

**NEW KENT WOOD PRESERVATIVES, INC. SITE
PROVIDENCE FORGE, NEW KENT COUNTY, VIRGINIA**

SITE CHARACTERIZATION

**ADMINISTRATIVE ORDER
FOR REMOVAL RESPONSE ACTION
DOCKET NO. CERC-03-2015-0262DC**

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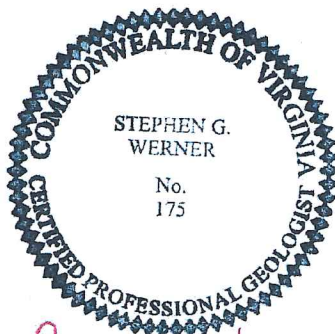
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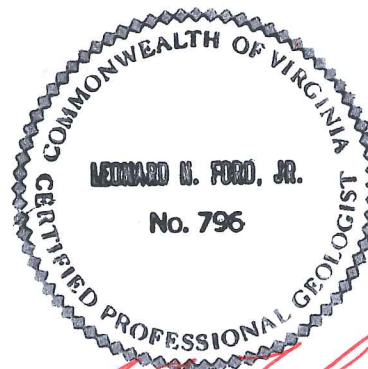
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1.0 SUMMARY

Draper Aden Associates has conducted additional sampling and chemical analyses of soils at the subject facility in order to further define the initial limits of soil excavation.

Borings were advanced at 48 locations within the area of interest, using either a truck-mounted Geoprobe, or hand-augers, as deemed appropriate (with respect to access).

At each location, samples were obtained representing the 0-12 inch interval and the 12-24 inch interval. Soil samples were chemically analyzed for *arsenic* and *total chromium* (hereinafter referred to as "*chromium*"). The distributions of arsenic and chromium in soil (based on the results obtained during the subject study and during prior studies, as performed by others) shall provide the basis for defining the initial limits of excavation during the soil removal phase of the project.

Samples were also obtained from two piles of sawdust, and chemically analyzed for arsenic and chromium, to help determine the suitability of such material for use as a soil amendment. Based on the results of chemical analyses, one pile may be deemed acceptable for such use; the other pile should be removed from the property, and disposed of, along with soils that are to be removed from the property.

2.0 PURPOSE

The purpose of the subject *Site Characterization*, as described in the *Site Characterization Plan* approved by EPA, is to:

- delineate the extent of contamination in soils, in and around the former Secondary Drip Pad
- further delineate the extent of contaminated soils adjacent to areas previously assessed by others
- determine the suitability of on-site sawdust for use as an amendment to soils, to be used in backfilling excavated areas

The guiding principal behind the additional pre-excavation site characterization is to permit the Respondent to maximize the efficiency of the excavation phase of this project by more accurately prescribing the minimum volume of soils to be excavated during the initial round of excavation.

Increased efficiency is gained in terms of reduced verification sampling (a larger area has already been excavated), increased safety (less activity along the excavation front), and lower unit rates for excavation / replacement (the larger the excavation volume guaranteed to the contractor, the lower the *unit rates* that can be offered).

3.0 PROJECT APPROACH

As noted above, the subject site characterization study is intended to further delineate the horizontal and (to a lesser degree) vertical extent of *arsenic* and *total chromium* in on-site sediments and soils (herein after collectively referred to as “soils”) that exceed their respective cleanup goals of 30 mg/kg and 63 mg/kg, respectively. The results are used to prescribe the *minimum extent* to which soils are to be excavated, during the first round of excavation of contaminated soils. *Verification sampling* and analysis will ultimately determine the *maximum extent*, to which soils are excavated.

The additional sampling and chemical analysis of soils emphasizes the horizontal, rather than the vertical, extent of contamination. The reason for emphasizing the horizontal extent is that the vertical extent is already prescribed to be no more than two feet below the ground surface. Based upon practical considerations for excavation using standard heavy equipment, at any one location, the depth of excavation will be either *zero feet* (not excavated), *one foot*, or *two feet*.

In prescribing areas to be removed during the initial round of excavation; therefore, the maximum potential “error” in the vertical specification is only *two feet* (that is, a location not excavated during the initial round of excavation, but subsequently excavated). Conversely, in prescribing areas to be removed during the initial round of excavation, the maximum potential “error” in the horizontal specification may, along most excavation fronts, be on the order of 100 feet and, in the southwestern portion of the study area, on the order of 200 feet. In short, the *horizontal* limits of excavation have a much greater effect on the cost of removal and replacement of soils than do the *vertical* limits of excavation.

The additional pre-excavation sampling and chemical analysis is intended to characterize site contamination in a manner that reduces excavation delays while waiting for the results of verification analyses, which is expected to result in a more efficient removal program.

As part of the characterization of the *Secondary Drip Pad Area*, *Former Process Area* and three main *Drainage Ditches*, Draper Aden Associates performed the following tasks, in the field:

- Obtained continuous soil samples in the *Secondary Drip Pad Area* from the surface to 24 inches below grade using truck-mounted direct push equipment (DPE).
- Obtained continuous soil samples in the *Former Process Area* from the surface to 24 inches below grade using truck-mounted direct push equipment (DPE).
- Obtained soil samples adjacent to the *Drainage Ditches* from the surface to 24 inches below grade using truck-mounted direct push equipment (DPE).

- Obtained additional samples using hand-auger equipment at locations that were not accessible to the DPE.
- Prepared *composite sawdust samples*.

After receiving the results of chemical analyses of the soil samples described above, DAA prepared representative composite soil samples, and submitted the samples to the selected laboratory for extraction using the *Toxicity Characteristic Leaching Procedures* (TCLP), followed by chemical analysis of *arsenic* and *total chromium*.

4.0 FIELD PROCEDURES

Field procedures associated with the subject site characterization study are described in this SECTION.

4.1 Direct Push Sampling

Fishburne Drilling obtained soil samples using direct push sampling equipment (DPE, Geoprobe®), as directed by DAA field personnel.

According to Fishburne Drilling, probe rods were decontaminated prior to arriving at the site.

Continuous soil samples were obtained from the ground surface to a depth of 24 inches using pre-cleaned, factory-packaged, clear acetate sleeves having a length greater than two feet.

Soils were removed in 12-inch sections (0-12" and 12-24") and placed in labeled plastic bags and homogenized. A representative aliquot was placed in the sample container.

Field notes include information pertaining to sample designation, sampling date, sampling time, and a description of the soil.

4.2 Hand Auger Sampling

Hand-augers were used to obtain samples at locations not accessible to the DPE.

Samples were obtained from depths of 0-12" and 12-24", and placed in labeled plastic bags and homogenized. A representative aliquot was placed in the sample container.

Field notes include information pertaining to sample designation, sampling date, sampling time, and a description of the soil.

4.3 Boring Identification

Borehole locations were identified by a pre-fix ("LW"), followed by a numeral. For example, the first boring advanced at the facility was designated as "LW-01."

Locations of boreholes are shown on SHEET 1 through SHEET 4 (APPENDIX 1).

4.4 Sample Identification

The soil samples were identified using the identification of the boring, followed by the depth interval (“12” for 0-12 inches, and “24” for 12-24 inches).

For example, samples obtained at borehole location 1 from depths of 0-12 inches and 12-24 inches were identified as “LW-1-12” and “LW-1-24,” respectively.

4.5 Sample Containers

After homogenizing soil samples in their respective plastic bags, aliquots were placed in glass containers provided by Air, Water & Soil Laboratories.

4.6 Sample Handling and Control

DAA personnel delivered the soil samples, by hand, to Air, Water & Soil Laboratories under chain-of-custody control.

4.7 Decontamination

Hand-auger equipment was decontaminated between each boring location, using the following procedure:

- Wash with non-phosphate detergent. A brush should be used to thoroughly remove contamination.
- Rinse with potable or distilled water.
- Rinse with 0.1 N nitric acid.
- Double rinse with potable or distilled water.
- Dry with clean paper towels.

4.8 Decontamination Rinsate

Decontamination rinsate was placed in a drum, and will be analyzed for *arsenic* and *chromium*, prior to disposal of the rinsate.

4.9 Non-Aqueous Investigation-Derived Wastes

Used sampling sleeves and unused soils were placed in a drum, and will be disposed of at a sanitary landfill upon completion of the project.

5.0 FIELD QUALITY CONTROL: BLANKS AND DUPLICATES

The use of blanks in connection with field work is discussed in this SECTION. The use of laboratory blanks is discussed elsewhere in this document.

Field blanks were analyzed for *each constituent of concern*.

5.1 Equipment Blanks

Equipment blanks were analyzed to evaluate potential cross-contamination of samples attributed to the repeated use of the same decontaminated (non-dedicated) sampling equipment (hand-augers), and consisted of rinse water obtained after decontamination of the equipment.

One *equipment blank* was prepared for *each day* in the field.

Equipment blanks were prepared in general accordance with the following procedure:

1. decontaminate non-dedicated sampling equipment
2. pour distilled water over the sampling equipment
3. collect the rinse water in the appropriate sample containers
4. ensure that sample is labeled
5. place water sample beneath ice in an insulated container (“cooler”)
6. maintain at a temperature of less than four degrees Centigrade until received by the selected analytical laboratory
7. document in field record
8. include on chain-of-custody form that is prepared for the soil or sediment samples, with which the blank is associated

5.2 Open-Top Field Blanks

Field blanks were analyzed to help determine if ambient conditions (such as fugitive dusts) contribute to the results of chemical analyses.

One *field blank* was prepared for *each day* in the field.

Field blanks were placed in the immediate vicinity of the sampling work space. Container tops were *removed* while work was being conducted at that location.

Field blanks were prepared in general accordance with the following procedure:

1. pour distilled water into the appropriate sample container
2. ensure that the sample is labeled
3. place the water sample beneath ice in an insulated container (“*cooler*”)
4. maintain at a temperature of less than four degrees Centigrade until received by the selected analytical laboratory
5. document in field record
6. include on chain-of-custody form that is prepared for the soil or sediment samples, with which the blank is associated

5.3 Duplicate Samples

Five duplicate samples were prepared, and submitted to the laboratory, for chemical analysis of arsenic and chromium.

Subsequent to receiving and reviewing results of chemical analyses of initial and duplicate samples, three *triplicate* samples were prepared, and submitted to the laboratory for chemical analysis of arsenic and chromium

6.0 RESULTS OF CHEMICAL ANALYSES

The results of chemical analyses are described in this SECTION.

Results of laboratory analyses obtained during the subject sampling event are summarized on TABLE 1 (APPENDIX 2) and discussed below. Results of laboratory analyses performed by others (Weston) are also included in APPENDIX 2.

The distributions of arsenic and chromium in soils, for both depth intervals (0-12 inches + 12-24 inches), as obtained during all studies (Weston + DAA), are illustrated on SHEET 1 through SHEET 4 (APPENDIX 1).

Note. Statistics (such as average, median, correlation coefficient, regression analysis) were calculated using the functions available in Microsoft Excel. Accordingly, calculations are not shown. DAA will provide TABLE 1, as an Excel file, to any parties who may wish to verify the calculations, provided that EPA considers such parties to have standing in the Removal Action.

6.1 Arsenic in Soil

Concentrations of *arsenic* ranged from not-detected to 223 mg/kg.

The *average* concentration of *arsenic* in soils, over the entire range of quantifiable results (>LOQ) is approximately 29.0 mg/kg (which is close to the removal action goal of 30 mg/kg).

The *median* concentration (>LOQ) of *arsenic* in soils, over the entire range of quantifiable results (>LOQ), is approximately 21.3 mg/kg. The difference between *average* and *median* concentrations suggests that the distribution is somewhat skewed toward larger values.

Whereas concentrations of *arsenic* range from not-detected to 223 mg/kg, we are most interested in concentrations in the vicinity of the removal goal (30 mg/kg). In this context, we consider the *critical interval* to range from approximately 20 mg/kg to 40 mg/kg.

The average concentration of *arsenic* in soils over the *critical interval* (20 mg/kg to 40 mg/kg) is approximately 27.8 mg/kg.

6.2 Chromium in Soil

Concentrations of *chromium* ranged from not-detected to 446 mg/kg.

The *average* concentration of *chromium* in soils, over the entire range of quantifiable results (>LOQ), is approximately 44.6 mg/kg (which is considerably less than the removal action goal of 63 mg/kg).

The *median* concentration (>LOQ) of *chromium* in soils, over the entire range of quantifiable results (>LOQ), is approximately 32.5 mg/kg. The difference between average and median concentrations suggests that the distribution is somewhat skewed toward larger values.

Whereas concentrations of *chromium* range from not-detected to 446 mg/kg, we are most interested in concentrations in the vicinity of the removal goal (63 mg/kg). In this context, we consider the *critical interval* to range from approximately 50 mg/kg to 75 mg/kg.

The average concentration of *chromium* in soils over the *critical interval* (50 mg/kg to 75 mg/kg) is approximately 59.7 mg/kg.

6.3 Arsenic versus Chromium in Soil

The relationship between concentrations of *arsenic* in soil, and concentrations of *chromium* in soil, are illustrated on graphs representing both (1) the entire range of quantifiable results (>LOQ) for *arsenic*, and (2) over the *critical interval* for *arsenic* (20 mg/kg to 40 mg/kg).

Product-moment correlation coefficients (over the entire range of quantifiable results for *arsenic*) were calculated (separately) for the results of chemical analyses and for XRF readings:

- The product-moment correlation coefficient for laboratory concentrations of *arsenic* in soil, and laboratory concentrations of *chromium* in soil, is rather high ($r = 0.93$, where 1.0 is perfect correlation).
- The product-moment correlation coefficient for XRF readings of *arsenic* in soil, and XRF readings of *chromium* in soil, is also somewhat high ($r = 0.82$), but not as strong as observed with the results of chemical analyses.

The strong relationship between laboratory concentrations of *arsenic* and *chromium* suggests that the variation in soil properties throughout the site has *not* resulted in differential retention of *arsenic* and *chromium* in those soils. That is *not* to say the observed proportions of *arsenic* and *chromium* in soils is necessarily, equivalent to their proportions in the *chromated copper arsenate* (CCA) products that were used at the facility. But if geochemical processes in the underlying soils have segregated *arsenic* from *chromium*, then they have done so with remarkable consistency over the entire site.

Statistical comment. As noted above, the relationship between concentrations of *arsenic* in soil, and concentrations of *chromium* in soil, are illustrated on graphs. In order to help visualize trends, each graph includes a best-fit regression line, along with the r-squared value associated with the trend line (note that the square-root of the “r-squared” value is approximately equal to “r,” the product-moment correlation coefficient).

The use of best-fit regression analysis in this study is not meant to represent any assertion as to the dependence or independence of the two variables, but only as a convenient means of illustrating trends. In this instance, adding *arsenic* to the soil would not *cause* the concentration of *chromium* to increase (or vice-versa), such that both variables may be viewed as independent (such that correlation analysis is wholly appropriate, but regression analysis is less so).

6.4 Waste Characterization

Upon receiving the results of chemical analyses of the soil samples obtained during February, DAA then selected samples for waste characterization purposes. Seven samples were prepared using the material remaining in the same bags, in which the soil samples had been placed during the field event.

Samples were selected to represent concentrations of arsenic ranging from about 30 mg/kg to 223 mg/kg (the maximum concentration observed during the subject study).

The number of individual samples used to prepare the waste characterization samples ranged from one to four, depending upon the amount of material remaining, and the results of chemical analyses of the individual samples.

The seven samples were extracted using the toxicity characteristic leaching procedure, then chemically analyzed for arsenic and chromium.

The results of waste characterization analyses are presented on TABLE 2 (APPENDIX 2). The results of analyses conducted after standard extraction are shown beside the results of analyses conducted after TCLP extraction. Where more than one original sample was used to form a composite TCLP sample, the median concentration reported for the original samples is shown. Note that, the median value for two subsamples is numerically equivalent to the average value of those two samples.

The laboratory did *not* observe *chromium* in *any* of the seven samples.

The laboratory observed *arsenic* in only *two* of the seven samples.

The maximum standard extraction concentration of arsenic in soil samples obtained during the subject study is 223 mg/kg. The maximum standard extraction concentration of arsenic in soil samples obtained by Weston is 1,140 mg/kg. Based on a three-point regression analysis (0 mg/kg standard extraction must yield a 0 mg/liter TCLP result), the predicted maximum TCLP value for arsenic in soils at the facility (linear model - see TABLE 2 graphs) is only about *1.5 mg/liter* (which is considerably less than *5.0 mg/liter*, the threshold value for arsenic for classification as hazardous waste).

The predicted maximum TCLP value for arsenic in soils at the facility is based on an extrapolation far beyond the maximum value for arsenic in soil observed during the subject study, such that the level of confidence in the predicted value must be relatively low.

Nonetheless, the linear model is more conservative (protective) than the power model (which is a better fit to the data), and since the threshold value is about 3.3 times greater than the predicted value, the probability that any soils at the subject facility would exceed the threshold value for classification as hazardous waste (based on the toxicity characteristic for arsenic) is very low.

Based upon the results of chemical analyses, we find no need to physically segregate soils to be excavated and removed from the subject facility.

6.5 Arsenic and Chromium in Sawdust

Field personnel prepared composite samples from two distinctly different sawdust piles:

- The laboratory did *not* detect *arsenic* in the composite sample obtained from a *light-colored* pile of sawdust.

The laboratory did *not* detect *chromium* in the composite sample obtained from the *light-colored* pile of sawdust.

- The reported concentration of *arsenic* in the composite sample obtained from a *dark-colored* pile of sawdust is 29.7 mg/kg (which is essentially equal to the removal goal of 30 mg/kg).

The reported concentration of *chromium* in the composite sample obtained from the *dark-colored* pile of sawdust is 121 mg/kg (which is considerably higher than the removal goal of 63 mg/kg).

The results of chemical analyses suggest that the light-colored pile of sawdust may have been created by the current lumber operations, whereas the dark-colored pile of sawdust may have been created during wood preserving operations.

Based upon the results of chemical analyses, the dark-colored sawdust is not suitable for use as an organic amendment to soils that will be delivered to the property during the excavation phase of the project. We recommend that the dark-colored pile of sawdust be removed from the property, along with soils to be removed from the property.

Since only two piles of sawdust were sampled, and chemically analyzed, sampling and chemical analyses of other piles of sawdust (particularly those that are relatively dark in color) may be warranted, to determine if such sawdust should also be removed from the property.

7.0 XRF REVIEW

Relationships between the results of chemical analyses and XRF readings are described in this SECTION.

Note. Statistics (such as average, median, correlation coefficient, regression analysis) were calculated using the functions available in Microsoft Excel. Accordingly, calculations are not shown. DAA will provide TABLE 1 (APPENDIX 2), as an Excel file, to any parties who may wish to verify the calculations, provided that EPA considers such parties to have standing in the Removal Action.

7.1 Arsenic

The *average* concentration of *arsenic* in soils, over the entire range of quantifiable results (>LOQ), is approximately 29.0 mg/kg.

The *average* XRF reading for *arsenic* in soils, over the entire range of quantifiable results (>LOQ), is approximately 29.7 mg/kg (which is also close to the removal action goal of 30 mg/kg).

The relative percent different (RPD) between *average* concentration of *arsenic* and *average* XRF reading, over the entire range of quantifiable results (>LOQ), is 10.6 percent.

With respect to the average value, therefore, XRF readings for arsenic appear to *slightly overestimate* laboratory concentrations of *arsenic*, over the entire range of quantifiable results.

The *median* concentration of *arsenic* in soils, over the entire range of quantifiable results (>LOQ), is approximately 21.3 mg/kg.

The *median* XRF reading for *arsenic* in soils, over the entire range of quantifiable results (>LOQ), is approximately 13.3 mg/kg.

The relative percent different (RPD) between median concentration of arsenic and median XRF reading, over the entire range of quantifiable results (>LOQ), is approximately 46.2 percent.

With respect to the *median* value, therefore, XRF readings for *arsenic* appear to significantly *underestimate* laboratory concentrations of *arsenic*, over the entire range of quantifiable results.

As noted above, whereas concentrations of *arsenic* range from not-detected to 223 mg/kg, we are most interested in concentrations in the vicinity of the removal goal (30 mg/kg). In this context, we consider the *critical interval* to range from approximately 20 mg/kg to 40 mg/kg.

The average concentration of *arsenic* in soils over the *critical interval* (20 mg/kg to 40 mg/kg) is approximately 27.8 mg/kg.

The average XRF reading for *arsenic* in soils over the *critical interval* (20 mg/kg to 40 mg/kg) is approximately 42.2 mg/kg.

The relative percent different (RPD) between average concentration of *arsenic* and average XRF reading, over the *critical interval* (20 mg/kg to 40 mg/kg), is approximately 41.5 percent.

With respect to the average value, therefore, XRF readings for *arsenic* appear to significantly *overestimate* laboratory concentrations of arsenic, over the *critical interval* (20 mg/kg to 40 mg/kg)

The relationships between laboratory concentrations of *arsenic* in soil, and XRF readings of *arsenic* in soil, are illustrated on graphs representing both (1) the entire range of quantifiable results (>LOQ) for *arsenic*, and (2) over the *critical interval* for *arsenic* (20 mg/kg to 40 mg/kg).

Product-moment correlation coefficients were calculated (separately) for (1) the entire range of quantifiable results (>LOQ) for *arsenic*, and (2) over the *critical interval* for *arsenic* (20 mg/kg to 40 mg/kg).

- The product-moment correlation coefficient for laboratory concentrations of *arsenic* in soil, and XRF readings of *arsenic* in soil, over the entire range of quantifiable results for *arsenic*, is somewhat high ($r = 0.85$, where 1.0 is perfect correlation).
- Conversely, the product-moment correlation coefficient for laboratory concentrations of *arsenic* in soil, and XRF readings of *arsenic* in soil, over the critical range of laboratory concentrations for arsenic (20 mg/kg to 40 mg/kg), is considerably lower ($r = 0.42$).

With regard to the use of XRF instruments in the field, as a screening tool, during the excavation phase of the project, XRF readings may be deemed conservative (that is, more protective), with regard to assessments made within the *critical interval* (20 mg/kg to 40 mg/kg). Given the relatively low correlation between laboratory concentrations of *arsenic* in soil, and XRF readings of *arsenic* in soil, over the critical range of laboratory concentrations for *arsenic* (20 mg/kg to 40 mg/kg), however, such use should be tempered with an awareness of this limitation.

7.2 Chromium

The *average* concentration of *chromium* in soils, over the entire range of quantifiable results (>LOQ), is approximately 45.0 mg/kg.

The *average* XRF reading for *chromium* in soils, over the entire range of quantifiable results (>LOQ), is approximately 59.6 mg/kg (which is relatively close to the removal action goal of 63 mg/kg).

The relative percent different (RPD) between *average* concentration of *chromium* and *average* XRF reading, over the entire range of quantifiable results (>LOQ), is 36.7 percent.

With respect to the *average* value, therefore, XRF readings for *chromium* appear to considerably *overestimate* laboratory concentrations of *chromium*, over the entire range of quantifiable results.

The *median* concentration of *chromium* in soils, over the entire range of quantifiable results (>LOQ), is approximately 34.4 mg/kg.

The *median* XRF reading for *chromium* in soils, over the entire range of quantifiable results (>LOQ), is approximately 40.0 mg/kg.

The relative percent different (RPD) between median concentration of *chromium* and median XRF reading, over the entire range of quantifiable results (>LOQ), is approximately 20.7 percent. With respect to the *median* value, therefore, XRF readings for *chromium* appear to somewhat *overestimate* the laboratory concentrations of *chromium*, over the entire range of quantifiable results.

As noted above, whereas concentrations of *chromium* range from not-detected to 446 mg/kg, we are most interested in concentrations in the vicinity of the removal goal (63 mg/kg). In this context, we consider the *critical interval* to range from approximately 50 mg/kg to 75 mg/kg.

The average concentration of *chromium* in soils over the *critical interval* (50 mg/kg to 75 mg/kg) is approximately 59.7 mg/kg.

The average XRF reading for *chromium* in soils over the *critical interval* (50 mg/kg to 75 mg/kg) is approximately 76.0 mg/kg (which exceeds the removal goal of 63 mg/kg).

The relative percent different (RPD) between *average* concentration of *chromium* and average XRF reading, over the *critical interval* (50 mg/kg to 75 mg/kg), is approximately 34.5 percent. With respect to the *average* value, therefore, XRF readings for *chromium* appear to significantly *overestimate* laboratory concentrations of *chromium*, over the *critical interval* (50 mg/kg to 75 mg/kg).

The relationships between laboratory concentrations of *chromium* in soil, and XRF readings of *chromium* in soil, are illustrated on graphs representing both (1) the entire range of quantifiable results (>LOQ) for *chromium*, and (2) over the *critical interval* for *chromium* (50 mg/kg to 75 mg/kg).

Product-moment correlation coefficients were calculated (separately) for (1) the entire range of quantifiable results (>LOQ) for *chromium*, and (2) over the *critical interval* for *chromium* (50 mg/kg to 75 mg/kg).

- The product-moment correlation coefficient for laboratory concentrations of *chromium* in soil, and XRF readings of *chromium* in soil, over the entire range of quantifiable results for *chromium*, is moderately high ($r = +0.69$, where 1.0 is perfect correlation).
- Conversely, the product-moment correlation coefficient for laboratory concentrations of *chromium* in soil, and XRF readings of *chromium* in soil, over the critical range of laboratory concentrations for *chromium* (50 mg/kg to 75 mg/kg), is low ($r = 0.18$).

With regard to the use of XRF instruments in the field, as a screening tool, during the excavation phase of the project, XRF readings may be deemed conservative (that is, more protective), with regard to assessments made within the *critical interval* (50 mg/kg to 75 mg/kg). Given the relatively low correlation between laboratory concentrations of *chromium* in soil, and XRF readings of *chromium* in soil, over the critical range of laboratory concentrations for *chromium* (50 mg/kg to 75 mg/kg), however, such use should be tempered with an awareness of this limitation.

8.0 PROJECT QUALITY CONTROL

Draper Aden Associates collected the 96 grab soil samples and two composite sawdust samples from the subject facility. Five field duplicate soils samples were also collected and submitted to the laboratory.

Samples were delivered to Air Water and Soil Laboratories, Inc. (AWS), of Richmond, Virginia. The soil samples along with two field blanks (aqueous) and an equipment blank (aqueous) were analyzed by AWS for arsenic and chromium by SW-846 Method 6010C and moisture by SM 2540G analysis, where applicable. AWS is a VELAP accredited laboratory for the above analytes, methods and matrices.

AWS submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results. The samples were reported in two sample work orders, 16B0472 and 16B0474, for the analytes as listed in the chains of custody. The final Certificate of Analysis (COA) for each work order was received under sample delivery group 160219 by Draper Aden Associates on or before March 14, 2016. The report was revised to reflect a missing dilution.

The event data were evaluated in general accordance with the project Quality Assurance Project Plan (QAPP), November 25, 2015; revised January 15, 2016. As required by the Plan, the data were evaluated in general accordance with *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2014*, Region 3 Inorganic Level 1, where applicable; and SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates). Where QA/QC criteria differed, the analytical method acceptance criteria were used. Additionally, laboratory specific acceptance criteria were used when no other acceptance criteria was available.

8.1 Field Blank

As described above, field personnel prepared two field blanks, each of which was analyzed for *arsenic* and *chromium*. The laboratory did *not* detect either *arsenic* or *chromium* in either field blank.

8.2 Equipment Blank

As described above, field personnel prepared one equipment blank, which was analyzed for *arsenic* and *chromium*. The laboratory did *not* detect either *arsenic* or *chromium* in the equipment blank.

8.3 Field Duplicate Samples

As described above, field personnel prepared *five* duplicate soil samples, each of which was analyzed for *arsenic* and *chromium*.

Relative percent difference (RPD) values are presented on TABLE 1 (APPENDIX 2), and summarized as follows:

- RPD values for *arsenic* in soil ranged from approximately 44.5% to 186%.
- RPD values for *chromium* in soil ranged from approximately 34.5% to 167%.

The results of chemical analyses of duplicate soil samples suggests that soils at some locations were relatively heterogeneous, and that the heterogeneity was not sufficiently reduced before placing those soils into their respective sample containers.

Three of the five soil samples for which duplicate samples were prepared were re-homogenized, and submitted to the laboratory for chemical analysis of *arsenic* and *chromium* (dry weight basis).

In each case, the result of chemical analysis of the *triplicate* sample was considerably closer to the result of chemical analysis of the *duplicate* sample, suggesting that:

- the duplicate sampling program was associated with problems that we are not able to diagnose
- results of analyses of the original samples may be deemed reasonably reliable for the purposed of delineating limits for the first round of soil excavation

8.4 Reporting of Laboratory Results

The laboratory reported results at or above the laboratory quantitation limit (LOQ). The laboratory reported soil results on a dry weight basis. The moisture data was validated for holding time only and criteria were met.

8.5 Reporting of Validated Results

The data validation qualifiers noted below were used in reporting of the final validated results. A summary of data validation results is provided below and on the attached data validation report summary table.

Data Validation Qualifiers:

- J – Analyte present. Reported value may not be accurate or precise (because certain quality control criteria were not met). See data validation for further explanation.
- U- Analyte not detected at or above the LOQ.
- UJ- Analyte not detected at or above the LOQ. LOQ estimated. See data validation for further explanation

8.6 Chain of Custody Documentation/Holding Time/Preservation

The laboratory received the samples on ice, in good condition and with custody seals intact. The chains of custody (COC) was appropriately signed and dated by field and laboratory personnel, except as noted. Holding time and sample preservation criteria were met, except where noted below. The COCs for this sampling event are located with each certificate of analysis.

The field blanks and the equipment blank were collected in 4 ounce glass containers and received at the laboratory with a pH of 4 SU. Sample collection in a glass container is allowed per the method. The laboratory added preservative to each sample to bring the pH to < 2 SU. No data validation was required.

8.7 Metals by SW-846 Method 6010C Preparation using Method 3050B (soil) Preparation using Method EPA 200.2 (water)

The laboratory submitted a comprehensive data package for review. However, only the case narrative and quality control summary reports were used in the validation on the data.

Technical holding time and sample preservation criteria were met. Calibration verification recoveries were met. QL standards, blanks, interference check samples, laboratory duplicates, matrix spike (MS), laboratory control sample (LCS), serial dilution, and field duplicate samples were analyzed and acceptable criteria were met except where noted below. Deviations from specific quality control criteria that were identified during the data review process are summarized below.

Sample/laboratory duplicate results exhibited acceptable precision, except as noted below. The following sample/laboratory duplicate relative percent differences (RPDs) were greater than 25 and the results noted below were qualified as estimated (J) to note this QC deficiency. Variability observed between sample concentrations and laboratory duplicate concentrations were attributed to non-homogenous soil conditions.

The serial dilution for LW-44-12 did not meet the percent difference criteria ($\%D < 10$) between the original sample result and the serial dilution result for both arsenic and chromium. Both the arsenic and chromium results for LW-44-12 were qualified as estimated (J) to note this QC deficiency. The remaining serial dilution result criteria were met.

Field duplicate/sample results exhibited acceptable precision, except as noted below. The following sample/field duplicate relative percent differences (RPDs) were greater than 25 and the results noted below were qualified as estimated (J) to note this QC deficiency. Variability observed between sample concentrations and field duplicate concentrations were attributed to non-homogenous soil conditions. Field duplicates were designated with the sample name and DUP.

Sample weights varied and sample QLs were adjusted accordingly.

8.8 Comparison to Cleanup Goals

A comparison to cleanup goals is presented on a separate validation table.

8.9 Reconciliation With User Requirements

Reconciliation with project goals as discussed in the project QAPP.

8.10 Precision (Laboratory Duplicates)

Precision was evaluated using the RPD data obtained from laboratory duplicates, serial dilutions, and sample/field duplicate results.

Sample / Lab Duplicate ID	Analyte	Sample Concentration mg/kg	Lab Duplicate Concentration mg/kg	RPD
LW-12-24 /LW-12-24 DUP	Arsenic	5.07	2.42	70.3
LW-26-24 /LW-26-24 DUP	Arsenic	8.77	11.6	28.1
LW-31-24 /LW-31-24 DUP	Arsenic	16.3	8.05	67.8
LW-31-24 /LW-31-24 DUP	Chromium	32	24.7	25.7

8.11 Accuracy

Accuracy was evaluated using the percent recovery obtained from the laboratory control sample (LCS), matrix spike (MS), and laboratory duplicate samples, where applicable. LCS, MS, and laboratory duplicate recoveries were within acceptance criteria, where reported. See attached data validation report for sample locations and results qualified. Variability observed between soil samples was attributed to non-homogenous soil conditions.

8.12 Representativeness

Data collected at the site were accurate and precise except where noted above. Samples were collected using standardized procedures. Field quality control samples (field blank, equipment blank duplicate) were submitted for each day of the sampling event or as required by the QAPP, where applicable. Samples were analyzed using standardized and accepted analytical methods using traceable standards to ensure that accurate and reproducible data were generated. Data from the site were considered representative.

8.13 Completeness

Completeness was evaluated by comparing the total number of valid data obtained from a measurement system, compared to the amount that was expected to be obtained under normal conditions. Sample locations not collected due to physical site restrictions or based on field observations were excluded from this assessment. Valid analytical data are results not qualified as rejected. The completeness for data is 100%.

8.14 Comparability

Comparability is defined as the degree of confidence that one data set can be compared to another data set. Data was generated using specific standard methods. The comparability of the data collected as part of the site assessment meets project requirements.

9.0 TECHNICAL LIMITATIONS

The findings presented in this report are based upon information provided to us by others, our direct observations, and our professional judgment. To the best of our knowledge, information provided by others is true and correct, unless otherwise noted; however, Draper Aden Associates is not responsible for the accuracy of information provided by others.

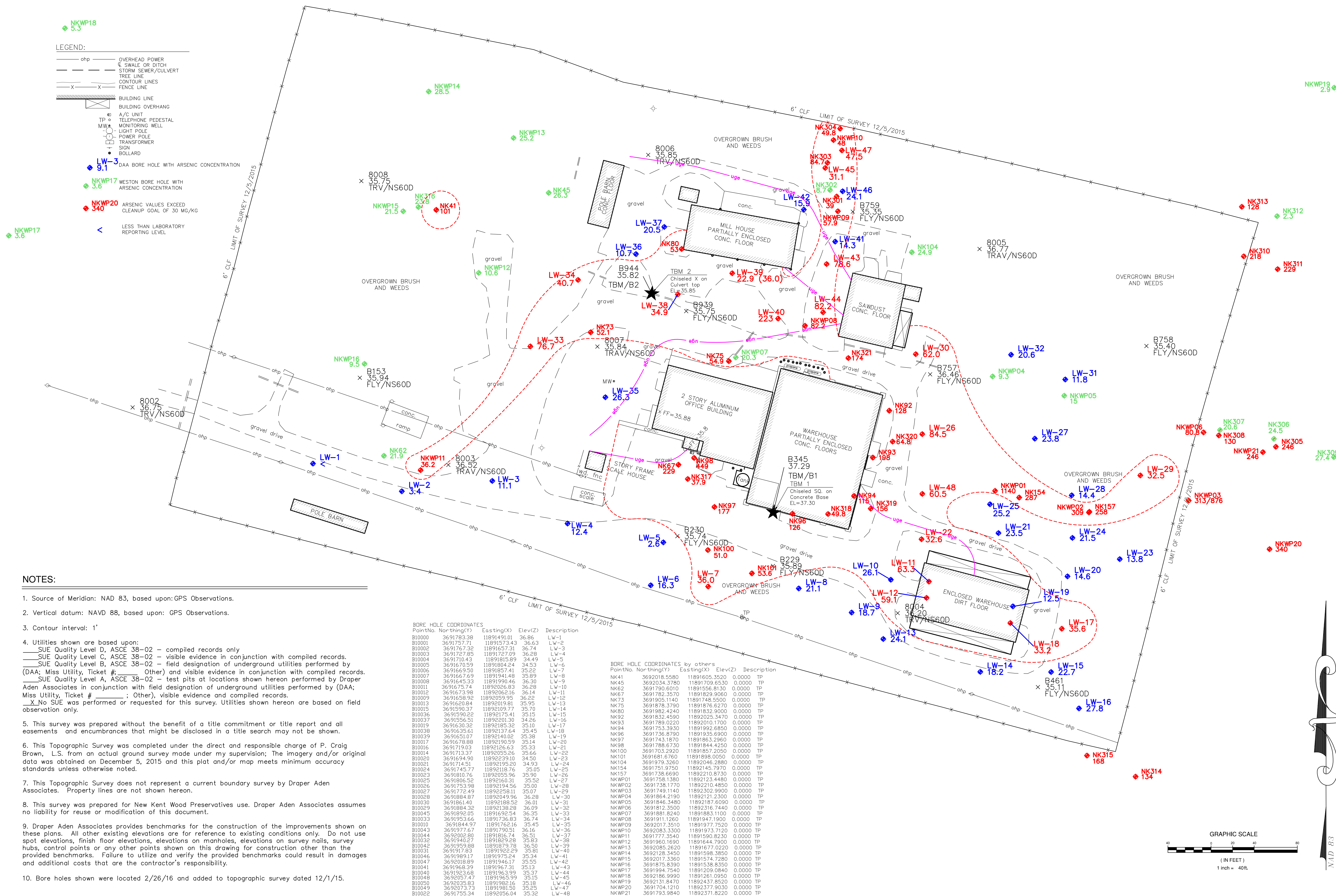
Our on-site observations pertain only to specific locations at specific times on specific dates. Our observations and conclusions do not reflect variations in surface or subsurface conditions that may exist between observed locations, in unexplored areas of the subject property, in areas obscured by existing conditions (such as vegetation, stockpiled debris), or at times other than those represented by our observations.

It is the responsibility of the client to notify the appropriate government agencies of our findings, as may be required by law. It is not the responsibility of Draper Aden Associates to report these findings to any federal, state, and/or local agency.

