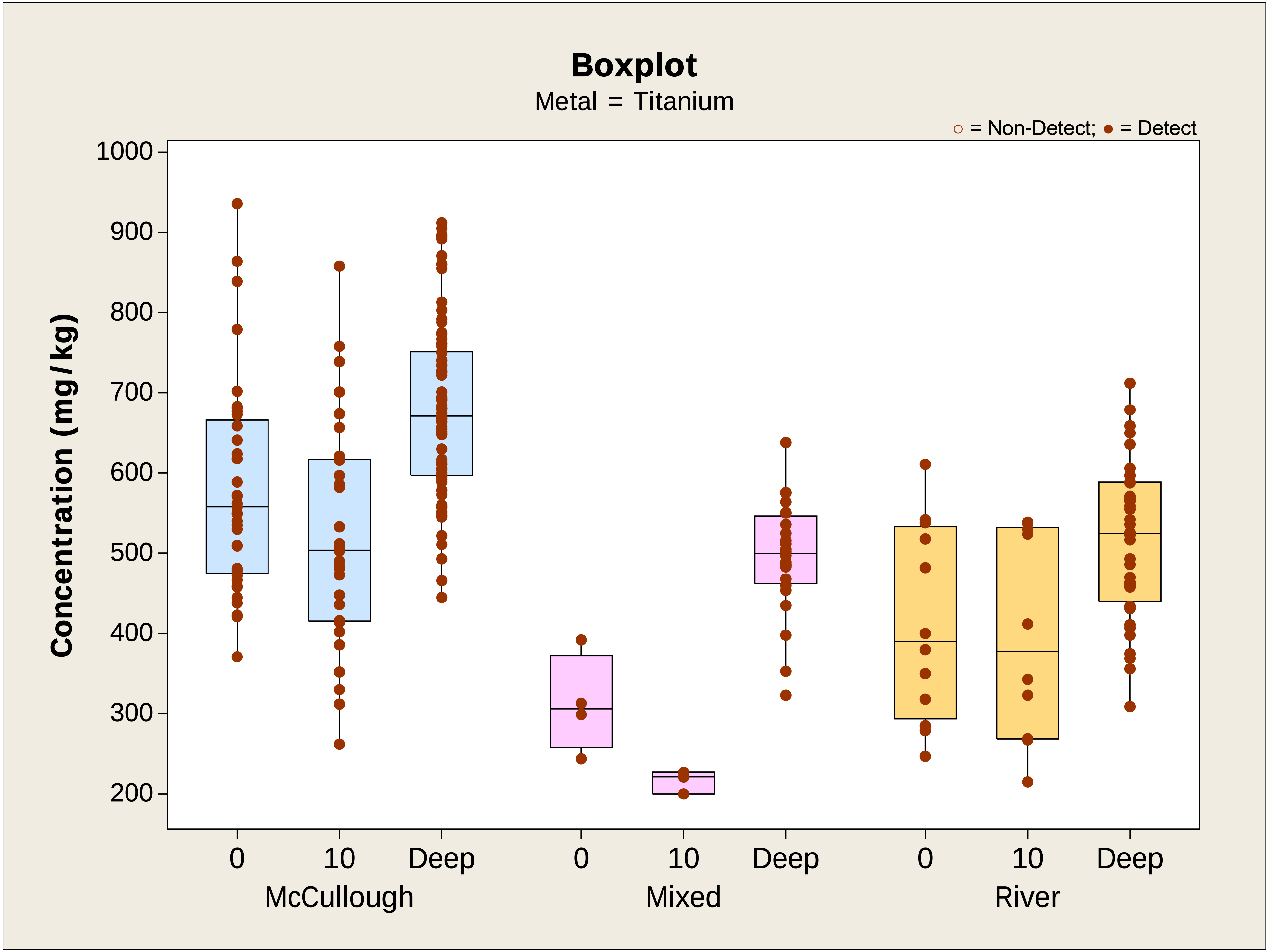
Boxplot
Metal = Sodium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
4000
3000
2000
1000
0
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River


Boxplot
Metal = Strontium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
900
800
700
600
500
400
300
200
100
0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

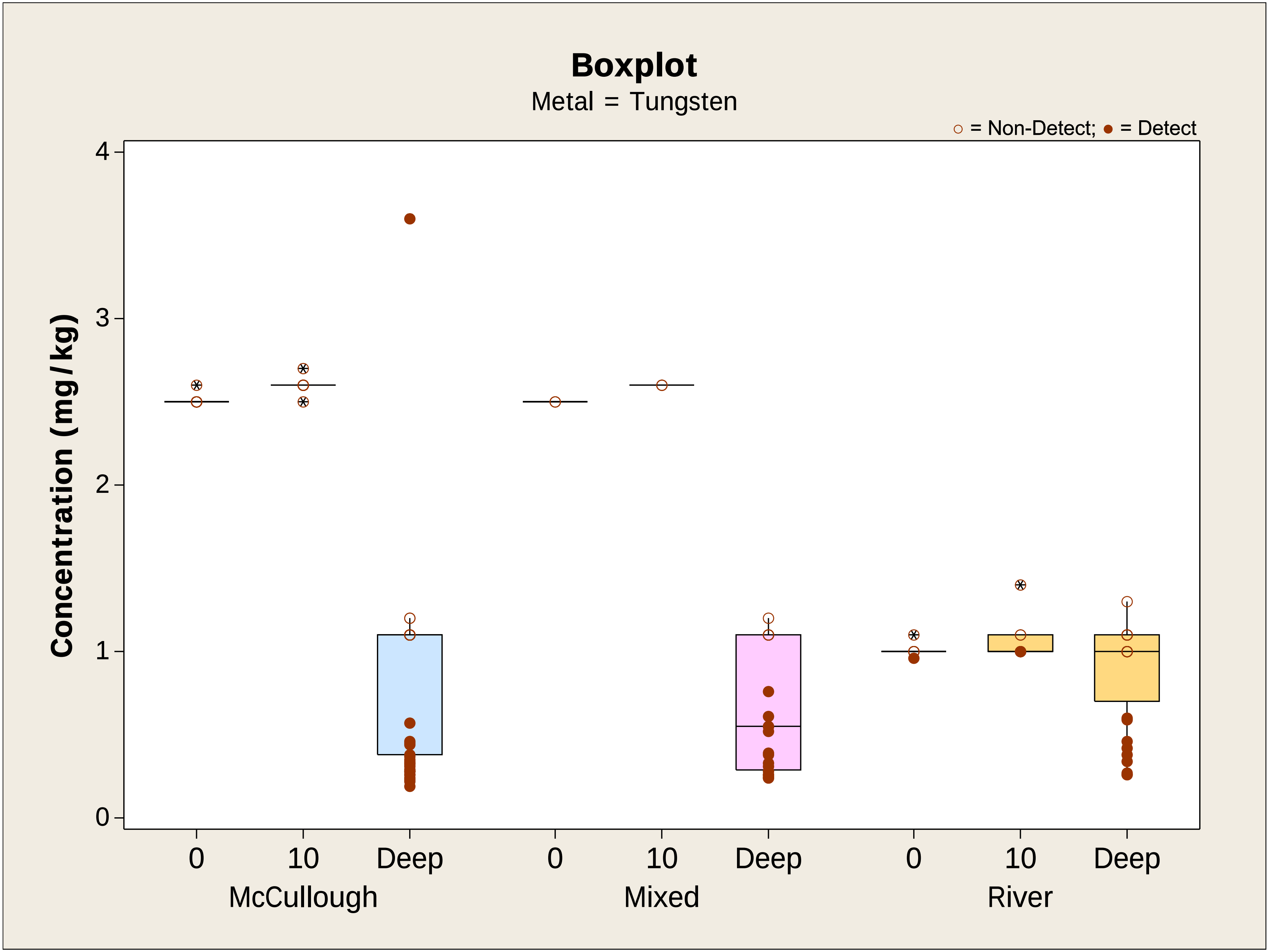


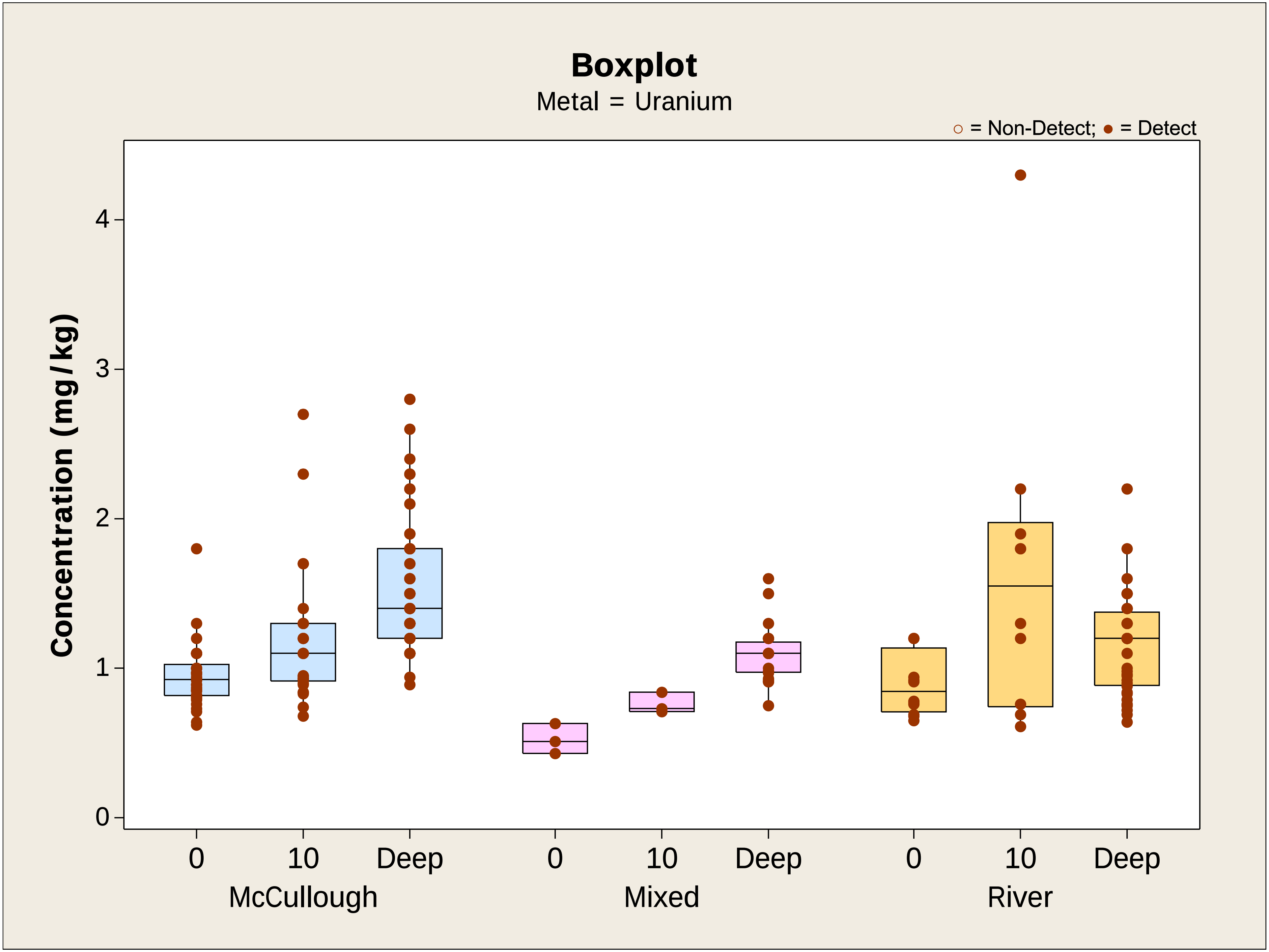
Boxplot
Metal = Thallium
○ = Non-Detect; ● = Detect
Concentration (mg / kg)
2.0
1.5
1.0
0.5
0.0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

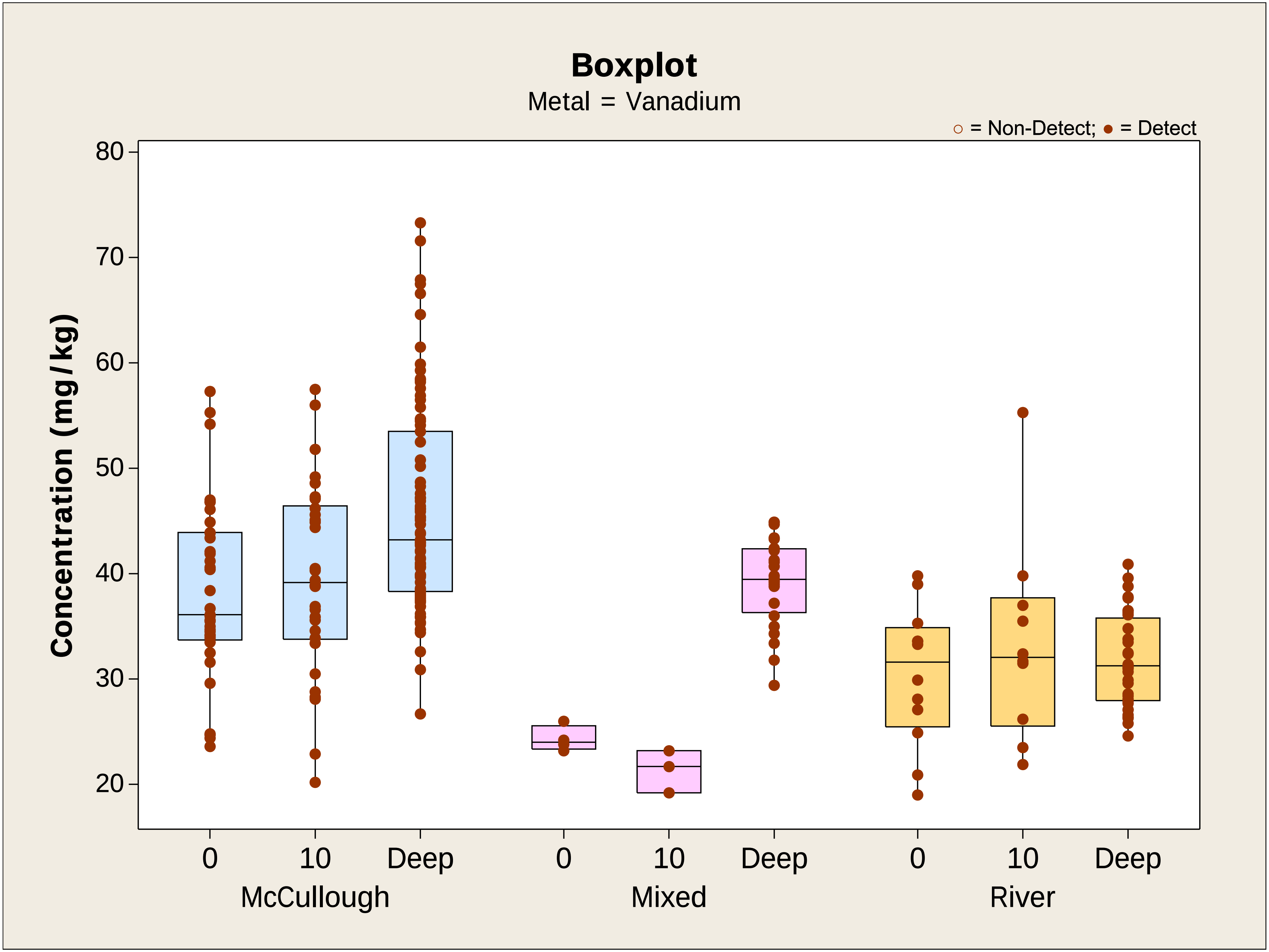

Boxplot
Metal = Tin
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

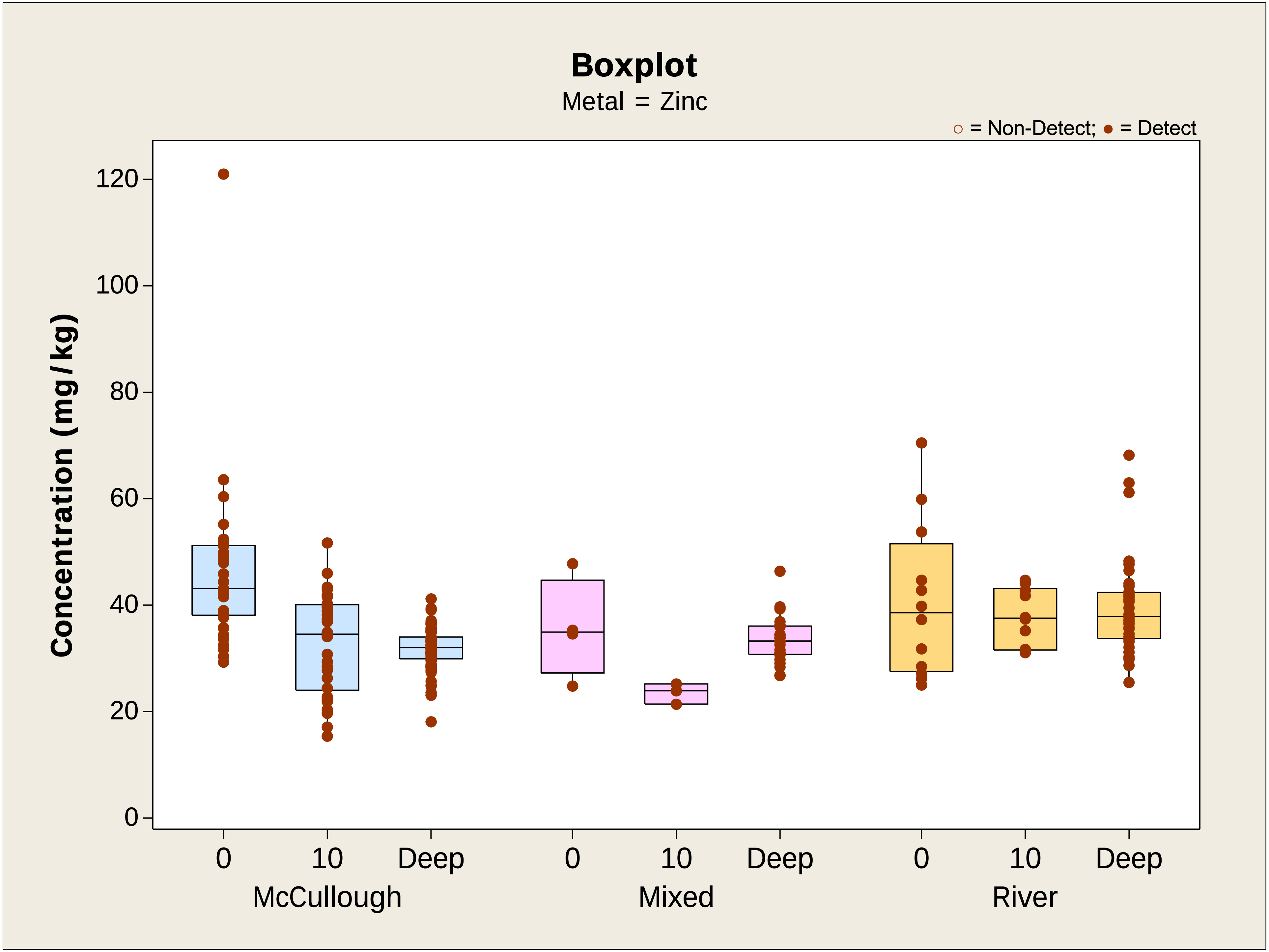


Boxplot
Metal = Titanium
○ = Non-Detect; ● = Detect
Concentration (mg / kg)
1000
900
800
700
600
500
400
300
200
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

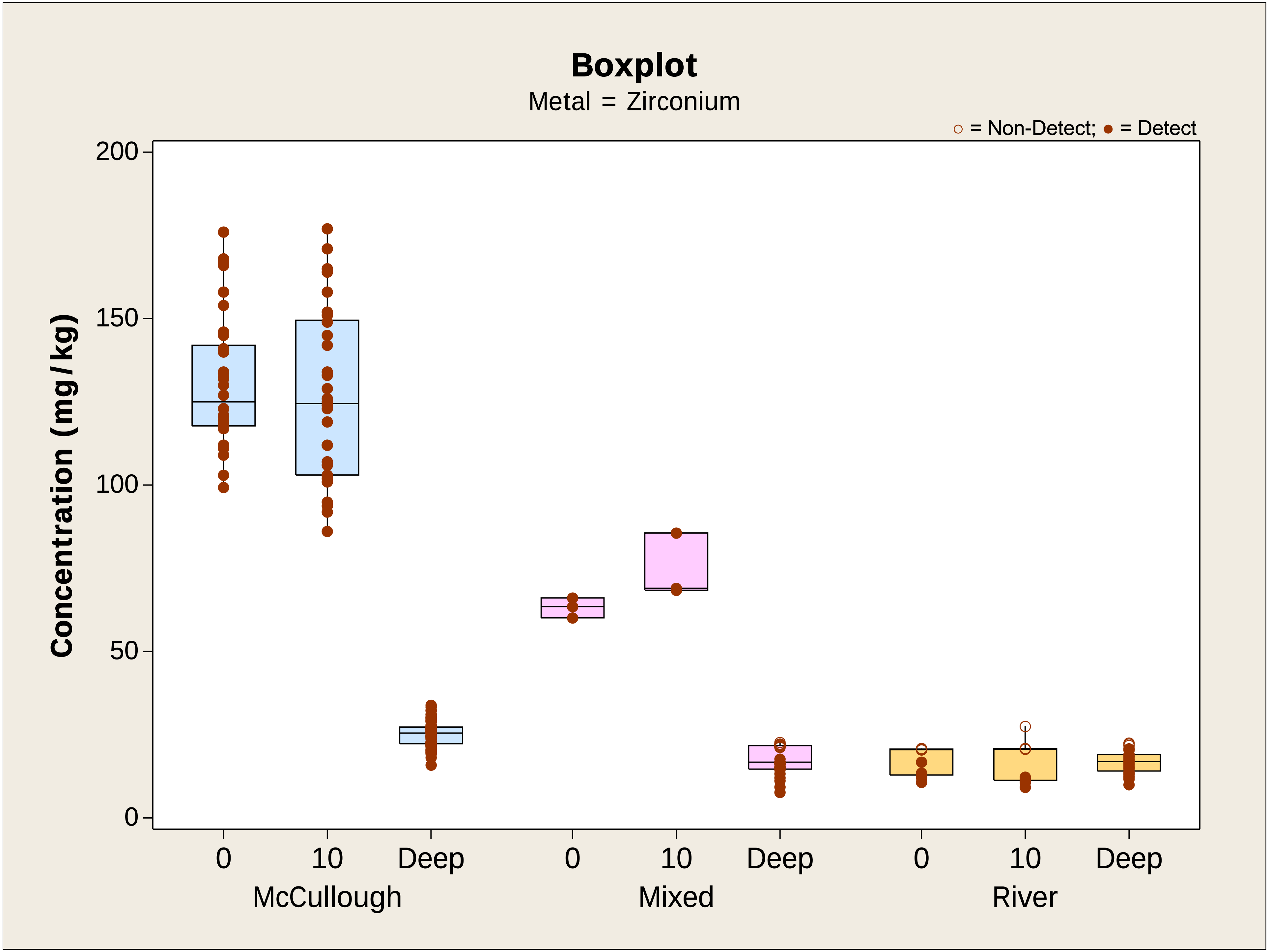

Boxplot
Metal = Tungsten
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0
1
2
3
4
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River


Boxplot
Metal = Uranium
○ = Non-Detect; ● = Detect
Concentration (mg / kg)
0
1
2
3
4
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

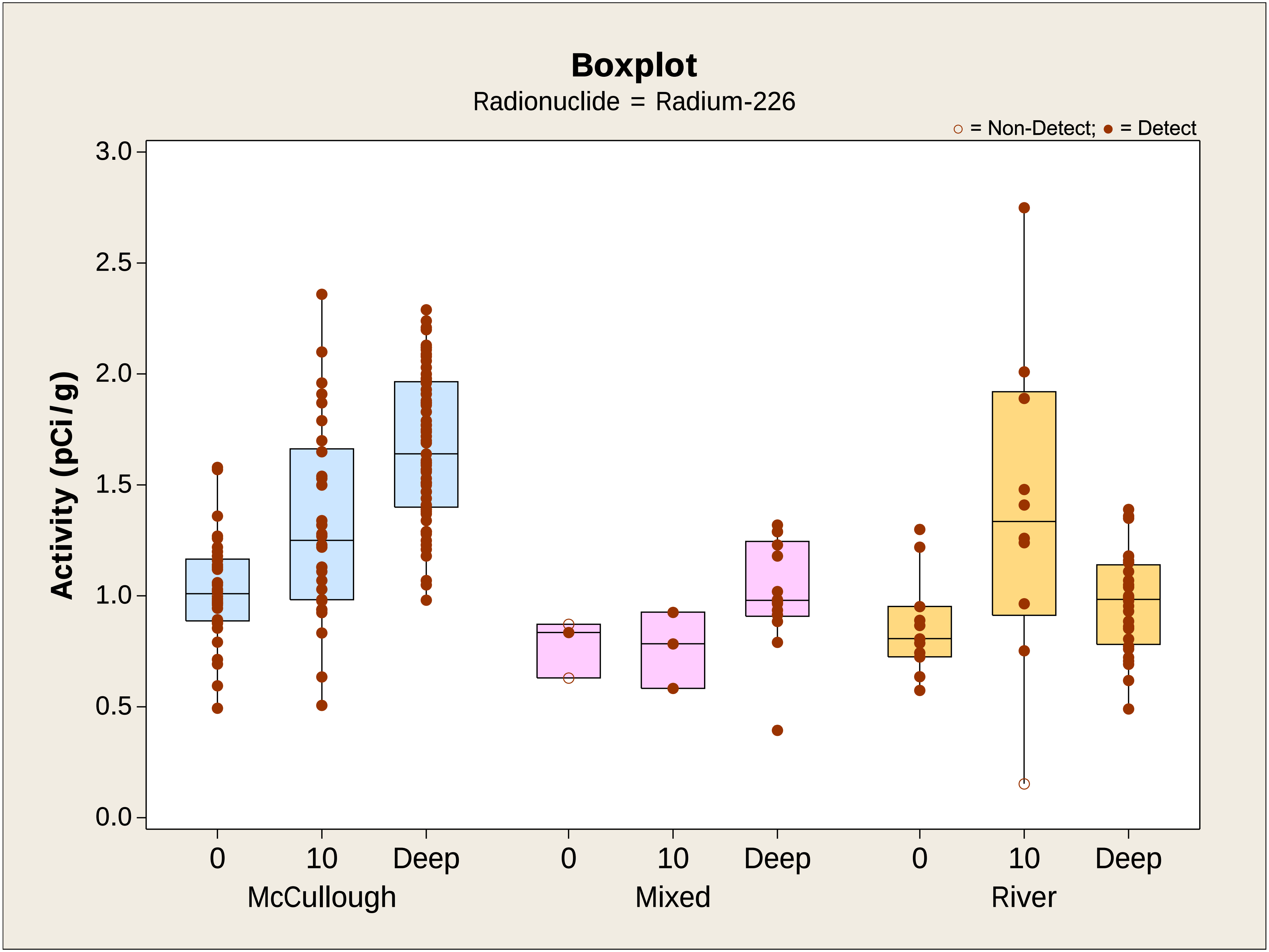

Boxplot
Metal = Vanadium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
80
70
60
50
40
30
20
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River



