Appendix F

AERIALLY DEPOSITED LEAD SURVEY

AERIALLY DEPOSITED LEAD SURVEY REPORT
ROSE CREEK BIKEWAY PROJECT
SAN DIEGO, CALIFORNIA

May 22, 2015

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ROSE CREEK BIKEWAY PROJECT
SAN DIEGO, CALIFORNIA

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1 INTRODUCTION

1.1 PROJECT DESCRIPTION

This report has been prepared to summarize procedures and results of an Aerially Deposited Lead (ADL) survey conducted along the proposed Rose Creek Bikeway Project in San Diego, California (Project/Site) (Figure 1). The San Diego Association of Governments (SANDAG) is proposing to construct a bicycle pathway, consisting of Class I and Class IV bicycle facilities (Class IV is the new California Department of Transportation [Caltrans] nomenclature for cycle tracks or protected bike lanes), from Mission Bay Drive to the terminus of Santa Fe Street (Figure 1 and 2a). The bikeway Project will be constructed along Rose Creek and Santa Fe Street, adjacent to Interstate 5 (I-5) northbound lanes, and will pass under Mission Bay Drive and I-5, in the City of San Diego (City) (Figure 2a). The Project limits are within both the City's and Caltrans' right-of-way, and within the City limits. This work was performed for NASLAND Engineering (NASLAND), consistent with the approved ADL survey work plan, dated April 14, 2015 (Kleinfelder, 2015). This report summarizes soil sampling for ADL conducted during April 15 and 16, 2015 at specific locations in the unpaved shoulders and other areas of exposed soil in the Project's footprint (Figures 2b through 2d).

1.2 PROJECT OBJECTIVES AND SCOPE OF WORK

Based on historical use of leaded gasoline, there is a potential that ADL is present within soil adjacent to the existing traveled roadways (Mission Bay Drive, Santa Fe Street and I-5); therefore, SANDAG needs to evaluate the presence, concentration, and distribution of lead in soil in anticipation of future grading/construction activities. The data will be used to evaluate soil within the proposed construction area to assess the potential for reuse on Site. It will also be used to evaluate disposal options for potentially lead-impacted soil, and to evaluate health and safety issues for future on-Site workers.

Based on the age of roadways and their relative proximity to I-5, there is a potential that ADL may be present within shallow exposed soil (i.e., upper 2.5 feet).

The objective of the ADL study was to provide data for evaluation to allow for management of ADL-impacted soils associated with the above-referenced Project, based on Project design information known at this time. Samples were collected to provide information about lead-containing soils along the areas of potential effect within the Project boundaries, and evaluated

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relative to the Federal and State of California waste classification thresholds for reuse and/or disposal of soil.

This report describes the procedures, results, and recommendations from the ADL study performed within the Project limits. The scope of work was provided in the *Aerially Deposited Lead Survey Work Plan* (Kleinfelder, 2015), and Kleinfelder performed the tasks listed below:

- Provided project management and coordination.
- Prepared a Site-specific work plan and prepared a Site-specific health and safety plan (SSHSP) (Kleinfelder, 2015a).
- Advanced 30 borings using hand auger methods, 14 to a depth of approximately 2.5 feet below ground surface (bgs), and 16 to depths ranging from approximately 0.75 to 1.9 feet bgs, which is where refusal was met. Based on the total depth of the boring, between one and three soil samples were collected from each hand auger boring.
- Obtained global positioning system (GPS) location readings at each boring location.
- Submitted 79 soil samples, including 8 field duplicate samples, to Eurofins-Calscience, Inc. (Eurofins/Calscience) of Garden Grove, California, a state-certified laboratory, for analysis of total lead by United States Environmental Protection Agency (USEPA) Method 6010B.
- Analyzed 50 soil samples for Soluble Threshold Limit Concentration (STLC) by modified California Title 22 waste extraction test (CA-WET) method using citric acid as the extractant.
- Analyzed 29 soil samples for Toxicity Characteristic Leaching Procedure (TCLP) using USEPA Method 1311.
- Analyzed 8 soil samples for hydrogen ion index (pH) by USEPA Method 9045D.
- Collected and analyzed 2 equipment blanks for total lead by USEPA Method 6010B. One equipment blank was collected at the end of each sampling day.
- Prepared this report, including a summary of the assessment methods and field observations, data evaluation and discussion, findings, conclusions and recommendations.

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1.3 REPORT ORGANIZATION

This report is organized into the following sections and appendices. Tables are located behind a tab at the end of the report.

- Section 1 describes the Site, discusses the Project objectives and the purpose of the report, presents the scope of work, and discusses the organization of the report;
- Section 2 discusses pertinent Site background information;
- Section 3 describes sampling activities;
- Section 4 describes field observations and the investigation results, including laboratory analytical data;
- Section 5 presents the statistical analysis of the data;
- Section 6 presents the conclusions and recommendations;
- Section 7 presents the limitations of the report;
- Section 8 lists references;
- Figures;
- Tables;
- Appendix A includes a table with the coordinates of the samples;
- Appendix B includes the analytical reports from the laboratory; and,
- Appendix C presents the evaluation and results of the statistical analysis complete with tables.

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2 BACKGROUND

2.1 SITE IMPROVEMENTS

SANDAG is proposing to construct a bicycle pathway, consisting of Class I and Class IV bicycle facilities. The bikeway Project will be constructed along Rose Creek and Santa Fe Street, adjacent to I-5 northbound lanes, and will pass under Mission Bay Drive and I-5 (both north and southbound lanes), in the City (Figure 1). The Project limits are within the City's right-of-way and within the City limits. The improvements include, but are not limited to, a paved, +/- 0.8 mile shared-use bike path, under crossings of Mission Bay Drive and I-5 within the Rose Creek flood channel, +/- 1.3 miles two-way protected bike lanes, a +/- 240-foot bike and pedestrian bridge over Rose Creek, and +/- 850-long, six-foot high, retaining wall, utility relocation, pavement markings, bike lane striping, lighting, signage, revegetation, environmental mitigation, drainage facilities, grading and fencing.

2.2 WASTE CLASSIFICATION AND SOIL REUSE CRITERIA

Due to the historic use of lead in gasoline formulations, lead contamination is common in surface soils found along roadways. ADL-impacted soils are regulated at both the federal and state levels for the following reasons:

- They may be classified as federal hazardous waste.
- They are subject to state regulations when not classified as federal hazardous waste.
- They may represent an occupational safety and health risk.

According to Title 22, California Code of Regulations (CCR), solid wastes with total lead concentrations equal to or exceeding 1,000 milligrams per kilogram (mg/kg), the Total Threshold Limit Concentration (TTLC), are classified as California hazardous waste. Solid wastes with soluble lead concentrations (assessed using CA-WET procedures) equal to or exceeding 5.0 milligrams per liter (mg/L), the STLC, are classified as California hazardous under California law. California hazardous materials must be transported under a hazardous waste manifest and disposed of at an appropriately permitted facility. Wastes with lead concentrations less than both the TTLC and the STLC are not a California hazardous waste, and may be disposed of at a Class II or III facility, provided that site-specific disposal facility requirements are satisfied. Furthermore, according to federal law, as stipulated in the Resource Conservation and Recovery Act (RCRA), wastes that exceed 5.0 mg/L soluble lead, extracted using the federal

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TCLP, are classified as RCRA hazardous waste. This material must be disposed of as RCRA hazardous waste if transported offsite.

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3 SAMPLING ACTIVITIES

3.1 PRE-FIELD ACTIVITIES

Kleinfelder prepared and submitted a work plan including a SSHSP (Kleinfelder, 2015). The health and safety plan was reviewed with field personnel for potential hazards, emergency contact information, and hospital routes.

Prior to ground-disturbance activities, Kleinfelder visited each sample point to mark excavation locations with 3-foot lathes and flagging material. Underground utilities were visually checked when marking sampling locations; sample locations with potential utility conflicts were modified. Underground Services Alert of Southern California (DigAlert) was notified at least 48 hours prior to ground-disturbance activities and Kleinfelder was issued a unique ticket number for each boring location at the Site. Conflicts with potential utilities were not reported from any of the utilities notified.

3.2 ADL SAMPLING LOCATIONS AND GPS SURVEY

Thirty (30) sampling locations were selected and placed approximately equidistant from each other along proposed bikeway Project area (Figures 2a through 2d), in areas where ground disturbance would take place that were in proximity to roadways. Up to three soil samples were collected from each boring location at depths of approximately 0 to 0.5 foot bgs, 1 to 1.5 feet bgs, and 2 to 2.5 feet bgs, or until refusal. Site conditions (i.e., refusal) dictated sample retrieval; therefore, the number and depth of samples collected at each location was occasionally modified. A discussion of the Site conditions encountered and refusal depths for borings is presented in Section 4.1.

Sample locations were recorded during utility identification using a Trimble GPS unit, capable of providing accuracy to approximately 3 feet. The sample location names, along with their respective latitude and longitude coordinates (x and y coordinates) are included in Table A-1 (Appendix A). The approximate locations of these borings are shown on Figures 2a through 2d.

3.2.1 Hand Auger Drilling and Soil Sampling Methods

Hand auger borings were advanced on March 15 and 16, 2015. Borings were advanced using a manually operated, pre-cleaned, stainless steel hand auger.

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Soil samples were collected from the hand auger and placed into laboratory-supplied, 16-ounce jars with Teflon lids. The sample jars were labeled with a sample identification number and Z (depth) value, along with the date and time of the sample location, and placed in a secured, chilled ice chest. Standard chain-of-custody (COC) procedures were used during sampling and transportation to Eurofins/Calscience, via courier.

3.3 EQUIPMENT BLANKS

An equipment blank, consisting of distilled water poured over the sampling equipment that had been cleaned, was collected at the end of each sampling day. The equipment blank was collected to document the condition of the sampling equipment following decontamination. Equipment blank samples were collected in a laboratory-supplied, nitric acid-preserved bottle. The sample bottle was labeled with a unique sample identifier, date, time, project number and samplers' initials. The equipment blank sample was placed in the chilled cooler along with the soil samples and transported to Eurofins/Calscience for analysis.

3.4 ANALYTICAL METHODS

A total of 79 soil samples, including 8 duplicate samples, were analyzed for total lead by USEPA Method 6010B. The CA-WET procedure, using citric acid as the extractant, was performed on 50 soil samples, which included soil samples with total lead concentrations above 50 mg/kg. Soluble lead was analyzed in 29 samples using TCLP, when total lead concentrations greater than 100 mg/kg and less than 1,000 mg/kg were present. Additionally, 8 samples were measured for pH using USEPA Method 9045D.

3.5 DECONTAMINATION AND BORING ABANDONMENT

Sampling equipment (i.e., hand auger cutter head, soil sampler, etc.) was washed with a solution of Liquinox® detergent and rinsed with tap water and deionized water, in buckets, prior to each use. Generation of wash water was minimized. Wash water was contained in 5-gallon pails for disposal. At the end of the day, wash water was disposed at the surface in the exposed soil right-of-way, in an area that did not cause runoff of fluid or sediment into receptors (i.e., storm drain, creek, or other surface water bodies), consistent with the work plan. Soil cuttings originating from each boring were placed back within the original borehole as described in the work plan (Kleinfelder, 2015).

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4 FIELD OBSERVATIONS AND INVESTIGATIVE RESULTS

This section includes a summary of the Site conditions observed during the field work, a summary of the analytical results, and a discussion of the data quality assessment. The summary of analytical results for the soil samples collected is presented in Table 1. Certified Level II laboratory reports Eurofins/Calscience are included in Appendix B.

4.1 SITE CONDITIONS

Site conditions were not favorable enough to collect all samples originally proposed in the work plan, since refusal was met at 16 of 30 locations and anticipated depth was not always reached. Refusal due to underlying asphalt was encountered at the following locations: RCB-020, RCB-025 and RCB-027. Refusal due to large cobbles was encountered at the following locations: RCB-004 through RCB-007, RCB-009 and RCB-010, RCB-013, RCB-017, RCB-019, RCB-024, RCB-026, RCB-028 and RCB-029. Soil encountered was generally silty sand with large cobbles.

4.2 SOIL SAMPLE RESULTS

4.2.1 Total Lead

Total lead was detected in the 78 of the 79 soil samples analyzed, including 8 of the duplicate samples (Table 1) ranging in concentration from 6.99 mg/kg to 494 mg/kg. The maximum total lead concentration was 494 mg/kg, reported in the sample RCB-014-0.5 (at a depth of 0.5 foot bgs). In general, near surface samples generally contained higher concentrations of total lead compared to the deeper samples; however, there were some samples that were slightly higher than the surface sample collected at the same location. The values reported did not exceed 1,000 mg/kg, the TTLC value at which soil is considered a California hazardous waste.

4.2.2 California WET Method Soluble Lead (STLC) Results

CA-WET method soluble lead (citric acid extraction) was reported at concentrations above 5.0 mg/L (the California STLC action level) in 23 of the 50 samples analyzed. The maximum STLC was 28.6 mg/L, reported in the sample collected at RCB-017-0.5.

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4.2.3 TCLP Soluble Lead

Soluble lead was analyzed by TCLP using USEPA Test Method 1311 for extraction in 29 samples that had total lead concentrations exceeding 100 mg/kg and/or CA-WET concentrations exceeding 5 mg/L. TCLP values ranged from below laboratory detection limits (<0.100 mg/L) to 0.867 mg/L (Table 1). TCLP analysis is performed to evaluate if soils do not qualify for reuse due to designation as a RCRA hazardous waste. The values reported did not exceed 5.0 mg/L, the value at which soil is considered a RCRA hazardous waste.

4.2.4 Hydrogen Ion Concentration

The pH of the 8 soil samples analyzed ranged from 6.84 to 8.10 (Table 1). These concentrations are within threshold (greater than 2 and less than 12.5) for state and federal waste criteria for reuse. However, as noted in the report, chemical analysis has shown that this soil is impacted with lead.

4.3 DATA QUALITY ASSESSMENT

The following section summarizes the quality assurance (QA) and quality control (QC) program and data quality assessment. The data quality assessment process consisted of a review, verification, validation, and evaluation of the analytical data generated during the project. The limited data quality assessment was performed using the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2010) as a reference.

A total of 71 primary soil samples, 8 duplicate soil samples, and two equipment rinsate blanks were collected and submitted to Eurofins/Calscience, Inc. for one or more of the following analyses:

- Total lead by USEPA Method 6010B (TTLC)
- pH by USEPA Methods 9045D
- CA-WET Method
- Soluble lead by USEPA Method 1311 (TCLP)

One hundred percent of the data generated for this underwent a limited data quality review by a Kleinfelder project chemist, independent of Project activities. One Level II data deliverable

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report (Work Order) was evaluated during the data quality assessment, which consisted of evaluating the following parameters:

- Technical holding times and temperature
- COCs
- Sample results and analytical methods selected
- Field and laboratory blanks
- Field and laboratory sample duplicates
- Laboratory control sample (LCS) spike results
- Matrix spike (MS) and matrix spike duplicate (MSD) results.

Field and laboratory personnel implemented QA/QC procedures consistent with the QA criteria specified in the *Aerially-Deposited Lead Survey Work Plan* (Kleinfelder, 2015) during the soil sampling event. Lead was not reported above the laboratory reporting limit in the equipment rinsate blanks. Laboratory QC samples were analyzed consistent with the analytical method requirements.

During the data quality assessment, data was qualified as estimated ("J" detects) or "UJ" non-detects) based on QC outliers of the above-mentioned parameters:

The following results were qualified during the Level II data validation:

- Lead results in 19 samples were qualified as estimated ("J" for detects) due to the high percent recovery in the total lead MSD sample analysis, indicating possible high bias.
- Lead results in 31 samples were qualified as estimated ("J" detects) due to the low recovery in the CA-WET MS and/or MSD samples, indicating possible low bias.

Based on the results of the data quality assessment, a sample and analytical completeness goal of 100% was achieved. The ADL data are acceptable for the intended use of the Project.

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5 STATISTICAL EVALUATION

The data were analyzed to identify the appropriate handling of soil affected by ADL. During the course of construction, this soil is likely to be excavated, stockpiled, and relocated using methods that tend to homogenize soil constituent concentrations.

Kleinfelder has prepared a flow chart/decision diagram to address soil reuse and/or State and Federal Waste Criteria applicability based on the various analyses (Figure 3). The decision points for evaluation of the lead data were as follows:

- First Criterion: If the 95 percent upper confidence limit (95% UCL) of the mean for total lead is less than 1,000 mg/kg and less than 5.0 mg/L soluble lead (CA-WET), then the soil is considered non-hazardous and may be disposed of at a Class II or III facility, provided that site-specific disposal facility requirements are satisfied.
- Second Criterion: If the 95% UCL of the mean for total lead is less than 1,000 mg/kg and more than 5.0 mg/L soluble lead (CA-WET), then the soil is considered non-RCRA (regulated in the State of California, or California-hazardous) hazardous waste and may be disposed of at a Class I or II facility, provided that site-specific disposal facility requirements are satisfied.
- Third Criterion: If the 95% UCL of the mean for total lead is greater than 1,000 mg/kg or less than 5.0 mg/L TCLP, then the soil is considered RCRA hazardous and may be disposed of only at a Class I facility, provided that site-specific disposal facility requirements are satisfied.

The USEPA statistical analysis package, ProUCL Version 5.0 (ProUCL) was used to complete the statistical evaluation (USEPA, 2013). ProUCL allows the computation of a reliable, stable, and conservative 95 percent UCL of the mean concentration in an environmental data set and offers 15 different methods of computing a 95 percent UCL depending on the distribution of a given data set. The ProUCL statistical analyses are provided in Appendix C.

Table 2 provides a summary of the 95% UCLs calculated for total lead, soluble lead, and TCLP concentrations reported for soil samples from the subject Site. Based on a comparison of the 95% UCL value generated by ProUCL, the data set for total lead passes the first criterion established in the flow diagram: “Is the 95% UCL of the mean for total lead less than 1,000 mg/kg?”. Based on a comparison of the 95% UCL value generated by ProUCL, the data set for

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passes the first criterion established in the flow diagram: “Is the 95% UCL of the mean for total lead less than 1,000 mg/kg?”

Statistical analysis of soluble lead calculated using the results of the CA-WET procedure was also performed to address the second criterion from the ADL flow chart/decision diagram: “Is 95% UCL of the mean for soluble lead by WET-Citrate (CA-WET) <5 mg/L”. Based on a comparison of the 95% UCL value generated by ProUCL, the data set for soluble lead did not pass the second criterion for all depths. Based on a review of laboratory data and initial mean values for soluble lead, the Project was divided into three boring location groups (all depths), which were analyzed and recalculated for soluble lead:

- RCB-001 through RCB-003;
- RCB-004 through RCB-024; and
- RCB-024 through RCB-030.

When divided into the three segments, segments containing boring locations RCB-001 through RCB-003 and RCB-024 through RCB-030 passed the second criterion; however, the segment containing boring locations RCB-004 through RCB-024 did not pass the second criterion, and would be considered a California (non-RCRA) hazardous waste.

Based on a comparison of the 95% UCL value generated by ProUCL, the data set for TCLP passes the third criterion established in the flow diagram: “Is TCLP for lead less than 5 mg/L?”

In conclusion, based on state and federal waste criteria, the soil addressed in this analysis is classified as either non-hazardous or non-RCRA (California-hazardous) soil, which holds criteria for disposal as noted above. The basis for this conclusion is as follows:

- For these soils, the 95% UCL for total lead is less than 1,000 mg/kg for all depths (148.9 mg/kg, Table 2).
- The 95% UCL for CA-WET citrate procedure is more than 5.0 mg/L for all depths (14.11 mg/L, Table 2).
- The 95% UCL for CA-WET citrate procedure is less than 5.0 mg/L for all depths between RCB-001 and RCB-003 (3.12 mg/L, Table 2).
- The 95% UCL for CA-WET citrate procedure is more than 5.0 mg/L for all depths between RCB-004 and RCB-024 (13.75 mg/L, Table 2).

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- The 95% UCL for CA-WET citrate procedure is less than 5.0 mg/L for all depths between RCB-024 and RCB-030 (2.88 mg/L, Appendix C).
- The 95% UCL for TCLP procedure is less than 5.0 mg/L for all depths (0.44 mg/L, Table 2).

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6 CONCLUSIONS AND RECOMMENDATIONS

6.1 WASTE CHARACTERIZATION CONCLUSIONS

Based on the analytical results of this ADL Survey, soil samples collected at the 30 boring locations along the Rose Creek Bikeway footprint did not contain total lead in excess of the California TTLC of 1,000 mg/kg. The standard CA-WET soluble lead test results indicate that soil concentrations are in excess of the California STLC of 5 mg/L in 23 of the 50 samples analyzed for soluble lead by CA-WET at various locations along the Site. The TCLP test results did not contain lead in excess of threshold for RCRA hazardous waste of 5 mg/L.

For the purposes of statistical calculations, boring locations were divided into three segments. Based on the statistical analyses of soil sampling results for those three segments (95% UCL for soluble lead), soils from the following areas are considered non-hazardous and may be disposed at a Class III facility, provided that site-specific disposal facility requirements are satisfied:

- Soil to a depth of 2.5 feet bgs between RCB-001 and RCB-003; and
- Soil to a depth of 2.5 feet bgs between RCB-024 and RCB-030.

Based on the results of soil sampling (95% UCL for soluble lead), if excavated, soils from the following areas are considered non-RCRA hazardous (California hazardous) waste, and may be disposed at a Class I or II facility, provided that site-specific disposal facility requirements are satisfied:

- Soil to a depth of 2.5 feet bgs between RCB-004 and RCB-024 (approximately 2,500 cubic yards).

6.2 RECOMMENDATIONS

Based on the results of the soil sampling activities conducted, the soil located at the Site should be disposed off Site as indicated in Section 6.1. Based on discussions with the Client, only 15 inches of soil are planned to be removed for the proposed pavement section of the bicycle facility. If excavation of the proposed pavement section is 15 inches, the following recommendation applies:

- Removal and off-Site disposal of soil to a depth of 15 inches bgs between RCB-004 and RCB-024 (approximately 1,250 cubic yards).

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Additional sampling may be required by the approved disposal facility prior to acceptance. Kleinfelder can provide a scope of work and budget for these additional services to the Client upon request.

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7 LIMITATIONS

This work was performed in a manner consistent with that level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions and at the date the services are provided. Our conclusions, opinions and recommendations are based on a limited number of observations and data. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no other representation, guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

This report may be used only by the Client and the registered design professional in responsible charge and only for the purposes stated for this specific engagement within a reasonable time from its issuance, but in no event later than two (2) years from the date of the report.

The work performed was based on project information provided by Client. If the Client does not retain Kleinfelder to review any plans and specifications, including any revisions or modifications to the plans and specifications, Kleinfelder assumes no responsibility for the suitability of our recommendations. In addition, if there are any changes in the field to the plans and specifications, the Client must obtain written approval from Kleinfelder's engineer that such changes do not affect our recommendations. Failure to do so will vitiate Kleinfelder's recommendations.

Kleinfelder offers various levels of investigative and engineering services to suit the varying needs of different clients. It should be recognized that definition and evaluation of geologic and environmental conditions are a difficult and inexact science. Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the subsurface conditions present due to the limitations of data from field studies. Although risk can never be eliminated, more-detailed and extensive studies yield more information, which may help understand and manage the level of risk. Since detailed study and analysis involves greater expense, our clients participate in determining levels of service that provide adequate information for their purposes at acceptable levels of risk. More extensive studies, including subsurface studies or field tests, should be performed to reduce uncertainties. Acceptance of this report will indicate that the Client has reviewed the document and determined that it does not need or want a greater level of service than provided.

During the course of the performance of Kleinfelder's services, hazardous materials may have been discovered. Kleinfelder assumes no responsibility or liability whatsoever for any claim,

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loss of property value, damage, or injury that results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials. Nothing contained in this report should be construed or interpreted as requiring Kleinfelder to assume the status of an owner, operator, or generator, or person who arranges for disposal, transport, storage or treatment of hazardous materials within the meaning of any governmental statute, regulation or order. The Client is solely responsible for directing notification of all governmental agencies, and the public at large, of the existence, release, treatment or disposal of any hazardous materials observed at the project site, either before or during performance of Kleinfelder's services. The Client is responsible for directing all arrangements to lawfully store, treat, recycle, dispose, or otherwise handle hazardous materials, including cuttings and samples resulting from Kleinfelder's services.

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8 REFERENCES

Kleinfelder, Inc. (Kleinfelder), 2015. Final Aerially Deposited Lead Survey Work Plan, Rose Creek Bikeway Project, San Diego, California. April 14.

United States Environmental Protection Agency (USEPA), 2010. Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review.

USEPA, 2013. ProUCL version 5.0, September.