APPENDIX 1

FIGURES

As Cleanup Goal = 30 mg/kg



Draper Aden Associates
Engineering • Surveying • Environmental Services

Blacksburg, VA
Charlottesville, VA
Hampton Roads, VA

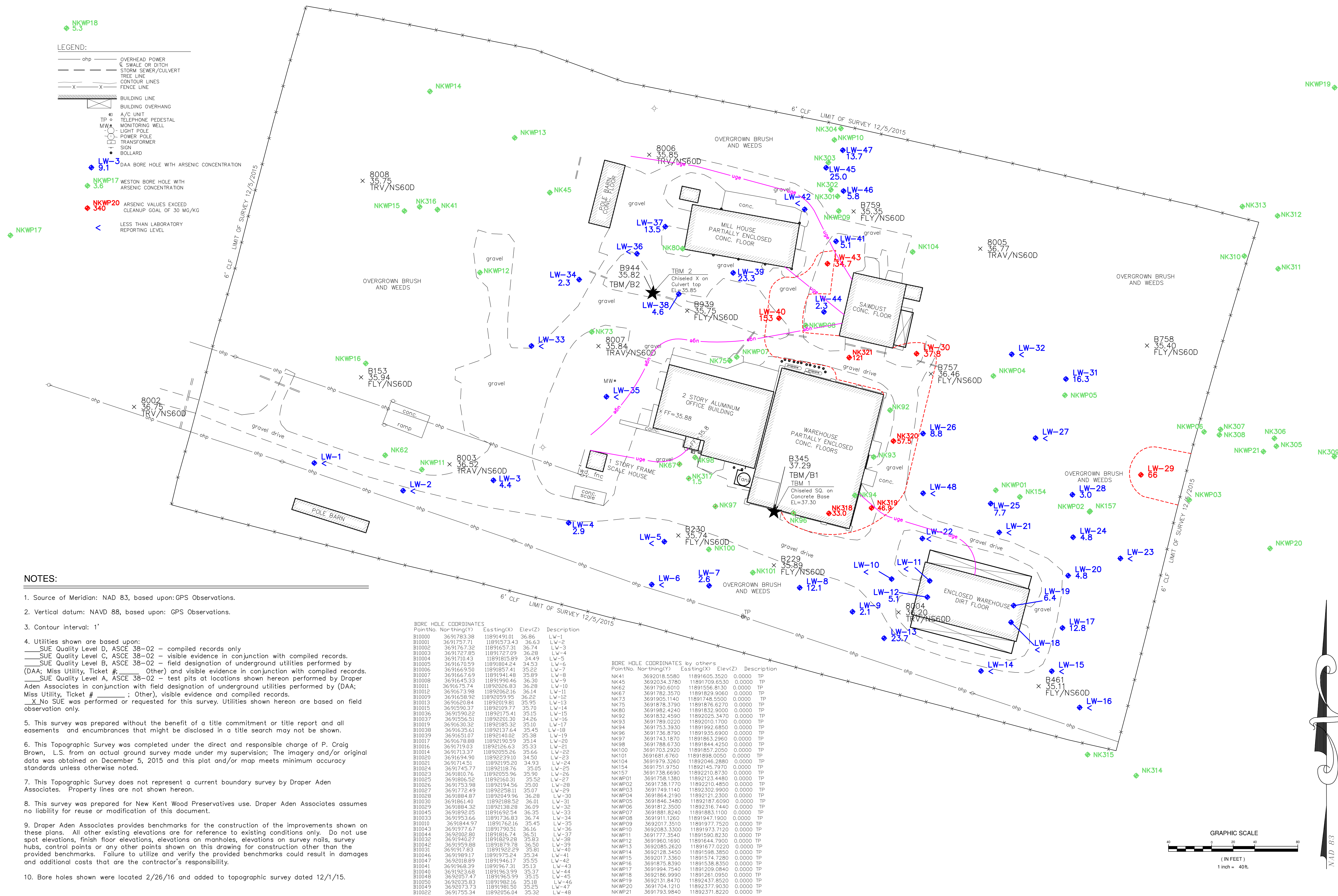
DISTRIBUTION OF ARSENIC IN SOIL (0-12 INCHES)
NEW KENT WOOD PRESERVATIVES SITE
4101 SOUTH MOUNTCASTLE ROAD
PROVIDENCE FORGE, NEW KENT COUNTY, VIRGINIA

REVISIONS

DESIGNED BY:	PCB
CHECKED BY:	TWI/WCY
SCALE:	1" = 40'
DATE:	2/28/2016
PROJECT NUMBER:	R15434R-03S

SHEET
1 OF 4

As Cleanup Goal = 30 mg/kg



Draper Aden Associates

Engineering • Surveying • Environmental Services

Blacksburg, VA
Charlottesville, VA
Hampton Roads, VA



DISTRIBUTION OF ARSENIC IN SOIL (12-24 INCHES)
NEW KENT WOOD PRESERVATIVES SITE
4101 SOUTH MOUNTCASTLE ROAD

PROVIDENCE FORGE, NEW KENT COUNTY, VIRGINIA

REVISIONS

DESIGNED BY:

DRAWN BY: PCB

CHECKED BY: TWI/WCY

SCALE: 1" = 40'

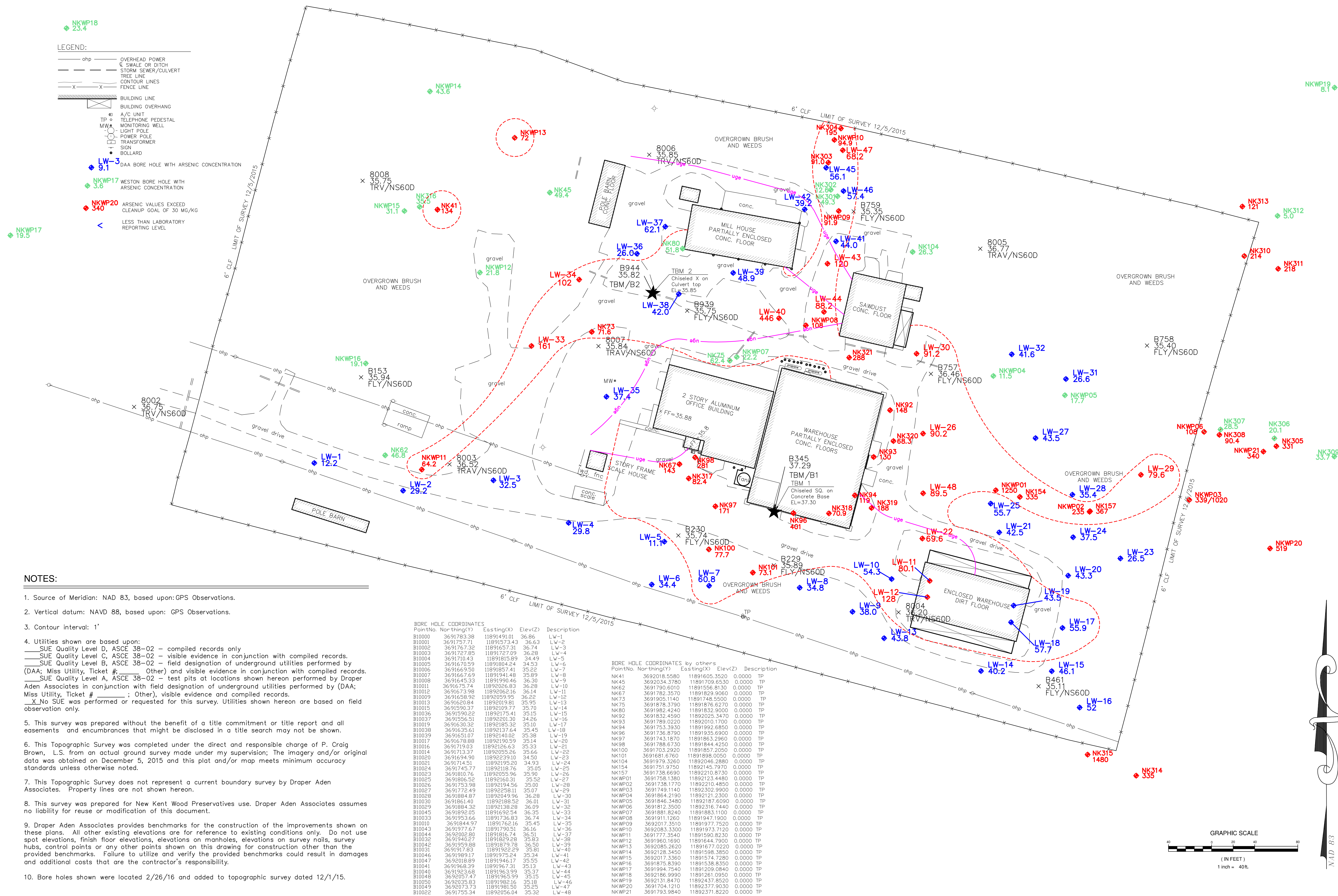
DATE: 2/28/2016

PROJECT NUMBER:

R15434R-03S

SHEET
2 OF 4

Cr Cleanup Goal = 63 mg/kg



Draper Aden Associates

Engineering • Surveying • Environmental Services

Blacksburg, VA
Charlottesville, VA
Hampton Roads, VA



DISTRIBUTION OF CHROMIUM IN SOIL (0-12 INCHES)
NEW KENT WOOD PRESERVATIVES SITE
4101 SOUTH MOUNTCASTLE ROAD

PROVIDENCE FORGE, NEW KENT COUNTY, VIRGINIA

REVISIONS

DESIGNED BY:

DRAWN BY: PCB

CHECKED BY: TWI/WCY

SCALE: 1" = 40'

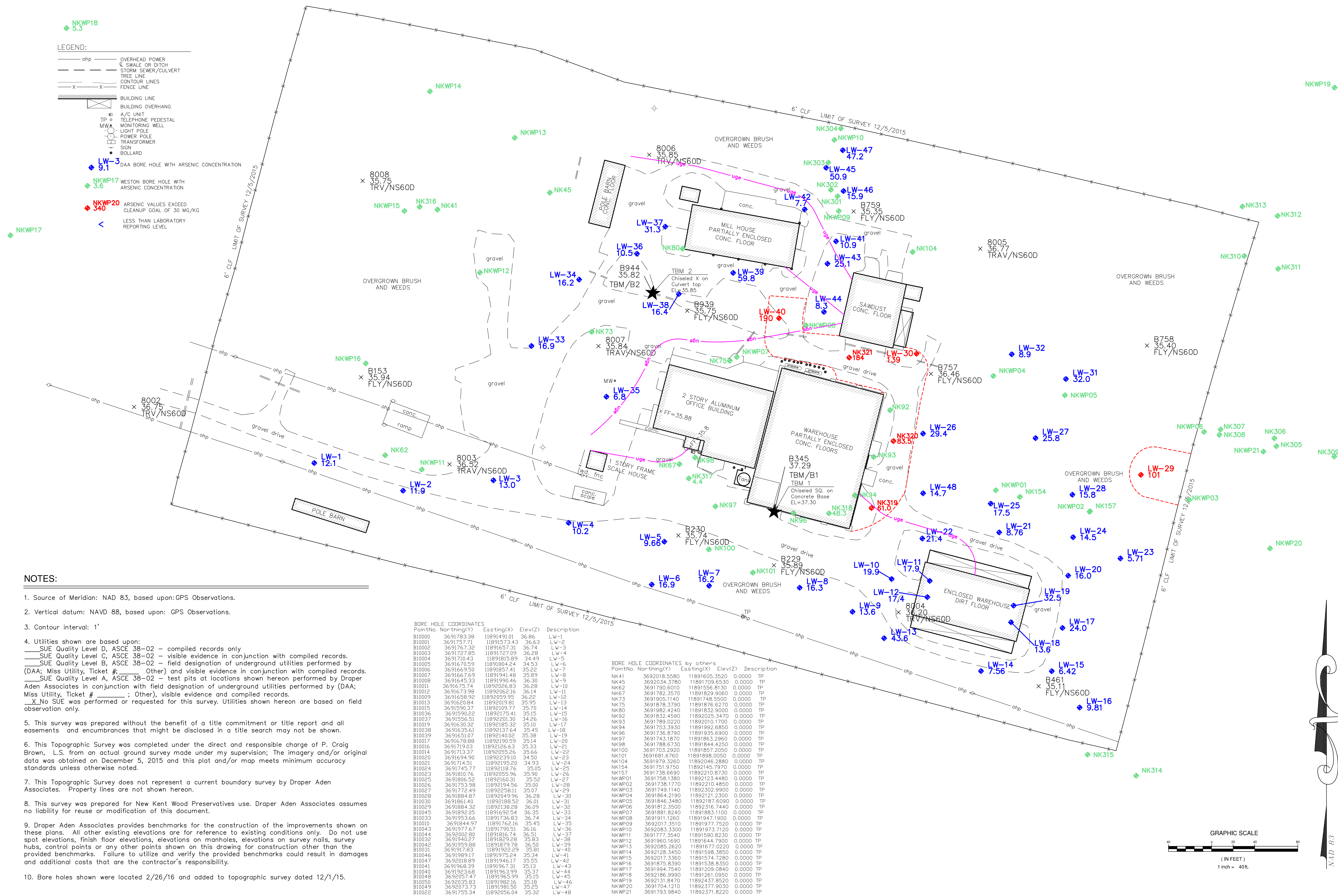
DATE: 2/28/2016

PROJECT NUMBER:

R15434R-03S

SHEET
3 OF 4

Cr Cleanup Goal = 63 mg/kg



Draper Aden Associates

Engineering • Surveying • Environmental Services

Blacksburg, VA
Charlottesville, VA
Hampton Roads, VA



DISTRIBUTION OF CHROMIUM IN SOIL (12-24 INCHES)
NEW KENT WOOD PRESERVATIVES SITE
4101 SOUTH MOUNTCASTLE ROAD

PROVIDENCE FORGE, NEW KENT COUNTY, VIRGINIA

REVISIONS

DESIGNED BY:

DRAWN BY: PCB

CHECKED BY: TWI/WCY

SCALE: 1" = 40'

DATE: 2/28/2016

PROJECT NUMBER:

R15434R-03S

SHEET
4 OF 4

APPENDIX 2

TABLES AND GRAPHS

TABLES AND GRAPHS
DRAPER ADEN ASSOCIATES

TABLE 1

CLIENT: L-WOOD INC SOUTHERN PINE SPECIALISTS
LOCATION: 4101 SOUTH MOUNTCASTLE ROAD, PROVIDENCE FORGE, VIRGINIA
PROJECT: NEW KENT WOOD PRESERVATIVES SITE, INC
TASK: EXCAVATION / REPLACEMENT OF SOILS CONTAMINATED WITH ARSENIC AND CHROMIUM

ARSENIC AND CHROMIUM IN SOILS

location	depth (inches)	laboratory arsenic (ppm)	XRF arsenic (ppm)	laboratory chromium (ppm)	XRF chromium (ppm)	percent solids	comment
LW-01	12	<	1.6	12.2	<	93.5	product-moment correlation =
LW-01	24	<	2.9	12.1	<	92.5	As (lab) x Cr (lab) = 0.93
LW-02	12	3.35	3.3	29.2	<	91.2	product-moment correlation =
LW-02	24	<	2.5	11.9	<	92.0	As (XRF) x Cr (XRF) = 0.82
LW-03	12	11.1	14.7	32.5	45	95.8	
LW-03	24	4.42	3.7	13.0	<	95.2	product moment correlation =
LW-04	12	12.4	16.0	29.8	42	91.4	As (lab) x As (XRF) (all data) = 0.85
LW-04	24	2.88	3.1	10.2	<	94.5	product moment correlation =
LW-05	12	2.57	10.9	11.1	21	92.0	As (lab) x As (XRF) (20-40 ppm) = 0.42
LW-05	24	<	1.7	9.66	<	91.3	
LW-06	12	16.3	10.0	34.4	35	91.6	product moment correlation =
LW-06	24	<	<	16.9	<	92.6	Cr (lab) x Cr (XRF) (all data) = 0.69
LW-07	12	36.0	36.1	60.8	43	88.5	product moment correlation =
LW-07	24	2.63	4.0	16.2	<	90.6	Cr (lab) x Cr (XRF) (50-75 ppm) = 0.18
LW-08	12	21.1	18.4	34.8	42	91.6	
LW-08	24	12.1	10.3	16.3	22	93.0	
LW-09	12	18.7	36.0	38.0	31	90.1	
LW-09	24	2.10	2.7	13.6	24	92.7	
LW-10	12	26.1	31.5	54.3	59	92.5	
LW-10	24	<	<	19.9	<	79.3	RPD (Cr) = 17.5%
LW-10	24	<	2.7	16.7	<	92.1	
LW-11	12	63.3	54.8	80.1	63	94.6	
LW-11	24	<	5.7	17.9	<	91.1	
LW-12	12	59.1	67.1	128	96	91.9	XRF re-test
LW-12	24	5.07	6.0	17.4	24	92.8	
LW-13	12	24.1	19.6	43.8	30	91.6	
LW-13	24	23.7	2.6	43.6	<	92.2	
LW-14	12	18.2	22.8	40.2	32	89.0	
LW-14	24	<	1.6	7.56	<	92.4	
LW-15	12	22.7	52.6	46.1	38	92.2	
LW-15	24	<	2.8	6.42	<	93.6	
LW-16	12	27.8	81.8	52	122	88.2	
LW-16	24	<	2.1	9.81	<	89.0	

location	depth (inches)	laboratory arsenic (ppm)	XRF arsenic (ppm)	laboratory chromium (ppm)	XRF chromium (ppm)	percent solids	comment
LW-17	12	35.6	42.8	55.9	46	92.6	
LW-17	24	12.8	16.7	24.0	30	93.7	
LW-18	12	33.2	53.1	57.7	59	92.6	
LW-18	24	<	4.5	13.6	<	91.7	
LW-19	12A	12.5	20.4	43.5	22	93.0	
LW-19	12B	56.1	<	75.1	<	92.4	RPD (As) = 127.1% / RPD (Cr) = 54.2%
LW-19	12C	13.9	<	37.1	<	95.9	RPD (As) = 10.6% / RPD (Cr) = 14.6%
LW-19	24	6.36	3.3	32.5	<	92.7	
LW-20	12	14.6	21.0	43.3	25	90.2	
LW-20	24	4.78	6.0	16.0	32	93.0	
LW-21	12	23.5	21.7	42.5	37	91.4	
LW-21	24	<	3.5	8.76	<	93.2	
LW-22	12	32.6	93.1	69.6	134	91.0	
LW-22	24	<	3.1	21.4	<	93.5	
LW-23	12	13.8	14.5	26.5	<	88.5	
LW-23	24	<	1.6	5.71	<	91.4	
LW-24	12	21.5	60.0	37.5	59	86.1	
LW-24	24	4.77	2.7	14.5	25	89.6	
LW-25	12	25.2	102.1	55.7	112	87.8	
LW-25	24	7.73	2.1	17.5	<	90.2	
LW-26	12	84.5	36.1	90.2	39	87.8	
LW-26	24	8.77	37.7	29.4	93	93.3	
LW-27	12	23.8	22.9	43.5	45	89.9	
LW-27	24	<	6.0	25.8	30	91.8	
LW-28	12	14.4	14.5	35.4	<	86.0	
LW-28	24	2.96	2.5	15.8	<	92.4	
LW-29	12	32.5	29.0	79.6	44	88.5	
LW-29	24A	66.0	49.7	101	54	89.8	
LW-29	24B	30.6	<	42.4	<	90.6	RPD (As) = 73.3% / RPD (Cr) = 81.7%
LW-29	24C	45.7	<	60.6	<	93.2	RPD (As) = 36.3% / RPD (Cr) = 50.0%
LW-30	12	62.0	101.9	91.2	135	88.9	
LW-30	24	37.8	61.4	139	147	89.4	
LW-31	12	11.8	13.0	26.6	65	90.3	
LW-31	24	16.3	9.2	32.0	<	90.5	
LW-32	12	20.6	27.6	41.6	40	90.5	
LW-32	24	<	<	8.89	25	92.4	
LW-33	12	76.7	77.0	161	171	92.9	
LW-33	24	<	3.6	16.9	20	90.5	

location	depth (inches)	laboratory arsenic (ppm)	XRF arsenic (ppm)	laboratory chromium (ppm)	XRF chromium (ppm)	percent solids	comment
LW-34	12	40.7	48.9	102	95	93.2	
LW-34	24	2.29	6.8	16.2	<	92.7	
LW-35	12	26.3	19.2	37.4	26	89.1	
LW-35	24	<	2.0	6.85	<	89.6	
LW-36	12	10.7	12.7	26.0	<	89.8	
LW-36	24	<	4.0	10.5	<	92.1	
LW-37	12	20.5	12.2	62.1	<	89.1	
LW-37	24	13.5	12.1	31.3	40	92.3	
LW-38	12	34.9	44.6	42.0	<	90.9	
LW-38	24	4.65	10.2	16.4	26	92.1	
LW-39	12	36.0	<	48.9	<	95.1	RPD (As) = 44.5% / RPD (Cr) = 34.5%
LW-39	12	22.9	34.2	34.5	79	95.1	
LW-39	24	23.3	21.4	59.8	33	93.4	
LW-40	12	223.0	181.8	446	184	86.9	XRF re-test
LW-40	24	153.0	216.5	190	115	89.2	
LW-41	12	14.3	11.2	44.0	32	89.4	
LW-41	24	5.07	7.5	10.9	24	90.9	
LW-42	12	15.9	13.5	39.2	21	90.1	
LW-42	24	<	3.2	7.73	22	91.9	
LW-43	12	78.6	124.7	120	139	76.7	
LW-43	24	34.7	83.8	25.1	26	91.3	
LW-44	12	82.2	168.4	88.2	208	79.3	
LW-44	24	2.30	9.7	8.28	<	90.9	
LW-45	12	31.1	<	56.1	<	30.0	
LW-45	24	25.0	<	50.9	<	75.2	
LW-46	12	24.1	<	57.4	<	65.7	
LW-46	24	5.81	<	15.9	<	93.1	
LW-47	12	47.5	<	68.2	<	29.7	
LW-47	24	13.7	<	47.2	<	39.3	
LW-48	12A	60.5	66.0	89.5	108	92.5	
LW-48	12B	<	<	8.09	<	91.7	RPD (Cr) = 167%
LW-48	12C	57.6	<	80.1	<	92.6	RPD (As) = 4.9% / RPD (Cr) = 11.1%
LW-48	24	<	2.9	14.7	23	93.7	
average =		29.4	29.7	45.1	59.6	89.0	RPD (As) = 10.6% / RPD (Cr) = 36.7%
median =		21.5	13.3	34.5	40.0	89.0	RPD (As) = 46.2% / RPD (Cr) = 20.7%
SP-light	N/A	<	<	5.85	<	28.6	composite sample of sawdust
SP-dark	N/A	29.7	10.5	121	<	34.6	composite sample of sawdust
arsenic - removal goal = 30 mg/kg chromium - removal goal = 63 mg/kg		RPF (average) pertains to laboratory results versus XRF readings RPF (median) pertains to laboratory results versus XRF readings					

TABLE 2

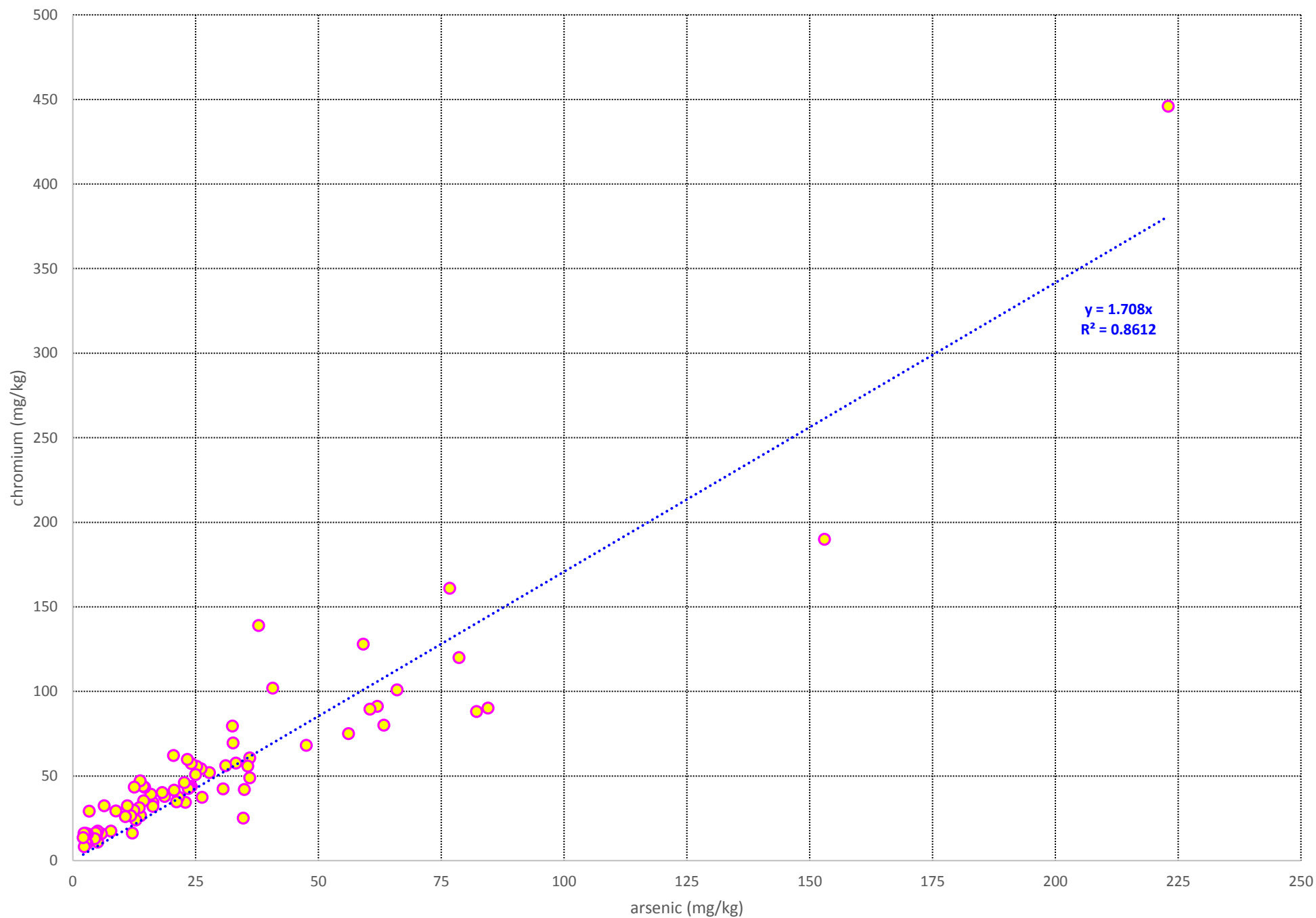
CLIENT: L-WOOD INC SOUTHERN PINE SPECIALISTS
 LOCATION: 4101 SOUTH MOUNTCASTLE ROAD, PROVIDENCE FORGE, VIRGINIA
 PROJECT: NEW KENT WOOD PRESERVATIVES SITE, INC
 TASK: EXCAVATION / REPLACEMENT OF SOILS CONTAMINATED WITH ARSENIC AND CHROMIUM

ARSENIC AND CHROMIUM IN SOILS
 TOXICITY CHARACTERISTIC LEACHING PROCEDURE

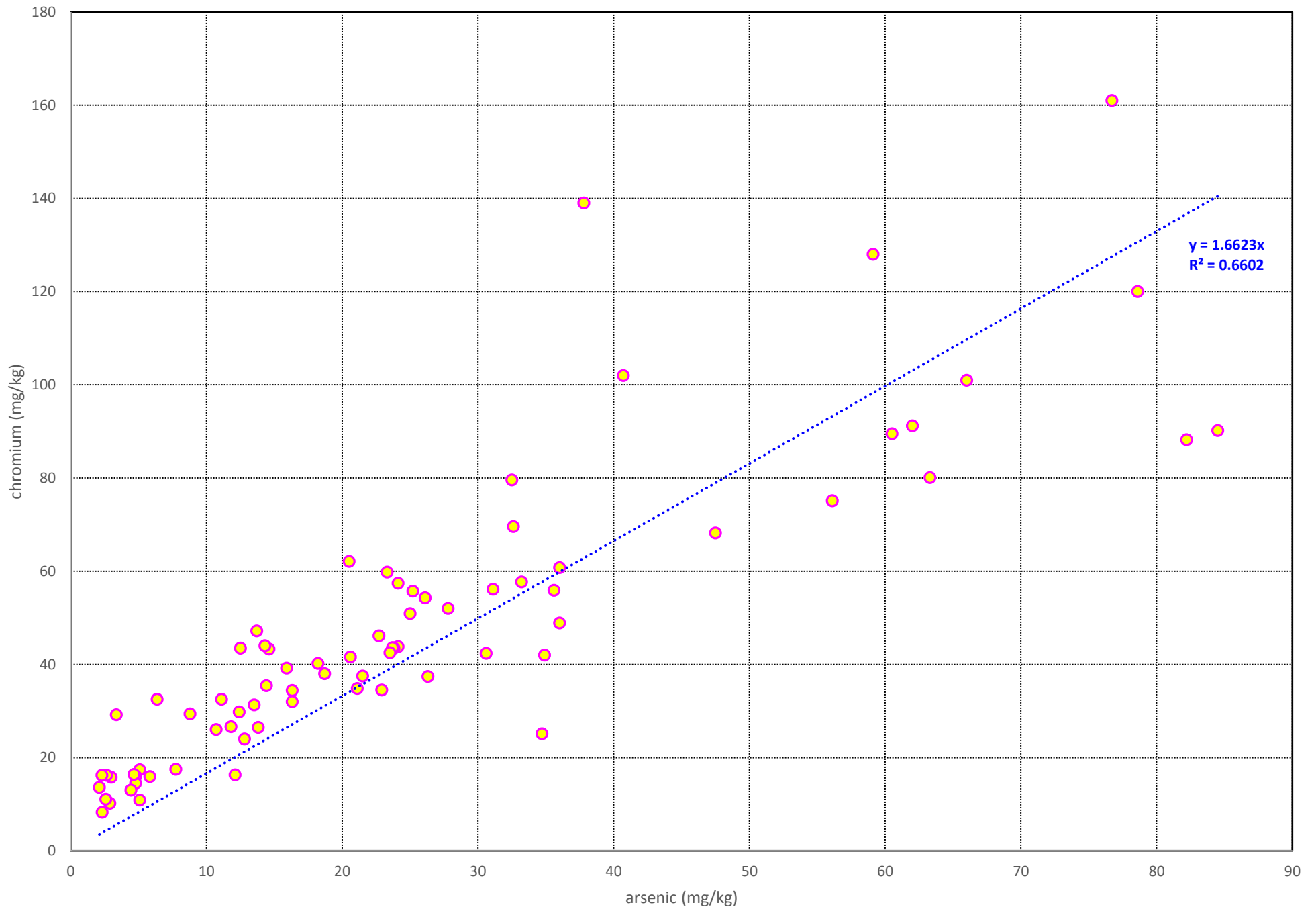
sample ID	TCLP arsenic (mg/l)	median subsamples arsenic (mg/kg)	TCLP chromium (mg/l)	median subsamples chromium (mg/kg)	subsamples used for TCLP sample
TC-01	0.279	223	< 0.100	446	LW-40-12
TC-02	0.226	153	< 0.100	190	LW-40-24
TC-03	< 0.100	83.3	< 0.100	89.2	LW-26-12 + LW-44-12
TC-04	< 0.100	77.7	< 0.100	141	LW-33-12 + LW-43-12
TC-05	< 0.100	62.7	< 0.100	85.7	LW-11-12 + LW-30-12
TC-06	< 0.100	45.7	< 0.100	68.2	LW-47-12
TC-07	< 0.100	35.8	< 0.100	52.4	LW-07-12 + LW-17-12 + LW-38-12 + LW-39-12

arsenic - TCLP threshold value = 5.0 mg/liter
 chromium - TCLP threshold value = 5.0 mg/liter

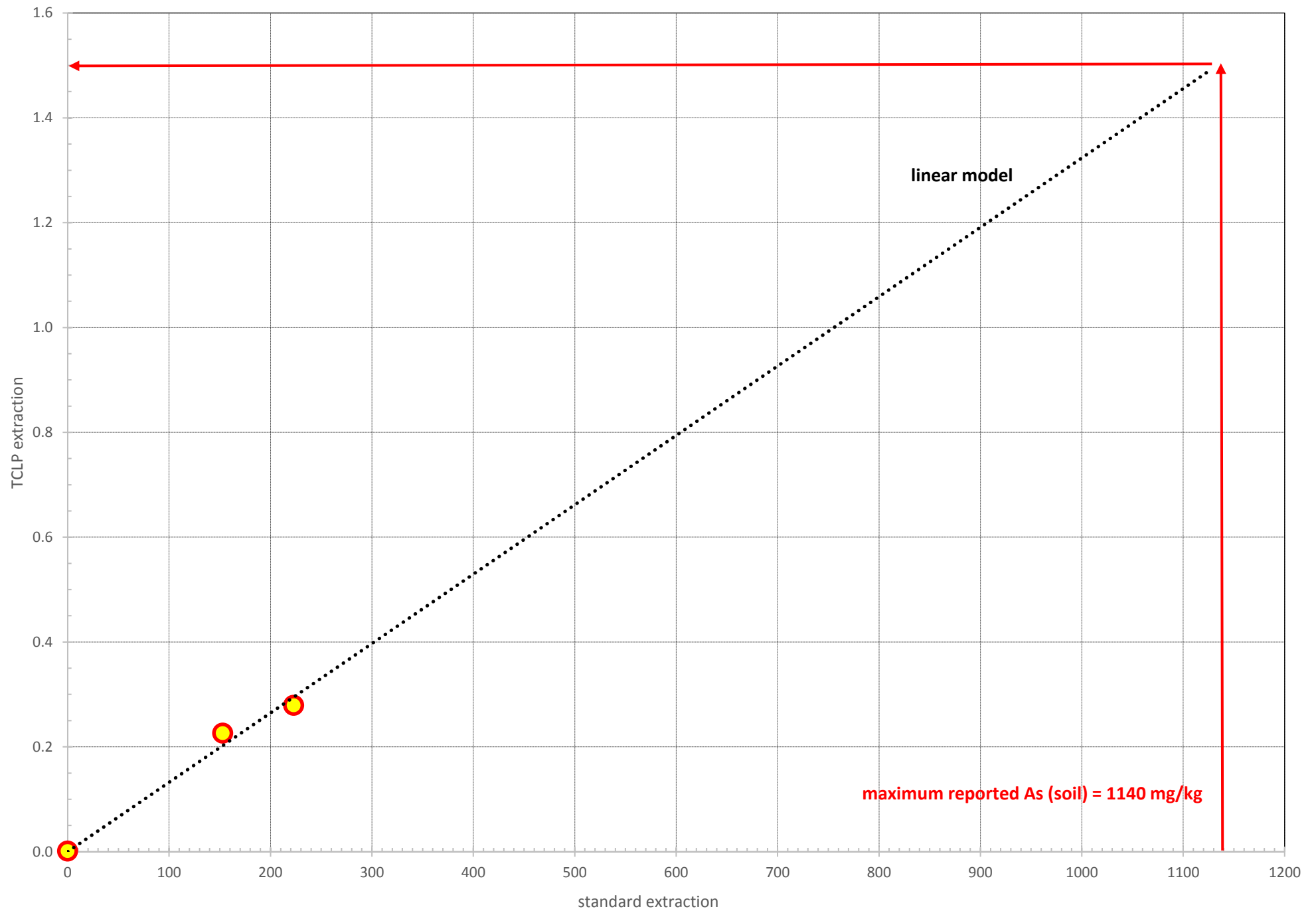
laboratory results: arsenic (x) versus chromium (y) (over full range of values)



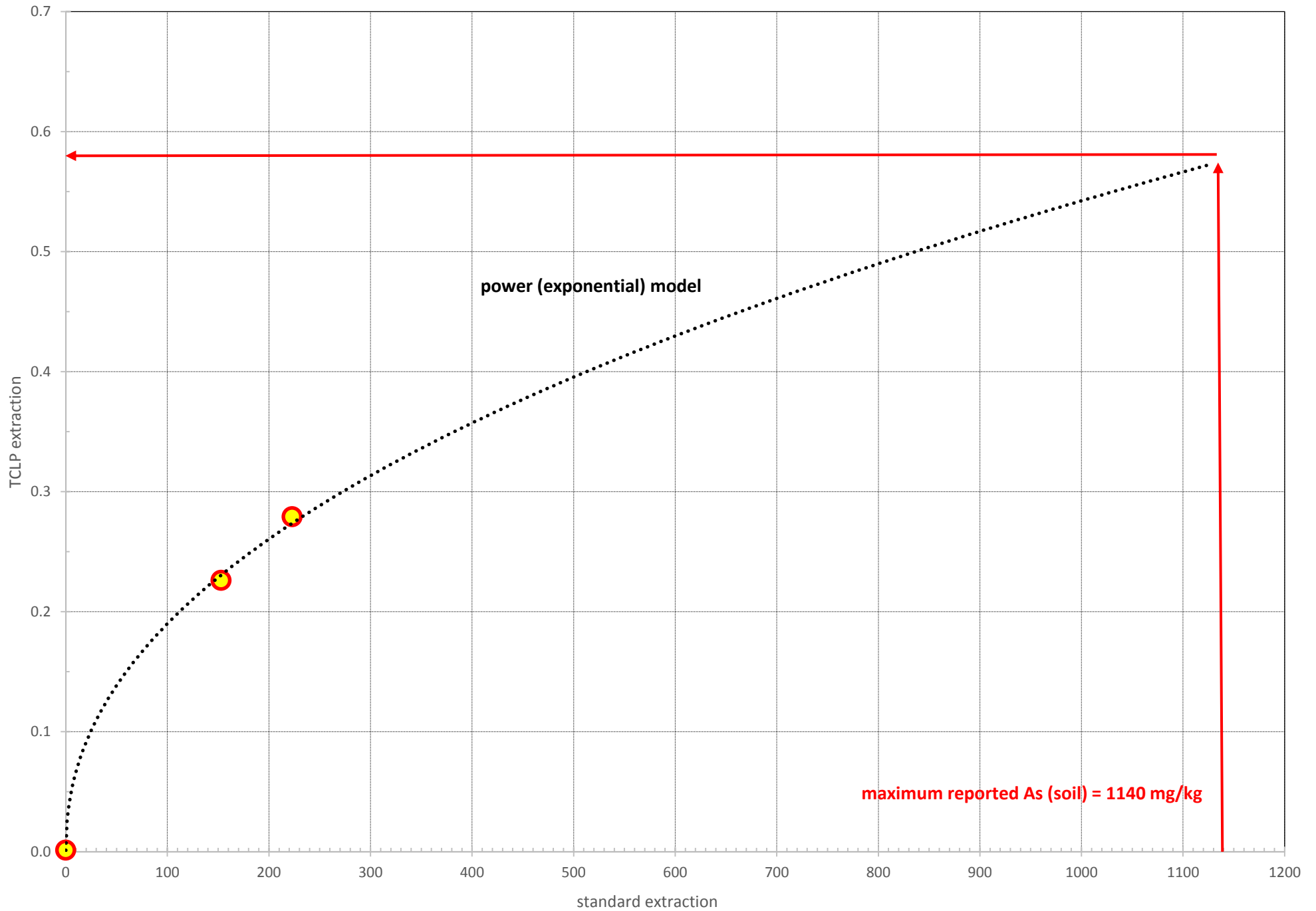
laboratory results: arsenic (x) versus chromium (y) (unusually large values removed)



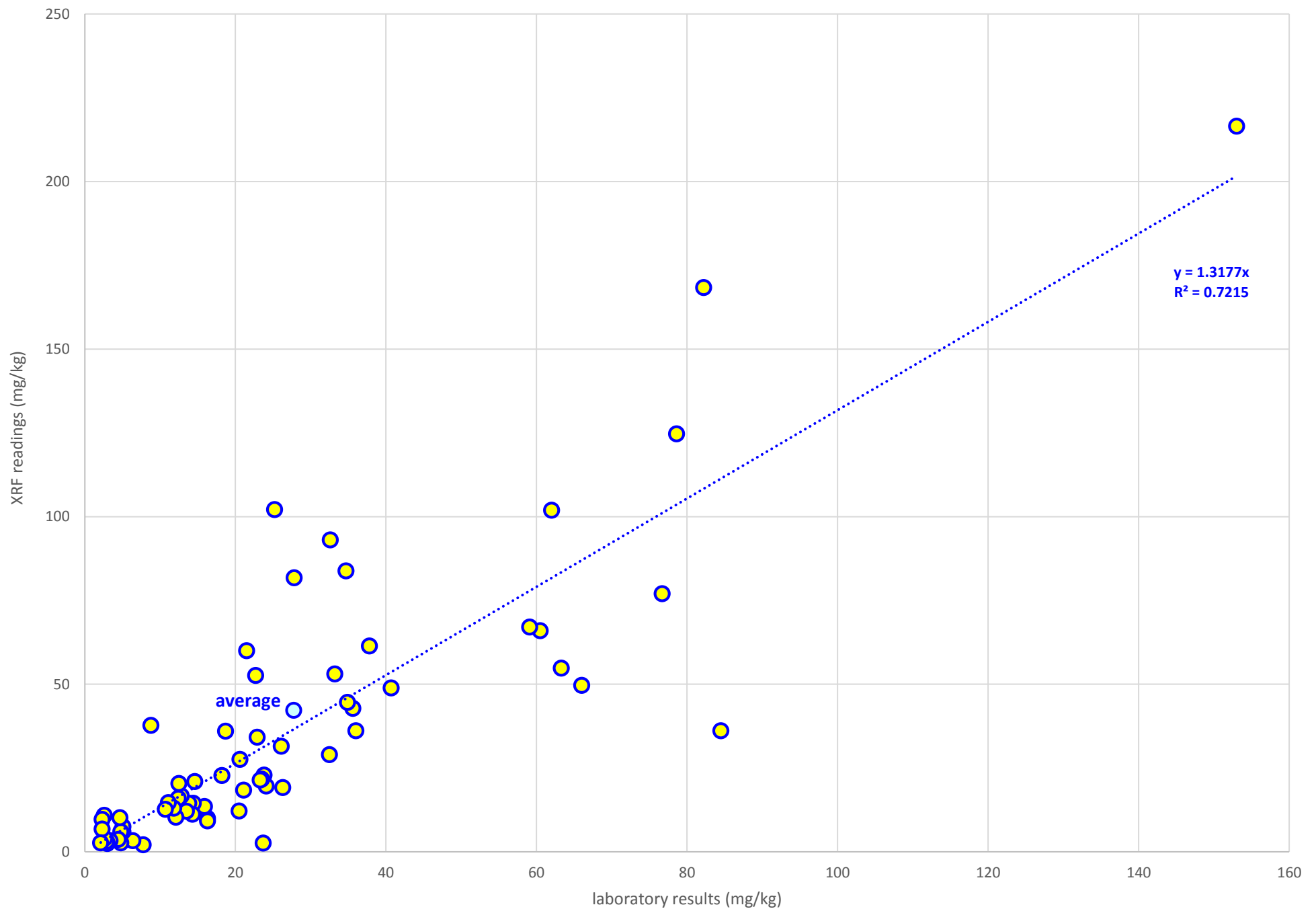
arsenic in soil



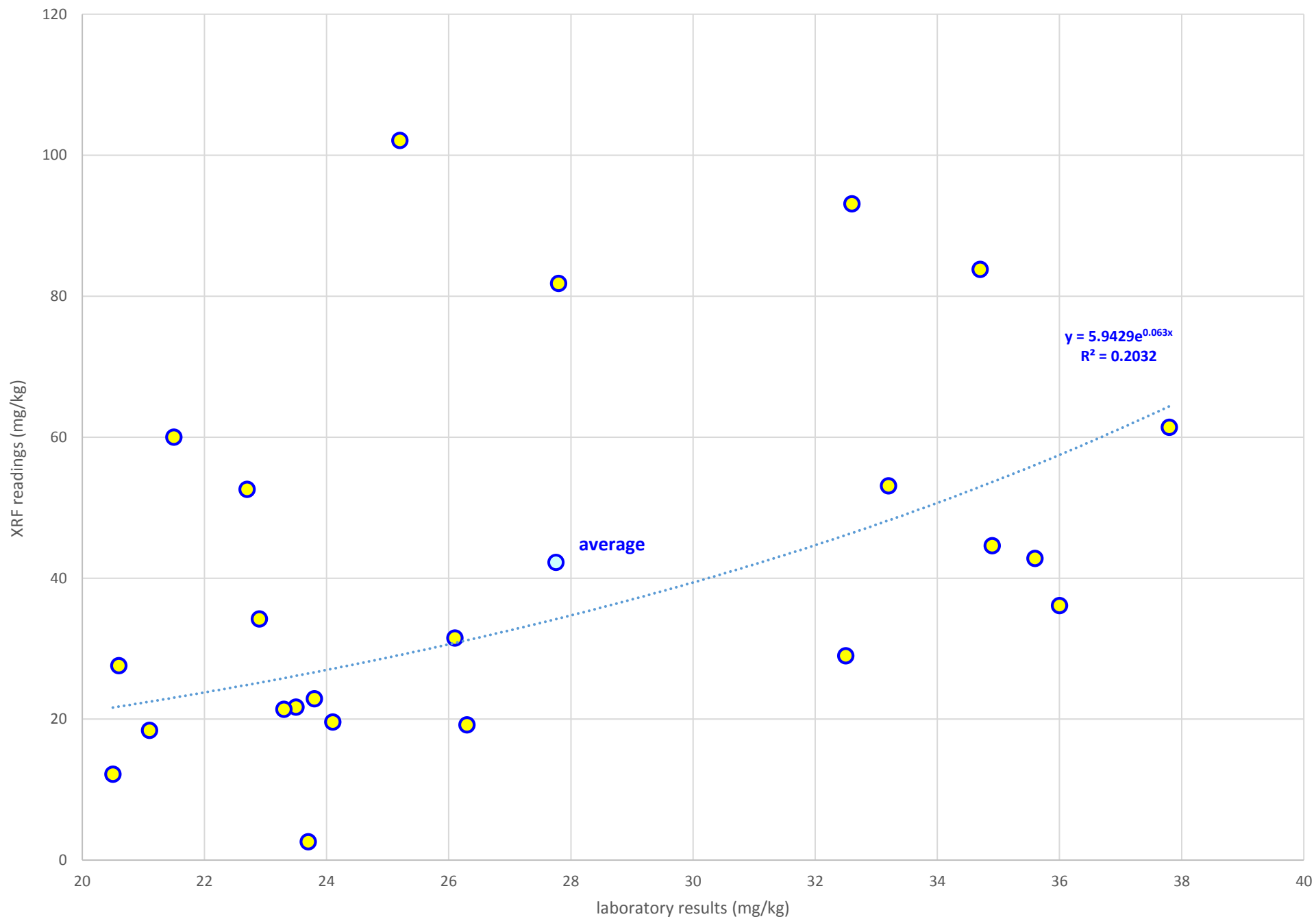
arsenic in soil



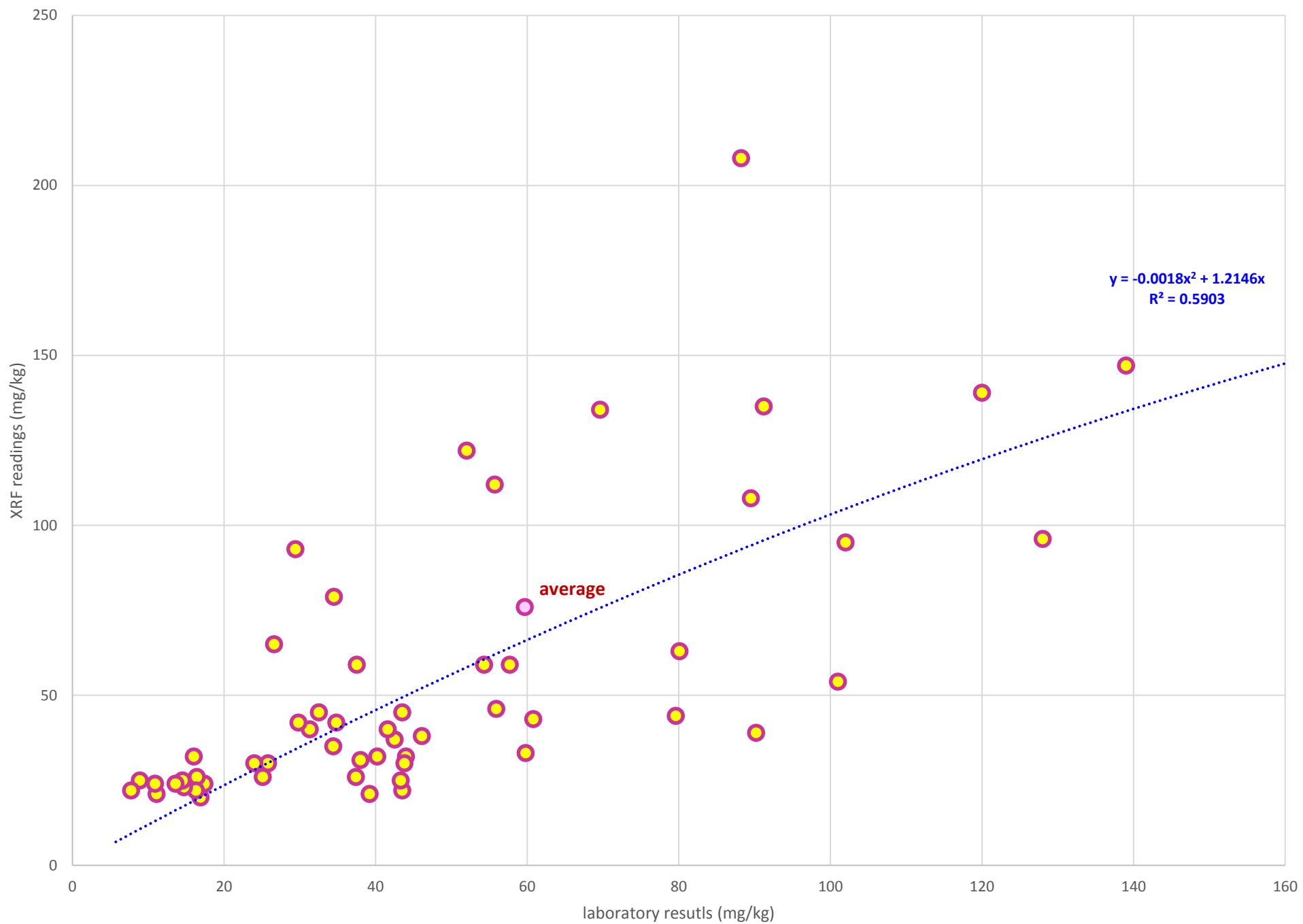
arsenic (ppm): laboratory analyses (x) versus XRF readings (y) (over full range of values)