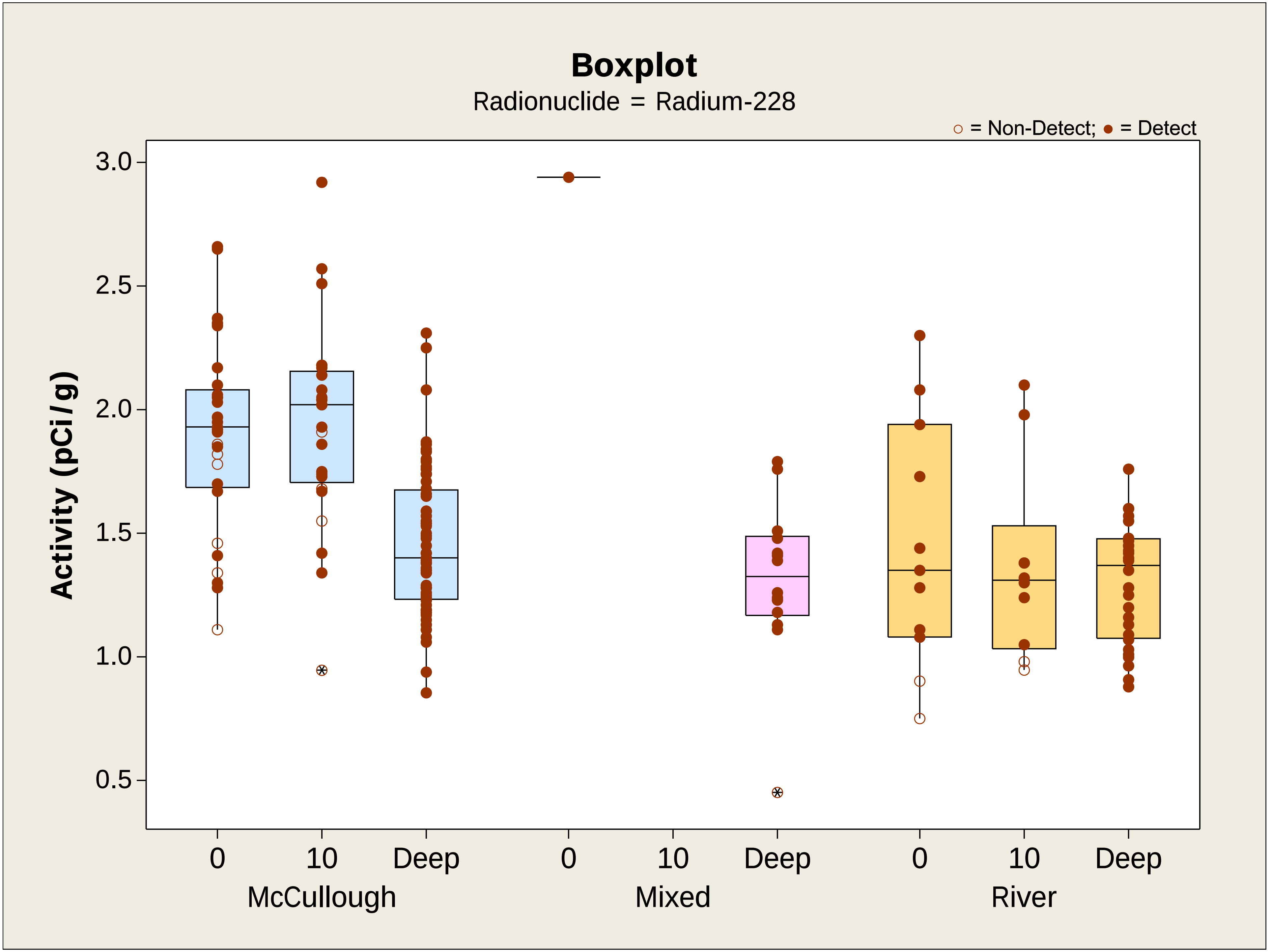
Boxplot
Metal = Zinc
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
120
100
80
60
40
20
0
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River



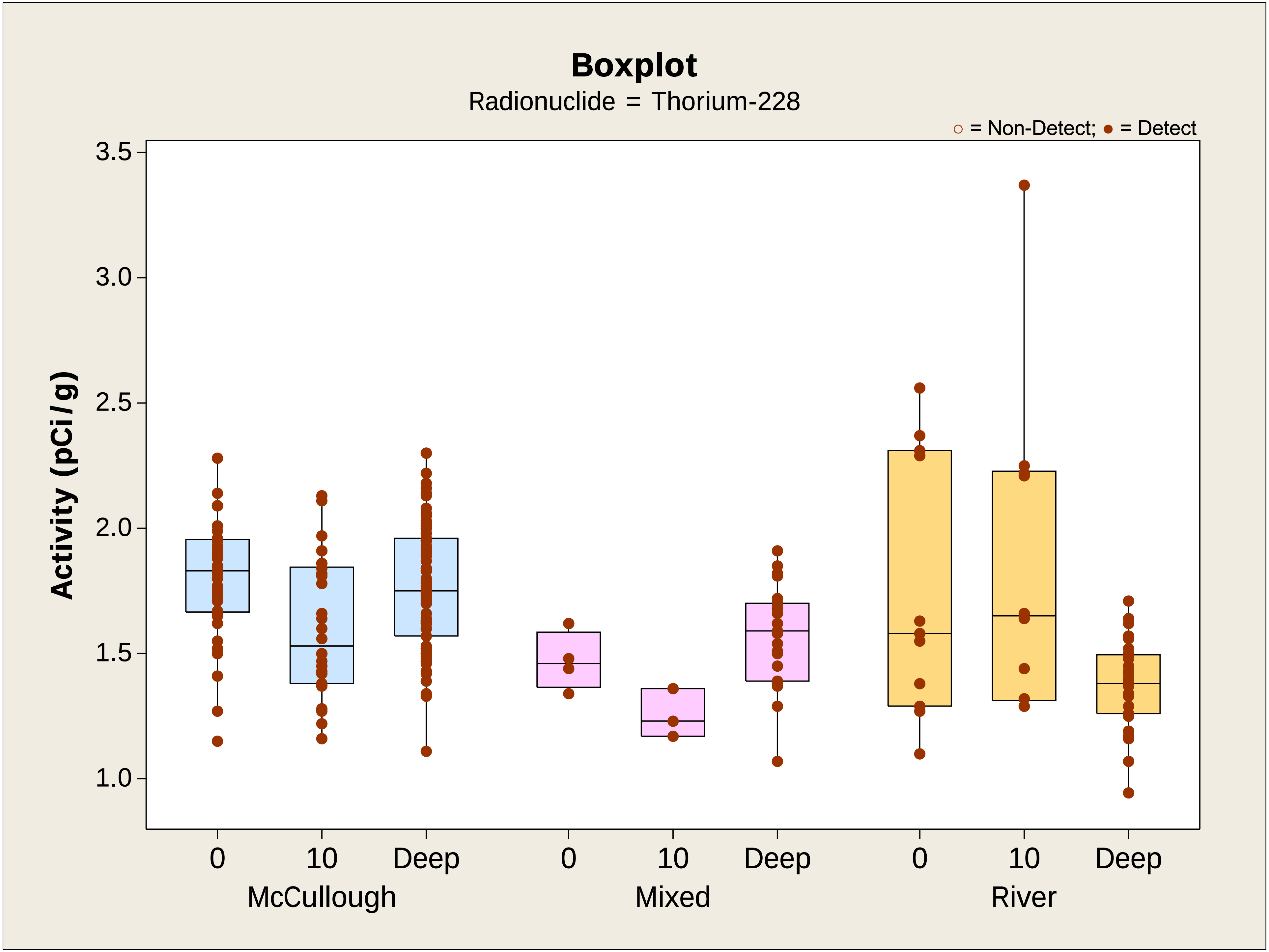
Boxplot
Metal = Zirconium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
200
150
100
50
0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River



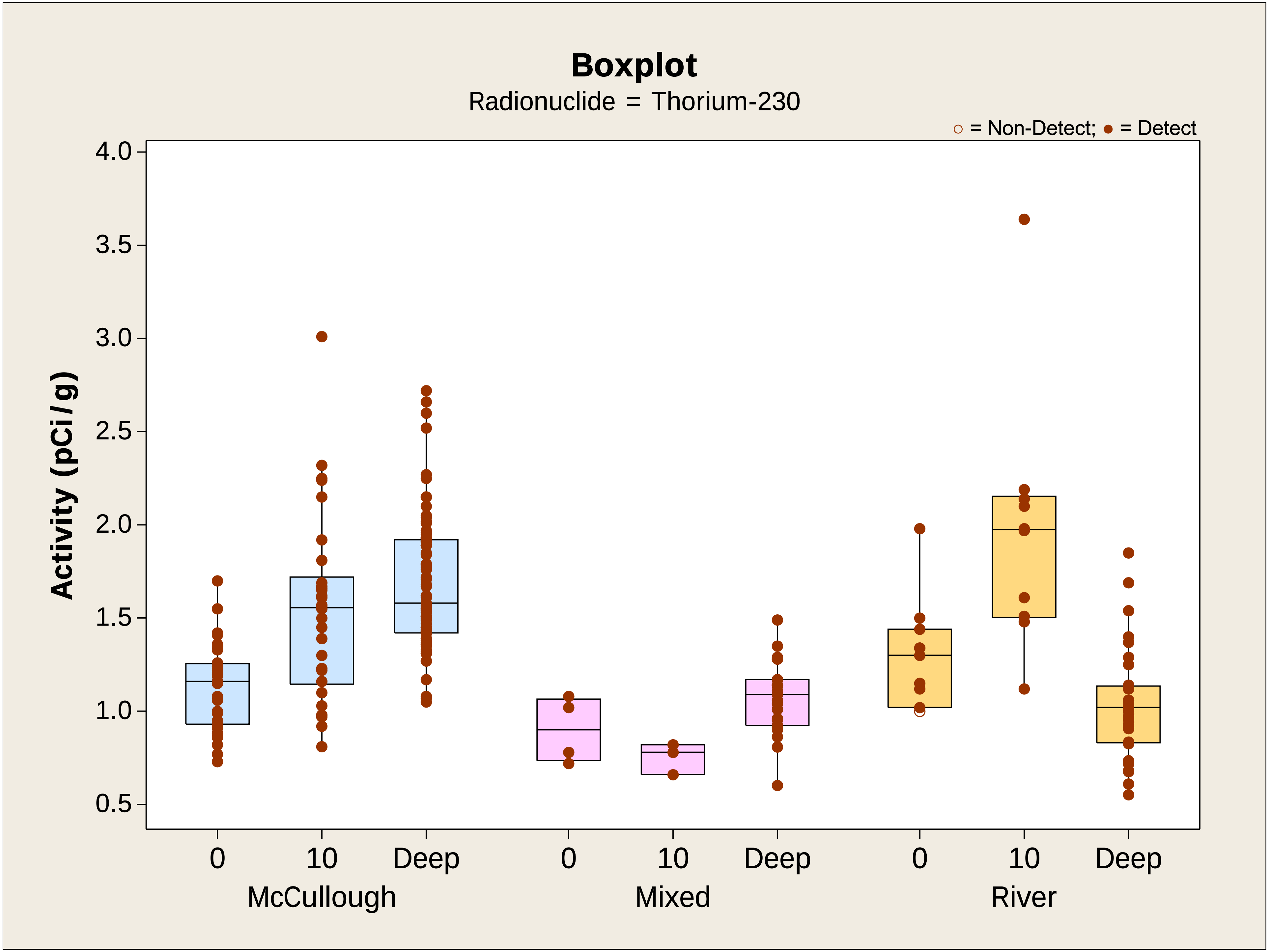
Boxplot
Radionuclide = Radium-226
○ = Non-Detect; ● = Detect
Activity (pCi / g)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River



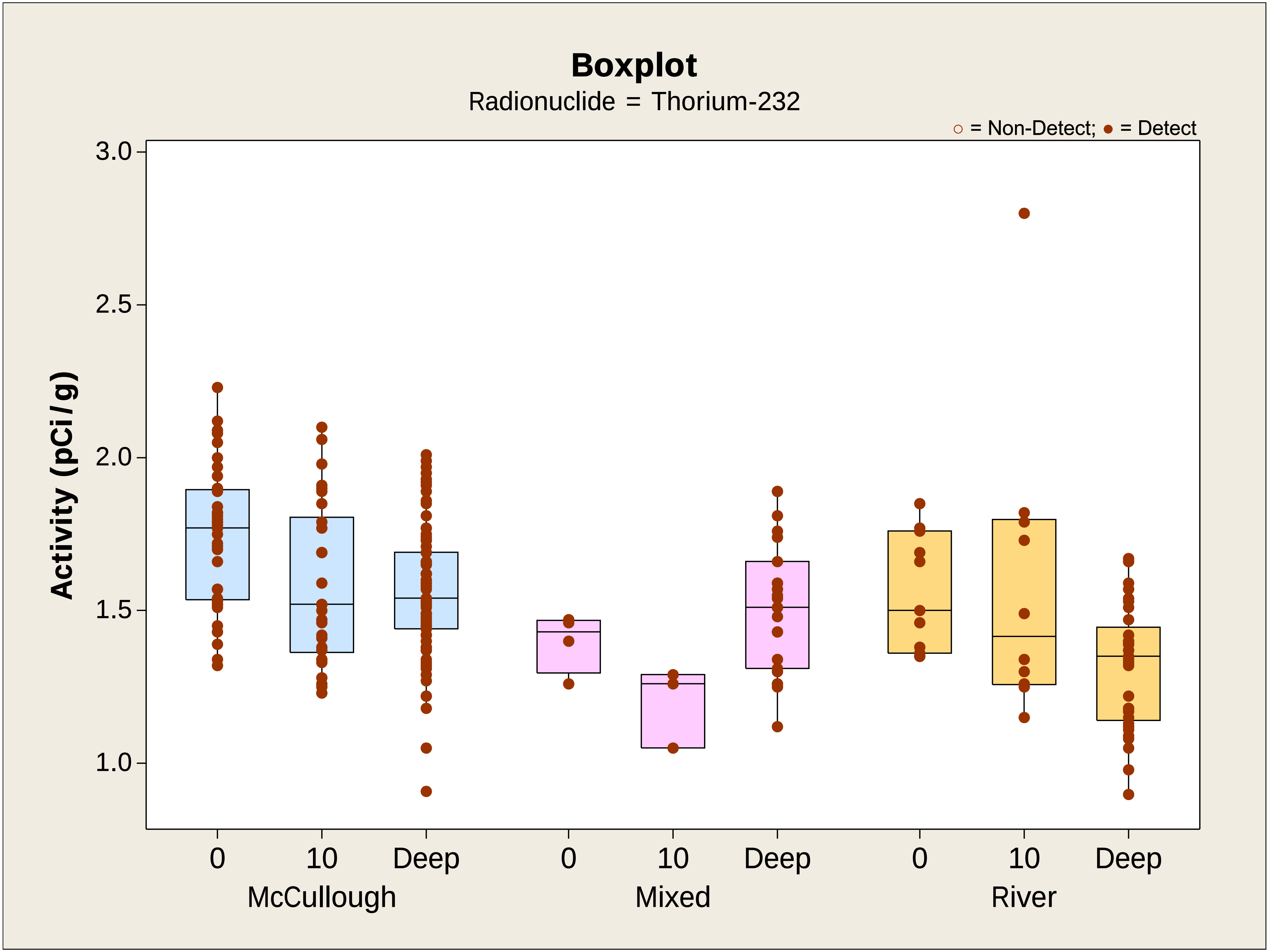
Boxplot
Radionuclide = Radium-228
○ = Non-Detect; ● = Detect
Activity (pCi/g)
3.0
2.5
2.0
1.5
1.0
0.5
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River



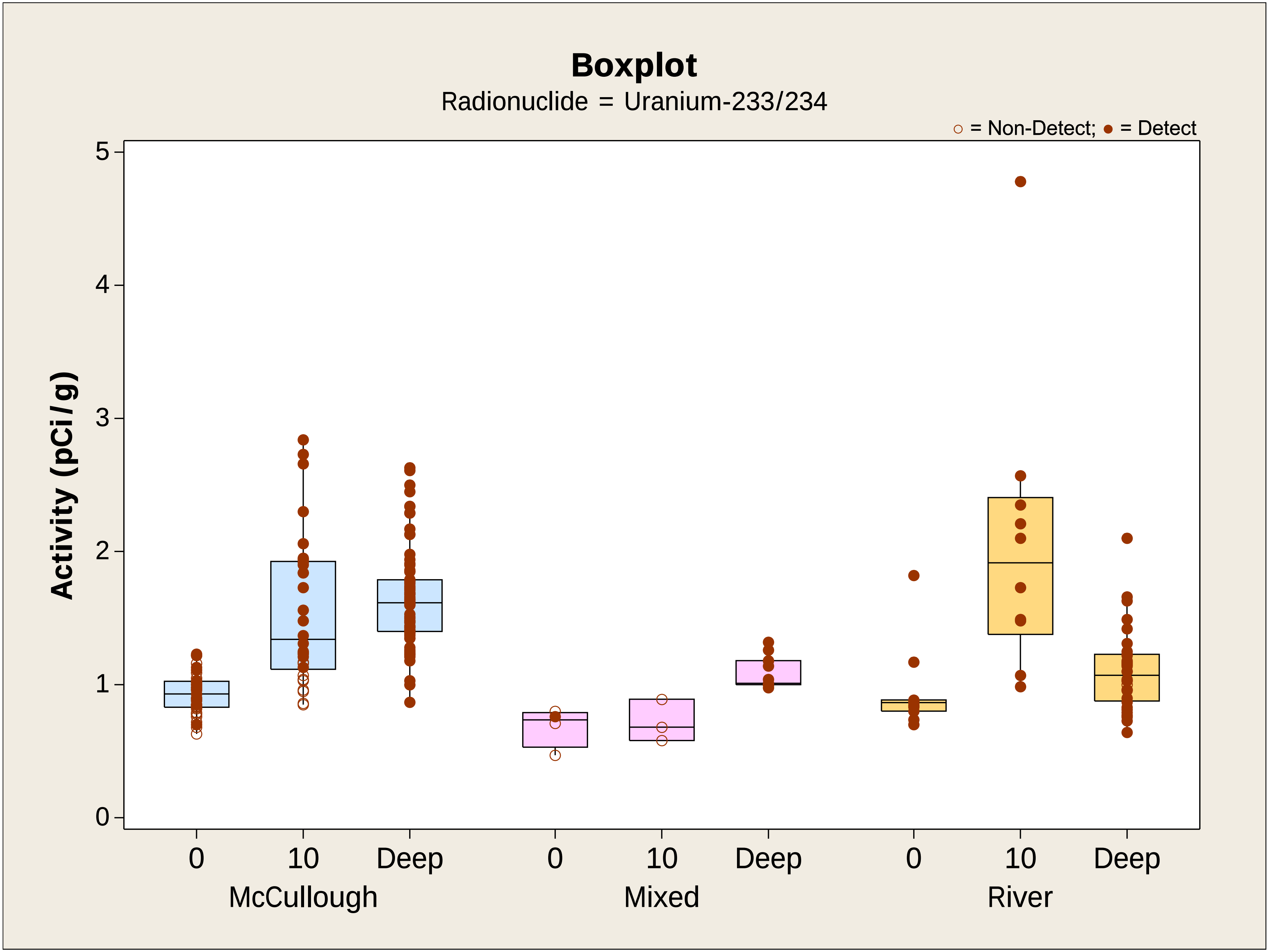
Boxplot
Radionuclide = Thorium-228
○ = Non-Detect; ● = Detect
Activity (pCi / g)
3.5
3.0
2.5
2.0
1.5
1.0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River



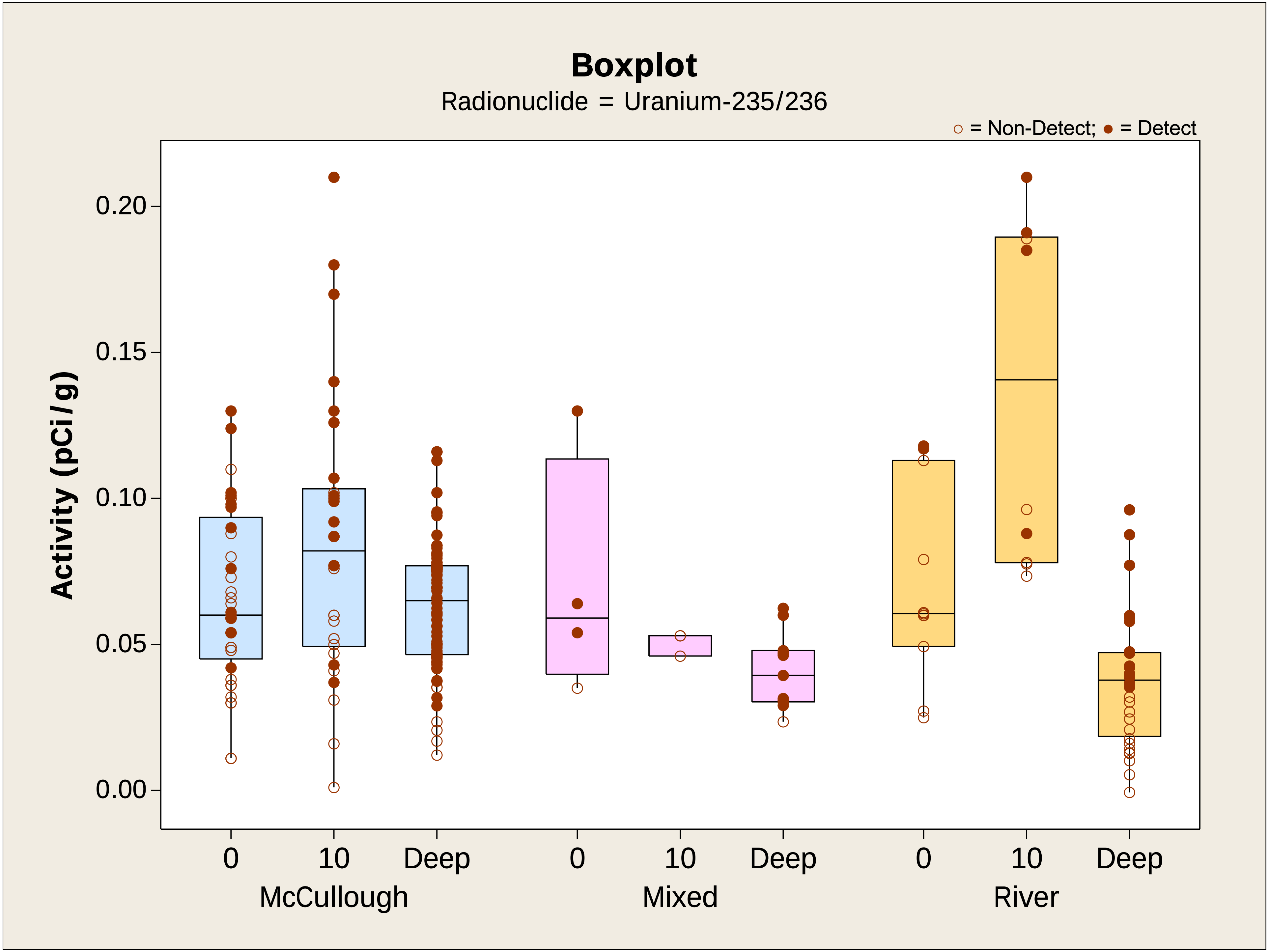
Boxplot
Radionuclide = Thorium-230
○ = Non-Detect; ● = Detect
Activity (pCi / g)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River