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TABLES

Table 1
Soil Analytical Results

				Chemical Name	Lead	Lead	Lead	pH
				Analysis Name	Total Lead (TTLC)	STLC	TCLP	pH
				Analysis Method	SW6010B	SW6010B	SW6010B	SW9045D
				Leachate Method	none	CA-WET	TCLP	none
				Units	mg/kg	mg/L	mg/L	pH units
				State Waste Criteria Threshold	1,000	5	NA	>2.0 and <12.5
				Federal Waste Criteria Threshold	0	NA	5	NA
				RWQCB Tier I Soil Reuse Criteria Threshold	15	0.15	NA	NA
Location Name	**Sample Name**	**Sample Type**	**Date**	**Depth (feet)**				
RCB-001	RCB-001-0.5	N	04/16/2015	0.5	70.4	2.55 J	--	--
	RCB-107	FD	04/16/2015	0.5	66.2	--	--	--
	RCB-001-1.0	N	04/16/2015	1	96.1	2.78 J	--	8.08
	RCB-001-2.0	N	04/16/2015	2	39.4	--	--	--
RCB-002	RCB-002-0.5	N	04/16/2015	0.5	38.2	--	--	--
	RCB-002-1.0	N	04/16/2015	1	27.8	--	--	--
	RCB-002-2.0	N	04/16/2015	2	19.4	--	--	--
	RCB-106	FD	04/16/2015	2	20.4	--	--	--
RCB-003	RCB-003-0.5	N	04/16/2015	0.5	79.4	2.94 J	--	--
	RCB-003-1.0	N	04/16/2015	1	50.6	1.78 J	--	--
	RCB-003-2.0	N	04/16/2015	2	34.1	--	--	--
RCB-004	RCB-004-0.5	N	04/16/2015	0.5	44.1	--	--	--
	RCB-004-1.0	N	04/16/2015	1	41.1	--	--	8.10
RCB-005	RCB-005-0.5	N	04/16/2015	0.5	27.8	--	--	--
	RCB-005-1.0	N	04/16/2015	1	165	**24.8 J**	< 0.100 U	--
RCB-006	RCB-006-0.5	N	04/16/2015	0.5	180	**9.76 J**	< 0.100 U	--
RCB-007	RCB-007-0.5	N	04/16/2015	0.5	20.9	--	--	--
	RCB-007-1.0	N	04/16/2015	1	19.8	--	--	--
RCB-008	RCB-008-0.5	N	04/16/2015	0.5	16.6	--	--	--
	RCB-008-1.0	N	04/16/2015	1	123	**23.0 J**	0.231	--
	RCB-008-2.0	N	04/16/2015	2	170	4.88 J	< 0.100 U	7.70
RCB-009	RCB-009-0.5	N	04/16/2015	0.5	149	3.79 J	< 0.100 U	--
	RCB-009-1.0	N	04/16/2015	1	62.5	2.14 J	--	--
RCB-010	RCB-010-0.5	N	04/16/2015	0.5	101	4.42 J	< 0.100 U	--
	RCB-010-1.0	N	04/16/2015	1	211	**5.55 J**	0.121	--
RCB-011	RCB-011-0.5	N	04/16/2015	0.5	52.9	--	--	--
	RCB-011-1.0	N	04/16/2015	1	56.9	1.97 J	--	--
	RCB-105	FD	04/16/2015	1	46.4	--	--	--
	RCB-011-2.0	N	04/16/2015	2	50.7	1.89 J	--	--

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Table 1
Soil Analytical Results

				Chemical Name	Lead	Lead	Lead	pH
				Analysis Name	Total Lead (TTLC)	STLC	TCLP	pH
				Analysis Method	SW6010B	SW6010B	SW6010B	SW9045D
				Leachate Method	none	CA-WET	TCLP	none
				Units	mg/kg	mg/L	mg/L	pH units
				State Waste Criteria Threshold	1,000	5	NA	>2.0 and <12.5
				Federal Waste Criteria Threshold	0	NA	5	NA
				RWQCB Tier I Soil Reuse Criteria Threshold	15	0.15	NA	NA
Location Name	**Sample Name**	**Sample Type**	**Date**	**Depth (feet)**				
RCB-012	RCB-012-0.5	N	04/16/2015	0.5	181	2.55 J	0.121	--
	RCB-012-1.0	N	04/16/2015	1	37.3	--	--	6.84
	RCB-012-2.0	N	04/16/2015	2	33.4	--	--	--
RCB-013	RCB-013-0.5	N	04/16/2015	0.5	290	**15.4 J**	0.102	--
	RCB-104	FD	04/16/2015	0.5	359	**15.6 J**	0.213	--
	RCB-013-1.0	N	04/16/2015	1	356	**16.4 J**	0.139	--
RCB-014	RCB-014-0.5	N	04/15/2015	0.5	494	**35.3 J**	0.772	--
	RCB-103	FD	04/15/2015	0.5	414	--	--	--
	RCB-014-1.0	N	04/15/2015	1	250	**13.0 J**	0.191	--
	RCB-014-2.0	N	04/15/2015	2	211	**7.14 J**	< 0.100 U	--
RCB-015	RCB-015-0.5	N	04/15/2015	0.5	212	**20.2 J**	0.293	--
	RCB-015-1.0	N	04/15/2015	1	198	**14.8 J**	0.295	--
	RCB-015-2.0	N	04/15/2015	2	254	**20.5 J**	0.388	--
RCB-016	RCB-016-0.5	N	04/15/2015	0.5	304	**16.0 J**	0.400	--
	RCB-016-1.0	N	04/15/2015	1	350	24.2 J	0.748	--
	RCB-016-2.0	N	04/15/2015	2	81.0	2.29 J	--	7.78
RCB-017	RCB-017-0.5	N	04/15/2015	0.5	427	**28.6 J**	0.867	--
	RCB-017-1.0	N	04/15/2015	1	126	3.10 J	0.125	--
RCB-018	RCB-018-0.5	N	04/15/2015	0.5	74.6	4.43 J	--	--
	RCB-018-1.0	N	04/15/2015	1	93.2	3.45 J	--	--
	RCB-018-2.0	N	04/15/2015	2	7.38	--	--	--
	RCB-102	FD	04/15/2015	2	6.99	--	--	--
RCB-019	RCB-019-0.5	N	04/15/2015	0.5	76.5	4.99	--	7.64
	RCB-019-1.0	N	04/15/2015	1	67.7	2.29	--	--
RCB-020	RCB-020-0.5	N	04/15/2015	0.5	310	**16.3**	0.454	--
	RCB-020-1.0	N	04/15/2015	1	57.4	2.34	--	--
RCB-021	RCB-021-0.5	N	04/15/2015	0.5	145	**7.24**	0.146	--
	RCB-021-1.0	N	04/15/2015	1	168	**8.35**	0.345	--
	RCB-021-2.0	N	04/15/2015	2	16.2	--	--	--

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Table 1
Soil Analytical Results

				Chemical Name	Lead	Lead	Lead	pH
				Analysis Name	Total Lead (TTLC)	STLC	TCLP	pH
				Analysis Method	SW6010B	SW6010B	SW6010B	SW9045D
				Leachate Method	none	CA-WET	TCLP	none
				Units	mg/kg	mg/L	mg/L	pH units
				State Waste Criteria Threshold	1,000	5	NA	>2.0 and <12.5
				Federal Waste Criteria Threshold	0	NA	5	NA
				RWQCB Tier I Soil Reuse Criteria Threshold	15	0.15	NA	NA
Location Name	**Sample Name**	**Sample Type**	**Date**	**Depth (feet)**				
RCB-022	RCB-022-0.5	N	04/15/2015	0.5	428 J	**13.8**	0.240	--
	RCB-022-1.0	N	04/15/2015	1	225 J	**8.09**	0.117	--
	RCB-022-2.0	N	04/15/2015	2	84.7 J	2.76	--	--
RCB-023	RCB-023-0.5	N	04/15/2015	0.5	111 J	**5.26**	0.109	7.86
	RCB-023-1.0	N	04/15/2015	1	294 J	**21.6**	0.295	--
	RCB-101	FD	04/15/2015	1	199 J	--	--	--
	RCB-023-2.0	N	04/15/2015	2	19.2 J	--	--	--
RCB-024	RCB-024-0.5	N	04/15/2015	0.5	93.4 J	1.67	--	--
RCB-025	RCB-025-0.5	N	04/15/2015	0.5	32.5 J	--	--	--
	RCB-025-1.0	N	04/15/2015	1	30.2 J	--	--	--
RCB-026	RCB-026-0.5	N	04/15/2015	0.5	112 J	1.77	< 0.100 U	--
	RCB-026-1.0	N	04/15/2015	1	< 0.524 U	--	--	--
RCB-027	RCB-027-0.5	N	04/15/2015	0.5	68.6 J	1.38	--	--
RCB-028	RCB-028-0.5	N	04/15/2015	0.5	38.4 J	--	--	--
	RCB-028-1.0	N	04/15/2015	1	33.2 J	--	--	--
RCB-029	RCB-029-0.5	N	04/15/2015	0.5	52.6 J	1.19	--	--
	RCB-100	FD	04/15/2015	0.5	47.0	--	--	--
	RCB-029-1.0	N	04/15/2015	1	73.2 J	4.35	--	7.50
RCB-030	RCB-030-0.5	N	04/15/2015	0.5	80.1 J	1.84	--	--
	RCB-030-1.0	N	04/15/2015	1	50.3 J	0.962	--	--
	RCB-030-2.0	N	04/15/2015	2	68.3 J	1.54	--	--

Notes:

N - a normal environmental sample

FD - a duplicate field sample

J - the concentration is considered an estimated value

mg/kg - milligrams per kilogram soil

mg/L - milligrams per liter liquid

pH - hydrogen ion index

STLC - soluble threshold limit concentration, a waste extraction test performed according to Federal Guidelines (SW846)

TCLP - a waste extraction test (toxicity characteristic leaching procedure) performed according to Federal guidelines (SW1311)

TTLC - total threshold limit concentration (total lead)

U - the concentration is not detectable above the listed reporting limit value shown

CA-WET - a waste extraction test performed according to Title 26 California Code of Regulations

Bold indicates lead concentration result is above threshold for State Hazardous Waste Criteria

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Table 2
Summary of Lead Concentration Results From Statistical Analysis

TOTAL LEAD							
Depth	No. of Samples	Min Value	Max Value	Mean	Median	Standard Deviation	95% UCL
0.5	30	16.6	494	146	86.75	135.4	198
1.0	27	0.524	356	120.9	73.2	102.7	172.8
2.0	14	7.38	254	77.84	45.05	77.96	137.8
All Depths	71	0.524	494	123	76.5	115.2	148.9
By Group - All Depths	No. of Samples	Min Value	Max Value	Mean	Median	Standard Deviation	95% UCL
RCB-001 through -003	9	20.4	96.1	50.71	39.4	25.68	66.63
RCB-004 through -024	50	7.38	494	152.7	117	124.9	189.7
RCB-024 through -030	13	0.524	112	56.41	52.6	30.12	71.3

STLC							
Depth	No. of Samples	Min Value	Max Value	Mean	Median	Standard Deviation	95% UCL
0.5	22	1.19	35.3	9.163	4.71	9.433	13.88
1.0	20	0.962	24.8	9.428	4.95	8.523	14.23
2.0	7	1.54	20.5	5.857	2.76	6.754	10.82
All Depths	49	0.962	35.3	8.725	4.43	8.648	14.11
By Group - All Depths	No. of Samples	Min Value	Max Value	Mean	Median	Standard Deviation	95% UCL
RCB-001 through -003	4	1.78	2.94	2.513	2.665	0.514	3.117
RCB-004 through -024	38	1.67	35.3	10.64	7.19	8.94	13.75
RCB-024 through -030	8	0.962	4.35	1.838	1.605	1.058	2.881

TCLP							
Depth	No. of Samples	Min Value	Max Value	Mean	Median	Standard Deviation	95% UCL
All depths	28	0.1	0.867	0.261	0.169	0.217	0.44

Notes:

Highlight indicates value below threshold for non-RCRA (California hazardous) waste criteria.

Highlight indicates value above threshold for non-RCRA (California hazardous) waste criteria.

STLC - soluble threshold limit concentration

TCLP - toxicity characteristic limit procedure

UCL - upper confidence level

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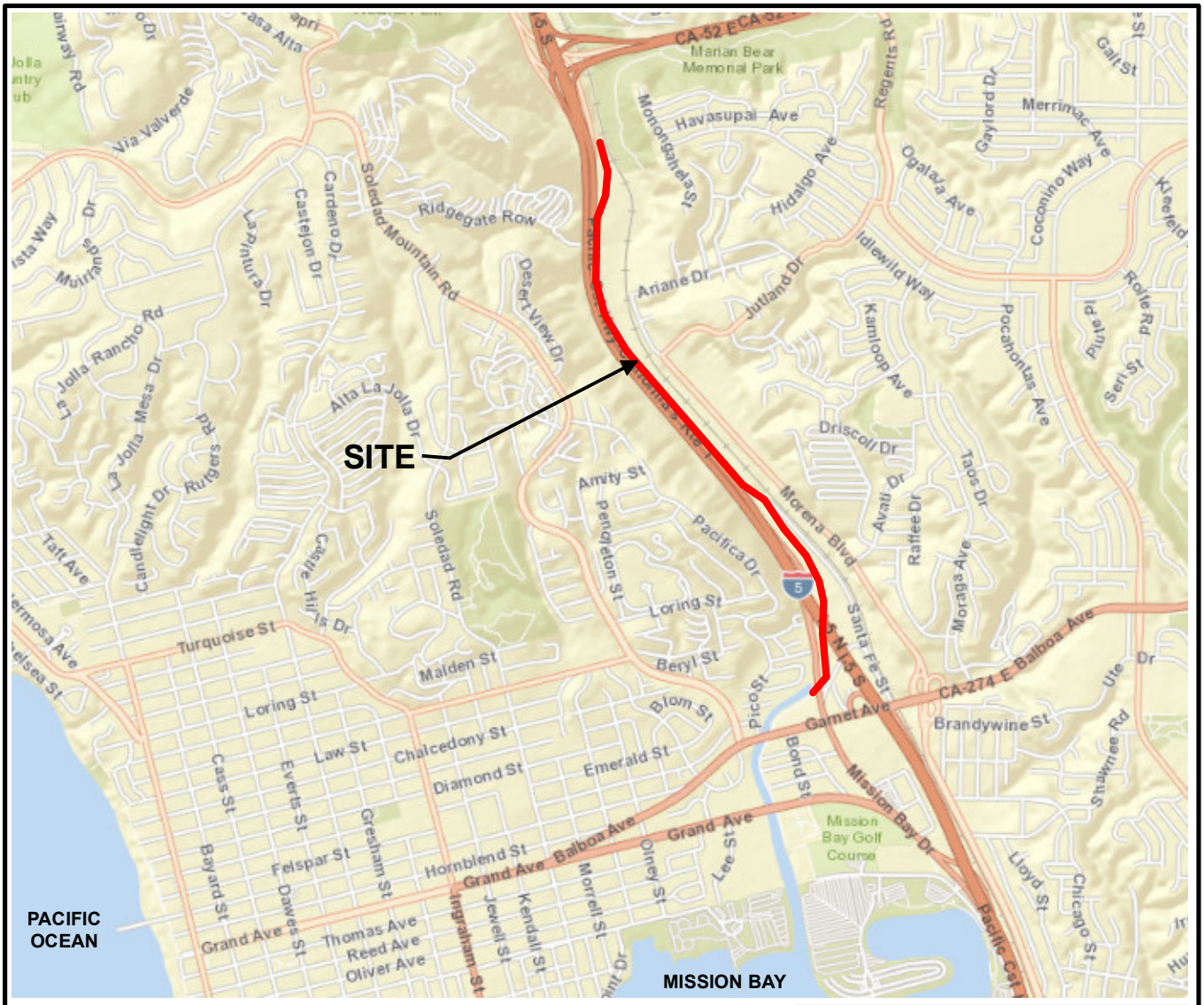
FIGURES



N

0 1,500 3,000 6,000

Feet

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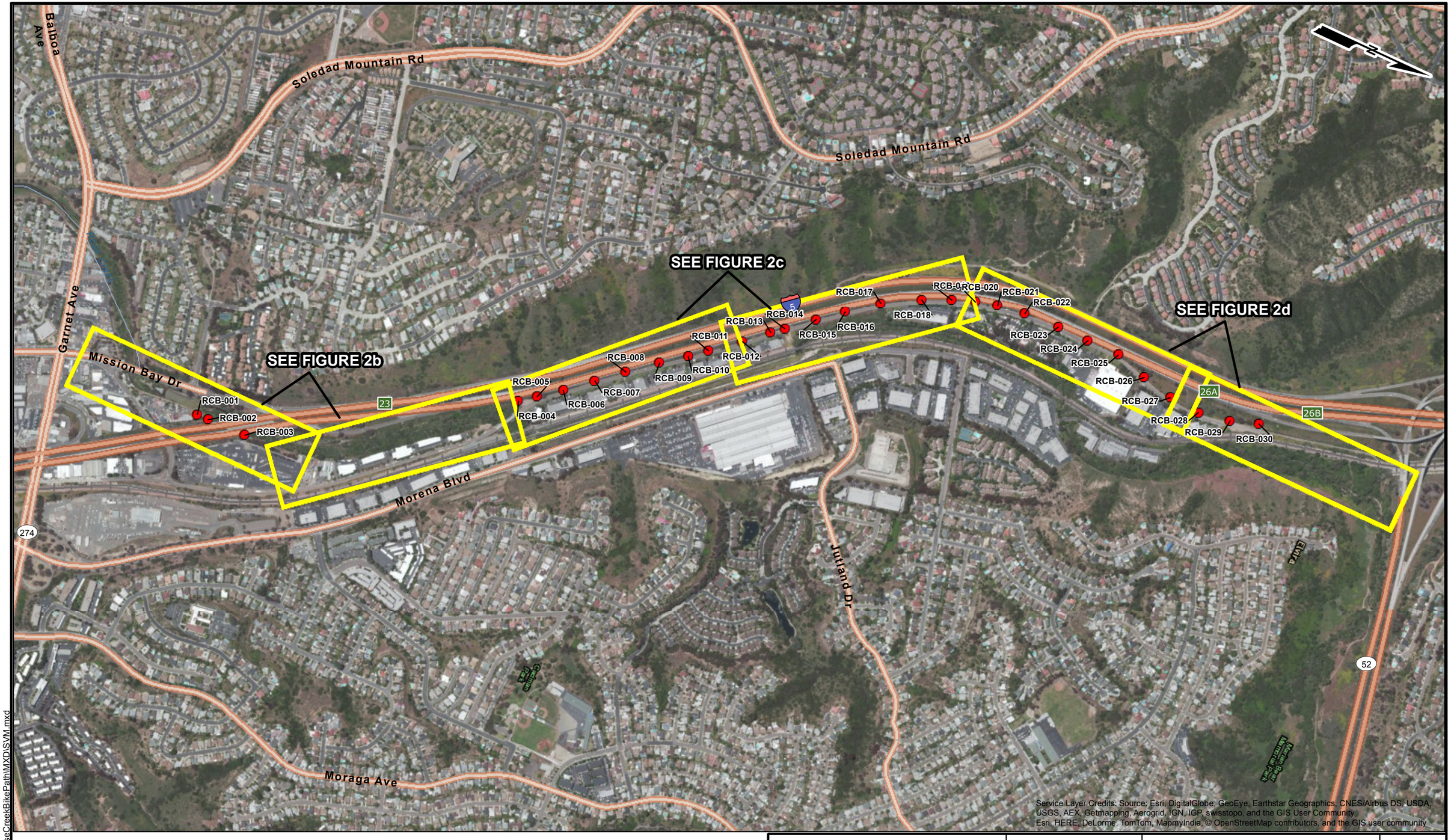
PROJECT NO.	05504500
DRAWN:	May 12, 2015
DRAWN BY:	RA
CHECKED BY:	JJ
FILE NAME:	05504500_VIC.mxd

SITE VICINITY

AERIALLY DEPOSITED LEAD SURVEY
ROSE CREEK BIKEWAY PROJECT
SAN DIEGO, CALIFORNIA

FIGURE

1



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LEGEND

APPROXIMATE SAMPLE LOCATION

0 500 1,000 1,500 2,000 Feet

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SITE LOCATION MAP

AERIALLY DEPOSITED LEAD SURVEY
ROSE CREEK BIKEWAY PROJECT
SAN DIEGO, CALIFORNIA

FIGURE **2a**

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LEGEND

● APPROXIMATE SAMPLE LOCATION

0 50 100 200 Feet

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BORING LOCATIONS

AERIALLY DEPOSITED LEAD SURVEY
ROSE CREEK BIKEWAY PROJECT
SAN DIEGO, CALIFORNIA

FIGURE **2b**

U:\RAlvarez_TEMP\RoseCreekBikePath\MXD\Sample_f1.mxd

U:\RAlvarez_TEMP\RoseCreekBikePath\MXD\Sample_f2.mxd

LEGEND

● APPROXIMATE SAMPLE LOCATION

0 50 100 200 Feet

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FILE NAME:	Sample_f2.mxd

BORING LOCATIONS

AERIALLY DEPOSITED LEAD SURVEY
ROSE CREEK BIKEWAY PROJECT
SAN DIEGO, CALIFORNIA

FIGURE
2c

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LEGEND

● APPROXIMATE SAMPLE LOCATION

0 50 100 200 Feet

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BORING LOCATIONS

AERIALLY DEPOSITED LEAD SURVEY
ROSE CREEK BIKEWAY PROJECT
SAN DIEGO, CALIFORNIA

FIGURE
2d

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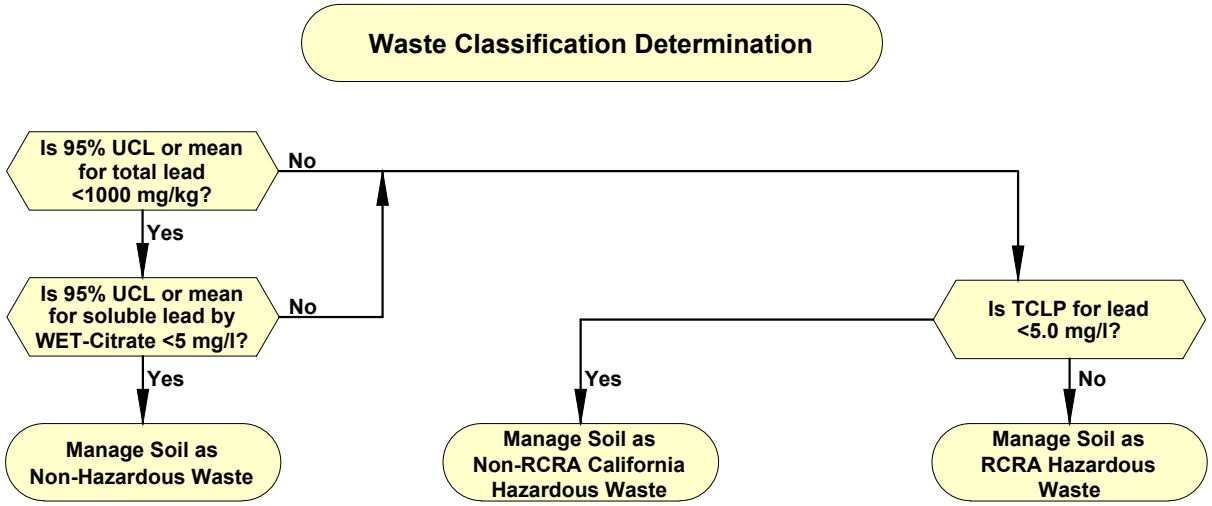

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CAD FILE: U:\GIS_Projects\20154850\ LAYOUT: Layout1

ATTACHED IMAGES:
ATTACHED XREFS:

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DRAWN:	May 12, 2015
DRAWN BY:	RA
CHECKED BY:	JJ
FILE NAME:	20154850_flow2.dwg

ADL-IMPACTED SOILS MANAGEMENT FLOW CHART

AERIALLY DEPOSITED LEAD SURVEY
ROSE CREEK BIKEWAY PROJECT
SAN DIEGO, CALIFORNIA

FIGURE
3

APPENDIX A

Sample Location Coordinates
(Table A-1)

Table A-1
Sample Location Coordinates

Location_ID	Longitude	Latitude	X (ft)	Y (ft)
RCB-001	-117.2190330	32.8098930	6263930.5858	1875838.9684
RCB-002	-117.2190240	32.8101900	6263934.1936	1875946.8553
RCB-003	-117.2190850	32.8111960	6263918.8196	1876312.9499
RCB-004	-117.2235070	32.8170300	6262580.2264	1878448.1913
RCB-005	-117.2238660	32.8174040	6262470.9908	1878585.5332
RCB-006	-117.2243710	32.8179350	6262317.8592	1878779.9582
RCB-007	-117.2250350	32.8185440	6262115.9884	1879003.4386
RCB-008	-117.2256650	32.8191560	6261924.4736	1879228.0419
RCB-009	-117.2263390	32.8198190	6261719.5533	1879471.0284
RCB-010	-117.2268880	32.8203920	6261552.8477	1879681.2293
RCB-011	-117.2272950	32.8207920	6261429.0908	1879828.0861
RCB-012	-117.2279810	32.8214710	6261220.9351	1880076.9385
RCB-013	-117.2285880	32.8220120	6261036.1515	1880275.3901
RCB-014	-117.2288670	32.8222830	6260951.3697	1880375.0310
RCB-015	-117.2295140	32.8228960	6260754.6273	1880599.6404
RCB-016	-117.2300950	32.8234740	6260578.2858	1880811.6981
RCB-017	-117.2307840	32.8241880	6260369.1331	1881073.6064
RCB-018	-117.2313990	32.8250790	6260183.2479	1881399.3201
RCB-019	-117.2317810	32.8257620	6260068.2330	1881649.1248
RCB-020	-117.2320310	32.8263250	6259993.3907	1881854.5248
RCB-021	-117.2322180	32.8268680	6259937.7646	1882052.6534
RCB-022	-117.2323620	32.8275710	6259895.8061	1882308.9740
RCB-023	-117.2324230	32.8284670	6259880.2387	1882635.1026
RCB-024	-117.2324330	32.8292910	6259879.8595	1882934.9420
RCB-025	-117.2324440	32.8301370	6259879.5775	1883242.7396
RCB-026	-117.2321700	32.8309620	6259966.4812	1883542.0135
RCB-027	-117.2319640	32.8317760	6260032.6774	1883837.7910
RCB-028	-117.2319290	32.8325770	6260046.0216	1884129.1705
RCB-029	-117.2321040	32.8333830	6259995.0764	1884422.6848
RCB-030	-117.2323970	32.8340720	6259907.3132	1884674.3665

State Plane coordinates in feet, Zone VI, NAD 83

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APPENDIX B

Laboratory Analytical Reports and Chain-of-Custody Documentation

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Supplemental Report 2

WORK ORDER NUMBER: 15-04-1163

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Kleinfelder, Inc.