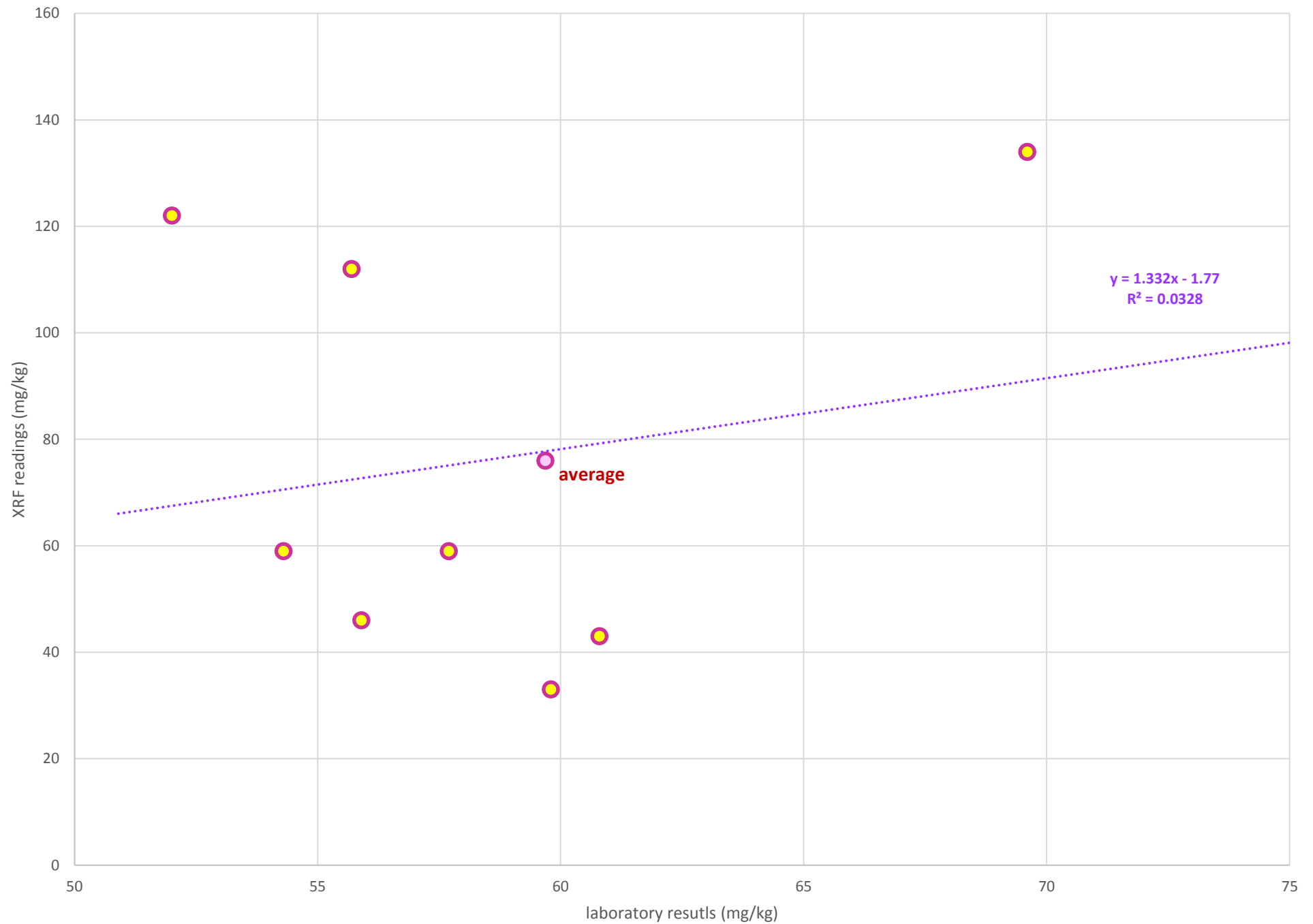
arsenic (ppm): laboratory results (x) versus XRF readings (y) (over critical range of values)



chromium (ppm): laboratory results (x) versus XRF readings (y) (over full range of values)



chromium (ppm): laboratory results (x) versus XRF readings (y) (over critical range of values)



TABLES

WESTON SAMPLE 01-21 SERIES

Table 6 Analytical Results for Soil Samples from ESI

Sample Location	Sample Name	Sample Matrix	Sample Date	Chemical Name	Result	Unit	Validator Qualifiers
NKWP-SS-01	MC0AD5	Soil	9/10/14	Arsenic	1140	mg/kg	
NKWP-SS-01	MC0AD5	Soil	9/10/14	Chromium	1250	mg/kg	
NKWP-SS-01	MC0AD5	Soil	9/10/14	Copper	598	mg/kg	
NKWP-SS-02	MC0AD4	Soil	9/10/14	Arsenic	309	mg/kg	
NKWP-SS-02	MC0AD4	Soil	9/10/14	Chromium	235	mg/kg	
NKWP-SS-02	MC0AD4	Soil	9/10/14	Copper	133	mg/kg	
NKWP-SS-03	MC0AD6	Soil	9/10/14	Arsenic	313	mg/kg	
NKWP-SS-03	MC0AD6	Soil	9/10/14	Chromium	339	mg/kg	
NKWP-SS-03	MC0AD6	Soil	9/10/14	Copper	223	mg/kg	
NKWP-SS-03-01	MC0AD7	Soil	9/10/14	Arsenic	876	mg/kg	
NKWP-SS-03-01	MC0AD7	Soil	9/10/14	Chromium	1020	mg/kg	
NKWP-SS-03-01	MC0AD7	Soil	9/10/14	Copper	524	mg/kg	
NKWP-SS-04	MC0AD8	Soil	9/10/14	Arsenic	9.3	mg/kg	
NKWP-SS-04	MC0AD8	Soil	9/10/14	Chromium	11.5	mg/kg	
NKWP-SS-04	MC0AD8	Soil	9/10/14	Copper	7.2	mg/kg	
NKWP-SS-05	MC0AD9	Soil	9/10/14	Arsenic	15	mg/kg	
NKWP-SS-05	MC0AD9	Soil	9/10/14	Chromium	17.7	mg/kg	
NKWP-SS-05	MC0AD9	Soil	9/10/14	Copper	13.6	mg/kg	
NKWP-SS-06	MC0AE0	Soil	9/10/14	Arsenic	80.8	mg/kg	
NKWP-SS-06	MC0AE0	Soil	9/10/14	Chromium	108	mg/kg	
NKWP-SS-06	MC0AE0	Soil	9/10/14	Copper	73.7	mg/kg	
NKWP-SS-07	MC0AE1	Soil	9/10/14	Arsenic	20.3	mg/kg	
NKWP-SS-07	MC0AE1	Soil	9/10/14	Chromium	22.2	mg/kg	
NKWP-SS-07	MC0AE1	Soil	9/10/14	Copper	14.3	mg/kg	
NKWP-SS-08	MC0AE2	Soil	9/10/14	Arsenic	82.2	mg/kg	
NKWP-SS-08	MC0AE2	Soil	9/10/14	Chromium	108	mg/kg	
NKWP-SS-08	MC0AE2	Soil	9/10/14	Copper	77.9	mg/kg	
NKWP-SS-09	MC0AE3	Soil	9/10/14	Arsenic	57.9	mg/kg	
NKWP-SS-09	MC0AE3	Soil	9/10/14	Chromium	91.9	mg/kg	
NKWP-SS-09	MC0AE3	Soil	9/10/14	Copper	81.1	mg/kg	
NKWP-SS-10	MC0AE6	Soil	9/10/14	Arsenic	48	mg/kg	
NKWP-SS-10	MC0AE6	Soil	9/10/14	Chromium	94.9	mg/kg	
NKWP-SS-10	MC0AE6	Soil	9/10/14	Copper	85.7	mg/kg	
NKWP-SS-11	MC0AE5	Soil	9/10/14	Arsenic	36.2	mg/kg	
NKWP-SS-11	MC0AE5	Soil	9/10/14	Chromium	64.2	mg/kg	
NKWP-SS-11	MC0AE5	Soil	9/10/14	Copper	16.4	mg/kg	
NKWP-SS-12	MC0AE7	Soil	9/10/14	Arsenic	10.6	mg/kg	
NKWP-SS-12	MC0AE7	Soil	9/10/14	Chromium	21.8	mg/kg	
NKWP-SS-12	MC0AE7	Soil	9/10/14	Copper	10.6	mg/kg	
NKWP-SS-13	MC0AE4	Soil	9/10/14	Arsenic	25.2	mg/kg	
NKWP-SS-13	MC0AE4	Soil	9/10/14	Chromium	72	mg/kg	
NKWP-SS-13	MC0AE4	Soil	9/10/14	Copper	34.8	mg/kg	

Table 6 Analytical Results for Soil Samples from ESI (Continued)

Sample Location	Sample Name	Sample Matrix	Sample Date	Chemical Name	Result	Unit	Validator Qualifiers
NKWP-SS-14	MC0AE8	Soil	9/10/14	Arsenic	28.5	mg/kg	
NKWP-SS-14	MC0AE8	Soil	9/10/14	Chromium	43.6	mg/kg	
NKWP-SS-14	MC0AE8	Soil	9/10/14	Copper	22.9	mg/kg	
NKWP-SS-15	MC0AE9	Soil	9/10/14	Arsenic	21.5	mg/kg	
NKWP-SS-15	MC0AE9	Soil	9/10/14	Chromium	31.1	mg/kg	
NKWP-SS-15	MC0AE9	Soil	9/10/14	Copper	21.5	mg/kg	
NKWP-SS-16	MC0AF0	Soil	9/10/14	Arsenic	9.5	mg/kg	
NKWP-SS-16	MC0AF0	Soil	9/10/14	Chromium	19.1	mg/kg	
NKWP-SS-16	MC0AF0	Soil	9/10/14	Copper	13	mg/kg	
NKWP-SS-17	MC0AF1	Soil	9/10/14	Arsenic	3.6	mg/kg	
NKWP-SS-17	MC0AF1	Soil	9/10/14	Chromium	19.5	mg/kg	
NKWP-SS-17	MC0AF1	Soil	9/10/14	Copper	22.9	mg/kg	
NKWP-SS-18	MC0AF2	Soil	9/10/14	Arsenic	5.3	mg/kg	
NKWP-SS-18	MC0AF2	Soil	9/10/14	Chromium	23.4	mg/kg	
NKWP-SS-18	MC0AF2	Soil	9/10/14	Copper	14.2	mg/kg	
NKWP-SS-19	MC0AF3	Soil	9/10/14	Arsenic	2.9	mg/kg	
NKWP-SS-19	MC0AF3	Soil	9/10/14	Chromium	8.1	mg/kg	
NKWP-SS-19	MC0AF3	Soil	9/10/14	Copper	4.1	mg/kg	
NKWP-SS-20	MC0AF4	Soil	9/10/14	Arsenic	340	mg/kg	
NKWP-SS-20	MC0AF4	Soil	9/10/14	Chromium	519	mg/kg	
NKWP-SS-20	MC0AF4	Soil	9/10/14	Copper	327	mg/kg	
NKWP-SS-21	MC0AF5	Soil	9/10/14	Arsenic	246	mg/kg	
NKWP-SS-21	MC0AF5	Soil	9/10/14	Chromium	340	mg/kg	
NKWP-SS-21	MC0AF5	Soil	9/10/14	Copper	169	mg/kg	

Notes:

All values are presented in milligrams per kilogram (mg/kg).

NKWP = New Kent Wood Preservers

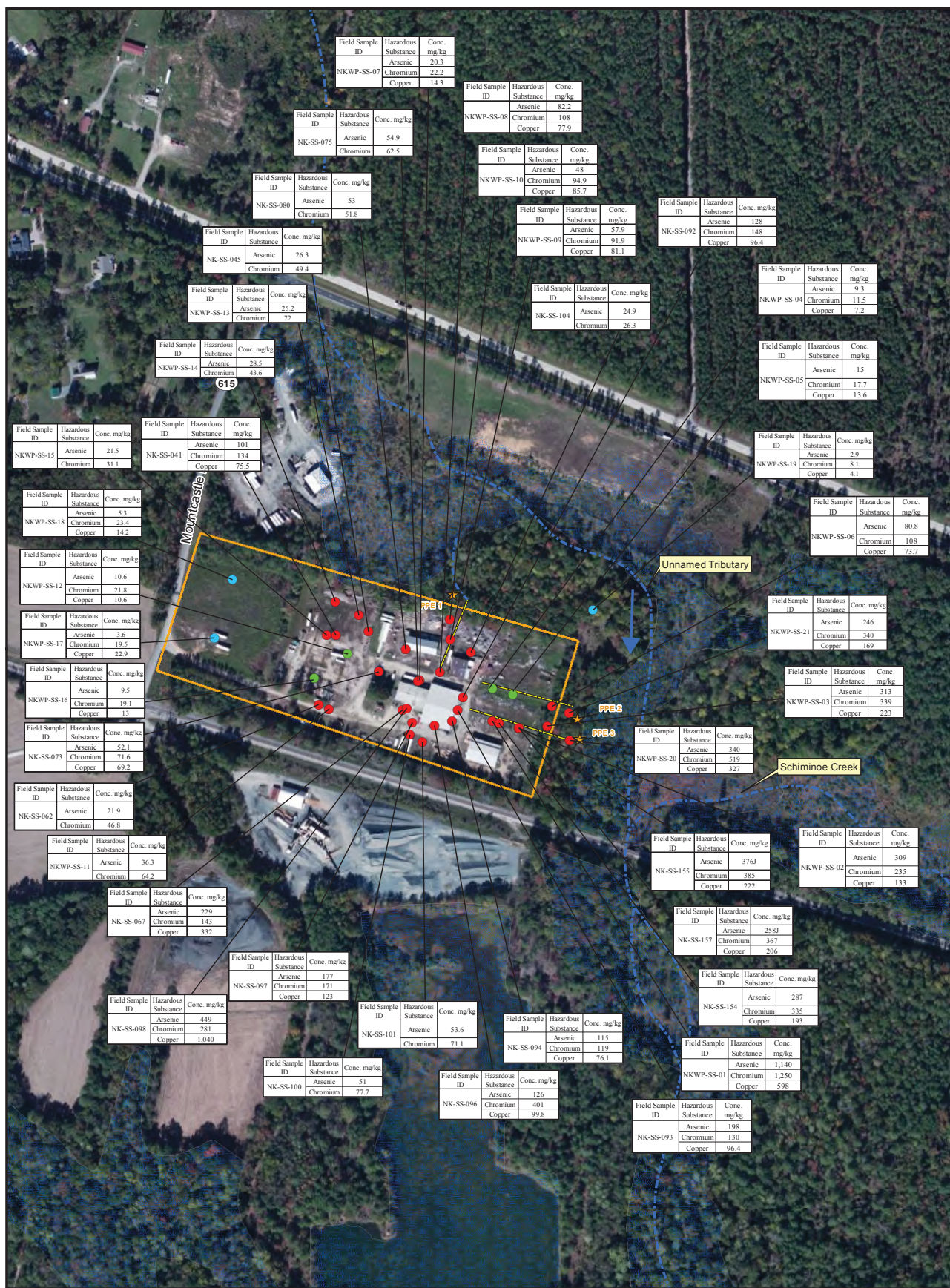
SS = Surface Soil Sample

NKWP-SS-03-01 is a Duplicate Sample

*Note: There were no Validated Qualifiers for this set of data.

Sediment

Sediment samples were collected at locations in the wetlands that extended past the Site and at locations on the unnamed tributary where surface water samples were collected. **Figure 6** shows the locations of these samples and whether or not they exceeded the background level by a factor of three. Twenty-eight samples were collected, including six background samples. Eight of the 22 samples collected exceeded the background level by a factor of three for at least one of the following metals: arsenic, chromium, or copper. Two of these samples were on the outside of the



Legend

- Site Boundary
- NWI Wetlands
- Water Features
- Drainage Ditch
- Below 3x Background Soil Samples
- Background Soil Samples
- 3x Background Soil Samples

- ★ Probable Point of Entry
- Surface Water Flow Direction

Imagery: ESRI, USGS
Mapping Service, 2013



Coordinate System:
WGS84 UTM Zone 18N Feet

0 300
Feet

New Kent Wood Preservatives, Inc
Providence Forge, New Kent County, VA

Figure 5
Source Sample
Location Map

TDD#: WS03-12-09-001
Contract: EP-53-10-05
Prepared: 12/22/2014



TABLES

WESTON SAMPLE 041-104 SERIES

Table 2 Surface Soil Sample Results, June 2014

Sample Location	Sample Matrix	Sample Date	Chemical Name	Result	Unit
BKG01	Soil	06/20/2014	Arsenic	1.8	mg/kg
BKG01	Soil	06/20/2014	Chromium	4.3	mg/kg
BKG01	Soil	06/20/2014	Copper	2.9	mg/kg
BKG02	Soil	06/20/2014	Arsenic	1.8	mg/kg
BKG02	Soil	06/20/2014	Chromium	4.3	mg/kg
BKG02	Soil	06/20/2014	Copper	3.3	mg/kg
BKG03	Soil	06/20/2014	Arsenic	2.3	mg/kg
BKG03	Soil	06/20/2014	Chromium	4.6	mg/kg
BKG03	Soil	06/20/2014	Copper	6.5	mg/kg
041	Soil	06/20/2014	Arsenic	101	mg/kg
041	Soil	06/20/2014	Chromium	134	mg/kg
041	Soil	06/20/2014	Copper	75.5	mg/kg
045	Soil	06/20/2014	Arsenic	26.3	mg/kg
045	Soil	06/20/2014	Chromium	49.4	mg/kg
045	Soil	06/20/2014	Copper	22.3	mg/kg
062	Soil	06/20/2014	Arsenic	21.9	mg/kg
062	Soil	06/20/2014	Chromium	46.8	mg/kg
062	Soil	06/20/2014	Copper	25.7	mg/kg
067	Soil	06/20/2014	Arsenic	229	mg/kg
067	Soil	06/20/2014	Chromium	143	mg/kg
067	Soil	06/20/2014	Copper	332	mg/kg
073	Soil	06/20/2014	Arsenic	52.1	mg/kg
073	Soil	06/20/2014	Chromium	71.6	mg/kg
073	Soil	06/20/2014	Copper	69.2	mg/kg
075	Soil	06/20/2014	Arsenic	54.9	mg/kg
075	Soil	06/20/2014	Chromium	62.4	mg/kg
075	Soil	06/20/2014	Copper	47.1	mg/kg
080	Soil	06/20/2014	Arsenic	53.0	mg/kg
080	Soil	06/20/2014	Chromium	51.8	mg/kg
080	Soil	06/20/2014	Copper	29.0	mg/kg
092	Soil	06/20/2014	Arsenic	128	mg/kg
092	Soil	06/20/2014	Chromium	148	mg/kg
092	Soil	06/20/2014	Copper	96.4	mg/kg
093	Soil	06/20/2014	Arsenic	198	mg/kg
093	Soil	06/20/2014	Chromium	130	mg/kg
093	Soil	06/20/2014	Copper	96.4	mg/kg
094	Soil	06/20/2014	Arsenic	115	mg/kg
094	Soil	06/20/2014	Chromium	119	mg/kg
094	Soil	06/20/2014	Copper	76.1	mg/kg
096	Soil	06/20/2014	Arsenic	126	mg/kg
096	Soil	06/20/2014	Chromium	401	mg/kg
096	Soil	06/20/2014	Copper	99.8	mg/kg
097	Soil	06/20/2014	Arsenic	177	mg/kg
097	Soil	06/20/2014	Chromium	171	mg/kg
097	Soil	06/20/2014	Copper	123	mg/kg

Table 2 Surface Soil Sample Results, June 2014 (Continued)

Sample Location	Sample Matrix	Sample Date	Chemical Name	Result	Unit
098	Soil	06/20/2014	Arsenic	449	mg/kg
098	Soil	06/20/2014	Chromium	281	mg/kg
098	Soil	06/20/2014	Copper	1040	mg/kg
100	Soil	06/20/2014	Arsenic	51.0	mg/kg
100	Soil	06/20/2014	Chromium	77.7	mg/kg
100	Soil	06/20/2014	Copper	47.8	mg/kg
101	Soil	06/20/2014	Arsenic	53.6	mg/kg
101	Soil	06/20/2014	Chromium	73.1	mg/kg
101	Soil	06/20/2014	Copper	61.2	mg/kg
104	Soil	06/20/2014	Arsenic	24.9	mg/kg
104	Soil	06/20/2014	Chromium	26.3	mg/kg
104	Soil	06/20/2014	Copper	18.8	mg/kg
154	Soil	06/20/2014	Arsenic	287	mg/kg
154	Soil	06/20/2014	Chromium	335	mg/kg
154	Soil	06/20/2014	Copper	193	mg/kg

Notes:

All values are presented in milligrams per kilogram (mg/kg).

There were no laboratory validator qualifiers for any of the results shown.

4.2 SUBSURFACE SOIL SAMPLE RESULTS – SEPTEMBER 2014

Analytical results of the subsurface soil samples collected from the northeast corner of the Site inside the fence line indicated that all four samples exceeded or equaled the RSL for arsenic of 0.67 mg/kg. Analytical results indicated concentrations of arsenic at sample locations 201, 202, 203, and 204 of 3.3 mg/kg, 2.1 mg/kg, 1.3 mg/kg, and 0.67 mg/kg, respectively. No samples exceeded residential or industrial RSLs for chromium or copper. Chromium concentrations ranged from 5.4 mg/kg to 11.2 mg/kg and copper concentrations ranged from 1.2 mg/kg to 3.7 mg/kg. **Table 3** outlines the sample results of the September subsurface soil sampling event.



Legend

- Site Boundary
- ⬠ Sample Locations

Imagery: ESRI, GeoEye,
Digital Globe 2013

Coordinate System:
WGS84 UTM Zone 18N Feet



0 200
Feet

New Kent Wood Preservatives
Providence Forge, New Kent County, VA

Figure 3
Sample Locations - June 2014

TDD#: WS01-14-05-003
Contract: EP-S3-10-05
Prepared: 7/10/2014



TABLES

WESTON SAMPLE 300-SERIES

Table 3 Surface Soil Sample Results, February 2015

Table 3 Surface Soil Sample Results, February 2015 Sample Location	Depth (Inches)	Arsenic	Chromium	Copper	Total Organic Carbon	Hexavalent Chromium	Trivalent Chromium (Calculated)	pH
Eco-SSL Screening Value (most conservative)		18	N/A	28	N/A	130	26	N/A
301	0-6	39.0J	49.3J	30.3J	N/A	3.14UJ	46.16	7.19
302	0-6	8.72J-	12.6J	6.4J	N/A	.829J	11.771	7.61
303	0-6	84.7J	91.0J	64.7J	N/A	6.56UJ	84.44	6.61
303D	0-6	43.8J	60.1J	51.0J	N/A	6.04UJ	54.06	6.56
304	0-6	49.8J	195J	94.9J	51,500J-	3.4UJ	191.6	6.88
305	0-6	246J	331J	166J	73,400J+	4.24J	326.76	5.95
306	0-6	13.6J	13.5J	6.22J	77,40J+	4.1J	9.4	4.71
307	0-6	20.6J	28.5J	20.7J	5,670J+	4.43J	24.07	6.84
308	0-6	130J	90.4J	157J	10,500J+	5.55J	84.85	6.08
309	0-6	27.4J	33.7J	24.6J	15,700J+	7.61J	26.09	6.57
310	0-6	218J	214J	282J	20,800J+	6.82J	207.18	6.53
311	0-6	229J	218J	167J	14,800J+	1.61J	216.39	5.98
312	0-6	2.32J-	4.95J	2.83J	8,820J+	2.19UJ	2.76	5.77
313	0-6	128J+	121J+	158	8,950	2.06J	118.94	6.13
314	0-6	134J+	295J+	75.7	18,200	2.75J	295.25	5.55
314D	0-6	128J+	335J+	84.2	11,900	12.0J	323	6.31
315	0-6	168J+	1,480J+	131	79,400	9.78	1,470.22	5.75
316	0-6	23.8J+	35.5J+	19.2	N/A	1.51J	33.99	8.01
317	0-6	5.62J	9.11J+	4.54	N/A	2.15U	6.96	5.98
318	0-6	49.8J+	70.9J+	39	N/A	4.24	66.66	8.45
319	0-6	156J+	188J+	175	N/A	8.22	179.78	7.75
320	0-6	46.5J+	50.5J+	34.7	3,030J-	3.47	47.03	8.32
321	0-6	174J+	248J+	160	N/A	23.4	224.6	8.41

Notes:

All values other than pH are in milligrams per kilogram (mg/kg).

The value reported for trivalent chromium is a calculated value derived by subtracting the hexavalent chromium result from the chromium result.

Screening levels are based on the most conservative Eco-SSLs.

N/A = Not applicable.

D = Duplicate sample.

J = The result reported is an estimated quantity.

J+ = The result is an estimated quantity, but the result may be biased high.

J- = The analyte was positively detected, but the value of the result is an estimate and may be biased low.

U = The analyte was not detected at or above the Reporting Limit.

Table 4 Subsurface Soil Sample Results, February 2015

Sample Location	Depth (Inches)	Arsenic	Chromium	Copper	Total Organic Carbon	Hexavalent Chromium	Trivalent Chromium (Calculated)	pH
Eco-SSL Screening Value *		18	N/A	28	N/A	130	26	N/A
305	6-12	43.0J	72.3J	45.8J	6250J+	11.8J	60.5	4.71
306	6-12	24.5J	20.1J	8.28J	4030J+	12.6J	7.5	4.72
307	6-12	14.5J	17.1J	11.8J	12200J+	5.34J	11.76	6.79
308	6-12	48.1J	33.1J	48.2J	3990J+	2.27J	30.83	6.13
310	6-12	48.9J	32.5J	51.0J	N/A	1.23J	31.27	6.48
311	6-12	21.2J	14.9J	20.3J	7100J+	2.84J	12.06	6.51
312	6-12	1.13J-	3.15J	1.97J	4840J+	2.16UJ	0.99	5.48
313	6-12	63.1J+	22.6J+	33	2810	2.17U	20.43	6.15
317	6-12	37.9J+	82.4J+	16.8	N/A	2.16UJ	80.24	6.96
	12-18	1.53J	4.38J+	1.84	N/A	2.13U	2.25	4.86
318	6-12	39.4J+	54.7J+	30	N/A	2.14	52.56	8.16
	12-18	33.0J+	48.3J+	23.5	N/A	5.37	42.93	7.96
319	6-12	102J+	106J+	85.8	N/A	4.67	101.33	7.89
	12-18	46.9J+	61.0J+	37	N/A	2.9	58.1	7.96
320	6-12	64.8J+	68.3J+	44.4	N/A	0.643J	67.657	8.28
	12-18	57.5J+	83.5J+	49.2	N/A	3.26	80.24	8.09
321	6-12	157J+	288J	186	N/A	3.12	284.88	8.54
	12-18	121J+	184J+	106J+	N/A	6.20J-	177.8	8.64

Notes:

*Most conservative Eco-SSL

All values other than pH are in milligrams per kilogram (mg/kg).

The value reported for trivalent chromium is a calculated value derived by subtracting the hexavalent chromium result from the chromium result. Screening levels are based off of the most conservative Eco-SSLs.

N/A = Not applicable.

D = Duplicate sample.

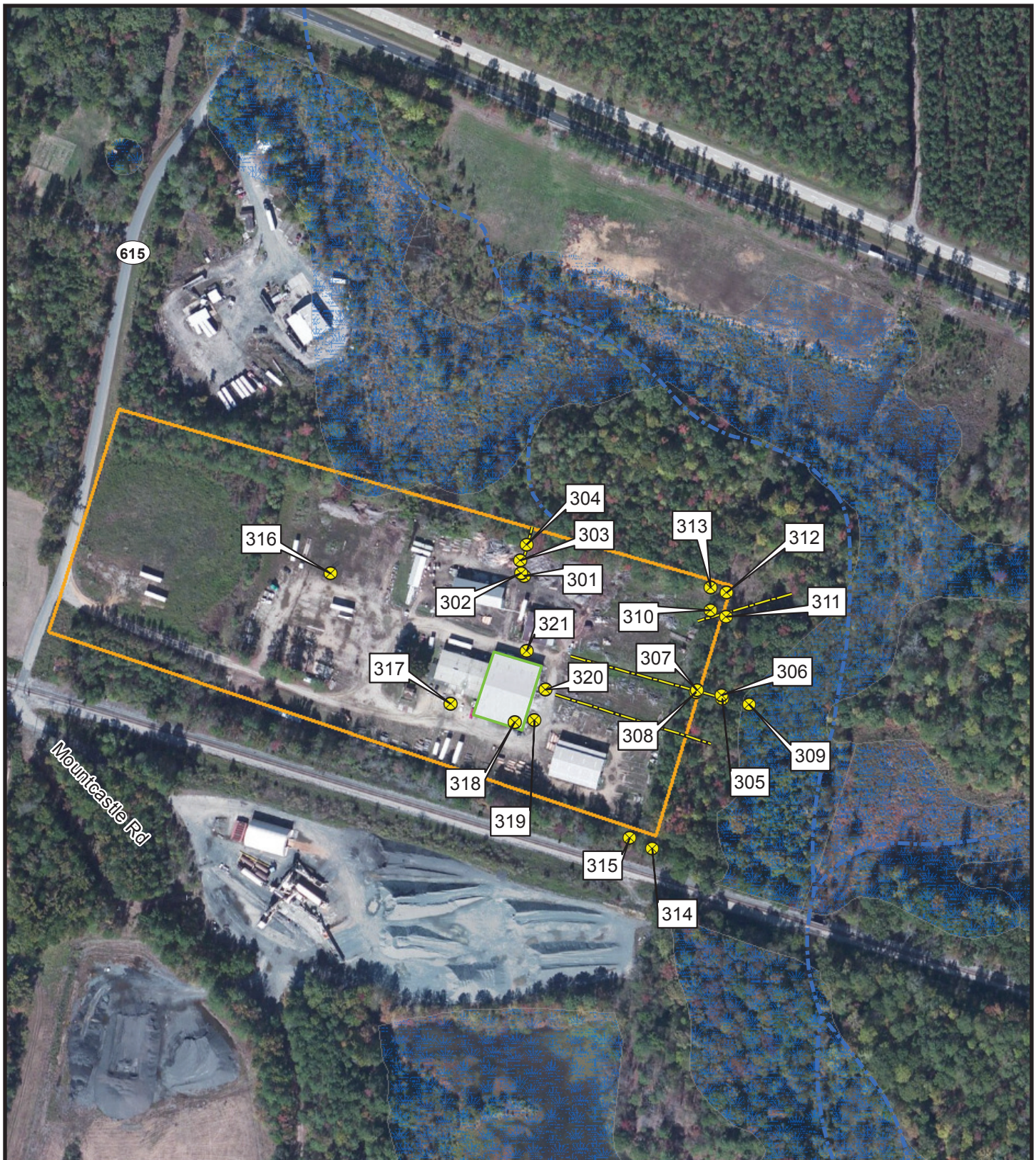
J = The result reported is an estimated quantity.

J+ = The result is an estimated quantity, but the result may be biased high.

J- = The analyte was positively detected, but the value of the result is an estimate and may be biased low.

U = The analyte was not detected at or above the Reporting Limit.

UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.



Legend

- Site Boundary
- NWI Wetlands
- Former Drip Pad
- Inferred stream channel from Topographic Map
- Drainage Ditch
- Sample Locations Feb 2015

Imagery: ESRI, USGS
Mapping Service, 2010



Coordinate System:
WGS84 UTM Zone 18N Feet

0 200
Feet

New Kent Wood Preservatives, Inc
Providence Forge, New Kent County, VA

Figure 3
Soil Sampling Locations
February 2015

TDD#: WS01-14-05-003
Contract: EP-S3-10-05
Prepared: 6/25/2015



APPENDIX 3

CERTIFICATES OF ANALYSIS



1941 Reymet Road • Richmond, Virginia 23237 • Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Sample Delivery Group ID NKWP 160219

Client Name: Draper Aden Associates-Richmond

Date Issued: 3/7/2016 16:30

8090 Villa Park Dr.

Project Number: R15434R-07

Richmond, VA 23228

Purchase Order:

Submitted To: Leonard Ford Jr.

Client Site I.D.: New Kent Wood Preservers

Enclosed are the results of analyses for samples received by the laboratory in sample delivery group NKWP 160219 . Work orders included in the sample delivery group:

16B0472

2/19/2016 15:50

Ted Soyars

Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.