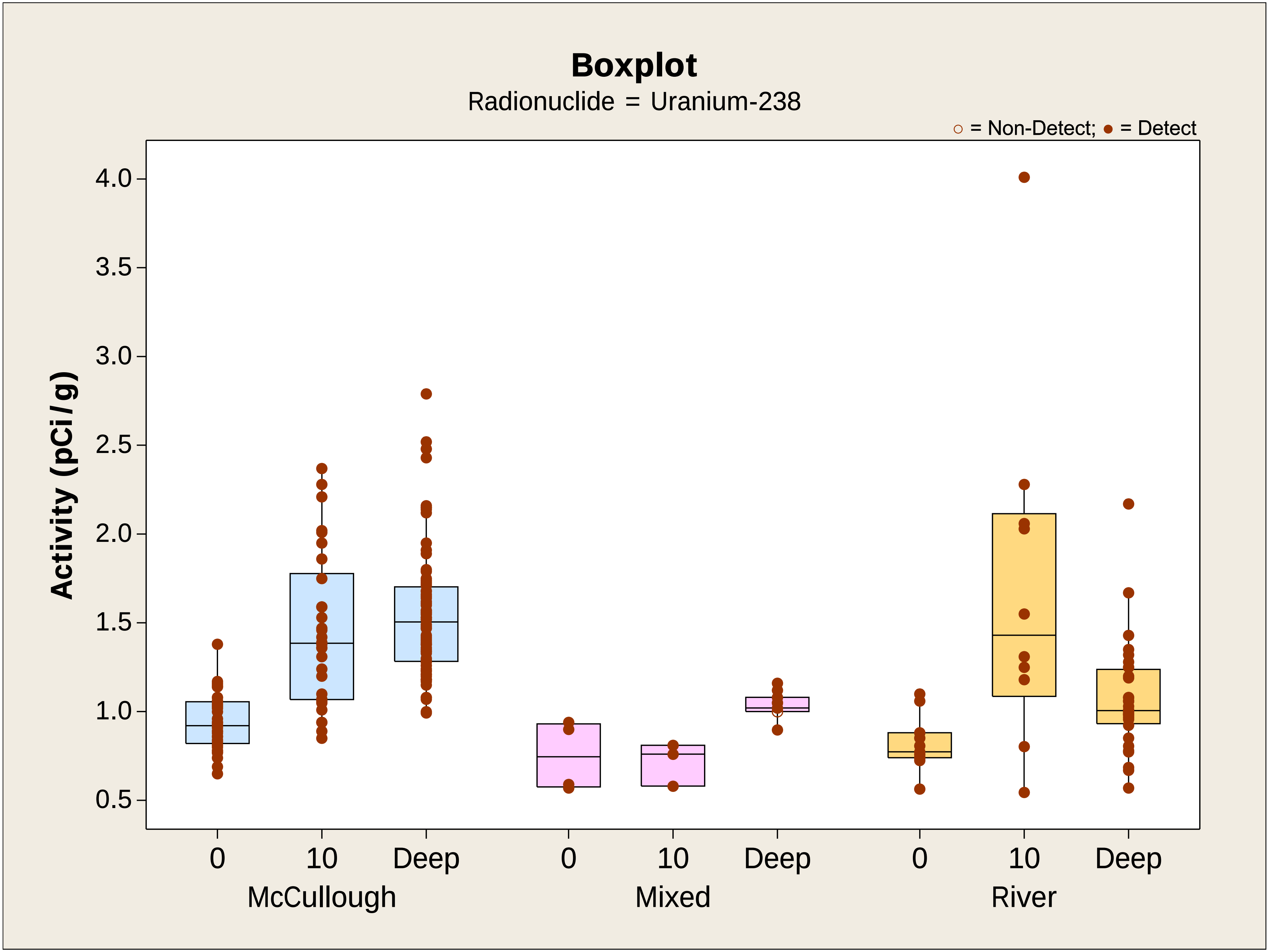
Boxplot
Radionuclide = Thorium-232
○ = Non-Detect; ● = Detect
Activity (pCi / g)
3.0
2.5
2.0
1.5
1.0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River



Boxplot
Radionuclide = Uranium-233/234
○ = Non-Detect; ● = Detect
Activity (pCi / g)
5
4
3
2
1
0
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River



Boxplot
Radionuclide = Uranium-235/236
○ = Non-Detect; ● = Detect
Activity (pCi / g)
0.20
0.15
0.10
0.05
0.00
0
10
Deep
McCullough
0
10
Deep
Mixed
0
10
Deep
River



Boxplot
Radionuclide = Uranium-238
○ = Non-Detect; ● = Detect
Activity (pCi / g)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
10
Deep
0
10
Deep
0
10
Deep
McCullough
Mixed
River

APPENDIX F

DATASET COMPARISON STATISTICS

TABLE F-1
COMPARISON OF ALL STRATIGRAPHIC UNITS FOR METALS AND RADIONUCLIDES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 2)

Metal		Qal - McCullough		Qal - River		Qal - Mixed		TMC		Parametric Test: ANOVA			Parametric Test: Tukey HSD					
		SW Signif	Normal?	SW Signif	Normal?	SW Signif	Normal?	SW Signif	Normal?	F	*p*	Significant Difference?	McC ≠ River	River ≠ Mixed	McC ≠ Mixed	McC ≠ TMC	River ≠ TMC	Mixed ≠ TMC
Aluminum	Al	0.057	Yes	0.012	No	0.826	Yes	0.786	Yes	2.457	0.065	*No*						
Antimony	Sb	< 0.001	No	0.004	No	< 0.001	No	< 0.001	No	1.804	0.149	*No*						
Arsenic	As	< 0.001	No	0.002	No	0.942	Yes	0.021	No	22.667	< 0.001	Yes	✓		✓	✓		
Barium	Ba	< 0.001	No	< 0.001	No	0.387	Yes	0.005	No	51.184	< 0.001	Yes	✓	✓	✓	✓	✓	✓
Beryllium	Be	0.003	No	0.029	No	0.635	Yes	0.694	Yes	5.634	0.001	Yes	✓	✓			✓	
Boron *	Bo	< 0.001	No	< 0.001	No	< 0.001	No	0.006	No									
Cadmium	Cd	0.012	No	0.039	No	0.221	Yes	0.067	Yes	0.483	0.694	*No*						
Calcium	Ca	0.096	**Yes**	0.915	**Yes**	0.975	**Yes**	0.312	**Yes**	1.492	0.219	***No***						
Chromium	Cr	0.013	No	< 0.001	No	< 0.001	No	0.159	Yes	7.440	< 0.001	Yes		✓	✓	✓		
Chromium VI *	Cr VI	< 0.001	No	< 0.001	No	< 0.001	No	< 0.001	No									
Cobalt	Co	0.003	No	0.772	Yes	0.002	No	0.032	No	40.438	< 0.001	Yes	✓	✓		✓	✓	✓
Copper	Cu	0.002	No	0.162	Yes	0.940	Yes	0.066	Yes	46.510	< 0.001	Yes	✓	✓		✓	✓	✓
Iron	Fe	< 0.001	No	0.467	Yes	0.112	Yes	0.079	Yes	24.759	< 0.001	Yes	✓	✓		✓		✓
Lead	Pb	< 0.001	No	< 0.001	No	0.001	No	0.353	Yes	34.270	< 0.001	Yes	✓		✓	✓	✓	
Lithium	Li	< 0.001	No	0.311	Yes	0.098	Yes	< 0.001	No	14.900	< 0.001	Yes	✓			✓	✓	✓
Magnesium	Mg	0.487	Yes	0.001	No	0.476	Yes	0.027	No	8.638	< 0.001	Yes	✓			✓	✓	
Manganese	Mn	0.001	No	< 0.001	No	< 0.001	No	0.014	No	10.871	< 0.001	Yes	✓	✓			✓	
Mercury	Hg	< 0.001	No	< 0.001	No	0.002	No	< 0.001	No	**See Table F-5**								
Molybdenum	Mo	< 0.001	No	0.073	Yes	< 0.001	No	0.502	Yes	5.410	0.001	Yes	✓					
Nickel	Ni	< 0.001	No	0.524	Yes	0.235	Yes	0.070	Yes	5.239	0.002	Yes	✓					
Niobium	Nb							< 0.001				Yes						
Palladium	Pd							< 0.001				Yes						
Phosphorus	P							< 0.001				Yes						
Niobium *	Nb	< 0.001	No	< 0.001	No	< 0.001	No	0.001	No									
Palladium	Pd	< 0.001	No	0.178	Yes	0.206	Yes	0.078	Yes	1.789	0.151	*No*						
Phosphorus	**P**	0.123	**Yes**	0.142	**Yes**	0.557	**Yes**	0.336	**Yes**	91.540	< 0.001	**Yes**	✓		✓	✓		
Platinum *	Pt	< 0.001	No	< 0.001	No	0.001	No	0.003	No									
Potassium	K		No		No		No	< 0.001	No			**Yes**						
Potassium	K	0.023	No	< 0.001	No	0.519	Yes	0.028	No	45.159	< 0.001	Yes	✓	✓		✓	✓	✓
Selenium *	Se	< 0.001	No	< 0.001	No	< 0.001	No	< 0.001	No									
Silicon	Si	0.004	No	0.246	Yes	< 0.001	No	< 0.001	No	20.396	< 0.001	Yes		✓	✓	✓	✓	
Silver	Ag	< 0.001	No	< 0.001	No	< 0.001	No	< 0.001	No	1.040	0.377	*No*						
Sodium	Na							< 0.001				Yes						
Sodium	Na	< 0.001	No	0.036	No	0.210	Yes	0.013	No	38.341	< 0.001	Yes	✓	✓	✓	✓	✓	
Strontium	Sr	< 0.001	No	0.001	No	0.152	Yes	0.043	No	4.344	0.006	Yes				✓	✓	
Thallium *	Tl	< 0.001	No	< 0.001	No	0.024	No	< 0.001	No									
Tin **	Sn	< 0.001	No	< 0.001	No	0.001	No	0.292	Yes	7.847	0.001	Yes			✓			
Titantium	Ti	0.235	Yes	0.937	Yes	0.445	Yes	0.004	No	28.499	< 0.001	Yes	✓		✓	✓		
Tungsten	W	< 0.001	No	< 0.001	No	0.003	No	0.002	No	**See Table F-5**								
Uranium	U	< 0.001	No	0.063	Yes	0.015	No	< 0.001	No	9.419	< 0.001	Yes	✓		✓			
Vanadium	V	0.001	No	0.216	Yes	0.230	Yes	0.002	No	30.773	< 0.001	Yes	✓	✓	✓	✓		✓
Zinc	Zn	0.054	Yes	0.001	No	0.179	Yes	0.324	Yes	9.926	< 0.001	Yes	✓	✓			✓	
Zirconium	Zr	0.894	Yes	0.085	Yes	0.026	No	0.507	Yes	70.286	< 0.001	Yes	✓		✓	✓	✓	✓
Radium 226		0.238	Yes	0.928	Yes	0.101	Yes	0.012	No	57.989	< 0.001	Yes	✓		✓	✓		
Radium 228		0.066	**Yes**	0.247	**Yes**	0.084	**Yes**	0.509	**Yes**	4.286	0.007	**Yes**				✓		
Thorium 228		0.570	**Yes**	0.957	**Yes**	0.781	**Yes**	0.065	**Yes**	31.550	< 0.001	**Yes**	✓	✓	✓	✓		✓
Thorium 230		0.002	No	0.078	Yes	0.984	Yes	0.010	No	52.244	< 0.001	Yes	✓		✓	✓		
Thorium 232		0.375	**Yes**	0.502	**Yes**	0.622	**Yes**	0.081	**Yes**	13.628	< 0.001	**Yes**	✓	✓		✓		✓
Uranium 233/234		0.005	No	0.021	No	0.009	No	0.001	No	32.726	< 0.001	Yes	✓		✓	✓		
Uranium 235/236		0.361	**Yes**	0.136	**Yes**	0.296	**Yes**	0.135	**Yes**	13.804	< 0.001	**Yes**	✓		✓	✓		
Uranium 238		< 0.001	No	0.003	No	0.533	Yes	< 0.001	No	25.654	< 0.001	Yes	✓		✓	✓		

All statistical anlayses were performed using SPSS v. 15.0
All non-detected values were replaced by ½ SQL--Gehan ranking was not used to accommodate nondetects in the Kruskal-Wallis model
Bold blue italics indicates constituents for which parametric test results are valid; otherwise, non-parametric test results are valid (less valid results shaded back in gray font)

Notes:

p = probability
No = not statistically significant at the signficance level (α) of 0.05
Yes = statistically significant at the signficance level (α) of 0.05
≠ = not equal to
* = test not conducted because one or more soil strata had less than 4 detected values
** = comparison test not conducted with Qal/River dataset because it had less than 50% detections
SW Signif = statistical significance per Shapiro-Wilkes test

TABLE F-1
COMPARISON OF ALL STRATIGRAPHIC UNITS FOR METALS AND RADIONUCLIDES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 2 of 2)

		Nonparametric Test									
		Kruskal-Wallis			Box Plots						
Metal		X^2	*p*	Significant Difference?	McC ≠ River	River ≠ Mixed	McC ≠ Mixed	McC ≠ TMC	River ≠ TMC	Mixed ≠ TMC	Notes
Aluminum	Al	6.815	0.078	*No*							
Antimony	Sb	40.848	< 0.001	**Yes**	✓	✓	✓	✓	✓		River > Mixed & TMC > McCullough
Arsenic	As	62.751	< 0.001	**Yes**	✓		✓	✓			TMC & Mixed & River > McCullough
Barium	Ba	94.745	< 0.001	**Yes**	✓	✓	✓	✓	✓	✓	Mixed > River > TMC > McCullough
Beryllium	Be	29.641	< 0.001	**Yes**	✓	✓			✓		TMC & Mixed & McCullough > River
Boron *	Bo										
Cadmium	Cd	2.854	0.415	*No*							
Calcium	Ca	4.092	0.252	*No*							
Chromium	Cr	27.609	< 0.001	**Yes**		✓	✓	✓	✓		TMC & Mixed > River & McCullough
Chromium VI *	Cr VI										
Cobalt	Co	74.601	< 0.001	**Yes**	✓	✓		✓	✓	✓	Mixed & McCullough > TMC > River
Copper	Cu	76.147	< 0.001	**Yes**	✓	✓	✓	✓	✓	✓	McCullough > Mixed > TMC > River
Iron	Fe	63.063	< 0.001	**Yes**	✓	✓		✓	✓	✓	Mixed & McCullough > TMC > River
Lead	Pb	91.867	< 0.001	**Yes**	✓		✓	✓			TMC & River & Mixed > McCullough
Lithium	Li	85.896	< 0.001	**Yes**	✓	✓		✓	✓	✓	TMC > River > Mixed & McCullough
Magnesium	Mg	29.518	< 0.001	**Yes**	✓	✓		✓	✓	✓	TMC > Mixed & McCullough > River
Manganese	Mn	39.865	< 0.001	**Yes**	✓	✓			✓		TMC & Mixed & McCullough > River
Mercury	Hg	**See Table F-5**									
Molybdenum	Mo	19.168	< 0.001	**Yes**	✓	✓	✓	✓	✓		McCullough > TMC & Mixed > River
Nickel	Ni	20.740	< 0.001	**Yes**	✓						McCullough > River
Niobium	Nb			**Yes**							
Palladium	Pd			**Yes**							
Phosphorus	P			**Yes**							
Niobium *	Nb										
Palladium	Pd	4.547	0.208	*No*							
Phosphorus	**P**	105.993	< 0.001	Yes	✓		✓	✓			McCullough > Mixed & River & TMC
Platinum *	Pt										
Potassium	K			**Yes**							
Potassium	K	101.188	< 0.001	**Yes**	✓	✓	✓	✓	✓	✓	River > TMC > Mixed > McCullough
Selenium *	Se										
Silicon	Si	50.974	< 0.001	**Yes**		✓	✓	✓	✓		McCullough & River > Mixed & TMC
Silver	Ag	6.462	0.091	*No*							
Sodium	Na			**Yes**				✓	✓	✓	
Sodium	Na	85.439	< 0.001	**Yes**	✓	✓	✓	✓	✓	✓	River > McCullough > TMC > Mixed
Strontium	Sr	10.186	0.017	**Yes**				✓	✓		McCullough & River > TMC
Thallium *	Tl										
Tin **	Sn	16.915	< 0.001	**Yes**			✓				McCullough > Mixed
Titantium	Ti	68.039	< 0.001	**Yes**	✓		✓	✓			McCullough > River & Mixed & TMC
Tungsten	W	**See Table F-5**									
Uranium	U	41.359	< 0.001	**Yes**	✓		✓	✓			McCullough > River & Mixed & TMC
Vanadium	V	68.457	< 0.001	**Yes**	✓	✓	✓	✓		✓	McCullough > Mixed > River & TMC
Zinc	Zn	25.305	< 0.001	**Yes**	✓	✓			✓		River > McCullough & Mixed & TMC
Zirconium	Zr	98.205	< 0.001	**Yes**	✓		✓	✓	✓	✓	McCullough > TMC > Mixed & River
Radium 226		77.830	< 0.001	**Yes**	✓		✓	✓			McCullough > Mixed & River & TMC
Radium 228		10.096	0.018	Yes				✓			McCullough > TMC
Thorium 228		64.299	< 0.001	Yes	✓	✓	✓	✓		✓	McCullough > Mixed > River & TMC
Thorium 230		90.942	< 0.001	**Yes**	✓		✓	✓			McCullough > Mixed & River & TMC
Thorium 232		35.044	< 0.001	Yes	✓	✓		✓		✓	McCullough & Mixed > River & TMC
Uranium 233/234		68.427	< 0.001	**Yes**	✓		✓	✓			McCullough > Mixed & River & TMC
Uranium 235/236		34.818	< 0.001	Yes	✓		✓	✓			McCullough > Mixed & River & TMC
Uranium 238		65.993	< 0.001	**Yes**	✓		✓	✓			McCullough > Mixed & River & TMC

All statistical anlayses were performed using SPSS v. 15.0
All non-detected values were replaced by ½ SQL--Gehan ranking was not used to accommodate nondetects in the Kruskal-Wallis model
Bold blue italics indicates constituents for which parametric test results are valid; otherwise, non-parametric test results are valid (less valid results shaded back in gray font)

Notes:

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Yes = statistically significant at the signficance level (α) of 0.05
≠ = not equal to
* = test not conducted because one or more soil strata had less than 4 detected values
** = comparison test not conducted with Qal/River dataset because it had less than 50% detections
SW Signif = statistical significance per Shapiro-Wilkes test

TABLE F-2
COMPARISON OF Qal/McCULLOUGH DEPTH INTERVALS FOR METALS AND RADIONUCLIDES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

								Parametric Test					
		Deep (20+ ft bgs)		2005 Surface (0ft bgs)		2005 Subsurface (10ft bgs)		ANOVA			Tukey HSD		
Metal		SW Signif	Normal?	SW Signif	Normal?	SW Signif	Normal?	F	*p*	Significant Difference?	Deep ≠ Surface	Surface ≠ Subsurface	Deep ≠ Subsurface
Aluminum	Al	0.057	Yes	0.014	No	0.551	Yes	6.271	0.002	Yes	✓	✓	
Antimony	Sb	< 0.001	No	< 0.001	No	< 0.001	No	**See Table F-6**					
Arsenic	As	< 0.001	No	0.025	No	0.052	Yes	0.277	0.758	*No*			
Barium	Ba	< 0.001	No	< 0.001	No	0.011	No	1.879	0.156	*No*			
Beryllium	Be	0.003	No	0.024	No	0.095	Yes	3.365	0.037	Yes	✓		
Boron	Bo	< 0.001	No	< 0.001	No	< 0.001	No	**See Table F-6**					
Cadmium *	Cd	0.012	No	< 0.001	No	< 0.001	No						
Calcium	Ca	0.096	Yes	0.004	No	0.021	No	17.067	< 0.001	Yes		✓	✓
Chromium	Cr	0.013	No	0.453	Yes	0.593	Yes	12.938	< 0.001	Yes		✓	✓
Chromium VI *	Cr VI	< 0.001	No	< 0.001	No	< 0.001	No						
Cobalt	Co	0.003	No	0.039	No	0.280	Yes	6.625	0.002	Yes	✓		
Copper	Cu	0.002	No	0.335	Yes	0.943	Yes	8.984	< 0.001	Yes	✓		
Iron	Fe	< 0.001	No	0.709	Yes	0.459	Yes	13.877	< 0.001	Yes		✓	✓
Lead	Pb	< 0.001	No	< 0.001	No	0.415	Yes	36.470	< 0.001	Yes	✓	✓	✓
Lithium	Li	< 0.001	No	0.007	No	0.001	No	3.398	0.036	Yes	✓		
Magnesium	Mg	0.487	Yes	0.035	No	0.268	Yes	6.295	0.002	Yes	✓		✓
Manganese	Mn	0.001	No	0.234	Yes	0.596	Yes	18.116	< 0.001	Yes	✓	✓	
Mercury	Hg	< 0.001	No	< 0.001	No	< 0.001	No	**See Table F-6**					
Molybdenum	Mo	< 0.001	No	0.006	No	< 0.001	No	3.280	0.040	Yes	✓		
Nickel	Ni	< 0.001	No	0.001	No	0.639	Yes	6.015	0.003	Yes	✓	✓	
Niobium	Nb			< 0.001		< 0.001			< 0.001	Yes			
Palladium	Pd			< 0.001		< 0.001			< 0.001	Yes			
Phosphorus	P			< 0.001		< 0.001			< 0.001	Yes			
Niobium *	Nb	< 0.001	No	< 0.001	No	0.021	No						
Palladium	Pd	< 0.001	No	< 0.001	No	0.278	Yes	11.243	< 0.001	Yes	✓	✓	
Phosphorus	***P***	0.123	Yes	0.375	Yes	0.380	Yes	6.468	0.002	**Yes**	✓		
Platinum *	Pt	< 0.001	No	< 0.001	No	< 0.001	No						
Potassium	K		No	< 0.001	No	< 0.001	No		< 0.001	Yes			
Potassium	K	0.023	No	0.002	No	0.059	Yes	38.021	< 0.001	Yes	✓	✓	
Selenium *	Se	< 0.001	No	0.001	No	< 0.001	No						
Silicon	Si	0.004	No	< 0.001	No	0.004	No	22.041	< 0.001	Yes	✓	✓	
Silver *	Ag	< 0.001	No	< 0.001	No	< 0.001	No						
Sodium	Na			< 0.001		< 0.001			< 0.001	Yes			
Sodium	Na	< 0.001	No	< 0.001	No	0.981	Yes	44.928	< 0.001	Yes	✓	✓	✓
Strontium	Sr	< 0.001	No	< 0.001	No	0.133	Yes	12.236	< 0.001	Yes	✓	✓	
Thallium	Tl	< 0.001	No	< 0.001	No	< 0.001	No	**See Table F-6**					
Tin	Sn	< 0.001	No	0.612	Yes	0.914	Yes	18.520	< 0.001	Yes		✓	✓
Titantium	***Ti***	0.235	Yes	0.050	Yes	0.892	Yes	21.435	< 0.001	**Yes**	✓		✓
Tungsten *	W	< 0.001	No	< 0.001	No	< 0.001	No						
Uranium	U	< 0.001	No	< 0.001	No	< 0.001	No	31.954	< 0.001	Yes	✓		✓
Vanadium	V	0.001	No	0.273	Yes	0.953	Yes	10.379	< 0.001	Yes	✓		✓
Zinc	Zn	0.054	Yes	< 0.001	No	0.483	Yes	31.535	< 0.001	Yes	✓	✓	
Zirconium	Zr	0.894	Yes	0.033	No	0.239	Yes	801.025	< 0.001	Yes	✓		✓
Radium 226		0.238	Yes	0.623	Yes	0.600	Yes	42.050	< 0.001	**Yes**	✓	✓	✓
Radium 228		0.066	Yes	0.443	Yes	0.620	Yes	25.793	< 0.001	**Yes**	✓		✓
Thorium 228		0.570	Yes	0.498	Yes	0.212	Yes	5.731	0.004	**Yes**		✓	✓
Thorium 230		0.002	No	0.418	Yes	0.071	Yes	28.819	< 0.001	Yes	✓	✓	
Thorium 232		0.375	Yes	0.629	Yes	0.063	Yes	8.585	< 0.001	**Yes**	✓	✓	
Uranium 233/234		0.005	No	0.730	Yes	0.011	No	**Analysis not performed - fewer than 50% detections in one or more sets**					
Uranium 235/236		0.361	Yes	0.454	Yes	0.259	Yes	**Analysis not performed - fewer than 50% detections in one or more sets**					
Uranium 238		< 0.001	No	0.554	Yes	0.086	Yes	39.884	< 0.001	Yes	✓	✓	

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All non-detected values were replaced by ½ SQL--Gehan ranking was not used to accommodate nondetects in the Kruskal-Wallis model.
Bold blue italics indicates constituents for which parametric test results are valid; otherwise, non-parametric test results are valid (less valid results shaded back in gray font)

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TABLE F-2
COMPARISON OF Qal/McCULLOUGH DEPTH INTERVALS FOR METALS AND RADIONUCLIDES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 2 of 2)

		Nonparametric Test						
		Kruskal-Wallis			Box Plots			
Metal		X^2	p	Significant Difference?	Deep ≠ Surface	Surface ≠ Subsurface	Deep ≠ Subsurface	Notes
Aluminum	Al	9.607	0.008	**Yes**	✓	✓		0' > 10' & deep
Antimony	Sb	**See Table F-6**						
Arsenic	As	1.784	0.410	*No*				
Barium	Ba	11.616	0.003	**Yes**	✓			0' > deep
Beryllium	Be	4.980	0.083	*No*				
Boron	Bo	**See Table F-6**						
Cadmium *	Cd							
Calcium	Ca	19.017	< 0.001	**Yes**		✓	✓	10' > 0' & deep
Chromium	Cr	22.287	< 0.001	**Yes**		✓	✓	0' & deep > 10'
Chromium VI *	Cr VI							
Cobalt	Co	14.502	0.001	**Yes**	✓		✓	0' & 10' > deep
Copper	Cu	16.972	< 0.001	**Yes**	✓			0' > deep
Iron	Fe	15.956	< 0.001	**Yes**		✓	✓	deep & 0' > 10'
Lead	Pb	68.423	< 0.001	**Yes**	✓	✓	✓	0' > deep > 10'
Lithium	Li	17.881	< 0.001	**Yes**	✓		✓	deep > 0' & 10'
Magnesium	Mg	9.592	0.008	**Yes**	✓		✓	0' & 10' > deep
Manganese	Mn	30.830	< 0.001	**Yes**	✓	✓	✓	0' > 10' > deep
Mercury	Hg	**See Table F-6**						
Molybdenum	Mo	8.221	0.016	**Yes**	✓		✓	deep > 0' & 10'
Nickel	Ni	13.307	0.001	**Yes**	✓	✓		0' > 10' & deep
Niobium	Nb		< 0.001	**Yes**				
Palladium	Pd		< 0.001	**Yes**				
Phosphorus	P		< 0.001	**Yes**				
Niobium *	Nb							
Palladium	Pd	30.768	< 0.001	**Yes**	✓	✓		10' & deep > 0'
Phosphorus	***P***	11.919	0.003	Yes	✓			**0' > deep**
Platinum *	Pt							
Potassium	K		< 0.001	**Yes**				
Potassium	K	42.913	< 0.001	**Yes**	✓	✓		0' > 10' & deep
Selenium *	Se							
Silicon	Si	18.116	< 0.001	**Yes**	✓	✓		0' > 10' & deep
Silver *	Ag							
Sodium	Na		< 0.001	**Yes**				
Sodium	Na	71.919	< 0.001	**Yes**	✓	✓	✓	deep > 10' > 0'
Strontium	Sr	43.167	< 0.001	**Yes**	✓	✓		deep & 10' > 0'
Thallium	Tl	**See Table F-6**						
Tin	Sn	26.979	< 0.001	**Yes**		✓	✓	0' & deep > 10'
Titantium	***Ti***	33.876	< 0.001	Yes	✓	✓	✓	**deep > 0' & 10'**
Tungsten *	W							
Uranium	U	65.754	< 0.001	**Yes**	✓	✓	✓	deep > 10' > 0'
Vanadium	V	17.361	< 0.001	**Yes**	✓		✓	deep > 0' & 10'
Zinc	Zn	48.394	< 0.001	**Yes**	✓	✓		0' > 10' & deep
Zirconium	Zr	105.463	< 0.001	**Yes**	✓		✓	0' & 10' > deep
Radium 226		55.863	< 0.001	Yes	✓	✓	✓	**deep > 10' > 0'**
Radium 228		37.751	< 0.001	Yes	✓		✓	**0' & 10' > deep**
Thorium 228		10.472	0.005	Yes		✓	✓	**0' & deep > 10'**
Thorium 230		52.154	< 0.001	**Yes**	✓	✓	✓	deep > 10' > 0'
Thorium 232		14.376	0.001	Yes	✓	✓		**0' > 10' & deep**
Uranium 233/234		**Analysis not performed - fewer than 50% detections in one or more sets**						
Uranium 235/236		**Analysis not performed - fewer than 50% detections in one or more sets**						
Uranium 238		67.309	< 0.001	**Yes**	✓	✓		10' & deep > 0'