Client Project Name: ROSE CREEK ADL STUDY / 05504500

Attention: Jeremy Januszieiwcz
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Approved for release on 05/04/2015 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Contents

Client Project Name: ROSE CREEK ADL STUDY / 05504500
Work Order Number: 15-04-1163

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Work Order Narrative

Work Order: 15-04-1163 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 04/15/15. They were assigned to Work Order 15-04-1163.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Project: ROSE CREEK ADL STUDY / 05504500

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: N/A
Method: EPA 9045D
Units: pH units

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-029-1.0	**15-04-1163-5-A**	**04/15/15 09:04**	**Solid**	**PH 4**	**04/16/15**	**04/16/15 13:48**	**F0416PHD1**

Parameter	Result	RL	DF	Qualifiers
pH	7.50	0.01	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-023-0.5	**15-04-1163-14-A**	**04/15/15 10:43**	**Solid**	**PH 4**	**04/16/15**	**04/16/15 13:48**	**F0416PHD1**

Parameter	Result	RL	DF	Qualifiers
pH	7.86	0.01	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-019-0.5	**15-04-1163-26-A**	**04/15/15 13:08**	**Solid**	**PH 4**	**04/16/15**	**04/16/15 13:48**	**F0416PHD1**

Parameter	Result	RL	DF	Qualifiers
pH	7.64	0.01	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-016-2.0	**15-04-1163-36-A**	**04/15/15 13:54**	**Solid**	**PH 4**	**04/16/15**	**04/16/15 13:48**	**F0416PHD1**

Parameter	Result	RL	DF	Qualifiers
pH	7.78	0.01	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-030-0.5	**15-04-1163-1-A**	**04/15/15 08:43**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:03**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	80.1	0.515	1.03	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-030-1.0	**15-04-1163-2-A**	**04/15/15 08:47**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:04**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	50.3	0.521	1.04	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-030-2.0	**15-04-1163-3-A**	**04/15/15 08:55**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:05**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	68.3	0.524	1.05	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-029-0.5	**15-04-1163-4-A**	**04/15/15 09:02**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:05**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	52.6	0.510	1.02	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-029-1.0	**15-04-1163-5-A**	**04/15/15 09:04**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:06**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	73.2	0.478	0.957	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-028-0.5	**15-04-1163-6-A**	**04/15/15 09:15**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:07**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	38.4	0.476	0.952	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-028-1.0	**15-04-1163-7-A**	**04/15/15 09:17**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:08**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	33.2	0.508	1.02	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-027-0.5	**15-04-1163-8-A**	**04/15/15 09:28**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:09**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	68.6	0.510	1.02	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-026-0.5	**15-04-1163-9-A**	**04/15/15 09:47**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:10**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	112	0.476	0.952	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-026-1.0	**15-04-1163-10-A**	**04/15/15 09:52**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:29**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.524	1.05	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-025-0.5	**15-04-1163-11-A**	**04/15/15 10:07**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:30**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	32.5	0.485	0.971	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-025-1.0	**15-04-1163-12-A**	**04/15/15 10:11**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:31**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	30.2	0.488	0.976	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-024-0.5	**15-04-1163-13-A**	**04/15/15 10:23**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:32**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	93.4	0.483	0.966	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-023-0.5	**15-04-1163-14-A**	**04/15/15 10:43**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:33**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	111	0.521	1.04	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-023-1.0	**15-04-1163-15-A**	**04/15/15 10:49**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:34**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	294	0.505	1.01	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-101	**15-04-1163-16-A**	**04/15/15 10:49**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:35**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	199	0.515	1.03	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-023-2.0	**15-04-1163-17-A**	**04/15/15 10:52**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:35**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	19.2	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-022-0.5	**15-04-1163-18-A**	**04/15/15 11:02**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:36**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	428	0.476	0.952	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-022-1.0	**15-04-1163-19-A**	**04/15/15 11:04**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:37**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	225	0.510	1.02	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-022-2.0	**15-04-1163-20-A**	**04/15/15 11:10**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:41**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	84.7	0.515	1.03	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-021-0.5	**15-04-1163-21-A**	**04/15/15 12:38**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:41**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	145	0.521	1.04	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-021-1.0	**15-04-1163-22-A**	**04/15/15 12:40**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:42**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	168	0.515	1.03	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-021-2.0	**15-04-1163-23-A**	**04/15/15 12:46**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:43**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	16.2	0.503	1.01	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-020-0.5	**15-04-1163-24-A**	**04/15/15 12:52**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:44**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	310	0.515	1.03	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: ROSE CREEK ADL STUDY / 05504500 Page 4 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-020-1.0	**15-04-1163-25-A**	**04/15/15 12:57**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:45**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	57.4	0.503	1.01	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-019-0.5	**15-04-1163-26-A**	**04/15/15 13:08**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:46**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	76.5	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-019-1.0	**15-04-1163-27-A**	**04/15/15 13:09**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:47**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	67.7	0.503	1.01	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-018-0.5	**15-04-1163-28-A**	**04/15/15 13:20**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:47**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	74.6	0.505	1.01	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-018-1.0	**15-04-1163-29-A**	**04/15/15 13:22**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:48**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	93.2	0.526	1.05	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-018-2.0	**15-04-1163-30-A**	**04/15/15 13:25**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:52**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	7.38	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-102	**15-04-1163-31-A**	**04/15/15 13:25**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:53**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	6.99	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-017-0.5	**15-04-1163-32-A**	**04/15/15 13:35**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:53**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	427	0.503	1.01	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: ROSE CREEK ADL STUDY / 05504500 Page 5 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-017-1.0	**15-04-1163-33-A**	**04/15/15 13:38**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:54**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	126	0.498	0.995	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-016-0.5	**15-04-1163-34-A**	**04/15/15 13:48**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:55**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	304	0.513	1.03	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-016-1.0	**15-04-1163-35-A**	**04/15/15 13:50**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:56**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	350	0.521	1.04	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-016-2.0	**15-04-1163-36-A**	**04/15/15 13:54**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:57**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	81.0	0.515	1.03	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-015-0.5	**15-04-1163-37-A**	**04/15/15 14:02**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:58**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	212	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-015-1.0	**15-04-1163-38-A**	**04/15/15 14:04**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:58**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	198	0.493	0.985	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-015-2.0	**15-04-1163-39-A**	**04/15/15 14:07**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:59**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	254	0.513	1.03	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-014-0.5	**15-04-1163-40-A**	**04/15/15 14:12**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 13:03**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	494	0.510	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: ROSE CREEK ADL STUDY / 05504500 Page 6 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-103	**15-04-1163-41-A**	**04/15/15 14:12**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 13:04**	**150422L03**

Parameter	Result	RL	DF	Qualifiers
Lead	414	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-014-1.0	**15-04-1163-42-A**	**04/15/15 14:16**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 13:05**	**150422L03**

Parameter	Result	RL	DF	Qualifiers
Lead	250	0.518	1.04	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-014-2.0	**15-04-1163-43-A**	**04/15/15 14:21**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 13:05**	**150422L03**

Parameter	Result	RL	DF	Qualifiers
Lead	211	0.505	1.01	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-100	**15-04-1163-45-A**	**04/15/15 09:02**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 13:06**	**150422L03**

Parameter	Result	RL	DF	Qualifiers
Lead	47.0	0.508	1.02	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-20839**	**N/A**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 11:52**	**150422L01**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.510	1.02	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-20840**	**N/A**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 11:53**	**150422L02**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.490	0.980	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-20833**	**N/A**	**Solid**	**ICP 7300**	**04/22/15**	**04/22/15 20:25**	**150422L03**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.488	0.976	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB041515	**15-04-1163-44-A**	**04/15/15 14:25**	**Aqueous**	**ICP 7300**	**04/16/15**	**04/17/15 11:06**	**150416LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-003-15012**	**N/A**	**Aqueous**	**ICP 7300**	**04/16/15**	**04/17/15 11:12**	**150416LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.0100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: T22.11.5. AII
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-030-0.5	**15-04-1163-1-A**	**04/15/15 08:43**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:17**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	1.84	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-030-1.0	**15-04-1163-2-A**	**04/15/15 08:47**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:24**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	0.962	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-030-2.0	**15-04-1163-3-A**	**04/15/15 08:55**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:26**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	1.54	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-029-0.5	**15-04-1163-4-A**	**04/15/15 09:02**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:27**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	1.19	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-029-1.0	**15-04-1163-5-A**	**04/15/15 09:04**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:29**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	4.35	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-027-0.5	**15-04-1163-8-A**	**04/15/15 09:28**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:31**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	1.38	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-026-0.5	**15-04-1163-9-A**	**04/15/15 09:47**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:32**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	1.77	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-024-0.5	**15-04-1163-13-A**	**04/15/15 10:23**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:34**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	1.67	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: T22.11.5. AII
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-023-0.5	**15-04-1163-14-A**	**04/15/15 10:43**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:36**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	5.26	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-023-1.0	**15-04-1163-15-A**	**04/15/15 10:49**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:37**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	21.6	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-022-0.5	**15-04-1163-18-A**	**04/15/15 11:02**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:46**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	13.8	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-022-1.0	**15-04-1163-19-A**	**04/15/15 11:04**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:47**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	8.09	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-022-2.0	**15-04-1163-20-A**	**04/15/15 11:10**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:49**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	2.76	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-021-0.5	**15-04-1163-21-A**	**04/15/15 12:38**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:51**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	7.24	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-021-1.0	**15-04-1163-22-A**	**04/15/15 12:40**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:52**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	8.35	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-020-0.5	**15-04-1163-24-A**	**04/15/15 12:52**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:54**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	16.3	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: T22.11.5. AII
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-020-1.0	**15-04-1163-25-A**	**04/15/15 12:57**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:56**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	2.34	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-019-0.5	**15-04-1163-26-A**	**04/15/15 13:08**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:57**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	4.99	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-019-1.0	**15-04-1163-27-A**	**04/15/15 13:09**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:59**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	2.29	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-018-0.5	**15-04-1163-28-A**	**04/15/15 13:20**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:01**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	4.43	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-018-1.0	**15-04-1163-29-A**	**04/15/15 13:22**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:08**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	3.45	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-017-0.5	**15-04-1163-32-A**	**04/15/15 13:35**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:10**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	28.6	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-017-1.0	**15-04-1163-33-A**	**04/15/15 13:38**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:11**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	3.10	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-016-0.5	**15-04-1163-34-A**	**04/15/15 13:48**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:13**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	16.0	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: T22.11.5. AII
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-016-1.0	**15-04-1163-35-A**	**04/15/15 13:50**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:15**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	24.2	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-016-2.0	**15-04-1163-36-A**	**04/15/15 13:54**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:16**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	2.29	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-015-0.5	**15-04-1163-37-A**	**04/15/15 14:02**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:18**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	20.2	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-015-1.0	**15-04-1163-38-A**	**04/15/15 14:04**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:20**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	14.8	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-015-2.0	**15-04-1163-39-A**	**04/15/15 14:07**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:21**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	20.5	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-014-0.5	**15-04-1163-40-A**	**04/15/15 14:12**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:23**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	35.3	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-014-1.0	**15-04-1163-42-A**	**04/15/15 14:16**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:32**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	13.0	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-014-2.0	**15-04-1163-43-A**	**04/15/15 14:21**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:33**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	7.14	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: T22.11.5. AII
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500 Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-05-006-7817**	**N/A**	**Aqueous**	**ICP 7300**	**04/23/15**	**04/27/15 17:55**	**150427LA1**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-05-006-7818**	**N/A**	**Aqueous**	**ICP 7300**	**04/23/15**	**04/27/15 17:57**	**150427LA2**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: EPA 1311
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-026-0.5	**15-04-1163-9-A**	**04/15/15 09:47**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:30**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-023-0.5	**15-04-1163-14-A**	**04/15/15 10:43**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:36**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.109	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-023-1.0	**15-04-1163-15-A**	**04/15/15 10:49**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:38**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.295	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-022-0.5	**15-04-1163-18-A**	**04/15/15 11:02**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:41**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.240	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-022-1.0	**15-04-1163-19-A**	**04/15/15 11:04**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:43**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.117	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-021-0.5	**15-04-1163-21-A**	**04/15/15 12:38**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:45**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.146	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-021-1.0	**15-04-1163-22-A**	**04/15/15 12:40**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:47**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.345	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-020-0.5	**15-04-1163-24-A**	**04/15/15 12:52**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:54**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.454	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: EPA 1311
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-017-0.5	**15-04-1163-32-A**	**04/15/15 13:35**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:56**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.867	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-017-1.0	**15-04-1163-33-A**	**04/15/15 13:38**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:58**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.125	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-016-0.5	**15-04-1163-34-A**	**04/15/15 13:48**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 19:00**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.400	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-016-1.0	**15-04-1163-35-A**	**04/15/15 13:50**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 19:02**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.748	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-015-0.5	**15-04-1163-37-A**	**04/15/15 14:02**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 19:04**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.293	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-015-1.0	**15-04-1163-38-A**	**04/15/15 14:04**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 19:06**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.295	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-015-2.0	**15-04-1163-39-A**	**04/15/15 14:07**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 19:08**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.388	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-014-0.5	**15-04-1163-40-A**	**04/15/15 14:12**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 19:10**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.772	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/15/15
Work Order: 15-04-1163
Preparation: EPA 1311
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-014-1.0	**15-04-1163-42-A**	**04/15/15 14:16**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 19:19**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	0.191	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-014-2.0	**15-04-1163-43-A**	**04/15/15 14:21**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 19:21**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-021-1548**	**N/A**	**Aqueous**	**ICP 7300**	**04/23/15**	**04/27/15 17:48**	**150424LA4**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 1 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-04-1233-1	**Sample**	**Solid**	**ICP 7300**	**04/22/15**	**04/22/15 20:31**	**150422S03**
15-04-1233-1	**Matrix Spike**	**Solid**	**ICP 7300**	**04/22/15**	**04/23/15 19:15**	**150422S03**
15-04-1233-1	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**04/22/15**	**04/22/15 20:34**	**150422S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	3.066	25.00	24.00	84	28.36	101	75-125	17	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 2 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RCB-022-2.0	**Sample**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:41**	**150422S01**
RCB-022-2.0	**Matrix Spike**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 11:57**	**150422S01**
RCB-022-2.0	**Matrix Spike Duplicate**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 11:58**	**150422S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	84.66	25.00	123.3	154	120.9	145	75-125	2	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 3 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RCB-014-0.5	**Sample**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 13:03**	**150422S02**
RCB-014-0.5	**Matrix Spike**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 11:59**	**150422S02**
RCB-014-0.5	**Matrix Spike Duplicate**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 12:02**	**150422S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	494.2	25.00	852.2	4X	868.6	4X	75-125	4X	0-20	Q

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 4 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-04-1169-2	**Sample**	**Aqueous**	**ICP 7300**	**04/16/15**	**04/17/15 11:16**	**150416SA2**
15-04-1169-2	**Matrix Spike**	**Aqueous**	**ICP 7300**	**04/16/15**	**04/17/15 11:17**	**150416SA2**
15-04-1169-2	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**04/16/15**	**04/17/15 11:18**	**150416SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	ND	0.5000	0.5372	107	0.5280	106	84-120	2	0-7	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	T22.11.5. AII
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 5 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RCB-030-0.5	**Sample**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:17**	**150427SA1**
RCB-030-0.5	**Matrix Spike**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:12**	**150427SA1**
RCB-030-0.5	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:13**	**150427SA1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	1.838	5.000	6.997	103	6.119	86	75-125	13	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	T22.11.5. AII
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 6 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RCB-018-0.5	**Sample**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 21:01**	**150427SA2**
RCB-018-0.5	**Matrix Spike**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:14**	**150427SA2**
RCB-018-0.5	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 20:16**	**150427SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	4.432	5.000	8.058	73	8.638	84	75-125	7	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	EPA 1311
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RCB-026-0.5	**Sample**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:30**	**150424SA4**
RCB-026-0.5	**Matrix Spike**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:32**	**150424SA4**
RCB-026-0.5	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**04/23/15**	**04/27/15 18:34**	**150424SA4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	ND	5.000	4.679	94	4.572	91	84-120	2	0-7	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Kleinfelder, Inc.	Date Received: 04/15/15
550 West C Street, Suite 1200	Work Order: 15-04-1163
San Diego, CA 92101-3509	Preparation: N/A
	Method: EPA 9045D
Project: ROSE CREEK ADL STUDY / 05504500	Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-04-1132-11	**Sample**	**Solid**	**PH 4**	**04/16/15 00:00**	**04/16/15 13:48**	**F0416PHD1**
15-04-1132-11	**Sample Duplicate**	**Solid**	**PH 4**	**04/16/15 00:00**	**04/16/15 13:48**	**F0416PHD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	7.720	7.820	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 1 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-20833	**LCS**	**Solid**	**ICP 7300**	**04/22/15**	**04/22/15 20:26**	**150422L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	25.00	26.00	104	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 2 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-20839	**LCS**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 16:56**	**150422L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	25.00	27.72	111	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 3 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-20840	**LCS**	**Solid**	**ICP 8300**	**04/22/15**	**04/23/15 16:59**	**150422L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	25.00	26.55	106	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 4 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15012	**LCS**	**Aqueous**	**ICP 7300**	**04/16/15**	**04/17/15 12:15**	**150416LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	0.5000	0.4549	91	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	T22.11.5. AII
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 5 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-05-006-7817	**LCS**	**Aqueous**	**ICP 7300**	**04/23/15**	**04/27/15 17:59**	**150427LA1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	5.000	4.472	89	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	T22.11.5. AII
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 6 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-05-006-7818	**LCS**	**Aqueous**	**ICP 7300**	**04/23/15**	**04/29/15 15:04**	**150427LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	5.000	5.413	108	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Kleinfelder, Inc.		Date Received:	04/15/15
550 West C Street, Suite 1200		Work Order:	15-04-1163
San Diego, CA 92101-3509		Preparation:	EPA 1311
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-021-1548	**LCS**	**Aqueous**	**ICP 7300**	**04/23/15**	**04/27/15 17:50**	**150424LA4**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	5.000	5.104	102	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 15-04-1163 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 6010B	EPA 3050B	935	ICP 8300	1
EPA 6010B	EPA 1311	935	ICP 7300	1
EPA 6010B	T22.11.5. AII	935	ICP 7300	1
EPA 9045D	N/A	688	PH 4	1

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Glossary of Terms and Qualifiers

Work Order: 15-04-1163 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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PROJECT NO.	PROJECT NAME	NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS: TOTAL LEAD 6010B; pH 9045C	RECEIVING LAB: CALSCIENCE, 7440 LINCOLN WAY, GARDEN GROVE, CA 92841
05504500	ROSE CREEK ADL STUDY				INSTRUCTIONS/REMARKS
L.P. NO. (PO. NO.) E/C # 959860	SAMPLERS: (Signature/Number)				

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS	TOTAL LEAD 6010B	pH 9045C	INSTRUCTIONS/REMARKS
1	4-15-15	0843	RCB030-0.5	SOIL	1	GLASS JAR	X		*RUN CA-WET ON SAMPLES WITH TOTAL LEAD BETWEEN 50 mg/kg and 1,000 mg/kg
2		0847	RCB030-1.0		1		X		
3		0855	RCB030-2.0		1		X		
4		0902	RCB029-0.5		1		X		
5		0904	RCB029-1.0		1		X	X	
6		0915	RCB028-0.5		1		X		*RUN TCLP ON SAMPLES WITH TOTAL LEAD BETWEEN 100 mg/kg and 1,000 mg/kg
7		0917	RCB-028-1.0		1		X		
8		0928	RCB-027-0.5		1		X		
9		0947	RCB-026-0.5		1		X		
10		0952	RCB-026-1.0		1		X		
11		1007	RCB-025-0.5		1		X		
12		1011	RCB-025-1.0		1		X		
13		1023	RCB-024-0.5		1		X		
14		1043	RCB-023-0.5		1		X	X	
15		1049	RCB-023-1.0		1		X		
16		1049	RCB-101		1		X		
17		1052	RCB-023-2.0		1		X		
18		1102	RCB-022-0.5		1		X		
19		1104	RCB-022-1.0		1		X		
20		1110	RCB-022-2.0		1		X		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	4-15-15 1615	EC
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	04/15/15 1900	EC
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Instructions/Remarks: STANDARD TAT

Send Results To:
jjanuszewicz
gkellar @kleinfelder.com
lsimmons
Attn:

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CHAIN OF CUSTODY

COC No 20006

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PROJECT NO. 05504500 | PROJECT NAME: ROSE CREEK ADL STUDY

L.P. NO. (PO. NO.): E/C 959860 #

SAMPLERS: (Signature/Number)

RECEIVING LAB: CALSCIENCE
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS: TOTAL LEAD 6010B	pH 9045C									INSTRUCTIONS/REMARKS
21	4-15-15	1238	RCB-021-0.5	SOIL	1	6 OZ JAR	X										
22		1240	RCB-021-1.0		1		X										* RUN CA-WET ON SAMPLES WITH TOTAL LEAD BETWEEN 50 mg/kg and 1,000 mg/kg
23		1246	RCB-021-2.0		1		X										
24		1252	RCB-020-0.5		1		X										
25		1257	RCB-020-1.0		1		X										
26		1308	RCB-019-0.5		1		X	X									
27		1309	RCB-019-1.0		1		X										* RUN TCLP ON SAMPLES WITH TOTAL LEAD BETWEEN 100 mg/kg and 1,000 mg/kg
28		1320	RCB-018-0.5		1		X										
29		1322	RCB-018-1.0		1		X										
30		1325	RCB-018-2.0		1		X										
31		1325	RCB-~~103~~ 102		1		X										
32		1335	RCB-017-0.5		1		X										
33		1338	RCB-017-1.0		1		X										
34		1348	RCB-016-0.5		1		X										
35		1350	RCB-016-1.0		1		X										
36		1354	RCB-016-2.0		1		X	X									
37		1402	RCB-015-0.5		1		X										
38		1404	RCB-015-1.0		1		X										
39		1407	RCB-015-2.0		1		X										
40		1412	RCB-014-0.5		1		X										

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	4-15-15 1615	ECL
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	04/15/15 1900	ECL
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Instructions/Remarks: STANDARD TAT

Send Results To:
jjanuszewicz
gkellar@kleinfelder.com
lsimmons

Attn:

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CHAIN OF CUSTODY

COC No 20007

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1163

PROJECT NO. 05504500 | PROJECT NAME: ROSE CREEK ADL STUDY

L.P. NO. (PO. NO.): E/C # 959860 | SAMPLERS: (Signature/Number)

RECEIVING LAB: CALSCIENCE
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CON-TAINERS	TYPE OF CON-TAINERS	ANALYSIS: TOTAL LEAD 6010B; pH 9045C	INSTRUCTIONS/REMARKS
1	4-15-15	1412	RCB-104 CAN 103	SOIL	1	GLASS JAR	X	
2		1416	RCB-014-1.0		1		X	* RUN CA-WET ON SAMPLES WITH TOTAL LEAD BETWEEN 50 mg/kg and 1,000 mg/kg
3		1421	RCB-014-2.0		1		X	
4		1425	QCEB041515	WATER	1	POLY	X	
5	4-15-15	0902	RCB-100	SOIL	1	GLASS JAR	X	* RUN TCLP ON SAMPLES WITH TOTAL LEAD BETWEEN 100 mg/kg and 1,000 mg/kg
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

CAN 4-15-15

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	4-15-15 1615	EC
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	04/15/15 1900	EC
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Instructions/Remarks: STANDARD TAT

Send Results To:
jjanuszewicz
gkellar @kleinfelder.com
lsimmons
Attn:

ENV-02 REV 05/08)

White – Sampler | Canary – Return Copy To Shipper | Pink – Lab Copy

CHAIN OF CUSTODY

COC No 20015

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WORK ORDER NUMBER: 15-04- 1163

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 2

CLIENT: KLEINFELDER

DATE: 04 / 15 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2 (CF: -0.3°C) Temperature (w/o CF): 2.0 °C (w/ CF): 1.7 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 671

CUSTODY SEAL:

Cooler	☐ Present and Intact	☐ Not Intact	☑ Not Present	☐ N/A	Checked by: 671
Sample(s)	☐ Present and Intact	☐ Not Intact	☑ Not Present	☐ N/A	Checked by: 965

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: ECI_____)

Aqueous: ☐VOA ☐VOAh ☐VOAna_2 ☐100PJ ☐100PJna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐125PB ☐125PB**znna** ☐250AGB ☐250CGB ☐250CGB**s** ☐250PB ☐250PB**n** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐500PB ☐1AGB ☐1AGBna_2 ☐1AGB**s** ☐1PB ☐1PB**na** ☐_____ ☐_____ ☐_____ ☐_____

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐16ozPJ ☐Sleeve (____) ☐EnCores® ( ) ☐TerraCores® ( ) ☐_____

Air: ☐Tedlar® ☐Canister ☐Sorbent Tube ☐PUF ☐_____ **Other Matrix** (_____): ☐_____ ☐_____

Container: **A**=Amber, **B**=Bottle, **C**=Clear, **E**=Envelope, **G**=Glass, **J**=Jar, **P**=Plastic, and **Z**= Ziploc/Resealable Bag

Preservative: **b**=buffered **f**=filtered, **h**=HCl, **n**=HNO_3, **na**=NaOH, **na_2**=$Na_2S_2O_3$, **p**=H_3PO_4, **s**=H_2SO_4, **u**=ultra-pure, **znna**=$Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 965

Reviewed by: 659

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WORK ORDER NUMBER: 15-04- 1163

SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 2

CLIENT: KLEINFELDER

DATE: 04 / 15 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2 (CF: -0.3°C) Temperature (w/o CF): 2.1 °C (w/ CF): 1.8 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 671

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Not Intact ☑ Not Present ☐ N/A Checked by: 671

Sample(s) ☐ Present and Intact ☐ Not Intact ☑ Not Present ☐ N/A Checked by: 965

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: ECI_____)

Aqueous: ☐VOA ☐VOAh ☐VOA**na$_2$** ☐100PJ ☐100PJ**na$_2$** ☐125AGB ☐125AGBh ☐125AGBp ☐125PB ☐125PB**znna** ☐250AGB ☐250CGB ☐250CGBs ☐250PB ☑250PB**n** ☐500AGB ☐500AGJ ☐500AGJs ☐500PB ☐1AGB ☐1AGB**na$_2$** ☐1AGBs ☐1PB ☐1PB**na** ☐_____ ☐_____ ☐_____ ☐_____

Solid: ☐4ozCGJ ☑8ozCGJ ☐16ozCGJ ☐16ozPJ ☐Sleeve (____) ☐EnCores® ( ) ☐TerraCores® ( ) ☐_____

Air: ☐Tedlar® ☐Canister ☐Sorbent Tube ☐PUF ☐_____ **Other Matrix** (_____): ☐_____ ☐_____

Container: A=Amber, B=Bottle, C=Clear, E=Envelope, G=Glass, J=Jar, P=Plastic, and Z= Ziploc/Resealable Bag

Preservative: b=buffered f=filtered, h=HCl, n=HNO_3, na=NaOH, na$_2$=$Na_2S_2O_3$, p=H_3PO_4, s=H_2SO_4, u=ultra-pure, znna=$Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 965

Reviewed by: 679

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Supplemental Report 3

WORK ORDER NUMBER: 15-04-1316

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Kleinfelder, Inc.

Client Project Name: ROSE CREEK ADL STUDY / 05504500

Attention: Jeremy Januszieiwcz
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Approved for release on 05/04/2015 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Client Project Name: ROSE CREEK ADL STUDY / 05504500
Work Order Number: 15-04-1316

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Work Order Narrative

Work Order: 15-04-1316 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 04/16/15. They were assigned to Work Order 15-04-1316.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Project: ROSE CREEK ADL STUDY / 05504500

Date Received: 04/16/15
Work Order: 15-04-1316
Preparation: N/A
Method: EPA 9045D
Units: pH units

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-012-1.0	**15-04-1316-4-A**	**04/16/15 08:20**	**Solid**	**PH 4**	**04/17/15**	**04/17/15 19:47**	**F0417PHD1**

Parameter	Result	RL	DF	Qualifiers
pH	6.84	0.01	1.00	BU

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-008-2.0	**15-04-1316-17-A**	**04/16/15 09:20**	**Solid**	**PH 4**	**04/17/15**	**04/17/15 19:47**	**F0417PHD1**

Parameter	Result	RL	DF	Qualifiers
pH	7.70	0.01	1.00	BU

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-004-1.0	**15-04-1316-24-A**	**04/16/15 10:18**	**Solid**	**PH 4**	**04/17/15**	**04/17/15 19:47**	**F0417PHD1**

Parameter	Result	RL	DF	Qualifiers
pH	8.10	0.01	1.00	BU

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-001-1.0	**15-04-1316-34-A**	**04/16/15 11:03**	**Solid**	**PH 4**	**04/17/15**	**04/17/15 19:47**	**F0417PHD1**