1941 Reymet Road • Richmond, Virginia 23230 • Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 16B0472

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LW-01-12	16B0472-01	Soil	02/17/2016 09:15	02/19/2016 15:50
LW-01-24	16B0472-02	Soil	02/17/2016 09:20	02/19/2016 15:50
LW-02-12	16B0472-03	Soil	02/17/2016 09:30	02/19/2016 15:50
LW-02-24	16B0472-04	Soil	02/17/2016 09:35	02/19/2016 15:50
LW-03-12	16B0472-05	Soil	02/17/2016 09:45	02/19/2016 15:50
LW-03-24	16B0472-06	Soil	02/17/2016 09:50	02/19/2016 15:50
LW-04-12	16B0472-07	Soil	02/17/2016 10:00	02/19/2016 15:50
LW-04-24	16B0472-08	Soil	02/17/2016 10:05	02/19/2016 15:50
LW-05-12	16B0472-09	Soil	02/17/2016 10:10	02/19/2016 15:50
LW-05-24	16B0472-10	Soil	02/17/2016 10:15	02/19/2016 15:50
LW-06-12	16B0472-11	Soil	02/17/2016 10:25	02/19/2016 15:50
LW-06-24	16B0472-12	Soil	02/17/2016 10:30	02/19/2016 15:50
LW-07-12	16B0472-13	Soil	02/17/2016 10:35	02/19/2016 15:50
LW-07-24	16B0472-14	Soil	02/17/2016 10:40	02/19/2016 15:50
LW-08-12	16B0472-15	Soil	02/17/2016 10:50	02/19/2016 15:50
LW-08-24	16B0472-16	Soil	02/17/2016 10:55	02/19/2016 15:50
LW-09-12	16B0472-17	Soil	02/17/2016 11:05	02/19/2016 15:50
LW-09-24	16B0472-18	Soil	02/17/2016 11:10	02/19/2016 15:50
LW-10-12	16B0472-19	Soil	02/17/2016 11:15	02/19/2016 15:50
LW-10-24	16B0472-20	Soil	02/17/2016 11:20	02/19/2016 15:50
LW-11-12	16B0472-21	Soil	02/17/2016 11:30	02/19/2016 15:50
LW-11-24	16B0472-22	Soil	02/17/2016 11:35	02/19/2016 15:50
LW-12-12	16B0472-23	Soil	02/17/2016 11:40	02/19/2016 15:50



1941 Reymet Road • Richmond, Virginia 23230 • Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 16B0472

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LW-12-24	16B0472-24	Soil	02/17/2016 11:45	02/19/2016 15:50
LW-13-12	16B0472-25	Soil	02/17/2016 11:55	02/19/2016 15:50
LW-13-24	16B0472-26	Soil	02/17/2016 12:00	02/19/2016 15:50
LW-14-12	16B0472-27	Soil	02/17/2016 12:35	02/19/2016 15:50
LW-14-24	16B0472-28	Soil	02/17/2016 12:40	02/19/2016 15:50
LW-15-12	16B0472-29	Soil	02/17/2016 12:45	02/19/2016 15:50
LW-15-24	16B0472-30	Soil	02/17/2016 12:50	02/19/2016 15:50
LW-16-12	16B0472-31	Soil	02/17/2016 12:55	02/19/2016 15:50
LW-16-24	16B0472-32	Soil	02/17/2016 13:00	02/19/2016 15:50
LW-17-12	16B0472-33	Soil	02/17/2016 13:05	02/19/2016 15:50
LW-17-24	16B0472-34	Soil	02/17/2016 13:10	02/19/2016 15:50
LW-18-12	16B0472-35	Soil	02/17/2016 13:20	02/19/2016 15:50
LW-18-24	16B0472-36	Soil	02/17/2016 13:25	02/19/2016 15:50
LW-19-12	16B0472-37	Soil	02/17/2016 13:30	02/19/2016 15:50
LW-19-24	16B0472-38	Soil	02/17/2016 13:35	02/19/2016 15:50
LW-20-12	16B0472-39	Soil	02/17/2016 13:40	02/19/2016 15:50
LW-20-24	16B0472-40	Soil	02/17/2016 13:45	02/19/2016 15:50
LW-21-12	16B0472-41	Soil	02/17/2016 13:50	02/19/2016 15:50
LW-21-24	16B0472-42	Soil	02/17/2016 13:55	02/19/2016 15:50
LW-22-12	16B0472-43	Soil	02/17/2016 14:00	02/19/2016 15:50
LW-22-24	16B0472-44	Soil	02/17/2016 14:05	02/19/2016 15:50
LW-23-12	16B0472-45	Soil	02/17/2016 14:20	02/19/2016 15:50
LW-23-24	16B0472-46	Soil	02/17/2016 14:25	02/19/2016 15:50
LW-24-12	16B0472-47	Soil	02/17/2016 14:35	02/19/2016 15:50



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/7/2016 16:30
8090 Villa Park Dr.
Richmond VA, 23228

Submitted To: Leonard Ford Jr. Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 16B0472

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LW-24-24	16B0472-48	Soil	02/17/2016 14:40	02/19/2016 15:50
LW-25-12	16B0472-49	Soil	02/18/2016 14:05	02/19/2016 15:50
LW-25-24	16B0472-50	Soil	02/18/2016 14:50	02/19/2016 15:50
LW-26-12	16B0472-51	Soil	02/17/2016 14:45	02/19/2016 15:50
LW-26-24	16B0472-52	Soil	02/17/2016 14:50	02/19/2016 15:50
LW-27-12	16B0472-53	Soil	02/17/2016 15:00	02/19/2016 15:50
LW-27-24	16B0472-54	Soil	02/17/2016 15:05	02/19/2016 15:50
LW-28-12	16B0472-55	Soil	02/17/2016 15:10	02/19/2016 15:50
LW-28-24	16B0472-56	Soil	02/17/2016 15:15	02/19/2016 15:50
LW-29-12	16B0472-57	Soil	02/17/2016 15:25	02/19/2016 15:50
LW-29-24	16B0472-58	Soil	02/17/2016 15:30	02/19/2016 15:50
LW-30-12	16B0472-59	Soil	02/17/2016 15:35	02/19/2016 15:50
LW-30-24	16B0472-60	Soil	02/17/2016 15:40	02/19/2016 15:50
LW-31-12	16B0472-61	Soil	02/17/2016 16:00	02/19/2016 15:50
LW-31-24	16B0472-62	Soil	02/17/2016 16:05	02/19/2016 15:50
LW-32-12	16B0472-63	Soil	02/17/2016 16:10	02/19/2016 15:50
LW-32-24	16B0472-64	Soil	02/17/2016 16:15	02/19/2016 15:50
LW-33-12	16B0472-65	Soil	02/18/2016 09:10	02/19/2016 15:50
LW-33-24	16B0472-66	Soil	02/18/2016 09:15	02/19/2016 15:50
LW-34-12	16B0472-67	Soil	02/18/2016 09:20	02/19/2016 15:50
LW-34-24	16B0472-68	Soil	02/18/2016 09:25	02/19/2016 15:50
LW-35-12	16B0472-69	Soil	02/18/2016 09:30	02/19/2016 15:50
LW-35-24	16B0472-70	Soil	02/18/2016 09:35	02/19/2016 15:50



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 16B0472

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LW-36-12	16B0472-71	Soil	02/18/2016 09:45	02/19/2016 15:50
LW-36-24	16B0472-72	Soil	02/18/2016 09:50	02/19/2016 15:50
LW-37-12	16B0472-73	Soil	02/18/2016 10:00	02/19/2016 15:50
LW-37-24	16B0472-74	Soil	02/18/2016 10:05	02/19/2016 15:50
LW-38-12	16B0472-75	Soil	02/18/2016 10:10	02/19/2016 15:50
LW-38-24	16B0472-76	Soil	02/18/2016 10:15	02/19/2016 15:50
LW-39-12	16B0472-77	Soil	02/18/2016 10:20	02/19/2016 15:50
LW-39-24	16B0472-78	Soil	02/18/2016 10:25	02/19/2016 15:50
LW-40-12	16B0472-79	Soil	02/18/2016 10:40	02/19/2016 15:50
LW-40-24	16B0472-80	Soil	02/18/2016 10:45	02/19/2016 15:50
LW-41-12	16B0472-81	Soil	02/18/2016 10:50	02/19/2016 15:50
LW-41-24	16B0472-82	Soil	02/18/2016 10:55	02/19/2016 15:50
LW-42-12	16B0472-83	Soil	02/18/2016 11:00	02/19/2016 15:50
LW-42-24	16B0472-84	Soil	02/18/2016 11:05	02/19/2016 15:50
LW-43-12	16B0472-85	Soil	02/18/2016 11:15	02/19/2016 15:50
LW-43-24	16B0472-86	Soil	02/18/2016 11:20	02/19/2016 15:50
LW-44-12	16B0472-87	Soil	02/18/2016 11:35	02/19/2016 15:50
LW-44-24	16B0472-88	Soil	02/18/2016 11:40	02/19/2016 15:50
LW-45-12	16B0472-89	Soil	02/18/2016 12:35	02/19/2016 15:50
LW-45-24	16B0472-90	Soil	02/18/2016 12:45	02/19/2016 15:50
LW-46-12	16B0472-91	Soil	02/18/2016 12:51	02/19/2016 15:50
LW-46-24	16B0472-92	Soil	02/18/2016 13:00	02/19/2016 15:50
LW-47-12	16B0472-93	Soil	02/18/2016 13:11	02/19/2016 15:50
LW-47-24	16B0472-94	Soil	02/18/2016 13:20	02/19/2016 15:50



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 16B0472

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LW-48-12	16B0472-95	Soil	02/18/2016 13:36	02/19/2016 15:50
LW-48-24	16B0472-96	Soil	02/18/2016 13:50	02/19/2016 15:50
LW-10-24 Dup	16B0472-97	Soil	02/17/2016 11:23	02/19/2016 15:50
LW-19-12 Dup	16B0472-98	Soil	02/17/2016 13:33	02/19/2016 15:50
LW-29-24 Dup	16B0472-99	Soil	02/17/2016 15:33	02/19/2016 15:50
LW-39-12 Dup	16B0472-AA	Soil	02/18/2016 10:23	02/19/2016 15:50
LW-48-12 Dup	16B0472-AB	Soil	02/18/2016 14:25	02/19/2016 15:50
LW-SP-Light	16B0472-AC	Soil	02/18/2016 15:13	02/19/2016 15:50
LW-SP-Dark	16B0472-AD	Soil	02/18/2016 15:26	02/19/2016 15:50

Results have been calculated based on dry weight.

Re-issued report on March 07, 2016 to reflect missing dilution factor (5X) for Samples # 16B0472-79.



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-01-12

Laboratory Sample ID: 16B0472-01

Date/Time Sampled: 02/17/2016 09:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	01	SW6010C	<2.04 mg/kg dry		2.04	1	02/20/16 10:00	02/22/16 12:49	CWO
Chromium	01	SW6010C	12.2 mg/kg dry		2.04	1	02/20/16 10:00	02/22/16 12:48	CWO
Wet Chemistry Analysis									
Percent Solids	01	SM18 2540G	93.5 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-01-24

Laboratory Sample ID: 16B0472-02

Date/Time Sampled: 02/17/2016 09:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	02	SW6010C	<2.07 mg/kg dry		2.07	1	02/20/16 10:00	02/22/16 13:17	CWO
Chromium	02	SW6010C	12.1 mg/kg dry		2.07	1	02/20/16 10:00	02/22/16 13:17	CWO
Wet Chemistry Analysis									
Percent Solids	02	SM18 2540G	92.5 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-02-12

Laboratory Sample ID: 16B0472-03

Date/Time Sampled: 02/17/2016 09:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	03	SW6010C	3.35 mg/kg dry		2.06	1	02/20/16 10:00	02/22/16 13:22	CWO
Chromium	03	SW6010C	29.2 mg/kg dry		2.06	1	02/20/16 10:00	02/22/16 13:22	CWO
Wet Chemistry Analysis									
Percent Solids	03	SM18 2540G	91.2 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-02-24

Laboratory Sample ID: 16B0472-04

Date/Time Sampled: 02/17/2016 09:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	04	SW6010C	<2.05 mg/kg dry		2.05	1	02/20/16 10:00	02/22/16 13:28	CWO
Chromium	04	SW6010C	11.9 mg/kg dry		2.05	1	02/20/16 10:00	02/22/16 13:27	CWO
Wet Chemistry Analysis									
Percent Solids	04	SM18 2540G	92.0 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-03-12

Laboratory Sample ID: 16B0472-05

Date/Time Sampled: 02/17/2016 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	05	SW6010C	11.1 mg/kg dry		2.08	1	02/20/16 10:00	02/22/16 13:33	CWO
Chromium	05	SW6010C	32.5 mg/kg dry		2.08	1	02/20/16 10:00	02/22/16 13:33	CWO
Wet Chemistry Analysis									
Percent Solids	05	SM18 2540G	95.8 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-03-24

Laboratory Sample ID: 16B0472-06

Date/Time Sampled: 02/17/2016 09:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	06	SW6010C	4.42 mg/kg dry		2.00	1	02/20/16 10:00	02/22/16 13:38	CWO
Chromium	06	SW6010C	13.0 mg/kg dry		2.00	1	02/20/16 10:00	02/22/16 13:38	CWO
Wet Chemistry Analysis									
Percent Solids	06	SM18 2540G	95.2 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-04-12

Laboratory Sample ID: 16B0472-07

Date/Time Sampled: 02/17/2016 10:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	07	SW6010C	12.4 mg/kg dry		2.14	1	02/20/16 10:00	02/22/16 14:45	CWO
Chromium	07	SW6010C	29.8 mg/kg dry		2.14	1	02/20/16 10:00	02/22/16 14:44	CWO
Wet Chemistry Analysis									
Percent Solids	07	SM18 2540G	91.4 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-04-24

Laboratory Sample ID: 16B0472-08

Date/Time Sampled: 02/17/2016 10:05

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	08	SW6010C	2.88 mg/kg dry		2.00	1	02/20/16 10:00	02/22/16 14:50	CWO
Chromium	08	SW6010C	10.2 mg/kg dry		2.00	1	02/20/16 10:00	02/22/16 14:49	CWO
Wet Chemistry Analysis									
Percent Solids	08	SM18 2540G	94.5 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-05-12

Laboratory Sample ID: 16B0472-09

Date/Time Sampled: 02/17/2016 10:10

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	09	SW6010C	2.57 mg/kg dry		2.08	1	02/20/16 10:00	02/22/16 14:55	CWO
Chromium	09	SW6010C	11.1 mg/kg dry		2.08	1	02/20/16 10:00	02/22/16 14:55	CWO
Wet Chemistry Analysis									
Percent Solids	09	SM18 2540G	92.0 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-05-24

Laboratory Sample ID: 16B0472-10

Date/Time Sampled: 02/17/2016 10:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	10	SW6010C	<2.11 mg/kg dry		2.11	1	02/20/16 10:00	02/22/16 15:00	CWO
Chromium	10	SW6010C	9.66 mg/kg dry		2.11	1	02/20/16 10:00	02/22/16 15:00	CWO
Wet Chemistry Analysis									
Percent Solids	10	SM18 2540G	91.3 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-06-12

Laboratory Sample ID: 16B0472-11

Date/Time Sampled: 02/17/2016 10:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	11	SW6010C	16.3 mg/kg dry		2.07	1	02/20/16 10:00	02/22/16 15:05	CWO
Chromium	11	SW6010C	34.4 mg/kg dry		2.07	1	02/20/16 10:00	02/22/16 15:05	CWO
Wet Chemistry Analysis									
Percent Solids	11	SM18 2540G	91.6 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Final Report

Client Name: Draper Aden Associates-Richmond
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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-06-24

Laboratory Sample ID: 16B0472-12

Date/Time Sampled: 02/17/2016 10:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	12	SW6010C	<2.03 mg/kg dry		2.03	1	02/20/16 10:00	02/22/16 15:11	CWO
Chromium	12	SW6010C	16.9 mg/kg dry		2.03	1	02/20/16 10:00	02/22/16 15:10	CWO
Wet Chemistry Analysis									
Percent Solids	12	SM18 2540G	92.6 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Final Report

Client Name: Draper Aden Associates-Richmond
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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-07-12

Laboratory Sample ID: 16B0472-13

Date/Time Sampled: 02/17/2016 10:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	13	SW6010C	36.0 mg/kg dry		2.15	1	02/20/16 10:00	02/22/16 15:16	CWO
Chromium	13	SW6010C	60.8 mg/kg dry		2.15	1	02/20/16 10:00	02/22/16 15:16	CWO
Wet Chemistry Analysis									
Percent Solids	13	SM18 2540G	88.5 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-07-24

Laboratory Sample ID: 16B0472-14

Date/Time Sampled: 02/17/2016 10:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	14	SW6010C	2.63 mg/kg dry		2.04	1	02/20/16 10:00	02/22/16 15:21	CWO
Chromium	14	SW6010C	16.2 mg/kg dry		2.04	1	02/20/16 10:00	02/22/16 15:21	CWO
Wet Chemistry Analysis									
Percent Solids	14	SM18 2540G	90.6 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-08-12

Laboratory Sample ID: 16B0472-15

Date/Time Sampled: 02/17/2016 10:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	15	SW6010C	21.1 mg/kg dry		2.11	1	02/20/16 10:00	02/22/16 15:27	CWO
Chromium	15	SW6010C	34.8 mg/kg dry		2.11	1	02/20/16 10:00	02/22/16 15:26	CWO
Wet Chemistry Analysis									
Percent Solids	15	SM18 2540G	91.6 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-08-24

Laboratory Sample ID: 16B0472-16

Date/Time Sampled: 02/17/2016 10:55

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	16	SW6010C	12.1 mg/kg dry		2.07	1	02/20/16 10:00	02/22/16 15:58	CWO
Chromium	16	SW6010C	16.3 mg/kg dry		2.07	1	02/20/16 10:00	02/22/16 15:57	CWO
Wet Chemistry Analysis									
Percent Solids	16	SM18 2540G	93.0 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Client Name: Draper Aden Associates-Richmond
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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-09-12

Laboratory Sample ID: 16B0472-17

Date/Time Sampled: 02/17/2016 11:05

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	17	SW6010C	18.7 mg/kg dry		2.19	1	02/20/16 10:00	02/22/16 16:03	CWO
Chromium	17	SW6010C	38.0 mg/kg dry		2.19	1	02/20/16 10:00	02/22/16 16:03	CWO
Wet Chemistry Analysis									
Percent Solids	17	SM18 2540G	90.1 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-09-24

Laboratory Sample ID: 16B0472-18

Date/Time Sampled: 02/17/2016 11:10

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	18RE1	SW6010C	2.10 mg/kg dry		2.01	1	02/20/16 10:00	02/24/16 13:21	CWO
Chromium	18	SW6010C	13.6 mg/kg dry		2.01	1	02/20/16 10:00	02/22/16 16:08	CWO
Wet Chemistry Analysis									
Percent Solids	18	SM18 2540G	92.7 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-10-12

Laboratory Sample ID: 16B0472-19

Date/Time Sampled: 02/17/2016 11:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	19	SW6010C	26.1 mg/kg dry		2.09	1	02/20/16 10:00	02/22/16 16:14	CWO
Chromium	19	SW6010C	54.3 mg/kg dry		2.09	1	02/20/16 10:00	02/22/16 16:13	CWO
Wet Chemistry Analysis									
Percent Solids	19	SM18 2540G	92.5 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Date Issued: 3/7/2016 16:30

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Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-10-24

Laboratory Sample ID: 16B0472-20

Date/Time Sampled: 02/17/2016 11:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	20	SW6010C	<2.11 mg/kg dry		2.11	1	02/20/16 10:00	02/22/16 16:19	CWO
Chromium	20	SW6010C	16.7 mg/kg dry		2.11	1	02/20/16 10:00	02/22/16 16:19	CWO
Wet Chemistry Analysis									
Percent Solids	20	SM18 2540G	92.1 %		0.10	1	02/24/16 11:07	02/24/16 11:07	RCV



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Final Report

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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-11-12

Laboratory Sample ID: 16B0472-21

Date/Time Sampled: 02/17/2016 11:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	21	SW6010C	63.3 mg/kg dry		2.09	1	02/20/16 10:00	02/24/16 13:36	CWO
Chromium	21	SW6010C	80.1 mg/kg dry		2.09	1	02/20/16 10:00	02/24/16 13:36	CWO
Wet Chemistry Analysis									
Percent Solids	21	SM18 2540G	94.6 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-11-24

Laboratory Sample ID: 16B0472-22

Date/Time Sampled: 02/17/2016 11:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	22	SW6010C	<2.14 mg/kg dry		2.14	1	02/20/16 10:00	02/24/16 13:42	CWO
Chromium	22	SW6010C	17.9 mg/kg dry		2.14	1	02/20/16 10:00	02/24/16 13:41	CWO
Wet Chemistry Analysis									
Percent Solids	22	SM18 2540G	91.1 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-12-12

Laboratory Sample ID: 16B0472-23

Date/Time Sampled: 02/17/2016 11:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	23	SW6010C	59.1 mg/kg dry		2.17	1	02/20/16 10:00	02/24/16 13:47	CWO
Chromium	23	SW6010C	128 mg/kg dry		2.17	1	02/20/16 10:00	02/24/16 13:47	CWO
Wet Chemistry Analysis									
Percent Solids	23	SM18 2540G	91.9 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-12-24

Laboratory Sample ID: 16B0472-24

Date/Time Sampled: 02/17/2016 11:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	24	SW6010C	5.07 mg/kg dry		2.07	1	02/20/16 10:00	02/24/16 14:35	CWO
Chromium	24	SW6010C	17.4 mg/kg dry		2.07	1	02/20/16 10:00	02/24/16 14:34	CWO
Wet Chemistry Analysis									
Percent Solids	24	SM18 2540G	92.8 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Final Report

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Date Issued: 3/7/2016 16:30
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Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-13-12

Laboratory Sample ID: 16B0472-25

Date/Time Sampled: 02/17/2016 11:55

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	25	SW6010C	24.1 mg/kg dry		2.08	1	02/20/16 10:00	02/24/16 14:51	CWO
Chromium	25	SW6010C	43.8 mg/kg dry		2.08	1	02/20/16 10:00	02/24/16 14:51	CWO
Wet Chemistry Analysis									
Percent Solids	25	SM18 2540G	91.6 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Final Report

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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-13-24

Laboratory Sample ID: 16B0472-26

Date/Time Sampled: 02/17/2016 12:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	26	SW6010C	23.7 mg/kg dry		2.12	1	02/20/16 10:00	02/24/16 14:56	CWO
Chromium	26	SW6010C	43.6 mg/kg dry		2.12	1	02/20/16 10:00	02/24/16 14:56	CWO
Wet Chemistry Analysis									
Percent Solids	26	SM18 2540G	92.2 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Final Report

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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-14-12

Laboratory Sample ID: 16B0472-27

Date/Time Sampled: 02/17/2016 12:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	27	SW6010C	18.2 mg/kg dry		2.12	1	02/20/16 10:00	02/24/16 15:02	CWO
Chromium	27	SW6010C	40.2 mg/kg dry		2.12	1	02/20/16 10:00	02/24/16 15:01	CWO
Wet Chemistry Analysis									
Percent Solids	27	SM18 2540G	89.0 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Final Report

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Date Issued: 3/7/2016 16:30

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Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-14-24

Laboratory Sample ID: 16B0472-28

Date/Time Sampled: 02/17/2016 12:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	28	SW6010C	<2.00 mg/kg dry		2.00	1	02/20/16 10:00	02/24/16 15:07	CWO
Chromium	28	SW6010C	7.56 mg/kg dry		2.00	1	02/20/16 10:00	02/24/16 15:06	CWO
Wet Chemistry Analysis									
Percent Solids	28	SM18 2540G	92.4 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-15-12

Laboratory Sample ID: 16B0472-29

Date/Time Sampled: 02/17/2016 12:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	29	SW6010C	22.7 mg/kg dry		2.08	1	02/20/16 10:00	02/24/16 15:12	CWO
Chromium	29	SW6010C	46.1 mg/kg dry		2.08	1	02/20/16 10:00	02/24/16 15:12	CWO
Wet Chemistry Analysis									
Percent Solids	29	SM18 2540G	92.2 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-15-24

Laboratory Sample ID: 16B0472-30

Date/Time Sampled: 02/17/2016 12:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	30	SW6010C	<2.04 mg/kg dry		2.04	1	02/20/16 10:00	02/24/16 15:17	CWO
Chromium	30	SW6010C	6.42 mg/kg dry		2.04	1	02/20/16 10:00	02/24/16 15:17	CWO
Wet Chemistry Analysis									
Percent Solids	30	SM18 2540G	93.6 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-16-12

Laboratory Sample ID: 16B0472-31

Date/Time Sampled: 02/17/2016 12:55

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	31	SW6010C	27.8 mg/kg dry		2.22	1	02/20/16 10:00	02/24/16 15:43	CWO
Chromium	31	SW6010C	52.0 mg/kg dry		2.22	1	02/20/16 10:00	02/24/16 15:43	CWO
Wet Chemistry Analysis									
Percent Solids	31	SM18 2540G	88.2 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-16-24

Laboratory Sample ID: 16B0472-32

Date/Time Sampled: 02/17/2016 13:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	32	SW6010C	<2.14 mg/kg dry		2.14	1	02/20/16 10:00	02/24/16 15:48	CWO
Chromium	32	SW6010C	9.81 mg/kg dry		2.14	1	02/20/16 10:00	02/24/16 15:48	CWO
Wet Chemistry Analysis									
Percent Solids	32	SM18 2540G	89.0 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-17-12

Laboratory Sample ID: 16B0472-33

Date/Time Sampled: 02/17/2016 13:05

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	33	SW6010C	35.6 mg/kg dry		2.03	1	02/20/16 10:00	02/24/16 15:54	CWO
Chromium	33	SW6010C	55.9 mg/kg dry		2.03	1	02/20/16 10:00	02/24/16 15:53	CWO
Wet Chemistry Analysis									
Percent Solids	33	SM18 2540G	92.6 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-17-24

Laboratory Sample ID: 16B0472-34

Date/Time Sampled: 02/17/2016 13:10

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	34	SW6010C	12.8 mg/kg dry		2.04	1	02/20/16 10:00	02/24/16 15:59	CWO
Chromium	34	SW6010C	24.0 mg/kg dry		2.04	1	02/20/16 10:00	02/24/16 15:59	CWO
Wet Chemistry Analysis									
Percent Solids	34	SM18 2540G	93.7 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-18-12

Laboratory Sample ID: 16B0472-35

Date/Time Sampled: 02/17/2016 13:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	35	SW6010C	33.2 mg/kg dry		2.05	1	02/20/16 10:00	02/24/16 16:04	CWO
Chromium	35	SW6010C	57.7 mg/kg dry		2.05	1	02/20/16 10:00	02/24/16 16:04	CWO
Wet Chemistry Analysis									
Percent Solids	35	SM18 2540G	92.6 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-18-24

Laboratory Sample ID: 16B0472-36

Date/Time Sampled: 02/17/2016 13:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	36	SW6010C	<2.04 mg/kg dry		2.04	1	02/20/16 10:00	02/24/16 16:09	CWO
Chromium	36	SW6010C	13.6 mg/kg dry		2.04	1	02/20/16 10:00	02/24/16 16:09	CWO
Wet Chemistry Analysis									
Percent Solids	36	SM18 2540G	91.7 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-19-12

Laboratory Sample ID: 16B0472-37

Date/Time Sampled: 02/17/2016 13:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	37	SW6010C	12.5 mg/kg dry		2.12	1	02/20/16 10:00	02/24/16 16:15	CWO
Chromium	37	SW6010C	43.5 mg/kg dry		2.12	1	02/20/16 10:00	02/24/16 16:14	CWO
Wet Chemistry Analysis									
Percent Solids	37	SM18 2540G	93.0 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Date Issued: 3/7/2016 16:30

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Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-19-24

Laboratory Sample ID: 16B0472-38

Date/Time Sampled: 02/17/2016 13:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	38	SW6010C	6.36 mg/kg dry		2.05	1	02/20/16 10:00	02/24/16 16:20	CWO
Chromium	38	SW6010C	32.5 mg/kg dry		2.05	1	02/20/16 10:00	02/24/16 16:20	CWO
Wet Chemistry Analysis									
Percent Solids	38	SM18 2540G	92.7 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-20-12

Laboratory Sample ID: 16B0472-39

Date/Time Sampled: 02/17/2016 13:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	39	SW6010C	14.6 mg/kg dry		2.13	1	02/20/16 10:00	02/24/16 16:25	CWO
Chromium	39	SW6010C	43.3 mg/kg dry		2.13	1	02/20/16 10:00	02/24/16 16:25	CWO
Wet Chemistry Analysis									
Percent Solids	39	SM18 2540G	90.2 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-20-24

Laboratory Sample ID: 16B0472-40

Date/Time Sampled: 02/17/2016 13:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	40	SW6010C	4.78 mg/kg dry		2.06	1	02/20/16 10:00	02/24/16 16:50	CWO
Chromium	40	SW6010C	16.0 mg/kg dry		2.06	1	02/20/16 10:00	02/24/16 16:49	CWO
Wet Chemistry Analysis									
Percent Solids	40	SM18 2540G	93.0 %		0.10	1	02/24/16 15:59	02/24/16 15:59	RCV



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Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-21-12

Laboratory Sample ID: 16B0472-41

Date/Time Sampled: 02/17/2016 13:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	41	SW6010C	23.5 mg/kg dry		2.11	1	02/21/16 10:45	02/24/16 17:05	CWO
Chromium	41	SW6010C	42.5 mg/kg dry		2.11	1	02/21/16 10:45	02/24/16 17:05	CWO
Wet Chemistry Analysis									
Percent Solids	41	SM18 2540G	91.4 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-21-24

Laboratory Sample ID: 16B0472-42

Date/Time Sampled: 02/17/2016 13:55

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	42	SW6010C	<2.03 mg/kg dry		2.03	1	02/21/16 10:45	02/24/16 17:10	CWO
Chromium	42	SW6010C	8.76 mg/kg dry		2.03	1	02/21/16 10:45	02/24/16 17:10	CWO
Wet Chemistry Analysis									
Percent Solids	42	SM18 2540G	93.2 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-22-12

Laboratory Sample ID: 16B0472-43

Date/Time Sampled: 02/17/2016 14:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	43	SW6010C	32.6 mg/kg dry		2.14	1	02/21/16 10:45	02/24/16 17:27	CWO
Chromium	43	SW6010C	69.6 mg/kg dry		2.14	1	02/21/16 10:45	02/24/16 17:26	CWO
Wet Chemistry Analysis									
Percent Solids	43	SM18 2540G	91.0 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-22-24

Laboratory Sample ID: 16B0472-44

Date/Time Sampled: 02/17/2016 14:05

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	44	SW6010C	<2.06 mg/kg dry		2.06	1	02/21/16 10:45	02/24/16 17:32	CWO
Chromium	44	SW6010C	21.4 mg/kg dry		2.06	1	02/21/16 10:45	02/24/16 17:31	CWO
Wet Chemistry Analysis									
Percent Solids	44	SM18 2540G	93.5 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-23-12

Laboratory Sample ID: 16B0472-45

Date/Time Sampled: 02/17/2016 14:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	45	SW6010C	13.8 mg/kg dry		2.15	1	02/21/16 10:45	02/24/16 17:37	CWO
Chromium	45	SW6010C	26.5 mg/kg dry		2.15	1	02/21/16 10:45	02/24/16 17:37	CWO
Wet Chemistry Analysis									
Percent Solids	45	SM18 2540G	88.5 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-23-24

Laboratory Sample ID: 16B0472-46

Date/Time Sampled: 02/17/2016 14:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	46	SW6010C	<2.17 mg/kg dry		2.17	1	02/21/16 10:45	02/24/16 17:52	CWO
Chromium	46	SW6010C	5.71 mg/kg dry		2.17	1	02/21/16 10:45	02/24/16 17:51	CWO
Wet Chemistry Analysis									
Percent Solids	46	SM18 2540G	91.4 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-24-12

Laboratory Sample ID: 16B0472-47

Date/Time Sampled: 02/17/2016 14:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	47	SW6010C	21.5 mg/kg dry		2.29	1	02/21/16 10:45	02/24/16 17:57	CWO
Chromium	47	SW6010C	37.5 mg/kg dry		2.29	1	02/21/16 10:45	02/24/16 17:57	CWO
Wet Chemistry Analysis									
Percent Solids	47	SM18 2540G	86.1 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-24-24

Laboratory Sample ID: 16B0472-48

Date/Time Sampled: 02/17/2016 14:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	48	SW6010C	4.77 mg/kg dry		2.05	1	02/21/16 10:45	02/24/16 18:02	CWO
Chromium	48	SW6010C	14.5 mg/kg dry		2.05	1	02/21/16 10:45	02/24/16 18:02	CWO
Wet Chemistry Analysis									
Percent Solids	48	SM18 2540G	89.6 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-25-12

Laboratory Sample ID: 16B0472-49

Date/Time Sampled: 02/18/2016 14:05

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	49	SW6010C	25.2 mg/kg dry		2.19	1	02/21/16 10:45	02/24/16 18:07	CWO
Chromium	49	SW6010C	55.7 mg/kg dry		2.19	1	02/21/16 10:45	02/24/16 18:07	CWO
Wet Chemistry Analysis									
Percent Solids	49	SM18 2540G	87.8 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-25-24

Laboratory Sample ID: 16B0472-50

Date/Time Sampled: 02/18/2016 14:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	50	SW6010C	7.73 mg/kg dry		2.11	1	02/21/16 10:45	02/24/16 18:12	CWO
Chromium	50	SW6010C	17.5 mg/kg dry		2.11	1	02/21/16 10:45	02/24/16 18:12	CWO
Wet Chemistry Analysis									
Percent Solids	50	SM18 2540G	90.2 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-26-12

Laboratory Sample ID: 16B0472-51

Date/Time Sampled: 02/17/2016 14:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	51	SW6010C	84.5 mg/kg dry		2.24	1	02/21/16 10:45	02/24/16 18:18	CWO
Chromium	51	SW6010C	90.2 mg/kg dry		2.24	1	02/21/16 10:45	02/24/16 18:18	CWO
Wet Chemistry Analysis									
Percent Solids	51	SM18 2540G	87.8 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-26-24

Laboratory Sample ID: 16B0472-52

Date/Time Sampled: 02/17/2016 14:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	52	SW6010C	8.77 mg/kg dry		2.04	1	02/21/16 10:45	02/24/16 18:23	CWO
Chromium	52	SW6010C	29.4 mg/kg dry		2.04	1	02/21/16 10:45	02/24/16 18:23	CWO
Wet Chemistry Analysis									
Percent Solids	52	SM18 2540G	93.3 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-27-12

Laboratory Sample ID: 16B0472-53

Date/Time Sampled: 02/17/2016 15:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	53	SW6010C	23.8 mg/kg dry		2.14	1	02/21/16 10:45	02/24/16 18:40	CWO
Chromium	53	SW6010C	43.5 mg/kg dry		2.14	1	02/21/16 10:45	02/24/16 18:39	CWO
Wet Chemistry Analysis									
Percent Solids	53	SM18 2540G	89.9 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-27-24

Laboratory Sample ID: 16B0472-54

Date/Time Sampled: 02/17/2016 15:05

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	54	SW6010C	<2.17 mg/kg dry		2.17	1	02/21/16 10:45	02/24/16 19:03	CWO
Chromium	54	SW6010C	25.8 mg/kg dry		2.17	1	02/21/16 10:45	02/24/16 19:03	CWO
Wet Chemistry Analysis									
Percent Solids	54	SM18 2540G	91.8 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-28-12

Laboratory Sample ID: 16B0472-55

Date/Time Sampled: 02/17/2016 15:10

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	55	SW6010C	14.4 mg/kg dry		2.27	1	02/21/16 10:45	02/24/16 19:08	CWO
Chromium	55	SW6010C	35.4 mg/kg dry		2.27	1	02/21/16 10:45	02/24/16 19:08	CWO
Wet Chemistry Analysis									
Percent Solids	55	SM18 2540G	86.0 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-28-24

Laboratory Sample ID: 16B0472-56

Date/Time Sampled: 02/17/2016 15:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	56	SW6010C	2.96 mg/kg dry		2.15	1	02/21/16 10:45	02/24/16 19:14	CWO
Chromium	56	SW6010C	15.8 mg/kg dry		2.15	1	02/21/16 10:45	02/24/16 19:13	CWO
Wet Chemistry Analysis									
Percent Solids	56	SM18 2540G	92.4 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Final Report

Client Name: Draper Aden Associates-Richmond
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Richmond VA, 23228
Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-29-12

Laboratory Sample ID: 16B0472-57

Date/Time Sampled: 02/17/2016 15:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	57	SW6010C	32.5 mg/kg dry		2.18	1	02/21/16 10:45	02/24/16 19:19	CWO
Chromium	57	SW6010C	79.6 mg/kg dry		2.18	1	02/21/16 10:45	02/24/16 19:19	CWO
Wet Chemistry Analysis									
Percent Solids	57	SM18 2540G	88.5 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-29-24

Laboratory Sample ID: 16B0472-58

Date/Time Sampled: 02/17/2016 15:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	58	SW6010C	66.0 mg/kg dry		2.13	1	02/21/16 10:45	02/24/16 19:24	CWO
Chromium	58	SW6010C	101 mg/kg dry		2.13	1	02/21/16 10:45	02/24/16 19:24	CWO
Wet Chemistry Analysis									
Percent Solids	58	SM18 2540G	89.8 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-30-12

Laboratory Sample ID: 16B0472-59

Date/Time Sampled: 02/17/2016 15:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	59	SW6010C	62.0 mg/kg dry		2.16	1	02/21/16 10:45	02/24/16 19:30	CWO
Chromium	59	SW6010C	91.2 mg/kg dry		2.16	1	02/21/16 10:45	02/24/16 19:30	CWO
Wet Chemistry Analysis									
Percent Solids	59	SM18 2540G	88.9 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-30-24

Laboratory Sample ID: 16B0472-60

Date/Time Sampled: 02/17/2016 15:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	60	SW6010C	37.8 mg/kg dry		2.17	1	02/21/16 10:45	02/24/16 19:35	CWO
Chromium	60	SW6010C	139 mg/kg dry		2.17	1	02/21/16 10:45	02/24/16 19:35	CWO
Wet Chemistry Analysis									
Percent Solids	60	SM18 2540G	89.4 %		0.10	1	02/25/16 11:27	02/25/16 11:27	RCV



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Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-31-12

Laboratory Sample ID: 16B0472-61

Date/Time Sampled: 02/17/2016 16:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	61	SW6010C	11.8 mg/kg dry		2.18	1	02/21/16 10:45	02/24/16 20:00	CWO
Chromium	61	SW6010C	26.6 mg/kg dry		2.18	1	02/21/16 10:45	02/24/16 20:00	CWO
Wet Chemistry Analysis									
Percent Solids	61	SM18 2540G	90.3 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-31-24

Laboratory Sample ID: 16B0472-62

Date/Time Sampled: 02/17/2016 16:05

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	62	SW6010C	16.3 mg/kg dry		2.09	1	02/21/16 10:45	02/24/16 20:05	CWO
Chromium	62	SW6010C	32.0 mg/kg dry		2.09	1	02/21/16 10:45	02/24/16 20:05	CWO
Wet Chemistry Analysis									
Percent Solids	62	SM18 2540G	90.5 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-32-12

Laboratory Sample ID: 16B0472-63

Date/Time Sampled: 02/17/2016 16:10

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	63	SW6010C	20.6 mg/kg dry		2.13	1	02/21/16 10:45	02/24/16 20:22	CWO
Chromium	63	SW6010C	41.6 mg/kg dry		2.13	1	02/21/16 10:45	02/24/16 20:22	CWO
Wet Chemistry Analysis									
Percent Solids	63	SM18 2540G	90.5 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-32-24

Laboratory Sample ID: 16B0472-64

Date/Time Sampled: 02/17/2016 16:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	64	SW6010C	<2.12 mg/kg dry		2.12	1	02/21/16 10:45	02/24/16 20:27	CWO
Chromium	64	SW6010C	8.89 mg/kg dry		2.12	1	02/21/16 10:45	02/24/16 20:27	CWO
Wet Chemistry Analysis									
Percent Solids	64	SM18 2540G	92.4 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-33-12

Laboratory Sample ID: 16B0472-65

Date/Time Sampled: 02/18/2016 09:10

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	65	SW6010C	76.7 mg/kg dry		2.13	1	02/21/16 10:45	02/24/16 20:32	CWO
Chromium	65	SW6010C	161 mg/kg dry		2.13	1	02/21/16 10:45	02/24/16 20:32	CWO
Wet Chemistry Analysis									
Percent Solids	65	SM18 2540G	92.9 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-33-24

Laboratory Sample ID: 16B0472-66

Date/Time Sampled: 02/18/2016 09:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	66	SW6010C	<2.08 mg/kg dry		2.08	1	02/21/16 10:45	02/24/16 20:37	CWO
Chromium	66	SW6010C	16.9 mg/kg dry		2.08	1	02/21/16 10:45	02/24/16 20:37	CWO
Wet Chemistry Analysis									
Percent Solids	66	SM18 2540G	90.5 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-34-12

Laboratory Sample ID: 16B0472-67

Date/Time Sampled: 02/18/2016 09:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	67	SW6010C	40.7 mg/kg dry		2.12	1	02/21/16 10:45	02/24/16 20:43	CWO
Chromium	67	SW6010C	102 mg/kg dry		2.12	1	02/21/16 10:45	02/24/16 20:42	CWO
Wet Chemistry Analysis									
Percent Solids	67	SM18 2540G	93.2 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-34-24

Laboratory Sample ID: 16B0472-68

Date/Time Sampled: 02/18/2016 09:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	68	SW6010C	2.29 mg/kg dry		2.09	1	02/21/16 10:45	02/24/16 20:48	CWO
Chromium	68	SW6010C	16.2 mg/kg dry		2.09	1	02/21/16 10:45	02/24/16 20:48	CWO
Wet Chemistry Analysis									
Percent Solids	68	SM18 2540G	92.7 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-35-12

Laboratory Sample ID: 16B0472-69

Date/Time Sampled: 02/18/2016 09:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	69	SW6010C	26.3 mg/kg dry		2.19	1	02/21/16 10:45	02/24/16 21:03	CWO
Chromium	69	SW6010C	37.4 mg/kg dry		2.19	1	02/21/16 10:45	02/24/16 21:03	CWO
Wet Chemistry Analysis									
Percent Solids	69	SM18 2540G	89.1 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
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Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-35-24

Laboratory Sample ID: 16B0472-70

Date/Time Sampled: 02/18/2016 09:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	70	SW6010C	<2.17 mg/kg dry		2.17	1	02/21/16 10:45	02/24/16 21:08	CWO
Chromium	70	SW6010C	6.85 mg/kg dry		2.17	1	02/21/16 10:45	02/24/16 21:08	CWO
Wet Chemistry Analysis									
Percent Solids	70	SM18 2540G	89.6 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Date Issued: 3/7/2016 16:30
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Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-36-12

Laboratory Sample ID: 16B0472-71

Date/Time Sampled: 02/18/2016 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	71	SW6010C	10.7 mg/kg dry		2.14	1	02/21/16 10:45	02/24/16 21:14	CWO
Chromium	71	SW6010C	26.0 mg/kg dry		2.14	1	02/21/16 10:45	02/24/16 21:13	CWO
Wet Chemistry Analysis									
Percent Solids	71	SM18 2540G	89.8 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-36-24

Laboratory Sample ID: 16B0472-72

Date/Time Sampled: 02/18/2016 09:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	72	SW6010C	<2.09 mg/kg dry		2.09	1	02/21/16 10:45	02/24/16 21:19	CWO
Chromium	72	SW6010C	10.5 mg/kg dry		2.09	1	02/21/16 10:45	02/24/16 21:18	CWO
Wet Chemistry Analysis									
Percent Solids	72	SM18 2540G	92.1 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-37-12

Laboratory Sample ID: 16B0472-73

Date/Time Sampled: 02/18/2016 10:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	73	SW6010C	20.5 mg/kg dry		2.23	1	02/21/16 10:45	02/24/16 21:24	CWO
Chromium	73	SW6010C	62.1 mg/kg dry		2.23	1	02/21/16 10:45	02/24/16 21:24	CWO
Wet Chemistry Analysis									
Percent Solids	73	SM18 2540G	89.1 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-37-24

Laboratory Sample ID: 16B0472-74

Date/Time Sampled: 02/18/2016 10:05

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	74	SW6010C	13.5 mg/kg dry		2.12	1	02/21/16 10:45	02/24/16 21:29	CWO
Chromium	74	SW6010C	31.3 mg/kg dry		2.12	1	02/21/16 10:45	02/24/16 21:29	CWO
Wet Chemistry Analysis									
Percent Solids	74	SM18 2540G	92.3 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-38-12

Laboratory Sample ID: 16B0472-75

Date/Time Sampled: 02/18/2016 10:10

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	75	SW6010C	34.9 mg/kg dry		2.17	1	02/21/16 10:45	02/24/16 21:35	CWO
Chromium	75	SW6010C	42.0 mg/kg dry		2.17	1	02/21/16 10:45	02/24/16 21:34	CWO
Wet Chemistry Analysis									
Percent Solids	75	SM18 2540G	90.9 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-38-24