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TABLE F-3
COMPARISON OF Qal/RIVER DEPTH INTERVALS FOR METALS AND RADIONUCLIDES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 2)

Metal		Deep (20+ ft bgs) SW Signif	Deep (20+ ft bgs) Normal?	2008 Surface (0ft bgs) SW Signif	2008 Surface (0ft bgs) Normal?	2008 Subsurface (10ft bgs) SW Signif	2008 Subsurface (10ft bgs) Normal?	Parametric Test: ANOVA F	ANOVA *p*	ANOVA Significant Difference?	Tukey HSD Deep ≠ Surface	Tukey HSD Surface ≠ Subsurface	Tukey HSD Deep ≠ Subsurface
Aluminum	Al	0.012	No	0.713	Yes	0.076	Yes	4.967	0.010	Yes	✓		
Antimony	Sb	0.004	No	0.062	Yes	0.090	Yes	See Table F-7					
Arsenic	As	0.002	No	0.827	Yes	< 0.001	No	3.976	0.024	Yes		✓	✓
Barium	Ba	< 0.001	No	0.122	Yes	0.024	No	0.187	0.830	*No*			
Beryllium	Be	0.029	No	0.017	No	0.058	Yes	1.810	0.173	*No*			
Boron	Bo	< 0.001	No	< 0.001	No	< 0.001	No	See Table F-7					
Cadmium	Cd	0.039	No	0.027	No	0.301	Yes	1.166	0.319	*No*			
Calcium	Ca	0.915	Yes	0.008	No	0.499	Yes	4.132	0.021	Yes			
Chromium	Cr	< 0.001	No	0.792	Yes	0.394	Yes	0.360	0.699	*No*			
Chromium VI *	Cr VI	< 0.001	No	0.002	No	0.013	No						
Cobalt	***Co***	0.772	Yes	0.060	Yes	0.346	Yes	6.347	0.003	**Yes**	✓	✓	
Copper	Cu	0.162	Yes	0.006	No	0.221	Yes	7.996	0.001	Yes	✓	✓	
Iron	***Fe***	0.467	Yes	0.076	Yes	0.509	Yes	1.427	0.249	*No*			
Lead	Pb	< 0.001	No	0.002	No	0.049	No	2.830	0.068	*No*			
Lithium *	Li	0.311	Yes	0.002	No	0.058	Yes						
Magnesium	Mg	0.001	No	0.845	Yes	0.510	Yes	1.752	0.183	*No*			
Manganese	Mn	< 0.001	No	< 0.001	No	< 0.001	No	6.463	0.003	Yes	✓		
Mercury *	Hg	< 0.001	No	0.404	Yes	< 0.001	No						
Molybdenum	Mo	0.073	Yes	0.002	No	0.138	Yes	8.547	0.001	Yes	✓		✓
Nickel	***Ni***	0.524	Yes	0.339	Yes	0.133	Yes	1.105	0.339	*No*			
Niobium	Nb			< 0.001		< 0.001			< 0.001	**Yes**			
Palladium	Pd			< 0.001		< 0.001			< 0.001	**Yes**			
Phosphorus	P			< 0.001		< 0.001			< 0.001	**Yes**			
Niobium *	Nb	< 0.001	No	< 0.001	No	< 0.001	No						
Palladium	***Pd***	0.178	Yes	0.540	Yes	0.402	Yes	4.462	0.016	**Yes**			✓
Phosphorus	***P***	0.142	Yes	0.057	Yes	0.372	Yes	0.229	0.796	*No*			
Platinum *	Pt	< 0.001	No	< 0.001	No	< 0.001	No						
Potassium	K		No	< 0.001	No	< 0.001	No		< 0.001	Yes			
Potassium	K	< 0.001	No	0.776	Yes	0.733	Yes	4.686	0.013	Yes		✓	✓
Selenium *	Se	< 0.001	No	< 0.001	No	< 0.001	No						
Silicon	Si	0.246	Yes	0.001	No	0.755	Yes	11.891	< 0.001	Yes	✓	✓	
Silver	Ag	< 0.001	No	0.004	No	0.110	Yes	See Table F-7					
Sodium	Na			< 0.001		< 0.001			< 0.001	Yes			
Sodium	Na	0.036	No	0.001	No	0.453	Yes	4.304	0.018	Yes		✓	✓
Strontium	Sr	0.001	No	0.484	Yes	0.446	Yes	6.357	0.003	Yes			✓
Thallium *	Tl	< 0.001	No	< 0.001	No	< 0.001	No						
Tin	Sn	< 0.001	No	0.037	No	0.015	No	See Table F-7					
Titantium	***Ti***	0.937	Yes	0.424	Yes	0.083	Yes	7.112	0.002	**Yes**	✓		✓
Tungsten *	W	< 0.001	No	< 0.001	No	< 0.001	No						
Uranium	U	0.063	Yes	0.047	No	0.030	No	6.022	0.004	Yes		✓	✓
Vanadium	***V***	0.216	Yes	0.753	Yes	0.246	Yes	0.733	0.485	*No*			
Zinc	Zn	0.001	No	0.212	Yes	0.175	Yes	0.223	0.801	*No*			
Zirconium	Zr	0.085	Yes	0.001	No	0.063	Yes	See Table F-7					
Radium 226		0.928	Yes	0.255	Yes	0.978	Yes	6.061	0.005	**Yes**		✓	✓
Radium 228		0.247	Yes	0.733	Yes	0.066	Yes	0.796	0.457	*No*			
Thorium 228		0.957	Yes	0.100	Yes	0.034	No	8.296	0.001	*Yes*	✓		✓
Thorium 230		0.078	Yes	0.081	Yes	0.044	No	22.144	< 0.001	Yes		✓	✓
Thorium 232		0.502	Yes	0.087	Yes	0.012	No	5.878	0.005	*Yes*	✓		✓
Uranium 233/234		0.021	No	< 0.001	No	0.026	No	14.561	< 0.001	Yes		✓	✓
Uranium 235/236 *		0.136	Yes	0.117	Yes	0.009	No						
Uranium 238		0.003	No	0.266	Yes	0.133	Yes	9.359	< 0.001	Yes		✓	✓

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TABLE F-3
COMPARISON OF Qal/RIVER DEPTH INTERVALS FOR METALS AND RADIONUCLIDES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 2 of 2)

		Nonparametric Test						
		Kruskal-Wallis			Box Plots			
Metal		X^2	*p*	Significant Difference?	Deep ≠ Surface	Surface ≠ Subsurface	Deep ≠ Subsurface	Notes
Aluminum	Al	6.473	0.039	**Yes**	✓			0' > deep
Antimony	Sb	**See Table F-7**						
Arsenic	As	5.510	0.064	*No*				
Barium	Ba	2.033	0.362	*No*				
Beryllium	Be	3.632	0.163	*No*				
Boron	Bo	**See Table F-7**						
Cadmium	Cd	0.520	0.771	*No*				
Calcium	Ca	7.585	0.023	**Yes**			✓	10' > deep
Chromium	Cr	0.037	0.982	*No*				
Chromium VI *	Cr VI							
Cobalt	***Co***	4.439	0.109	*No*				0' > 10' & deep
Copper	Cu	6.066	0.048	**Yes**	✓			0' > deep
Iron	***Fe***	1.012	0.603	*No*				
Lead	Pb	2.693	0.260	*No*				
Lithium *	Li							
Magnesium	Mg	3.734	0.155	*No*				
Manganese	Mn	19.709	< 0.001	**Yes**	✓	✓	✓	0' > 10' > deep
Mercury *	Hg							
Molybdenum	Mo	12.378	0.002	**Yes**	✓		✓	0' & 10' > deep
Nickel	***Ni***	1.228	0.541	*No*				
Niobium	Nb		< 0.001	**Yes**				
Palladium	Pd		< 0.001	**Yes**				
Phosphorus	P		< 0.001	**Yes**				
Niobium *	Nb							
Palladium	***Pd***	4.099	0.129	*No*				10' > deep
Phosphorus	***P***	0.561	0.755	*No*				
Platinum *	Pt							
Potassium	K		< 0.001	**Yes**				
Potassium	K	13.711	0.001	**Yes**	✓	✓	✓	0' > deep > 10'
Selenium *	Se							
Silicon	Si	21.935	< 0.001	**Yes**	✓	✓	✓	0' > 10' > deep
Silver	Ag	**See Table F-7**						
Sodium	Na		< 0.001	**Yes**				
Sodium	Na	10.668	0.005	**Yes**	✓	✓	✓	10' > deep > 0'
Strontium	Sr	6.970	0.031	**Yes**			✓	10' > deep
Thallium *	Tl							
Tin	Sn	**See Table F-7**						
Titantium	***Ti***	9.990	0.007	Yes	✓		✓	deep > 0' & 10'
Tungsten *	W							
Uranium	U	7.745	0.021	**Yes**		✓		10' > 0'
Vanadium	***V***	0.409	0.815	*No*				
Zinc	Zn	0.049	0.976	*No*				
Zirconium	Zr	**See Table F-7**						
Radium 226		7.678	0.022	Yes		✓	✓	10' > 0' & deep
Radium 228		0.281	0.869	*No*				
Thorium 228		7.688	0.021	**Yes**	✓		✓	0' & 10' > deep
Thorium 230		22.562	< 0.001	**Yes**	✓	✓	✓	10' > 0' > deep
Thorium 232		8.569	0.014	**Yes**	✓		✓	0' & 10' > deep
Uranium 233/234		16.835	< 0.001	**Yes**	✓	✓	✓	10' > deep > 0'
Uranium 235/236 *								
Uranium 238		12.958	0.002	**Yes**	✓	✓	✓	10' > deep > 0'

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TABLE F-4
COMPARISON OF Qal/MIXED DEPTH INTERVALS FOR METALS AND RADIONUCLIDES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 2)

								Parametric Test					
		Deep (20+ ft bgs)		2005 Surface (0ft bgs)		2005 Subsurface (10ft bgs)		ANOVA			Tukey HSD		
Metal		SW Signif	Normal?	SW Signif	Normal?	SW Signif	Normal?	F	*p*	Significant Difference?	Deep ≠ Surface	Surface ≠ Subsurface	Deep ≠ Subsurface
Aluminum *	Al	0.826	Yes	0.047	No	0.241	Yes						
Antimony *	Sb	< 0.001	No	0.216	Yes	0.618	Yes						
Arsenic *	***As***	0.942	Yes	0.871	Yes	0.780	Yes						
Barium *	***Ba***	0.387	Yes	0.863	Yes	0.937	Yes						
Beryllium *	Be	0.635	Yes	0.366	Yes	< 0.001	No						
Boron *	Bo	< 0.001	No										
Cadmium *	Cd	0.221	Yes	0.001	No								
Calcium *	***Ca***	0.975	Yes	0.151	Yes	0.754	Yes						
Chromium *	Cr	< 0.001	No	0.803	Yes	0.935	Yes						
Chromium VI *	Cr VI	< 0.001	No			0.013	No						
Cobalt *	Co	0.002	No	0.139	Yes	0.047	No						
Copper *	***Cu***	0.940	Yes	0.798	Yes	0.867	Yes						
Iron *	***Fe***	0.112	Yes	0.140	Yes	0.505	Yes						
Lead *	Pb	0.001	No	0.188	Yes	0.398	Yes						
Lithium *	***Li***	0.098	Yes	0.446	Yes	0.780	Yes						
Magnesium *	***Mg***	0.476	Yes	0.668	Yes	0.261	Yes						
Manganese *	Mn	< 0.001	No	0.022	No	0.234	Yes						
Mercury *	Hg	0.002	No	0.127	Yes	0.637	Yes						
Molybdenum *	Mo	< 0.001	No	0.788	Yes	0.041	No						
Nickel *	***Ni***	0.235	Yes	0.928	Yes	0.734	Yes						
Niobium	Nb			< 0.001		< 0.001							
Palladium	Pd			< 0.001		< 0.001							
Phosphorus	P			< 0.001		< 0.001							
Niobium *	Nb	< 0.001	No	< 0.001	No	< 0.001	No						
Palladium *	***Pd***	0.206	Yes	0.637	Yes	0.843	Yes						
Phosphorus *	***P***	0.557	Yes	0.675	Yes	0.087	Yes						
Platinum *	Pt	0.001	No										
Potassium	K		No	< 0.001	No	< 0.001	No						
Potassium *	K	0.519	Yes	< 0.001	No	< 0.001	No						
Selenium *	Se	< 0.001	No	0.115	Yes	0.122	Yes						
Silicon *	Si	< 0.001	No	0.450	Yes	< 0.001	No						
Silver *	Ag	< 0.001	No	0.001	No								
Sodium	Na			< 0.001		< 0.001							
Sodium *	***Na***	0.210	Yes	0.657	Yes	0.792	Yes						
Strontium *	***Sr***	0.152	Yes	0.864	Yes	0.649	Yes						
Thallium *	Tl	0.024	No	0.890	Yes								
Tin *	Sn	0.001	No	0.298	Yes	0.244	Yes						
Titantium *	***Ti***	0.445	Yes	0.823	Yes	0.407	Yes						
Tungsten *	W	0.003	No										
Uranium *	U	0.015	No	0.780	Yes	0.274	Yes						
Vanadium *	***V***	0.230	Yes	0.478	Yes	0.726	Yes						
Zinc *	***Zn***	0.179	Yes	0.724	Yes	0.656	Yes						
Zirconium *	Zr	0.026	No	0.853	Yes	0.059	Yes						
Radium 226 *		0.101	Yes	0.272	Yes	0.811	Yes						
Radium 228 *		0.084	Yes										
Thorium 228 *		0.781	Yes	0.908	Yes	0.600	Yes						
Thorium 230 *		0.984	Yes	0.348	Yes	0.463	Yes						
Thorium 232 *		0.622	Yes	0.220	Yes	0.220	Yes						
Uranium 233/234 *		0.009	No	0.199	Yes	0.614	Yes						
Uranium 235/236 *		0.296	Yes	0.324	Yes	< 0.001	No						
Uranium 238 *		0.533	Yes	0.106	Yes	0.398	Yes						

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2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 2 of 2)

		Nonparametric Test						
		Kruskal-Wallis			Box Plots			
Metal		X^2	*p*	Significant Difference?	Deep ≠ Surface	Surface ≠ Subsurface	Deep ≠ Subsurface	Notes
Aluminum *	Al							
Antimony *	Sb							
Arsenic*	***As***							
Barium*	***Ba***							
Beryllium *	Be							
Boron *	Bo							
Cadmium *	Cd							
Calcium*	***Ca***							
Chromium *	Cr							
Chromium VI *	Cr VI							
Cobalt *	Co							
Copper*	***Cu***							
Iron*	***Fe***							
Lead *	Pb							
Lithium*	***Li***							
Magnesium*	***Mg***							
Manganese *	Mn							
Mercury *	Hg							
Molybdenum *	Mo							
Nickel*	***Ni***							
Niobium	Nb							
Palladium	Pd							
Phosphorus	P							
Niobium *	Nb							
Palladium*	***Pd***							
Phosphorus*	***P***							
Platinum *	Pt							
Potassium	K							
Potassium *	K							
Selenium *	Se							
Silicon *	Si							
Silver *	Ag							
Sodium	Na							
Sodium*	***Na***							
Strontium*	***Sr***							
Thallium *	Tl							
Tin *	Sn							
Titantium*	***Ti***							
Tungsten *	W							
Uranium *	U							
Vanadium*	***V***							
Zinc*	***Zn***							
Zirconium *	Zr							
Radium 226*								
Radium 228 *								
Thorium 228*								
Thorium 230*								
Thorium 232*								
Uranium 233/234 *								
Uranium 235/236 *								
Uranium 238*								

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TABLE F-5
TEST OF PROPORTIONS - DETECTED CONCENTRATIONS - ALL STRATIGRAPHIC UNITS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

		McCullough			River			Mixed			TMC			Test of Proportions											
														McC vs. River		McC vs. Mixed		McC vs. TMC		River vs. Mixed		River vs. TMC		Mixed vs. TMC	
Metal		N	#Detect	%Detect	N	#Detect	%Detect	N	#Detect	%Detect	N	#Detect	%Detect	Z stat	Different?	Z stat	Different?	Z stat	Different?	Z stat	Different?	Z stat	Different?	Z stat	Different?
Boron	Bo	79	20	25%	36	8	22%	24	3	13%	24	7	29%	0.13	*NS*	1.0	*NS*	0.1	*NS*	0.61	*NS*	0.31	*NS*	1.1	*NS*
Chromium VI	Cr (VI)	80	18	23%	41	16	39%	14	2	14%	23	2	9%	1.7	*NS*	0.34	*NS*	1.2	*NS*	1.4	*NS*	2.3	Yes	-0.02	*NS*
Mercury	Hg	79	44	56%	28	5	18%	24	10	42%	20	5	25%	3.2	Yes	0.97	*NS*	2.2	Yes	1.6	Yes	0.24	*NS*	0.84	*NS*
Niobium	Nb	79	6	8%	36	3	8%	24	3	13%	24	1	4%	-0.24	*NS*	0.33	*NS*	0.12	*NS*	0.088	*NS*	0.11	*NS*	0.52	*NS*
Thallium	Tl	79	4	5%	36	0	0%	24	0	0%	24	0	0%	--		--		--		--		--		--	
Tungsten	W	79	25	32%	36	9	25%	24	15	63%	24	5	21%	0.50	*NS*	2.5	Yes	0.77	*NS*	2.6	Yes	0.06	*NS*	2.6	Yes

Notes:
N = sample size
NS = not significantly different at significance level of 0.05 (2-tailed test)
Yes = significantly different at significance level of 0.05 (2-tailed test)

Test of Proportion from http://www.dimensionresearch.com/resources/calculators/ztest.html

TABLE F-6
COMPARISON OF TEST OF PROPORTIONS - DETECTED CONCENTRATIONS - Qal/McCULLOUGH DEPTH INTERVALS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

		2008 Deep			2005 Suppl. 0 ft bgs			2005 10 ft bgs			Test of Proportions					
											Deep vs. Surf		Deep vs 10		Surv vs. 10	
Metal		N	#Detect	%Detect	N	#Detect	%Detect	N	#Detect	%Detect	Z stat	Different?	Z stat	Different?	Z stat	Different?
Antimony	Sb	79	73	92%	37	23	62%	30	10	33%	3.8	Yes	6.2	Yes	2.1	Yes
Boron	Bo	79	20	25%	34	16	47%	30	8	27%	2.1	Yes	-0.10	*NS*	1.4	*NS*
Cadmium	Cd	79	73	92%	37	3	8%	30	0	0%	8.7	Yes	8.93	Yes	1.0	*NS*
Chromium VI	Cr (VI)	80	18	23%	34	0	0%	30	0	0%	2.7	Yes	2.55	Yes	--	
Mercury	Hg	79	35	44%	37	33	89%	30	22	73%	4.4	Yes	2.50	Yes	1.4	*NS*
Platinum	Pt	79	7	9%	34	1	3%	30	2	7%	0.7	*NS*	-0.019	*NS*	0.112	*NS*
Silver	Ag	79	79	100%	37	3	8%	30	0	0%	9.9	Yes	10	Yes	1.0	NS
Thallium	Tl	79	4	5%	37	13	35%	30	7	23%	4.0	Yes	2.5	Yes	0.782	*NS*
Tungsten	W	79	25	32%	34	0	0%	30	0	0%	3.5	Yes	3.3	Yes	--	

Notes:

N = sample size

NS = not significantly different at significance level of 0.05 (2-tailed test)

Yes = significantly different at significance level of 0.05 (2-tailed test)

Test of Proportion from http://www.dimensionresearch.com/resources/calculators/ztest.html

TABLE F-7
COMPARISON OF TEST OF PROPORTIONS - DETECTED CONCENTRATIONS - Qal/RIVER DEPTH INTERVALS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

		2008 Deep			2008 Suppl. 0 ft bgs			2008 Suppl. 10 ft bgs			Test of Proportions					
											Deep vs. Surf		Deep vs 10		Surv vs. 10	
Metal		N	#Detect	%Detect	N	#Detect	%Detect	N	#Detect	%Detect	Z stat	Different?	Z stat	Different?	Z stat	Different?
Antimony	Sb	36	36	100%	12	5	42%	10	4	40%	4.5	Yes	4.5	Yes	-0.36	*NS*
Boron	Bo	36	8	22%	12	4	33%	10	6	60%	0.39	*NS*	1.9	*NS*	0.82	*NS*
Chromium VI	Cr (VI)	41	16	39%	12	0	0%	10	0	0%	2.2	Yes	2.0	Yes	--	
Lithium	Li	36	36	100%	12	0	0%	10	4	40%	6.5	Yes	4.5	Yes	1.9	*NS*
Mercury	Hg	28	5	18%	12	0	0%	10	0	0%	1.0	*NS*	0.89	*NS*	--	
Niobium	Nb	36	3	8%	12	1	8%	10	0	0%	-0.60	*NS*	0.22	*NS*	-0.094	*NS*
Platinum	Pt	36	0	0%	12	0	0%	10	0	0%	--		--		--	
Selenium	Se	36	0	0%	12	0	0%	10	0	0%	--		--		--	
Silver	Ag	36	36	100%	12	6	50%	10	4	40%	4.0	Yes	4.5	Yes	0.039	NS
Thallium	Tl	36	0	0%	12	5	42%	10	0	0%	3.5	Yes	--		1.8	*NS*
Tin	Sn	36	16	44%	12	7	58%	10	5	50%	0.5	*NS*	-0.047	*NS*	-0.04	*NS*
Tungsten	W	36	9	25%	12	1	8%	10	1	10%	0.82	*NS*	0.58	*NS*	-0.61	*NS*
Zirconium	Zr	36	29	81%	12	5	42%	10	4	40%	2.2	Yes	2.1	Yes	-0.36	*NS*

Notes:

N = sample size

NS = not significantly different at significance level of 0.05 (2-tailed test)

Yes = significantly different at significance level of 0.05 (2-tailed test)

Test of Proportion from http://www.dimensionresearch.com/resources/calculators/ztest.html

APPENDIX G

INTER-ELEMENT CORRELATION STATISTICAL EVALUATIONS AND SCATTERPLOTS

TABLE G-1
2008 DEEP Qal/McCULLOUGH - CORRELATION FOR METALS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