Parameter	Result	RL	DF	Qualifiers
pH	8.08	0.01	1.00	BU

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/16/15
Work Order: 15-04-1316
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-013-0.5	**15-04-1316-1-A**	**04/16/15 08:04**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:43**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	290	0.498	0.995	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-013-1.0	**15-04-1316-2-A**	**04/16/15 08:09**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:44**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	356	0.510	1.02	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-012-0.5	**15-04-1316-3-A**	**04/16/15 08:17**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:46**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	181	0.510	1.02	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-012-1.0	**15-04-1316-4-A**	**04/16/15 08:20**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:47**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	37.3	0.503	1.01	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-012-2.0	**15-04-1316-5-A**	**04/16/15 08:22**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:48**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	33.4	0.490	0.980	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-011-0.5	**15-04-1316-6-A**	**04/16/15 08:30**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:48**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	52.9	0.490	0.980	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-104	**15-04-1316-7-A**	**04/16/15 08:04**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:49**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	359	0.488	0.976	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-011-1.0	**15-04-1316-8-A**	**04/16/15 08:32**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:50**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	56.9	0.495	0.990	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/16/15
Work Order: 15-04-1316
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-105	**15-04-1316-9-A**	**04/16/15 08:32**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:50**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	46.4	0.495	0.990	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-011-2.0	**15-04-1316-10-A**	**04/16/15 08:40**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:51**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	50.7	0.524	1.05	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-010-0.5	**15-04-1316-11-A**	**04/16/15 08:45**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:52**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	101	0.515	1.03	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-010-1.0	**15-04-1316-12-A**	**04/16/15 08:47**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:53**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	211	0.476	0.952	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-009-0.5	**15-04-1316-13-A**	**04/16/15 09:00**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:55**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	149	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-009-1.0	**15-04-1316-14-A**	**04/16/15 09:03**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:55**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	62.5	0.493	0.985	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-008-0.5	**15-04-1316-15-A**	**04/16/15 09:15**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:56**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	16.6	0.515	1.03	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-008-1.0	**15-04-1316-16-A**	**04/16/15 09:17**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:57**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	123	0.495	0.990	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/16/15
Work Order: 15-04-1316
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-008-2.0	**15-04-1316-17-A**	**04/16/15 09:20**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:58**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	170	0.495	0.990	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-007-0.5	**15-04-1316-18-A**	**04/16/15 09:30**	**Solid**	**ICP 7300**	**04/21/15**	**04/24/15 12:38**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	20.9	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-007-1.0	**15-04-1316-19-A**	**04/16/15 09:34**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:59**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	19.8	0.518	1.04	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-006-0.5	**15-04-1316-20-A**	**04/16/15 09:52**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:00**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	180	0.488	0.976	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-005-0.5	**15-04-1316-21-A**	**04/16/15 10:04**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:00**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	27.8	0.476	0.952	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-005-1.0	**15-04-1316-22-A**	**04/16/15 10:06**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:01**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	165	0.508	1.02	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-004-0.5	**15-04-1316-23-A**	**04/16/15 10:14**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:03**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	44.1	0.518	1.04	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-004-1.0	**15-04-1316-24-A**	**04/16/15 10:18**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:04**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	41.1	0.488	0.976	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/16/15
Work Order: 15-04-1316
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-003-0.5	**15-04-1316-25-A**	**04/16/15 10:40**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:05**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	79.4	0.518	1.04	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-003-1.0	**15-04-1316-26-A**	**04/16/15 10:42**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:05**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	50.6	0.483	0.966	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-003-2.0	**15-04-1316-27-A**	**04/16/15 10:45**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:06**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	34.1	0.505	1.01	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-002-0.5	**15-04-1316-28-A**	**04/16/15 11:12**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:07**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	38.2	0.515	1.03	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-002-1.0	**15-04-1316-29-A**	**04/16/15 11:15**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:07**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	27.8	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-002-2.0	**15-04-1316-30-A**	**04/16/15 11:20**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:08**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	19.4	0.515	1.03	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-106	**15-04-1316-31-A**	**04/16/15 11:20**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:09**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	20.4	0.524	1.05	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-001-0.5	**15-04-1316-32-A**	**04/16/15 11:00**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:09**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	70.4	0.521	1.04	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/16/15
Work Order: 15-04-1316
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-107	**15-04-1316-33-A**	**04/16/15 11:00**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:12**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	66.2	0.505	1.01	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-001-1.0	**15-04-1316-34-A**	**04/16/15 11:03**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:12**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	96.1	0.518	1.04	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-001-2.0	**15-04-1316-35-A**	**04/16/15 11:10**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:13**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	39.4	0.505	1.01	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-20841**	**N/A**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:38**	**150421L02**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.503	1.01	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-20842**	**N/A**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:38**	**150421L03**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.488	0.976	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/16/15
Work Order: 15-04-1316
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB041615	**15-04-1316-36-A**	**04/16/15 12:50**	**Aqueous**	**ICP 7300**	**04/17/15**	**04/22/15 15:52**	**150417LA7**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-003-15022**	**N/A**	**Aqueous**	**ICP 7300**	**04/17/15**	**04/20/15 12:42**	**150417LA7**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.0100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/16/15
Work Order: 15-04-1316
Preparation: T22.11.5. AII
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-013-0.5	**15-04-1316-1-A**	**04/16/15 08:04**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:23**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	15.4	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-013-1.0	**15-04-1316-2-A**	**04/16/15 08:09**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:27**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	16.4	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-012-0.5	**15-04-1316-3-A**	**04/16/15 08:17**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:29**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	2.55	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-104	**15-04-1316-7-A**	**04/16/15 08:04**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:32**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	15.6	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-011-1.0	**15-04-1316-8-A**	**04/16/15 08:32**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:34**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	1.97	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-011-2.0	**15-04-1316-10-A**	**04/16/15 08:40**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:41**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	1.89	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-010-0.5	**15-04-1316-11-A**	**04/16/15 08:45**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:43**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	4.42	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-010-1.0	**15-04-1316-12-A**	**04/16/15 08:47**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:44**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	5.55	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/16/15
Work Order: 15-04-1316
Preparation: T22.11.5. AII
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-009-0.5	**15-04-1316-13-A**	**04/16/15 09:00**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:46**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	3.79	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-009-1.0	**15-04-1316-14-A**	**04/16/15 09:03**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:48**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	2.14	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-008-1.0	**15-04-1316-16-A**	**04/16/15 09:17**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:49**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	23.0	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-008-2.0	**15-04-1316-17-A**	**04/16/15 09:20**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:51**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	4.88	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-006-0.5	**15-04-1316-20-A**	**04/16/15 09:52**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:53**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	9.76	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-005-1.0	**15-04-1316-22-A**	**04/16/15 10:06**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:54**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	24.8	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-003-0.5	**15-04-1316-25-A**	**04/16/15 10:40**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:56**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	2.94	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-003-1.0	**15-04-1316-26-A**	**04/16/15 10:42**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 20:03**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	1.78	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/16/15
Work Order: 15-04-1316
Preparation: T22.11.5. AII
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-001-0.5	**15-04-1316-32-A**	**04/16/15 11:00**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 20:05**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	2.55	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-001-1.0	**15-04-1316-34-A**	**04/16/15 11:03**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 20:08**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	2.78	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-05-006-7823**	**N/A**	**Aqueous**	**ICP 7300**	**04/24/15**	**04/27/15 17:52**	**150427LA3**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/16/15
Work Order: 15-04-1316
Preparation: EPA 1311
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-013-0.5	**15-04-1316-1-A**	**04/16/15 08:04**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 16:03**	**150425LA8**

Parameter	Result	RL	DF	Qualifiers
Lead	0.102	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-013-1.0	**15-04-1316-2-A**	**04/16/15 08:09**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 16:05**	**150425LA8**

Parameter	Result	RL	DF	Qualifiers
Lead	0.139	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-012-0.5	**15-04-1316-3-A**	**04/16/15 08:17**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 16:07**	**150425LA8**

Parameter	Result	RL	DF	Qualifiers
Lead	0.121	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-104	**15-04-1316-7-A**	**04/16/15 08:04**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 16:09**	**150425LA8**

Parameter	Result	RL	DF	Qualifiers
Lead	0.213	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-010-0.5	**15-04-1316-11-A**	**04/16/15 08:45**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 16:10**	**150425LA8**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-010-1.0	**15-04-1316-12-A**	**04/16/15 08:47**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 16:12**	**150425LA8**

Parameter	Result	RL	DF	Qualifiers
Lead	0.121	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-009-0.5	**15-04-1316-13-A**	**04/16/15 09:00**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 16:14**	**150425LA8**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-008-1.0	**15-04-1316-16-A**	**04/16/15 09:17**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 16:16**	**150425LA8**

Parameter	Result	RL	DF	Qualifiers
Lead	0.231	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Kleinfelder, Inc.
550 West C Street, Suite 1200
San Diego, CA 92101-3509

Date Received: 04/16/15
Work Order: 15-04-1316
Preparation: EPA 1311
Method: EPA 6010B
Units: mg/L

Project: ROSE CREEK ADL STUDY / 05504500

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-008-2.0	**15-04-1316-17-A**	**04/16/15 09:20**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 16:25**	**150425LA8**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-006-0.5	**15-04-1316-20-A**	**04/16/15 09:52**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 16:27**	**150425LA8**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RCB-005-1.0	**15-04-1316-22-A**	**04/16/15 10:06**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 16:29**	**150425LA8**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-021-1547**	**N/A**	**Aqueous**	**ICP 7300**	**04/24/15**	**04/27/15 15:04**	**150425LA8**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Kleinfelder, Inc.	Date Received:	04/16/15
550 West C Street, Suite 1200	Work Order:	15-04-1316
San Diego, CA 92101-3509	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500		Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RCB-007-0.5	**Sample**	**Solid**	**ICP 7300**	**04/21/15**	**04/24/15 12:38**	**150421S02**
RCB-007-0.5	**Matrix Spike**	**Solid**	**ICP 7300**	**04/21/15**	**04/24/15 12:38**	**150421S02**
RCB-007-0.5	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**04/21/15**	**04/24/15 12:39**	**150421S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	20.94	25.00	45.12	97	45.24	97	75-125	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Kleinfelder, Inc.		Date Received:	04/16/15
550 West C Street, Suite 1200		Work Order:	15-04-1316
San Diego, CA 92101-3509		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RCB-003-0.5	**Sample**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 17:05**	**150421S03**
RCB-003-0.5	**Matrix Spike**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:42**	**150421S03**
RCB-003-0.5	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:43**	**150421S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	79.44	25.00	100.6	85	105.0	102	75-125	4	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Kleinfelder, Inc.	Date Received:	04/16/15
550 West C Street, Suite 1200	Work Order:	15-04-1316
San Diego, CA 92101-3509	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500		Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-04-1302-6	**Sample**	**Aqueous**	**ICP 7300**	**04/17/15**	**04/20/15 12:46**	**150417SA7**
15-04-1302-6	**Matrix Spike**	**Aqueous**	**ICP 7300**	**04/17/15**	**04/20/15 12:48**	**150417SA7**
15-04-1302-6	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**04/17/15**	**04/20/15 12:49**	**150417SA7**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	ND	0.5000	0.5436	109	0.5092	102	84-120	7	0-7	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Kleinfelder, Inc.		Date Received:	04/16/15
550 West C Street, Suite 1200		Work Order:	15-04-1316
San Diego, CA 92101-3509		Preparation:	T22.11.5. AII
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RCB-013-0.5	**Sample**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:23**	**150427SA3**
RCB-013-0.5	**Matrix Spike**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:24**	**150427SA3**
RCB-013-0.5	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 19:26**	**150427SA3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	15.37	5.000	21.42	121	22.44	141	75-125	5	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Kleinfelder, Inc.		Date Received:	04/16/15
550 West C Street, Suite 1200		Work Order:	15-04-1316
San Diego, CA 92101-3509		Preparation:	EPA 1311
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-04-1695-1	**Sample**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 15:52**	**150425SA8**
15-04-1695-1	**Matrix Spike**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 15:59**	**150425SA8**
15-04-1695-1	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**04/24/15**	**04/27/15 16:23**	**150425SA8**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	ND	5.000	5.108	102	4.928	99	84-120	4	0-7	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Kleinfelder, Inc.		Date Received:	04/16/15
550 West C Street, Suite 1200		Work Order:	15-04-1316
San Diego, CA 92101-3509		Preparation:	N/A
		Method:	EPA 9045D
Project: ROSE CREEK ADL STUDY / 05504500			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-04-1245-1	**Sample**	**Solid**	**PH 4**	**04/17/15 00:00**	**04/17/15 19:47**	**F0417PHD1**
15-04-1245-1	**Sample Duplicate**	**Solid**	**PH 4**	**04/17/15 00:00**	**04/17/15 19:47**	**F0417PHD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	6.660	6.690	0	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Kleinfelder, Inc.		Date Received:	04/16/15
550 West C Street, Suite 1200		Work Order:	15-04-1316
San Diego, CA 92101-3509		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-20841	**LCS**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:39**	**150421L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	25.00	26.28	105	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Kleinfelder, Inc.		Date Received:	04/16/15
550 West C Street, Suite 1200		Work Order:	15-04-1316
San Diego, CA 92101-3509		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-20842	**LCS**	**Solid**	**ICP 7300**	**04/21/15**	**04/22/15 16:40**	**150421L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	25.00	24.35	97	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Kleinfelder, Inc.		Date Received:	04/16/15
550 West C Street, Suite 1200		Work Order:	15-04-1316
San Diego, CA 92101-3509		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15022	**LCS**	**Aqueous**	**ICP 7300**	**04/17/15**	**04/20/15 12:44**	**150417LA7**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	0.5000	0.5361	107	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Kleinfelder, Inc.		Date Received:	04/16/15
550 West C Street, Suite 1200		Work Order:	15-04-1316
San Diego, CA 92101-3509		Preparation:	T22.11.5. AII
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-05-006-7823	**LCS**	**Aqueous**	**ICP 7300**	**04/24/15**	**04/30/15 18:49**	**150427LA3**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	5.000	5.759	115	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Kleinfelder, Inc.		Date Received:	04/16/15
550 West C Street, Suite 1200		Work Order:	15-04-1316
San Diego, CA 92101-3509		Preparation:	EPA 1311
		Method:	EPA 6010B
Project: ROSE CREEK ADL STUDY / 05504500			Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-021-1547	**LCS**	**Aqueous**	**ICP 7300**	**04/24/15**	**04/27/15 15:06**	**150425LA8**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	5.000	4.961	99	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 15-04-1316 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 6010B	EPA 3050B	915	ICP 7300	1
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 6010B	EPA 1311	935	ICP 7300	1
EPA 6010B	T22.11.5. AII	935	ICP 7300	1
EPA 9045D	N/A	688	PH 4	1

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Glossary of Terms and Qualifiers

Work Order: 15-04-1316 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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PROJECT NO.	PROJECT NAME
05504500	ROSE CREEK ADL STUDY

L.P. NO. (PO. NO.)	SAMPLERS: (Signature/Number)
E/C # 959860	

RECEIVING LAB: CALSCIENCE
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

INSTRUCTIONS/REMARKS

15-04-1316

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CON-TAINERS	TYPE OF CON-TAINERS	ANALYSIS: TOTAL LEAD 6010B	pH 9045C									
1	04/16/15	0804	RCB-013-0.5	SOIL	1	GLASS JAR	X										
2		0809	RCB-013-1.0		1		X										
3		0817	RCB-012-0.5		1		X										
4		0820	RCB-012-1.0		1		X	X									
5		0822	RCB-012-2.0		1		X										
6		0830	RCB-011-0.5		1		X										
7		0804	RCB-104		1		X										
8		0832	RCB-011-1.0		1		X										
9		0832	RCB-105		1		X										
10		0840	RCB-011-2.0		1		X										
11		0845	RCB-010-0.5		1		X										
12		0847	RCB-010-1.0		1		X										
13		0900	RCB-009-0.5		1		X										
14		0903	RCB-009-1.0		1		X										
15		0915	RCB-008-0.5		1		X										
16		0917	RCB-008-1.0		1		X										
17		0920	RCB-008-2.0		1		X	X									
18		0930	RCB-007-0.5		1		X										
19		0934	RCB-007-1.0		1		X										
20		0952	RCB-006-0.5		1		X										

* RUN CA-WET ON SAMPLES WITH TOTAL LEAD BETWEEN 50 MG/KG AND 1,000 MG/KG

* RUN TCLP ON SAMPLES WITH TOTAL LEAD BETWEEN 100 MG/KG AND 1,000 MG/KG

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	4-16-15 1440	EC
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	4/16/15 1850	EC
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Instructions/Remarks:

Standard TAT

Send Results To:
jjanoszewicz
gkellar @kleinfelder.com
lsimmons

Attn:

ENV-02 REV 05/08)

White – Sampler Canary – Return Copy To Shipper Pink – Lab Copy

CHAIN OF CUSTODY

COC № 19983

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PROJECT NO. 055045OD
PROJECT NAME ROSE CREEK ADL STUDY
L.P. NO. (PO. NO.) 959860
SAMPLERS: (Signature/Number)
E/C #

RECEIVING LAB: CALSCIENCE
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS: TOTAL LEAD 6010	ANALYSIS: pH 9045C	INSTRUCTIONS/REMARKS
1	04/16/15	1004	RCB-005-0.5	SOIL	1	GLASS JAR	X		15-04-1316
2		1006	RCB-005-1.0		1		X		* RUN CA-WET ON SAMPLES
3		1014	RCB-004-0.5		1		X		WITH TOTAL LEAD BETWEEN
4		1018	RCB-004-1.0		1		X	X	50 MG/KG AND 1,000 MG/KG
5		1040	RCB-003-0.5		1		X		
6		1042	RCB-003-1.0		1		X		* RUN TCLP ON SAMPLES WITH
7		1045	RCB-003-2.0		1		X		TOTAL LEAD BETWEEN 100 MG/KG
8		1112	RCB-002-0.5		1		X		AND 1,000 MG/KG
9		1115	RCB-002-1.0		1		X		
10		1120	RCB-002-2.0		1		X		
11		1120	RCB-106		1		X		
12		1100	RCB-001-0.5		1		X		
13		1100	RCB-105		1		X		
14		1103	RCB-001-1.0		1		X	X	
15		1110	RCB-002-2.0		1		X		
16		1250	QCEB041615	WATER	1	PAIR	X		
17									
18									
19									
20									

CAN
4-16-15

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	4-16-15 1440	ECI
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	4/16/15 1850	ECI
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Instructions/Remarks:
Standard TAT

Send Results To:
Ljanuszkiewicz
gkellar@kleinfelder.com
lsimmons
Attn:

ENV-02 REV 05/08)

White – Sampler Canary – Return Copy To Shipper Pink – Lab Copy

CHAIN OF CUSTODY

COC No 19986

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WORK ORDER NUMBER: 15-04- 1316

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 2

CLIENT: KLEINFELDER

DATE: 04 / 16 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2 (CF: -0.3°C) Temperature (w/o CF): 2.1 °C (w/ CF): 1.8 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 671

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Not Intact ☑ Not Present ☐ N/A Checked by: 671

Sample(s) ☐ Present and Intact ☐ Not Intact ☑ Not Present ☐ N/A Checked by: 965

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☑ pm 4/16/15
Sample container label(s) consistent with COC	☐	☑	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☑ Total Metals (my syringes) ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: ECI_____)

Aqueous: ☐VOA ☐VOAh ☐VOAna_2 ☐100PJ ☐100PJna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐125PB ☐125PB**znna** ☐250AGB ☐250CGB ☐250CGBs ☐250PB ☐250PBn ☐500AGB ☐500AGJ ☐500AGJs ☑500PBn ☐1AGB ☐1AGBna_2 ☐1AGBs ☐1PB ☐1PBna ☐_____ ☐_____ ☐_____ ☐_____

Solid: ☐4ozCGJ ☑8ozCGJ ☐16ozCGJ ☐16ozPJ ☐Sleeve (____) ☐EnCores® ( ) ☐TerraCores® ( ) ☐_____

Air: ☐Tedlar® ☐Canister ☐Sorbent Tube ☐PUF ☐_____ **Other Matrix** (_____): ☐_____ ☐_____

Container: A=Amber, B=Bottle, C=Clear, E=Envelope, G=Glass, J=Jar, P=Plastic, and Z= Ziploc/Resealable Bag

Preservative: b=buffered f=filtered, h=HCl, n=HNO_3, na=NaOH, na_2=$Na_2S_2O_3$, p=H_3PO_4, s=H_2SO_4, u=ultra-pure, znna=$Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 965

Reviewed by: 671

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WORK ORDER NUMBER: 15-04- 1316

SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 2

CLIENT: KLEINFELDER

DATE: 04 / 16 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2 (CF: -0.3°C) Temperature (w/o CF): 2.1 °C (w/ CF): 1.8 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 671

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Not Intact ☑ Not Present ☐ N/A Checked by: 671

Sample(s) ☐ Present and Intact ☐ Not Intact ☑ Not Present ☐ N/A Checked by: 965

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☑ DM 4/16/15
Sample container label(s) consistent with COC	☐	☑	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: ECI_____)

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐100PJ ☐100PJ**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐125PB ☐125PB**znna** ☐250AGB ☐250CGB ☐250CGB**s** ☐250PB ☐250PB**n** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐500PB ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐1PB ☐1PB**na** ☐_____ ☐_____ ☐_____ ☐_____

Solid: ☐4ozCGJ ☑8ozCGJ ☐16ozCGJ ☐16ozPJ ☐Sleeve (____) ☐EnCores® ( ) ☐TerraCores® ( ) ☐_____

Air: ☐Tedlar® ☐Canister ☐Sorbent Tube ☐PUF ☐_____ **Other Matrix** (_____): ☐_____ ☐_____

Container: **A**=Amber, **B**=Bottle, **C**=Clear, **E**=Envelope, **G**=Glass, **J**=Jar, **P**=Plastic, and **Z**= Ziploc/Resealable Bag

Preservative: **b**=buffered **f**=filtered, **h**=HCl, **n**=HNO_3, **na**=NaOH, **na$_2$**=$Na_2S_2O_3$, **p**=H_3PO_4, **s**=H_2SO_4, **u**=ultra-pure, **znna**=$Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 965

Reviewed by: 681

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WORK ORDER NUMBER: 15-04- 1316

SAMPLE ANOMALY REPORT

DATE: 04 / 16 / 2015

SAMPLES, CONTAINERS, AND LABELS:

	Comments
☐ Sample(s) NOT RECEIVED but listed on COC	
☐ Sample(s) received but NOT LISTED on COC	
☐ Holding time expired (list client or ECI sample ID and analysis)	
☐ Insufficient sample amount for requested analysis (list analysis)	
☐ Improper container(s) used (list analysis)	
☐ Improper preservative used (list analysis)	
☐ No preservative noted on COC or label (list analysis and notify lab)	
☐ Sample container(s) not labeled	
☐ Client sample label(s) illegible (list container type and analysis)	sample ID per label is:
☑ Client sample label(s) do not match COC (comment)	(-31) RCB-107
☐ Project information	(-33) RCB-106
☑ Client sample ID	(-35) RCB-001-2.0
☐ Sampling date and/or time	
☐ Number of container(s)	collection date & time matched.
☐ Requested analysis	
☐ Sample container(s) compromised (comment)	
☐ Broken	
☐ Water present in sample container	
☐ Air sample container(s) compromised (comment)	
☐ Flat	
☐ Very low in volume	
☐ Leaking (not transferred; duplicate bag submitted)	
☐ Leaking (transferred into ECI Tedlar™ bags*)	
☐ Leaking (transferred into client's Tedlar™ bags*)	

* Transferred at client's request.

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments:

Reported by: 965

Reviewed by: 681

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

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Linda Ta

From: Jeremy Janusziewicz [JJanusziewicz@kleinfelder.com]
Sent: Saturday, May 02, 2015 11:03 AM
To: Linda Ta; Richard Villafania
Cc: Chris Noland; Chuck Cleeves; Liz Velz Simmons; Jerry Kellar; Renee Cohen
Subject: RE: Additional tests for ROSE CREEK ADL STUDY / 05504500 / ECI 15-04-1163 & 15-04-1316

Make that from RCB-105 to RCB-107. Sorry for the confusion.

Jeremy Janusziewicz
Environmental Project Manager
550 West C Street, Suite 1200
San Diego, CA 92101
o| 619.831.4600
d| 619.831.4682
c| 858.229.5462
f | 619.232.1039

KLEINFELDER
Bright People. Right Solutions.

From: Jeremy Janusziewicz
Sent: Saturday, May 02, 2015 10:24 AM
To: 'Linda Ta'; Richard Villafania
Cc: Chris Noland (CNoland@kleinfelder.com); Chuck Cleeves (CCleeves@kleinfelder.com); Liz Velz Simmons; Jerry Kellar; Renee Cohen
Subject: RE: Additional tests for ROSE CREEK ADL STUDY / 05504500 / ECI 15-04-1163 & 15-04-1316

Richard/Linda,

Would you please rename the second RCB-005 as RCB-007 and reissue the appropriate reports?

Kleinfelder, Inc.	ROSE CREEK ADL STUDY / 05504500	15-04-1316	33	RCB-105	Solid		Lead

Thanks,

Jeremy

Jeremy Janusziewicz
Environmental Project Manager
550 West C Street, Suite 1200
San Diego, CA 92101
o| 619.831.4600
d| 619.831.4682
c| 858.229.5462
f | 619.232.1039

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From: Linda Ta [mailto:LindaTa@eurofinsUS.com]
Sent: Friday, May 01, 2015 1:54 PM
To: Jeremy Janusziewicz
Cc: Richard Villafania
Subject: RE: Additional tests for ROSE CREEK ADL STUDY / 05504500 / ECI 15-04-1163 & 15-04-1316

Reports and EDDs attached. Have a nice weekend!

Thanks!

Linda Ta
Project Manager Assistant

From: Jeremy Janusziewicz [mailto:JJanusziewicz@kleinfelder.com]
Sent: Friday, May 01, 2015 1:14 PM
To: Linda Ta
Subject: RE: Additional tests for ROSE CREEK ADL STUDY / 05504500 / ECI 15-04-1163 & 15-04-1316

Thanks for the quick response.

-Jeremy

Jeremy Janusziewicz
Environmental Project Manager
550 West C Street, Suite 1200
San Diego, CA 92101
o| 619.831.4600
d| 619.831.4682
c| 858.229.5462
f | 619.232.1039

From: Linda Ta [mailto:LindaTa@eurofinsUS.com]
Sent: Friday, May 01, 2015 1:13 PM
To: Jeremy Janusziewicz
Cc: Richard Villafania
Subject: RE: Additional tests for ROSE CREEK ADL STUDY / 05504500 / ECI 15-04-1163 & 15-04-1316

Hi Jeremy,

We will issue both reports shortly.

Return to Contents

Thanks!

Linda Ta
Project Manager Assistant

From: Jeremy Janusziewicz [mailto:JJanusziewicz@kleinfelder.com]
Sent: Friday, May 01, 2015 1:12 PM
To: Linda Ta
Cc: Richard Villafania
Subject: FW: Additional tests for ROSE CREEK ADL STUDY / 05504500 / ECI 15-04-1163 & 15-04-1316

Hi Richard/Linda,

Do you have an indication of when the additional analyses would be completed for the STLC and TCLP on the Rose Creek ADL project?

Thanks,

Jeremy

Jeremy Janusziewicz
Environmental Project Manager
550 West C Street, Suite 1200
San Diego, CA 92101
o| 619.831.4600
d| 619.831.4682
c| 858.229.5462
f | 619.232.1039

KLEINFELDER
Bright People. Right Solutions.

From: Richard Villafania [mailto:RichardVillafania@eurofinsUS.com]
Sent: Monday, April 27, 2015 8:34 AM
To: Jeremy Janusziewicz
Subject: Additional tests for ROSE CREEK ADL STUDY / 05504500 / ECI 15-04-1163 & 15-04-1316

G' Morning Jeremy,

There are two samples omitted from each SDG where the total Lead is over 50 mg/kg, please confirm that additional tests are not required:

RCB-101	199 mg/kg
RCB-103	414 mg/kg
RCB-011-0.5	52.9 mg/kg
RCB-105	66.2 mg/kg

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Regards.

Richard Villafania
Project Manager

Eurofins Calscience, Inc.
7440 Lincoln Way
GARDEN GROVE, CA 92841
USA
Phone: +1 714 895 5494
Website: www.calscience.com

From: Jeremy Janusziewicz [mailto:JJanusziewicz@kleinfelder.com]
Sent: Monday, April 27, 2015 7:30 AM
To: Richard Villafania
Cc: Liz Velz Simmons; Chris Noland; Jerry Kellar; Chuck Cleeves
Subject: RE: ROSE CREEK ADL STUDY / 05504500 / ECI 15-04-1316 Report

Hi Richard,

Would you please review the attached tables and run for STLC/TCLP (over 100 mg/kg) and STLC (over 50 mg/kg) (based on color codes)?

STLC/TCLP = 29

STLC only = 21

Please also change the Kleinfelder ID of the second RCB-002-2.0 to RCB-001-2.0 (shown in red).

Call me if you have questions.

Thanks,

Jeremy

Jeremy Janusziewicz
Environmental Project Manager
550 West C Street, Suite 1200
San Diego, CA 92101
o| 619.831.4600
d| 619.831.4682
c| 858.229.5462
f | 619.232.1039

KLEINFELDER
Bright People. Right Solutions.

From: Richard Villafania [mailto:RichardVillafania@eurofinsUS.com]
Sent: Friday, April 24, 2015 1:29 PM

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To: Jeremy Janusziewicz
Subject: ROSE CREEK ADL STUDY / 05504500 / ECI 15-04-1316 Report

G' Afternoon Jeremy,

Per standing instruction in the COC, STLC and TCLP Lead analyses have been added. Thanks.

Regards.