Laboratory Sample ID: 16B0472-76

Date/Time Sampled: 02/18/2016 10:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	76	SW6010C	4.65 mg/kg dry		2.14	1	02/21/16 10:45	02/24/16 21:40	CWO
Chromium	76	SW6010C	16.4 mg/kg dry		2.14	1	02/21/16 10:45	02/24/16 21:39	CWO
Wet Chemistry Analysis									
Percent Solids	76	SM18 2540G	92.1 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-39-12

Laboratory Sample ID: 16B0472-77

Date/Time Sampled: 02/18/2016 10:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	77	SW6010C	22.9 mg/kg dry		2.01	1	02/21/16 10:45	02/24/16 21:45	CWO
Chromium	77	SW6010C	34.5 mg/kg dry		2.01	1	02/21/16 10:45	02/24/16 21:45	CWO
Wet Chemistry Analysis									
Percent Solids	77	SM18 2540G	95.1 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Final Report

Client Name: Draper Aden Associates-Richmond
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Richmond VA, 23228
Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-39-24

Laboratory Sample ID: 16B0472-78

Date/Time Sampled: 02/18/2016 10:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	78	SW6010C	23.3 mg/kg dry		2.08	1	02/21/16 10:45	02/24/16 22:11	CWO
Chromium	78	SW6010C	59.8 mg/kg dry		2.08	1	02/21/16 10:45	02/24/16 22:11	CWO
Wet Chemistry Analysis									
Percent Solids	78	SM18 2540G	93.4 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Final Report

Client Name: Draper Aden Associates-Richmond
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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-40-12

Laboratory Sample ID: 16B0472-79

Date/Time Sampled: 02/18/2016 10:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	79RE1	SW6010C	223 mg/kg dry		11.3	5	02/21/16 10:45	02/25/16 17:06	CWO
Chromium	79RE1	SW6010C	446 mg/kg dry		11.3	5	02/21/16 10:45	02/25/16 17:06	CWO
Wet Chemistry Analysis									
Percent Solids	79	SM18 2540G	86.9 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-40-24

Laboratory Sample ID: 16B0472-80

Date/Time Sampled: 02/18/2016 10:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	80	SW6010C	153 mg/kg dry		2.09	1	02/21/16 10:45	02/24/16 22:22	CWO
Chromium	80	SW6010C	190 mg/kg dry		2.09	1	02/21/16 10:45	02/24/16 22:22	CWO
Wet Chemistry Analysis									
Percent Solids	80	SM18 2540G	89.2 %		0.10	1	02/25/16 12:04	02/25/16 12:04	RCV



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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-41-12

Laboratory Sample ID: 16B0472-81

Date/Time Sampled: 02/18/2016 10:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	81	SW6010C	14.3 mg/kg dry		2.23	1	02/23/16 09:40	02/25/16 17:31	CWO
Chromium	81	SW6010C	44.0 mg/kg dry		2.23	1	02/23/16 09:40	02/25/16 17:31	CWO
Wet Chemistry Analysis									
Percent Solids	81	SM18 2540G	89.4 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Client Name: Draper Aden Associates-Richmond
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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-41-24

Laboratory Sample ID: 16B0472-82

Date/Time Sampled: 02/18/2016 10:55

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	82	SW6010C	5.07 mg/kg dry		2.17	1	02/23/16 09:40	02/25/16 17:36	CWO
Chromium	82	SW6010C	10.9 mg/kg dry		2.17	1	02/23/16 09:40	02/25/16 17:36	CWO
Wet Chemistry Analysis									
Percent Solids	82	SM18 2540G	90.9 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-42-12

Laboratory Sample ID: 16B0472-83

Date/Time Sampled: 02/18/2016 11:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	83	SW6010C	15.9 mg/kg dry		2.16	1	02/23/16 09:40	02/25/16 17:53	CWO
Chromium	83	SW6010C	39.2 mg/kg dry		2.16	1	02/23/16 09:40	02/25/16 17:52	CWO
Wet Chemistry Analysis									
Percent Solids	83	SM18 2540G	90.1 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-42-24

Laboratory Sample ID: 16B0472-84

Date/Time Sampled: 02/18/2016 11:05

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	84	SW6010C	<2.03 mg/kg dry		2.03	1	02/23/16 09:40	02/25/16 17:58	CWO
Chromium	84	SW6010C	7.73 mg/kg dry		2.03	1	02/23/16 09:40	02/25/16 17:58	CWO
Wet Chemistry Analysis									
Percent Solids	84	SM18 2540G	91.9 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-43-12

Laboratory Sample ID: 16B0472-85

Date/Time Sampled: 02/18/2016 11:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	85	SW6010C	78.6 mg/kg dry		2.54	1	02/23/16 09:40	02/25/16 18:03	CWO
Chromium	85	SW6010C	120 mg/kg dry		2.54	1	02/23/16 09:40	02/25/16 18:03	CWO
Wet Chemistry Analysis									
Percent Solids	85	SM18 2540G	76.7 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-43-24

Laboratory Sample ID: 16B0472-86

Date/Time Sampled: 02/18/2016 11:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	86	SW6010C	34.7 mg/kg dry		2.02	1	02/23/16 09:40	02/25/16 18:08	CWO
Chromium	86	SW6010C	25.1 mg/kg dry		2.02	1	02/23/16 09:40	02/25/16 18:08	CWO
Wet Chemistry Analysis									
Percent Solids	86	SM18 2540G	91.3 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-44-12

Laboratory Sample ID: 16B0472-87

Date/Time Sampled: 02/18/2016 11:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	87	SW6010C	82.2 mg/kg dry		2.31	1	02/23/16 09:40	02/25/16 18:23	CWO
Chromium	87	SW6010C	88.2 mg/kg dry		2.31	1	02/23/16 09:40	02/25/16 18:23	CWO
Wet Chemistry Analysis									
Percent Solids	87	SM18 2540G	79.3 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-44-24

Laboratory Sample ID: 16B0472-88

Date/Time Sampled: 02/18/2016 11:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	88	SW6010C	2.30 mg/kg dry		2.11	1	02/23/16 09:40	02/25/16 18:28	CWO
Chromium	88	SW6010C	8.28 mg/kg dry		2.11	1	02/23/16 09:40	02/25/16 18:28	CWO
Wet Chemistry Analysis									
Percent Solids	88	SM18 2540G	90.9 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-45-12

Laboratory Sample ID: 16B0472-89

Date/Time Sampled: 02/18/2016 12:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	89	SW6010C	31.1 mg/kg dry		6.21	1	02/23/16 09:40	02/25/16 18:34	CWO
Chromium	89	SW6010C	56.1 mg/kg dry		6.21	1	02/23/16 09:40	02/25/16 18:33	CWO
Wet Chemistry Analysis									
Percent Solids	89	SM18 2540G	30.0 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-45-24

Laboratory Sample ID: 16B0472-90

Date/Time Sampled: 02/18/2016 12:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	90	SW6010C	25.0 mg/kg dry		2.57	1	02/23/16 09:40	02/25/16 18:39	CWO
Chromium	90	SW6010C	50.9 mg/kg dry		2.57	1	02/23/16 09:40	02/25/16 18:38	CWO
Wet Chemistry Analysis									
Percent Solids	90	SM18 2540G	75.2 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Final Report

Client Name: Draper Aden Associates-Richmond
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Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
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Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-46-12

Laboratory Sample ID: 16B0472-91

Date/Time Sampled: 02/18/2016 12:51

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	91	SW6010C	24.1 mg/kg dry		2.95	1	02/23/16 09:40	02/25/16 18:44	CWO
Chromium	91	SW6010C	57.4 mg/kg dry		2.95	1	02/23/16 09:40	02/25/16 18:44	CWO
Wet Chemistry Analysis									
Percent Solids	91	SM18 2540G	65.7 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Client Name: Draper Aden Associates-Richmond
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Date Issued: 3/7/2016 16:30

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Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-46-24

Laboratory Sample ID: 16B0472-92

Date/Time Sampled: 02/18/2016 13:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	92	SW6010C	5.81 mg/kg dry		2.10	1	02/23/16 09:40	02/25/16 18:54	CWO
Chromium	92	SW6010C	15.9 mg/kg dry		2.10	1	02/23/16 09:40	02/25/16 18:54	CWO
Wet Chemistry Analysis									
Percent Solids	92	SM18 2540G	93.1 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-47-12

Laboratory Sample ID: 16B0472-93

Date/Time Sampled: 02/18/2016 13:11

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	93	SW6010C	47.5 mg/kg dry		6.26	1	02/23/16 09:40	02/25/16 19:11	CWO
Chromium	93	SW6010C	68.2 mg/kg dry		6.26	1	02/23/16 09:40	02/25/16 19:10	CWO
Wet Chemistry Analysis									
Percent Solids	93	SM18 2540G	29.7 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-47-24

Laboratory Sample ID: 16B0472-94

Date/Time Sampled: 02/18/2016 13:20

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	94	SW6010C	13.7 mg/kg dry		4.79	1	02/23/16 09:40	02/25/16 19:25	CWO
Chromium	94	SW6010C	47.2 mg/kg dry		4.79	1	02/23/16 09:40	02/25/16 19:25	CWO
Wet Chemistry Analysis									
Percent Solids	94	SM18 2540G	39.3 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-48-12

Laboratory Sample ID: 16B0472-95

Date/Time Sampled: 02/18/2016 13:36

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	95	SW6010C	60.5 mg/kg dry		2.10	1	02/23/16 09:40	02/25/16 19:31	CWO
Chromium	95	SW6010C	89.5 mg/kg dry		2.10	1	02/23/16 09:40	02/25/16 19:31	CWO
Wet Chemistry Analysis									
Percent Solids	95	SM18 2540G	92.5 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-48-24

Laboratory Sample ID: 16B0472-96

Date/Time Sampled: 02/18/2016 13:50

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	96	SW6010C	<2.08 mg/kg dry		2.08	1	02/23/16 09:40	02/25/16 19:36	CWO
Chromium	96	SW6010C	14.7 mg/kg dry		2.08	1	02/23/16 09:40	02/25/16 19:36	CWO
Wet Chemistry Analysis									
Percent Solids	96	SM18 2540G	93.7 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-10-24 Dup

Laboratory Sample ID: 16B0472-97

Date/Time Sampled: 02/17/2016 11:23

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	97	SW6010C	<2.39 mg/kg dry		2.39	1	02/23/16 09:40	02/25/16 19:42	CWO
Chromium	97	SW6010C	19.9 mg/kg dry		2.39	1	02/23/16 09:40	02/25/16 19:41	CWO
Wet Chemistry Analysis									
Percent Solids	97	SM18 2540G	79.3 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-19-12 Dup

Laboratory Sample ID: 16B0472-98

Date/Time Sampled: 02/17/2016 13:33

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	98	SW6010C	56.1 mg/kg dry		2.12	1	02/23/16 09:40	02/25/16 19:47	CWO
Chromium	98	SW6010C	75.1 mg/kg dry		2.12	1	02/23/16 09:40	02/25/16 19:47	CWO
Wet Chemistry Analysis									
Percent Solids	98	SM18 2540G	92.4 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-29-24 Dup

Laboratory Sample ID: 16B0472-99

Date/Time Sampled: 02/17/2016 15:33

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	99	SW6010C	30.6 mg/kg dry		2.18	1	02/23/16 09:40	02/25/16 19:52	CWO
Chromium	99	SW6010C	42.4 mg/kg dry		2.18	1	02/23/16 09:40	02/25/16 19:52	CWO
Wet Chemistry Analysis									
Percent Solids	99	SM18 2540G	90.6 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-39-12 Dup

Laboratory Sample ID: 16B0472-AA

Date/Time Sampled: 02/18/2016 10:23

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	AA	SW6010C	36.0 mg/kg dry		2.03	1	02/23/16 09:40	02/25/16 19:57	CWO
Chromium	AA	SW6010C	48.9 mg/kg dry		2.03	1	02/23/16 09:40	02/25/16 19:57	CWO
Wet Chemistry Analysis									
Percent Solids	AA	SM18 2540G	95.1 %		0.10	1	02/25/16 13:48	02/25/16 13:48	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-48-12 Dup

Laboratory Sample ID: 16B0472-AB

Date/Time Sampled: 02/18/2016 14:25

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	AB	SW6010C	<2.16 mg/kg dry		2.16	1	02/23/16 09:40	02/25/16 20:12	CWO
Chromium	AB	SW6010C	8.09 mg/kg dry		2.16	1	02/23/16 09:40	02/25/16 20:12	CWO
Wet Chemistry Analysis									
Percent Solids	AB	SM18 2540G	91.7 %		0.10	1	02/25/16 14:11	02/25/16 14:11	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-SP-Light

Laboratory Sample ID: 16B0472-AC

Date/Time Sampled: 02/18/2016 15:13

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	ACRE1	SW6010C	<2.00 mg/kg dry		2.00	1	02/26/16 10:01	02/29/16 10:42	CWO
Chromium	ACRE1	SW6010C	5.85 mg/kg dry		2.00	1	02/26/16 10:01	02/29/16 10:42	CWO
Wet Chemistry Analysis									
Percent Solids	AC	SM18 2540G	28.6 %		0.10	1	02/25/16 14:11	02/25/16 14:11	RCV



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Purchase Order:

Laboratory Order ID: 16B0472

Analytical Results

Sample I.D. LW-SP-Dark

Laboratory Sample ID: 16B0472-AD

Date/Time Sampled: 02/18/2016 15:26

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	AD	SW6010C	29.7 mg/kg dry		5.28	1	02/23/16 09:40	02/25/16 20:42	CWO
Chromium	AD	SW6010C	121 mg/kg dry		5.28	1	02/23/16 09:40	02/25/16 20:42	CWO
Wet Chemistry Analysis									
Percent Solids	AD	SM18 2540G	34.6 %		0.10	1	02/25/16 14:11	02/25/16 14:11	RCV



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Purchase Order:

Analytical Summary

Administrative

Preparation Method:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis		Preparation Method:	No Prep Halides		
16B0472-01	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-02	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-03	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-04	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-05	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-06	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-07	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-08	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-09	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-10	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-11	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-12	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-13	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-14	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-15	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-16	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-17	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-18	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-19	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
16B0472-20	1.00 g / 1.00 mL	SM18 2540G	BZB0560	SZB0627	
Wet Chemistry Analysis		Preparation Method:	No Prep Halides		
16B0472-21	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-22	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-23	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-24	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-25	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-26	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-27	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-28	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-29	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-30	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	



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Purchase Order:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
16B0472-31	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-32	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-33	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-34	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-35	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-36	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-37	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-38	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-39	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
16B0472-40	1.00 g / 1.00 mL	SM18 2540G	BZB0582	SZB0659	
Wet Chemistry Analysis		Preparation Method:	No Prep Halides		
16B0472-41	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-42	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-43	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-44	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-45	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-46	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-47	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-48	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-49	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-50	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-51	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-52	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-53	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-54	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-55	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-56	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-57	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-58	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-59	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
16B0472-60	1.00 g / 1.00 mL	SM18 2540G	BZB0608	SZB0688	
Wet Chemistry Analysis		Preparation Method:	No Prep Halides		
16B0472-61	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-62	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-63	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-64	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	



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Purchase Order:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
16B0472-65	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-66	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-67	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-68	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-69	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-70	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-71	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-72	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-73	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-74	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-75	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-76	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-77	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-78	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-79	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
16B0472-80	1.00 g / 1.00 mL	SM18 2540G	BZB0612	SZB0692	
Wet Chemistry Analysis		Preparation Method:	No Prep Halides		
16B0472-81	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-82	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-83	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-84	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-85	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-86	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-87	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-88	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-89	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-90	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-91	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-92	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-93	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-94	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-95	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-96	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-97	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-98	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
16B0472-99	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	



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16B0472-AA	1.00 g / 1.00 mL	SM18 2540G	BZB0624	SZB0699	
Wet Chemistry Analysis		Preparation Method:	No Prep Halides		
16B0472-AB	1.00 g / 1.00 mL	SM18 2540G	BZB0625	SZB0702	
16B0472-AC	1.00 g / 1.00 mL	SM18 2540G	BZB0625	SZB0702	
16B0472-AD	1.00 g / 1.00 mL	SM18 2540G	BZB0625	SZB0702	

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods		Preparation Method:	SW3050B		
16B0472-01	1.05 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-02	1.04 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-03	1.06 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-04	1.06 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-05	1.00 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-06	1.06 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-07	1.02 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-08	1.07 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-09	1.05 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-10	1.04 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-11	1.05 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-12	1.06 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-13	1.05 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-14	1.08 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-15	1.04 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-16	1.04 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-17	1.02 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-18	1.07 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-18RE1	1.07 g / 50.0 mL	SW6010C	BZB0484	SZB0671	AB60120
16B0472-19	1.04 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108
16B0472-20	1.03 g / 50.0 mL	SW6010C	BZB0484	SZB0601	AB60108

Metals (Total) by EPA 6000/7000 Series Methods		Preparation Method:	SW3050B		
16B0472-21	1.01 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-22	1.03 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-23	1.00 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-24	1.04 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120



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Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
16B0472-25	1.05 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-26	1.02 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-27	1.06 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-28	1.09 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-29	1.04 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-30	1.04 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-31	1.02 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-32	1.05 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-33	1.06 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-34	1.05 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-35	1.06 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-36	1.07 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-37	1.02 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-38	1.06 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-39	1.04 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
16B0472-40	1.04 g / 50.0 mL	SW6010C	BZB0486	SZB0671	AB60120
Metals (Total) by EPA 6000/7000 Series Methods		Preparation Method:	SW3050B		
16B0472-41	1.04 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-42	1.06 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-43	1.03 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-44	1.04 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-45	1.05 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-46	1.01 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-47	1.02 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-48	1.09 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-49	1.04 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-50	1.05 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-51	1.02 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-52	1.05 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-53	1.04 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-54	1.00 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-55	1.03 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-56	1.01 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-57	1.04 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-58	1.04 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
16B0472-59	1.04 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
16B0472-60	1.03 g / 50.0 mL	SW6010C	BZB0487	SZB0700	AB60120
Metals (Total) by EPA 6000/7000 Series Methods		Preparation Method:	SW3050B		
16B0472-61	1.02 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-62	1.06 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-63	1.04 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-64	1.02 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-65	1.01 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-66	1.06 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-67	1.01 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-68	1.03 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-69	1.03 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-70	1.03 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-71	1.04 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-72	1.04 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-73	1.01 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-74	1.02 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-75	1.01 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-76	1.02 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-77	1.05 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-78	1.03 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-79	1.02 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
16B0472-79RE1	1.02 g / 50.0 mL	SW6010C	BZB0488	SZB0770	AB60137
16B0472-80	1.07 g / 50.0 mL	SW6010C	BZB0488	SZB0701	AB60120
Metals (Total) by EPA 6000/7000 Series Methods		Preparation Method:	SW3050B		
16B0472-81	1.00 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-82	1.02 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-83	1.03 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-84	1.07 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-85	1.03 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-86	1.08 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-87	1.09 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-88	1.04 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-89	1.07 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-90	1.03 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-91	1.03 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-92	1.02 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
16B0472-93	1.08 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-94	1.06 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-95	1.03 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-96	1.03 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-97	1.06 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-98	1.02 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-99	1.01 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
16B0472-AA	1.04 g / 50.0 mL	SW6010C	BZB0557	SZB0770	AB60137
Metals (Total) by EPA 6000/7000 Series Methods		Preparation Method:	SW3050B		
16B0472-AB	1.01 g / 50.0 mL	SW6010C	BZB0558	SZB0771	AB60137
16B0472-AC	1.05 g / 50.0 mL	SW6010C	BZB0558	SZB0771	AB60137
16B0472-AD	1.09 g / 50.0 mL	SW6010C	BZB0558	SZB0771	AB60137
Metals (Total) by EPA 6000/7000 Series Methods		Preparation Method:	SW3050B		
16B0472-ACRE1	4.00 g / 50.0 mL	SW6010C	BZB0642	SZB0783	AB60139



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Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BZB0484 - SW3050B

Blank (BZB0484-BLK1)

Prepared: 02/20/2016 Analyzed: 02/22/2016

Chromium	<2.00 mg/kg wet	2.00	mg/kg wet
Arsenic	<2.00 mg/kg wet	2.00	mg/kg wet

LCS (BZB0484-BS1)

Prepared: 02/20/2016 Analyzed: 02/22/2016

Arsenic	88.3 mg/kg wet	1.99	mg/kg wet	99.3	mg/kg wet	88.9	80-120
Chromium	97.0 mg/kg wet	1.99	mg/kg wet	99.3	mg/kg wet	97.7	80-120

Duplicate (BZB0484-DUP1)

Source: 16B0472-01

Prepared: 02/20/2016 Analyzed: 02/22/2016

Chromium	12.8 mg/kg dry	2.01	mg/kg dry	12.2	mg/kg dry	5.41	20
Arsenic	<2.01 mg/kg dry	2.01	mg/kg dry	<2.01	mg/kg dry	NA	20

Duplicate (BZB0484-DUP2)

Source: 16B0472-20

Prepared: 02/20/2016 Analyzed: 02/22/2016

Chromium	14.8 mg/kg dry	2.17	mg/kg dry	16.7	mg/kg dry	11.8	20
Arsenic	<2.17 mg/kg dry	2.17	mg/kg dry	<2.17	mg/kg dry	NA	20

Matrix Spike (BZB0484-MS1)

Source: 16B0472-01

Prepared: 02/20/2016 Analyzed: 02/22/2016

Chromium	110 mg/kg dry	1.98	mg/kg dry	99.0	12.2 mg/kg dry	98.7	75-125
Arsenic	85.6 mg/kg dry	1.98	mg/kg dry	99.0	<1.98 mg/kg dry	86.4	75-125

Matrix Spike (BZB0484-MS2)

Source: 16B0472-20

Prepared: 02/20/2016 Analyzed: 02/22/2016

Arsenic	90.8 mg/kg dry	2.08	mg/kg dry	104	<2.08 mg/kg dry	87.3	75-125
Chromium	116 mg/kg dry	2.08	mg/kg dry	104	16.7 mg/kg dry	95.9	75-125

Batch BZB0486 - SW3050B

Blank (BZB0486-BLK1)

Prepared: 02/20/2016 Analyzed: 02/24/2016

Chromium	<2.00 mg/kg wet	2.00	mg/kg wet
Arsenic	<2.00 mg/kg wet	2.00	mg/kg wet



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/7/2016 16:30
 8090 Villa Park Dr.
 Richmond VA, 23228

Submitted To: Leonard Ford Jr. Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BZB0486 - SW3050B

LCS (BZB0486-BS1)

Prepared: 02/20/2016 Analyzed: 02/24/2016

Chromium	92.3 mg/kg wet	1.88	mg/kg wet	93.9	mg/kg wet	98.3	80-120			
Arsenic	84.0 mg/kg wet	1.88	mg/kg wet	93.9	mg/kg wet	89.5	80-120			

Duplicate (BZB0486-DUP1)

Source: 16B0472-24

Prepared: 02/20/2016 Analyzed: 02/24/2016

Chromium	17.3 mg/kg dry	2.05	mg/kg dry	17.4	mg/kg dry	0.834	20			
Arsenic	2.43 mg/kg dry	2.05	mg/kg dry	5.07	mg/kg dry	70.3	20			P

Duplicate (BZB0486-DUP2)

Source: 16B0472-30

Prepared: 02/20/2016 Analyzed: 02/24/2016

Arsenic	<2.02 mg/kg dry	2.02	mg/kg dry	<2.02	mg/kg dry	NA	20			
Chromium	6.57 mg/kg dry	2.02	mg/kg dry	6.42	mg/kg dry	2.36	20			

Matrix Spike (BZB0486-MS1)

Source: 16B0472-24

Prepared: 02/20/2016 Analyzed: 02/24/2016

Arsenic	93.8 mg/kg dry	2.03	mg/kg dry	102	5.07 mg/kg dry	87.4	75-125			
Chromium	125 mg/kg dry	2.03	mg/kg dry	102	17.4 mg/kg dry	106	75-125			

Matrix Spike (BZB0486-MS2)

Source: 16B0472-30

Prepared: 02/20/2016 Analyzed: 02/24/2016

Arsenic	89.2 mg/kg dry	2.08	mg/kg dry	104	<2.08 mg/kg dry	85.8	75-125			
Chromium	110 mg/kg dry	2.08	mg/kg dry	104	6.42 mg/kg dry	100	75-125			

Batch BZB0487 - SW3050B

Blank (BZB0487-BLK1)

Prepared: 02/21/2016 Analyzed: 02/24/2016

Chromium	<2.00 mg/kg wet	2.00	mg/kg wet							
Arsenic	<2.00 mg/kg wet	2.00	mg/kg wet							

LCS (BZB0487-BS1)

Prepared: 02/21/2016 Analyzed: 02/24/2016

Chromium	95.0 mg/kg wet	1.94	mg/kg wet	97.1	mg/kg wet	97.9	80-120			
Arsenic	86.5 mg/kg wet	1.94	mg/kg wet	97.1	mg/kg wet	89.0	80-120			



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/7/2016 16:30
 8090 Villa Park Dr.
 Richmond VA, 23228

Submitted To: Leonard Ford Jr. Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BZB0487 - SW3050B

Duplicate (BZB0487-DUP1)		Source: 16B0472-42		Prepared: 02/21/2016 Analyzed: 02/24/2016						
Chromium	10.2 mg/kg dry	2.10	mg/kg dry	8.76 mg/kg dry		15.5	20			
Arsenic	3.66 mg/kg dry	2.10	mg/kg dry	<2.10 mg/kg dry		NA	20			
Duplicate (BZB0487-DUP2)		Source: 16B0472-52		Prepared: 02/21/2016 Analyzed: 02/24/2016						
Chromium	26.1 mg/kg dry	2.05	mg/kg dry	29.4 mg/kg dry		12.2	20			
Arsenic	11.6 mg/kg dry	2.05	mg/kg dry	8.77 mg/kg dry		28.1	20			P
Matrix Spike (BZB0487-MS1)		Source: 16B0472-42		Prepared: 02/21/2016 Analyzed: 02/24/2016						
Chromium	116 mg/kg dry	2.13	mg/kg dry	106 8.76 mg/kg dry	100	75-125				
Arsenic	95.5 mg/kg dry	2.13	mg/kg dry	106 <2.13 mg/kg dry	89.8	75-125				
Matrix Spike (BZB0487-MS2)		Source: 16B0472-52		Prepared: 02/21/2016 Analyzed: 02/24/2016						
Chromium	120 mg/kg dry	2.01	mg/kg dry	100 29.4 mg/kg dry	89.7	75-125				
Arsenic	98.5 mg/kg dry	2.01	mg/kg dry	100 8.77 mg/kg dry	89.3	75-125				

Batch BZB0488 - SW3050B

Blank (BZB0488-BLK1)		Prepared: 02/21/2016 Analyzed: 02/24/2016								
Arsenic	<2.00 mg/kg wet	2.00	mg/kg wet							
Chromium	<2.00 mg/kg wet	2.00	mg/kg wet							
LCS (BZB0488-BS1)		Prepared: 02/21/2016 Analyzed: 02/24/2016								
Arsenic	86.8 mg/kg wet	1.98	mg/kg wet	99.2 mg/kg wet	87.5	80-120				
Chromium	95.1 mg/kg wet	1.98	mg/kg wet	99.2 mg/kg wet	95.8	80-120				
Duplicate (BZB0488-DUP1)		Source: 16B0472-62		Prepared: 02/21/2016 Analyzed: 02/24/2016						
Chromium	24.7 mg/kg dry	2.17	mg/kg dry	32.0 mg/kg dry		25.7	20			P
Arsenic	8.05 mg/kg dry	2.17	mg/kg dry	16.3 mg/kg dry		67.8	20			P



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/7/2016 16:30
 8090 Villa Park Dr.
 Richmond VA, 23228

Submitted To: Leonard Ford Jr. Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BZB0488 - SW3050B

Duplicate (BZB0488-DUP2) Source: 16B0472-77 Prepared: 02/21/2016 Analyzed: 02/24/2016

Arsenic	27.5 mg/kg dry	2.09	mg/kg dry	22.9 mg/kg dry	18.3	20
Chromium	40.3 mg/kg dry	2.09	mg/kg dry	34.5 mg/kg dry	15.5	20

Matrix Spike (BZB0488-MS1) Source: 16B0472-62 Prepared: 02/21/2016 Analyzed: 02/24/2016

Chromium	142 mg/kg dry	2.16	mg/kg dry	108	32.0 mg/kg dry	102	75-125
Arsenic	120 mg/kg dry	2.16	mg/kg dry	108	16.3 mg/kg dry	96.4	75-125

Matrix Spike (BZB0488-MS2) Source: 16B0472-77 Prepared: 02/21/2016 Analyzed: 02/24/2016

Chromium	131 mg/kg dry	1.98	mg/kg dry	98.9	34.5 mg/kg dry	97.6	75-125
Arsenic	117 mg/kg dry	1.98	mg/kg dry	98.9	22.9 mg/kg dry	95.6	75-125

Batch BZB0557 - SW3050B

Blank (BZB0557-BLK1) Prepared: 02/23/2016 Analyzed: 02/25/2016

Arsenic	<2.00 mg/kg wet	2.00	mg/kg wet
Chromium	<2.00 mg/kg wet	2.00	mg/kg wet

LCS (BZB0557-BS1) Prepared: 02/23/2016 Analyzed: 02/25/2016

Arsenic	91.6 mg/kg wet	1.90	mg/kg wet	95.2	mg/kg wet	96.2	80-120
Chromium	93.5 mg/kg wet	1.90	mg/kg wet	95.2	mg/kg wet	98.2	80-120

Duplicate (BZB0557-DUP1) Source: 16B0472-82 Prepared: 02/23/2016 Analyzed: 02/25/2016

Arsenic	5.54 mg/kg dry	2.11	mg/kg dry	5.07 mg/kg dry	8.77	20
Chromium	10.7 mg/kg dry	2.11	mg/kg dry	10.9 mg/kg dry	1.52	20

Duplicate (BZB0557-DUP2) Source: 16B0472-92 Prepared: 02/23/2016 Analyzed: 02/25/2016

Arsenic	7.01 mg/kg dry	2.03	mg/kg dry	5.81 mg/kg dry	18.8	20
Chromium	15.7 mg/kg dry	2.03	mg/kg dry	15.9 mg/kg dry	1.09	20



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/7/2016 16:30
 8090 Villa Park Dr.
 Richmond VA, 23228

Submitted To: Leonard Ford Jr. Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BZB0557 - SW3050B

Matrix Spike (BZB0557-MS1)

Source: 16B0472-82

Prepared: 02/23/2016 Analyzed: 02/25/2016

Chromium	119 mg/kg dry	2.17	mg/kg dry	108	10.9 mg/kg dry	99.6	75-125
Arsenic	105 mg/kg dry	2.17	mg/kg dry	108	5.07 mg/kg dry	92.5	75-125

Matrix Spike (BZB0557-MS2)

Source: 16B0472-92

Prepared: 02/23/2016 Analyzed: 02/25/2016

Chromium	110 mg/kg dry	2.00	mg/kg dry	99.9	15.9 mg/kg dry	94.6	75-125
Arsenic	95.4 mg/kg dry	2.00	mg/kg dry	99.9	5.81 mg/kg dry	89.7	75-125

Batch BZB0558 - SW3050B

Blank (BZB0558-BLK1)

Prepared: 02/23/2016 Analyzed: 02/25/2016

Chromium	<2.00 mg/kg wet	2.00	mg/kg wet
Arsenic	<2.00 mg/kg wet	2.00	mg/kg wet

LCS (BZB0558-BS1)

Prepared: 02/23/2016 Analyzed: 02/25/2016

Chromium	95.5 mg/kg wet	2.00	mg/kg wet	99.9	mg/kg wet	95.6	80-120
Arsenic	92.2 mg/kg wet	2.00	mg/kg wet	99.9	mg/kg wet	92.3	80-120

Duplicate (BZB0558-DUP1)

Source: 16B0472-AB

Prepared: 02/23/2016 Analyzed: 02/25/2016

Chromium	8.13 mg/kg dry	2.09	mg/kg dry	8.09 mg/kg dry	0.479	20
Arsenic	<2.09 mg/kg dry	2.09	mg/kg dry	<2.09 mg/kg dry	NA	20

Matrix Spike (BZB0558-MS1)

Source: 16B0472-AB

Prepared: 02/23/2016 Analyzed: 02/25/2016

Chromium	110 mg/kg dry	2.02	mg/kg dry	101	8.09 mg/kg dry	101	75-125
Arsenic	98.2 mg/kg dry	2.02	mg/kg dry	101	<2.02 mg/kg dry	97.1	75-125

Batch BZB0642 - SW3050B

Blank (BZB0642-BLK1)

Prepared: 02/26/2016 Analyzed: 02/29/2016

Chromium	<2.00 mg/kg wet	2.00	mg/kg wet
Arsenic	<2.00 mg/kg wet	2.00	mg/kg wet



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/7/2016 16:30
 8090 Villa Park Dr.
 Richmond VA, 23228

Submitted To: Leonard Ford Jr. Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BZB0642 - SW3050B

LCS (BZB0642-BS1)

Prepared: 02/26/2016 Analyzed: 02/29/2016

Chromium	95.4 mg/kg wet	1.87	mg/kg wet	93.5	mg/kg wet	102	80-120			
Arsenic	87.1 mg/kg wet	1.87	mg/kg wet	93.5	mg/kg wet	93.1	80-120			

Duplicate (BZB0642-DUP1)

Source: 16B0472-ACRE1 Prepared: 02/26/2016 Analyzed: 02/29/2016

Chromium	5.40 mg/kg dry	1.75	mg/kg dry	5.85	mg/kg dry	8.06	20			
Arsenic	<1.75 mg/kg dry	1.75	mg/kg dry	<1.75	mg/kg dry	NA	20			

Matrix Spike (BZB0642-MS1)

Source: 16B0472-ACRE1 Prepared: 02/26/2016 Analyzed: 02/29/2016

Arsenic	74.7 mg/kg dry	1.75	mg/kg dry	87.3	<1.75 mg/kg dry	85.5	75-125			
Chromium	82.2 mg/kg dry	1.75	mg/kg dry	87.3	5.85 mg/kg dry	87.5	75-125			

Batch SZB0601 - BZB0484

Serial Dilution (SZB0601-SRD1)

Source: 16B0472-13 Prepared: 02/20/2016 Analyzed: 02/22/2016

Chromium	60.7 mg/kg dry	5.37	mg/kg dry	60.8	mg/kg dry	0.0635	20			
Arsenic	36.1 mg/kg dry	10.7	mg/kg dry	36.0	mg/kg dry	0.348	20			

Batch SZB0671 - BZB0486

Serial Dilution (SZB0671-SRD1)

Source: 16B0472-21 Prepared: 02/20/2016 Analyzed: 02/24/2016

Arsenic	62.9 mg/kg dry	5.22	mg/kg dry	63.3	mg/kg dry	0.592	20			
Chromium	78.7 mg/kg dry	2.61	mg/kg dry	80.1	mg/kg dry	1.80	20			

Batch SZB0700 - BZB0487

Serial Dilution (SZB0700-SRD1)

Source: 16B0472-41 Prepared: 02/21/2016 Analyzed: 02/24/2016

Chromium	37.8 mg/kg dry	2.64	mg/kg dry	42.5	mg/kg dry	11.8	20			
Arsenic	17.8 mg/kg dry	5.27	mg/kg dry	23.5	mg/kg dry	27.6	20			



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/7/2016 16:30
 8090 Villa Park Dr.
 Richmond VA, 23228

Submitted To: Leonard Ford Jr. Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch SZB0701 - BZB0488

Serial Dilution (SZB0701-SRD1)		Source: 16B0472-63			Prepared: 02/21/2016 Analyzed: 02/24/2016					
Chromium	43.1 mg/kg dry	2.67	mg/kg dry	41.6 mg/kg dry		3.34		20		
Arsenic	19.2 mg/kg dry	5.33	mg/kg dry	20.6 mg/kg dry		7.05		20		

Batch SZB0770 - BZB0488

Serial Dilution (SZB0770-SRD1)		Source: 16B0472-87			Prepared: 02/23/2016 Analyzed: 02/25/2016					
Arsenic	69.4 mg/kg dry	5.79	mg/kg dry	82.2 mg/kg dry		16.9		20		
Chromium	74.7 mg/kg dry	2.89	mg/kg dry	88.2 mg/kg dry		16.6		20		

Batch SZB0771 - BZB0558

Serial Dilution (SZB0771-SRD1)		Source: 16B0472-AD			Prepared: 02/23/2016 Analyzed: 02/25/2016					
Chromium	118 mg/kg dry	6.60	mg/kg dry	121 mg/kg dry		2.93		20		
Arsenic	27.7 mg/kg dry	13.2	mg/kg dry	29.7 mg/kg dry		6.99		20		



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/7/2016 16:30
 8090 Villa Park Dr.
 Richmond VA, 23228
 Submitted To: Leonard Ford Jr. Project Number: R15434R-07
 Client Site I.D.: New Kent Wood Preservers Purchase Order:

Wet Chemistry Analysis - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BZB0560 - No Prep Halides

Blank (BZB0560-BLK1)		Prepared & Analyzed: 02/24/2016								
Percent Solids	100 %	0.10	%							
Duplicate (BZB0560-DUP1)		Source: 16B0472-01		Prepared & Analyzed: 02/24/2016						
Percent Solids	91.9 %	0.10	%		93.5 %			1.74	20	
Duplicate (BZB0560-DUP2)		Source: 16B0472-12		Prepared & Analyzed: 02/24/2016						
Percent Solids	91.3 %	0.10	%		92.6 %			1.39	20	

Batch BZB0582 - No Prep Halides

Blank (BZB0582-BLK1)		Prepared & Analyzed: 02/24/2016								
Percent Solids	100 %	0.10	%							
Duplicate (BZB0582-DUP1)		Source: 16B0472-24		Prepared & Analyzed: 02/24/2016						
Percent Solids	92.8 %	0.10	%		92.8 %			0.0226	20	
Duplicate (BZB0582-DUP2)		Source: 16B0472-32		Prepared & Analyzed: 02/24/2016						
Percent Solids	88.9 %	0.10	%		89.0 %			0.0674	20	

Batch BZB0608 - No Prep Halides

Blank (BZB0608-BLK1)		Prepared & Analyzed: 02/25/2016								
Percent Solids	100 %	0.10	%							
Duplicate (BZB0608-DUP1)		Source: 16B0472-42		Prepared & Analyzed: 02/25/2016						
Percent Solids	92.2 %	0.10	%		93.2 %			1.09	20	



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/7/2016 16:30

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservers

Purchase Order:

Wet Chemistry Analysis - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BZB0608 - No Prep Halides

Duplicate (BZB0608-DUP2) Source: 16B0472-50 Prepared & Analyzed: 02/25/2016

Percent Solids	90.4 %	0.10	%	90.2 %	0.213	20
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Batch BZB0612 - No Prep Halides

Blank (BZB0612-BLK1) Prepared & Analyzed: 02/25/2016

Percent Solids	100 %	0.10	%
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Duplicate (BZB0612-DUP1) Source: 16B0472-62 Prepared & Analyzed: 02/25/2016

Percent Solids	91.3 %	0.10	%	90.5 %	0.886	20
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Duplicate (BZB0612-DUP2) Source: 16B0472-76 Prepared & Analyzed: 02/25/2016

Percent Solids	92.1 %	0.10	%	92.1 %	0.0250	20
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Batch BZB0624 - No Prep Halides

Blank (BZB0624-BLK1) Prepared & Analyzed: 02/25/2016

Percent Solids	100 %	0.10	%
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Duplicate (BZB0624-DUP1) Source: 16B0472-82 Prepared & Analyzed: 02/25/2016

Percent Solids	91.1 %	0.10	%	90.9 %	0.292	20
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Duplicate (BZB0624-DUP2) Source: 16B0472-92 Prepared & Analyzed: 02/25/2016

Percent Solids	93.2 %	0.10	%	93.1 %	0.147	20
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Batch BZB0625 - No Prep Halides

Blank (BZB0625-BLK1) Prepared & Analyzed: 02/25/2016

Percent Solids	100 %	0.10	%
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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/7/2016 16:30
 8090 Villa Park Dr.
 Richmond VA, 23228
 Submitted To: Leonard Ford Jr. Project Number: R15434R-07
 Client Site I.D.: New Kent Wood Preservers Purchase Order:

Wet Chemistry Analysis - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BZB0625 - No Prep Halides

Duplicate (BZB0625-DUP1)

Source: 16B0472-AB

Prepared & Analyzed: 02/25/2016

Percent Solids	91.5 %	0.10	%	91.7 %	0.228	20
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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/7/2016 16:30
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservers
Purchase Order:

Certified Analyses included in this Report

Analyte		Certifications	
SW6010C in Solids			
Arsenic		VELAP,NC	
Chromium		VELAP,NC	
Code	Description	Lab Number	Expires
VELAP	NELAC-Virginia Certificate #8204	460021	06/15/2016



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Certificate of Analysis


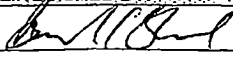
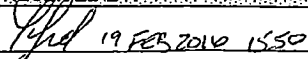
Final Report

Client Name:	Draper Aden Associates-Richmond 8090 Villa Park Dr. Richmond VA, 23228	Date Issued:	3/7/2016 16:30
Submitted To:	Leonard Ford Jr.	Project Number:	R15434R-07
Client Site I.D.:	New Kent Wood Preservers	Purchase Order:	

Summary of Data Qualifiers

P	Duplicate analysis does not meet the acceptance criteria for precision
RPD	Relative Percent Difference
Qual	Qualifiers
-RE	Denotes sample was re-analyzed
D.F.	Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.
TIC	Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.