Metal		N	No. of Detects	Shapiro Wilks SW Stat	Shapiro Wilks SW Signif	Shapiro Wilks Normal?	Param Test?	Inter-Element Correlation Al	Sb	As	Ba	Be	Bo	Cd	Ca	Cr (Tot)	Cr (VI)	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	Nb	Pd	P	Pt	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	W	U	V	Zn	Zr
Aluminum	Al	79	79	0.97	0.06	Yes	Yes		-0.02	**.279(**)**	**.419(**)**	**.322(**)**	**.193(*)**	**.285(**)**	.254(**)	0.136	-0.021	**.410(**)**	-0.079	**.434(**)**	**.379(**)**	-0.104	.464(**)	**.309(**)**	0.142	-0.013	0.053	**.327(**)**	**.629(**)**	0.115	0.17	**.185(*)**		**-.258(**)**	**.312(**)**	**.558(**)**	**.636(**)**		0.052	0.065	-0.024	**.374(**)**	**.191(*)**	.298(**)	0.106
Antimony	Sb	79	73	0.50	<0.001	No	No	-0.098		**.206(*)**	-0.004	**.168(*)**	0.093	0.009	**-.235(**)**	0.01	0.14	0	-0.003	-0.034	0.091	-0.149	-0.062	0.002	-0.018	0.037	-0.024	0.029	0.061	-0.088	-0.101	**.207(*)**		0.091	0.08	0.048	-0.012		**.211(*)**	0.023	0.135	0.123	0.017	-0.07	0.065
Arsenic	As	79	79	0.83	<0.001	No	No	.392(**)	-0.115		0.103	**.307(**)**	**.173(*)**	**.200(*)**	0.001	-0.015	0.069	0.121	**-.245(**)**	**.159(*)**	**.240(**)**	0.111	**.261(**)**	**.153(*)**	**.158(*)**	0.097	**-.160(*)**	**.269(**)**	**.351(**)**	-0.014	0.067	**.364(**)**		**-.191(*)**	**.221(**)**	**.180(*)**	**.219(**)**		0.121	**-.153(*)**	0.116	**.556(**)**	0.057	0.075	0.017
Barium	Ba	79	79	0.65	<0.001	No	No	.419(**)	-0.079	0.205		**.176(*)**	-0.083	**.220(**)**	0.055	0.088	-0.09	**.314(**)**	0.132	**.299(**)**	**.390(**)**	**-.160(*)**	**.160(*)**	**.398(**)**	0.115	0.02	0.133	0.13	**.407(**)**	0.057	0.004	**.226(**)**		**-.186(*)**	**.235(**)**	**.328(**)**	**.457(**)**		0.086	**.248(**)**	-0.113	**.340(**)**	**.164(*)**	**.247(**)**	**.323(**)**
Beryllium	Be	79	79	0.95	0.003	No	No	.495(**)	-0.075	.415(**)	.224(*)		0.144	**.237(**)**	-0.038	0.014	**-.219(*)**	0.133	0.082	0.05	**.249(**)**	0.1	**.183(*)**	**.232(**)**	0.059	0.097	0.057	0.048	**.161(*)**	0.129	0.009	**.327(**)**		0.071	0.002	**.172(*)**	**.213(**)**		**.219(**)**	0.083	**-.180(*)**	0.124	-0.066	**.286(**)**	**.295(**)**
Boron	Bo	79	13	0.69	<0.001	No	No	0.053	0.083	0.004	-0.064	.268(*)		0.04	0.13	0.022	0.088	-0.02	-0.003	-0.027	-0.033	-0.019	**.261(**)**	-0.048	**.171(*)**	-0.016	-0.084	**.384(**)**	-0.004	0.091	**.376(**)**	0.072		**.252(**)**	-0.092	0.143	0.075		0.104	0.042	**.256(**)**	0.121	-0.035	0.127	-0.114
Cadmium	Cd	79	73	0.96	0.008	No	No	.387(**)	-0.215	.424(**)	.222(*)	.340(**)	0.03		**.242(**)**	0.088	-0.074	**.168(*)**	0.045	**.210(**)**	**.285(**)**	-0.102	**.171(*)**	**.328(**)**	0.133	**.229(**)**	**.178(*)**	0.083	0.152	0.146	-0.087	**.386(**)**		**-.160(*)**	0.04	0.06	0.11		0.136	0.147	-0.026	**.162(*)**	0.082	**.229(**)**	**.342(**)**
Calcium	Ca	79	79	0.97	0.104	Yes	Yes	**.343(**)**	-0.209	0.04	0.077	0.023	0.1	.372(**)		0.117	0.047	-0.076	**-.163(*)**	-0.052	-0.04	0.101	.356(**)	-0.065	0.061	0.079	-0.001	0.147	0.148	0.001	**.173(*)**	-0.014		0.033	0.121	**.241(**)**	**.244(**)**		-0.109	-0.042	0.14	0.065	**-.153(*)**	-0.023	-0.057
Chromium	Cr (Tot)	79	79	0.96	0.019	No	No	0.122	-0.201	0.002	0.075	0.047	-0.019	0.072	0.162		0.003	**.253(**)**	0.131	**.285(**)**	**.176(*)**	-0.068	0.081	0.149	-0.083	**.305(**)**	**.259(**)**	0.144	0.137	0.008	0.008	0.034		-0.046	**.267(**)**	0.11	0.124		**.233(**)**	**.327(**)**	0.083	**.160(*)**	**.360(**)**	0.115	**.158(*)**
Chromium VI	Cr (VI)	80	15	0.54	<0.001	No	No	-0.098	0.057	-0.06	-0.124	-0.115	0.123	-0.058	0.068	-0.112		-0.019	**-.179(*)**	0.036	0.031	**-.220(*)**	-0.009	-0.093	0.102	-0.162	-0.123	0.134	0.125	**-.224(*)**	-0.032	0.059		-0.057	0.157	-0.026	0.026		-0.034	-0.102	**.205(*)**	0.087	0.09	**-.249(**)**	**-.204(*)**
Cobalt	Co	79	79	0.95	0.003	No	No	.500(**)	-0.088	.246(*)	.357(**)	0.2	-0.114	.293(**)	-0.064	.356(**)	-0.145		**.178(*)**	**.638(**)**	**.531(**)**	**-.302(**)**	**.190(*)**	**.554(**)**	0.013	0.003	**.362(**)**	**.243(**)**	**.337(**)**	**.230(**)**	-0.046	0.066		**-.309(**)**	**.249(**)**	**.272(**)**	**.272(**)**		0.094	**.257(**)**	-0.054	**.260(**)**	**.497(**)**	**.442(**)**	0.098
Copper	Cu	79	79	0.95	0.003	No	No	-0.089	0.007	-0.194	.262(*)	.277(*)	.222(*)	0.072	-0.113	0.182	-0.157	.228(*)		0.026	0.069	-0.079	-0.125	**.188(*)**	-0.117	0.152	**.442(**)**	-0.155	**-.203(**)**	**.202(**)**	-0.118	0.07		**.201(**)**	-0.119	-0.061	-0.094		**.202(*)**	**.305(**)**	-0.039	**-.220(**)**	0.026	**.270(**)**	**.257(**)**
Iron	Fe	79	79	0.92	<0.001	No	No	.509(**)	-0.186	.225(*)	.284(*)	-0.009	-0.144	.296(**)	-0.06	.354(**)	-0.102	.755(**)	-0.076		**.455(**)**	**-.322(**)**	0.129	**.414(**)**	0.056	0.001	**.167(*)**	**.203(*)**	**.430(**)**	0.064	-0.05	0.031		**-.402(**)**	**.315(**)**	**.274(**)**	**.316(**)**		0.1	**.264(**)**	-0.083	**.300(**)**	**.662(**)**	**.267(**)**	0.115
Lead	Pb	79	79	0.86	<0.001	No	No	.447(**)	-0.164	.410(**)	.319(**)	.327(**)	-0.203	.405(**)	-0.003	0.114	-0.205	.633(**)	0.087	.455(**)		**-.206(**)**	0.142	**.604(**)**	0.016	0.116	**.237(**)**	**.222(**)**	**.400(**)**	0.102	-0.096	**.227(**)**		**-.327(**)**	**.321(**)**	**.187(*)**	**.291(**)**		**.188(*)**	**.202(**)**	-0.083	**.355(**)**	**.362(**)**	**.338(**)**	**.252(**)**
Lithium	Li	79	67	0.39	<0.001	No	No	-0.113	-0.081	-0.016	-0.101	-0.035	-0.217	-0.073	0.061	0	-0.024	-0.167	-0.047	-0.112	-0.101		**.157(*)**	**-.186(*)**	0.038	0.112	**-.164(*)**	-0.054	-0.085	-0.101	0.131	0.04		0.132	-0.099	-0.085	0.012		-0.018	-0.124	0.025	0.044	**-.293(**)**	-0.132	0.031
Magnesium	Mg	79	79	0.99	0.53	Yes	Yes	**.597(**)**	-0.202	.388(**)	.308(**)	.382(**)	0.18	.308(**)	**.488(**)**	0.127	-0.029	.228(*)	0.01	0.057	.244(*)	0.01		0.113	**.199(*)**	0.059	-0.007	**.364(**)**	**.314(**)**	0.005	**.241(**)**	0.125		-0.082	**.167(*)**	**.309(**)**	**.389(**)**		0.055	-0.053	**.173(*)**	**.256(**)**	-0.008	0.144	-0.017
Manganese	Mn	79	79	0.93	<0.001	No	No	.365(**)	-0.126	.353(**)	.386(**)	.239(*)	-0.103	.557(**)	-0.041	0.131	-0.183	.715(**)	0.201	.548(**)	.717(**)	-0.19	0.167		-0.043	**.160(*)**	**.311(**)**	0.091	**.244(**)**	**.217(**)**	-0.132	**.202(**)**		**-.224(**)**	**.164(*)**	0.133	**.186(*)**		0.106	**.289(**)**	-0.137	**.197(*)**	**.334(**)**	**.428(**)**	**.278(**)**
Mercury	Hg	79	35	0.82	<0.001	No	No	0.055	0.013	0.141	0.069	-0.084	-0.083	0.109	0.034	-0.125	0.162	0.004	-0.126	0.062	-0.01	-0.009	0.122	-0.07		**-.163(*)**	-0.012	**.190(*)**	0.065	-0.001	0.075	0.081		-0.074	-0.059	0.029	0.082		-0.07	-0.051	**.201(*)**	**.195(*)**	0.018	0.022	-0.029
Molybdenum	Mo	79	62	0.80	<0.001	No	No	-0.055	-0.135	0.151	0.06	0.089	0.018	0.161	0.143	.488(**)	-0.174	-0.036	0.142	-0.049	0.188	0.026	0.147	0.129	-.300(**)		0.12	0.024	-0.017	0.036	-0.103	**.228(**)**		0.014	**.165(*)**	0.015	-0.044		**.356(**)**	**.195(*)**	0.012	0.051	-0.025	0.082	**.292(**)**
Nickel	Ni	79	79	0.83	<0.001	No	No	0.032	0.054	-0.142	.387(**)	0.118	0.102	0.175	0.134	0.188	-0.095	.271(*)	.570(**)	-0.043	0.139	-0.052	0.175	0.151	0.139	-0.029		-0.085	-0.102	**.286(**)**	**-.233(**)**	0.118		0.048	-0.135	-0.018	-0.054		0.036	**.246(**)**	0.026	-0.076	0.146	**.340(**)**	**.190(*)**
Niobium	Nb	79	6	0.54	<0.001	No	No	0.192	-0.008	0.056	.223(*)	0.216	0.076	0.147	0.159	.286(*)	0.174	.326(**)	.258(*)	0.02	0.204	-0.038	.243(*)	0.181	-0.135	0.187	0.221		**.244(**)**	0.007	**.390(**)**	0.043		-0.112	**.280(**)**	**.224(**)**	**.201(*)**		0.155	0.028	**.395(**)**	**.204(*)**	0.126	0.083	-0.072
Palladium	Pd	79	79	0.90	<0.001	No	No	.807(**)	-0.146	.356(**)	.372(**)	.280(*)	-.255(*)	0.215	.224(*)	0.071	-0.068	.374(**)	-.227(*)	.456(**)	.431(**)	-0.013	.355(**)	.267(*)	0.038	-0.025	-0.195	0.054		-0.069	0.028	0.144		**-.373(**)**	**.485(**)**	**.502(**)**	**.728(**)**		0.09	-0.022	0.001	**.523(**)**	**.249(**)**	0.055	0.043
Phosphorus	P	79	79	0.97	0.11	Yes	Yes	0.197	0.163	0.14	0.154	.318(**)	0.22	.310(**)	0.026	-0.083	-0.166	.334(**)	.353(**)	0.018	0.169	-0.184	0.109	.284(*)	0.07	-0.086	.433(**)	0.183	-0.018		0.104	-0.02		0.073	**-.207(**)**	0.048	-0.033		**-.189(*)**	0.128	-0.029	-0.086	0.006	.433(**)	-0.078
Platinum	Pt	79	7	0.45	<0.001	No	No	-0.064	0.039	-.222(*)	-0.186	-0.034	0.122	-0.147	0.054	0.029	0.006	-0.119	0.063	-0.195	-.277(*)	-0.04	-0.007	-.237(*)	-0.076	-0.129	0.012	0.008	-0.133	0.133		**-.176(*)**		0.067	-0.024	0.147	0.109		-0.041	-0.046	0.119	0.063	-0.067	0.09	-0.159
Potassium	K	79	79	0.96	0.02	No	No	.279(*)	-0.121	.481(**)	.348(**)	.473(**)	0.043	.546(**)	0.053	0.05	0.032	0.099	0.105	0.045	.325(**)	0.104	.257(*)	.283(*)	0.09	0.196	0.177	0.054	.260(*)	-0.001	-.343(**)			0.014	**.156(*)**	0.089	0.096		**.219(**)**	0.099	-0.017	**.257(**)**	-0.056	0.041	**.362(**)**
Selenium	Se	79	0																																											
Silicon	Si	79	79	0.95	0.005	No	No	-.344(**)	0.182	-.269(*)	-0.12	0.136	.664(**)	-.242(*)	-0.032	-0.036	0.18	-.418(**)	.364(**)	-.527(**)	-.452(**)	-0.066	-0.071	-.323(**)	-0.106	0.021	.274(*)	0.054	-.525(**)	0.113	0.151	-0.033			**-.277(**)**	-0.109	**-.163(*)**		0.069	0.089	0.106	**-.299(**)**	**-.303(**)**	-0.039	-0.021
Silver	Ag	79	79	0.40	<0.001	No	No	0.183	-0.079	0.03	0.058	-0.037	-0.101	-.243(*)	0.095	0.185	-0.02	-0.062	-0.07	-0.083	-0.051	0.038	0.202	-0.128	-0.115	.257(*)	-.223(*)	0.122	.375(**)	-.276(*)	0.092	0.029		-0.053		**.373(**)**	**.334(**)**		**.330(**)**	0.088	0.047	**.322(**)**	**.231(**)**	-0.075	0.128
Sodium	Na	79	79	0.70	<0.001	No	No	.702(**)	0.084	0.096	.302(**)	.255(*)	0.104	-0.053	0.17	0.096	-0.102	.248(*)	-0.084	.279(*)	0.161	-0.144	.272(*)	0.037	-0.161	-0.078	0.042	0.067	.566(**)	0.116	0.009	-0.02		-0.11	0.136		**.573(**)**		0.072	0.109	-0.082	**.311(**)**	0.111	0.146	0.029
Strontium	Sr	79	79	0.83	<0.001	No	No	.769(**)	-0.144	.229(*)	.411(**)	.346(**)	-0.116	0.136	.237(*)	-0.006	-0.096	.231(*)	-0.09	.290(**)	.315(**)	-0.025	.392(**)	0.131	0.014	-0.061	-0.122	0.034	.927(**)	0.005	-0.045	0.207		-.303(**)	.406(**)	.605(**)			0.049	0.083	-0.041	**.407(**)**	0.144	0.118	0.106
Thallium	Tl	79	0																																											
Tin	Sn	79	76	0.91	<0.001	No	No	-0.003	-0.198	0.093	0.174	.330(**)	0.134	-0.027	-0.169	.337(**)	-0.032	0.159	.295(**)	0.042	0.197	-0.05	0.086	0.121	-.266(*)	.418(**)	-0.007	.274(*)	0.014	-.264(*)	-0.071	.269(*)		0.145	.328(**)	0.034	0.08			**.214(**)**	0.048	0.07	0.102	0.006	**.315(**)**
Titantium	Ti	79	79	0.98	0.28	Yes	Yes	0.133	-0.074	-0.127	.343(**)	0.209	0.132	.254(*)	-0.041	.423(**)	-0.175	.447(**)	.463(**)	.424(**)	.229(*)	-0.033	-0.013	.443(**)	-0.101	0.108	.314(**)	.253(*)	-0.034	0.196	-0.066	0.162		0.137	-0.196	0.116	0.012		.385(**)		-0.072	0.017	**.325(**)**	.250(**)	.429(**)
Tungsten	W	79	25	0.29	<0.001	No	No	-0.084	0.006	-0.016	0.01	-0.087	0.089	-0.004	0.026	0.058	-0.007	-0.042	0.192	-0.084	-0.094	0.003	0.07	-0.016	0.179	-0.006	0.069	0.083	-0.095	0.052	0.012	0.002		0.155	0.015	-0.111	-0.054		0.073	0.17		0.031	-0.049	-0.133	**-.233(**)**
Uranium	U	79	79	0.90	<0.001	No	No	.445(**)	-0.155	.640(**)	0.195	.252(*)	-0.06	.249(*)	0.137	0.161	-0.113	.317(**)	-0.219	.334(**)	.427(**)	0.026	.355(**)	.248(*)	0.215	-0.022	-0.09	-0.056	.508(**)	-0.043	-0.143	.381(**)		-.361(**)	-0.022	0.217	.389(**)		0.019	0.005	-0.066		**.242(**)**	0.06	0.086
Vanadium	V	79	79	0.94	0.001	No	No	0.199	-.251(*)	0.074	0.107	-0.197	-.222(*)	0.103	-.231(*)	.431(**)	-0.056	.634(**)	-0.094	.862(**)	.311(**)	-0.044	-0.137	.405(**)	-0.007	-0.105	-0.092	-0.016	.250(*)	-0.127	-0.122	-0.108		-.451(**)	-0.15	0.173	0.109		0.099	.441(**)	-0.066	.268(*)		.162(*)	0.063
Zinc	Zn	79	79	0.97	0.065	Yes	Yes	**.433(**)**	-0.013	.273(*)	.292(**)	.536(**)	0.205	.382(**)	0.003	0.071	-0.208	.613(**)	.467(**)	.320(**)	.457(**)	-0.095	**.263(*)**	.532(**)	0.047	-0.097	.396(**)	.270(*)	0.12	**.627(**)**	0.06	0.141		-0.015	-0.192	0.159	0.143		0.068	.410(**)	-0.003	0.152	0.117		.171(*)
Zirconium	Zr	79	79	0.99	0.89	Yes	Yes	0.159	-0.157	0.069	.366(**)	.465(**)	-0.064	.456(**)	-0.031	0.218	-0.21	0.199	.417(**)	0.168	.329(**)	0.077	0.072	.385(**)	-0.067	.228(*)	0.212	0.162	0.094	-0.026	-0.146	.568(**)		-0.007	-0.107	-0.079	0.123		.431(**)	.627(**)	0.121	0.148	0.078	**.332(**)**	

Kendall Tau

Pearson Correlation Coefficient

All statistical anlayses were performed using SPSS v. 15.0
All non-detected values were replaced by ½ SQL--Gehan ranking was not used to accommodate nondetects in the nonparametric analysis.

Notes:

1. When both metals are normally distributed, a parametric correlation analysis was conducted. The parametric Pearson correlation coefficient (ORANGE type) is a measure of linear association between two metals
2. When either metal is not normally distributed or have non-detected values, a nonparametric correlation analysis was conducted. The nonparametric Kendall tau is a measure of the association between rank orders.

Significant correlations are indicated in **BOLD**
Statistically insignificant correlations or correlations from less preferred analyses given the data distribution are indicated in GREY

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
*** Correlation is significant at the 0.001 level (2-tailed).

TABLE G-2
2008 DEEP Qal/McCULLOUGH - CORRELATION FOR RADIONUCLIDES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

Radionuclide		N	No. of Detects	Shapiro-Wilk Stat	Shapiro-Wilk Signif.	Shapiro-Wilk Normal?	Param Test?	Ra226	Ra228	Th228	Th230	Th232	U233/234	U235/236	U238
Radium 226	Ra226	65	65	0.978	0.31	Yes	Yes		0.102	-0.084	**.400(**)**	-.199(*)	**.383(**)**	**.239(**)**	**.393(**)**
Radium 228	Ra228	64	64	0.965	0.07	Yes	Yes	0.134		-0.059	-0.112	0.045	-0.161	0.042	-0.074
Thorium 228	Th228	79	79	0.991	0.93	Yes	Yes	-0.152	-0.143		0.049	.316(**)	-0.005	-0.101	-0.05
Thorium 230	Th230	79	79	0.945	0.007	No	No	.531(**)	-0.206	0.032		-0.049	**.443(**)**	**.200(*)**	**.441(**)**
Thorium 232	Th232	79	79	0.976	0.24	Yes	Yes	-0.241	0.068	**.511(**)**	-0.039		-0.098	-0.12	-0.138
Uranium 233/234	U233/234	76	76	0.925	0.001	No	No	.597(**)	-0.235	-0.073	.688(**)	-0.086		**.386(**)**	**.732(**)**
Uranium 235/236	U235/236	76	68	0.982	0.46	Yes	No	.380(**)	0.053	-0.154	.316(**)	-0.109	.547(**)		**.387(**)**
Uranium 238	U238	76	76	0.904	0.000	No	No	.601(**)	-0.116	-0.100	.690(**)	-0.092	.914(**)	.553(**)	

Inter-Element Correlation: Kendall Tau (above diagonal); Pearson Correlation Coefficient (below diagonal)

All statistical anlayses were performed using SPSS v. 15.0
All non-detected values were replaced by reported measured values

Notes:
1. When both radionuclides are normally distributed, a parametric correlation analysis was conducted. The parametric Pearson correlation coefficient (ORANGE type) is a measure of linear association between two radionuclides
2. When either radionuclide is not normally distributed or have non-detected values, a nonparametric correlation analysis was conducted. The nonparametric Kendall tau is a measure of the association between rank orders.

Significant correlations are indicated in **BOLD**
Statistically insignificant correlations or correlations from less preferred analyses given the data distribution are indicated in GREY
* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
*** Correlation is significant at the 0.001 level (2-tailed).

TABLE G-3
2008 DEEP Qal/RIVER - CORRELATION FOR METALS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA

Metal		N	No. of Detects	Shapiro Wilks			Param Test?	Inter-Element Correlation																																							
				SW Stat	SW Signif	Normal?		Al	Sb	As	Ba	Be	Bo	Cd	Ca	Cr (Tot)	Cr (VI)	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	Nb	Pd	P	Pt	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	W	U	V	Zn	Zr
Aluminum	Al	36	36	0.89	0.01	No	No		-0.087	0.195	0.183	.465(**)	.250(*)	-0.196	-0.126	.326(**)	0.139	0.212	0.165	.392(**)	0.014	-0.06	.261(*)	-0.013	.345(*)	0.081	-0.171		-0.164	-0.176		.471(**)		0.094	0.011	.278(*)	-0.064		.272(*)	.359(**)	0.221	-0.124	0.183	-0.037	0.125
Antimony	Sb	36	36	0.92	0.047	No	No	-0.153		0.005	0.063	-0.085	-0.19	0.139	0.096	0.077	-0.1	0.04	-0.015	0.156	0.142	-0.005	-0.14	-0.018	-0.18	-0.168	0.124		.406(**)	0.086		-0.081		-.244(*)	0.139	-0.041	.394(**)		-0.195	0.025	-0.032	0.193	.322(**)	0.069	-0.18
Arsenic	As	36	36	0.87	0.003	No	No	0.216	.361(*)		0.184	0.146	.495(**)	0.052	-0.091	.295(*)	-0.196	-0.015	-0.047	-0.01	-0.098	-.281(*)	0.188	-.380(**)	0.119	0.138	-0.175		-0.105	-0.193		.284(*)		0.126	-.344(**)	.404(**)	0.026		.322(**)	-0.035	-0.022	.258(*)	0.021	0.014	0.196
Barium	Ba	36	36	0.63	0.000	No	No	0.262	0.02	-0.033		0.193	0.151	-0.018	-0.016	-0.047	-0.069	-0.049	0.01	-0.029	-0.083	-.240(*)	0.027	0.068	0.084	.260(*)	-0.151		0.085	-.286(*)		.285(*)		-0.061	0.137	0.118	0.078		-0.025	-0.062	0.195	-0.075	-0.07	-0.169	0.005
Beryllium	Be	36	36	0.88	0.005	No	No	.834(**)	-0.19	0.093	0.195		0.195	-0.196	-0.051	.297(*)	0.01	.341(**)	.358(**)	.371(**)	0.133	0.054	.342(**)	0.047	0.033	0.172	-0.092		-0.162	-0.183		0.211		0.206	-0.007	0.016	-0.064		0.218	.322(**)	0.176	0.069	0.18	-0.049	0.167
Boron	Bo	36	8	0.68	< 0.001	No	No	0.105	0.258	.632(**)	-0.1	0.074		-0.182	-0.216	0.213	-0.035	-0.069	-0.048	-0.08	-0.086	-0.198	.446(**)	-.396(**)	0.27	0.179	-.267(*)		-0.232	-.394(**)		.318(**)		.281(*)	-0.213	.291(*)	-0.163		.331(**)	-0.088	0.115	.258(*)	-0.044	-0.128	.382(**)
Cadmium	Cd	36	23	0.89	0.01	No	No	-0.296	0.099	-0.03	-0.13	-0.238	-0.092		.400(**)	-0.046	-0.017	0.185	0.106	0.021	0.123	-0.098	-.297(*)	0.176	-0.261	0.012	.258(*)		0.125	.276(*)		-0.016		0.011	0.011	-0.204	0.173		-0.107	-0.049	-0.193	-0.015	-0.047	0.207	0.108
Calcium	Ca	36	36	0.97	0.60	Yes	Yes	-0.158	0.065	-0.249	-0.07	-0.082	-.338(*)	.655(**)		-0.157	-0.044	0.042	0.023	0.019	0.144	-0.049	-0.171	.253(*)	-0.1	0.182	0.054		0.211	0.095		-0.056		-0.159	0.169	-.239(*)	0.113		-.359(**)	-0.056	0.094	0.044	-0.144	-0.095	-0.213
Chromium	Cr (Tot)	36	36	0.93	0.05	Yes	Yes	.407(*)	0.021	0.272	-0.109	.404(*)	0.204	-0.133	-.343(*)		-0.055	.335(**)	.292(*)	.480(**)	0.144	-0.018	.346(**)	-0.223	-0.027	-0.053	0.05		-.263(*)	-0.082		0.168		0.128	-.312(**)	0.086	-0.084		.388(**)	.377(**)	-0.118	0.204	.390(**)	0.169	.253(*)
Chromium VI	Cr (VI)	41	16	0.80	< 0.001	No	No	0.209	-0.143	-0.071	0.041	0.257	-0.026	0.02	-0.049	0.184		-0.004	0.071	0.063	0.034	0.216	-0.069	.292(*)	0.147	0.037	0.227		0.055	0.056		-0.129		0.065	0.085	-0.024	0.006		-0.084	0.127	0.07	-0.033	0.042	0.073	0.028
Cobalt	Co	36	36	0.97	0.55	Yes	Yes	0.167	-0.086	-0.113	-0.023	.329(*)	-0.154	0.289	0.024	.472(**)	0.283		.619(**)	.585(**)	0.172	.248(*)	0.206	0.196	-.275(*)	-0.073	.365(**)		-0.095	.252(*)		0		0.162	-0.032	-.237(*)	0.021		0.169	.445(**)	-.255(*)	0.09	.399(**)	.311(**)	.270(*)
Copper	Cu	36	36	0.96	0.36	Yes	Yes	0.135	-0.192	-0.156	0.16	.376(*)	-0.146	0.128	-0.121	.477(**)	0.254	.698(**)		.536(**)	.302(*)	.329(**)	0.166	0.165	-0.216	-0.072	.261(*)		-.275(*)	.238(*)		-0.072		0.167	0.055	-.305(**)	-0.166		0.117	.474(**)	-0.108	0.068	.351(**)	.337(**)	.300(*)
Iron	Fe	36	36	0.95	0.24	Yes	Yes	.401(*)	0.119	-0.013	0.091	.455(**)	-0.144	0.053	0.026	.596(**)	0.175	.723(**)	.675(**)		.327(**)	.267(*)	0.168	0.104	-0.168	-0.127	.245(*)		-0.173	0.204		-0.027		0.045	-0.022	-0.125	-0.046		0.129	.715(**)	-0.007	0.076	.625(**)	.259(*)	0.194
Lead	Pb	36	36	0.58	< 0.001	No	No	-0.121	-0.075	-0.199	-0.17	-0.048	-0.183	0.218	0.327	-0.037	0.084	0.115	0.314	0.326		.314(**)	-0.046	-0.043	-0.231	-0.055	0.101		-0.115	.309(**)		-.257(*)		0.077	0.179	-0.121	-0.104		-0.046	.436(**)	0.192	0.003	.368(**)	.348(**)	0.2
Lithium	Li	36	36	0.94	0.10	Yes	Yes	-0.199	-0.019	-.338(*)	-0.04	-0.019	-0.3	-0.082	-0.001	0.03	0.257	.335(*)	.385(*)	.376(*)	.552(**)		0.029	0.153	-0.086	-0.174	.290(*)		-0.096	.342(**)		-.356(**)		-0.056	0.053	-0.154	-0.118		0.051	.436(**)	0.092	0.029	.327(**)	.307(**)	0.026
Magnesium	Mg	36	36	0.77	< 0.001	No	No	.412(*)	-0.111	0.189	-0.051	.490(**)	0.223	-0.32	-.370(*)	.552(**)	0.219	.383(*)	.460(**)	.366(*)	-0.096	0.076		-.255(*)	0.116	0.07	-0.223		-.277(*)	-.329(**)		0.159		0.183	-0.126	0.091	-.236(*)		.379(**)	0.131	-0.002	.305(*)	0.126	-0.072	.262(*)
Manganese	Mn	36	36	0.75	< 0.001	No	No	-0.185	0.057	-0.328	0.117	-0.067	-.418(*)	0.277	0.308	-0.236	0.172	0.266	0.085	0.013	-0.113	0.289	-0.291		-0.094	0.089	.312(**)		.257(*)	0.157		-0.099		-0.059	0.171	-.342(**)	0.15		-0.226	0.064	-0.026	-0.177	-0.043	0.027	-0.153
Mercury	Hg	28	5	0.67	< 0.001	No	No	0.218	0.005	0.166	0.149	0.076	0.03	-0.098	0.012	-0.163	-0.102	-0.35	-0.324	-0.136	0.078	-0.004	-0.23	-0.07		0.091	-.372(**)		-.329(*)	-0.213		.356(**)		-0.205	0.116	.345(*)	-.330(*)		.414(**)	-0.051	.388(**)	-.381(**)	-.280(*)	-.342(*)	-0.138
Molybdenum	Mo	36	31	0.94	0.105	Yes	No	0.109	-0.221	-0.041	0.058	0.108	-0.005	-0.006	0.204	-0.177	0.03	-0.192	-0.189	-0.305	-0.196	-0.288	-0.035	0.207	0.01		-0.194		0.01	-.256(*)		0.076		0.068	-0.023	0.14	-0.002		0.024	-0.118	0.222	0.032	-0.228	-.285(*)	-0.109
Nickel	Ni	36	36	0.97	0.58	Yes	Yes	-.404(*)	0.113	-0.194	-0.193	-0.251	-0.155	.396(*)	0.126	0.098	0.334	.504(**)	0.296	0.179	0.107	.412(*)	-0.187	.358(*)	-.426(*)	-0.201			0.201	.374(**)		-0.159		0.058	-0.029	-.240(*)	0.217		-0.103	0.159	-0.221	0.036	.260(*)	.438(**)	0.063
Niobium	Nb	36	3														0.332																												
Palladium	Pd	36	36	0.97	0.70	Yes	Yes	-0.188	.550(**)	-0.028	-0.006	-0.242	0.05	0.217	0.297	-.388(*)	0.06	-0.179	-.445(**)	-0.309	-0.216	-0.165	-.443(**)	.385(*)	-0.241	0.16	0.257			-0.011		-0.068		-0.146	0.142	-0.063	.791(**)		-.421(**)	-.270(*)	-0.041	0.169	-0.047	-0.05	-.291(*)
Phosphorus	P	36	36	0.98	0.76	Yes	Yes	-.451(**)	-0.011	-0.186	-0.156	-.347(*)	-0.261	.342(*)	0.16	-0.178	0.043	.390(*)	0.286	0.255	.474(**)	.566(**)	-0.291	0.15	-0.144	-.378(*)	.518(**)		-0.097			-.405(**)		-0.079	0.096	-0.2	-0.018		-0.086	.288(*)	-0.079	-0.221	0.217	.381(**)	-0.002
Platinum	Pt	36	0										-0.025				0.283																												
Potassium	K	36	36	0.67	< 0.001	No	No	.851(**)	-0.229	0.228	0.23	.630(**)	0.166	-0.226	-0.133	0.212	0.092	-0.125	-0.131	-0.028	-0.283	-.504(**)	0.184	-0.246	0.246	0.262	-.440(**)		-0.037	-.575(**)				0.068	-0.005	.291(*)	0.019		.236(*)	-0.118	-0.031	-0.059	-0.186	-0.16	0.07
Selenium	Se	36	0														0.189																												
Silicon	Si	36	36	0.91	0.02	No	No	0.252	-0.302	0.079	-0.175	.407(*)	0.303	-0.011	-0.234	0.252	0.265	0.24	0.243	0.026	0.02	-0.134	0.204	-0.107	-0.109	0.097	0.099		-0.157	-0.082		0.261			-0.07	-0.092	-0.1		.297(*)	0.107	-0.017	0.195	0.099	0.213	.542(**)
Silver	Ag	36	36	0.57	< 0.001	No	No	0.004	0.1	-0.273	0.106	0.004	-0.123	0.124	0.097	-0.224	-0.002	0.122	0.038	-0.034	0.137	0.048	-0.166	0.037	0.122	-0.158	0.122		0.101	0.189		0.031		.352(*)		-.239(*)	-0.04		-.271(*)	0.021	0.234	-.292(*)	-0.125	-0.115	-0.085
Sodium	Na	36	36	0.94	0.10	Yes	Yes	.334(*)	0.171	.712(**)	0.057	0.039	.442(**)	-0.32	-0.296	0.057	-0.149	-.406(*)	-.447(**)	-0.239	-0.13	-0.269	0.046	-.436(**)	0.283	0.132	-.423(*)		0.009	-0.2		.425(**)		-0.089	-0.17		-0.005		.284(*)	-0.049	0.131	0.01	-0.056	-0.045	-0.059
Strontium	Sr	36	36	0.83	0.001	No	No	-0.114	.705(**)	.421(*)	-0.101	-0.212	.351(*)	0.142	0.01	-0.059	0.075	-0.114	-.355(*)	-0.153	-0.221	-0.169	-0.244	0.106	-0.171	-0.062	0.249		.824(**)	-0.087		-0.033		-0.142	-0.11	0.304			-.302(*)	-0.197	-0.146	.256(*)	0.065	0.037	-0.189
Thallium	Tl	36	0														0.296																												
Tin	Sn	36	16	0.66	< 0.001	No	No	0.194	-0.184	.339(*)	-0.127	0.229	0.324	-0.074	-.347(*)	.477(**)	0.106	.405(*)	.331(*)	0.231	0.016	0.04	.494(**)	-0.238	0.037	-0.003	-0.006		-.449(**)	-0.019		0.076		.576(**)	0.129	0.155	-0.153			0.209	0.027	0.036	0.149	0.128	.382(**)
Titantium	Ti	36	36	0.98	0.83	Yes	Yes	0.315	-0.011	-0.027	0.109	.383(*)	-0.183	-0.027	-0.063	.444(**)	0.122	.629(**)	.629(**)	.887(**)	.450(**)	.563(**)	0.211	0.102	-0.088	-0.269	0.167		-.412(*)	.408(*)		-0.115		0.091	0.024	-0.153	-0.261		0.288		0.158	-0.079	.566(**)	.335(**)	0.208
Tungsten	W	36	9	0.83	0.001	No	No	0.027	0.103	-0.049	0.19	0.113	0.065	-0.113	0.287	-.492(**)	-0.191	-.347(*)	-0.223	-0.092	0.196	0.118	-.384(*)	0.094	0.281	0.23	-0.182		0.229	-0.025		-0.014		-0.008	0.175	0.07	0.016		-.372(*)	0.07		-0.161	-0.022	-0.208	-0.041
Uranium	U	36	36	0.92	0.03	No	No	-0.106	.529(**)	.529(**)	-0.273	0.052	.611(**)	-0.041	-0.123	.341(*)	0.169	0.045	0.011	0.049	-0.104	-0.036	.370(*)	-0.169	-0.261	-0.022	0.11		0.265	-0.176		-0.187		0.141	-0.311	0.199	.557(**)		0.223	-0.113	-0.08		0.226	0.126	0.156
Vanadium	V	36	36	0.95	0.20	Yes	Yes	0.104	.417(*)	0.262	-0.061	0.142	0.205	-0.02	-0.215	.547(**)	0.154	.530(**)	.441(**)	.765(**)	0.277	.389(*)	0.251	-0.023	-0.28	-0.314	0.328		-0.08	0.295		-0.266		0.079	-0.144	-0.028	0.215		0.276	.736(**)	-0.068	.414(*)		.382(**)	0.203
Zinc	Zn	36	36	0.85	0.001	No	No	-0.186	-0.042	-0.018	-0.199	-0.058	-0.047	0.303	0.064	0.062	0.158	.385(*)	.330(*)	0.157	.436(**)	.418(*)	-0.062	0.118	-0.34	-.372(*)	.561(**)		-0.044	.610(**)		-0.287		0.187	0.056	-0.071	0.072		0.112	0.288	-0.155	0.107	0.248		0.215
Zirconium	Zr	36	29	0.94	0.12	Yes	No	0.135	-0.237	0.254	-0.063	0.253	.517(**)	0.126	-.332(*)	.373(*)	0.189	.365(*)	.446(**)	0.253	0.12	-0.076	.379(*)	-.376(*)	-0.153	-0.209	0.076		-.426(**)	0.031		0.063		.683(**)	0.119	-0.094	-0.204		.578(**)	0.246	-0.136	0.226	.349(*)	0.153	

Kendall Tau

Pearson Correlation Coefficient

All statistical anlayses were performed using SPSS v. 15.0

All non-detected values were replaced by ½ SQL--Gehan ranking was not used to accommodate nondetects in the nonparametric analysis.

Notes:

1. When both metals are normally distributed, a parametric correlation analysis was conducted. The parametric Pearson correlation coefficient (ORANGE type) is a measure of linear association between two metals
2. When either metal is not normally distributed or have non-detected values, a nonparametric correlation analysis was conducted. The nonparametric Kendall tau is a measure of the association between rank orders.

Significant correlations are indicated in **BOLD**

Statistically insignificant correlations or correlations from less preferred analyses given the data distribution are indicated in GREY

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

*** Correlation is significant at the 0.001 level (2-tailed).

TABLE G-4
2008 DEEP Qal/RIVER - CORRELATION FOR RADIONUCLIDES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

Radionuclide		N	No. of Detects	Shapiro-Wilk Stat	Shapiro-Wilk Signif.	Shapiro-Wilk Normal?	Param Test?	Ra226	Ra228	Th228	Th230	Th232	U233/234	U235/236	U238
Radium 226	Ra226	28	28	0.98	0.928	Yes	Yes		0.176	-0.011	.383(**)	0.2	**.332(*)**	0.077	**.346(*)**
Radium 228	Ra228	28	28	0.95	0.25	Yes	Yes	0.241		0.021	0.171	0.211	0.045	-0.05	0.059
Thorium 228	Th228	33	33	0.98	0.91	Yes	Yes	-0.037	0.084		0.134	0.23	-0.057	0.018	-0.092
Thorium 230	Th230	33	33	0.97	0.62	Yes	Yes	**.504(**)**	0.151	0.078		.405(**)	**.564(**)**	0.168	**.364(**)**
Thorium 232	Th232	33	33	0.97	0.59	Yes	Yes	0.15	0.162	**.364(*)**	**.498(**)**		**.293(*)**	0.091	**0.153**
Uranium 233/234	U233/234	32	31	0.95	0.17	Yes	No	.508(**)	0.014	-0.149	.776(**)	.395(*)		**.354(**)**	**.676(**)**
Uranium 235/236	U235/236	32	18	0.93	0.06	Yes	No	0.160	-0.185	0.021	.366(*)	0.143	.501(**)		**.325(**)**
Uranium 238	U238	32	30	0.97	0.60	Yes	No	.475(*)	0.010	-0.164	.666(**)	0.285	.907(**)	.603(**)	

Inter-Element Correlation: Kendall Tau (above diagonal); Pearson Correlation Coefficient (below diagonal)

All statistical anlayses were performed using SPSS v. 15.0
All non-detected values were replaced by reported measured values

Notes:

1. When both radionuclides are normally distributed, a parametric correlation analysis was conducted. The parametric Pearson correlation coefficient (ORANGE type) is a measure of linear association between two radionuclides
2. When either radionuclide is not normally distributed or have non-detected values, a nonparametric correlation analysis was conducted. The nonparametric Kendall tau is a measure of the association between rank orders.

Significant correlations are indicated in **BOLD**
Statistically insignificant correlations or correlations from less preferred analyses given the data distribution are indicated in GREY

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
*** Correlation is significant at the 0.001 level (2-tailed).

TABLE G-5
2008 DEEP Qal/MIXED - CORRELATION FOR METALS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

Metal		N	No. of Detects	Shapiro Wilks SW Stat	Shapiro Wilks SW Signif	Shapiro Wilks Normal?	Param Test?	Al	Sb	As	Ba	Be	Bo	Cd	Ca	Cr (Tot)	Cr (VI)
Aluminum	Al	24	24	0.96	0.69	Yes	Yes		0.254	.383(**)	0.091	.782(**)		0.105	-0.083	.468(**)	
Antimony	Sb	24	23	0.64	<0.001	No	No	-0.051		0.16	.303(*)	.355(*)		0.211	0.023	0.068	
Arsenic	As	24	24	0.97	0.82	Yes	Yes	.519(**)	0.026		0.044	.456(**)		0.161	-0.088	.584(**)	
Barium	Ba	24	24	0.91	0.15	Yes	Yes	0.16	0.136	0.13		0.078		0	0.022	-0.109	
Beryllium	Be	24	24	0.97	0.85	Yes	Yes	.907(**)	0.052	.574(**)	0.13			0.167	-0.048	.447(**)	
Boron	Bo	24	3														
Cadmium	Cd	24	22	0.94	0.42	Yes	No	0.214	0.28	0.22	0.063	0.397			.565(**)	0.086	
Calcium	Ca	24	24	0.98	0.97	Yes	Yes	-0.162	0.016	-0.174	0.094	0.016		.697(**)		-0.102	
Chromium	Cr (Tot)	24	24	0.80	0.01	No	No	0.103	0.008	.499(*)	-0.05	0.333		0.325	0.272		
Chromium VI	Cr (VI)	14	2														
Cobalt	Co	24	24	0.89	0.09	Yes	Yes	0.393	0.024	0.333	0.322	.494(*)		0.201	0.067	0.193	
Copper	Cu	24	24	0.97	0.92	Yes	Yes	.482(*)	-0.002	.589(**)	0.102	.591(**)		0.337	-0.009	.559(**)	
Iron	Fe	24	24	0.92	0.23	Yes	Yes	.681(**)	-0.105	.663(**)	0.001	.735(**)		0.017	-0.271	0.392	
Lead	Pb	24	24	0.89	0.08	Yes	Yes	0.217	0.159	0.131	.544(**)	0.314		-0.027	-0.089	0.073	
Lithium	Li	24	24	0.96	0.75	Yes	Yes	.769(**)	0.033	.420(*)	-0.09	.780(**)		0.103	-0.136	0.251	
Magnesium	Mg	24	24	0.95	0.56	Yes	Yes	.784(**)	-0.215	.730(**)	-0.044	.789(**)		0.247	-0.043	.472(*)	
Manganese	Mn	24	24	0.77	0.002	No	No	0.365	-0.065	0.317	0.309	.439(*)		0.396	0.2	0.268	
Mercury	Hg	24	10	0.86	0.03	No	No	.408(*)	0.109	0.047	-0.051	.457(*)		.496(*)	0.341	0.007	
Molybdenum	Mo	24	24	0.64	<0.001	No	No	0.2	0.183	.460(*)	0.393	0.221		0.069	-0.144	0.284	
Nickel	Ni	24	24	0.96	0.69	Yes	Yes	.819(**)	-0.098	.735(**)	0.072	.822(**)		0.233	-0.124	.478(*)	
Niobium	Nb	24	3														
Palladium	Pd	24	24	0.99	0.99	Yes	Yes	.506(*)	0.31	0.113	.510(*)	.405(*)		0.026	-0.026	-0.157	
Phosphorus	P	24	24	0.92	0.26	Yes	Yes	-0.152	0.062	0.132	-0.104	-0.125		0.111	0.047	0.069	
Platinum	Pt	24	0														
Potassium	K	24	24	0.95	0.59	Yes	Yes	.787(**)	-0.052	.468(*)	0.033	.799(**)		.483(*)	0.022	0.358	
Selenium	Se	24	0														
Silicon	Si	24	24	0.87	0.05	No	No	0.058	-0.182	0.004	0.061	0.053		0.147	-0.062	0.026	
Silver	Ag	24	24	0.68	0.000	No	No	0.001	0.099	0.143	-0.091	0.064		-0.378	-0.384	0.174	
Sodium	Na	24	24	0.95	0.58	Yes	Yes	0.148	0.146	-0.188	.458(*)	0.057		-0.089	0.047	-0.195	
Strontium	Sr	24	24	0.96	0.78	Yes	Yes	.492(*)	0.231	0.186	.630(**)	0.375		0.1	0.057	-0.116	
Thallium	Tl	24	0														
Tin	Sn	24	15	0.76	0.002	No	No	0.306	-0.12	.439(*)	-0.049	.513(*)		0.303	-0.021	.471(*)	
Titantium	Ti	24	24	0.95	0.56	Yes	Yes	.519(**)	-0.114	.648(**)	0.07	.556(**)		0.186	-0.113	.526(**)	
Tungsten	W	24	15	0.90	0.12	Yes	No	0.188	0.13	-0.003	0.239	0.141		-0.085	-0.133	-0.057	
Uranium	U	24	24	0.89	0.08	Yes	Yes	.778(**)	0.02	0.372	-0.044	.884(**)		.458(*)	0.124	0.315	
Vanadium	V	24	24	0.97	0.81	Yes	Yes	0.235	-0.09	.619(**)	0.184	0.324		-0.047	-0.204	.466(*)	
Zinc	Zn	24	24	0.94	0.48	Yes	Yes	.516(**)	0.015	.438(*)	0.022	.604(**)		0.346	-0.034	0.381	
Zirconium	Zr	24	15	0.86	0.03	No	No	.773(**)	0.138	.420(*)	0.013	.702(**)		0.102	-0.183	0.141	

Metal	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	Nb	Pd	P	Pt	K
Aluminum	.471(**)	.361(*)	.496(**)	0.243	.587(**)	.596(**)	.290(*)	.391(**)	0.087	.662(**)		.303(*)	-0.083		.633(**)
Antimony	0.223	0.213	0.141	.413(**)	0.122	0.004	0.064	0.117	.387(*)	0.157		.428(**)	-0.152		0.235
Arsenic	.407(**)	.440(**)	.422(**)	0.088	0.26	.596(**)	0.259	0.149	.318(*)	.551(**)		0.088	0.095		.369(*)
Barium	0.041	0.007	-0.091	.298(*)	-0.036	-0.026	0.076	-0.069	0.193	-0.029		.330(*)	-0.08		0.055
Beryllium	.547(**)	.412(**)	.580(**)	0.248	.512(**)	.615(**)	.369(*)	.399(**)	0.207	.667(**)		0.287	0.004		.600(**)
Boron															
Cadmium	0.133	0.214	-0.023	-0.041	-0.105	0.127	.336(*)	.373(*)	0.037	0.113		0.034	0.086		0.285
Calcium	-0.011	-0.044	-0.194	-0.131	-0.248	-0.055	0.221	.294(*)	-0.098	-0.117		0.051	-0.022		0.033
Chromium	.468(**)	.482(**)	.508(**)	0.145	.438(**)	.572(**)	0.214	0.149	0.222	.615(**)		0.015	0.036		.383(**)
Chromium VI															
Cobalt		.632(**)	.644(**)	.306(*)	.366(*)	.520(**)	.493(**)	0.221	0.192	.694(**)		0.071	0.114		.295(*)
Copper	.623(**)		.539(**)	.314(*)	0.161	.442(**)	.383(**)	0.157	0.157	.585(**)		-0.059	0.146		.333(*)
Iron	.524(**)	.732(**)		0.223	.429(**)	.542(**)	0.234	0.255	0.183	.689(**)		-0.026	0.15		0.278
Lead	.734(**)	0.364	0.327		0.153	-0.004	-0.018	-0.083	0.193	0.234		0.161	-0.211		0.2
Lithium	0.284	.410(*)	.541(**)	0.119		.464(**)	0.077	0.193	0.084	.485(**)		0.25	-0.073		.450(**)
Magnesium	0.343	.648(**)	.713(**)	0.061	.786(**)		.327(*)	.313(*)	0.051	.661(**)		0.143	0.033		.562(**)
Manganese	.689(**)	.492(*)	0.227	0.274	0.185	0.312		0.275	0.073	.399(**)		0.106	0.243		0.262
Mercury	-0.111	0.083	0.164	-0.292	0.303	0.325	0.188		-0.145	0.26		0.208	-0.083		.385(**)
Molybdenum	0.159	0.178	0.191	0.16	0.053	0.052	.410(*)	-0.147		0.165		0.106	0.281		0.036
Nickel	.459(*)	.778(**)	.880(**)	0.19	.667(**)	.841(**)	0.384	0.239	0.329			0.044	0.066		.451(**)
Niobium															
Palladium	0.14	-0.112	-0.015	0.303	0.33	0.15	0.276	0.243	0.332	0.142			-0.286		0.253
Phosphorus	0.088	0.128	0.163	-0.267	-0.154	-0.035	0.149	0.011	0.306	0.105		-.434(*)			-0.128
Platinum															
Potassium	0.263	.494(*)	.425(*)	0.134	.682(**)	.745(**)	.448(*)	.458(*)	0.162	.661(**)		0.373	-0.269		
Selenium															
Silicon	0.054	0.36	0.313	-0.026	-0.189	0.031	-0.013	0.049	-0.096	0.269		-.485(*)	0.306		-0.014
Silver	-0.023	-0.097	0.179	0.164	0.275	0.124	-0.162	-0.144	0.027	0.013		0.112	-0.024		-0.033
Sodium	0.185	-0.156	-0.166	.433(*)	0.123	-0.05	0.083	-0.068	0.044	-0.093		.571(**)	-0.198		0.085
Strontium	0.153	-0.042	-0.005	0.3	0.226	0.152	0.312	0.174	.441(*)	0.195		.951(**)	-0.329		0.353
Thallium															
Tin	0.147	.511(*)	.564(**)	0.259	0.342	.502(*)	-0.082	0.121	-0.07	.485(*)		-0.292	-0.081		.463(*)
Titantium	0.382	.631(**)	.724(**)	0.312	0.336	.653(**)	0.244	0.102	0.176	.748(**)		0.062	-0.018		.568(**)
Tungsten	-0.041	0.022	0.047	0.048	0.187	0.097	0.047	0.308	0.176	0.13		0.197	-0.045		0.126
Uranium	.519(**)	.592(**)	.599(**)	0.24	.806(**)	.744(**)	.462(*)	.519(**)	-0.062	.704(**)		0.236	-0.132		.817(**)
Vanadium	0.301	.542(**)	.756(**)	0.33	0.137	0.399	-0.026	-0.118	0.319	.601(**)		-0.207	0.288		0.124
Zinc	0.332	.655(**)	.720(**)	0.199	0.385	.529(**)	0.122	0.175	0.066	.710(**)		-0.265	0.199		0.385
Zirconium	0.245	0.245	.441(*)	0.185	.741(**)	.658(**)	0.23	.409(*)	0.072	.575(**)		.642(**)	-0.366		.749(**)

Metal	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	W	U	V	Zn	Zr
Aluminum		0.015	0.099	0.109	.304(*)		.366(*)	.384(**)	0.131	.635(**)	0.142	.473(**)	.555(**)
Antimony		-0.156	0.2	.360(*)	.450(**)		0.243	0.208	0.05	.330(*)	0.095	0.152	0.243
Arsenic		0.062	-0.074	-0.186	0.128		.312(*)	.353(*)	0.088	0.209	.358(*)	.442(**)	.299(*)
Barium		-0.098	-0.022	.403(**)	.439(**)		-0.067	-0.025	0.12	-0.048	0.051	-0.04	0.007
Beryllium		0.007	0.146	0.037	0.258		.403(**)	.391(**)	0.142	.712(**)	0.263	.507(**)	.529(**)
Boron													
Cadmium		0.052	-0.25	-0.119	0.075		0.183	0.142	-0.029	0.272	-0.011	0.262	0.093
Calcium		-0.098	-0.251	-0.069	0.098		-0.044	-0.018	-0.064	0.096	-0.138	0.011	-0.073
Chromium		-0.04	0.111	-0.149	-0.047		.400(**)	.439(**)	0.124	.320(*)	.342(*)	.434(**)	.305(*)
Chromium VI													
Cobalt		0.059	0.079	-0.007	0.044		.364(*)	.324(*)	0.081	.608(**)	.298(*)	.443(**)	.298(*)
Copper		0.216	-0.085	-0.128	-0.055		.550(**)	.426(**)	0.064	.390(*)	.358(*)	.552(**)	0.073
Iron		0.168	0.226	-0.044	-0.051		.495(**)	.474(**)	0.048	.527(**)	.523(**)	.571(**)	0.271
Lead		-0.084	0.192	.294(*)	0.178		.385(**)	0.207	-0.024	0.288	0.2	0.149	0.16
Lithium		-0.201	0.274	0.084	0.164		0.264	0.208	0.1	.482(**)	0.051	0.267	.591(**)
Magnesium		0.095	-0.011	-0.109	0.131		.397(**)	.371(*)	0.18	.433(**)	0.266	.511(**)	.477(**)
Manganese		0.145	-0.144	-0.065	0.116		0.152	.326(*)	-0.012	.388(*)	0.156	0.211	0.171
Mercury		0.044	-0.026	0.022	0.203		0.233	0.254	0.163	.475(**)	0.076	0.255	.316(*)
Molybdenum		-0.124	0.24	0.051	0.116		0.063	0.138	0.1	0.032	.361(*)	0.131	0.047
Nickel		0.092	0.067	-0.121	0.018		.470(**)	.464(**)	0.169	.585(**)	.337(*)	.591(**)	.381(**)
Niobium													
Palladium		-.385(**)	0.097	.340(*)	.815(**)		-0.127	0.026	0.205	0.21	-0.169	-0.15	.498(**)
Phosphorus		0.23	-0.074	-0.134	-0.229		-0.037	0.076	-0.088	-0.048	.327(*)	0.164	-0.196
Platinum													
Potassium		0	-0.004	0.145	0.269		.427(**)	.429(**)	0.1	.573(**)	0.069	.372(*)	.499(**)
Selenium													
Silicon			-0.255	-0.065	-0.218		.330(*)	0.233	-0.112	0.024	0.259	.361(*)	-0.259
Silver		-0.155		0.247	0.018		0.045	0.011	-0.061	0.13	0.111	0.041	0.17
Sodium		-0.097	0.305		.442(**)		0.018	0.029	-0.044	0.108	-0.054	-0.131	0.127
Strontium		-0.33	-0.007	.613(**)			-0.092	0.065	0.115	0.196	-0.098	-0.095	.425(**)
Thallium													
Tin		.458(*)	0.244	-0.122	-0.25			.529(**)	-0.02	.453(**)	.422(**)	.612(**)	0.081
Titantium		0.349	0.214	0.118	0.14		.618(**)		-0.076	.419(**)	.512(**)	.393(**)	0.178
Tungsten		-0.091	-0.287	-0.021	0.125		-0.166	-0.11		0.035	-0.056	-0.048	0.128
Uranium		0.066	0.033	0.089	0.171		.487(*)	.498(*)	0.085		0.192	.405(**)	.528(**)
Vanadium		.416(*)	0.229	-0.092	-0.083		.623(**)	.749(**)	-0.089	0.173		.368(*)	-0.015
Zinc		.668(**)	0.043	-0.218	-0.211		.707(**)	.539(**)	0.011	.514(*)	.548(**)		0.135
Zirconium		-0.359	0.215	0.236	.520(**)		0.129	.492(*)	0.208	.697(**)	0.093	0.099	

Kendall Tau

Pearson Correlation Coefficient

All statistical anlayses were performed using SPSS v. 15.0
All non-detected values were replaced by ½ SQL--Gehan ranking was not used to accommodate nondetects in the nonparametric analysis.