Richard Villafania
Project Manager

Eurofins Calscience, Inc.
7440 Lincoln Way
GARDEN GROVE, CA 92841
USA
Phone: +1 714 895 5494
Website: www.calscience.com

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APPENDIX C

Statistical Data Evaluation

Table C-1

Sys Loc Code	Sample Name	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Chemical Name	Report Result Value	Report Result Unit
RCB-001	RCB-001-0.5	N	0.5	0.5		Lead	70.4	mg/kg
RCB-002	RCB-002-0.5	N	0.5	0.5		Lead	38.2	mg/kg
RCB-003	RCB-003-0.5	N	0.5	0.5		Lead	79.4	mg/kg
RCB-004	RCB-004-0.5	N	0.5	0.5		Lead	44.1	mg/kg
RCB-005	RCB-005-0.5	N	0.5	0.5		Lead	27.8	mg/kg
RCB-006	RCB-006-0.5	N	0.5	0.5		Lead	180	mg/kg
RCB-007	RCB-007-0.5	N	0.5	0.5		Lead	20.9	mg/kg
RCB-008	RCB-008-0.5	N	0.5	0.5		Lead	16.6	mg/kg
RCB-009	RCB-009-0.5	N	0.5	0.5		Lead	149	mg/kg
RCB-010	RCB-010-0.5	N	0.5	0.5		Lead	101	mg/kg
RCB-011	RCB-011-0.5	N	0.5	0.5		Lead	52.9	mg/kg
RCB-012	RCB-012-0.5	N	0.5	0.5		Lead	181	mg/kg
RCB-013	RCB-104	FD	0.5	0.5	RCB-013-0.5	Lead	359	mg/kg
RCB-014	RCB-014-0.5	N	0.5	0.5		Lead	494	mg/kg
RCB-015	RCB-015-0.5	N	0.5	0.5		Lead	212	mg/kg
RCB-016	RCB-016-0.5	N	0.5	0.5		Lead	304	mg/kg
RCB-017	RCB-017-0.5	N	0.5	0.5		Lead	427	mg/kg
RCB-018	RCB-018-0.5	N	0.5	0.5		Lead	74.6	mg/kg
RCB-019	RCB-019-0.5	N	0.5	0.5		Lead	76.5	mg/kg
RCB-020	RCB-020-0.5	N	0.5	0.5		Lead	310	mg/kg
RCB-021	RCB-021-0.5	N	0.5	0.5		Lead	145	mg/kg
RCB-022	RCB-022-0.5	N	0.5	0.5		Lead	428	mg/kg
RCB-023	RCB-023-0.5	N	0.5	0.5		Lead	111	mg/kg
RCB-024	RCB-024-0.5	N	0.5	0.5		Lead	93.4	mg/kg
RCB-025	RCB-025-0.5	N	0.5	0.5		Lead	32.5	mg/kg
RCB-026	RCB-026-0.5	N	0.5	0.5		Lead	112	mg/kg
RCB-027	RCB-027-0.5	N	0.5	0.5		Lead	68.6	mg/kg
RCB-028	RCB-028-0.5	N	0.5	0.5		Lead	38.4	mg/kg
RCB-029	RCB-029-0.5	N	0.5	0.5		Lead	52.6	mg/kg
RCB-030	RCB-030-0.5	N	0.5	0.5		Lead	80.1	mg/kg

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/6/2015 3:30:57 PM			
From File: working_a.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	30	Number of Distinct Observations	30
		Number of Missing Observations	0
Minimum	16.6	Mean	146
Maximum	494	Median	86.75
SD	135.4	Std. Error of Mean	24.71
Coefficient of Variation	0.927	Skewness	1.344
Normal GOF Test			
Shapiro Wilk Test Statistic	0.808	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.927	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.232	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.162	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	188	95% Adjusted-CLT UCL (Chen-1995)	193.1
		95% Modified-t UCL (Johnson-1978)	189
Gamma GOF Test			
A-D Test Statistic	0.61	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.766	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.137	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.163	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.394	k star (bias corrected MLE)	1.277
Theta hat (MLE)	104.7	Theta star (bias corrected MLE)	114.3
nu hat (MLE)	83.65	nu star (bias corrected)	76.62
MLE Mean (bias corrected)	146	MLE Sd (bias corrected)	129.2
		Approximate Chi Square Value (0.05)	57.46
Adjusted Level of Significance	0.041	Adjusted Chi Square Value	56.5
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	194.7	95% Adjusted Gamma UCL (use when n<50)	198
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.969	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.927	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0892	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.162	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	2.809	Mean of logged Data	4.584
Maximum of Logged Data	6.203	SD of logged Data	0.927
Assuming Lognormal Distribution			
95% H-UCL	227	90% Chebyshev (MVUE) UCL	232.3
95% Chebyshev (MVUE) UCL	270.7	97.5% Chebyshev (MVUE) UCL	324.1
99% Chebyshev (MVUE) UCL	428.8		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	186.7	95% Jackknife UCL	188
95% Standard Bootstrap UCL	185.2	95% Bootstrap-t UCL	197.1
95% Hall's Bootstrap UCL	191.7	95% Percentile Bootstrap UCL	188.7
95% BCA Bootstrap UCL	192.9		
90% Chebyshev(Mean, Sd) UCL	220.1	95% Chebyshev(Mean, Sd) UCL	253.7
97.5% Chebyshev(Mean, Sd) UCL	300.3	99% Chebyshev(Mean, Sd) UCL	391.9
Suggested UCL to Use			
95% Adjusted Gamma UCL	198		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

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Sys Loc Code	Sample Name	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Chemical Name	Report Result Value	Report Result Unit
RCB-001	RCB-001-1.0	N	1	1		Lead	96.1	mg/kg
RCB-002	RCB-002-1.0	N	1	1		Lead	27.8	mg/kg
RCB-003	RCB-003-1.0	N	1	1		Lead	50.6	mg/kg
RCB-004	RCB-004-1.0	N	1	1		Lead	41.1	mg/kg
RCB-005	RCB-005-1.0	N	1	1		Lead	165	mg/kg
RCB-007	RCB-007-1.0	N	1	1		Lead	19.8	mg/kg
RCB-008	RCB-008-1.0	N	1	1		Lead	123	mg/kg
RCB-009	RCB-009-1.0	N	1	1		Lead	62.5	mg/kg
RCB-010	RCB-010-1.0	N	1	1		Lead	211	mg/kg
RCB-011	RCB-011-1.0	N	1	1		Lead	56.9	mg/kg
RCB-012	RCB-012-1.0	N	1	1		Lead	37.3	mg/kg
RCB-013	RCB-013-1.0	N	1	1		Lead	356	mg/kg
RCB-014	RCB-014-1.0	N	1	1		Lead	250	mg/kg
RCB-015	RCB-015-1.0	N	1	1		Lead	198	mg/kg
RCB-016	RCB-016-1.0	N	1	1		Lead	350	mg/kg
RCB-017	RCB-017-1.0	N	1	1		Lead	126	mg/kg
RCB-018	RCB-018-1.0	N	1	1		Lead	93.2	mg/kg
RCB-019	RCB-019-1.0	N	1	1		Lead	67.7	mg/kg
RCB-020	RCB-020-1.0	N	1	1		Lead	57.4	mg/kg
RCB-021	RCB-021-1.0	N	1	1		Lead	168	mg/kg
RCB-022	RCB-022-1.0	N	1	1		Lead	225	mg/kg
RCB-023	RCB-023-1.0	N	1	1		Lead	294	mg/kg
RCB-025	RCB-025-1.0	N	1	1		Lead	30.2	mg/kg
RCB-026	RCB-026-1.0	N	1	1		Lead	0.524	mg/kg
RCB-028	RCB-028-1.0	N	1	1		Lead	33.2	mg/kg
RCB-029	RCB-029-1.0	N	1	1		Lead	73.2	mg/kg
RCB-030	RCB-030-1.0	N	1	1		Lead	50.3	mg/kg

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/6/2015 3:37:22 PM			
From File: working_b.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	27	Number of Distinct Observations	27
		Number of Missing Observations	0
Minimum	0.524	Mean	120.9
Maximum	356	Median	73.2
SD	102.7	Std. Error of Mean	19.76
Coefficient of Variation	0.849	Skewness	1.039
Normal GOF Test			
Shapiro Wilk Test Statistic	0.867	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.923	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.197	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.171	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	154.6	95% Adjusted-CLT UCL (Chen-1995)	157.6
		95% Modified-t UCL (Johnson-1978)	155.2
Gamma GOF Test			
A-D Test Statistic	0.37	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.77	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.0969	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.172	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.177	k star (bias corrected MLE)	1.071
Theta hat (MLE)	102.7	Theta star (bias corrected MLE)	112.9
nu hat (MLE)	63.56	nu star (bias corrected)	57.83
MLE Mean (bias corrected)	120.9	MLE Sd (bias corrected)	116.8
		Approximate Chi Square Value (0.05)	41.35
Adjusted Level of Significance	0.0401	Adjusted Chi Square Value	40.46
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	169.1	95% Adjusted Gamma UCL (use when n<50)	172.8
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.819	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.923	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.148	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.171	Data appear Lognormal at 5% Significance Level	
Data appear Approximate Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-0.646	Mean of logged Data	4.313
Maximum of Logged Data	5.875	SD of logged Data	1.293
Assuming Lognormal Distribution			
95% H-UCL	361.9	90% Chebyshev (MVUE) UCL	310.6
95% Chebyshev (MVUE) UCL	377.2	97.5% Chebyshev (MVUE) UCL	469.7
99% Chebyshev (MVUE) UCL	651.4		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	153.4	95% Jackknife UCL	154.6
95% Standard Bootstrap UCL	152.6	95% Bootstrap-t UCL	159.9
95% Hall's Bootstrap UCL	157.2	95% Percentile Bootstrap UCL	151.6
95% BCA Bootstrap UCL	155.2		
90% Chebyshev(Mean, Sd) UCL	180.2	95% Chebyshev(Mean, Sd) UCL	207
97.5% Chebyshev(Mean, Sd) UCL	244.3	99% Chebyshev(Mean, Sd) UCL	317.5
Suggested UCL to Use			
95% Adjusted Gamma UCL	172.8		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

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Sys Loc Code	Sample Name	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Chemical Name	Report Result Value	Report Result Unit
RCB-001	RCB-001-2.0	N	2	2		Lead	39.4	mg/kg
RCB-002	RCB-106	FD	2	2	RCB-002-2.0	Lead	20.4	mg/kg
RCB-003	RCB-003-2.0	N	2	2		Lead	34.1	mg/kg
RCB-008	RCB-008-2.0	N	2	2		Lead	170	mg/kg
RCB-011	RCB-011-2.0	N	2	2		Lead	50.7	mg/kg
RCB-012	RCB-012-2.0	N	2	2		Lead	33.4	mg/kg
RCB-014	RCB-014-2.0	N	2	2		Lead	211	mg/kg
RCB-015	RCB-015-2.0	N	2	2		Lead	254	mg/kg
RCB-016	RCB-016-2.0	N	2	2		Lead	81	mg/kg
RCB-018	RCB-018-2.0	N	2	2		Lead	7.38	mg/kg
RCB-021	RCB-021-2.0	N	2	2		Lead	16.2	mg/kg
RCB-022	RCB-022-2.0	N	2	2		Lead	84.7	mg/kg
RCB-023	RCB-023-2.0	N	2	2		Lead	19.2	mg/kg
RCB-030	RCB-030-2.0	N	2	2		Lead	68.3	mg/kg

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/6/2015 3:37:49 PM			
From File: working_c.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	14	Number of Distinct Observations	14
		Number of Missing Observations	0
Minimum	7.38	Mean	77.84
Maximum	254	Median	45.05
SD	77.96	Std. Error of Mean	20.84
Coefficient of Variation	1.002	Skewness	1.399
Normal GOF Test			
Shapiro Wilk Test Statistic	0.8	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.874	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.251	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.237	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	114.7	95% Adjusted-CLT UCL (Chen-1995)	120.4
		95% Modified-t UCL (Johnson-1978)	116
Gamma GOF Test			
A-D Test Statistic	0.366	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.756	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.139	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.234	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.218	k star (bias corrected MLE)	1.005
Theta hat (MLE)	63.91	Theta star (bias corrected MLE)	77.48
nu hat (MLE)	34.11	nu star (bias corrected)	28.13
MLE Mean (bias corrected)	77.84	MLE Sd (bias corrected)	77.66
		Approximate Chi Square Value (0.05)	17.03
Adjusted Level of Significance	0.0312	Adjusted Chi Square Value	15.89
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	128.6	95% Adjusted Gamma UCL (use when n<50)	137.8
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.973	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.874	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.101	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.237	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	1.999	Mean of logged Data	3.891
Maximum of Logged Data	5.537	SD of logged Data	1.031
Assuming Lognormal Distribution			
95% H-UCL	188	90% Chebyshev (MVUE) UCL	150.2
95% Chebyshev (MVUE) UCL	182.5	97.5% Chebyshev (MVUE) UCL	227.2
99% Chebyshev (MVUE) UCL	315.1		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	112.1	95% Jackknife UCL	114.7
95% Standard Bootstrap UCL	109.5	95% Bootstrap-t UCL	131
95% Hall's Bootstrap UCL	119	95% Percentile Bootstrap UCL	112.8
95% BCA Bootstrap UCL	119		
90% Chebyshev(Mean, Sd) UCL	140.3	95% Chebyshev(Mean, Sd) UCL	168.7
97.5% Chebyshev(Mean, Sd) UCL	208	99% Chebyshev(Mean, Sd) UCL	285.2
Suggested UCL to Use			
95% Adjusted Gamma UCL	137.8		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

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Sys Loc Code	Sample Name	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Chemical Name	Report Result Value	Report Result Unit
RCB-001	RCB-001-0.5	N	0.5	0.5		Lead	70.4	mg/kg
RCB-001	RCB-001-1.0	N	1	1		Lead	96.1	mg/kg
RCB-001	RCB-001-2.0	N	2	2		Lead	39.4	mg/kg
RCB-002	RCB-002-0.5	N	0.5	0.5		Lead	38.2	mg/kg
RCB-002	RCB-002-1.0	N	1	1		Lead	27.8	mg/kg
RCB-002	RCB-106	FD	2	2	RCB-002-2.0	Lead	20.4	mg/kg
RCB-003	RCB-003-0.5	N	0.5	0.5		Lead	79.4	mg/kg
RCB-003	RCB-003-1.0	N	1	1		Lead	50.6	mg/kg
RCB-003	RCB-003-2.0	N	2	2		Lead	34.1	mg/kg
RCB-004	RCB-004-0.5	N	0.5	0.5		Lead	44.1	mg/kg
RCB-004	RCB-004-1.0	N	1	1		Lead	41.1	mg/kg
RCB-005	RCB-005-0.5	N	0.5	0.5		Lead	27.8	mg/kg
RCB-005	RCB-005-1.0	N	1	1		Lead	165	mg/kg
RCB-006	RCB-006-0.5	N	0.5	0.5		Lead	180	mg/kg
RCB-007	RCB-007-0.5	N	0.5	0.5		Lead	20.9	mg/kg
RCB-007	RCB-007-1.0	N	1	1		Lead	19.8	mg/kg
RCB-008	RCB-008-0.5	N	0.5	0.5		Lead	16.6	mg/kg
RCB-008	RCB-008-1.0	N	1	1		Lead	123	mg/kg
RCB-008	RCB-008-2.0	N	2	2		Lead	170	mg/kg
RCB-009	RCB-009-0.5	N	0.5	0.5		Lead	149	mg/kg
RCB-009	RCB-009-1.0	N	1	1		Lead	62.5	mg/kg
RCB-010	RCB-010-0.5	N	0.5	0.5		Lead	101	mg/kg
RCB-010	RCB-010-1.0	N	1	1		Lead	211	mg/kg
RCB-011	RCB-011-2.0	N	2	2		Lead	50.7	mg/kg
RCB-011	RCB-011-0.5	N	0.5	0.5		Lead	52.9	mg/kg
RCB-011	RCB-011-1.0	N	1	1		Lead	56.9	mg/kg
RCB-012	RCB-012-0.5	N	0.5	0.5		Lead	181	mg/kg
RCB-012	RCB-012-1.0	N	1	1		Lead	37.3	mg/kg
RCB-012	RCB-012-2.0	N	2	2		Lead	33.4	mg/kg
RCB-013	RCB-013-1.0	N	1	1		Lead	356	mg/kg
RCB-013	RCB-104	FD	0.5	0.5	RCB-013-0.5	Lead	359	mg/kg
RCB-014	RCB-014-0.5	N	0.5	0.5		Lead	494	mg/kg
RCB-014	RCB-014-1.0	N	1	1		Lead	250	mg/kg
RCB-014	RCB-014-2.0	N	2	2		Lead	211	mg/kg
RCB-015	RCB-015-0.5	N	0.5	0.5		Lead	212	mg/kg
RCB-015	RCB-015-1.0	N	1	1		Lead	198	mg/kg
RCB-015	RCB-015-2.0	N	2	2		Lead	254	mg/kg
RCB-016	RCB-016-0.5	N	0.5	0.5		Lead	304	mg/kg
RCB-016	RCB-016-1.0	N	1	1		Lead	350	mg/kg
RCB-016	RCB-016-2.0	N	2	2		Lead	81	mg/kg
RCB-017	RCB-017-0.5	N	0.5	0.5		Lead	427	mg/kg
RCB-017	RCB-017-1.0	N	1	1		Lead	126	mg/kg
RCB-018	RCB-018-0.5	N	0.5	0.5		Lead	74.6	mg/kg
RCB-018	RCB-018-1.0	N	1	1		Lead	93.2	mg/kg
RCB-018	RCB-018-2.0	N	2	2		Lead	7.38	mg/kg
RCB-019	RCB-019-0.5	N	0.5	0.5		Lead	76.5	mg/kg
RCB-019	RCB-019-1.0	N	1	1		Lead	67.7	mg/kg
RCB-020	RCB-020-0.5	N	0.5	0.5		Lead	310	mg/kg
RCB-020	RCB-020-1.0	N	1	1		Lead	57.4	mg/kg
RCB-021	RCB-021-0.5	N	0.5	0.5		Lead	145	mg/kg
RCB-021	RCB-021-1.0	N	1	1		Lead	168	mg/kg
RCB-021	RCB-021-2.0	N	2	2		Lead	16.2	mg/kg
RCB-022	RCB-022-0.5	N	0.5	0.5		Lead	428	mg/kg
RCB-022	RCB-022-1.0	N	1	1		Lead	225	mg/kg
RCB-022	RCB-022-2.0	N	2	2		Lead	84.7	mg/kg
RCB-023	RCB-023-0.5	N	0.5	0.5		Lead	111	mg/kg
RCB-023	RCB-023-1.0	N	1	1		Lead	294	mg/kg
RCB-023	RCB-023-2.0	N	2	2		Lead	19.2	mg/kg
RCB-024	RCB-024-0.5	N	0.5	0.5		Lead	93.4	mg/kg
RCB-025	RCB-025-0.5	N	0.5	0.5		Lead	32.5	mg/kg
RCB-025	RCB-025-1.0	N	1	1		Lead	30.2	mg/kg
RCB-026	RCB-026-1.0	N	1	1		Lead	0.524	mg/kg
RCB-026	RCB-026-0.5	N	0.5	0.5		Lead	112	mg/kg
RCB-027	RCB-027-0.5	N	0.5	0.5		Lead	68.6	mg/kg
RCB-028	RCB-028-0.5	N	0.5	0.5		Lead	38.4	mg/kg
RCB-028	RCB-028-1.0	N	1	1		Lead	33.2	mg/kg
RCB-029	RCB-029-0.5	N	0.5	0.5		Lead	52.6	mg/kg
RCB-029	RCB-029-1.0	N	1	1		Lead	73.2	mg/kg
RCB-030	RCB-030-0.5	N	0.5	0.5		Lead	80.1	mg/kg
RCB-030	RCB-030-1.0	N	1	1		Lead	50.3	mg/kg
RCB-030	RCB-030-2.0	N	2	2		Lead	68.3	mg/kg

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/6/2015 6:35:17 PM			
From File: Book8.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	71	Number of Distinct Observations	69
		Number of Missing Observations	0
Minimum	0.524	Mean	123
Maximum	494	Median	76.5
SD	115.2	Std. Error of Mean	13.67
Coefficient of Variation	0.937	Skewness	1.423
Normal GOF Test			
Shapiro Wilk Test Statistic	0.822	Shapiro Wilk GOF Test	
5% Shapiro Wilk P Value	1.24E-11	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.198	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.105	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	145.8	95% Adjusted-CLT UCL (Chen-1995)	148
		95% Modified-t UCL (Johnson-1978)	146.2
Gamma GOF Test			
A-D Test Statistic	0.652	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.776	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.0947	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.108	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.208	k star (bias corrected MLE)	1.166
Theta hat (MLE)	101.8	Theta star (bias corrected MLE)	105.5
nu hat (MLE)	171.6	nu star (bias corrected)	165.6
MLE Mean (bias corrected)	123	MLE Sd (bias corrected)	113.9
		Approximate Chi Square Value (0.05)	136.9
Adjusted Level of Significance	0.0466	Adjusted Chi Square Value	136.3
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	148.9	95% Adjusted Gamma UCL (use when n<50)	149.4
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.931	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk P Value	8.18E-04	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0674	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.105	Data appear Lognormal at 5% Significance Level	
Data appear Approximate Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-0.646	Mean of logged Data	4.344
Maximum of Logged Data	6.203	SD of logged Data	1.114
Assuming Lognormal Distribution			
95% H-UCL	196.3	90% Chebyshev (MVUE) UCL	210.1
95% Chebyshev (MVUE) UCL	241.2	97.5% Chebyshev (MVUE) UCL	284.5
99% Chebyshev (MVUE) UCL	369.4		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	145.5	95% Jackknife UCL	145.8
95% Standard Bootstrap UCL	146	95% Bootstrap-t UCL	149.2
95% Hall's Bootstrap UCL	147.5	95% Percentile Bootstrap UCL	145
95% BCA Bootstrap UCL	146.9		
90% Chebyshev(Mean, Sd) UCL	164	95% Chebyshev(Mean, Sd) UCL	182.6
97.5% Chebyshev(Mean, Sd) UCL	208.4	99% Chebyshev(Mean, Sd) UCL	259
Suggested UCL to Use			
95% Approximate Gamma UCL	148.9		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

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Table C-9

Sys Sample Code	Sample Name	Start Depth	End Depth	Parent Sample Code	Prep Method	Report Result Value	Report Result Unit
RCB-014-0.5	RCB-014-0.5	0.5	0.5		WET	35.3	mg/L
RCB-015-0.5	RCB-015-0.5	0.5	0.5		WET	20.2	mg/L
RCB-016-0.5	RCB-016-0.5	0.5	0.5		WET	16	mg/L
RCB-017-0.5	RCB-017-0.5	0.5	0.5		WET	28.6	mg/L
RCB-018-0.5	RCB-018-0.5	0.5	0.5		WET	4.43	mg/L
RCB-019-0.5	RCB-019-0.5	0.5	0.5		WET	4.99	mg/L
RCB-020-0.5	RCB-020-0.5	0.5	0.5		WET	16.3	mg/L
RCB-021-0.5	RCB-021-0.5	0.5	0.5		WET	7.24	mg/L
RCB-022-0.5	RCB-022-0.5	0.5	0.5		WET	13.8	mg/L
RCB-023-0.5	RCB-023-0.5	0.5	0.5		WET	5.26	mg/L
RCB-024-0.5	RCB-024-0.5	0.5	0.5		WET	1.67	mg/L
RCB-026-0.5	RCB-026-0.5	0.5	0.5		WET	1.77	mg/L
RCB-027-0.5	RCB-027-0.5	0.5	0.5		WET	1.38	mg/L
RCB-029-0.5	RCB-029-0.5	0.5	0.5		WET	1.19	mg/L
RCB-030-0.5	RCB-030-0.5	0.5	0.5		WET	1.84	mg/L
RCB-010-0.5	RCB-010-0.5	0.5	0.5		WET	4.42	mg/L
RCB-009-0.5	RCB-009-0.5	0.5	0.5		WET	3.79	mg/L
RCB-006-0.5	RCB-006-0.5	0.5	0.5		WET	9.76	mg/L
RCB-003-0.5	RCB-003-0.5	0.5	0.5		WET	2.94	mg/L
RCB-012-0.5	RCB-012-0.5	0.5	0.5		WET	2.55	mg/L
RCB-001-0.5	RCB-001-0.5	0.5	0.5		WET	2.55	mg/L
RCB-104	RCB-104	0.5	0.5	RCB-013-0.5	WET	15.6	mg/L

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/8/2015 10:34:11 AM			
From File: Book10.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	22	Number of Distinct Observations	21
		Number of Missing Observations	0
Minimum	1.19	Mean	9.163
Maximum	35.3	Median	4.71
SD	9.433	Std. Error of Mean	2.011
Coefficient of Variation	1.029	Skewness	1.502
Normal GOF Test			
Shapiro Wilk Test Statistic	0.799	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.911	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.251	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.189	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	12.62	95% Adjusted-CLT UCL (Chen-1995)	13.16
		95% Modified-t UCL (Johnson-1978)	12.73
Gamma GOF Test			
A-D Test Statistic	0.669	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.767	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.177	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.19	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.147	k star (bias corrected MLE)	1.021
Theta hat (MLE)	7.989	Theta star (bias corrected MLE)	8.976
nu hat (MLE)	50.47	nu star (bias corrected)	44.92
MLE Mean (bias corrected)	9.163	MLE Sd (bias corrected)	9.069
		Approximate Chi Square Value (0.05)	30.54
Adjusted Level of Significance	0.0386	Adjusted Chi Square Value	29.66
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	13.47	95% Adjusted Gamma UCL (use when n<50)	13.88
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.947	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.911	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.127	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.189	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	0.174	Mean of logged Data	1.72
Maximum of Logged Data	3.564	SD of logged Data	1.035
Assuming Lognormal Distribution			
95% H-UCL	17.28	90% Chebyshev (MVUE) UCL	16.12
95% Chebyshev (MVUE) UCL	19.25	97.5% Chebyshev (MVUE) UCL	23.59
99% Chebyshev (MVUE) UCL	32.12		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	12.47	95% Jackknife UCL	12.62
95% Standard Bootstrap UCL	12.4	95% Bootstrap-t UCL	13.7
95% Hall's Bootstrap UCL	13.86	95% Percentile Bootstrap UCL	12.55
95% BCA Bootstrap UCL	12.87		
90% Chebyshev(Mean, Sd) UCL	15.2	95% Chebyshev(Mean, Sd) UCL	17.93
97.5% Chebyshev(Mean, Sd) UCL	21.72	99% Chebyshev(Mean, Sd) UCL	29.17
Suggested UCL to Use			
95% Adjusted Gamma UCL	13.88		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

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Sys Sample Code	Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Prep Method	Report Result Value	Report Result Unit
RCB-014-1.0	RCB-014-1.0	4/15/2015	N	1	1		WET	13	mg/L
RCB-015-1.0	RCB-015-1.0	4/15/2015	N	1	1		WET	14.8	mg/L
RCB-016-1.0	RCB-016-1.0	4/15/2015	N	1	1		WET	24.2	mg/L
RCB-017-1.0	RCB-017-1.0	4/15/2015	N	1	1		WET	3.1	mg/L
RCB-018-1.0	RCB-018-1.0	4/15/2015	N	1	1		WET	3.45	mg/L
RCB-019-1.0	RCB-019-1.0	4/15/2015	N	1	1		WET	2.29	mg/L
RCB-020-1.0	RCB-020-1.0	4/15/2015	N	1	1		WET	2.34	mg/L
RCB-021-1.0	RCB-021-1.0	4/15/2015	N	1	1		WET	8.35	mg/L
RCB-022-1.0	RCB-022-1.0	4/15/2015	N	1	1		WET	8.09	mg/L
RCB-023-1.0	RCB-023-1.0	4/15/2015	N	1	1		WET	21.6	mg/L
RCB-029-1.0	RCB-029-1.0	4/15/2015	N	1	1		WET	4.35	mg/L
RCB-030-1.0	RCB-030-1.0	4/15/2015	N	1	1		WET	0.962	mg/L
RCB-010-1.0	RCB-010-1.0	4/16/2015	N	1	1		WET	5.55	mg/L
RCB-009-1.0	RCB-009-1.0	4/16/2015	N	1	1		WET	2.14	mg/L
RCB-008-1.0	RCB-008-1.0	4/16/2015	N	1	1		WET	23	mg/L
RCB-013-1.0	RCB-013-1.0	4/16/2015	N	1	1		WET	16.4	mg/L
RCB-005-1.0	RCB-005-1.0	4/16/2015	N	1	1		WET	24.8	mg/L
RCB-003-1.0	RCB-003-1.0	4/16/2015	N	1	1		WET	1.78	mg/L
RCB-001-1.0	RCB-001-1.0	4/16/2015	N	1	1		WET	2.78	mg/L
RCB-011-1.0	RCB-011-1.0	4/16/2015	N	1	1		WET	1.97	mg/L