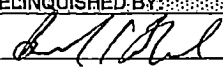
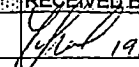
CHAIN OF CUSTODY															
CLIENT: Draper Aden Associates				CONSULTANT:				COPY COA TO CONSULTANT? NOT APPLICABLE							
ATTN: Leonard "Rip" Ford				ATTN:				COPY INVOICE TO CONSULTANT? NOT APPLICABLE							
STREET: 2080 Villa Park Drive				STREET:				FACILITY: New Kent Wood Preservers							
CITY: Richmond, Virginia 23229				CITY:				LOCATION: Providence Forge, Virginia							
PHONE: 804-264-2228				PHONE:				LABORATORY: AWS Laboratories							
TURN AROUND: standard				JOB NO. R15434R-07				ANALYSES REQUESTED							
LAB USE ONLY	PRESERVATIVE			COMP	GRAB	NO. OF JARS	MATRIX	none	none	none					COMMENTS
	SAMPLE INFORMATION							arsenic	chromium	% Solids					
LAB ID	SAMPLE ID	DATE	TIME												
	LW-01-12	2/17/16	0915		X	1	SS	X	X	X					
	LW-01-24	2/17/16	0920		X	1	SS	X	X	X					
	LW-02-12	2/17/16	0930		X	1	SS	X	X	X					
	LW-02-24	2/17/16	0935		X	1	SS	X	X	X					
	LW-03-12	2/17/16	0945		X	1	SS	X	X	X					
	LW-03-24	2/17/16	0950		X	1	SS	X	X	X					
	LW-04-12	2/17/16	1000		X	1	SS	X	X	X					
	LW-04-24	2/17/16	1005		X	1	SS	X	X	X					
	LW-05-12	2/17/16	1010		X	1	SS	X	X	X					
	LW-05-24	2/17/16	1015		X	1	SS	X	X	X					
	LW-06-12	2/17/16	1025		X	1	SS	X	X	X					
	LW-06-24	2/17/16	1030		X	1	SS	X	X	X					
SAMPLED BY: <i>Scott Blommel</i>				PRINTED NAME: Scott Blommel				NOTES: please provide highest available QC package % solids = dry weight basis							
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:		DATE	TIME	REASON FOR TRANSPORT							
<i>Scott Blommel</i>		2/19/16	1550	<i>Y. Chen</i>		19 FEB 2016	15:50	deliver to laboratory for analyses.							
TEMP: 2.9°C		pH:		MATRIX: W = water (type not specified), GW = groundwater, WW = wastewater, SW = surface water, SS = soil/sediment											

CHAIN OF CUSTODY																
CLIENT: Draper Aden Associates				CONSULTANT:				COPY COA TO CONSULTANT? NOT APPLICABLE								
ATTN: Leonard "Rip" Ford				ATTN:				COPY INVOICE TO CONSULTANT? NOT APPLICABLE								
STREET: 2080 Villa Park Drive				STREET:				FACILITY: New Kent Wood Preservers								
CITY: Richmond, Virginia 23229				CITY:				LOCATION: Providence Forge, Virginia								
PHONE: 804-264-2228				PHONE:				LABORATORY: AWS Laboratories								
TURN AROUND: standard				JOB NO. R15434R-07				ANALYSES REQUESTED								
LAB USE ONLY	PRESERVATIVE			COMP	GRAB	NO. OF JARS	MATRIX	none	none	none						COMMENTS
	SAMPLE INFORMATION							arsenic	chromium	% solids						
LAB ID	SAMPLE ID	DATE	TIME													
	LW-07-12	2/17/16	1035		X	1	SS	X	X	X						
	LW-07-24	2/17/16	1040		X	1	SS	X	X	X						
	LW-08-12	2/17/16	1050		X	1	SS	X	X	X						
	LW-08-24	2/17/16	1055		X	1	SS	X	X	X						
	LW-09-12	2/17/16	1105		X	1	SS	X	X	X						
	LW-09-24	2/17/16	1110		X	1	SS	X	X	X						
	LW-10-12	2/17/16	1115		X	1	SS	X	X	X						
	LW-10-24	2/17/16	1120		X	1	SS	X	X	X						
	LW-11-12	2/17/16	1130		X	1	SS	X	X	X						
	LW-11-24	2/17/16	1135		X	1	SS	X	X	X						
	LW-12-12	2/17/16	1140		X	1	SS	X	X	X						
	LW-12-24	2/17/16	1145		X	1	SS	X	X	X						
SAMPLED BY: 				PRINTED NAME: Scott Blommel				NOTES: please provide highest available QC package % solids = dry weight basis								
RELINQUISHED BY: 		DATE: 2/19/16	TIME: 1550	RECEIVED BY: 		DATE: 19 FEB 2016	TIME: 1550	REASON FOR TRANSPORT: deliver to laboratory for analyses.								
TEMP: 2.9°C		pH:		MATRIX: W = water (type not specified), GW = groundwater, WW = wastewater, SW = surface water, SS = soil/sediment												

CHAIN OF CUSTODY															
CLIENT: Draper Aden Associates				CONSULTANT:				COPY COA TO CONSULTANT? NOT APPLICABLE							
ATTN: Leonard "Rip" Ford				ATTN:				COPY INVOICE TO CONSULTANT? NOT APPLICABLE							
STREET: 2080 Villa Park Drive				STREET:				FACILITY: New Kent Wood Preservers							
CITY: Richmond, Virginia 23229				CITY:				LOCATION: Providence Forge, Virginia							
PHONE: 804-264-2228				PHONE:				LABORATORY: AWS Laboratories							
TURN AROUND: standard				JOB NO. R15434R-07				ANALYSES REQUESTED							
LAB USE ONLY	PRESERVATIVE			COMP	GRAB	NO. OF JARS	MATRIX	none	none	none					COMMENTS
	SAMPLE INFORMATION							arsenic	chromium	% Solids					
LAB ID	SAMPLE ID	DATE	TIME												
	LW-13-12	2/17/16	1155		X	1	SS	X	X	X					
	LW-13-24	2/17/16	1200		X	1	SS	X	X	X					
	LW-14-12	2/17/16	1235		X	1	SS	X	X	X					
	LW-14-24	2/17/16	1240		X	1	SS	X	X	X					
	LW-15-12	2/17/16	1245		X	1	SS	X	X	X					
	LW-15-24	2/17/16	1250		X	1	SS	X	X	X					
	LW-16-12	2/17/16	1255		X	1	SS	X	X	X					
	LW-16-24	2/17/16	1300		X	1	SS	X	X	X					
	LW-17-12	2/17/16	1305		X	1	SS	X	X	X					
	LW-17-24	2/17/16	1310		X	1	SS	X	X	X					
	LW-18-12	2/17/16	1320		X	1	SS	X	X	X					
	LW-18-24	2/17/16	1325		X	1	SS	X	X	X					
SAMPLED BY: <i>Blommel</i>				PRINTED NAME: Scott Blommel				NOTES: please provide highest available QC package % Solids = dry weight basis							
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:		DATE	TIME	REASON FOR TRANSPORT							
<i>Blommel</i>		2/19/16	1550	<i>Blommel</i>		2/19/2016	15.50	deliver to laboratory for analyses.							
TEMP: 2.9 °C		pH:		MATRIX: W = water (type not specified), GW = groundwater, WW = wastewater, SW = surface water, SS = soil/sediment											

DA 16B0472
 New Kent Wood Preservatives (NK)
 Recd: 02/19/2016 Due: 02/26/2016
 v130325002

CHAIN OF CUSTODY																
CLIENT: Draper Aden Associates				CONSULTANT:				COPY COA TO CONSULTANT? NOT APPLICABLE								
ATTN: Leonard "Rip" Ford				ATTN:				COPY INVOICE TO CONSULTANT? NOT APPLICABLE								
STREET: 2080 Villa Park Drive				STREET:				FACILITY: New Kent Wood Preservers								
CITY: Richmond, Virginia 23229				CITY:				LOCATION: Providence Forge, Virginia								
PHONE: 804-264-2228				PHONE:				LABORATORY: AWS Laboratories								
TURN AROUND: standard				JOB NO. R15434R-07				ANALYSES REQUESTED								
LAB USE ONLY	PRESERVATIVE			COMP	GRAB	NO. OF JARS	MATRIX	none	none	none						COMMENTS
	SAMPLE INFORMATION							arsenic	chromium	% solids						
LAB ID	SAMPLE ID	DATE	TIME													
	LW-19-12	2/17/16	1330		X	1	SS	X	X	X						
	LW-19-24	2/17/16	1335		X	1	SS	X	X	X						
	LW-20-12	2/17/16	1340		X	1	SS	X	X	X						
	LW-20-24	2/17/16	1345		X	1	SS	X	X	X						
	LW-21-12	2/17/16	1350		X	1	SS	X	X	X						
	LW-21-24	2/17/16	1355		X	1	SS	X	X	X						
	LW-22-12	2/17/16	1400		X	1	SS	X	X	X						
	LW-22-24	2/17/16	1405		X	1	SS	X	X	X						
	LW-23-12	2/17/16	1420		X	1	SS	X	X	X						
	LW-23-24	2/17/16	1425		X	1	SS	X	X	X						
	LW-24-12	2/17/16	1435		X	1	SS	X	X	X						
	LW-24-24	2/17/16	1440		X	1	SS	X	X	X						
SAMPLED BY: <i>Scott Blommel</i>				PRINTED NAME: Scott Blommel				NOTES: please provide highest available QC package % solids = dry weight basis								
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:		DATE	TIME	REASON FOR TRANSPORT								
<i>Scott Blommel</i>		2/19/16	1550	<i>Y. H. 19 FEB 2016</i>		15,50		deliver to laboratory for analyses.								
TEMP: 2.9°C		pH:		MATRIX: W = water (type not specified), GW = groundwater, WW = wastewater, SW = surface water, SS = soil/sediment												

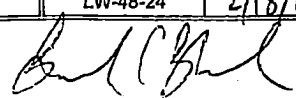
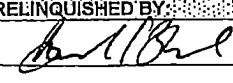
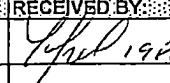
CHAIN OF CUSTODY																
CLIENT: Draper Aden Associates				CONSULTANT:				COPY COA TO CONSULTANT? NOT APPLICABLE								
ATTN: Leonard "Rip" Ford				ATTN:				COPY INVOICE TO CONSULTANT? NOT APPLICABLE								
STREET: 2080 Villa Park Drive				STREET:				FACILITY: New Kent Wood Preservers								
CITY: Richmond, Virginia 23229				CITY:				LOCATION: Providence Forge, Virginia								
PHONE: 804-264-2228				PHONE:				LABORATORY: AWS Laboratories								
TURN AROUND: standard				JOB NO. R15434R-07				ANALYSES REQUESTED								
LAB USE ONLY	PRESERVATIVE			COMP	GRAB	NO. OF JARS	MATRIX	none	none	none						COMMENTS
	SAMPLE INFORMATION							arsenic	chromium	% solids						
LAB ID	SAMPLE ID	DATE	TIME													
	LW-25-12	2/18/16	1405		X	1	SS	X	X	X						
	LW-25-24	2/18/16	1450		X	1	SS	X	X	X						
	LW-26-12	2/17/16	1445		X	1	SS	X	X	X						
	LW-26-24	2/17/16	1450		X	1	SS	X	X	X						
	LW-27-12	2/17/16	1500		X	1	SS	X	X	X						
	LW-27-24	2/17/16	1505		X	1	SS	X	X	X						
	LW-28-12	2/17/16	1510		X	1	SS	X	X	X						
	LW-28-24	2/17/16	1515		X	1	SS	X	X	X						
	LW-29-12	2/17/16	1525		X	1	SS	X	X	X						
	LW-29-24	2/17/16	1530		X	1	SS	X	X	X						
	LW-30-12	2/17/16	1535		X	1	SS	X	X	X						
	LW-30-24	2/17/16	1540		X	1	SS	X	X	X						
SAMPLED BY: 				PRINTED NAME: Scott Blommel				NOTES: please provide highest available QC package % solids = dry weight basis								
RELINQUISHED BY: 		DATE: 2/19/16	TIME: 1556	RECEIVED BY: 		DATE: 19 FEB 2016		TIME: 1550		REASON FOR TRANSPORT: deliver to laboratory for analyses.						
TEMP: 2.9°C		pH:		MATRIX: W = water (type not specified), GW = groundwater, WW = wastewater, SW = surface water, SS = soil/sediment												

CHAIN OF CUSTODY																
CLIENT: Draper Aden Associates				CONSULTANT:				COPY COA TO CONSULTANT? NOT APPLICABLE								
ATTN: Leonard "Rip" Ford				ATTN:				COPY INVOICE TO CONSULTANT? NOT APPLICABLE								
STREET: 2080 Villa Park Drive				STREET:				FACILITY: New Kent Wood Preservers								
CITY: Richmond, Virginia 23229				CITY:				LOCATION: Providence Forge, Virginia								
PHONE: 804-264-2228				PHONE:				LABORATORY: AWS Laboratories								
TURN AROUND: standard				JOB NO. R15434R-07				ANALYSES REQUESTED								
LAB USE ONLY	PRESERVATIVE			COMP	GRAB	NO. OF JARS	MATRIX	none	none	none						COMMENTS
	SAMPLE INFORMATION							arsenic	chromium	% Solids						
LAB ID	SAMPLE ID	DATE	TIME													
	LW-31-12	2/17/16	1600		X	1	SS	X	X	X						
	LW-31-24	2/17/16	1605		X	1	SS	X	X	X						
	LW-32-12	2/17/16	1610		X	1	SS	X	X	X						
	LW-32-24	2/17/16	1615		X	1	SS	X	X	X						
	LW-33-12	2/18/16	0910		X	1	SS	X	X	X						
	LW-33-24	2/18/16	0915		X	1	SS	X	X	X						
	LW-34-12	2/18/16	0920		X	1	SS	X	X	X						
	LW-35-12	2/18/16	0925		X	1	SS	X	X	X						
	LW-35-24	2/18/16	0930		X	1	SS	X	X	X						
	LW-36-12	2/18/16	0945		X	1	SS	X	X	X						
	LW-36-24	2/18/16	0950		X	1	SS	X	X	X						
SAMPLED BY: <i>Scott Blommel</i>				PRINTED NAME: Scott Blommel				NOTES: please provide highest available QC package % solids = dry weight basis								
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:		DATE	TIME	REASON FOR TRANSPORT								
<i>Scott Blommel</i>		2/19/16	1550	<i>Scott Blommel</i>		19 FEB 2016	1550	deliver to laboratory for analyses.								
TEMP: 29°C		pH:		MATRIX: W = water (type not specified), GW = groundwater, WW = wastewater, SW = surface water, SS = soil/sediment												

CHAIN OF CUSTODY																
CLIENT: Draper Aden Associates				CONSULTANT:				COPY COA TO CONSULTANT? NOT APPLICABLE								
ATTN: Leonard "Rip" Ford				ATTN:				COPY INVOICE TO CONSULTANT? NOT APPLICABLE								
STREET: 2080 Villa Park Drive				STREET:				FACILITY: New Kent Wood Preservers								
CITY: Richmond, Virginia 23229				CITY:				LOCATION: Providence Forge, Virginia								
PHONE: 804-264-2228				PHONE:				LABORATORY: AWS Laboratories								
TURN AROUND: standard				JOB NO. R15434R-07				ANALYSES REQUESTED								
LAB USE ONLY	PRESERVATIVE			COMP	GRAB	NO. OF JARS	MATRIX	none	none	none						COMMENTS
	SAMPLE INFORMATION							arsenic	chromium	% Solids						
LAB ID	SAMPLE ID	DATE	TIME													
	LW-37-12	2/18/16	1000		X	1	SS	X	X	X						
	LW-37-24	2/18/16	1005		X	1	SS	X	X	X						
	LW-38-12	2/18/16	1010		X	1	SS	X	X	X						
	LW-38-24	2/18/16	1015		X	1	SS	X	X	X						
	LW-39-12	2/18/16	1020		X	1	SS	X	X	X						
	LW-39-24	2/18/16	1025		X	1	SS	X	X	X						
	LW-40-12	2/18/16	1040		X	1	SS	X	X	X						
	LW-40-24	2/18/16	1045		X	1	SS	X	X	X						
	LW-41-12	2/18/16	1050		X	1	SS	X	X	X						
	LW-41-24	2/18/16	1055		X	1	SS	X	X	X						
	LW-42-12	2/18/16	1100		X	1	SS	X	X	X						
	LW-42-24	2/18/16	1105		X	1	SS	X	X	X						
SAMPLED BY: <i>Scott Blommel</i>				PRINTED NAME: Scott Blommel				NOTES: please provide highest available QC package % Solids = dry weight basis								
RELINQUISHED BY:		DATE:	TIME:	RECEIVED BY:		DATE:	TIME:	REASON FOR TRANSPORT:								
<i>Scott Blommel</i>		2/19/16	1559	<i>Scott Blommel</i>		2/19/2016	1550	deliver to laboratory for analyses.								
TEMP: 29°C		pH:		MATRIX: W = water (type not specified), GW = groundwater, WW = wastewater, SW = surface water, SS = soil/sediment												

DA 16B0472
 New Kent Wood Preservatives (NK)
 Recd: 02/19/2016 Due: 02/26/2016

v130325002

CHAIN OF CUSTODY															
CLIENT: Draper Aden Associates				CONSULTANT:				COPY COA TO CONSULTANT? NOT APPLICABLE							
ATTN: Leonard "Rip" Ford				ATTN:				COPY INVOICE TO CONSULTANT? NOT APPLICABLE							
STREET: 2080 Villa Park Drive				STREET:				FACILITY: New Kent Wood Preservers							
CITY: Richmond, Virginia 23229				CITY:				LOCATION: Providence Forge, Virginia							
PHONE: 804-264-2228				PHONE:				LABORATORY: AWS Laboratories							
TURN AROUND: standard				JOB NO. R15434R-07				ANALYSES REQUESTED							
LAB USE ONLY	PRESERVATIVE			COMP	GRAB	NO. OF JARS	MATRIX	none	none	none					COMMENTS
	SAMPLE INFORMATION							arsenic	chromium	% solids					
LAB ID	SAMPLE ID	DATE	TIME												
	LW-43-12	2/18/16	1115	X	1	SS	X	X	X						
	LW-43-24	2/18/16	1120	X	1	SS	X	X	X						
	LW-44-12	2/18/16	1135	X	1	SS	X	X	X						
	LW-44-24	2/18/16	1140	X	1	SS	X	X	X						
	LW-45-12	2/18/16	1235	X	1	SS	X	X	X						
	LW-45-24	2/18/16	1245	X	1	SS	X	X	X						
	LW-46-12	2/18/16	1251	X	1	SS	X	X	X						
	LW-46-24	2/18/16	1300	X	1	SS	X	X	X						
	LW-47-12	2/18/16	1311	X	1	SS	X	X	X						
	LW-47-24	2/18/16	1320	X	1	SS	X	X	X						
	LW-48-12	2/18/16	1336	X	1	SS	X	X	X						
	LW-48-24	2/18/16	1350	X	1	SS	X	X	X						
SAMPLED BY: 				PRINTED NAME: Scott Blommel				NOTES: please provide highest available QC package % solids = dry weight basis							
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:		DATE	TIME	REASON FOR TRANSPORT							
		2/19/16	1550			19 FEB 2016	15.50	deliver to laboratory for analyses.							
TEMP: 2.9°C		pH:		MATRIX: W = water (type not specified), GW = groundwater, WW = wastewater, SW = surface water, SS = soil/sediment											

DA 16B0472
 New Kent Wood Preservatives (NK)
 Recd: 02/19/2016 Due: 02/26/2016

v130325002

CHAIN OF CUSTODY																
CLIENT: Draper Aden Associates				CONSULTANT:				COPY COA TO CONSULTANT? NOT APPLICABLE								
ATTN: Leonard "Rip" Ford				ATTN:				COPY INVOICE TO CONSULTANT? NOT APPLICABLE								
STREET: 2080 Villa Park Drive				STREET:				FACILITY: New Kent Wood Preservers								
CITY: Richmond, Virginia 23229				CITY:				LOCATION: Providence Forge, Virginia								
PHONE: 804-264-2228				PHONE:				LABORATORY: AWS Laboratories								
TURN AROUND: standard			JOB NO. R15434R-07			ANALYSES REQUESTED										
LAB USE ONLY	PRESERVATIVE			COMP	GRAB	NO. OF JARS	MATRIX	none	none	none						COMMENTS
	SAMPLE INFORMATION							arsenic	chromium	% Solids						
LAB ID	SAMPLE ID	DATE	TIME													
	LW-10-24 dup	2/17/16	1123		X	1	SS	X	X	X						
	LW-19-12 dup	2/17/16	1333		X	1	SS	X	X	X						
	LW-29-24 dup	2/17/16	1533		X	1	SS	X	X	X						
	LW-39-12 dup	2/18/16	1023		X	1	SS	X	X	X						
	LW-48-12 dup	2/18/16	1425		X	1	SS	X	X	X						
	LW-SF-light	2/18/16	1513	X	1513	1	SS	X	X	X						Saw dust
	LW-SF-dark	2/18/16	1526	X	1526	1	SS	X	X	X						Saw dust/Mulch
							SS	X	X							
							SS	X	X							
							SS	X	X							
							SS	X	X							
							SS	X	X							
SAMPLED BY: <i>Scott Blommel</i>				PRINTED NAME: Scott Blommel				NOTES: please provide highest available QC package % Solids = dry weight basis								
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:		DATE	TIME	REASON FOR TRANSPORT								
<i>Scott Blommel</i>		2/19/16	1550	<i>Scott Blommel</i>		19 FEB 2016	15:50	deliver to laboratory for analyses.								
TEMP: 29°C		pH:		MATRIX: W = water (type not specified), GW = groundwater, WW = wastewater, SW = surface water, SS = soil/sediment												



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DA 16B0472
New Kent Wood Preservatives (NK)
Recd: 02/19/2016 Due: 02/26/2016

v130325002

Sample Conditions Checklist

Opened by: (Initials)

[Signature]

Lab ID No.:

Date Cooler Opened:

19 FEB 2016

- | | YES | NO | N/A |
|--|---|--------------------------|-------------------------------------|
| 1. How were samples received? | | | |
| | Fed Ex <input type="checkbox"/> | | |
| | UPS <input type="checkbox"/> | | |
| | Courier <input type="checkbox"/> | | |
| | Walk In <input checked="" type="checkbox"/> | | |
| 2. Were custody seals used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. If yes, are custody seals unbroken and intact at the date and time of arrival? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Are the custody papers filled out completely and correctly? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Do all bottle labels agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Is the temperature blank or representative sample within acceptable limits?
(above freezing to 6°C) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. If NO, are the samples just taken and received on ice? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9. Are all samples within holding time for requested laboratory tests? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Is a sufficient amount of sample provided to perform the tests indicated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Are all samples in proper containers for the analyses requested? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Are all samples appropriately preserved for the analyses requested? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. Are all volatile organic containers free of headspace? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 14. Are all TOX containers free of headspace? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 15. Is Trip blank provided with each VOC sample set? Circle applicable method:
(Document if trip blank is not received with the sample set) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

EPA 8011

EPA 504

EPA 8260

EPA 624

RSK-175

EPA 8015 (GRO)

EPA 8021

EPA 524

*GRO Wisconsin DNR (water and/or methanol trip blank must be provided)

* See preservation log for Wisconsin soil DRO.

COMMENTS

Per Rip Ford; Proceed w/ \$ 10 day TAT.
KLC 2.22.16

FOR LAB USE ONLY:

CrVI preserved date/time: _____

Buffer Sol'n ID: _____

1N NaOH ID: _____ or

Analyst Initials: _____

5N NaOH ID: _____

THIS DOCUMENT IS UNCONTROLLED WHEN PRINTED
F1302 Sample Condition 6_0.xls



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Certificate of Analysis

Final Report

Sample Delivery Group ID NKWP 160219

Client Name: Draper Aden Associates-Richmond

Date Issued: 3/2/2016 14:05

8090 Villa Park Dr.

Project Number: R15434R-07

Richmond, VA 23228

Purchase Order:

Submitted To: Leonard Ford Jr.

Client Site I.D.: New Kent Wood Products

Enclosed are the results of analyses for samples received by the laboratory in sample delivery group NKWP 160219. Work orders included in the sample delivery group:

16B0474

2/19/2016 15:50

A handwritten signature in black ink that reads "Ted Soyars".

Ted Soyars

Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.





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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/2/2016 14:05

Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Products
Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 16B0474

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Field Blank 1	16B0474-01	Ground Water	02/17/2016 16:30	02/19/2016 15:50
Field Blank 2	16B0474-02	Ground Water	02/18/2016 15:35	02/19/2016 15:50
Equip Blank	16B0474-03	Ground Water	02/18/2016 14:17	02/19/2016 15:50



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/2/2016 14:05
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Products
Purchase Order:

Laboratory Order ID: 16B0474

Analytical Results

Sample I.D. Field Blank 1

Laboratory Sample ID: 16B0474-01

Date/Time Sampled: 02/17/2016 16:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	01	SW6010C	<0.0800 mg/L wet		0.0800	1	02/24/16 14:00	02/25/16 20:56	CWO
Chromium	01	SW6010C	<0.0800 mg/L wet		0.0800	1	02/24/16 14:00	02/25/16 20:55	CWO



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/2/2016 14:05
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Products
Purchase Order:

Laboratory Order ID: 16B0474

Analytical Results

Sample I.D. Field Blank 2

Laboratory Sample ID: 16B0474-02

Date/Time Sampled: 02/18/2016 15:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	02	SW6010C	<0.0800 mg/L wet		0.0800	1	02/24/16 14:00	02/25/16 21:00	CWO
Chromium	02	SW6010C	<0.0800 mg/L wet		0.0800	1	02/24/16 14:00	02/25/16 20:59	CWO



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/2/2016 14:05

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Products

Purchase Order:

Laboratory Order ID: 16B0474

Analytical Results

Sample I.D. Equip Blank

Laboratory Sample ID: 16B0474-03

Date/Time Sampled: 02/18/2016 14:17

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	03	SW6010C	<0.0800 mg/L wet		0.0800	1	02/24/16 14:00	02/25/16 21:03	CWO
Chromium	03	SW6010C	<0.0800 mg/L wet		0.0800	1	02/24/16 14:00	02/25/16 21:03	CWO

Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods					
		Preparation Method: EPA200.2/R2.8			
16B0474-01	25.0 mL / 50.0 mL	SW6010C	BZB0601	SZB0772	AB60137
16B0474-02	25.0 mL / 50.0 mL	SW6010C	BZB0601	SZB0772	AB60137
16B0474-03	25.0 mL / 50.0 mL	SW6010C	BZB0601	SZB0772	AB60137



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/2/2016 14:05

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Products

Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	------

Batch BZB0601 - EPA200.2/R2.8

Blank (BZB0601-BLK1)

Prepared: 02/24/2016 Analyzed: 02/25/2016

Arsenic	<0.0400 mg/L wet	0.0400	mg/L wet
Chromium	<0.0400 mg/L wet	0.0400	mg/L wet

LCS (BZB0601-BS1)

Prepared: 02/24/2016 Analyzed: 02/25/2016

Arsenic	0.483 mg/L wet	0.0400	mg/L wet	0.500	mg/L wet	96.5	80-120
Chromium	0.486 mg/L wet	0.0400	mg/L wet	0.500	mg/L wet	97.1	80-120

Duplicate (BZB0601-DUP1)

Source: 16B0474-03

Prepared: 02/24/2016 Analyzed: 02/25/2016

Arsenic	<0.0800 mg/L wet	0.0800	mg/L wet	<0.0800 mg/L wet	NA	20
Chromium	<0.0800 mg/L wet	0.0800	mg/L wet	<0.0800 mg/L wet	NA	20

Matrix Spike (BZB0601-MS1)

Source: 16B0474-03

Prepared: 02/24/2016 Analyzed: 02/25/2016

Arsenic	0.957 mg/L wet	0.0800	mg/L wet	1.00	<0.0800 mg/L wet	95.7	75-125
Chromium	0.973 mg/L wet	0.0800	mg/L wet	1.00	<0.0800 mg/L wet	97.3	75-125

Batch SZB0772 - BZB0601

Serial Dilution (SZB0772-SRD1)

Source: 16B0474-03

Prepared: 02/24/2016 Analyzed: 02/25/2016

Arsenic	<0.100 mg/L wet	0.100	mg/L wet	<0.100 mg/L wet	NA	20
Chromium	<0.100 mg/L wet	0.100	mg/L wet	<0.100 mg/L wet	NA	20



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228
Date Issued: 3/2/2016 14:05
Submitted To: Leonard Ford Jr.
Project Number: R15434R-07
Client Site I.D.: New Kent Wood Products
Purchase Order:

Certified Analyses included in this Report

Analyte		Certifications	
SW6010C in Non-Potable Water			
Arsenic		VELAP,NC,WVDEP	
Chromium		VELAP,NC,WVDEP	
Code	Description	Lab Number	Expires
VELAP	NELAC-Virginia Certificate #8204	460021	06/15/2016



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Certificate of Analysis

Final Report

Client Name:	Draper Aden Associates-Richmond 8090 Villa Park Dr. Richmond VA, 23228	Date Issued:	3/2/2016 14:05
Submitted To:	Leonard Ford Jr.	Project Number:	R15434R-07
Client Site I.D.:	New Kent Wood Products	Purchase Order:	

Summary of Data Qualifiers

RPD	Relative Percent Difference
Qual	Qualifiers
-RE	Denotes sample was re-analyzed
D.F.	Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.
TIC	Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.



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DA 16B0474
New Kent Wood Preservatives (NK)

Recd: 02/19/2016 Due: 02/26/2016

v130325002

Sample Conditions Checklist

Opened by: (Initials)

TN

Lab ID No.:

Date Cooler Opened:

19 FEB 2016

- | | | YES | NO | N/A |
|-----|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. | How were samples received? | | | |
| | Fed Ex <input type="checkbox"/> | | | |
| | UPS <input type="checkbox"/> | | | |
| | Courier <input type="checkbox"/> | | | |
| | Walk In <input checked="" type="checkbox"/> | | | |
| 2. | Were custody seals used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. | If yes, are custody seals unbroken and intact at the date and time of arrival? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. | Are the custody papers filled out completely and correctly? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. | Do all bottle labels agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. | Is the temperature blank or representative sample within acceptable limits?
(above freezing to 6°C) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. | If NO, are the samples just taken and received on ice? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9. | Are all samples within holding time for requested laboratory tests? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. | Is a sufficient amount of sample provided to perform the tests indicated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. | Are all samples in proper containers for the analyses requested? | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 12. | Are all samples appropriately preserved for the analyses requested? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 13. | Are all volatile organic containers free of headspace? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 14. | Are all TOX containers free of headspace? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 15. | Is Trip blank provided with each VOC sample set? Circle applicable method:
(Document if trip blank is not received with the sample set) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

EPA 8011

EPA 504

EPA 8260

EPA 624

RSK-175

EPA 8015 (GRO)

EPA 8021

EPA 524

*GRO Wisconsin DNR (water and/or methanol trip blank must be provided)

* See preservation log for Wisconsin soil DRO.

COMMENTS

All samples received in 60402 jars instead of the 1500mL HNO3
for metals analyses. TN FEB 2016

Per Rip Ford; Proceed w/ 10 day TAT. KLC 2-22-16

FOR LAB USE ONLY:

CrVI preserved date/time: _____

Buffer Sol'n ID: _____

1N NaOH ID: _____ or

Analyst Initials: _____

5N NaOH ID: _____

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F1302 Sample Condition 6_0.xls

Sample Preservation Log

Sample Preservation Log
Form #: F1301
Rev # 4.0
Effective: Mar 13, 2015
Page 1 of 1

P/A = Present/Absent

Page 11 of 11



1941 Reymet Road • Richmond, Virginia 23237 • Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 16C0318

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond, VA 23228

Date Received: March 14, 2016 9:50

Date Issued: March 28, 2016 16:02

Project Number: R15434R-07

Submitted To: Leonard Ford Jr.

Purchase Order:

Client Site I.D.: New Kent Wood Preservatives Providence Forge, VA

Enclosed are the results of analyses for samples received by the laboratory on 03/14/2016 09:50. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read "m. mishra".

Mandy Mishra
Quality Assurance Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/28/2016 16:02
8090 Villa Park Dr.
Richmond VA, 23228
Submitted To: Leonard Ford Jr. Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservatives Providence Forge Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 16C0318

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
LW-19-12C	16C0318-01	Soil	02/17/2016 13:30	03/14/2016 09:50
LW-29-24C	16C0318-02	Soil	02/17/2016 15:30	03/14/2016 09:50
LW-48-12C	16C0318-03	Soil	02/18/2016 13:36	03/14/2016 09:50

Results have been calculated based on dry weight.



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/28/2016 16:02
8090 Villa Park Dr.
Richmond VA, 23228
Submitted To: Leonard Ford Jr. Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservatives Providence Forg Purchase Order:

Laboratory Order ID: 16C0318

Analytical Results

Sample I.D. LW-19-12C

Laboratory Sample ID: 16C0318-01

Date/Time Sampled: 02/17/2016 13:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	01RE1	SW6010C	13.9 mg/kg dry		2.01	1	03/18/16 08:40	03/23/16 11:38	CWO
Chromium	01RE1	SW6010C	37.1 mg/kg dry		2.01	1	03/18/16 08:40	03/23/16 11:38	CWO
Wet Chemistry Analysis									
Percent Solids	01	SM18 2540G	95.9 %		0.10	1	03/16/16 13:23	03/16/16 13:23	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/28/2016 16:02
8090 Villa Park Dr.
Richmond VA, 23228
Submitted To: Leonard Ford Jr. Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservatives Providence Forg Purchase Order:

Laboratory Order ID: 16C0318

Analytical Results

Sample I.D. LW-29-24C

Laboratory Sample ID: 16C0318-02

Date/Time Sampled: 02/17/2016 15:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	02RE1	SW6010C	45.7 mg/kg dry		2.04	1	03/18/16 08:40	03/23/16 11:43	CWO
Chromium	02RE1	SW6010C	60.6 mg/kg dry		2.04	1	03/18/16 08:40	03/23/16 11:43	CWO
Wet Chemistry Analysis									
Percent Solids	02	SM18 2540G	93.2 %		0.10	1	03/16/16 13:23	03/16/16 13:23	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/28/2016 16:02
 8090 Villa Park Dr.
 Richmond VA, 23228

Submitted To: Leonard Ford Jr. Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservatives Providence Forg Purchase Order:

Laboratory Order ID: 16C0318

Analytical Results

Sample I.D. LW-48-12C Laboratory Sample ID: 16C0318-03

Date/Time Sampled: 02/18/2016 13:36

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	03RE1	SW6010C	57.6 mg/kg dry		2.13	1	03/18/16 08:40	03/23/16 11:48	CWO
Chromium	03RE1	SW6010C	80.1 mg/kg dry		2.13	1	03/18/16 08:40	03/23/16 11:48	CWO
Wet Chemistry Analysis									
Percent Solids	03	SM18 2540G	92.6 %		0.10	1	03/17/16 15:14	03/17/16 15:14	RCV

Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis					
		Preparation Method:	No Prep Halides		
16C0318-01	1.00 g / 1.00 mL	SM18 2540G	BZC0397	SZC0449	
16C0318-02	1.00 g / 1.00 mL	SM18 2540G	BZC0397	SZC0449	
16C0318-03	1.00 g / 1.00 mL	SM18 2540G	BZC0397	SZC0449	
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods					
		Preparation Method:	SW3050B		
16C0318-01	1.10 g / 50.0 mL	SW6010C	BZC0325	SZC0390	AC60052
16C0318-02	1.10 g / 50.0 mL	SW6010C	BZC0325	SZC0390	AC60052
16C0318-03	1.02 g / 50.0 mL	SW6010C	BZC0325	SZC0390	AC60052
Metals (Total) by EPA 6000/7000 Series Methods					
		Preparation Method:	SW3050B		
16C0318-01RE1	1.04 g / 50.0 mL	SW6010C	BZC0389	SZC0710	AC60115
16C0318-02RE1	1.05 g / 50.0 mL	SW6010C	BZC0389	SZC0710	AC60115
16C0318-03RE1	1.02 g / 50.0 mL	SW6010C	BZC0389	SZC0710	AC60115



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/28/2016 16:02
 8090 Villa Park Dr.
 Richmond VA, 23228

Submitted To: Leonard Ford Jr. Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservatives Providence Forg Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	------

Batch BZC0325 - SW3050B

Blank (BZC0325-BLK1)

Prepared & Analyzed: 03/15/2016

Chromium	<2.00 mg/kg wet	2.00	mg/kg wet
Arsenic	<2.00 mg/kg wet	2.00	mg/kg wet

LCS (BZC0325-BS1)

Prepared & Analyzed: 03/15/2016

Arsenic	104 mg/kg wet	1.96	mg/kg wet	97.8	mg/kg wet	107	80-120
Chromium	107 mg/kg wet	1.96	mg/kg wet	97.8	mg/kg wet	110	80-120

LCS Dup (BZC0325-BSD1)

Prepared & Analyzed: 03/15/2016

Arsenic	104 mg/kg wet	1.92	mg/kg wet	95.9	mg/kg wet	108	80-120	0.850	20
Chromium	106 mg/kg wet	1.92	mg/kg wet	95.9	mg/kg wet	111	80-120	1.02	20

Matrix Spike (BZC0325-MS1)

Source: 16C0318-03

Prepared & Analyzed: 03/15/2016

Arsenic	168 mg/kg dry	2.08	mg/kg dry	104	62.1 mg/kg dry	102	75-125
Chromium	172 mg/kg dry	2.08	mg/kg dry	104	64.6 mg/kg dry	104	75-125

Matrix Spike Dup (BZC0325-MSD1)

Source: 16C0318-03

Prepared & Analyzed: 03/15/2016

Chromium	173 mg/kg dry	2.09	mg/kg dry	104	64.6 mg/kg dry	104	75-125	0.472	20
Arsenic	168 mg/kg dry	2.09	mg/kg dry	104	62.1 mg/kg dry	102	75-125	0.123	20

Batch BZC0389 - SW3050B

Blank (BZC0389-BLK1)

Prepared: 03/18/2016 Analyzed: 03/23/2016

Chromium	<2.00 mg/kg wet	2.00	mg/kg wet
Arsenic	<2.00 mg/kg wet	2.00	mg/kg wet

LCS (BZC0389-BS1)

Prepared: 03/18/2016 Analyzed: 03/23/2016

Chromium	96.7 mg/kg wet	1.88	mg/kg wet	94.2	mg/kg wet	103	80-120
Arsenic	89.0 mg/kg wet	1.88	mg/kg wet	94.2	mg/kg wet	94.5	80-120



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/28/2016 16:02
 8090 Villa Park Dr.
 Richmond VA, 23228

Submitted To: Leonard Ford Jr. Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservatives Providence Forg Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	------

Batch BZC0389 - SW3050B

Duplicate (BZC0389-DUP1)

Source: 16C0318-03RE1 Prepared: 03/18/2016 Analyzed: 03/23/2016

Chromium	79.6 mg/kg dry	2.13	mg/kg dry	80.1 mg/kg dry	0.626	20
Arsenic	58.5 mg/kg dry	2.13	mg/kg dry	57.6 mg/kg dry	1.51	20

Matrix Spike (BZC0389-MS1)

Source: 16C0318-03RE1 Prepared: 03/18/2016 Analyzed: 03/23/2016

Arsenic	155 mg/kg dry	2.14	mg/kg dry	107	57.6 mg/kg dry	90.9	75-125
Chromium	176 mg/kg dry	2.14	mg/kg dry	107	80.1 mg/kg dry	89.5	75-125

Batch SZC0710 - BZC0389

Serial Dilution (SZC0710-SRD1)

Source: 16C0318-01RE1 Prepared: 03/18/2016 Analyzed: 03/23/2016

Arsenic	13.1 mg/kg dry	10.0	mg/kg dry	13.9 mg/kg dry	6.13	20
Chromium	38.0 mg/kg dry	5.02	mg/kg dry	37.1 mg/kg dry	2.40	20



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/28/2016 16:02
 8090 Villa Park Dr.
 Richmond VA, 23228
 Submitted To: Leonard Ford Jr. Project Number: R15434R-07
 Client Site I.D.: New Kent Wood Preservatives Providence Forg Purchase Order:

Wet Chemistry Analysis - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
---------	--------	--------------------	-------	----------------	------------------	----------------	-----	--------------	------

Batch BZC0397 - No Prep Halides

Blank (BZC0397-BLK1)

Prepared & Analyzed: 03/17/2016

Percent Solids 100 % 0.10 %

Duplicate (BZC0397-DUP1)

Source: 16C0318-02

Prepared & Analyzed: 03/17/2016

Percent Solids 93.2 % 0.10 % 93.2 % 0.0116 20



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/28/2016 16:02
8090 Villa Park Dr.
Richmond VA, 23228
Submitted To: Leonard Ford Jr. Project Number: R15434R-07
Client Site I.D.: New Kent Wood Preservatives Providence Forge Purchase Order:

Certified Analyses included in this Report

Analyte		Certifications	
SW6010C in Solids			
Arsenic		VELAP,NC	
Chromium		VELAP,NC	
Code	Description	Lab Number	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2016
NC	North Carolina DENR	495	12/31/2016
VELAP	NELAC-Virginia Certificate #8233	460021	06/15/2016
WVDEP	West Virginia DEP	350	11/30/2016



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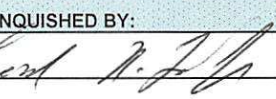
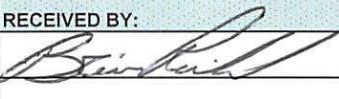
Certificate of Analysis

Final Report

Client Name:	Draper Aden Associates-Richmond 8090 Villa Park Dr. Richmond VA, 23228	Date Issued:	3/28/2016 16:02
Submitted To:	Leonard Ford Jr.	Project Number:	R15434R-07
Client Site I.D.:	New Kent Wood Preservatives Providence Forg	Purchase Order:	

Summary of Data Qualifiers

RPD	Relative Percent Difference
Qual	Qualifiers
-RE	Denotes sample was re-analyzed
D.F.	Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.
TIC	Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

CHAIN OF CUSTODY															
CLIENT: Draper Aden Associates				CONSULTANT:				COPY COA TO CONSULTANT? NOT APPLICABLE							
ATTN: Leonard "Rip" Ford				ATTN:				COPY INVOICE TO CONSULTANT? NOT APPLICABLE							
STREET: 2080 Villa Park Drive				STREET:				FACILITY: New Kent Wood Preservatives							
CITY: Richmond, Virginia 23229				CITY:				LOCATION: Providence Forge, Virginia							
PHONE: 804-264-2228				PHONE:				LABORATORY: AWS Laboratories							
TURN AROUND: 10-days				JOB NO. R15434R-07				ANALYSES REQUESTED							
LAB USE ONLY	PRESERVATIVE			COMP	GRAB	NO. OF JARS	MATRIX	none	none	none					
	SAMPLE INFORMATION							arsenic	chromium	percent solids					
LAB ID	SAMPLE ID	DATE	TIME												
	LW-19-12C	17-Feb-16	13:30		X	1	SS	X	X	X					report dry weight basis
	LW-29-24C	17-Feb-16	15:30		X	1	SS	X	X	X					report dry weight basis
	LW-48-12C	18-Feb-16	13:36		X	1	SS	X	X	X					report dry weight basis
SAMPLED BY: 				PRINTED NAME: Scott Blommel / Leonard Ford				NOTES: please provide QC level 1							
INQUIRED BY: 				DATE: 03-14-16	TIME: 9:50	RECEIVED BY: 		DATE: 03/14/16	TIME: 9:50	REASON FOR TRANSPORT: deliver to laboratory for analyses.					
TEMP: 1.2°C				pH:		MATRIX: W = water (type not specified), GW = groundwater, WW = wastewater, SW = surface water, SS = soil/sediment									

DA

New Kent Wood Preservatives (NK

Recd: 03/14/2016 Due: 03/28/2016

16C0318

v130325002



1941 Reymet Road • Richmond, Virginia 23237 • Tel : (804) 358-8295 F

DA 16C0318
New Kent Wood Preservatives (NK)

Recd: 03/14/2016 Due: 03/28/2016

v130325002

Sample Conditions Checklist

Opened by: (Initials)

Lab ID No.:

Date Cooler Opened:

14 MARCH 2016

1. How were samples received?

Fed Ex ☐
UPS ☐
Courier ☐
Walk In ☒

YES NO N/A

2. Were custody seals used?

☐ ☒ ☐

3. If yes, are custody seals unbroken and intact at the date and time of arrival?

☐ ☐ ☒

4. Are the custody papers filled out completely and correctly?

☒ ☐ ☐

5. Do all bottle labels agree with custody papers?

☒ ☐ ☐

7. Is the temperature blank or representative sample within acceptable limits?
(above freezing to 6°C)

☒ ☐ ☐

8. If NO, are the samples just taken and received on ice?

☐ ☐ ☒

9. Are all samples within holding time for requested laboratory tests?

☒ ☐ ☐

10. Is a sufficient amount of sample provided to perform the tests indicated?

☒ ☐ ☐

11. Are all samples in proper containers for the analyses requested?

☒ ☐ ☐

12. Are all samples appropriately preserved for the analyses requested?

☒ ☐ ☐

13. Are all volatile organic containers free of headspace?

☐ ☐ ☒

14. Are all TOX containers free of headspace?

☐ ☐ ☒

15. Is Trip blank provided with each VOC sample set? Circle applicable method:
(Document if trip blank is not received with the sample set)

☐ ☐ ☒

EPA 8011 EPA 504 EPA 8260 EPA 624

RSK-175 EPA 8015 (GRO) EPA 8021

EPA 524 *GRO Wisconsin DNR (water and/or methanol trip blank must be provided)

* See preservation log for Wisconsin soil DRO.