Notes:

1. When both metals are normally distributed, a parametric correlation analysis was conducted. The parametric Pearson correlation coefficient (ORANGE type) is a measure of linear association between two metals
2. When either metal is not normally distributed or have non-detected values, a nonparametric correlation analysis was conducted. The nonparametric Kendall tau is a measure of the association between rank orders.

Significant correlations are indicated in **BOLD**
Statistically insignificant correlations or correlations from less preferred analyses given the data distribution are indicated in GREY

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
*** Correlation is significant at the 0.001 level (2-tailed).

TABLE G-6
2008 DEEP Qal/MIXED - CORRELATION FOR RADIONUCLIDES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

Radionuclide		N	No. of Detects	Shapiro-Wilk Stat	Shapiro-Wilk Signif.	Shapiro-Wilk Normal?	Param Test?	Inter-Element Correlation Ra226	Ra228	Th228	Th230	Th232	U233/234	U235/236	U238
Radium 226	Ra226	14	14	0.86	0.086	Yes	Yes		0.221	0.088	0.09	-0.068	0.514	-0.028	0.448
Radium 228	Ra228	14	13	0.88	0.14	Yes	No	.621(*)		0.253	-0.258	0.169	-0.197	-0.167	-0.177
Thorium 228	Th228	23	23	0.97	0.88	Yes	Yes	0.157	0.289		0.092	.373(*)	0.058	-0.345	-0.078
Thorium 230	Th230	23	23	0.95	0.73	Yes	Yes	0.060	-0.387	0.296		-0.19	0.314	0.13	0.357
Thorium 232	Th232	23	23	0.88	0.16	Yes	Yes	-0.123	0.265	**.556(**)**	-0.174		-0.467	-0.294	**-.707(**)**
Uranium 233/234	U233/234	11	7	0.87	0.12	Yes	No	0.632	0.104	0.189	0.548	-0.334		0.135	**.804(**)**
Uranium 235/236	U235/236	11	10	0.95	0.67	Yes	No	-0.177	-0.356	-0.451	0.168	-0.403	0.310		0.234
Uranium 238	U238	11	7	0.96	0.80	Yes	No	0.424	-0.055	-0.120	0.398	-.708(*)	.853(**)	0.462	

Kendall Tau

Pearson Correlation Coefficient

All statistical anlayses were performed using SPSS v. 15.0
All non-detected values were replaced by reported measured values

Notes:

1. When both radionuclides are normally distributed, a parametric correlation analysis was conducted. The parametric Pearson correlation coefficient (ORANGE type) is a measure of linear association between two radionuclides
2. When either radionuclide is not normally distributed or have non-detected values, a nonparametric correlation analysis was conducted. The nonparametric Kendall tau is a measure of the association between rank orders.

Significant correlations are indicated in **BOLD**
Statistically insignificant correlations or correlations from less preferred analyses given the data distribution are indicated in GREY

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
*** Correlation is significant at the 0.001 level (2-tailed).

TABLE G-7
2008 DEEP TMC - CORRELATION FOR METALS
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

Metal		N	No. of Detects	Shapiro Wilks			Param	Inter-Element Correlation																																					
				SW Stat	SW Signif	Normal?	Test?	Al	Sb	As	Ba	Be	Bo	Cd	Ca	Cr (Tot)	Cr (VI)	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	Nb	Pd	P	Pt	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	W	U	V	Zn	Zr
Aluminum	Al	24	24	0.97	0.82	Yes	Yes		.662(**)	.752(**)	.375(*)	.842(**)	.349(*)	.502(**)	-0.007	.776(**)		.803(**)	.698(**)	.788(**)	.460(**)	-0.015	.659(**)	.647(**)	0.032	.524(**)	.693(**)		.377(*)	.291(*)		.455(**)		0.022	0.179	0.058	0.225		.641(**)	.477(**)	.485(**)	.676(**)	.616(**)	.771(**)	.562(**)
Antimony	Sb	24	23	0.92	0.100	Yes	No	.485(*)		.580(**)	0.246	.664(**)	0.233	.472(**)	-0.004	.560(**)		.617(**)	.652(**)	.610(**)	.467(**)	-0.041	.403(**)	.451(**)	0.054	.503(**)	.512(**)		.307(*)	.414(**)		.362(*)		0.078	0.105	0.25	0.22		.611(**)	.560(**)	.431(**)	.580(**)	.552(**)	.674(**)	.557(**)
Arsenic	As	24	24	0.91	0.06	Yes	Yes	.920(**)	0.37		.397(**)	.769(**)	0.239	.495(**)	0.117	.623(**)		.847(**)	.728(**)	.818(**)	.350(*)	-0.051	.565(**)	.618(**)	-0.064	.516(**)	.672(**)		.435(**)	.305(*)		.295(*)		-0.095	0.222	-0.036	0.276		.689(**)	.434(**)	.398(**)	.669(**)	.601(**)	.567(**)	.701(**)
Barium	Ba	24	24	0.89	0.02	No	No	.434(*)	0.117	.420(*)		.355(*)	0.059	.520(**)	0.149	.451(**)		.441(**)	.526(**)	.470(**)	0.135	-.295(*)	0.225	.475(**)	-0.027	.461(**)	.434(**)		.387(**)	.359(*)		0.007		-0.221	0.255	-0.229	0.178		.353(*)	.298(*)	0.11	.334(*)	.422(**)	0.265	.368(*)
Beryllium	Be	24	24	0.95	0.36	Yes	Yes	.953(**)	0.396	.909(**)	.488(*)		0.217	.526(**)	0.081	.691(**)		.813(**)	.712(**)	.784(**)	.359(*)	-0.088	.574(**)	.650(**)	-0.011	.606(**)	.718(**)		.297(*)	.343(*)		.384(**)		0.058	0.267	0.102	0.124		.743(**)	.516(**)	.517(**)	.753(**)	.567(**)	.664(**)	.692(**)
Boron	Bo	24	7	0.86	0.009	No	No	0.326	0.182	0.311	0.033	0.201		0.083	-0.136	.388(**)		0.187	0.176	0.187	0.18	.459(**)	.579(**)	0.106	0.23	0.15	0.191		0.246	-0.23		.725(**)		-0.004	0.117	0.069	0.282		0.226	0.103	.297(*)	.314(*)	0.051	.362(*)	0.117
Cadmium	Cd	24	18	0.92	0.08	Yes	No	.704(**)	.469(*)	.667(**)	.696(**)	.757(**)	0.033		.345(*)	.505(**)		.562(**)	.642(**)	.569(**)	.330(*)	-.330(*)	0.258	.590(**)	-0.102	.560(**)	.562(**)		.349(*)	.433(**)		0.176		-0.045	0.266	-0.105	0.194		.522(**)	.482(**)	.304(*)	.494(**)	.520(**)	.455(**)	.513(**)
Calcium	Ca	24	24	0.94	0.25	Yes	Yes	-0.048	0.033	0.014	0.236	0.099	-0.088	0.377		-0.062		0.088	0.084	0.088	-0.204	-.307(*)	-0.157	0.102	-0.085	0.145	0.139		0.179	0.247		-0.157		-0.058	0.281	-0.058	0.211		0.107	0.171	0.061	0.081	0.098	-0.124	0.219
Chromium	Cr (Tot)	24	24	0.93	0.14	Yes	Yes	.869(**)	0.341	.689(**)	.422(*)	.819(**)	0.209	.631(**)	-0.185			.696(**)	.672(**)	.696(**)	.419(**)	-0.12	.575(**)	.563(**)	0.148	.534(**)	.681(**)		.438(**)	0.221		.378(**)		-0.033	0.16	0.004	0.2		.522(**)	.473(**)	.473(**)	.672(**)	.524(**)	.679(**)	.441(**)
Chromium VI	Cr (VI)	23	2																																												
Cobalt	Co	24	24	0.86	0.01	No	No	.894(**)	0.394	.845(**)	.606(**)	.917(**)	0.074	.826(**)	0.162	.818(**)			.837(**)	.956(**)	.365(*)	-0.117	.565(**)	.698(**)	-0.053	.575(**)	.818(**)		.450(**)	.400(**)		0.281		-0.095	.299(*)	-0.022	0.247		.652(**)	.470(**)	.413(**)	.610(**)	.725(**)	.633(**)	.620(**)
Copper	Cu	24	24	0.87	0.01	No	No	.880(**)	.417(*)	.823(**)	.668(**)	.912(**)	0.049	.854(**)	0.13	.826(**)		.969(**)		.830(**)	.333(*)	-0.157	.504(**)	.696(**)	-0.005	.659(**)	.706(**)		.447(**)	.390(**)		0.204		-0.135	.336(*)	-0.055	0.2		.672(**)	.423(**)	.391(**)	.575(**)	.664(**)	.587(**)	.633(**)
Iron	Fe	24	24	0.87	0.01	No	No	.894(**)	0.396	.828(**)	.611(**)	.896(**)	0.134	.798(**)	0.125	.838(**)		.984(**)	.966(**)		.343(*)	-0.161	.528(**)	.684(**)	-0.037	.582(**)	.766(**)		.486(**)	.422(**)		0.259		-0.109	.295(*)	-0.051	0.284		.622(**)	.441(**)	.387(*)	.574(**)	.761(**)	.596(**)	.620(**)
Lead	Pb	24	24	0.95	0.37	Yes	Yes	.535(**)	.457(*)	.505(*)	0.203	.493(*)	-0.172	.550(**)	-0.217	.549(**)		.550(**)	.529(**)	.526(**)		0.044	0.193	0.255	-0.234	0.138	.365(*)		-0.018	0.182		0.251		0.225	-0.237	0.138	-0.153		0.269	.288(*)	0.296	.397(**)	.332(*)	.582(**)	0.248
Lithium	Li	24	24	0.63	0.00	No	No	-0.157	-0.087	-0.1	-0.277	-0.241	.801(**)	-.445(*)	-0.104	-0.288		-.419(*)	-.426(*)	-0.383	-.565(**)		0.244	-0.196	0.09	-0.233	-0.212		-0.223	-.465(**)		.353(*)		0.109	-0.128	0.145	-0.138		-0.029	-0.251	0.178	-0.051	-.288(*)	0.087	-0.153
Magnesium	Mg	24	24	0.89	0.02	No	No	.793(**)	0.369	.759(**)	.443(*)	.739(**)	.677(**)	.550(**)	-0.157	.699(**)		.630(**)	.640(**)	.623(**)	0.283	0.296		.446(**)	0.143	.330(*)	.448(**)		.336(*)	-0.025		.647(**)		-0.134	0.225	-0.004	0.207		.507(**)	0.196	.314(*)	.488(**)	.298(*)	.512(**)	.353(*)
Manganese	Mn	24	24	0.91	0.058	Yes	Yes	.769(**)	0.298	.763(**)	.653(**)	.770(**)	0.184	.794(**)	0.016	.681(**)		.846(**)	.836(**)	.805(**)	.454(*)	-0.239	.745(**)		-0.116	.594(**)	.633(**)		.332(*)	.370(*)		0.236		-0.109	.338(*)	-0.159	0.217		.517(**)	.330(*)	0.287	.476(**)	.541(**)	.500(**)	.502(**)
Mercury	Hg	20	5	0.76	0.00	No	No	-0.275	-0.265	-0.423	-0.113	-0.235	0.062	-0.266	0.046	-0.011		-0.263	-0.221	-0.19	-.553(*)	0.172	-0.214	-0.444		0.095	-0.037		0.315	-0.032		0.175		-0.148	0.218	-0.053	0.265		0.07	0.116	-0.094	0.134	-0.016	-0.011	0.074
Molybdenum	Mo	24	23	0.97	0.659	Yes	Yes	.605(**)	0.206	.554(**)	.537(**)	.702(**)	0.099	.750(**)	0.278	.593(**)		.706(**)	.774(**)	.714(**)	0.199	-0.229	.519(**)	.710(**)	-0.1		.516(**)		.361(*)	.413(**)		0.265		-0.051	.410(**)	0.043	0.203		.606(**)	.352(*)	.400(**)	.513(**)	.454(**)	.471(**)	.560(**)
Nickel	Ni	24	24	0.91	0.06	Yes	Yes	.753(**)	0.287	.737(**)	.450(*)	.833(**)	0.036	.713(**)	0.245	.710(**)		.900(**)	.831(**)	.880(**)	.483(*)	-.419(*)	.505(*)	.714(**)	-0.137	.598(**)			.399(**)	.480(**)		0.244		-0.022	0.281	0.022	0.175		.553(**)	.455(**)	.368(*)	.581(**)	.638(**)	.589(**)	.544(**)
Niobium	Nb	24	1																																												
Palladium	Pd	24	24	0.88	0.02	No	No	.496(*)	0.11	.439(*)	.474(*)	.468(*)	0.349	0.366	0.24	.486(*)		.583(**)	.567(**)	.652(**)	-0.076	0.074	0.388	.408(*)	0.231	.501(*)	.452(*)			.302(*)		0.088		-.390(**)	.416(**)	-.288(*)	.659(**)		.347(*)	.307(*)	-0.034	.306(*)	.489(**)	0.2	.340(*)
Phosphorus	P	24	24	0.94	0.27	Yes	Yes	.468(*)	0.38	.420(*)	.463(*)	.565(**)	-0.393	.628(**)	0.371	.409(*)		.720(**)	.701(**)	.719(**)	.405(*)	-.697(**)	0.028	.454(*)	-0.109	.527(**)	.741(**)		0.368			-0.062		0.101	0.221	0.051	0.21		.334(*)	.396(**)	0.083	0.256	.621(**)	0.261	.444(**)
Platinum	Pt	24	2																																												
Potassium	K	24	24	0.91	0.06	Yes	Yes	.712(**)	.465(*)	.601(**)	0.11	.636(**)	.676(**)	0.388	-0.196	.639(**)		.408(*)	.429(*)	.419(*)	0.271	0.325	.832(**)	.433(*)	-0.076	0.383	0.345		0.164	-0.087				0.171	0.065	0.243	0.214		.301(*)	0.218	.473(**)	.411(**)	0.131	.519(**)	0.2
Selenium	Se	24	0																																												
Silicon	Si	24	24	0.91	0.07	Yes	Yes	0.106	0.255	-0.04	-0.339	0.125	-0.043	0.034	-0.001	0.106		-0.05	-0.082	-0.078	0.285	-0.156	-0.059	-0.205	-0.011	-0.097	0.059		-.495(*)	0.042		0.367			-.316(*)	.500(**)	-0.181		-0.004	0.069	0.295	0.081	-0.04	0.13	0.036
Silver	Ag	24	24	0.82	0.002	No	No	0.031	-0.118	0.019	0.222	0.204	-0.087	0.256	.483(*)	0.02		0.207	0.283	0.201	-0.342	-0.008	0.018	0.167	0.271	.594(**)	0.205		.431(*)	0.291		-0.126		-0.349		-0.243	.287(*)		.404(**)	0.116	-0.045	0.202	0.233	0.025	.368(*)
Sodium	Na	24	24	0.86	0.01	No	No	0.04	.492(*)	-0.062	-0.202	0.098	-0.09	0.079	0.016	0.056		-0.009	0.019	-0.022	0.22	-0.166	-0.031	-0.128	0.039	0.092	0.133		-0.392	0.202		0.329		.710(**)	-0.132		-0.072		0.033	0.192	.363(*)	0.132	-0.033	0.196	0.124
Strontium	Sr	24	24	0.88	0.02	No	No	.455(*)	0.28	0.357	0.31	0.404	.505(*)	0.316	0.368	0.362		.458(*)	.427(*)	.539(**)	-0.147	0.215	0.335	0.248	0.216	.439(*)	0.36		.872(**)	0.327		0.311		-0.143	0.31	-0.084			0.128	0.2	-0.098	0.095	.345(*)	0.109	0.211
Thallium	Tl	24	0																																												
Tin	Sn	24	20	0.95	0.303	Yes	No	.803(**)	0.288	.776(**)	.513(*)	.892(**)	0.182	.671(**)	0.061	.724(**)		.835(**)	.852(**)	.826(**)	0.4	-0.172	.667(**)	.670(**)	-0.071	.738(**)	.732(**)		.557(**)	.526(**)		.491(*)		-0.025	.416(*)	0.03	.424(*)			.456(**)	.394(**)	.694(**)	.471(**)	.503(**)	.781(**)
Titantium	Ti	24	24	0.87	0.01	No	No	.602(**)	.436(*)	.512(*)	0.402	.689(**)	-0.042	.694(**)	0.338	.602(**)		.789(**)	.734(**)	.789(**)	.455(*)	-.506(*)	0.304	.504(*)	0.021	.552(**)	.875(**)		.419(*)	.814(**)		0.264		0.269	0.179	0.385	.466(*)		.637(**)		.352(*)	.539(**)	.458(**)	.454(**)	.499(**)
Tungsten	W	24	5	0.81	0.00	No	No	.652(**)	.449(*)	.534(**)	0.13	.679(**)	0.06	.529(**)	0.046	.631(**)		.582(**)	.621(**)	.558(**)	0.404	-0.298	.473(*)	.446(*)	-0.193	.480(*)	.585(**)		-0.006	0.402		.606(**)		.529(**)	0.002	.568(**)	0.12		.459(*)	.616(**)		.496(**)	0.223	.589(**)	.353(*)
Uranium	U	24	24	0.79	0.00	No	No	.701(**)	.463(*)	.685(**)	.485(*)	.711(**)	0.4	.716(**)	-0.107	.706(**)		.671(**)	.696(**)	.653(**)	.509(*)	-0.046	.845(**)	.758(**)	-0.175	.611(**)	.615(**)		0.258	0.233		.724(**)		0.036	0.018	0.243	0.193		.677(**)	.526(**)	.550(**)		.400(**)	.557(**)	.684(**)
Vanadium	V	24	24	0.82	0.00	No	No	.779(**)	.437(*)	.683(**)	.562(**)	.791(**)	-0.06	.778(**)	0.224	.736(**)		.929(**)	.905(**)	.949(**)	.557(**)	-.559(**)	0.387	.673(**)	-0.168	.646(**)	.839(**)		.574(**)	.852(**)		0.242		0.05	0.176	0.087	.525(**)		.719(**)	.861(**)	.552(**)	.486(*)		.483(**)	.477(**)
Zinc	Zn	24	24	0.94	0.27	Yes	Yes	.889(**)	.592(**)	.760(**)	.430(*)	.846(**)	0.249	.743(**)	-0.113	.830(**)		.781(**)	.806(**)	.775(**)	.707(**)	-0.267	.742(**)	.706(**)	-0.399	.561(**)	.654(**)		0.216	.430(*)		.743(**)		0.339	-0.095	0.294	0.244		.688(**)	.606(**)	.764(**)	.760(**)	.710(**)		.444(**)
Zirconium	Zr	24	24	0.96	0.53	Yes	No	.619(**)	0.263	.677(**)	.419(*)	.767(**)	0.06	.609(**)	0.318	.473(*)		.757(**)	.735(**)	.738(**)	0.278	-0.222	.433(*)	.513(*)	-0.057	.674(**)	.742(**)		.518(**)	.644(**)		0.277		0.009	.440(*)	0.166	.469(*)		.886(**)	.751(**)	.420(*)	.541(**)	.704(**)	.479(*)	

Kendall Tau

Pearson Correlation Coefficient

All statistical anlayses were performed using SPSS v. 15.0
All non-detected values were replaced by ½ SQL--Gehan ranking was not used to accommodate nondetects in the nonparametric analysis.

Notes:

1. When both metals are normally distributed, a parametric correlation analysis was conducted. The parametric Pearson correlation coefficient (ORANGE type) is a measure of linear association between two metals
2. When either metal is not normally distributed or have non-detected values, a nonparametric correlation analysis was conducted. The nonparametric Kendall tau is a measure of the association between rank orders.

Significant correlations are indicated in **BOLD**
Statistically insignificant correlations or correlations from less preferred analyses given the data distribution are indicated in GREY

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
*** Correlation is significant at the 0.001 level (2-tailed).

TABLE G-8
2008 DEEP TMC - CORRELATION FOR RADIONUCLIDES
2008 DEEP BACKGROUND STUDY
CLARK COUNTY, NEVADA
(Page 1 of 1)

Radionuclide		N	No. of Detects	Shapiro-Wilk Stat	Shapiro-Wilk Signif.	Shapiro-Wilk Normal?	Param Test?	Ra226	Ra228	Th228	Th230	Th232	U233/234	U235/236	U238
Radium 226	Ra226	18	14	0.85	0.017	No	No		0.197	0.1	0.253	-0.031	0.172	**.376(*)**	0.343
Radium 228	Ra228	18	17	0.94	0.37	Yes	No	0.157		**.450(*)**	0.14	0.313	-0.193	-0.042	-0.139
Thorium 228	Th228	24	24	0.88	0.04	No	No	0.156	.680(**)		0.189	**.325(*)**	0.131	0.235	0.264
Thorium 230	Th230	24	24	0.88	0.04	No	No	.598(*)	0.037	0.12		**.353(*)**	**.596(**)**	**.387(*)**	**.478(**)**
Thorium 232	Th232	24	24	0.91	0.12	Yes	Yes	0.236	0.45	.674(**)	.417(*)		**.394(*)**	0.072	0.324
Uranium 233/234	U233/234	22	12	0.73	< 0.001	No	No	.691(**)	-0.293	0.08	.798(**)	0.335		**.450(**)**	**.768(**)**
Uranium 235/236	U235/236	22	15	0.93	0.26	Yes	No	.505(*)	-0.115	0.189	.645(**)	0.196	.630(**)		**.557(**)**
Uranium 238	U238	22	11	0.74	0.00	No	No	.692(**)	-0.215	0.119	.768(**)	0.355	.943(**)	.691(**)	

Inter-Element Correlation: Kendall Tau (upper right); Pearson Correlation Coefficient (lower left)

All statistical anlayses were performed using SPSS v. 15.0
All non-detected values were replaced by reported measured values

Notes:

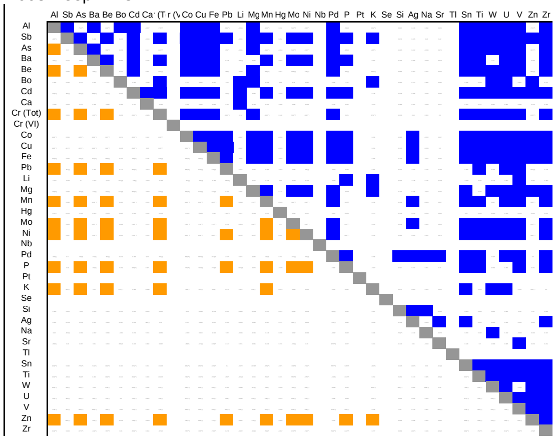
1. When both radionuclides are normally distributed, a parametric correlation analysis was conducted. The parametric Pearson correlation coefficient (ORANGE type) is a measure of linear association between two radionuclides
2. When either radionuclide is not normally distributed or have non-detected values, a nonparametric correlation analysis was conducted. The nonparametric Kendall tau is a measure of the association between rank orders.

Significant correlations are indicated in **BOLD**
Statistically insignificant correlations or correlations from less preferred analyses given the data distribution are indicated in GREY

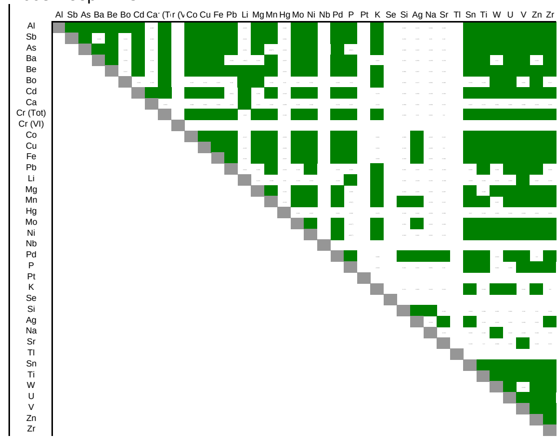
* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
*** Correlation is significant at the 0.001 level (2-tailed).