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/6/2015 3:40:06 PM			
From File: working_f.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	20
		Number of Missing Observations	0
Minimum	0.962	Mean	9.248
Maximum	24.8	Median	4.95
SD	8.523	Std. Error of Mean	1.906
Coefficient of Variation	0.922	Skewness	0.842
Normal GOF Test			
Shapiro Wilk Test Statistic	0.818	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.905	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.218	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.198	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	12.54	95% Adjusted-CLT UCL (Chen-1995)	12.77
		95% Modified-t UCL (Johnson-1978)	12.6
Gamma GOF Test			
A-D Test Statistic	0.813	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.764	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.178	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.199	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data follow Appr. Gamma Distribution at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.205	k star (bias corrected MLE)	1.058
Theta hat (MLE)	7.672	Theta star (bias corrected MLE)	8.741
nu hat (MLE)	48.22	nu star (bias corrected)	42.32
MLE Mean (bias corrected)	9.248	MLE Sd (bias corrected)	8.991
		Approximate Chi Square Value (0.05)	28.4
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	27.5
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	13.78	95% Adjusted Gamma UCL (use when n<50)	14.23
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.921	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.905	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.141	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.198	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-0.0387	Mean of logged Data	1.755
Maximum of Logged Data	3.211	SD of logged Data	1.036
Assuming Lognormal Distribution			
95% H-UCL	18.74	90% Chebyshev (MVUE) UCL	16.96
95% Chebyshev (MVUE) UCL	20.34	97.5% Chebyshev (MVUE) UCL	25.01
99% Chebyshev (MVUE) UCL	34.21		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	12.38	95% Jackknife UCL	12.54
95% Standard Bootstrap UCL	12.33	95% Bootstrap-t UCL	13.2
95% Hall's Bootstrap UCL	12.45	95% Percentile Bootstrap UCL	12.35
95% BCA Bootstrap UCL	12.63		
90% Chebyshev(Mean, Sd) UCL	14.97	95% Chebyshev(Mean, Sd) UCL	17.56
97.5% Chebyshev(Mean, Sd) UCL	21.15	99% Chebyshev(Mean, Sd) UCL	28.21
Suggested UCL to Use			
95% Adjusted Gamma UCL	14.23		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

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Sys Sample Code	Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Prep Method	Report Result Value	Report Result Unit
RCB-014-2.0	RCB-014-2.0	4/15/2015	N	2	2		WET	7.14	mg/L
RCB-015-2.0	RCB-015-2.0	4/15/2015	N	2	2		WET	20.5	mg/L
RCB-016-2.0	RCB-016-2.0	4/15/2015	N	2	2		WET	2.29	mg/L
RCB-022-2.0	RCB-022-2.0	4/15/2015	N	2	2		WET	2.76	mg/L
RCB-030-2.0	RCB-030-2.0	4/15/2015	N	2	2		WET	1.54	mg/L
RCB-011-2.0	RCB-011-2.0	4/16/2015	N	2	2		WET	1.89	mg/L
RCB-008-2.0	RCB-008-2.0	4/16/2015	N	2	2		WET	4.88	mg/L

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/6/2015 3:40:37 PM			
From File: working_g.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	7	Number of Distinct Observations	7
		Number of Missing Observations	0
Minimum	1.54	Mean	5.857
Maximum	20.5	Median	2.76
SD	6.754	Std. Error of Mean	2.553
Coefficient of Variation	1.153	Skewness	2.213
Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use			
guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.			
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).			
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.0			
Normal GOF Test			
Shapiro Wilk Test Statistic	0.693	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.803	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.282	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.335	Data appear Normal at 5% Significance Level	
Data appear Approximate Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	10.82	95% Adjusted-CLT UCL (Chen-1995)	12.34
		95% Modified-t UCL (Johnson-1978)	11.17
Gamma GOF Test			
A-D Test Statistic	0.547	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.723	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.254	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.318	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.353	k star (bias corrected MLE)	0.869
Theta hat (MLE)	4.328	Theta star (bias corrected MLE)	6.743
nu hat (MLE)	18.95	nu star (bias corrected)	12.16
MLE Mean (bias corrected)	5.857	MLE Sd (bias corrected)	6.285
		Approximate Chi Square Value (0.05)	5.333
Adjusted Level of Significance	0.0158	Adjusted Chi Square Value	4.052
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50))	13.36	95% Adjusted Gamma UCL (use when n<50)	17.58
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.908	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.803	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.217	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.335	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	0.432	Mean of logged Data	1.355
Maximum of Logged Data	3.02	SD of logged Data	0.909
Assuming Lognormal Distribution			
95% H-UCL	21.05	90% Chebyshev (MVUE) UCL	11.09
95% Chebyshev (MVUE) UCL	13.65	97.5% Chebyshev (MVUE) UCL	17.2
99% Chebyshev (MVUE) UCL	24.17		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	10.06	95% Jackknife UCL	10.82
95% Standard Bootstrap UCL	9.774	95% Bootstrap-t UCL	25.59
95% Hall's Bootstrap UCL	25.19	95% Percentile Bootstrap UCL	10.19
95% BCA Bootstrap UCL	11.9		
90% Chebyshev(Mean, Sd) UCL	13.52	95% Chebyshev(Mean, Sd) UCL	16.98
97.5% Chebyshev(Mean, Sd) UCL	21.8	99% Chebyshev(Mean, Sd) UCL	31.26
Suggested UCL to Use			
95% Student's-t UCL	10.82		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
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Table C-15

Sys Sample Code	Prep Method	Report Result Value	Report Result Unit
RCB-014-0.5	WET	35.3	mg/L
RCB-014-1.0	WET	13	mg/L
RCB-014-2.0	WET	7.14	mg/L
RCB-015-0.5	WET	20.2	mg/L
RCB-015-1.0	WET	14.8	mg/L
RCB-015-2.0	WET	20.5	mg/L
RCB-016-0.5	WET	16	mg/L
RCB-016-1.0	WET	24.2	mg/L
RCB-016-2.0	WET	2.29	mg/L
RCB-017-0.5	WET	28.6	mg/L
RCB-017-1.0	WET	3.1	mg/L
RCB-018-0.5	WET	4.43	mg/L
RCB-018-1.0	WET	3.45	mg/L
RCB-019-0.5	WET	4.99	mg/L
RCB-019-1.0	WET	2.29	mg/L
RCB-020-0.5	WET	16.3	mg/L
RCB-020-1.0	WET	2.34	mg/L
RCB-021-0.5	WET	7.24	mg/L
RCB-021-1.0	WET	8.35	mg/L
RCB-022-0.5	WET	13.8	mg/L
RCB-022-1.0	WET	8.09	mg/L
RCB-022-2.0	WET	2.76	mg/L
RCB-023-0.5	WET	5.26	mg/L
RCB-023-1.0	WET	21.6	mg/L
RCB-024-0.5	WET	1.67	mg/L
RCB-026-0.5	WET	1.77	mg/L
RCB-027-0.5	WET	1.38	mg/L
RCB-029-0.5	WET	1.19	mg/L
RCB-029-1.0	WET	4.35	mg/L
RCB-030-0.5	WET	1.84	mg/L
RCB-030-1.0	WET	0.962	mg/L
RCB-030-2.0	WET	1.54	mg/L
RCB-011-2.0	WET	1.89	mg/L
RCB-010-0.5	WET	4.42	mg/L
RCB-010-1.0	WET	5.55	mg/L
RCB-009-0.5	WET	3.79	mg/L
RCB-009-1.0	WET	2.14	mg/L
RCB-008-1.0	WET	23	mg/L
RCB-008-2.0	WET	4.88	mg/L
RCB-013-1.0	WET	16.4	mg/L
RCB-006-0.5	WET	9.76	mg/L
RCB-005-1.0	WET	24.8	mg/L
RCB-003-0.5	WET	2.94	mg/L
RCB-003-1.0	WET	1.78	mg/L
RCB-012-0.5	WET	2.55	mg/L
RCB-001-0.5	WET	2.55	mg/L
RCB-001-1.0	WET	2.78	mg/L
RCB-104	WET	15.6	mg/L
RCB-011-1.0	WET	1.97	mg/L

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/8/2015 10:35:38 AM			
From File: Book9.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	49	Number of Distinct Observations	47
		Number of Missing Observations	0
Minimum	0.962	Mean	8.725
Maximum	35.3	Median	4.43
SD	8.648	Std. Error of Mean	1.235
Coefficient of Variation	0.991	Skewness	1.277
Normal GOF Test			
Shapiro Wilk Test Statistic	0.804	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.947	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.235	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.127	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	10.8	95% Adjusted-CLT UCL (Chen-1995)	11
		95% Modified-t UCL (Johnson-1978)	10.83
Gamma GOF Test			
A-D Test Statistic	1.667	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.775	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.145	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.13	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.171	k star (bias corrected MLE)	1.113
Theta hat (MLE)	7.449	Theta star (bias corrected MLE)	7.838
nu hat (MLE)	114.8	nu star (bias corrected)	109.1
MLE Mean (bias corrected)	8.725	MLE Sd (bias corrected)	8.27
		Approximate Chi Square Value (0.05)	85.99
Adjusted Level of Significance	0.0451	Adjusted Chi Square Value	85.37
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50))	11.07	95% Adjusted Gamma UCL (use when n<50)	11.15
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.928	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.947	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.116	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.127	Data appear Lognormal at 5% Significance Level	
Data appear Approximate Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-0.0387	Mean of logged Data	1.682
Maximum of Logged Data	3.564	SD of logged Data	1.008
Assuming Lognormal Distribution			
95% H-UCL	12.57	90% Chebyshev (MVUE) UCL	13.27
95% Chebyshev (MVUE) UCL	15.3	97.5% Chebyshev (MVUE) UCL	18.11
99% Chebyshev (MVUE) UCL	23.64		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	10.76	95% Jackknife UCL	10.8
95% Standard Bootstrap UCL	10.76	95% Bootstrap-t UCL	11.03
95% Hall's Bootstrap UCL	11.04	95% Percentile Bootstrap UCL	10.76
95% BCA Bootstrap UCL	11.06		
90% Chebyshev(Mean, Sd) UCL	12.43	95% Chebyshev(Mean, Sd) UCL	14.11
97.5% Chebyshev(Mean, Sd) UCL	16.44	99% Chebyshev(Mean, Sd) UCL	21.02
Suggested UCL to Use			
95% Chebyshev (Mean, Sd) UCL	14.11		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

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Table C-17

Sys Sample Code	Loc Name	Loc Group	Loc Report Order	Sys Sample Code	Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Prep Method	Report Result Value	Report Result Unit
RCB-003				RCB-003-0.5	RCB-003-0.5	4/16/2015	N	0.5	0.5		SW3050B	79.4	mg/kg
RCB-003				RCB-003-1.0	RCB-003-1.0	4/16/2015	N	1	1		SW3050B	50.6	mg/kg
RCB-003				RCB-003-2.0	RCB-003-2.0	4/16/2015	N	2	2		SW3050B	34.1	mg/kg
RCB-002				RCB-002-0.5	RCB-002-0.5	4/16/2015	N	0.5	0.5		SW3050B	38.2	mg/kg
RCB-002				RCB-002-1.0	RCB-002-1.0	4/16/2015	N	1	1		SW3050B	27.8	mg/kg
RCB-002				RCB-106	RCB-106	4/16/2015	FD	2	2	RCB-002-2.0	SW3050B	20.4	mg/kg
RCB-001				RCB-001-0.5	RCB-001-0.5	4/16/2015	N	0.5	0.5		SW3050B	70.4	mg/kg
RCB-001				RCB-001-1.0	RCB-001-1.0	4/16/2015	N	1	1		SW3050B	96.1	mg/kg
RCB-001				RCB-001-2.0	RCB-001-2.0	4/16/2015	N	2	2		SW3050B	39.4	mg/kg

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/6/2015 3:48:21 PM			
From File: WorkSheet.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	9	Number of Distinct Observations	9
		Number of Missing Observations	1
Minimum	20.4	Mean	50.71
Maximum	96.1	Median	39.4
SD	25.68	Std. Error of Mean	8.559
Coefficient of Variation	0.506	Skewness	0.73

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use
guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.0

Normal GOF Test			
Shapiro Wilk Test Statistic	0.92	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.829	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.226	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.295	Data appear Normal at 5% Significance Level	
Data appear Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	66.63	95% Adjusted-CLT UCL (Chen-1995)	67.02
		95% Modified-t UCL (Johnson-1978)	66.97
Gamma GOF Test			
A-D Test Statistic	0.258	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.724	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.194	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.28	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	4.526	k star (bias corrected MLE)	3.091
Theta hat (MLE)	11.21	Theta star (bias corrected MLE)	16.41
nu hat (MLE)	81.46	nu star (bias corrected)	55.64
MLE Mean (bias corrected)	50.71	MLE Sd (bias corrected)	28.84
		Approximate Chi Square Value (0.05)	39.5
Adjusted Level of Significance	0.0231	Adjusted Chi Square Value	36.65
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50))	71.44	95% Adjusted Gamma UCL (use when n<50)	76.99
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.968	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.829	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.162	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.295	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	3.016	Mean of logged Data	3.812
Maximum of Logged Data	4.565	SD of logged Data	0.511
Assuming Lognormal Distribution			
95% H-UCL	77.33	90% Chebyshev (MVUE) UCL	77.05
95% Chebyshev (MVUE) UCL	88.97	97.5% Chebyshev (MVUE) UCL	105.5
99% Chebyshev (MVUE) UCL	138		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	64.79	95% Jackknife UCL	66.63
95% Standard Bootstrap UCL	63.96	95% Bootstrap-t UCL	71.06
95% Hall's Bootstrap UCL	66.55	95% Percentile Bootstrap UCL	64.53
95% BCA Bootstrap UCL	66.64		
90% Chebyshev(Mean, Sd) UCL	76.39	95% Chebyshev(Mean, Sd) UCL	88.02
97.5% Chebyshev(Mean, Sd) UCL	104.2	99% Chebyshev(Mean, Sd) UCL	135.9
Suggested UCL to Use			
95% Student's-t UCL	66.63		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

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Facility ID	Facility Code	Sys Sample Code	Loc Name	Loc Group	Loc Report Order	Sys Sample Code	Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Prep Method	Report Result Value	Report Result Unit			
463318	Rose Creek ADL	RCB-018				RCB-018-2.0	RCB-018-2.0	4/15/2015	N	2	2		SW3050B	7.38	mg/kg			
463318	Rose Creek ADL	RCB-021				RCB-021-2.0	RCB-021-2.0	4/15/2015	N	2	2		SW3050B	16.2	mg/kg			
463318	Rose Creek ADL	RCB-008				RCB-008-0.5	RCB-008-0.5	42110.38542	N	0.5	0.5		SW3050B	16.6	mg/kg	0.515	Yes	Y
463318	Rose Creek ADL	RCB-023				RCB-023-2.0	RCB-023-2.0	4/15/2015	N	2	2		SW3050B	19.2	mg/kg			
463318	Rose Creek ADL	RCB-007				RCB-007-1.0	RCB-007-1.0	42110.39861	N	1	1		SW3050B	19.8	mg/kg	0.518	Yes	Y
463318	Rose Creek ADL	RCB-007				RCB-007-0.5	RCB-007-0.5	42110.39583	N	0.5	0.5		SW3050B	20.9	mg/kg	0.500	Yes	Y
463318	Rose Creek ADL	RCB-005				RCB-005-0.5	RCB-005-0.5	42110.41944	N	0.5	0.5		SW3050B	27.8	mg/kg	0.476	Yes	Y
463318	Rose Creek ADL	RCB-012				RCB-012-2.0	RCB-012-2.0	4/16/2015	N	2	2		SW3050B	33.4	mg/kg	0.490	Yes	Y
463318	Rose Creek ADL	RCB-012				RCB-012-1.0	RCB-012-1.0	4/16/2015	N	1	1		SW3050B	37.3	mg/kg	0.503	Yes	Y
463318	Rose Creek ADL	RCB-004				RCB-004-1.0	RCB-004-1.0	42110.42917	N	1	1		SW3050B	41.1	mg/kg	0.488	Yes	Y
463318	Rose Creek ADL	RCB-004				RCB-004-0.5	RCB-004-0.5	42110.42639	N	0.5	0.5		SW3050B	44.1	mg/kg	0.518	Yes	Y
463318	Rose Creek ADL	RCB-011				RCB-011-2.0	RCB-011-2.0	42110.36111	N	2	2		SW3050B	50.7	mg/kg	0.524	Yes	Y
463318	Rose Creek ADL	RCB-011				RCB-011-0.5	RCB-011-0.5	42110.35417	N	0.5	0.5		SW3050B	52.9	mg/kg	0.490	Yes	Y
463318	Rose Creek ADL	RCB-011				RCB-011-1.0	RCB-011-1.0	42110.35556	N	1	1		SW3050B	56.9	mg/kg	0.495	Yes	Y
463318	Rose Creek ADL	RCB-020				RCB-020-1.0	RCB-020-1.0	4/15/2015	N	1	1		SW3050B	57.4	mg/kg			
463318	Rose Creek ADL	RCB-009				RCB-009-1.0	RCB-009-1.0	42110.37708	N	1	1		SW3050B	62.5	mg/kg	0.493	Yes	Y
463318	Rose Creek ADL	RCB-019				RCB-019-1.0	RCB-019-1.0	4/15/2015	N	1	1		SW3050B	67.7	mg/kg			
463318	Rose Creek ADL	RCB-018				RCB-018-0.5	RCB-018-0.5	4/15/2015	N	0.5	0.5		SW3050B	74.6	mg/kg			
463318	Rose Creek ADL	RCB-019				RCB-019-0.5	RCB-019-0.5	4/15/2015	N	0.5	0.5		SW3050B	76.5	mg/kg			
463318	Rose Creek ADL	RCB-016				RCB-016-2.0	RCB-016-2.0	4/15/2015	N	2	2		SW3050B	81	mg/kg			
463318	Rose Creek ADL	RCB-022				RCB-022-2.0	RCB-022-2.0	4/15/2015	N	2	2		SW3050B	84.7	mg/kg			
463318	Rose Creek ADL	RCB-018				RCB-018-1.0	RCB-018-1.0	4/15/2015	N	1	1		SW3050B	93.2	mg/kg			
463318	Rose Creek ADL	RCB-024				RCB-024-0.5	RCB-024-0.5	4/15/2015	N	0.5	0.5		SW3050B	93.4	mg/kg			
463318	Rose Creek ADL	RCB-010				RCB-010-0.5	RCB-010-0.5	42110.36458	N	0.5	0.5		SW3050B	101	mg/kg	0.515	Yes	Y
463318	Rose Creek ADL	RCB-023				RCB-023-0.5	RCB-023-0.5	4/15/2015	N	0.5	0.5		SW3050B	111	mg/kg			
463318	Rose Creek ADL	RCB-008				RCB-008-1.0	RCB-008-1.0	42110.38681	N	1	1		SW3050B	123	mg/kg	0.495	Yes	Y
463318	Rose Creek ADL	RCB-017				RCB-017-1.0	RCB-017-1.0	4/15/2015	N	1	1		SW3050B	126	mg/kg			
463318	Rose Creek ADL	RCB-021				RCB-021-0.5	RCB-021-0.5	4/15/2015	N	0.5	0.5		SW3050B	145	mg/kg			
463318	Rose Creek ADL	RCB-009				RCB-009-0.5	RCB-009-0.5	42110.375	N	0.5	0.5		SW3050B	149	mg/kg	0.500	Yes	Y
463318	Rose Creek ADL	RCB-005				RCB-005-1.0	RCB-005-1.0	42110.42083	N	1	1		SW3050B	165	mg/kg	0.508	Yes	Y
463318	Rose Creek ADL	RCB-021				RCB-021-1.0	RCB-021-1.0	4/15/2015	N	1	1		SW3050B	168	mg/kg			
463318	Rose Creek ADL	RCB-008				RCB-008-2.0	RCB-008-2.0	42110.38889	N	2	2		SW3050B	170	mg/kg	0.495	Yes	Y
463318	Rose Creek ADL	RCB-006				RCB-006-0.5	RCB-006-0.5	42110.41111	N	0.5	0.5		SW3050B	180	mg/kg	0.488	Yes	Y
463318	Rose Creek ADL	RCB-012				RCB-012-0.5	RCB-012-0.5	42110.34514	N	0.5	0.5		SW3050B	181	mg/kg	0.510	Yes	Y
463318	Rose Creek ADL	RCB-015				RCB-015-1.0	RCB-015-1.0	4/15/2015	N	1	1		SW3050B	198	mg/kg			
463318	Rose Creek ADL	RCB-014				RCB-014-2.0	RCB-014-2.0	4/15/2015	N	2	2		SW3050B	211	mg/kg			
463318	Rose Creek ADL	RCB-010				RCB-010-1.0	RCB-010-1.0	42110.36597	N	1	1		SW3050B	211	mg/kg	0.476	Yes	Y
463318	Rose Creek ADL	RCB-015				RCB-015-0.5	RCB-015-0.5	4/15/2015	N	0.5	0.5		SW3050B	212	mg/kg			
463318	Rose Creek ADL	RCB-022				RCB-022-1.0	RCB-022-1.0	4/15/2015	N	1	1		SW3050B	225	mg/kg			
463318	Rose Creek ADL	RCB-014				RCB-014-1.0	RCB-014-1.0	4/15/2015	N	1	1		SW3050B	250	mg/kg			
463318	Rose Creek ADL	RCB-015				RCB-015-2.0	RCB-015-2.0	4/15/2015	N	2	2		SW3050B	254	mg/kg			
463318	Rose Creek ADL	RCB-023				RCB-023-1.0	RCB-023-1.0	4/15/2015	N	1	1		SW3050B	294	mg/kg			
463318	Rose Creek ADL	RCB-016				RCB-016-0.5	RCB-016-0.5	4/15/2015	N	0.5	0.5		SW3050B	304	mg/kg			
463318	Rose Creek ADL	RCB-020				RCB-020-0.5	RCB-020-0.5	4/15/2015	N	0.5	0.5		SW3050B	310	mg/kg			
463318	Rose Creek ADL	RCB-016				RCB-016-1.0	RCB-016-1.0	4/15/2015	N	1	1		SW3050B	350	mg/kg			
463318	Rose Creek ADL	RCB-013				RCB-013-1.0	RCB-013-1.0	4/16/2015	N	1	1		SW3050B	356	mg/kg			
463318	Rose Creek ADL	RCB-013				RCB-104	RCB-104	4/16/2015	FD	0.5	0.5	RCB-013-0.5	SW3050B	359	mg/kg			
463318	Rose Creek ADL	RCB-017				RCB-017-0.5	RCB-017-0.5	4/15/2015	N	0.5	0.5		SW3050B	427	mg/kg			
463318	Rose Creek ADL	RCB-022				RCB-022-0.5	RCB-022-0.5	4/15/2015	N	0.5	0.5		SW3050B	428	mg/kg			
463318	Rose Creek ADL	RCB-014				RCB-014-0.5	RCB-014-0.5	4/15/2015	N	0.5	0.5		SW3050B	494	mg/kg			

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/8/2015 1:42:47 PM			
From File: Book17.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	50	Number of Distinct Observations	49
		Number of Missing Observations	1
Minimum	7.38	Mean	152.7
Maximum	494	Median	117
SD	124.9	Std. Error of Mean	17.67
Coefficient of Variation	0.818	Skewness	0.969
Normal GOF Test			
Shapiro Wilk Test Statistic	0.89	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.947	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.143	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.125	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	182.4	95% Adjusted-CLT UCL (Chen-1995)	184.4
		95% Modified-t UCL (Johnson-1978)	182.8
Gamma GOF Test			
A-D Test Statistic	0.265	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.771	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.0673	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.128	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.367	k star (bias corrected MLE)	1.299
Theta hat (MLE)	111.7	Theta star (bias corrected MLE)	117.6
nu hat (MLE)	136.7	nu star (bias corrected)	129.9
MLE Mean (bias corrected)	152.7	MLE Sd (bias corrected)	134
		Approximate Chi Square Value (0.05)	104.5
Adjusted Level of Significance	0.0452	Adjusted Chi Square Value	103.9
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	189.7	95% Adjusted Gamma UCL (use when n<50)	191
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.954	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.947	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.104	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.125	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	1.999	Mean of logged Data	4.621
Maximum of Logged Data	6.203	SD of logged Data	1.012
Assuming Lognormal Distribution			
95% H-UCL	238.2	90% Chebyshev (MVUE) UCL	251.5
95% Chebyshev (MVUE) UCL	289.8	97.5% Chebyshev (MVUE) UCL	342.9
99% Chebyshev (MVUE) UCL	447.3		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	181.8	95% Jackknife UCL	182.4
95% Standard Bootstrap UCL	180.7	95% Bootstrap-t UCL	185
95% Hall's Bootstrap UCL	184.1	95% Percentile Bootstrap UCL	183.6
95% BCA Bootstrap UCL	183.8		
90% Chebyshev(Mean, Sd) UCL	205.8	95% Chebyshev(Mean, Sd) UCL	229.8
97.5% Chebyshev(Mean, Sd) UCL	263.1	99% Chebyshev(Mean, Sd) UCL	328.5
Suggested UCL to Use			
95% Approximate Gamma UCL	189.7		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

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Table C-21

Facility ID	Facility ID	Sys Loc Code	Loc Name	Loc Group	Loc Report Order	Sys Sample Code	Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Prep Method	Report Result Value	Report Result Unit
463318	Rose Creek ADL	RCB-030				RCB-030-0.5	RCB-030-0.5	4/15/2015	N	0.5	0.5		SW3050B	80.1	mg/kg
463318	Rose Creek ADL	RCB-026				RCB-026-1.0	RCB-026-1.0	4/15/2015	N	1	1		SW3050B	0.524	mg/kg
463318	Rose Creek ADL	RCB-025				RCB-025-0.5	RCB-025-0.5	4/15/2015	N	0.5	0.5		SW3050B	32.5	mg/kg
463318	Rose Creek ADL	RCB-025				RCB-025-1.0	RCB-025-1.0	4/15/2015	N	1	1		SW3050B	30.2	mg/kg
463318	Rose Creek ADL	RCB-024				RCB-024-0.5	RCB-024-0.5	4/15/2015	N	0.5	0.5		SW3050B	93.4	mg/kg
463318	Rose Creek ADL	RCB-030				RCB-030-1.0	RCB-030-1.0	4/15/2015	N	1	1		SW3050B	50.3	mg/kg
463318	Rose Creek ADL	RCB-030				RCB-030-2.0	RCB-030-2.0	4/15/2015	N	2	2		SW3050B	68.3	mg/kg
463318	Rose Creek ADL	RCB-029				RCB-029-0.5	RCB-029-0.5	4/15/2015	N	0.5	0.5		SW3050B	52.6	mg/kg
463318	Rose Creek ADL	RCB-029				RCB-029-1.0	RCB-029-1.0	4/15/2015	N	1	1		SW3050B	73.2	mg/kg
463318	Rose Creek ADL	RCB-028				RCB-028-0.5	RCB-028-0.5	4/15/2015	N	0.5	0.5		SW3050B	38.4	mg/kg
463318	Rose Creek ADL	RCB-028				RCB-028-1.0	RCB-028-1.0	4/15/2015	N	1	1		SW3050B	33.2	mg/kg
463318	Rose Creek ADL	RCB-027				RCB-027-0.5	RCB-027-0.5	4/15/2015	N	0.5	0.5		SW3050B	68.6	mg/kg
463318	Rose Creek ADL	RCB-026				RCB-026-0.5	RCB-026-0.5	4/15/2015	N	0.5	0.5		SW3050B	112	mg/kg