COMMENTS

FOR LAB USE ONLY:

CrVI preserved date/time: _____

Buffer Sol'n ID: _____

1N NaOH ID: _____ or

Analyst initials: _____

5N NaOH ID: _____

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F1302 Sample Condition 6_0.xls



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Certificate of Analysis

Final Report

Laboratory Order ID 16C0317

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond, VA 23228

Date Received: March 14, 2016 9:50

Date Issued: March 28, 2016 16:03

Project Number: R15434R-07

Submitted To: Leonard Ford Jr.

Purchase Order:

Client Site I.D.: New Kent Wood Preservatives

Enclosed are the results of analyses for samples received by the laboratory on 03/14/2016 09:50. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read "m. mishra".

Mandy Mishra
Quality Assurance Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/28/2016 16:03

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservatives

Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 16C0317

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TC-01	16C0317-01	Soil	02/18/2016 10:40	03/14/2016 09:50
TC-02	16C0317-02	Soil	02/18/2016 10:45	03/14/2016 09:50
TC-03	16C0317-03	Soil	02/17/2016 14:45	03/14/2016 09:50
TC-04	16C0317-04	Soil	02/18/2016 09:10	03/14/2016 09:50
TC-05	16C0317-05	Soil	02/17/2016 11:30	03/14/2016 09:50
TC-06	16C0317-06	Soil	02/18/2016 13:11	03/14/2016 09:50
TC-07	16C0317-07	Soil	02/17/2016 10:35	03/14/2016 09:50



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/28/2016 16:03

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservatives

Purchase Order:

Laboratory Order ID: 16C0317

Analytical Results

Sample I.D. TC-01

Laboratory Sample ID: 16C0317-01

Date/Time Sampled: 02/18/2016 10:40

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
TCLP Metals by 6000/7000 Series Methods									
TCLP Arsenic	01	SW6010C	0.279 mg/L		0.100	1	03/22/16 11:50	03/23/16 12:41	CWO
TCLP Chromium	01	SW6010C	<0.100 mg/L		0.100	1	03/22/16 11:50	03/23/16 12:41	CWO
TCLP Extraction Fluid, Metals	01	SW1311	1 #		--	1	03/21/16 16:30	03/22/16 11:01	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/28/2016 16:03

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservatives

Purchase Order:

Laboratory Order ID: 16C0317

Analytical Results

Sample I.D. TC-02

Laboratory Sample ID: 16C0317-02

Date/Time Sampled: 02/18/2016 10:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
TCLP Metals by 6000/7000 Series Methods									
TCLP Arsenic	02	SW6010C	0.226 mg/L		0.100	1	03/22/16 11:50	03/23/16 12:45	CWO
TCLP Chromium	02	SW6010C	<0.100 mg/L		0.100	1	03/22/16 11:50	03/23/16 12:45	CWO
TCLP Extraction Fluid, Metals	02	SW1311	1 #		--	1	03/21/16 16:30	03/22/16 11:01	RCV



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Richmond VA, 23228

Date Issued: 3/28/2016 16:03

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservatives

Purchase Order:

Laboratory Order ID: 16C0317

Analytical Results

Sample I.D. TC-03

Laboratory Sample ID: 16C0317-03

Date/Time Sampled: 02/17/2016 14:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
TCLP Metals by 6000/7000 Series Methods									
TCLP Arsenic	03	SW6010C	<0.100 mg/L		0.100	1	03/22/16 11:50	03/23/16 12:49	CWO
TCLP Chromium	03	SW6010C	<0.100 mg/L		0.100	1	03/22/16 11:50	03/23/16 12:49	CWO
TCLP Extraction Fluid, Metals	03	SW1311	1 #		--	1	03/21/16 16:30	03/22/16 11:01	RCV



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Richmond VA, 23228

Date Issued: 3/28/2016 16:03

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservatives

Purchase Order:

Laboratory Order ID: 16C0317

Analytical Results

Sample I.D. TC-04

Laboratory Sample ID: 16C0317-04

Date/Time Sampled: 02/18/2016 09:10

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
TCLP Metals by 6000/7000 Series Methods									
TCLP Arsenic	04	SW6010C	<0.100 mg/L		0.100	1	03/22/16 11:50	03/23/16 12:53	CWO
TCLP Chromium	04	SW6010C	<0.100 mg/L		0.100	1	03/22/16 11:50	03/23/16 12:53	CWO
TCLP Extraction Fluid, Metals	04	SW1311	1 #		--	1	03/21/16 16:30	03/22/16 11:01	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
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Richmond VA, 23228

Date Issued: 3/28/2016 16:03

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservatives

Purchase Order:

Laboratory Order ID: 16C0317

Analytical Results

Sample I.D. TC-05

Laboratory Sample ID: 16C0317-05

Date/Time Sampled: 02/17/2016 11:30

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
TCLP Metals by 6000/7000 Series Methods									
TCLP Arsenic	05	SW6010C	<0.100 mg/L		0.100	1	03/22/16 11:50	03/23/16 12:57	CWO
TCLP Chromium	05	SW6010C	<0.100 mg/L		0.100	1	03/22/16 11:50	03/23/16 12:57	CWO
TCLP Extraction Fluid, Metals	05	SW1311	1 #		--	1	03/21/16 16:30	03/22/16 11:01	RCV



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Richmond VA, 23228

Date Issued: 3/28/2016 16:03

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservatives

Purchase Order:

Laboratory Order ID: 16C0317

Analytical Results

Sample I.D. TC-06

Laboratory Sample ID: 16C0317-06

Date/Time Sampled: 02/18/2016 13:11

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
TCLP Metals by 6000/7000 Series Methods									
TCLP Arsenic	06	SW6010C	<0.100 mg/L		0.100	1	03/22/16 11:50	03/23/16 13:01	CWO
TCLP Chromium	06	SW6010C	<0.100 mg/L		0.100	1	03/22/16 11:50	03/23/16 13:00	CWO
TCLP Extraction Fluid, Metals	06	SW1311	1 #		--	1	03/21/16 16:30	03/22/16 11:01	RCV



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
8090 Villa Park Dr.
Richmond VA, 23228

Date Issued: 3/28/2016 16:03

Submitted To: Leonard Ford Jr.

Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservatives

Purchase Order:

Laboratory Order ID: 16C0317

Analytical Results

Sample I.D. TC-07

Laboratory Sample ID: 16C0317-07

Date/Time Sampled: 02/17/2016 10:35

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
TCLP Metals by 6000/7000 Series Methods									
TCLP Arsenic	07	SW6010C	<0.100 mg/L		0.100	1	03/22/16 11:50	03/23/16 13:05	CWO
TCLP Chromium	07	SW6010C	<0.100 mg/L		0.100	1	03/22/16 11:50	03/23/16 13:04	CWO
TCLP Extraction Fluid, Metals	07	SW1311	1 #		--	1	03/21/16 16:30	03/22/16 11:01	RCV

Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
TCLP Metals by 6000/7000 Series Methods					
		Preparation Method:		SW1311	
16C0317-01	100 g / 2000 mL	SW1311	BZC0488	SZC0554	
16C0317-02	100 g / 2000 mL	SW1311	BZC0488	SZC0554	
16C0317-03	100 g / 2000 mL	SW1311	BZC0488	SZC0554	
16C0317-04	100 g / 2000 mL	SW1311	BZC0488	SZC0554	
16C0317-05	100 g / 2000 mL	SW1311	BZC0488	SZC0554	
16C0317-06	100 g / 2000 mL	SW1311	BZC0488	SZC0554	
16C0317-07	100 g / 2000 mL	SW1311	BZC0488	SZC0554	
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
TCLP Metals by 6000/7000 Series Methods					
		Preparation Method:		SW3010A	
16C0317-01	10.0 mL / 50.0 mL	SW6010C	BZC0500	SZC0711	AC60115
16C0317-02	10.0 mL / 50.0 mL	SW6010C	BZC0500	SZC0711	AC60115
16C0317-03	10.0 mL / 50.0 mL	SW6010C	BZC0500	SZC0711	AC60115
16C0317-04	10.0 mL / 50.0 mL	SW6010C	BZC0500	SZC0711	AC60115
16C0317-05	10.0 mL / 50.0 mL	SW6010C	BZC0500	SZC0711	AC60115
16C0317-06	10.0 mL / 50.0 mL	SW6010C	BZC0500	SZC0711	AC60115
16C0317-07	10.0 mL / 50.0 mL	SW6010C	BZC0500	SZC0711	AC60115



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond Date Issued: 3/28/2016 16:03
 8090 Villa Park Dr.
 Richmond VA, 23228
 Submitted To: Leonard Ford Jr. Project Number: R15434R-07
 Client Site I.D.: New Kent Wood Preservatives Purchase Order:

TCLP Metals by 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	------

Batch BZC0488 - SW1311

Blank (BZC0488-BLK1)

Prepared: 03/21/2016 Analyzed: 03/22/2016

Extraction Fluid, Metals 1 # 0 #

Batch BZC0500 - SW3010A

Blank (BZC0500-BLK1)

Prepared: 03/22/2016 Analyzed: 03/23/2016

Arsenic <0.100 mg/L 0.100 mg/L
 Chromium <0.100 mg/L 0.100 mg/L

LCS (BZC0500-BS1)

Prepared: 03/22/2016 Analyzed: 03/23/2016

Arsenic 2.51 mg/L 0.100 mg/L 2.50 mg/L 100 80-120
 Chromium 2.51 mg/L 0.100 mg/L 2.50 mg/L 100 80-120

LCS Dup (BZC0500-BSD1)

Prepared: 03/22/2016 Analyzed: 03/23/2016

Arsenic 2.42 mg/L 0.100 mg/L 2.50 mg/L 97.0 80-120 3.34 20
 Chromium 2.44 mg/L 0.100 mg/L 2.50 mg/L 97.5 80-120 3.00 20

Matrix Spike (BZC0500-MS1)

Source: 16C0317-07

Prepared: 03/22/2016 Analyzed: 03/23/2016

Arsenic 2.51 mg/L 0.100 mg/L 2.50 <0.100 mg/L 100 75-125
 Chromium 2.51 mg/L 0.100 mg/L 2.50 <0.100 mg/L 100 75-125

Matrix Spike Dup (BZC0500-MSD1)

Source: 16C0317-07

Prepared: 03/22/2016 Analyzed: 03/23/2016

Arsenic 2.42 mg/L 0.100 mg/L 2.50 <0.100 mg/L 96.8 75-125 3.68 20
 Chromium 2.37 mg/L 0.100 mg/L 2.50 <0.100 mg/L 94.7 75-125 5.76 20

Batch SZC0711 - BZC0500

Serial Dilution (SZC0711-SRD1)

Source: 16C0317-01

Prepared: 03/22/2016 Analyzed: 03/23/2016

Arsenic <0.500 mg/L 0.500 mg/L <0.500 mg/L NA 20
 Chromium <0.500 mg/L 0.500 mg/L <0.500 mg/L NA 20



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Certificate of Analysis

Final Report

Client Name: Draper Aden Associates-Richmond
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Date Issued: 3/28/2016 16:03

Submitted To: Leonard Ford Jr.
Project Number: R15434R-07

Client Site I.D.: New Kent Wood Preservatives
Purchase Order:

Certified Analyses included in this Report

Analyte		Certifications	
SW1311 in Solids			
Extraction Fluid, Metals		VELAP	
SW6010C in Non-Potable Water			
Arsenic		VELAP,NC	
Chromium		VELAP	
Code	Description	Lab Number	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2016
NC	North Carolina DENR	495	12/31/2016
VELAP	NELAC-Virginia Certificate #8233	460021	06/15/2016
WVDEP	West Virginia DEP	350	11/30/2016



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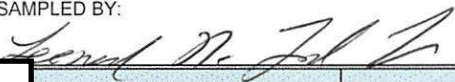
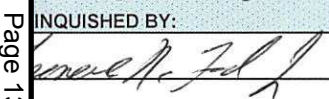
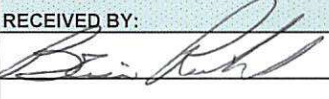
Certificate of Analysis

Final Report

Client Name:	Draper Aden Associates-Richmond 8090 Villa Park Dr. Richmond VA, 23228	Date Issued:	3/28/2016 16:03
Submitted To:	Leonard Ford Jr.	Project Number:	R15434R-07
Client Site I.D.:	New Kent Wood Preservatives	Purchase Order:	

Summary of Data Qualifiers

RPD	Relative Percent Difference
Qual	Qualifiers
-RE	Denotes sample was re-analyzed
D.F.	Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.
TIC	Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

CHAIN OF CUSTODY															
CLIENT: Draper Aden Associates				CONSULTANT:				COPY COA TO CONSULTANT? NOT APPLICABLE							
ATTN: Leonard "Rip" Ford				ATTN:				COPY INVOICE TO CONSULTANT? NOT APPLICABLE							
STREET: 2080 Villa Park Drive				STREET:				FACILITY: New Kent Wood Preservatives							
CITY: Richmond, Virginia 23229				CITY:				LOCATION: Providence Forge, Virginia							
PHONE: 804-264-2228				PHONE:				LABORATORY: AWS Laboratories							
TURN AROUND: 10-days				JOB NO. R15434R-07				ANALYSES REQUESTED							
LAB USE ONLY	PRESERVATIVE			COMP	GRAB	NO. OF JARS	MATRIX	TCLP (As + Cr)							COMMENTS
	SAMPLE INFORMATION														
LAB ID	SAMPLE ID	DATE	TIME												
	TC - 01	18-Feb-16	10:40		X	1	SS	X							LW-40-12
	TC - 02	18-Feb-16	10:45		X	1	SS	X							LW-40-24
	TC - 03	17-Feb-16	14:45	X		1	SS	X							LW-26-12 + LW-44-12
	TC - 04	18-Feb-16	9:10	X		1	SS	X							LW-33-12 + LW-43-12
	TC - 05	17-Feb-16	11:30	X		1	SS	X							LW-11-12 + LW-30-12
	TC - 06	18-Feb-16	13:11		X	1	SS	X							LW-47-12
	TC - 07	17-Feb-16	10:35	X		1	SS	X							LW-07-12 + LW-17-12 +
															LW-38-12 + LW-39-12
SAMPLED BY: 				PRINTED NAME: Scott Blommel / Leonard Ford				NOTES: please provide QC level 1				<div style="text-align: right;"> DA 16C0317 New Kent Wood Preservatives (NK Recd: 03/14/2016 Due: 03/28/2016 </div> <div style="text-align: right; font-size: small;">v130325002</div>			
INQUIRED BY: 				DATE: 03-14-16		TIME: 9:50		RECEIVED BY: 		DATE: 03/14/16					
P: 1.2°C				pH:		MATRIX: W = water (type not specified), GW = groundwater, WW = wastewater, SW = surface water, SS = soil/sediment									



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DA 16C0317
New Kent Wood Preservatives (NK)
Recd: 03/14/2016 Due: 03/28/2016

v130325002

Sample Conditions Checklist

Opened by: (Initials)

TL

Lab ID No.:

Date Cooler Opened:

14 MARCH 2016

		YES	NO	N/A
1.	How were samples received?			
	Fed Ex <input type="checkbox"/>			
	UPS <input type="checkbox"/>			
	Courier <input type="checkbox"/>			
	Walk In <input checked="" type="checkbox"/>			
2.	Were custody seals used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.	If yes, are custody seals unbroken and intact at the date and time of arrival?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	Are the custody papers filled out completely and correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Do all bottle labels agree with custody papers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Is the temperature blank or representative sample within acceptable limits? (above freezing to 6°C)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	If NO, are the samples just taken and received on ice?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9.	Are all samples within holding time for requested laboratory tests?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Is a sufficient amount of sample provided to perform the tests indicated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Are all samples in proper containers for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Are all samples appropriately preserved for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	Are all volatile organic containers free of headspace?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14.	Are all TOX containers free of headspace?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15.	Is Trip blank provided with each VOC sample set? Circle applicable method: (Document if trip blank is not received with the sample set)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	EPA 8011 EPA 504 EPA 8260 EPA 624			
	RSK-175 EPA 8015 (GRO) EPA 8021			
	EPA 524 *GRO Wisconsin DNR (water and/or methanol trip blank must be provided)			

* See preservation log for Wisconsin soil DRO.

COMMENTS

FOR LAB USE ONLY:

CrVI preserved date/time: _____

Buffer Sol'n ID: _____

1N NaOH ID: _____ or

Analyst initials: _____

5N NaOH ID: _____

THIS DOCUMENT IS UNCONTROLLED WHEN PRINTED
F1302 Sample Condition 6_0.xls

APPENDIX 4

DRAPER ADEN ASSOCIATES QUALITY CONTROL REPORT

Memorandum

To: File
From: Kathy Olsen, Environmental Scientist
Date: March 14, 2016
Project Name: New Kent Wood Preservatives (NKWP) Inc.
February 17-18, 2016 Sampling Event
Project Number: R15434R-07
Subject: Data Validation
cc:

This memorandum documents manual data validation of the analytical results from soil samples collected at the New Kent Wood Preservatives (NKWP) located in Providence Forge, Virginia. This evaluation is part of the Response Action Plan under the Administrative Order for Removal Response Action (Docket No. CERC-03-2015-0262DC).

Draper Aden Associates, of Richmond, Virginia, collected the 96 grab soil samples and two composite soil samples from this site. Five field duplicates were also collected and submitted to the laboratory (see Chain of Custody).

Samples were delivered to Air Water and Soil Laboratories, Inc. (AWS), of Richmond, Virginia. The soil samples along with two field blanks (aqueous) and an equipment blank (aqueous) were analyzed by AWS for arsenic and chromium by SW-846 Method 6010C and moisture by SM 2540G analysis, where applicable. AWS is a VELAP accredited laboratory for the above analytes, methods and matrices.

AWS submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results. The samples were reported in two sample work orders, 16B0472 and 16B0474, for the analytes as listed in the chains of custody (see attached). The final Certificate of Analysis (COA) for each work order was received under sample delivery group 160219 by Draper Aden Associates on or before March 14, 2016. The report was revised to reflect a missing dilution.

The event data were evaluated in general accordance with the project Quality Assurance Project Plan (QAPP), November 25, 2015; revised January 15, 2016.

The data were evaluated in general accordance with *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2014*, Region 3 Inorganic Level 1, where applicable; and SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates). Where QA/QC criteria differed, the analytical method acceptance criteria were used. Additionally, laboratory specific acceptance criteria were used when no other acceptance criteria was available.

Reporting of Laboratory Results:

The laboratory reported results at or above the laboratory quantitation limit (LOQ). The laboratory reported soil results on a dry weight basis. The moisture data was validated for holding time only and criteria were met.

Reporting of Validated Results:

The data validation qualifiers noted below were used in reporting of the final validated results. A summary of data validation results is provided below and on the attached data validation report summary table.

Data Validation Qualifiers:

- J – Analyte present. Reported value may not be accurate or precise (because certain quality control criteria were not met). See data validation for further explanation.
- U- Analyte not detected at or above the LOQ.
- UJ- Analyte not detected at or above the LOQ. LOQ estimated. See data validation for further explanation

Chain of Custody Documentation/Holding Time/Preservation:

The laboratory received the samples on ice, in good condition and with custody seals intact. The chains of custody (COC) was appropriately signed and dated by field and laboratory personnel, except as noted. Holding time and sample preservation criteria were met, except where noted below. The COCs for this sampling event are located with each certificate of analysis.

The field blanks and the equipment blank were collected in 4 ounce glass containers and received at the laboratory with a pH of 4 SU. Sample collection in a glass container is allowed per the method. The laboratory added preservative to each sample to bring the pH to < 2 SU. No data validation was required.

Metals by SW-846 Method 6010C:

- Preparation: Method 3050B (soil); Method EPA 200.2 (water)

The laboratory submitted a comprehensive data package for review. However, only the case narrative and quality control summary reports were used in the validation on the data.

Technical holding time and sample preservation criteria were met. Calibration verification recoveries were met. QL standards, blanks, interference check samples, laboratory duplicates, matrix spike (MS), laboratory control sample (LCS), serial dilution and field duplicate samples were analyzed and acceptable criteria were met except where noted below. Deviations from specific quality control criteria that were identified during the data review process are summarized below.

Sample/laboratory duplicate results exhibited acceptable precision, except as noted below. The following sample/laboratory duplicate relative percent differences (RPDs) were greater than 25 and the results noted below were qualified as estimated (J) to note this QC deficiency. Variability

Memorandum (con't.)

observed between sample concentrations and laboratory duplicate concentrations were attributed to non-homogenous soil conditions.

Sample / Lab Duplicate ID	Analyte	Sample Concentration mg/kg	Lab Duplicate Concentration mg/kg	RPD
LW-12-24 /LW-12-24 DUP	Arsenic	5.07	2.42	70.3
LW-26-24 /LW-26-24 DUP	Arsenic	8.77	11.6	28.1
LW-31-24 /LW-31-24 DUP	Arsenic	16.3	8.05	67.8
LW-31-24 /LW-31-24 DUP	Chromium	32	24.7	25.7

The serial dilution for LW-44-12 did not meet the percent difference criteria (%D <10) between the original sample result and the serial dilution result for both arsenic and chromium. Both the arsenic and chromium results for LW-44-12 were qualified as estimated (J) to note this QC deficiency. The remaining serial dilution result criteria were met.

Field duplicate/sample results exhibited acceptable precision, except as noted below. The following sample/field duplicate relative percent differences (RPDs) were greater than 25 and the results noted below were qualified as estimated (J) to note this QC deficiency. Variability observed between sample concentrations and field duplicate concentrations were attributed to non-homogenous soil conditions. Field duplicate were designated with the sample name and DUP.

Sample / Field Duplicate ID	Analyte	Sample Concentration mg/kg	Field Duplicate Concentration mg/kg	RPD
LW-19-12 /LW-19-12 DUP	Arsenic	12.5	56.1	127
LW-19-12 /LW-19-12 DUP	Chromium	43.5	75.1	53.3
LW-29-24 /LW-29-24 DUP	Arsenic	66	30.6	73.3
LW-29-24 /LW-29-24 DUP	Chromium	101	42.4	81.7
LW-39-12 /LW-39-12 DUP	Arsenic	22.9	36	44.5
LW-39-12 /LW-39-12 DUP	Chromium	34.5	48.9	34.5
LW-48-12 /LW-48-12 DUP	Arsenic	60.5	<2.16	186
LW-48-12 /LW-48-12 DUP	Chromium	89.5	8.09	167

Sample weights varied and sample QLs were adjusted accordingly.

Comparison to Cleanup Goals

A comparison to cleanup goals is presented on a separate validation table.

Reconciliation With User Requirements

Reconciliation with project goals as discussed in the project QAPP.

Precision

Precision was evaluated using the RPD data obtained from the sample/laboratory duplicate, serial dilutions, and sample/field duplicate results. Laboratory duplicates, field duplicates and serial dilution RPDs were within acceptance criteria, unless noted above. See attached data validation report for sample locations and results qualified. Variability observed between soil samples was attributed to non-homogenous soil conditions.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the laboratory control sample (LCS), matrix spike (MS), and laboratory duplicate samples, where applicable. LCS, MS, and laboratory duplicate recoveries were within acceptance criteria, where reported. See attached data validation report for sample locations and results qualified. Variability observed between soil samples was attributed to non-homogenous soil conditions.

Representativeness

Data collected at the site were accurate and precise except where noted above. Samples were collected using standardized procedures. Field quality control samples (field blank, equipment blank duplicate) were submitted for each day of the sampling event or as required by the QAPP, where applicable. Samples were analyzed using standardized and accepted analytical methods using traceable standards to ensure that accurate and reproducible data were generated. Data from the site were considered representative.

Completeness

Completeness was evaluated by comparing the total number of valid data obtained from a measurement system compared to the amount that was expected to be obtained under normal conditions. Sample locations not collected due to physical site restrictions or based on field observations were excluded from this assessment. Valid analytical data are results not qualified as rejected. The completeness for data is 100%.

Comparability

Comparability is defined as the degree of confidence that one data set can be compared to another data set. Data was generated using specific standard methods. The comparability of the data collected as part of the site assessment meets project requirements.

APPENDIX 5

DRAPER ADEN ASSOCIATES FIELD LOGS

2 2/17/16 (Wed) PC 40° +/-

Mileage - about 46272 and 46336

Arrive @ site 8:30am Fishburne arrives ~~later~~.
8:40 (Eric Nice); Scott Bonnell arrives 8:45; Eric Watt
Tetra Tech arrives 8:50. Scott conducts health & safety
meeting.

Start 9:05

LW-01-12 } 4" +/- gravel; then fine silty
LW-01-24 } sand; 2.0' Rec

9:20 Rec

Start 9:26 5" +/- gravel; then fine silty
LW-02-12 fine sand, moist to wet in
LW-02-24 top 6"; 1.7' Rec

Start 9:36 1.2' fine to coarse sandy, silty
LW-03-12 gravel - brown to tan, moist
LW-03-24 1.2-2.0' fine to silty sand, moist
Rec = 2.0'

Start 9:51 Fill to 1.4' Tan to dark gray
silty sand, trace gravel top 2";
LW-04-12 then tan fine to silty
LW-04-24 sand; 2.0' Rec

2/17/16

3

Start 10:05

(moist level)
LW-05-12 } 6" dark gray elastic silt
LW-05-24 } then fine tan silty sand
moist REC = 1.7'

Start 10:16

LW-06-12 } 6" dark gray elastic silt
LW-06-24 } very moist, then fine tan
silty sand moist; last 4"
fine to coarse tan
silty sand REC = 1.9'

Start 10:29

LW-07-12 } 1.1' fine - dark gray elastic
LW-07-24 } silt, tan fine sand trace gravel,
very moist; 1.1-2.0' fine
tan silty sand, moist
REC = 1.7'

Accrete sleeve = 39.5 "

Mostly cloudy

2/17/16

Start 10:44

LW-08-12 Till to 1.4' Dark gray to tan
 LW-08-24 elastic silt and fine to coarse
 sand w/ gravel, moist, 1.4'-2.0'
 fine dark dark gray to tan
 silty sand. REC = 2.0'

Start 10:57

LW-09-12 Till to 1.2' Dark gray to tan
 LW-09-24 elastic silt and fine to medium
 sand, very moist, 1.2'-2.0'
 fine silty sand, gray to tan,
 moist REC = 2.0'

PC

Start 11:10

LW-10-12 } Till to 1.1' Dark gray sand w/
 LW-10-24 } ~~and~~ gravel (aggregate), ~~it~~ very
 moist to wet, 1.1'-2.0' tan fine
 silty sand REC = 2.0'

Start 11:21 - inside shed

LW-11-12 } Till to 1.1' Dark gray to tan
 LW-11-24 } fine to medium sand, trace
 aggregate (gravel), very moist;
 1.1'-2.0' tan fine silty sand,
 moist REC = 2.0'

2/17/16

Start 11:32 - inside shed

LW-12-12 Till to 1.2' Dark gray to black
 LW-12-24 fine to coarse sand, few
 pieces of aggregate (gravel),
 very moist, 1.2'-2.0' Gray to
 tan fine silty sand, moist
 REC = 2.0'

Start 11:44

LW-13-12 Till to 1.1' Dark gray to
 black fine to coarse
 LW-13-24 sand silty sand w/ pieces
 of aggregate ^{1.1'} 1.1'-2.0' fine
 tan fine silty sand,
 moist REC = 2.0'

Lunch 11:55-12:30

Start 12:32

LW-14-12 Till to 0.8' Dark gray
 to black fine to coarse
 LW-14-24 silty sand w/ pieces of
 aggregate, 1.1'-2.0' fine
 tan silty sand, moist REC = 2.0'

Set out field blank @ 12:37 pm

2/17/16

Start 12:42

LW-15-12

Fill to 0.8' Dark gray to

LW-15-24

black fine to coarse silty sand

w/ pieces of aggregate and tan fine

sand layer, moist. 0.3'-2.5'

Finer tan silty sand, moist.

REC = 1.9'

Start 12:50

Fill to 1.0' Dark gray to black

LW-16-12

fine to medium sand w/ silt,

LW-16-24

moist. 1.0-2.5' fine gray to

tan silty sand, moist; REC = 1.6'

Poth Scharr arrived 12:55pm

Start 1:00pm

Fill to 1.1' Dark gray to black

LW-17-12

fine to medium silty sand

LW-17-24

very moist, trace aggregate;

1.1-2.5' fine tan silty sand,

moist REC = 2.0'

Start 1:13pm

Fill to 1.2' Dark gray to

LW-18-12

black fine to coarse silty

LW-18-24

Sand, moist; 1.2-2.0 fine

Rec 1.8' tan silty sand,

moist

2/17/16 7

P Cloudy

Start 1:23

LW-19-12

Fill to 1.1' Dark gray to

LW-19-24

black fine to coarse silty

sand, trace aggregate, moist;

1.1-2.5' fine tan silty sand,

moist REC = 1.8'

Start 1:30

Fill to 0.7' Dark gray to

LW-20-12

black fine to coarse silty

LW-20-24

sand, trace aggregate,

very moist. 0.7-2.5'

Tan fine silty sand, moist

REC = 1.9'

Start 1:43

Fill to 0.9' Dark gray

LW 21-12

to black fine to coarse

LW 21-24

silty sand, trace aggregate,

very moist, 0.9-2.5'

tan fine silty sand, moist,

REC = 1.8'

2/17/16

Start 1:53pm till to ~~0.9'~~ 0.9' Dark gray
 LW-22-12 to black silty fine to coarse
 LW-22-24 sand w/ scattered aggregate;
 tan silty sand layer, 0.9-2.0'
 Rec fine silty sand, moist
 Rec 1.3'

> More
wood

Start 2:12pm till to 0.8' Dark gray
 LW-23-12 to tan fine to coarse silty
 LW-23-24 clayey sand to silty sand
 moist. 0.8-2.0' fine tan
 silty sand, moist. REC = 1.2'

Start 2:28pm till to 1.0' Gray to tan
 LW-24-12 fine to coarse silty to
 LW-24-24 clayey silty sand w/
 piece of aggregate, moist
 1.0-2.0' fine tan silty
 sand, moist REC = 1.7'

Start LW-25 > here to use HA

2/17/16

Start 2:40pm till to 1.2' Black fine
 LW-26-12 to coarse silty sand w/
 LW-26-24 scattered aggregate, moist.
 1.2-2.0' fine tan silty
 sand, moist. REC = 2.0'

Start 2:53pm till to 1.2' Black
 LW-27-12 to tan fine to coarse
 LW-27-24 silty to silty clayey sand,
 very moist. 1.2-2.0'
 fine tan silty sand, moist
 REC = 2.0'

Start 3:02pm
 LW-28-12 till to 0.5' Dark brown
 LW-28-24 to black clayey silty
 sand, very moist. 0.5-2.0'
 fine tan silty sand, moist
 REC = 2.0'

Start 3:16pm ^{moist} Gray to grayish tan
 LW-29-12 clayey silty fine to
 LW-29-24 medium sand, very
 moist (hydric?)
 REC = 2.0'

2/17/66

Start 3:28

LW-30-12

LW-30-24

2.0' till Dark gray to
black clayey silty SAND
w/ occasional gravel (aggregates)
very moist. REC = 1.5'

Start 3:48

LW-31-12

LW 31-24

fill to 6.1' Dark gray to
tan clayey silty fine to
coarse SAND trace aggregate
very moist. 1.1' - 2.0'
Gray to tan fine silty SAND
moist REC = 1.3'

Start 4:00

LW 32-12

LW 32-24

fill to 0.9' Dark gray
to tan fine to coarse
silty SAND, very moist to
wet, occasional aggregate;
at 0.9' - 2.0' fine gray
to tan silty SAND, very
moist REC = 1.2'

~~Start~~ Stop @ 4:15 pm. Look @ remaining
sample locations. Drum acetate sleeves (IDW)
and Geymore decon. water. Pick up field books.
Meat w/ lunch, Enie (Tetrahedron), 1' South. leave
at 5:55 pm

John G. Wernicke

APPENDIX 6

LABORATORY LIMIT STUDIES



Method Detection Limit Study

Test Name Metals by ICP - TAL
 AWS SOP # D5010
 AWS SOP Rev. # Rev.5.0
 Matrix SOIL
 Analyst CWO
 Date(s) of Analysis 2/18-20/2016
 QC Batch (List all) NA
 Units Used mg/kg

Instrument ID ICP03

Single Instrument/Technique Study Yes ☒

If no, list the ID of all instruments/techniques that will be part of the combined study. ☐

Combined MDL Study Master List Yes ☐

Analyte	LOQ	Target Conc	MDL 1 Result	MDL 2 Result	MDL 3 Result	MDL 4 Result	MDL 5 Result	MDL 6 Result	MDL 7 Result	Ave Conc	Std Dev	MDL
As Arsenic 188.979	2	0.5	0.5649	0.4215	0.5378	0.5506	0.5387	0.4943	0.2789	0.4838	0.1024	0.3216
Cr Chromium 283.563	2	0.5	0.5441	0.4989	0.5339	0.5255	0.4981	0.5336	0.5338	0.5240	0.0182	0.0572

DATE RUN
2/20/2016



Method Detection Limit Study

Test Name Metals by ICP - TAL
 AWS SOP # D5010
 AWS SOP Rev. # Rev.5.0
 Matrix NPW
 Analyst CWO
 Date(s) of Analysis 2/18-20/2016
 QC Batch (List all) NA
 Units Used mg/L

Instrument ID ICP03

Single Instrument/Technique Study Yes ☒ No ☐
 If no, list the ID of all instruments/techniques that will be part of the combined study. ☐ ☐

Combined MDL Study Master List Yes ☐ No ☐

Analyte	LOQ	Target Conc	MDL 1 Result	MDL 2 Result	MDL 3 Result	MDL 4 Result	MDL 5 Result	MDL 6 Result	MDL 7 Result	Ave Conc	Std Dev	% RSD	MDL
As Arsenic 188.979	0.04	0.01	0.00875	0.00967	0.00793	0.00872	0.01229	0.00841	0.00702	0.0090	0.0017	18.67	0.0053
Cr Chromium 283.563	0.04	0.01	0.0105	0.0098	0.0101	0.01004	0.01075	0.01013	0.01027	0.0102	0.0003	3.07	0.0010

DATE RUN

2/20/2016

APPENDIX 7

LABORATORY QUALITY CONTROL DOCUMENTATION



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Data Package Case Narrative

Laboratory I.D. No.: 16B0472

Client Name: Draper Aden Associates - Richmond **Submitted to:** Leonard Ford Jr.
Date Received: February 19, 2016 **Date Final Issue:** March 08, 2016

On February 29, 2016 one hundred and three solid samples were received for analyses per the attached Chain-of-Custody Record (AWS Lab ID # **16B0472**). The samples were received with sample containers intact by Tafal Middleton (AWS). Upon laboratory receipt, no deviations, discrepancies or irregularities were observed in sample condition, including holding times, temperature, containers or preservatives unless otherwise notated on the Chain-of-Custody or Sample Conditions Checklist.

The samples were prepared and analyzed in accordance with SW-846 methodology. QC results are presented in the attached QA/QC Data Package.

The samples were prepared and analyzed within the regulatory specified holding time. All criteria for initial and continuing calibration were met. No target analytes were detected in the method blanks. Laboratory control sample recoveries and acceptable QC limits are detailed within this report for each batch of samples. Sample Duplicates (DUP) were performed with each batch of samples. Duplicate QC results and acceptable limits are detailed within this report for each batch of samples. Any DUP QC limits exceeded are detailed in the following Duplicate Analysis Table. Matrix spikes (MS) were performed with each batch of samples. MS recoveries and acceptable QC limits are detailed within this report for each batch of samples. Serial dilutions were performed with each batch of samples. Serial dilution QC results and acceptable limits are detailed within this report for each batch of samples. Any serial dilution QC limits exceeded are detailed in the following Serial Dilution Analysis Table.

Sample 16B0472-AC was found to contain a percent solid less than 30%. The initial result was deemed non-reportable due to the low percent solids. The sample was prepared and analyzed (16B0472-AC RE1) using a greater volume (4 g instead of 1 g) to achieve acceptable results.

For questions or inquiries please contact Mandy Mishra at (804) 358-8295 or mmishra@awslabs.com

A cross reference of client sample I.D. vs. Laboratory I.D. follows:

<u>Client Sample I.D.</u>	<u>Laboratory I.D.</u>	<u>Client Sample I.D.</u>	<u>Laboratory I.D.</u>
LW-01-12	16B0472-01	LW-12-12	16B0472-23
LW-01-24	16B0472-02	LW-12-24	16B0472-24
LW-02-12	16B0472-03	LW-13-12	16B0472-25
LW-02-24	16B0472-04	LW-13-24	16B0472-26
LW-03-12	16B0472-05	LW-14-12	16B0472-27
LW-03-24	16B0472-06	LW-14-24	16B0472-28
LW-04-12	16B0472-07	LW-15-12	16B0472-29
LW-04-24	16B0472-08	LW-15-24	16B0472-30
LW-05-12	16B0472-09	LW-16-12	16B0472-31
LW-05-24	16B0472-10	LW-16-24	16B0472-32
LW-06-12	16B0472-11	LW-17-12	16B0472-33
LW-06-24	16B0472-12	LW-17-24	16B0472-34
LW-07-12	16B0472-13	LW-18-12	16B0472-35
LW-07-24	16B0472-14	LW-18-24	16B0472-36
LW-08-12	16B0472-15	LW-19-12	16B0472-37
LW-08-124	16B0472-16	LW-19-24	16B0472-38
LW-09-12	16B0472-17	LW-20-12	16B0472-39
LW-09-24	16B0472-18	LW-20-24	16B0472-40
LW-10-12	16B0472-19	LW-21-12	16B0472-41
LW-10-24	16B0472-20	LW-21-24	16B0472-42
LW-11-12	16B0472-21	LW-22-12	16B0472-43
LW-11-24	16B0472-22	LW-22-24	16B0472-44



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Client Name: Draper Aden Associates - Richmond **Submitted to:**

Leonard Ford Jr.