2008 Deep Correlation Matrices for Metals

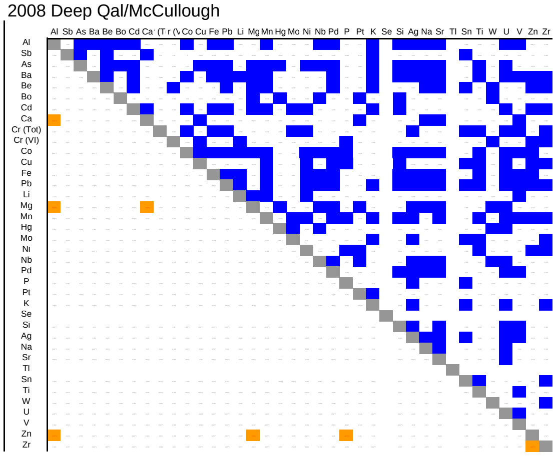
2008 Deep TMC



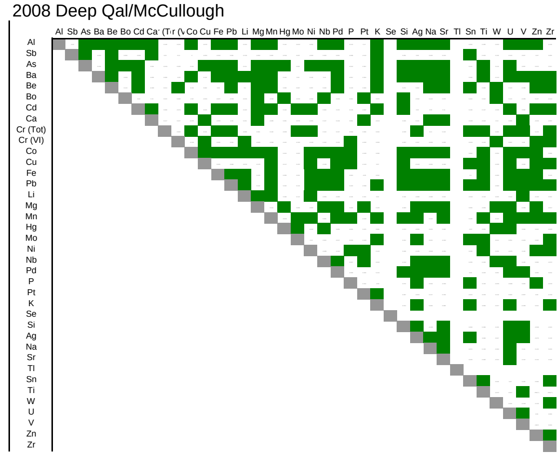
2008 Deep TMC



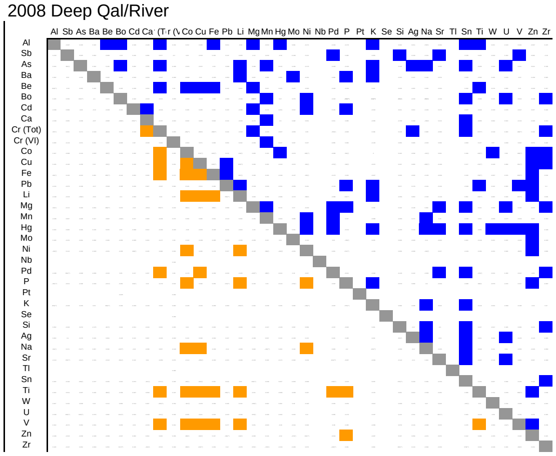
2008 Deep Qal/McCullough



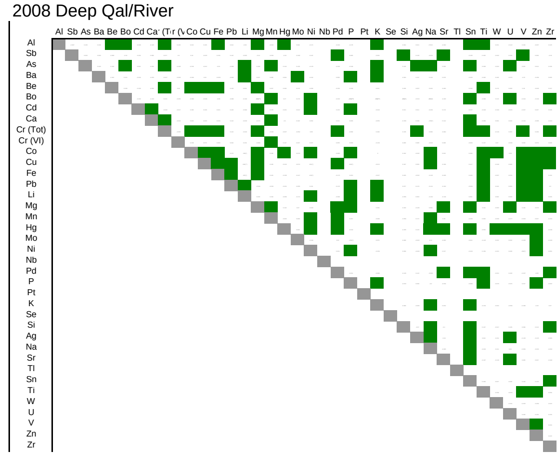
2008 Deep Qal/McCullough



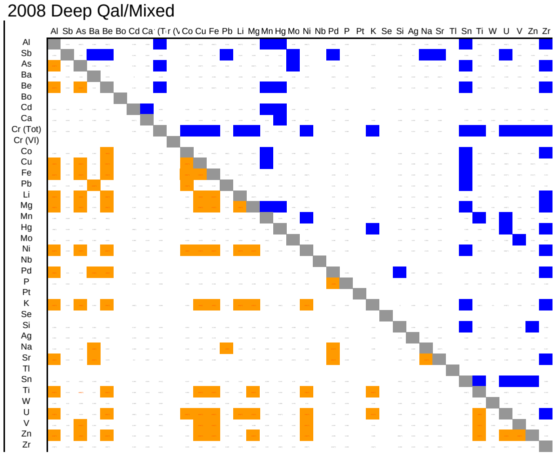
2008 Deep Qal/River



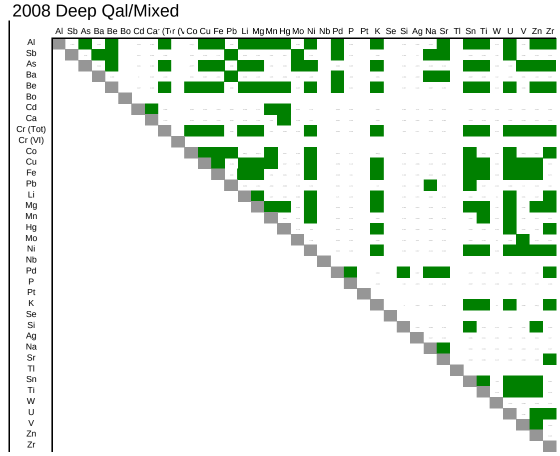
2008 Deep Qal/River



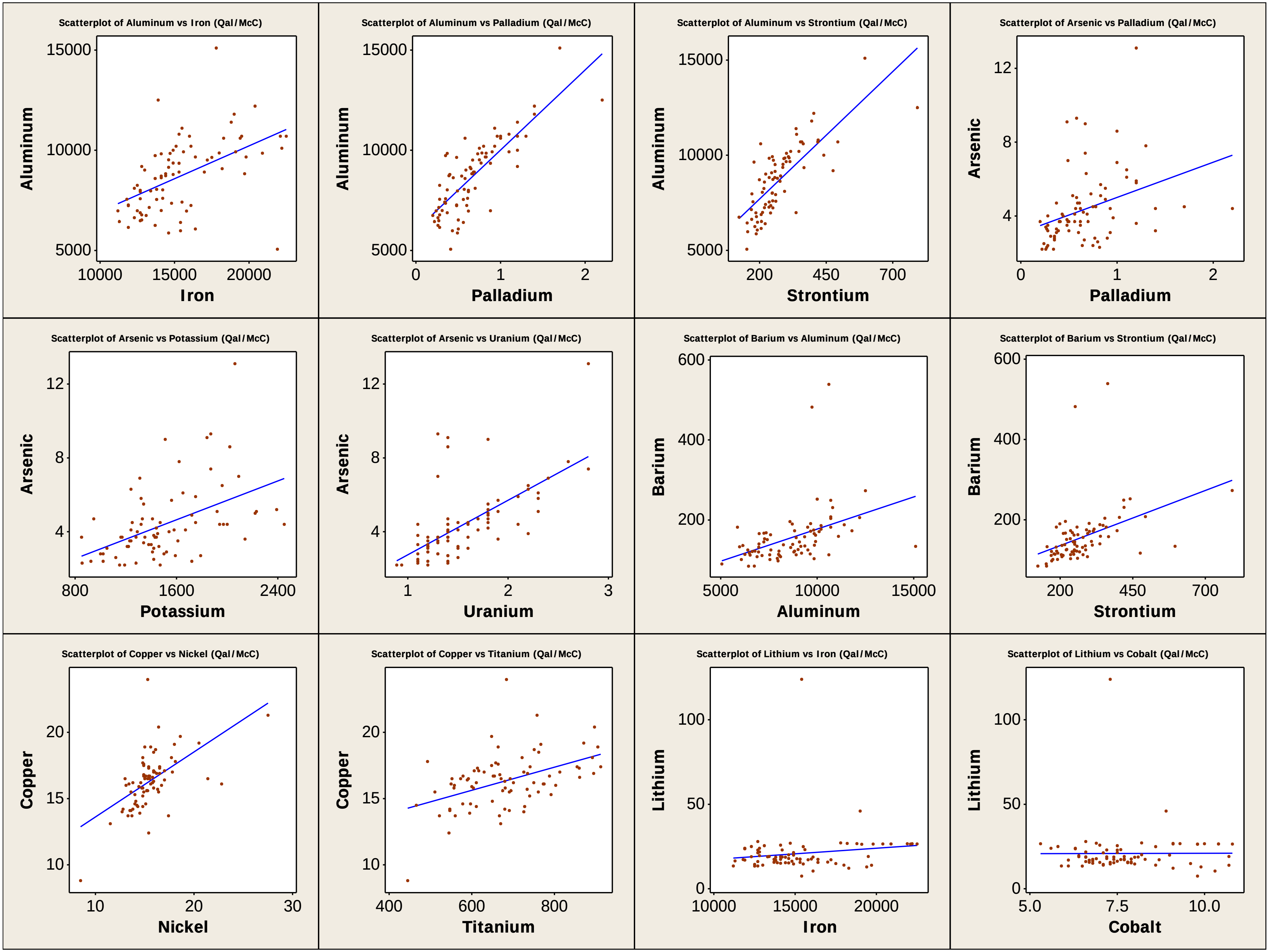
2008 Deep Qal/Mixed

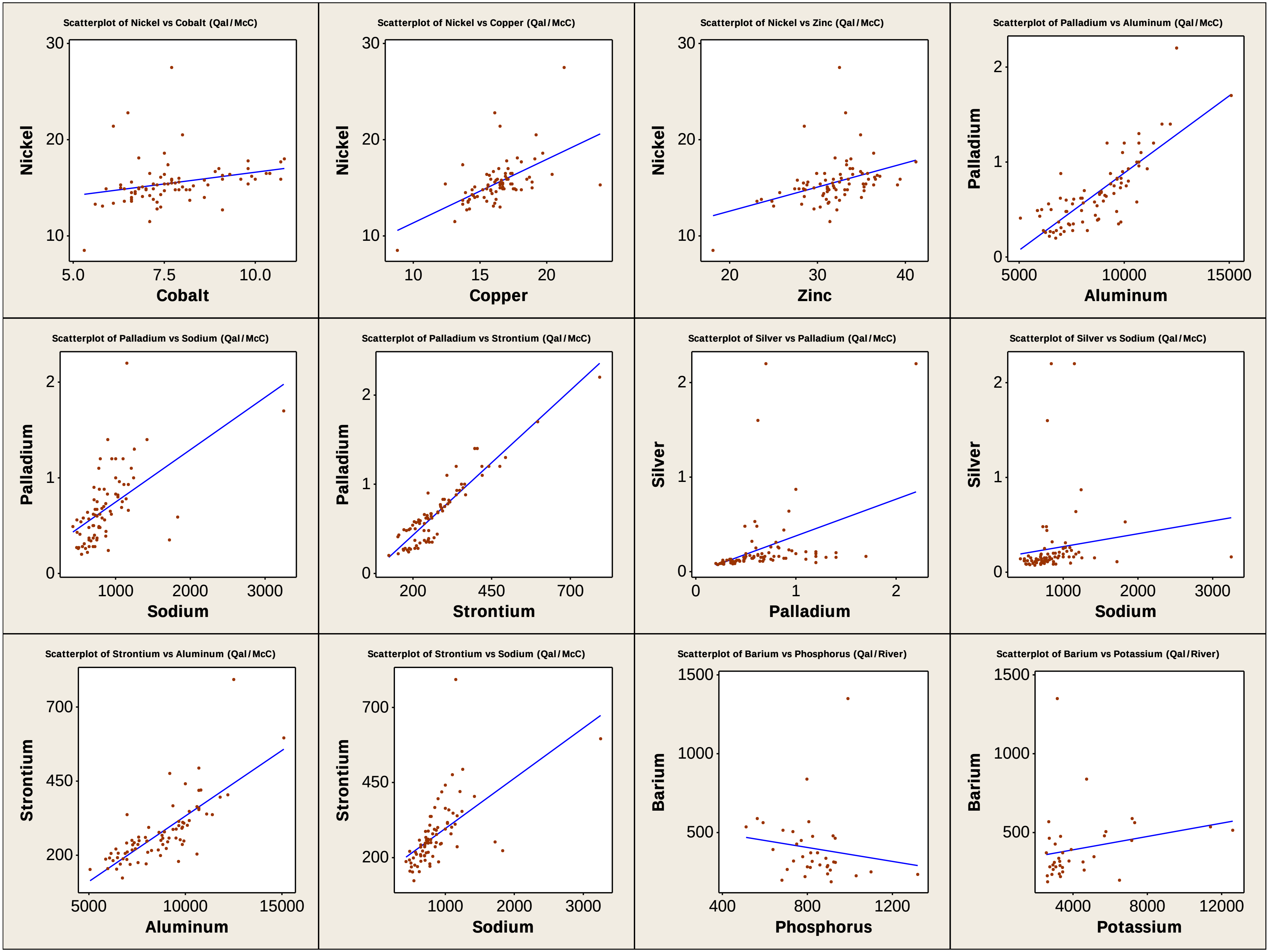


2008 Deep Qal/Mixed

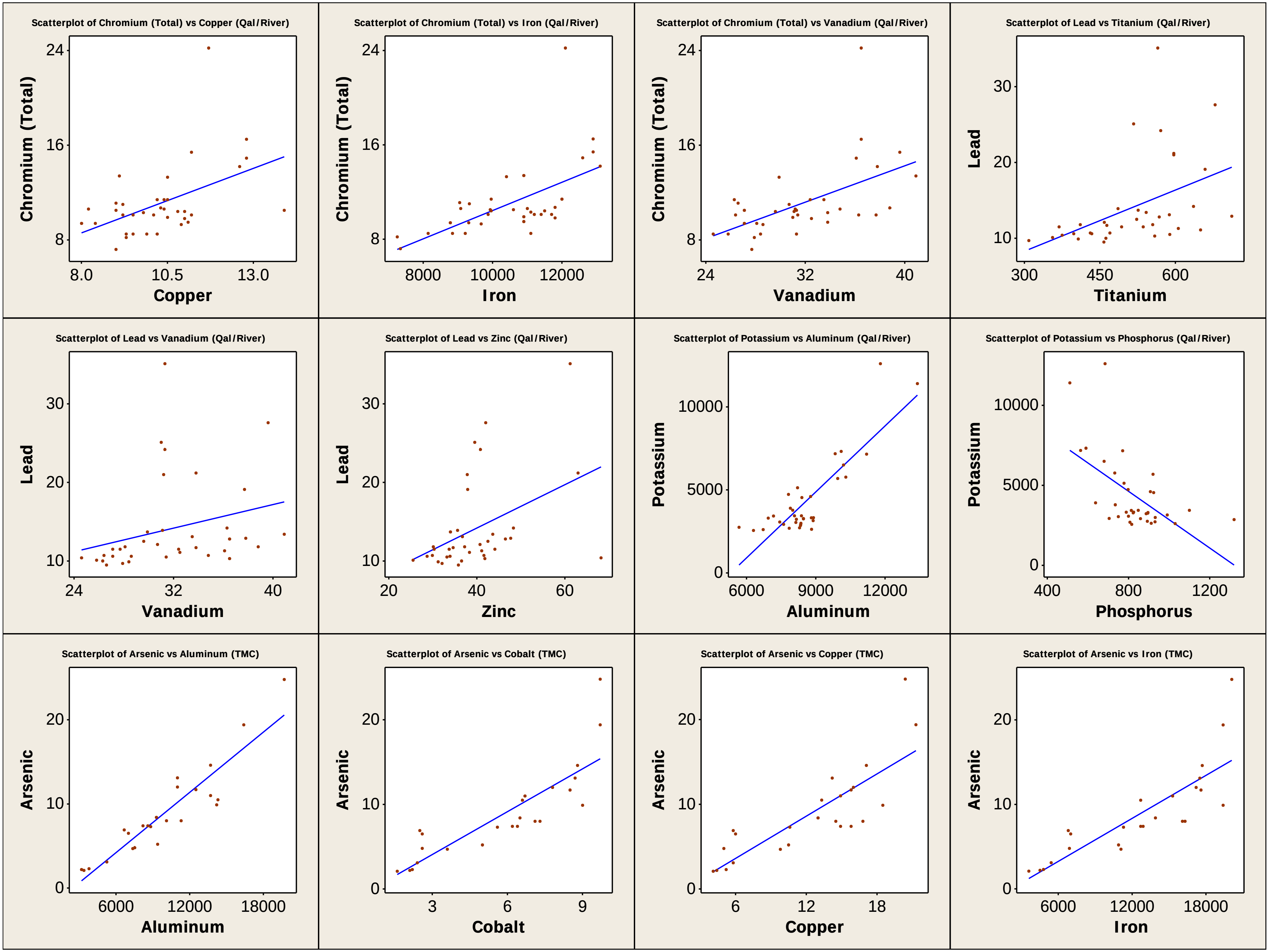


SCATTERPLOTS

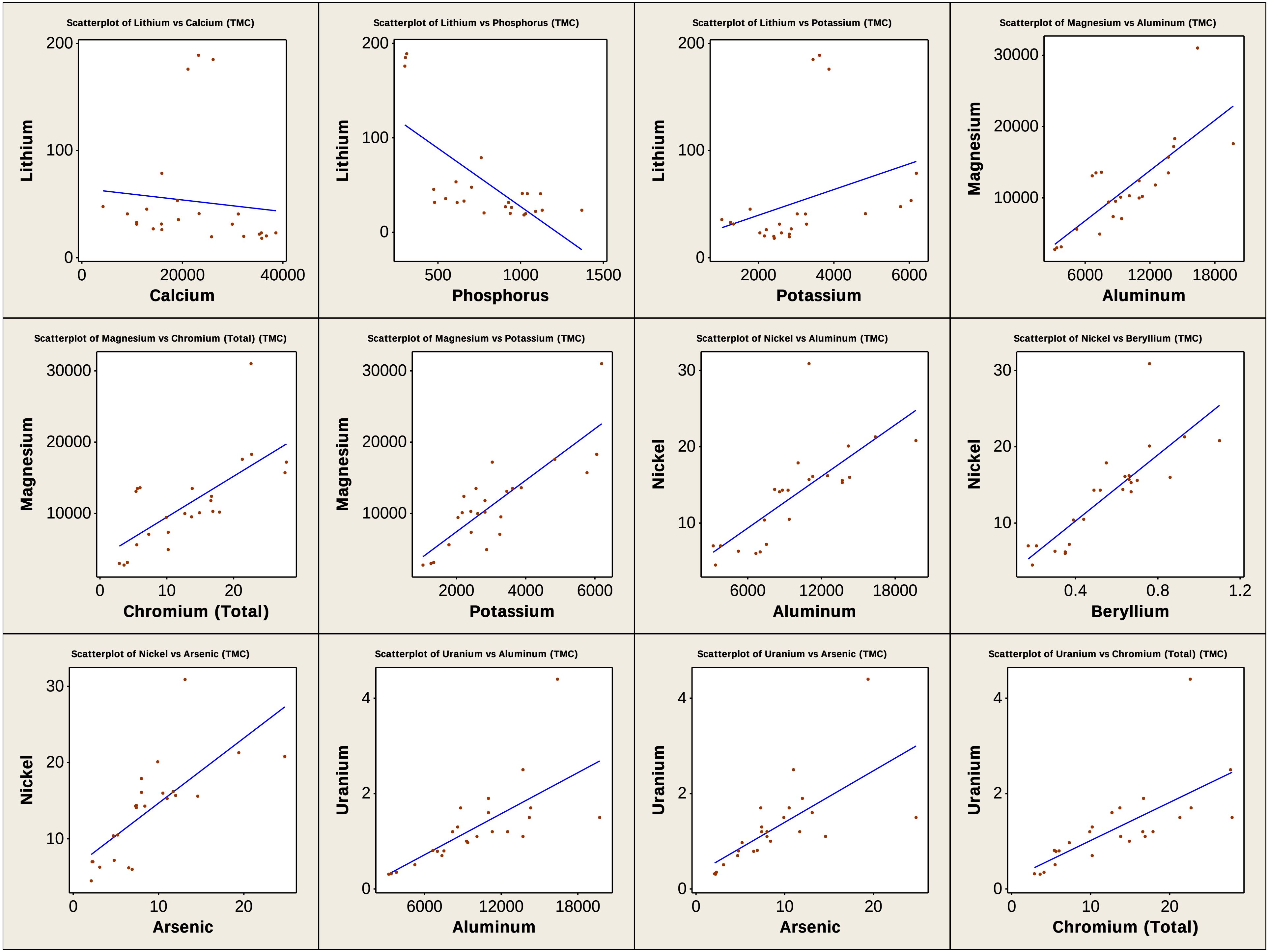

Scatterplot of Aluminum vs Iron (Qal/McC)
Aluminum
15000
10000
5000
10000
15000
20000
Iron
Scatterplot of Aluminum vs Palladium (Qal/McC)
Aluminum
15000
10000
5000
0
1
2
Palladium
Scatterplot of Aluminum vs Strontium (Qal/McC)
Aluminum
15000
10000
5000
200
450
700
Strontium
Scatterplot of Arsenic vs Palladium (Qal/McC)
Arsenic
12
8
4
0
1
2
Palladium
Scatterplot of Arsenic vs Potassium (Qal/McC)
Arsenic
12
8
4
800
1600
2400
Potassium
Scatterplot of Arsenic vs Uranium (Qal/McC)
Arsenic
12
8
4
1
2
3
Uranium
Scatterplot of Barium vs Aluminum (Qal/McC)
Barium
600
400
200
5000
10000
15000
Aluminum
Scatterplot of Barium vs Strontium (Qal/McC)
Barium
600
400
200
200
450
700
Strontium
Scatterplot of Copper vs Nickel (Qal/McC)
Copper
20
15
10
10
20
30
Nickel
Scatterplot of Copper vs Titanium (Qal/McC)
Copper
20
15
10
400
600
800
Titanium
Scatterplot of Lithium vs Iron (Qal/McC)
Lithium
100
50
0
10000
15000
20000
Iron
Scatterplot of Lithium vs Cobalt (Qal/McC)
Lithium
100
50
0
5.0
7.5
10.0
Cobalt



Scatterplot of Nickel vs Cobalt (Qal/McC)
Nickel
Cobalt
30
20
10
5.0
7.5
10.0
Scatterplot of Nickel vs Copper (Qal/McC)
Nickel
Copper
30
20
10
10
15
20
Scatterplot of Nickel vs Zinc (Qal/McC)
Nickel
Zinc
30
20
10
20
30
40
Scatterplot of Palladium vs Aluminum (Qal/McC)
Palladium
Aluminum
2
1
0
5000
10000
15000
Scatterplot of Palladium vs Sodium (Qal/McC)
Palladium
Sodium
2
1
0
1000
2000
3000
Scatterplot of Palladium vs Strontium (Qal/McC)
Palladium
Strontium
2
1
0
200
450
700
Scatterplot of Silver vs Palladium (Qal/McC)
Silver
Palladium
2
1
0
0
1
2
Scatterplot of Silver vs Sodium (Qal/McC)
Silver
Sodium
2
1
0
1000
2000
3000
Scatterplot of Strontium vs Aluminum (Qal/McC)
Strontium
Aluminum
700
450
200
5000
10000
15000
Scatterplot of Strontium vs Sodium (Qal/McC)
Strontium
Sodium
700
450
200
1000
2000
3000
Scatterplot of Barium vs Phosphorus (Qal/River)
Barium
Phosphorus
1500
1000
500
400
800
1200
Scatterplot of Barium vs Potassium (Qal/River)
Barium
Potassium
1500
1000
500
4000
8000
12000



Scatterplot of Chromium (Total) vs Copper (Qal/River)
Chromium (Total)
24
16
8
8.0
10.5
13.0
Copper
Scatterplot of Chromium (Total) vs Iron (Qal/River)
Chromium (Total)
24
16
8
8000
10000
12000
Iron
Scatterplot of Chromium (Total) vs Vanadium (Qal/River)
Chromium (Total)
24
16
8
24
32
40
Vanadium
Scatterplot of Lead vs Titanium (Qal/River)
Lead
30
20
10
300
450
600
Titanium
Scatterplot of Lead vs Vanadium (Qal/River)
Lead
30
20
10
24
32
40
Vanadium
Scatterplot of Lead vs Zinc (Qal/River)
Lead
30
20
10
20
40
60
Zinc
Scatterplot of Potassium vs Aluminum (Qal/River)
Potassium
10000
5000
0
6000
9000
12000
Aluminum
Scatterplot of Potassium vs Phosphorus (Qal/River)
Potassium
10000
5000
0
400
800
1200
Phosphorus
Scatterplot of Arsenic vs Aluminum (TMC)
Arsenic
20
10
0
6000
12000
18000
Aluminum
Scatterplot of Arsenic vs Cobalt (TMC)
Arsenic
20
10
0
3
6
9
Cobalt
Scatterplot of Arsenic vs Copper (TMC)
Arsenic
20
10
0
6
12
18
Copper
Scatterplot of Arsenic vs Iron (TMC)
Arsenic
20
10
0
6000
12000
18000
Iron


Scatterplot of Lithium vs Calcium (TMC)
Lithium
0
100
200
0
20000
40000
Calcium
Scatterplot of Lithium vs Phosphorus (TMC)
Lithium
0
100
200
500
1000
1500
Phosphorus
Scatterplot of Lithium vs Potassium (TMC)
Lithium
0
100
200
2000
4000
6000
Potassium
Scatterplot of Magnesium vs Aluminum (TMC)
Magnesium
10000
20000
30000
6000
12000
18000
Aluminum
Scatterplot of Magnesium vs Chromium (Total) (TMC)
Magnesium
10000
20000
30000
0
10
20
Chromium (Total)
Scatterplot of Magnesium vs Potassium (TMC)
Magnesium
10000
20000
30000
2000
4000
6000
Potassium
Scatterplot of Nickel vs Aluminum (TMC)
Nickel
10
20
30
6000
12000
18000
Aluminum
Scatterplot of Nickel vs Beryllium (TMC)
Nickel
10
20
30
0.4
0.8
1.2
Beryllium
Scatterplot of Nickel vs Arsenic (TMC)
Nickel
10
20
30
0
10
20
Arsenic
Scatterplot of Uranium vs Aluminum (TMC)
Uranium
0
2
4
6000
12000
18000
Aluminum
Scatterplot of Uranium vs Arsenic (TMC)
Uranium
0
2
4
0
10
20
Arsenic
Scatterplot of Uranium vs Chromium (Total) (TMC)
Uranium
0
2
4
0
10
20
Chromium (Total)