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/6/2015 4:58:54 PM			
From File: Book4_a.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	13
		Number of Missing Observations	0
Minimum	0.524	Mean	56.41
Maximum	112	Median	52.6
SD	30.12	Std. Error of Mean	8.354
Coefficient of Variation	0.534	Skewness	0.0688
Normal GOF Test			
Shapiro Wilk Test Statistic	0.981	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.866	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.115	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.246	Data appear Normal at 5% Significance Level	
Data appear Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	71.3	95% Adjusted-CLT UCL (Chen-1995)	70.32
		95% Modified-t UCL (Johnson-1978)	71.33
Gamma GOF Test			
A-D Test Statistic	1.034	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.75	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.264	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.241	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.509	k star (bias corrected MLE)	1.212
Theta hat (MLE)	37.39	Theta star (bias corrected MLE)	46.55
nu hat (MLE)	39.23	nu star (bias corrected)	31.51
MLE Mean (bias corrected)	56.41	MLE Sd (bias corrected)	51.24
		Approximate Chi Square Value (0.05)	19.68
Adjusted Level of Significance	0.0301	Adjusted Chi Square Value	18.36
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50))	90.3	95% Adjusted Gamma UCL (use when n<50)	96.81
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.609	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.866	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.348	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.246	Data Not Lognormal at 5% Significance Level	
Data Not Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-0.646	Mean of logged Data	3.666
Maximum of Logged Data	4.718	SD of logged Data	1.362
Assuming Lognormal Distribution			
95% H-UCL	394	90% Chebyshev (MVUE) UCL	198.2
95% Chebyshev (MVUE) UCL	248.2	97.5% Chebyshev (MVUE) UCL	317.5
99% Chebyshev (MVUE) UCL	453.7		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	70.15	95% Jackknife UCL	71.3
95% Standard Bootstrap UCL	69.66	95% Bootstrap-t UCL	71.44
95% Hall's Bootstrap UCL	71.76	95% Percentile Bootstrap UCL	70.15
95% BCA Bootstrap UCL	69.27		
90% Chebyshev(Mean, Sd) UCL	81.47	95% Chebyshev(Mean, Sd) UCL	92.83
97.5% Chebyshev(Mean, Sd) UCL	108.6	99% Chebyshev(Mean, Sd) UCL	139.5
Suggested UCL to Use			
95% Student's-t UCL	71.3		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

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Facility Code	Sys Loc Code	Loc Name	Loc Group	Loc Report Order	Sys Sample Code	Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Prep Method	Report Result Value	Report Result Unit
Rose Creek ADL	RCB-003				RCB-003-0.5	RCB-003-0.5	4/16/2015	N	0.5	0.5		WET	2.94	mg/L
Rose Creek ADL	RCB-003				RCB-003-1.0	RCB-003-1.0	4/16/2015	N	1	1		WET	1.78	mg/L
Rose Creek ADL	RCB-001				RCB-001-0.5	RCB-001-0.5	4/16/2015	N	0.5	0.5		WET	2.55	mg/L
Rose Creek ADL	RCB-001				RCB-001-1.0	RCB-001-1.0	4/16/2015	N	1	1		WET	2.78	mg/L

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/8/2015 1:14:57 PM			
From File: WorkSheet.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	4	Number of Distinct Observations	4
		Number of Missing Observations	1
Minimum	1.78	Mean	2.513
Maximum	2.94	Median	2.665
SD	0.514	Std. Error of Mean	0.257
Coefficient of Variation	0.205	Skewness	-1.453
Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest. For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012). Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.0			
Normal GOF Test			
Shapiro Wilk Test Statistic	0.882	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.748	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.279	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.443	Data appear Normal at 5% Significance Level	
Data appear Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	3.117	95% Adjusted-CLT UCL (Chen-1995)	2.736
		95% Modified-t UCL (Johnson-1978)	3.086
Gamma GOF Test			
A-D Test Statistic	0.45	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.657	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.306	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.394	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	28.12	k star (bias corrected MLE)	7.197
Theta hat (MLE)	0.0893	Theta star (bias corrected MLE)	0.349
nu hat (MLE)	225	nu star (bias corrected)	57.57
MLE Mean (bias corrected)	2.513	MLE Sd (bias corrected)	0.937
		Approximate Chi Square Value (0.05)	41.13
Adjusted Level of Significance	N/A	Adjusted Chi Square Value	N/A
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50))	3.517	95% Adjusted Gamma UCL (use when n<50)	N/A
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.846	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.748	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.308	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.443	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	0.577	Mean of logged Data	0.903
Maximum of Logged Data	1.078	SD of logged Data	0.226
Assuming Lognormal Distribution			
95% H-UCL	3.522	90% Chebyshev (MVUE) UCL	3.363
95% Chebyshev (MVUE) UCL	3.747	97.5% Chebyshev (MVUE) UCL	4.28
99% Chebyshev (MVUE) UCL	5.327		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	2.935	95% Jackknife UCL	3.117
95% Standard Bootstrap UCL	N/A	95% Bootstrap-t UCL	N/A
95% Hall's Bootstrap UCL	N/A	95% Percentile Bootstrap UCL	N/A
95% BCA Bootstrap UCL	N/A		
90% Chebyshev(Mean, Sd) UCL	3.283	95% Chebyshev(Mean, Sd) UCL	3.633
97.5% Chebyshev(Mean, Sd) UCL	4.117	99% Chebyshev(Mean, Sd) UCL	5.069
Suggested UCL to Use			
95% Student's-t UCL	3.117		
Recommended UCL exceeds the maximum observation			

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be
reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

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Facility ID	Facility Code	Sys Loc Code	Loc Name	Loc Group	Loc Report Order	Sys Sample Code	Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Prep Method	Report Result Value	Report Result Unit
463318	Rose Creek ADL	RCB-024				RCB-024-0.5	RCB-024-0.5	4/15/2015	N	0.5	0.5		WET	1.67	mg/L
	Rose Creek ADL	RCB-011				RCB-011-2.0	RCB-011-2.0	4/16/2015	N	2	2		WET	1.89	mg/L
	Rose Creek ADL	RCB-011				RCB-011-1.0	RCB-011-1.0	4/16/2015	N	1	1		WET	1.97	mg/L
	Rose Creek ADL	RCB-009				RCB-009-1.0	RCB-009-1.0	4/16/2015	N	1	1		WET	2.14	mg/L
463318	Rose Creek ADL	RCB-016				RCB-016-2.0	RCB-016-2.0	4/15/2015	N	2	2		WET	2.29	mg/L
463318	Rose Creek ADL	RCB-019				RCB-019-1.0	RCB-019-1.0	4/15/2015	N	1	1		WET	2.29	mg/L
463318	Rose Creek ADL	RCB-020				RCB-020-1.0	RCB-020-1.0	4/15/2015	N	1	1		WET	2.34	mg/L
	Rose Creek ADL	RCB-012				RCB-012-0.5	RCB-012-0.5	4/16/2015	N	0.5	0.5		WET	2.55	mg/L
463318	Rose Creek ADL	RCB-022				RCB-022-2.0	RCB-022-2.0	4/15/2015	N	2	2		WET	2.76	mg/L
463318	Rose Creek ADL	RCB-017				RCB-017-1.0	RCB-017-1.0	4/15/2015	N	1	1		WET	3.1	mg/L
463318	Rose Creek ADL	RCB-018				RCB-018-1.0	RCB-018-1.0	4/15/2015	N	1	1		WET	3.45	mg/L
	Rose Creek ADL	RCB-009				RCB-009-0.5	RCB-009-0.5	4/16/2015	N	0.5	0.5		WET	3.79	mg/L
	Rose Creek ADL	RCB-010				RCB-010-0.5	RCB-010-0.5	4/16/2015	N	0.5	0.5		WET	4.42	mg/L
463318	Rose Creek ADL	RCB-018				RCB-018-0.5	RCB-018-0.5	4/15/2015	N	0.5	0.5		WET	4.43	mg/L
	Rose Creek ADL	RCB-008				RCB-008-2.0	RCB-008-2.0	4/16/2015	N	2	2		WET	4.88	mg/L
463318	Rose Creek ADL	RCB-019				RCB-019-0.5	RCB-019-0.5	4/15/2015	N	0.5	0.5		WET	4.99	mg/L
463318	Rose Creek ADL	RCB-023				RCB-023-0.5	RCB-023-0.5	4/15/2015	N	0.5	0.5		WET	5.26	mg/L
	Rose Creek ADL	RCB-010				RCB-010-1.0	RCB-010-1.0	4/16/2015	N	1	1		WET	5.55	mg/L
463318	Rose Creek ADL	RCB-014				RCB-014-2.0	RCB-014-2.0	4/15/2015	N	2	2		WET	7.14	mg/L
463318	Rose Creek ADL	RCB-021				RCB-021-0.5	RCB-021-0.5	4/15/2015	N	0.5	0.5		WET	7.24	mg/L
463318	Rose Creek ADL	RCB-022				RCB-022-1.0	RCB-022-1.0	4/15/2015	N	1	1		WET	8.09	mg/L
463318	Rose Creek ADL	RCB-021				RCB-021-1.0	RCB-021-1.0	4/15/2015	N	1	1		WET	8.35	mg/L
	Rose Creek ADL	RCB-006				RCB-006-0.5	RCB-006-0.5	4/16/2015	N	0.5	0.5		WET	9.76	mg/L
463318	Rose Creek ADL	RCB-014				RCB-014-1.0	RCB-014-1.0	4/15/2015	N	1	1		WET	13	mg/L
463318	Rose Creek ADL	RCB-022				RCB-022-0.5	RCB-022-0.5	4/15/2015	N	0.5	0.5		WET	13.8	mg/L
463318	Rose Creek ADL	RCB-015				RCB-015-1.0	RCB-015-1.0	4/15/2015	N	1	1		WET	14.8	mg/L
463318	Rose Creek ADL	RCB-013				RCB-104	RCB-104	4/16/2015	FD	0.5	0.5	RCB-013-0.5	WET	15.6	mg/L
463318	Rose Creek ADL	RCB-016				RCB-016-0.5	RCB-016-0.5	4/15/2015	N	0.5	0.5		WET	16	mg/L
463318	Rose Creek ADL	RCB-020				RCB-020-0.5	RCB-020-0.5	4/15/2015	N	0.5	0.5		WET	16.3	mg/L
463318	Rose Creek ADL	RCB-013				RCB-013-1.0	RCB-013-1.0	4/16/2015	N	1	1		WET	16.4	mg/L
463318	Rose Creek ADL	RCB-015				RCB-015-0.5	RCB-015-0.5	4/15/2015	N	0.5	0.5		WET	20.2	mg/L
463318	Rose Creek ADL	RCB-015				RCB-015-2.0	RCB-015-2.0	4/15/2015	N	2	2		WET	20.5	mg/L
463318	Rose Creek ADL	RCB-023				RCB-023-1.0	RCB-023-1.0	4/15/2015	N	1	1		WET	21.6	mg/L
	Rose Creek ADL	RCB-008				RCB-008-1.0	RCB-008-1.0	4/16/2015	N	1	1		WET	23	mg/L
463318	Rose Creek ADL	RCB-016				RCB-016-1.0	RCB-016-1.0	4/15/2015	N	1	1		WET	24.2	mg/L
	Rose Creek ADL	RCB-005				RCB-005-1.0	RCB-005-1.0	4/16/2015	N	1	1		WET	24.8	mg/L
463318	Rose Creek ADL	RCB-017				RCB-017-0.5	RCB-017-0.5	4/15/2015	N	0.5	0.5		WET	28.6	mg/L
463318	Rose Creek ADL	RCB-014				RCB-014-0.5	RCB-014-0.5	4/15/2015	N	0.5	0.5		WET	35.3	mg/L

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/8/2015 1:36:26 PM			
From File: Book16.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	38	Number of Distinct Observations	37
		Number of Missing Observations	0
Minimum	1.67	Mean	10.64
Maximum	35.3	Median	7.19
SD	8.94	Std. Error of Mean	1.45
Coefficient of Variation	0.84	Skewness	0.963
Normal GOF Test			
Shapiro Wilk Test Statistic	0.863	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.938	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.189	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.144	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	13.09	95% Adjusted-CLT UCL (Chen-1995)	13.27
		95% Modified-t UCL (Johnson-1978)	13.13
Gamma GOF Test			
A-D Test Statistic	0.936	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.767	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.134	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.146	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data follow Appr. Gamma Distribution at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.445	k star (bias corrected MLE)	1.349
Theta hat (MLE)	7.364	Theta star (bias corrected MLE)	7.891
nu hat (MLE)	109.9	nu star (bias corrected)	102.5
MLE Mean (bias corrected)	10.64	MLE Sd (bias corrected)	9.164
		Approximate Chi Square Value (0.05)	80.15
Adjusted Level of Significance	0.0434	Adjusted Chi Square Value	79.33
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	13.61	95% Adjusted Gamma UCL (use when n<50)	13.75
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.926	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.938	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.131	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.144	Data appear Lognormal at 5% Significance Level	
Data appear Approximate Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	0.513	Mean of logged Data	1.981
Maximum of Logged Data	3.564	SD of logged Data	0.926
Assuming Lognormal Distribution			
95% H-UCL	15.81	90% Chebyshev (MVUE) UCL	16.59
95% Chebyshev (MVUE) UCL	19.14	97.5% Chebyshev (MVUE) UCL	22.69
99% Chebyshev (MVUE) UCL	29.65		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	13.03	95% Jackknife UCL	13.09
95% Standard Bootstrap UCL	13.02	95% Bootstrap-t UCL	13.36
95% Hall's Bootstrap UCL	13.23	95% Percentile Bootstrap UCL	13.02
95% BCA Bootstrap UCL	13.16		
90% Chebyshev(Mean, Sd) UCL	14.99	95% Chebyshev(Mean, Sd) UCL	16.97
97.5% Chebyshev(Mean, Sd) UCL	19.7	99% Chebyshev(Mean, Sd) UCL	25.07
Suggested UCL to Use			
95% Adjusted Gamma UCL	13.75		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
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Table C-27

Facility ID	Facility Code	Sys Loc Code	Loc Name	Loc Group	Loc Report Order	Sys Sample Code	Sample Name	Sample Date	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Prep Method	Report Result Value	Report Result Unit
463318	Rose Creek ADL	RCB-024				RCB-024-0.5	RCB-024-0.5	4/15/2015	N	0.5	0.5		WET	1.67	mg/L
463318	Rose Creek ADL	RCB-026				RCB-026-0.5	RCB-026-0.5	4/15/2015	N	0.5	0.5		WET	1.77	mg/L
463318	Rose Creek ADL	RCB-027				RCB-027-0.5	RCB-027-0.5	4/15/2015	N	0.5	0.5		WET	1.38	mg/L
463318	Rose Creek ADL	RCB-029				RCB-029-0.5	RCB-029-0.5	4/15/2015	N	0.5	0.5		WET	1.19	mg/L
463318	Rose Creek ADL	RCB-029				RCB-029-1.0	RCB-029-1.0	4/15/2015	N	1	1		WET	4.35	mg/L
463318	Rose Creek ADL	RCB-030				RCB-030-0.5	RCB-030-0.5	4/15/2015	N	0.5	0.5		WET	1.84	mg/L
463318	Rose Creek ADL	RCB-030				RCB-030-1.0	RCB-030-1.0	4/15/2015	N	1	1		WET	0.962	mg/L
463318	Rose Creek ADL	RCB-030				RCB-030-2.0	RCB-030-2.0	4/15/2015	N	2	2		WET	1.54	mg/L

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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/8/2015 1:09:58 PM			
From File: Book13.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.962	Mean	1.838
Maximum	4.35	Median	1.605
SD	1.058	Std. Error of Mean	0.374
Coefficient of Variation	0.575	Skewness	2.381
Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use			
guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.			
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).			
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.0			
Normal GOF Test			
Shapiro Wilk Test Statistic	0.694	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.818	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.374	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.313	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	2.546	95% Adjusted-CLT UCL (Chen-1995)	2.789
		95% Modified-t UCL (Johnson-1978)	2.599
Gamma GOF Test			
A-D Test Statistic	0.715	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.719	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.315	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.295	Data Not Gamma Distributed at 5% Significance Level	
Detected data follow Appr. Gamma Distribution at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	5.066	k star (bias corrected MLE)	3.249
Theta hat (MLE)	0.363	Theta star (bias corrected MLE)	0.566
nu hat (MLE)	81.05	nu star (bias corrected)	51.99
MLE Mean (bias corrected)	1.838	MLE Sd (bias corrected)	1.02
		Approximate Chi Square Value (0.05)	36.43
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	33.16
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	2.623	95% Adjusted Gamma UCL (use when n<50)	2.881
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.868	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.283	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.313	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-0.0387	Mean of logged Data	0.507
Maximum of Logged Data	1.47	SD of logged Data	0.446
Assuming Lognormal Distribution			
95% H-UCL	2.685	90% Chebyshev (MVUE) UCL	2.671
95% Chebyshev (MVUE) UCL	3.062	97.5% Chebyshev (MVUE) UCL	3.604
99% Chebyshev (MVUE) UCL	4.669		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	2.453	95% Jackknife UCL	2.546
95% Standard Bootstrap UCL	2.399	95% Bootstrap-t UCL	3.603
95% Hall's Bootstrap UCL	5.173	95% Percentile Bootstrap UCL	2.533
95% BCA Bootstrap UCL	2.676		
90% Chebyshev(Mean, Sd) UCL	2.959	95% Chebyshev(Mean, Sd) UCL	3.468
97.5% Chebyshev(Mean, Sd) UCL	4.173	99% Chebyshev(Mean, Sd) UCL	5.558
Suggested UCL to Use			
95% Adjusted Gamma UCL	2.881		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
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UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation: 5/8/2015 1:25:07 PM			
From File: WorkSheet_a.xls			
Full Precision: OFF			
Confidence Coefficient: 95%			
Number of Bootstrap Operations: 2000			
report_result_value			
General Statistics			
Total Number of Observations	28	Number of Distinct Observations	20
		Number of Missing Observations	1
Minimum	0.1	Mean	0.261
Maximum	0.867	Median	0.169
SD	0.217	Std. Error of Mean	0.041
Coefficient of Variation	0.83	Skewness	1.709
Normal GOF Test			
Shapiro Wilk Test Statistic	0.747	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.924	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.229	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.167	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	0.331	95% Adjusted-CLT UCL (Chen-1995)	0.343
		95% Modified-t UCL (Johnson-1978)	0.333
Gamma GOF Test			
A-D Test Statistic	1.489	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.758	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.199	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.167	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	2.082	k star (bias corrected MLE)	1.883
Theta hat (MLE)	0.125	Theta star (bias corrected MLE)	0.139
nu hat (MLE)	116.6	nu star (bias corrected)	105.4
MLE Mean (bias corrected)	0.261	MLE Sd (bias corrected)	0.19
		Approximate Chi Square Value (0.05)	82.75
Adjusted Level of Significance	0.0404	Adjusted Chi Square Value	81.51
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50))	0.333	95% Adjusted Gamma UCL (use when n<50)	0.338
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.87	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.924	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.182	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.167	Data Not Lognormal at 5% Significance Level	
Data Not Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-2.303	Mean of logged Data	-1.602
Maximum of Logged Data	-0.143	SD of logged Data	0.696
Assuming Lognormal Distribution			
95% H-UCL	0.341	90% Chebyshev (MVUE) UCL	0.362
95% Chebyshev (MVUE) UCL	0.411	97.5% Chebyshev (MVUE) UCL	0.479
99% Chebyshev (MVUE) UCL	0.613		
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution (0.05)			
Nonparametric Distribution Free UCLs			
95% CLT UCL	0.328	95% Jackknife UCL	0.331
95% Standard Bootstrap UCL	0.327	95% Bootstrap-t UCL	0.351
95% Hall's Bootstrap UCL	0.34	95% Percentile Bootstrap UCL	0.328
95% BCA Bootstrap UCL	0.343		
90% Chebyshev(Mean, Sd) UCL	0.384	95% Chebyshev(Mean, Sd) UCL	0.44
97.5% Chebyshev(Mean, Sd) UCL	0.517	99% Chebyshev(Mean, Sd) UCL	0.669
Suggested UCL to Use			
95% Chebyshev (Mean, Sd) UCL	0.44		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

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Facility ID	Sys Loc Code	Sample Name	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Prep Method	Report Result Value	Report Result Unit	Report Result Limit	Reportable Result	Detect Flag	Interpreted Qualifiers	Validator Qualifiers	Lab Qualifiers	Quantitation Limit	Method Detection limit	Reporting Detection limit	Detection Limit unit	Approval Code	Result Text	Result Numeric	Result Unit	Result Type code	x coord	y coord
463318	FQC	QCEB041515	EB				Lead	0.01	mg/L	0.0100	Yes	N	U	U	U	0.0100	0.00406	0.0100	mg/L		0.0100	0.01	mg/L	TRG		
463318	FQC	QCEB041615	EB				Lead	0.01	mg/L	0.0100	Yes	N	U	U	U	0.0100	0.00406	0.0100	mg/L		0.0100	0.01	mg/L	TRG		
463318	RCB-001	RCB-001-0.5	N	0.5	0.5		Lead	70.4	mg/kg	0.521	Yes	Y				0.521	0.137	0.521	mg/kg		70.4	70.4	mg/kg	TRG	6263930.586	1875838.968
463318	RCB-001	RCB-001-0.5	N	0.5	0.5		Lead	2.55	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	2.55	2.55	mg/L	TRG	6263930.586	1875838.968
463318	RCB-001	RCB-107	FD	0.5	0.5	RCB-001-0.5	Lead	66.2	mg/kg	0.505	Yes	Y				0.505	0.133	0.505	mg/kg		66.2	66.2	mg/kg	TRG	6263930.586	1875838.968
463318	RCB-001	RCB-001-1.0	N	1	1		Lead	96.1	mg/kg	0.518	Yes	Y				0.518	0.136	0.518	mg/kg		96.1	96.1	mg/kg	TRG	6263930.586	1875838.968
463318	RCB-001	RCB-001-1.0	N	1	1		Lead	2.78	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	2.78	2.78	mg/L	TRG	6263930.586	1875838.968
463318	RCB-001	RCB-001-1.0	N	1	1		pH	8.08	pH units	0.01	Yes	Y			c	0.01	0.01	0.01	pH units		8.08	8.08	pH units	TRG	6263930.586	1875838.968
463318	RCB-001	RCB-001-2.0	N	2	2		Lead	39.4	mg/kg	0.505	Yes	Y				0.505	0.133	0.505	mg/kg		39.4	39.4	mg/kg	TRG	6263930.586	1875838.968
463318	RCB-002	RCB-002-0.5	N	0.5	0.5		Lead	38.2	mg/kg	0.515	Yes	Y				0.515	0.136	0.515	mg/kg		38.2	38.2	mg/kg	TRG	6263934.194	1875946.855
463318	RCB-002	RCB-002-1.0	N	1	1		Lead	27.8	mg/kg	0.500	Yes	Y				0.500	0.132	0.500	mg/kg		27.8	27.8	mg/kg	TRG	6263934.194	1875946.855
463318	RCB-002	RCB-002-2.0	N	2	2		Lead	19.4	mg/kg	0.515	Yes	Y				0.515	0.136	0.515	mg/kg		19.4	19.4	mg/kg	TRG	6263934.194	1875946.855
463318	RCB-002	RCB-106	FD	2	2	RCB-002-2.0	Lead	20.4	mg/kg	0.524	Yes	Y				0.524	0.138	0.524	mg/kg		20.4	20.4	mg/kg	TRG	6263934.194	1875946.855
463318	RCB-003	RCB-003-0.5	N	0.5	0.5		Lead	79.4	mg/kg	0.518	Yes	Y				0.518	0.136	0.518	mg/kg		79.4	79.4	mg/kg	TRG	6263918.82	1876312.95
463318	RCB-003	RCB-003-0.5	N	0.5	0.5		Lead	2.94	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	2.94	2.94	mg/L	TRG	6263918.82	1876312.95
463318	RCB-003	RCB-003-1.0	N	1	1		Lead	50.6	mg/kg	0.483	Yes	Y				0.483	0.127	0.483	mg/kg		50.6	50.6	mg/kg	TRG	6263918.82	1876312.95
463318	RCB-003	RCB-003-1.0	N	1	1		Lead	1.78	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	1.78	1.78	mg/L	TRG	6263918.82	1876312.95
463318	RCB-003	RCB-003-2.0	N	2	2		Lead	34.1	mg/kg	0.505	Yes	Y				0.505	0.133	0.505	mg/kg		34.1	34.1	mg/kg	TRG	6263918.82	1876312.95
463318	RCB-004	RCB-004-0.5	N	0.5	0.5		Lead	44.1	mg/kg	0.518	Yes	Y				0.518	0.136	0.518	mg/kg		44.1	44.1	mg/kg	TRG	6262580.226	1878448.191
463318	RCB-004	RCB-004-1.0	N	1	1		Lead	41.1	mg/kg	0.488	Yes	Y				0.488	0.128	0.488	mg/kg		41.1	41.1	mg/kg	TRG	6262580.226	1878448.191
463318	RCB-004	RCB-004-1.0	N	1	1		pH	8.1	pH units	0.01	Yes	Y			c	0.01	0.01	0.01	pH units		8.10	8.1	pH units	TRG	6262580.226	1878448.191
463318	RCB-005	RCB-005-0.5	N	0.5	0.5		Lead	27.8	mg/kg	0.476	Yes	Y				0.476	0.125	0.476	mg/kg		27.8	27.8	mg/kg	TRG	6262470.991	1878585.533
463318	RCB-005	RCB-005-1.0	N	1	1		Lead	165	mg/kg	0.508	Yes	Y				0.508	0.134	0.508	mg/kg		165	165	mg/kg	TRG	6262470.991	1878585.533
463318	RCB-005	RCB-005-1.0	N	1	1		Lead	0.1	mg/L	0.100	Yes	N	U	U	U	0.100	0.0406	0.100	mg/L		0.100	0.1	mg/L	TRG	6262470.991	1878585.533
463318	RCB-005	RCB-005-1.0	N	1	1		Lead	24.8	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	24.8	24.8	mg/L	TRG	6262470.991	1878585.533
463318	RCB-006	RCB-006-0.5	N	0.5	0.5		Lead	180	mg/kg	0.488	Yes	Y				0.488	0.128	0.488	mg/kg		180	180	mg/kg	TRG	6262317.859	1878779.958
463318	RCB-006	RCB-006-0.5	N	0.5	0.5		Lead	0.1	mg/L	0.100	Yes	N	U	U	U	0.100	0.0406	0.100	mg/L		0.100	0.1	mg/L	TRG	6262317.859	1878779.958
463318	RCB-006	RCB-006-0.5	N	0.5	0.5		Lead	9.76	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	9.76	9.76	mg/L	TRG	6262317.859	1878779.958
463318	RCB-007	RCB-007-0.5	N	0.5	0.5		Lead	20.9	mg/kg	0.500	Yes	Y				0.500	0.132	0.500	mg/kg		20.9	20.9	mg/kg	TRG	6262115.988	1879003.439
463318	RCB-007	RCB-007-1.0	N	1	1		Lead	19.8	mg/kg	0.518	Yes	Y				0.518	0.136	0.518	mg/kg		19.8	19.8	mg/kg	TRG	6262115.988	1879003.439
463318	RCB-008	RCB-008-0.5	N	0.5	0.5		Lead	16.6	mg/kg	0.515	Yes	Y				0.515	0.136	0.515	mg/kg		16.6	16.6	mg/kg	TRG	6261924.474	1879228.042
463318	RCB-008	RCB-008-1.0	N	1	1		Lead	123	mg/kg	0.495	Yes	Y				0.495	0.130	0.495	mg/kg		123	123	mg/kg	TRG	6261924.474	1879228.042
463318	RCB-008	RCB-008-1.0	N	1	1		Lead	0.231	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.231	0.231	mg/L	TRG	6261924.474	1879228.042
463318	RCB-008	RCB-008-1.0	N	1	1		Lead	23	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	23.0	23	mg/L	TRG	6261924.474	1879228.042
463318	RCB-008	RCB-008-2.0	N	2	2		Lead	170	mg/kg	0.495	Yes	Y				0.495	0.130	0.495	mg/kg		170	170	mg/kg	TRG	6261924.474	1879228.042
463318	RCB-008	RCB-008-2.0	N	2	2		Lead	0.1	mg/L	0.100	Yes	N	U	U	U	0.100	0.0406	0.100	mg/L		0.100	0.1	mg/L	TRG	6261924.474	1879228.042
463318	RCB-008	RCB-008-2.0	N	2	2		Lead	4.88	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	4.88	4.88	mg/L	TRG	6261924.474	1879228.042
463318	RCB-008	RCB-008-2.0	N	2	2		pH	7.7	pH units	0.01	Yes	Y			c	0.01	0.01	0.01	pH units		7.70	7.7	pH units	TRG	6261924.474	1879228.042
463318	RCB-009	RCB-009-0.5	N	0.5	0.5		Lead	149	mg/kg	0.500	Yes	Y				0.500	0.132	0.500	mg/kg		149	149	mg/kg	TRG	6261719.553	1879471.028
463318	RCB-009	RCB-009-0.5	N	0.5	0.5		Lead	0.1	mg/L	0.100	Yes	N	U	U	U	0.100	0.0406	0.100	mg/L		0.100	0.1	mg/L	TRG	6261719.553	1879471.028
463318	RCB-009	RCB-009-0.5	N	0.5	0.5		Lead	3.79	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	3.79	3.79	mg/L	TRG	6261719.553	1879471.028
463318	RCB-009	RCB-009-1.0	N	1	1		Lead	62.5	mg/kg	0.493	Yes	Y				0.493	0.130	0.493	mg/kg		62.5	62.5	mg/kg	TRG	6261719.553	1879471.028
463318	RCB-009	RCB-009-1.0	N	1	1		Lead	2.14	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	2.14	2.14	mg/L	TRG	6261719.553	1879471.028
463318	RCB-010	RCB-010-0.5	N	0.5	0.5		Lead	101	mg/kg	0.515	Yes	Y				0.515	0.136	0.515	mg/kg		101	101	mg/kg	TRG	6261552.848	1879681.229
463318	RCB-010	RCB-010-0.5	N	0.5	0.5		Lead	0.1	mg/L	0.100	Yes	N	U	U	U	0.100	0.0406	0.100	mg/L		0.100	0.1	mg/L	TRG	6261552.848	1879681.229
463318	RCB-010	RCB-010-0.5	N	0.5	0.5		Lead	4.42	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	4.42	4.42	mg/L	TRG	6261552.848	1879681.229
463318	RCB-010	RCB-010-1.0	N	1	1		Lead	211	mg/kg	0.476	Yes	Y				0.476	0.125	0.476	mg/kg		211	211	mg/kg	TRG	6261552.848	1879681.229
463318	RCB-010	RCB-010-1.0	N	1	1		Lead	0.121	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.121	0.121	mg/L	TRG	6261552.848	1879681.229
463318	RCB-010	RCB-010-1.0	N	1	1		Lead	5.55	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	5.55	5.55	mg/L	TRG	6261552.848	1879681.229
463318	RCB-011	RCB-011-2.0	N	2	2		Lead	50.7	mg/kg	0.524	Yes	Y				0.524	0.138	0.524	mg/kg		50.7	50.7	mg/kg	TRG	6261429.091	1879828.086
463318	RCB-011	RCB-011-2.0	N	2	2		Lead	1.89	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	1.89	1.89	mg/L	TRG	6261429.091	1879828.086
463318	RCB-011	RCB-011-0.5	N	0.5	0.5		Lead	52.9	mg/kg	0.490	Yes	Y				0.490	0.129	0.490	mg/kg		52.9	52.9	mg/kg	TRG	6261429.091	1879828.086
463318	RCB-011	RCB-011-1.0	N	1	1		Lead	56.9	mg/kg	0.495	Yes	Y				0.495	0.130	0.495	mg/kg		56.9	56.9	mg/kg	TRG	6261429.091	1879828.086
463318	RCB-011	RCB-011-1.0	N	1	1		Lead	1.97	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	1.97	1.97	mg/L	TRG	6261429.091	1879828.086
463318	RCB-011	RCB-105	FD	1	1	RCB-011-1.0	Lead	46.4	mg/kg	0.495	Yes	Y				0.495	0.130	0.495	mg/kg		46.4	46.4	mg/kg	TRG	6261429.091	1879828.086
463318	RCB-012	RCB-012-0.5	N	0.5	0.5		Lead	181	mg/kg	0.510	Yes	Y				0.510	0.134	0.510	mg/kg		181	181	mg/kg	TRG	6261220.935	1880076.939
463318	RCB-012	RCB-012-0.5	N	0.5	0.5		Lead	0.121	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.121	0.121	mg/L	TRG	6261220.935	1880076.939
463318	RCB-012	RCB-012-0.5	N	0.5	0.5		Lead	2.55	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	2.55	2.55	mg/L	TRG	6261220.935	1880076.939
463318	RCB-012	RCB-012-1.0	N	1	1		Lead	37.3	mg/kg	0.503	Yes	Y				0.503	0.132	0.503	mg/kg		37.3	37.3	mg/kg	TRG	6261220.935	1880076.939
463318	RCB-012	RCB-012-1.0	N	1	1		pH	6.84	pH units	0.01	Yes	Y			c	0.01	0.01	0.01	pH units		6.84	6.84	pH units	TRG	6261220.935	1880076.939
463318	RCB-012	RCB-012-2.0	N	2	2		Lead	33.4	mg/kg	0.490	Yes	Y				0.490	0.129	0.490	mg/kg		33.4	33.4	mg/kg	TRG	6261220.935	1880076.939
463318	RCB-013	RCB-013-0.5	N	0.5	0.5		Lead	290	mg/kg	0.498	Yes	Y				0.498	0.131	0.498	mg/kg		290	290	mg/kg	TRG	6261036.152	1880275.39
463318	RCB-013	RCB-013-0.5	N	0.5	0.5		Lead	0.102	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.102	0.102	mg/L	TRG	6261036.152	1880275.39
463318	RCB-013	RCB-013-0.5	N	0.5	0.5		Lead	15.4	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	15.4	15.4	mg/L	TRG	6261036.152	1880275.39
463318	RCB-013	RCB-013-1.0	N	1	1		Lead	356	mg/kg	0.510	Yes	Y				0.510	0.134	0.510	mg/kg		356	356	mg/kg	TRG	6261036.152	1880275.39
463318	RCB-013	RCB-013-1.0	N	1	1		Lead	0.139	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.139	0.139	mg/L	TRG	6261036.152	1880275.39
463318	RCB-013	RCB-013-1.0	N	1	1		Lead	16.4	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	16.4	16.4	mg/L	TRG	6261036.152	1880275.39
463318	RCB-013	RCB-104	FD	0.5	0.5	RCB-013-0.5	Lead	359	mg/kg	0.488	Yes	Y				0.488	0.128	0.488	mg/kg		359	359	mg/kg	TRG	6261036.152	1880275.39
463318	RCB-013	RCB-104	FD	0.5	0.5	RCB-013-0.5	Lead	0.213	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.213	0.213	mg/L	TRG	6261036.152	1880275.39
463318	RCB-013	RCB-104	FD	0.5	0.5	RCB-013-0.5	Lead	15.6	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	15.6	15.6	mg/L	TRG	6261036.152	1880275.39
463318	RCB-014	RCB-014-0.5	N	0.5	0.5		Lead	35.3	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	35.3	35.3	mg/L	TRG	6260951.37	1880375.031
463318	RCB-014	RCB-014-1.0	N	1	1		Lead	13	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	13.0	13	mg/L	TRG	6260951.37	1880375.031
463318	RCB-014	RCB-014-2.0	N	2	2		Lead	7.14	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	7.14	7.14	mg/L	TRG	6260951.37	1880375.031
463318	RCB-014	RCB-014-0.5	N	0.5	0.5		Lead	494	mg/kg	0.510	Yes	Y				0.510	0.134	0.510	mg/kg		494	494	mg/kg	TRG	6260951.37	1880375.031
463318	RCB-014	RCB-014-0.5	N	0.5	0.5		Lead	0.772	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.772	0.772	mg/L	TRG	6260951.37	1880375.031
463318	RCB-014	RCB-103	FD	0.5	0.5	RCB-014-0.5	Lead	414	mg/kg	0.500	Yes	Y				0.500	0.132	0.500	mg/kg		414	414	mg/kg	TRG	6260951.37	1880375.031
463318	RCB-014	RCB-014-1.0	N	1	1		Lead	250	mg/kg	0.518	Yes	Y				0.518	0.136	0.518	mg/kg		250	250	mg/kg	TRG	6260951.37	1880375.031
463318	RCB-014	RCB-014-1.0	N	1	1		Lead	0.191	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.191	0.191	mg/L	TRG	6260951.37	1880375.031
463318	RCB-014	RCB-014-2.0	N	2	2		Lead	211	mg/kg	0.505	Yes	Y				0.505	0.133	0.505	mg/kg		211	211	mg/kg	TRG	6260951.37	1880375.031
463318	RCB-014	RCB-014-2.0	N	2	2		Lead	0.1	mg/L	0.100	Yes	N	U	U	U	0.100	0.0406	0.100	mg/L		0.100	0.1	mg/L	TRG	6260951.37	1880375.031

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Facility ID	Sys Loc Code	Sample Name	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Prep Method	Report Result Value	Report Result Unit	Report Result Limit	Reportable Result	Detect Flag	Interpreted Qualifiers	Validator Qualifiers	Lab Qualifiers	Quantitation Limit	Method Detection limit	Reporting Detection limit	Detection Limit unit	Approval Code	Result Text	Result Numeric	Result Unit	Result Type code	x coord	y coord
463318	RCB-015	RCB-015-0.5	N	0.5	0.5		Lead	20.2	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	20.2	20.2	mg/L	TRG	6260754.627	1880599.64
463318	RCB-015	RCB-015-1.0	N	1	1		Lead	14.8	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	14.8	14.8	mg/L	TRG	6260754.627	1880599.64
463318	RCB-015	RCB-015-2.0	N	2	2		Lead	20.5	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	20.5	20.5	mg/L	TRG	6260754.627	1880599.64
463318	RCB-015	RCB-015-0.5	N	0.5	0.5		Lead	212	mg/kg	0.500	Yes	Y				0.500	0.132	0.500	mg/kg		212	212	mg/kg	TRG	6260754.627	1880599.64
463318	RCB-015	RCB-015-0.5	N	0.5	0.5		Lead	0.293	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.293	0.293	mg/L	TRG	6260754.627	1880599.64
463318	RCB-015	RCB-015-1.0	N	1	1		Lead	198	mg/kg	0.493	Yes	Y				0.493	0.130	0.493	mg/kg		198	198	mg/kg	TRG	6260754.627	1880599.64
463318	RCB-015	RCB-015-1.0	N	1	1		Lead	0.295	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.295	0.295	mg/L	TRG	6260754.627	1880599.64
463318	RCB-015	RCB-015-2.0	N	2	2		Lead	254	mg/kg	0.513	Yes	Y				0.513	0.135	0.513	mg/kg		254	254	mg/kg	TRG	6260754.627	1880599.64
463318	RCB-015	RCB-015-2.0	N	2	2		Lead	0.388	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.388	0.388	mg/L	TRG	6260754.627	1880599.64
463318	RCB-016	RCB-016-0.5	N	0.5	0.5		Lead	16	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	16.0	16	mg/L	TRG	6260578.286	1880811.698
463318	RCB-016	RCB-016-1.0	N	1	1		Lead	24.2	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	24.2	24.2	mg/L	TRG	6260578.286	1880811.698
463318	RCB-016	RCB-016-2.0	N	2	2		Lead	2.29	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	2.29	2.29	mg/L	TRG	6260578.286	1880811.698
463318	RCB-016	RCB-016-0.5	N	0.5	0.5		Lead	304	mg/kg	0.513	Yes	Y				0.513	0.135	0.513	mg/kg		304	304	mg/kg	TRG	6260578.286	1880811.698
463318	RCB-016	RCB-016-0.5	N	0.5	0.5		Lead	0.4	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.400	0.4	mg/L	TRG	6260578.286	1880811.698
463318	RCB-016	RCB-016-1.0	N	1	1		Lead	350	mg/kg	0.521	Yes	Y				0.521	0.137	0.521	mg/kg		350	350	mg/kg	TRG	6260578.286	1880811.698
463318	RCB-016	RCB-016-1.0	N	1	1		Lead	0.748	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.748	0.748	mg/L	TRG	6260578.286	1880811.698
463318	RCB-016	RCB-016-2.0	N	2	2		Lead	81	mg/kg	0.515	Yes	Y				0.515	0.136	0.515	mg/kg		81.0	81	mg/kg	TRG	6260578.286	1880811.698
463318	RCB-016	RCB-016-2.0	N	2	2		pH	7.78	pH units	0.01	Yes	Y				0.01	0.01	0.01	pH units		7.78	7.78	pH units	TRG	6260578.286	1880811.698
463318	RCB-017	RCB-017-0.5	N	0.5	0.5		Lead	28.6	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	28.6	28.6	mg/L	TRG	6260369.133	1881073.606
463318	RCB-017	RCB-017-1.0	N	1	1		Lead	3.1	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	3.10	3.1	mg/L	TRG	6260369.133	1881073.606
463318	RCB-017	RCB-017-0.5	N	0.5	0.5		Lead	427	mg/kg	0.503	Yes	Y				0.503	0.132	0.503	mg/kg		427	427	mg/kg	TRG	6260369.133	1881073.606
463318	RCB-017	RCB-017-0.5	N	0.5	0.5		Lead	0.867	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.867	0.867	mg/L	TRG	6260369.133	1881073.606
463318	RCB-017	RCB-017-1.0	N	1	1		Lead	126	mg/kg	0.498	Yes	Y				0.498	0.131	0.498	mg/kg		126	126	mg/kg	TRG	6260369.133	1881073.606
463318	RCB-017	RCB-017-1.0	N	1	1		Lead	0.125	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.125	0.125	mg/L	TRG	6260369.133	1881073.606
463318	RCB-018	RCB-018-0.5	N	0.5	0.5		Lead	4.43	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	4.43	4.43	mg/L	TRG	6260183.248	1881399.32
463318	RCB-018	RCB-018-1.0	N	1	1		Lead	3.45	mg/L	0.100	Yes	Y	J	J		0.100	0.0406	0.100	mg/L	08	3.45	3.45	mg/L	TRG	6260183.248	1881399.32
463318	RCB-018	RCB-018-0.5	N	0.5	0.5		Lead	74.6	mg/kg	0.505	Yes	Y				0.505	0.133	0.505	mg/kg		74.6	74.6	mg/kg	TRG	6260183.248	1881399.32
463318	RCB-018	RCB-018-1.0	N	1	1		Lead	93.2	mg/kg	0.526	Yes	Y				0.526	0.139	0.526	mg/kg		93.2	93.2	mg/kg	TRG	6260183.248	1881399.32
463318	RCB-018	RCB-018-2.0	N	2	2		Lead	7.38	mg/kg	0.500	Yes	Y				0.500	0.132	0.500	mg/kg		7.38	7.38	mg/kg	TRG	6260183.248	1881399.32
463318	RCB-018	RCB-102	FD	2	2	RCB-018-2.0	Lead	6.99	mg/kg	0.500	Yes	Y				0.500	0.132	0.500	mg/kg		6.99	6.99	mg/kg	TRG	6260183.248	1881399.32
463318	RCB-019	RCB-019-0.5	N	0.5	0.5		Lead	76.5	mg/kg	0.500	Yes	Y				0.500	0.132	0.500	mg/kg		76.5	76.5	mg/kg	TRG	6260068.233	1881649.125
463318	RCB-019	RCB-019-0.5	N	0.5	0.5		pH	7.64	pH units	0.01	Yes	Y				0.01	0.01	0.01	pH units		7.64	7.64	pH units	TRG	6260068.233	1881649.125
463318	RCB-019	RCB-019-1.0	N	1	1		Lead	67.7	mg/kg	0.503	Yes	Y				0.503	0.132	0.503	mg/kg		67.7	67.7	mg/kg	TRG	6260068.233	1881649.125
463318	RCB-019	RCB-019-0.5	N	0.5	0.5		Lead	4.99	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		4.99	4.99	mg/L	TRG	6260068.233	1881649.125
463318	RCB-019	RCB-019-1.0	N	1	1		Lead	2.29	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		2.29	2.29	mg/L	TRG	6260068.233	1881649.125
463318	RCB-020	RCB-020-0.5	N	0.5	0.5		Lead	310	mg/kg	0.515	Yes	Y				0.515	0.136	0.515	mg/kg		310	310	mg/kg	TRG	6259993.391	1881854.525
463318	RCB-020	RCB-020-0.5	N	0.5	0.5		Lead	0.454	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.454	0.454	mg/L	TRG	6259993.391	1881854.525
463318	RCB-020	RCB-020-1.0	N	1	1		Lead	57.4	mg/kg	0.503	Yes	Y				0.503	0.132	0.503	mg/kg		57.4	57.4	mg/kg	TRG	6259993.391	1881854.525
463318	RCB-020	RCB-020-0.5	N	0.5	0.5		Lead	16.3	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		16.3	16.3	mg/L	TRG	6259993.391	1881854.525
463318	RCB-020	RCB-020-1.0	N	1	1		Lead	2.34	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		2.34	2.34	mg/L	TRG	6259993.391	1881854.525
463318	RCB-021	RCB-021-0.5	N	0.5	0.5		Lead	145	mg/kg	0.521	Yes	Y				0.521	0.137	0.521	mg/kg		145	145	mg/kg	TRG	6259937.765	1882052.653
463318	RCB-021	RCB-021-0.5	N	0.5	0.5		Lead	0.146	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.146	0.146	mg/L	TRG	6259937.765	1882052.653
463318	RCB-021	RCB-021-1.0	N	1	1		Lead	168	mg/kg	0.515	Yes	Y				0.515	0.136	0.515	mg/kg		168	168	mg/kg	TRG	6259937.765	1882052.653
463318	RCB-021	RCB-021-1.0	N	1	1		Lead	0.345	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.345	0.345	mg/L	TRG	6259937.765	1882052.653
463318	RCB-021	RCB-021-2.0	N	2	2		Lead	16.2	mg/kg	0.503	Yes	Y				0.503	0.132	0.503	mg/kg		16.2	16.2	mg/kg	TRG	6259937.765	1882052.653
463318	RCB-021	RCB-021-0.5	N	0.5	0.5		Lead	7.24	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		7.24	7.24	mg/L	TRG	6259937.765	1882052.653
463318	RCB-021	RCB-021-1.0	N	1	1		Lead	8.35	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		8.35	8.35	mg/L	TRG	6259937.765	1882052.653
463318	RCB-022	RCB-022-0.5	N	0.5	0.5		Lead	428	mg/kg	0.476	Yes	Y	J	J		0.476	0.125	0.476	mg/kg	08	428	428	mg/kg	TRG	6259895.806	1882308.974
463318	RCB-022	RCB-022-0.5	N	0.5	0.5		Lead	0.24	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.240	0.24	mg/L	TRG	6259895.806	1882308.974
463318	RCB-022	RCB-022-1.0	N	1	1		Lead	225	mg/kg	0.510	Yes	Y	J	J		0.510	0.134	0.510	mg/kg	08	225	225	mg/kg	TRG	6259895.806	1882308.974
463318	RCB-022	RCB-022-1.0	N	1	1		Lead	0.117	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.117	0.117	mg/L	TRG	6259895.806	1882308.974
463318	RCB-022	RCB-022-2.0	N	2	2		Lead	84.7	mg/kg	0.515	Yes	Y	J	J		0.515	0.136	0.515	mg/kg	08	84.7	84.7	mg/kg	TRG	6259895.806	1882308.974
463318	RCB-022	RCB-022-0.5	N	0.5	0.5		Lead	13.8	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		13.8	13.8	mg/L	TRG	6259895.806	1882308.974
463318	RCB-022	RCB-022-1.0	N	1	1		Lead	8.09	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		8.09	8.09	mg/L	TRG	6259895.806	1882308.974
463318	RCB-022	RCB-022-2.0	N	2	2		Lead	2.76	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		2.76	2.76	mg/L	TRG	6259895.806	1882308.974
463318	RCB-023	RCB-023-0.5	N	0.5	0.5		Lead	111	mg/kg	0.521	Yes	Y	J	J		0.521	0.137	0.521	mg/kg	08	111	111	mg/kg	TRG	6259880.239	1882635.103
463318	RCB-023	RCB-023-0.5	N	0.5	0.5		Lead	0.109	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.109	0.109	mg/L	TRG	6259880.239	1882635.103
463318	RCB-023	RCB-023-0.5	N	0.5	0.5		pH	7.86	pH units	0.01	Yes	Y				0.01	0.01	0.01	pH units		7.86	7.86	pH units	TRG	6259880.239	1882635.103
463318	RCB-023	RCB-023-1.0	N	1	1		Lead	294	mg/kg	0.505	Yes	Y	J	J		0.505	0.133	0.505	mg/kg	08	294	294	mg/kg	TRG	6259880.239	1882635.103
463318	RCB-023	RCB-023-1.0	N	1	1		Lead	0.295	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.295	0.295	mg/L	TRG	6259880.239	1882635.103
463318	RCB-023	RCB-101	FD	1	1	RCB-023-1.0	Lead	199	mg/kg	0.515	Yes	Y	J	J		0.515	0.136	0.515	mg/kg	08	199	199	mg/kg	TRG	6259880.239	1882635.103
463318	RCB-023	RCB-023-2.0	N	2	2		Lead	19.2	mg/kg	0.500	Yes	Y	J	J		0.500	0.132	0.500	mg/kg	08	19.2	19.2	mg/kg	TRG	6259880.239	1882635.103
463318	RCB-023	RCB-023-0.5	N	0.5	0.5		Lead	5.26	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		5.26	5.26	mg/L	TRG	6259880.239	1882635.103
463318	RCB-023	RCB-023-1.0	N	1	1		Lead	21.6	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		21.6	21.6	mg/L	TRG	6259880.239	1882635.103
463318	RCB-024	RCB-024-0.5	N	0.5	0.5		Lead	93.4	mg/kg	0.483	Yes	Y	J	J		0.483	0.127	0.483	mg/kg	08	93.4	93.4	mg/kg	TRG	6259879.86	1882934.942
463318	RCB-024	RCB-024-0.5	N	0.5	0.5		Lead	1.67	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		1.67	1.67	mg/L	TRG	6259879.86	1882934.942
463318	RCB-025	RCB-025-0.5	N	0.5	0.5		Lead	32.5	mg/kg	0.485	Yes	Y	J	J		0.485	0.128	0.485	mg/kg	08	32.5	32.5	mg/kg	TRG	6259879.578	1883242.74
463318	RCB-025	RCB-025-1.0	N	1	1		Lead	30.2	mg/kg	0.488	Yes	Y	J	J		0.488	0.128	0.488	mg/kg	08	30.2	30.2	mg/kg	TRG	6259879.578	1883242.74
463318	RCB-026	RCB-026-1.0	N	1	1		Lead	0.524	mg/kg	0.524	Yes	N	U	U	U	0.524	0.138	0.524	mg/kg		0.524	0.524	mg/kg	TRG	6259966.481	1883542.014
463318	RCB-026	RCB-026-0.5	N	0.5	0.5		Lead	1.77	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		1.77	1.77	mg/L	TRG	6259966.481	1883542.014
463318	RCB-026	RCB-026-0.5	N	0.5	0.5		Lead	112	mg/kg	0.476	Yes	Y	J	J		0.476	0.125	0.476	mg/kg	08	112	112	mg/kg	TRG	6259966.481	1883542.014
463318	RCB-026	RCB-026-0.5	N	0.5	0.5		Lead	0.1	mg/L	0.100	Yes	N	U	U	U	0.100	0.0406	0.100	mg/L		0.100	0.1	mg/L	TRG	6259966.481	1883542.014
463318	RCB-027	RCB-027-0.5	N	0.5	0.5		Lead	1.38	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		1.38	1.38	mg/L	TRG	6260032.677	1883837.791
463318	RCB-027	RCB-027-0.5	N	0.5	0.5		Lead	68.6	mg/kg	0.510	Yes	Y	J	J		0.510	0.134	0.510	mg/kg	08	68.6	68.6	mg/kg	TRG	6260032.677	1883837.791
463318	RCB-028	RCB-028-0.5	N	0.5	0.5		Lead	38.4	mg/kg	0.476	Yes	Y	J	J		0.476	0.125	0.476	mg/kg	08	38.4	38.4	mg/kg	TRG	6260046.022	1884129.171
463318	RCB-028	RCB-028-1.0	N	1	1		Lead	33.2	mg/kg	0.508	Yes	Y	J	J		0.508	0.134	0.508	mg/kg	08	33.2	33.2	mg/kg	TRG	6260046.022	1884129.171
463318	RCB-029	RCB-029-0.5	N	0.5	0.5		Lead	52.6	mg/kg	0.510	Yes	Y	J	J		0.510	0.134	0.510	mg/kg	08	52.6	52.6	mg/kg	TRG	6259995.076	1884422.685
463318	RCB-029	RCB-029-0.5	N	0.5	0.5		Lead	1.19	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		1.19	1.19	mg/L	TRG	6259995.076	1884422.685

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Facility ID	Sys Loc Code	Sample Name	Sample Type Code	Start Depth	End Depth	Parent Sample Code	Prep Method	Report Result Value	Report Result Unit	Report Result Limit	Reportable Result	Detect Flag	Interpreted Qualifiers	Validator Qualifiers	Lab Qualifiers	Quantitation Limit	Method Detection limit	Reporting Detection limit	Detection Limit unit	Approval Code	Result Text	Result Numeric	Result Unit	Result Type code	x coord	y coord
463318	RCB-029	RCB-029-1.0	N	1	1		Lead	4.35	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		4.35	4.35	mg/L	TRG	6259995.076	1884422.685
463318	RCB-029	RCB-100	FD	0.5	0.5	RCB-029-0.5	Lead	47	mg/kg	0.508	Yes	Y				0.508	0.134	0.508	mg/kg		47.0	47	mg/kg	TRG	6259995.076	1884422.685
463318	RCB-029	RCB-029-1.0	N	1	1		Lead	73.2	mg/kg	0.478	Yes	Y	J	J		0.478	0.126	0.478	mg/kg	08	73.2	73.2	mg/kg	TRG	6259995.076	1884422.685
463318	RCB-029	RCB-029-1.0	N	1	1		pH	7.5	pH units	0.01	Yes	Y				0.01	0.01	0.01	pH units		7.50	7.5	pH units	TRG	6259995.076	1884422.685
463318	RCB-030	RCB-030-0.5	N	0.5	0.5		Lead	80.1	mg/kg	0.515	Yes	Y	J	J		0.515	0.136	0.515	mg/kg	08	80.1	80.1	mg/kg	TRG	6259907.313	1884674.367
463318	RCB-030	RCB-030-1.0	N	1	1		Lead	50.3	mg/kg	0.521	Yes	Y	J	J		0.521	0.137	0.521	mg/kg	08	50.3	50.3	mg/kg	TRG	6259907.313	1884674.367
463318	RCB-030	RCB-030-2.0	N	2	2		Lead	68.3	mg/kg	0.524	Yes	Y	J	J		0.524	0.138	0.524	mg/kg	08	68.3	68.3	mg/kg	TRG	6259907.313	1884674.367
463318	RCB-030	RCB-030-0.5	N	0.5	0.5		Lead	1.84	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		1.84	1.84	mg/L	TRG	6259907.313	1884674.367
463318	RCB-030	RCB-030-1.0	N	1	1		Lead	0.962	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		0.962	0.962	mg/L	TRG	6259907.313	1884674.367
463318	RCB-030	RCB-030-2.0	N	2	2		Lead	1.54	mg/L	0.100	Yes	Y				0.100	0.0406	0.100	mg/L		1.54	1.54	mg/L	TRG	6259907.313	1884674.367

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