Date Received: February 19, 2016

Date Final Issue:

March 08, 2016

<u>Client Sample I.D.</u>	<u>Laboratory I.D.</u>	<u>Client Sample I.D.</u>	<u>Laboratory I.D.</u>
LW-23-12	16B0472-45	LW-39-12	16B0472-77
LW-23-24	16B0472-46	LW-39-24	16B0472-78
LW-24-12	16B0472-47	LW-40-12	16B0472-79
LW-24-24	16B0472-48	LW-40-24	16B0472-80
LW-25-12	16B0472-49	LW-41-12	16B0472-81
LW-25-24	16B0472-50	LW-41-24	16B0472-82
LW-26-12	16B0472-51	LW-42-12	16B0472-83
LW-26-24	16B0472-52	LW-42-24	16B0472-84
LW-27-12	16B0472-53	LW-43-12	16B0472-85
LW-27-24	16B0472-54	LW-43-24	16B0472-86
LW-28-12	16B0472-55	LW-44-12	16B0472-87
LW-28-24	16B0472-56	LW-44-24	16B0472-88
LW-29-12	16B0472-57	LW-45-12	16B0472-89
LW-29-24	16B0472-58	LW-45-24	16B0472-90
LW-30-12	16B0472-59	LW-46-12	16B0472-91
LW-30-24	16B0472-60	LW-46-24	16B0472-92
LW-31-12	16B0472-61	LW-47-12	16B0472-93
LW-31-24	16B0472-62	LW-47-24	16B0472-94
LW-32-12	16B0472-63	LW-48-12	16B0472-95
LW-32-24	16B0472-64	LW-48-24	16B0472-96
LW-33-12	16B0472-65	LW-10-24 Dup	16B0472-97
LW-33-24	16B0472-66	LW-19-12 Dup	16B0472-98
LW-34-12	16B0472-67	LW-29-24 Dup	16B0472-99
LW-34-24	16B0472-68	LW-39-12 Dup	16B0472-AA
LW-35-12	16B0472-69	LW-48-12 Dup	16B0472-AB
LW-35-24	16B0472-70	LW-SP-Light	16B0472-AC
LW-36-12	16B0472-71	LW-SP-Dark	16B0472-AD
LW-36-24	16B0472-72		
LW-37-12	16B0472-73		
LW-37-24	16B0472-74		
LW-38-12	16B0472-75		
LW-38-24	16B0472-76		

Duplicate Analysis Table

Sample (mg/Kg)	Analyte	Qualifier	Comments
16B0472-52 (8.77)	Arsenic	J	RPD = 28.14%. Control limit of 20% RPD exceeded for Duplicate Sample Analysis. Original sample < 5x the CRQL and absolute difference > CRQL.
16B0472-52 DUP (11.6)	Arsenic	J	
16B0472-62 (16.3)	Arsenic	J	RPD = 67.8%. Control limit of 20% RPD exceeded for Duplicate Sample Analysis. Duplicate sample < 5x the CRQL and absolute difference > CRQL.
16B0472-62 DUP (8.05)	Arsenic	J	
16B0472-62 (32.0)	Chromium	J	RPD = 25.7%. Both Original sample and Duplicate ≥ 5x CRQL and RPD > 20%.
16B0472-62 DUP (24.7)	Chromium	J	

The above control limits are method requirements, but it should be noted that variability arising from sub-sampling of non-homogeneous soil samples is a common laboratory occurrence. Using a less restrictive criteria (35% RPD, 2x the CRQL), only sample 16B0472-62 need be qualified with "J" for Arsenic results. Arsenic results for 16B0472-52 and Chromium results for 16B0472-62 would be < 35% RPD and > 2x CRQL, thus needing no qualifiers. AWS has determined that the similarity of the samples in this group are as such that the "J" qualifier should not be applied to all. Only sample 16B0472-62 should be qualified.



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Data Package Case Narrative

Laboratory I.D. No.: 16B0472

Client Name: Draper Aden Associates - Richmond **Submitted to:** Leonard Ford Jr.
Date Received: February 19, 2016 **Date Final Issue:** March 08, 2016

Serial Dilution Analysis Table

Sample (mg/Kg)	Analyte	Qualifier	Comments
16B0472-41 (23.5)	Arsenic	J	%D = 27.6%. Control limit of 10% exceeded for Serial Dilution.

The above control limits are method requirements when the sample concentration is > 50x the MDL. The sample concentration is not > than 50x the MDL, so no qualifier is needed.

Data BATCH & SEQUENCE Table

Analysis	Instrument ID	Batch ID	Sequence ID	Calibration ID
Arsenic & Chromium by SW6010C	ICP-03	BZB0484, BZB0486, BZB0487, BZB0488, BZB0557, BZB0558 & BZB0642	SZB0601, SZB0671, SZB0700, SZB0701, SZB0770, SZB0771 & SZB0783	AB60108, AB60120, AB60137 & AB60139



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ANALYTICAL RESULTS

AWS WORK ORDER NUMBER:

16B0472

Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)



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QA Data Package
Analysis Class: METALS
Method:
SW6010C

Matrix: Solids

Method: SW6010C

INITIAL CALIBRATION DATA

SW6010C

Client: Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)

Calibration: AB60108

Instrument: ICP03

Calibration Date: 2/23/2016 10:31:10AM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Arsenic	0.04	1577.984	0.2	1791.565	1	1471.212	2	1460.196	4	1513.036		
Chromium	0.04	142518.6	0.2	177183.8	1	143581	2	138648.9	4	134879.1		

INITIAL CALIBRATION DATA (Continued)

SW6010C

Client: Draper Aden Associates-Richm

Project: New Kent Wood Preservatives (

Calibration: AB60108

Instrument: ICP03

Calibration Date: 2/23/2016 10:31:10AM

COMPOUND	Mean RF	RF RSD	Linear r	Quad COD	LIMIT	Q
Arsenic	1562.799	8.700707	0.9994451			
Chromium	147362.3	11.55035	0.9996393			

* Values outside of QC limits

Analysis Sequence

Printed: 02/23/2016 12:32 pm

SZB0594

Department: Metals-ICP
Instrument: ICP03
Calibration ID: AB60108

Sequence Date: 02/22/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
SZB0594-CAL1		Cal Standard	1		6B01561			
SZB0594-CAL2		Cal Standard	2		6B01560			
SZB0594-CAL3		Cal Standard	3		6B01559			
SZB0594-CAL4		Cal Standard	4		6B01555			
SZB0594-CAL5		Cal Standard	5		6B01551			
SZB0594-ICV1		Initial Cal Check	6		6B01555			
SZB0594-ICB1		Initial Cal Blank	7					
SZB0594-SCV1		Secondary Cal Check	8		6B01558			
SZB0594-LCV3		Low Cal Check	9		6B01522			
SZB0594-IFA1		Interference Check A	10		6B01514			
SZB0594-IFB1		Interference Check B	11		6B01557			
SZB0594-CCV1		Calibration Check	12		6B01555			
SZB0594-CCB1		Calibration Blank	13					
SZB0594-HCV1		High Cal Check	14		6B01511			
SZB0594-HCV2		High Cal Check	15		6B01512			

=====

Reprocessing Begun

Logged In Analyst: ICP03

Technique: ICP Continuous

Results Data Set (original): 160222CWO-lwood1

Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

Results Data Set (reprocessed): 160222CWO-SZB0594

Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

=====

Sequence No.: 1
Sample ID: Calib Blank 1
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 2/22/2016 10:06:41 AM
Data Type: Reprocessed on 2/23/2016 7:49:50 AM

Initial Sample Vol:
Sample Prep Vol:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: Calib Blank 1

Repl#	Analyte	Net	Corrected	Calib.	Analysis
		Intensity	Intensity	Conc. Units	Time
1	Y 371.029	1751756.3	1751756.3	4.980 mg/L	10:08:10 AM
1	Rh 343.489	3188.1	3188.1	4.894 mg/L	10:08:13 AM
1	As 188.979†	-3.1	-3.1	[0.00] mg/L	10:08:33 AM
1	Cr 283.563†	3750.0	3764.9	[0.00] mg/L	10:08:13 AM
2	Y 371.029	1751581.4	1751581.4	4.980 mg/L	10:08:40 AM
2	Rh 343.489	3319.4	3319.4	5.096 mg/L	10:08:42 AM
2	As 188.979†	3.1	3.1	[0.00] mg/L	10:09:02 AM
2	Cr 283.563†	3887.0	3902.7	[0.00] mg/L	10:08:42 AM
3	Y 371.029	1772717.9	1772717.9	5.040 mg/L	10:09:09 AM
3	Rh 343.489	3263.9	3263.9	5.010 mg/L	10:09:11 AM
3	As 188.979†	-10.8	-10.7	[0.00] mg/L	10:09:31 AM
3	Cr 283.563†	3869.6	3839.0	[0.00] mg/L	10:09:11 AM

Mean Data: Calib Blank 1

Analyte	Mean Corrected	Std.Dev.	RSD	Calib
Analyte	Intensity			Conc. Units
Y 371.029	1758685.2	12152.99	0.69%	5.000 mg/L
Rh 343.489	3257.2	65.90	2.02%	5.000 mg/L
As 188.979†	-3.6	6.93	195.21%	[0.00] mg/L
Cr 283.563†	3835.5	69.00	1.80%	[0.00] mg/L

=====

Sequence No.: 2
Sample ID: 40ppb,1mg/kg
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 2/22/2016 10:10:38 AM
Data Type: Reprocessed on 2/23/2016 7:49:50 AM

Initial Sample Vol:
Sample Prep Vol:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)

Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: 40ppb,1mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	1742041.2	1742041.2	4.953 mg/L	10:12:08 AM
1	Rh 343.489	3287.8	3287.8	5.047 mg/L	10:12:10 AM
1	As 188.979†	62.3	66.5	[0.040] mg/L	10:12:30 AM
1	Cr 283.563†	9407.6	5661.9	[0.040] mg/L	10:12:10 AM
2	Y 371.029	1737000.2	1737000.2	4.938 mg/L	10:12:37 AM
2	Rh 343.489	3223.3	3223.3	4.948 mg/L	10:12:39 AM
2	As 188.979†	53.6	57.8	[0.040] mg/L	10:12:59 AM
2	Cr 283.563†	9608.0	5892.4	[0.040] mg/L	10:12:39 AM
3	Y 371.029	1745522.8	1745522.8	4.963 mg/L	10:13:06 AM
3	Rh 343.489	3279.7	3279.7	5.035 mg/L	10:13:08 AM
3	As 188.979†	61.0	65.0	[0.040] mg/L	10:13:29 AM
3	Cr 283.563†	9313.2	5547.9	[0.040] mg/L	10:13:08 AM

Mean Data: 40ppb,1mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	1741521.4	4285.00	0.25%	4.951 mg/L
Rh 343.489	3263.6	35.14	1.08%	5.010 mg/L
As 188.979†	63.1	4.64	7.35%	[0.040] mg/L
Cr 283.563†	5700.7	175.53	3.08%	[0.040] mg/L

=====

Sequence No.: 3
Sample ID: 200ppb,10.0mg/kg
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 2/22/2016 10:14:36 AM
Data Type: Reprocessed on 2/23/2016 7:49:51 AM
Initial Sample Vol:
Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: 200ppb,10.0mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	1721919.2	1721919.2	4.895 mg/L	10:16:08 AM
1	Rh 343.489	3155.4	3155.4	4.844 mg/L	10:16:10 AM
1	As 188.979†	348.0	359.0	[0.200] mg/L	10:16:30 AM
1	Cr 283.563†	38897.9	35892.9	[0.200] mg/L	10:16:10 AM
2	Y 371.029	1715805.1	1715805.1	4.878 mg/L	10:16:38 AM
2	Rh 343.489	3210.9	3210.9	4.929 mg/L	10:16:40 AM
2	As 188.979†	345.0	357.2	[0.200] mg/L	10:17:01 AM
2	Cr 283.563†	37929.4	35041.8	[0.200] mg/L	10:16:40 AM
3	Y 371.029	1713084.3	1713084.3	4.870 mg/L	10:17:09 AM
3	Rh 343.489	3174.9	3174.9	4.874 mg/L	10:17:11 AM
3	As 188.979†	346.0	358.7	[0.200] mg/L	10:17:31 AM
3	Cr 283.563†	38194.4	35375.6	[0.200] mg/L	10:17:11 AM

Mean Data: 200ppb,10.0mg/kg

Analyte	Mean Corrected		RSD	Calib	
	Intensity	Std.Dev.		Conc.	Units
Y 371.029	1716936.2	4524.77	0.26%	4.881	mg/L
Rh 343.489	3180.4	28.16	0.89%	4.882	mg/L
As 188.979†	358.3	0.95	0.27%	[0.200]	mg/L
Cr 283.563†	35436.8	428.83	1.21%	[0.200]	mg/L

Sequence No.: 4

Autosampler Location: 4

Sample ID: 1ppm,50mg/kg

Date Collected: 2/22/2016 10:19:38 AM

Analyst:

Data Type: Reprocessed on 2/23/2016 7:49:51 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 1ppm,50mg/kg

Repl#	Analyte	Net	Corrected	Calib.	Analysis
		Intensity	Intensity	Conc. Units	Time
1	Y 371.029	1726525.9	1726525.9	4.909 mg/L	10:21:17 AM
1	Rh 343.489	3243.7	3243.7	4.979 mg/L	10:21:19 AM
1	As 188.979†	1418.6	1448.6	[1.00] mg/L	10:21:39 AM
1	Cr 283.563†	143295.0	142128.6	[1.00] mg/L	10:21:19 AM
2	Y 371.029	1707185.7	1707185.7	4.854 mg/L	10:21:54 AM
2	Rh 343.489	3228.5	3228.5	4.956 mg/L	10:21:56 AM
2	As 188.979†	1427.4	1474.0	[1.00] mg/L	10:22:17 AM
2	Cr 283.563†	141059.9	141479.7	[1.00] mg/L	10:21:56 AM
3	Y 371.029	1682537.8	1682537.8	4.784 mg/L	10:22:31 AM
3	Rh 343.489	3242.2	3242.2	4.977 mg/L	10:22:34 AM
3	As 188.979†	1423.1	1491.0	[1.00] mg/L	10:22:54 AM
3	Cr 283.563†	144433.5	147134.7	[1.00] mg/L	10:22:34 AM

Mean Data: 1ppm,50mg/kg

Analyte	Mean Corrected		RSD	Calib	
	Intensity	Std.Dev.		Conc.	Units
Y 371.029	1705416.5	22047.36	1.29%	4.849	mg/L
Rh 343.489	3238.2	8.38	0.26%	4.971	mg/L
As 188.979†	1471.2	21.37	1.45%	[1.00]	mg/L
Cr 283.563†	143581.0	3094.65	2.16%	[1.00]	mg/L

Sequence No.: 5

Autosampler Location: 5

Sample ID: 2ppm,100mg/kg

Date Collected: 2/22/2016 10:25:02 AM

Analyst:

Data Type: Reprocessed on 2/23/2016 7:49:51 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000

As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 2ppm,100mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	1681034.9	1681034.9	4.779 mg/L	10:26:52 AM
1	Rh 343.489	3175.4	3175.4	4.875 mg/L	10:26:55 AM
1	As 188.979†	2801.3	2934.2	[2.00] mg/L	10:27:15 AM
1	Cr 283.563†	269257.4	277859.4	[2.00] mg/L	10:26:55 AM
2	Y 371.029	1666982.8	1666982.8	4.739 mg/L	10:27:40 AM
2	Rh 343.489	3181.2	3181.2	4.883 mg/L	10:27:43 AM
2	As 188.979†	2832.8	2992.2	[2.00] mg/L	10:28:03 AM
2	Cr 283.563†	271346.9	282438.5	[2.00] mg/L	10:27:43 AM
3	Y 371.029	1736122.9	1736122.9	4.936 mg/L	10:28:29 AM
3	Rh 343.489	3081.7	3081.7	4.731 mg/L	10:28:31 AM
3	As 188.979†	2794.9	2834.8	[2.00] mg/L	10:28:51 AM
3	Cr 283.563†	271897.4	271595.4	[2.00] mg/L	10:28:31 AM

Mean Data: 2ppm,100mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	1694713.5	36543.40	2.16%	4.818 mg/L
Rh 343.489	3146.1	55.85	1.78%	4.830 mg/L
As 188.979†	2920.4	79.63	2.73%	[2.00] mg/L
Cr 283.563†	277297.8	5443.31	1.96%	[2.00] mg/L

Sequence No.: 6

Sample ID: 4ppm, 200mg/kg

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 6

Date Collected: 2/22/2016 10:31:00 AM

Data Type: Reprocessed on 2/23/2016 7:49:51 AM

Initial Sample Vol:

Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: 4ppm, 200mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	1642998.2	1642998.2	4.671 mg/L	10:32:47 AM
1	Rh 343.489	3183.8	3183.8	4.887 mg/L	10:32:50 AM
1	As 188.979†	5634.9	6035.2	[4.00] mg/L	10:33:10 AM
1	Cr 283.563†	508251.9	540203.4	[4.00] mg/L	10:32:47 AM
2	Y 371.029	1657652.9	1657652.9	4.713 mg/L	10:33:32 AM
2	Rh 343.489	3268.9	3268.9	5.018 mg/L	10:33:35 AM
2	As 188.979†	5664.7	6013.5	[4.00] mg/L	10:33:55 AM
2	Cr 283.563†	512173.3	539554.3	[4.00] mg/L	10:33:32 AM
3	Y 371.029	1654497.3	1654497.3	4.704 mg/L	10:34:17 AM
3	Rh 343.489	3223.0	3223.0	4.948 mg/L	10:34:20 AM
3	As 188.979†	5742.5	6107.7	[4.00] mg/L	10:34:40 AM
3	Cr 283.563†	510480.5	538791.2	[4.00] mg/L	10:34:17 AM

Mean Data: 4ppm, 200mg/kg

Mean Corrected

Calib

Analyte	Intensity	Std.Dev.	RSD	Conc. Units
Y 371.029	1651716.1	7713.05	0.47%	4.696 mg/L
Rh 343.489	3225.3	42.63	1.32%	4.951 mg/L
As 188.979†	6052.1	49.34	0.82%	[4.00] mg/L
Cr 283.563†	539516.3	706.86	0.13%	[4.00] mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
As 188.979	5	Lin Thru 0	0.0	1502	0.00000	0.999860	
Cr 283.563	5	Lin Thru 0	0.0	136100	0.00000	0.999778	

Calibration data for As 188.979

Equation: Linear Through Zero

ID	Mean Signal (Em)	Entered Conc. mg/L	Calculated Conc. mg/L	Standard Deviation	%RSD
Calib Blank 1	0.0	0	0.00000	6.93	195.21
40ppb, 1mg/kg	63.1	0.040	0.04204	4.64	7.35
200ppb, 10.0mg/kg	358.3	0.200	0.23863	0.95	0.27
1ppm, 50mg/kg	1471.2	1.00	0.97980	21.37	1.45
2ppm, 100mg/kg	2920.4	2.00	1.94493	79.63	2.73
4ppm, 200mg/kg	6052.1	4.00	4.03063	49.34	0.82
Correlation Coef.: 0.999860 Slope: 1502 Intercept: 0.0					

Calibration data for Cr 283.563

Equation: Linear Through Zero

ID	Mean Signal (Em)	Entered Conc. mg/L	Calculated Conc. mg/L	Standard Deviation	%RSD
Calib Blank 1	0.0	0	0.00000	69.00	1.80
40ppb, 1mg/kg	5700.7	0.040	0.04189	175.53	3.08
200ppb, 10.0mg/kg	35436.8	0.200	0.26039	428.83	1.21
1ppm, 50mg/kg	143581.0	1.00	1.05504	3094.65	2.16
2ppm, 100mg/kg	277297.8	2.00	2.03760	5443.31	1.96
4ppm, 200mg/kg	539516.3	4.00	3.96440	706.86	0.13
Correlation Coef.: 0.999778 Slope: 136100 Intercept: 0.0					

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Sequence No.: 7

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/22/2016 10:36:50 AM

Data Type: Reprocessed on 2/23/2016 7:49:51 AM

Initial Sample Vol:

Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1729056.9	1729056.9	4.916 mg/L		10:38:42 AM
1	Rh 343.489	3256.4	3256.4	4.999 mg/L		10:38:45 AM
1	As 188.979†	2875.0	2927.8	1.950 mg/L		10:39:05 AM
1	Cr 283.563†	280797.6	281773.7	2.070 mg/L		10:38:45 AM
2	Y 371.029	1700358.9	1700358.9	4.834 mg/L		10:39:33 AM
2	Rh 343.489	3147.8	3147.8	4.832 mg/L		10:39:36 AM

2	As 188.979†	2902.6	3005.7	2.002 mg/L	10:39:56 AM
2	Cr 283.563†	278004.4	283705.1	2.085 mg/L	10:39:36 AM
3	Y 371.029	1715143.2	1715143.2	4.876 mg/L	10:40:24 AM
3	Rh 343.489	3225.6	3225.6	4.951 mg/L	10:40:26 AM
3	As 188.979†	2840.6	2916.3	1.942 mg/L	10:40:46 AM
3	Cr 283.563†	277995.1	281216.9	2.066 mg/L	10:40:26 AM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1714853.0	4.875 mg/L	0.0408			0.84%
Rh 343.489	3209.9	4.928 mg/L	0.0859			1.74%
As 188.979†	2949.9	1.965 mg/L	0.0324			1.65%
QC value within limits for As 188.979 Recovery = 98.23%						
Cr 283.563†	282231.9	2.074 mg/L	0.0096			0.46%
QC value within limits for Cr 283.563 Recovery = 103.69%						
All analyte(s) passed QC.						

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Sequence No.: 8

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/22/2016 10:42:55 AM

Analyst:

Data Type: Reprocessed on 2/23/2016 7:49:51 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1837491.4	1837491.4	5.224 mg/L		10:44:24 AM
1	Rh 343.489	3404.3	3404.3	5.226 mg/L		10:44:26 AM
1	As 188.979†	-4.6	-0.8	-0.00056 mg/L		10:44:46 AM
1	Cr 283.563†	3911.7	-91.6	-0.00067 mg/L		10:44:26 AM
2	Y 371.029	1811333.9	1811333.9	5.150 mg/L		10:44:53 AM
2	Rh 343.489	3339.2	3339.2	5.126 mg/L		10:44:55 AM
2	As 188.979†	8.7	12.0	0.00800 mg/L		10:45:15 AM
2	Cr 283.563†	3783.5	-162.0	-0.00119 mg/L		10:44:55 AM
3	Y 371.029	1853235.9	1853235.9	5.269 mg/L		10:45:22 AM
3	Rh 343.489	3296.6	3296.6	5.061 mg/L		10:45:25 AM
3	As 188.979†	-1.0	2.6	0.00174 mg/L		10:45:45 AM
3	Cr 283.563†	3932.6	-103.6	-0.00076 mg/L		10:45:25 AM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1834020.4	5.214 mg/L	0.0602			1.15%
Rh 343.489	3346.7	5.137 mg/L	0.0833			1.62%
As 188.979†	4.6	0.00306 mg/L	0.004433			144.84%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-119.1	-0.00087 mg/L	0.000277			31.65%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 9

Sample ID: ICV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 7

Date Collected: 2/22/2016 10:46:52 AM

Data Type: Reprocessed on 2/23/2016 7:49:52 AM

Initial Sample Vol:

Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1707216.1	1707216.1	4.854 mg/L		10:48:38 AM
1	Rh 343.489	3285.2	3285.2	5.043 mg/L		10:48:40 AM
1	As 188.979†	3525.5	3635.4	2.421 mg/L		10:49:00 AM
1	Cr 283.563†	338619.3	344992.5	2.535 mg/L		10:48:38 AM
2	Y 371.029	1718288.6	1718288.6	4.885 mg/L		10:49:21 AM
2	Rh 343.489	3247.7	3247.7	4.985 mg/L		10:49:24 AM
2	As 188.979†	3566.7	3654.1	2.434 mg/L		10:49:44 AM
2	Cr 283.563†	340982.5	345163.4	2.536 mg/L		10:49:21 AM
3	Y 371.029	1707469.2	1707469.2	4.854 mg/L		10:50:04 AM
3	Rh 343.489	3255.4	3255.4	4.997 mg/L		10:50:07 AM
3	As 188.979†	3516.7	3625.7	2.415 mg/L		10:50:27 AM
3	Cr 283.563†	339297.3	345639.1	2.540 mg/L		10:50:04 AM

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1710991.3	4.864 mg/L	0.0180			0.37%
Rh 343.489	3262.8	5.009 mg/L	0.0304			0.61%
As 188.979†	3638.4	2.423 mg/L	0.0096			0.40%
QC value within limits for As 188.979 Recovery = 96.92%						
Cr 283.563†	345265.0	2.537 mg/L	0.0025			0.10%
QC value within limits for Cr 283.563 Recovery = 101.48%						
All analyte(s) passed QC.						

Sequence No.: 10

Sample ID: LLCVS@2mg/kg

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 11

Date Collected: 2/22/2016 10:52:36 AM

Data Type: Reprocessed on 2/23/2016 7:49:52 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: LLCVS@2mg/kg

Net	Corrected	Calib.	Sample	Analysis
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Repl#	Analyte	Intensity	Intensity	Conc. Units	Conc. Units	Time
1	Y 371.029	1968081.7	1968081.7	5.595 mg/L		10:54:05 AM
1	Rh 343.489	3625.5	3625.5	5.565 mg/L		10:54:07 AM
1	As 188.979†	76.0	71.5	0.04759 mg/L	2.380 mg/kg	10:54:27 AM
1	Cr 283.563†	10544.7	5587.3	0.04106 mg/L	2.053 mg/kg	10:54:07 AM
2	Y 371.029	1902349.6	1902349.6	5.408 mg/L		10:54:35 AM
2	Rh 343.489	3574.2	3574.2	5.487 mg/L		10:54:37 AM
2	As 188.979†	65.7	64.3	0.04281 mg/L	2.141 mg/kg	10:54:57 AM
2	Cr 283.563†	10287.0	5674.6	0.04170 mg/L	2.085 mg/kg	10:54:37 AM
3	Y 371.029	1908717.0	1908717.0	5.427 mg/L		10:55:04 AM
3	Rh 343.489	3441.4	3441.4	5.283 mg/L		10:55:06 AM
3	As 188.979†	64.8	63.2	0.04212 mg/L	2.106 mg/kg	10:55:26 AM
3	Cr 283.563†	10031.5	5407.5	0.03973 mg/L	1.987 mg/kg	10:55:06 AM

Mean Data: LLCVS@2mg/kg

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1926382.8	5.477 mg/L	0.1031			1.88%
Rh 343.489	3547.0	5.445 mg/L	0.1458			2.68%
As 188.979†	66.3	0.04417 mg/L	0.002980	2.209 mg/kg	0.1490	6.75%
Cr 283.563†	5556.5	0.04083 mg/L	0.001001	2.041 mg/kg	0.0500	2.45%

Sequence No.: 11

Sample ID: ICS A

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 12

Date Collected: 2/22/2016 10:56:34 AM

Data Type: Reprocessed on 2/23/2016 7:49:52 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1841434.8	1841434.8	5.235 mg/L		10:58:06 AM
1	Rh 343.489	3293.2	3293.2	5.055 mg/L		10:58:09 AM
1	As 188.979†	1.0	4.5	0.00298 mg/L	0.1490 mg/kg	10:58:29 AM
1	Cr 283.563†	4147.7	125.8	0.00092 mg/L	0.04623 mg/kg	10:58:09 AM
2	Y 371.029	1829703.6	1829703.6	5.202 mg/L		10:58:39 AM
2	Rh 343.489	3401.8	3401.8	5.222 mg/L		10:58:41 AM
2	As 188.979†	-3.1	0.5	0.00035 mg/L	0.01774 mg/kg	10:59:01 AM
2	Cr 283.563†	4116.5	121.2	0.00089 mg/L	0.04454 mg/kg	10:58:41 AM
3	Y 371.029	1810468.6	1810468.6	5.147 mg/L		10:59:11 AM
3	Rh 343.489	3366.9	3366.9	5.168 mg/L		10:59:14 AM
3	As 188.979†	-7.5	-3.8	-0.00251 mg/L	-0.1257 mg/kg	10:59:34 AM
3	Cr 283.563†	4174.7	219.8	0.00162 mg/L	0.08075 mg/kg	10:59:14 AM

Mean Data: ICS A

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1827202.4	5.195 mg/L	0.0444			0.86%
Rh 343.489	3353.9	5.149 mg/L	0.0851			1.65%
As 188.979†	0.4	0.00027 mg/L	0.002748	0.01369 mg/kg	0.137422	>999.9%
Cr 283.563†	155.6	0.00114 mg/L	0.000409	0.05717 mg/kg	0.020437	35.75%

Sequence No.: 12

Autosampler Location: 13

Sample ID: ICS AB

Date Collected: 2/22/2016 11:01:41 AM

Analyst:

Data Type: Reprocessed on 2/23/2016 7:49:52 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1820246.7	1820246.7	5.175 mg/L		11:03:33 AM
1	Rh 343.489	3425.4	3425.4	5.258 mg/L		11:03:36 AM
1	As 188.979†	3079.0	2978.4	1.984 mg/L	99.18 mg/kg	11:03:56 AM
1	Cr 283.563†	295005.8	281193.0	2.066 mg/L	103.3 mg/kg	11:03:36 AM
2	Y 371.029	1826243.1	1826243.1	5.192 mg/L		11:04:25 AM
2	Rh 343.489	3572.6	3572.6	5.484 mg/L		11:04:28 AM
2	As 188.979†	3074.2	2964.0	1.974 mg/L	98.70 mg/kg	11:04:48 AM
2	Cr 283.563†	294095.3	279380.3	2.053 mg/L	102.6 mg/kg	11:04:28 AM
3	Y 371.029	1830190.3	1830190.3	5.203 mg/L		11:05:16 AM
3	Rh 343.489	3458.9	3458.9	5.310 mg/L		11:05:19 AM
3	As 188.979†	3060.9	2944.9	1.961 mg/L	98.06 mg/kg	11:05:39 AM
3	Cr 283.563†	289245.9	274109.6	2.014 mg/L	100.7 mg/kg	11:05:19 AM

Mean Data: ICS AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1825560.0	5.190 mg/L	0.0142			0.27%
Rh 343.489	3485.6	5.351 mg/L	0.1185			2.21%
As 188.979†	2962.4	1.973 mg/L	0.0112	98.65 mg/kg	0.560	0.57%
Cr 283.563†	278227.6	2.044 mg/L	0.0270	102.2 mg/kg	1.35	1.32%

Sequence No.: 13

Autosampler Location: 5

Sample ID: CCV

Date Collected: 2/22/2016 11:07:47 AM

Analyst:

Data Type: Reprocessed on 2/23/2016 7:49:52 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1804874.1	1804874.1	5.131 mg/L		11:09:34 AM

1	Rh 343.489	3420.6	3420.6	5.251 mg/L	11:09:37 AM
1	As 188.979†	3042.7	2968.4	1.977 mg/L	11:09:57 AM
1	Cr 283.563†	295176.6	283787.2	2.085 mg/L	11:09:37 AM
2	Y 371.029	1769152.9	1769152.9	5.030 mg/L	11:10:18 AM
2	Rh 343.489	3353.3	3353.3	5.148 mg/L	11:10:21 AM
2	As 188.979†	3053.3	3038.8	2.024 mg/L	11:10:41 AM
2	Cr 283.563†	299878.2	294268.3	2.162 mg/L	11:10:21 AM
3	Y 371.029	1805747.9	1805747.9	5.134 mg/L	11:11:02 AM
3	Rh 343.489	3351.8	3351.8	5.145 mg/L	11:11:05 AM
3	As 188.979†	3035.0	2959.5	1.971 mg/L	11:11:25 AM
3	Cr 283.563†	296497.2	284934.2	2.094 mg/L	11:11:05 AM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1793258.3	5.098 mg/L	0.0594			1.16%
Rh 343.489	3375.2	5.181 mg/L	0.0603			1.16%
As 188.979†	2988.9	1.991 mg/L	0.0289			1.45%
QC value within limits for As 188.979 Recovery = 99.53%						
Cr 283.563†	287663.2	2.114 mg/L	0.0422			2.00%
QC value within limits for Cr 283.563 Recovery = 105.69%						
All analyte(s) passed QC.						

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Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 2/22/2016 11:13:34 AM
Data Type: Reprocessed on 2/23/2016 7:49:52 AM
Initial Sample Vol:
Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1858466.0	1858466.0	5.284 mg/L		11:15:02 AM
1	Rh 343.489	3520.8	3520.8	5.405 mg/L		11:15:05 AM
1	As 188.979†	3.2	6.6	0.00440 mg/L		11:15:25 AM
1	Cr 283.563†	3972.8	-76.0	-0.00056 mg/L		11:15:05 AM
2	Y 371.029	1896759.5	1896759.5	5.393 mg/L		11:15:32 AM
2	Rh 343.489	3481.1	3481.1	5.344 mg/L		11:15:34 AM
2	As 188.979†	-12.6	-8.1	-0.00539 mg/L		11:15:54 AM
2	Cr 283.563†	3941.2	-181.2	-0.00133 mg/L		11:15:34 AM
3	Y 371.029	1899195.5	1899195.5	5.399 mg/L		11:16:01 AM
3	Rh 343.489	3498.7	3498.7	5.371 mg/L		11:16:03 AM
3	As 188.979†	-3.4	0.4	0.00024 mg/L		11:16:23 AM
3	Cr 283.563†	3885.6	-237.4	-0.00174 mg/L		11:16:03 AM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1884807.0	5.359 mg/L	0.0649			1.21%
Rh 343.489	3500.2	5.373 mg/L	0.0306			0.57%
As 188.979†	-0.4	-0.00025 mg/L	0.004913			>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						

Cr 283.563† -164.9 -0.00121 mg/L 0.000602 49.69%
QC value within limits for Cr 283.563 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 15 Autosampler Location: 14
Sample ID: LDR I Date Collected: 2/22/2016 11:17:08 AM
Analyst: Data Type: Reprocessed on 2/23/2016 7:49:53 AM
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1 g Initial Sample Vol:
Dilution: Sample Prep Vol: 50 mL
Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: LDR I

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1675712.2	1675712.2	4.764 mg/L		11:18:51 AM
1	Rh 343.489	3597.6	3597.6	5.523 mg/L		11:18:54 AM
1	As 188.979†	14165.9	14870.8	9.904 mg/L	495.2 mg/kg	11:19:14 AM
1	Cr 283.563†	1269917.5	1328962.1	9.765 mg/L	488.3 mg/kg	11:18:51 AM
2	Y 371.029	1667808.6	1667808.6	4.742 mg/L		11:19:32 AM
2	Rh 343.489	3736.2	3736.2	5.735 mg/L		11:19:35 AM
2	As 188.979†	14436.0	15226.2	10.14 mg/L	507.0 mg/kg	11:19:55 AM
2	Cr 283.563†	1266022.0	1331170.3	9.782 mg/L	489.1 mg/kg	11:19:32 AM
3	Y 371.029	1691973.1	1691973.1	4.810 mg/L		11:20:13 AM
3	Rh 343.489	3698.0	3698.0	5.677 mg/L		11:20:16 AM
3	As 188.979†	14400.1	14971.4	9.971 mg/L	498.5 mg/kg	11:20:36 AM
3	Cr 283.563†	1294878.2	1342097.9	9.862 mg/L	493.1 mg/kg	11:20:13 AM

Mean Data: LDR I

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1678498.0	4.772 mg/L	0.0350			0.73%
Rh 343.489	3677.3	5.645 mg/L	0.1099			1.95%
As 188.979†	15022.8	10.00 mg/L	0.122	500.2 mg/kg	6.10	1.22%
Concentration greater than upper limit for As 188.979.						
Cr 283.563†	1334076.8	9.803 mg/L	0.0517	490.1 mg/kg	2.58	0.53%
Concentration greater than upper limit for Cr 283.563.						

Sequence No.: 16 Autosampler Location: 15
Sample ID: LDR II Date Collected: 2/22/2016 11:22:43 AM
Analyst: Data Type: Reprocessed on 2/23/2016 7:49:53 AM
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1 g Initial Sample Vol:
Dilution: Sample Prep Vol: 50 mL
Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	0.200	10	2.000
Cr 283.563	0.010	200	2.000

Replicate Data: LDR II

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1669186.3	1669186.3	4.746 mg/L		11:24:30 AM
1	Rh 343.489	4024.7	4024.7	6.178 mg/L		11:24:32 AM
1	As 188.979†	26873.0	28317.4	18.86 mg/L	942.9 mg/kg	11:24:32 AM
1	Cr 283.563†	2520345.7	2651646.9	19.48 mg/L	974.2 mg/kg	11:24:30 AM
2	Y 371.029	1692337.3	1692337.3	4.811 mg/L		11:25:14 AM
2	Rh 343.489	4103.0	4103.0	6.298 mg/L		11:25:16 AM
2	As 188.979†	27474.5	28555.1	19.02 mg/L	950.9 mg/kg	11:25:16 AM
2	Cr 283.563†	2558956.4	2655444.6	19.51 mg/L	975.6 mg/kg	11:25:14 AM
3	Y 371.029	1679762.1	1679762.1	4.776 mg/L		11:25:58 AM
3	Rh 343.489	4096.0	4096.0	6.288 mg/L		11:26:00 AM
3	As 188.979†	26954.1	28224.1	18.80 mg/L	939.8 mg/kg	11:26:00 AM
3	Cr 283.563†	2534477.0	2649723.2	19.47 mg/L	973.5 mg/kg	11:25:58 AM

Mean Data: LDR II

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1680428.5	4.778 mg/L	0.0330			0.69%
Rh 343.489	4074.6	6.255 mg/L	0.0665			1.06%
Internal Standard Check greater than the upper limit for Rh 343.489. Recovery = 125.1%						
As 188.979†	28365.5	18.89 mg/L	0.114	944.5 mg/kg	5.68	0.60%
Concentration greater than upper limit for As 188.979.						
Cr 283.563†	2652271.6	19.49 mg/L	0.021	974.5 mg/kg	1.07	0.11%
Concentration greater than upper limit for Cr 283.563.						
Internal Standard Check failed. Retry.						

LOW LEVEL CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60108
Lab File ID: 160222CWO-SZB0594-010 Calibration Date: 02/23/16 10:31
Sequence: SZB0594 Injection Date: 02/22/16
Lab Sample ID: SZB0594-LCV3 Injection Time: 10:55

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			LCV Lower Limit	Upper Limit
		STD	LCV	ICAL	LCV	% Rec		
Arsenic	L	0.0400	0.044	1562.799	1658.251	110	70	130
Chromium	L	0.0400	0.041	147362.3	138911.6	102	70	130

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

INITIAL CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
 Work Order: 16B0472
 Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60108
 Lab File ID: 160222CWO-SZB0594-007 Calibration Date: 02/23/16 10:31
 Sequence: SZB0594 Injection Date: 02/22/16
 Lab Sample ID: SZB0594-ICV1 Injection Time: 10:40

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			ICV Lower Limit	Upper Limit
		STD	ICV	ICAL	ICV	% Rec		
Arsenic	L	2.00	1.96	1562.799	1474.959	98.2	95	105
Chromium	L	2.00	2.07	147362.3	141116	104	95	105

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

INITIAL CALIBRATION DATA

SW6010C

Client: Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)

Calibration:	AB60120	Instrument:	ICP03
		Calibration Date:	2/24/2016 10:00:17AM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Arsenic	0.04	1723.039	0.2	1675.493	1	1611.09	2	1645.344	4	1694.625		
Chromium	0.04	167599	0.2	159543.6	1	151885.1	2	153986.6	4	147118.4		

INITIAL CALIBRATION DATA (Continued)

SW6010C

Client: Draper Aden Associates-Richm

Project: New Kent Wood Preservatives (

Calibration: AB60120

Instrument: ICP03

Calibration Date: 2/24/2016 10:00:17AM

COMPOUND	Mean RF	RF RSD	Linear r	Quad COD	LIMIT	Q
Arsenic	1669.918	2.597855	0.9996744			
Chromium	156026.5	5.035992	0.9994628			

* Values outside of QC limits

Analysis Sequence

Printed: 02/25/2016 2:14 pm

SZB0644

Department: Metals-ICP
Instrument: ICP03
Calibration ID: AB60120

Sequence Date: 02/24/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
SZB0644-CAL1		Cal Standard	1		6B01698			
SZB0644-CAL2		Cal Standard	2		6B01697			
SZB0644-CAL3		Cal Standard	3		6B01696			
SZB0644-CAL4		Cal Standard	4		6B01695			
SZB0644-CAL5		Cal Standard	5		6B01694			
SZB0644-ICV1		Initial Cal Check	6		6B01695			
SZB0644-ICB1		Initial Cal Blank	7					
SZB0644-SCV1		Secondary Cal Check	8		6B01699			
SZB0644-LCV3		Low Cal Check	9		6B01700			
SZB0644-IFA1		Interference Check A	10		6B01701			
SZB0644-IFB1		Interference Check B	11		6B01702			
SZB0644-CCV1		Calibration Check	12		6B01695			
SZB0644-CCB1		Calibration Blank	13					
SZB0644-HCV1		High Cal Check	14		6B01511			
SZB0644-HCV2		High Cal Check	15		6B01512			

=====

Reprocessing Begun

Logged In Analyst: ICP03

Technique: ICP Continuous

Results Data Set (original): 160224CWO-1wood3

Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

Results Data Set (reprocessed): 160224CWO-SZB0644

Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

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Method Loaded

Method Name: 8300_LWOODSOILs

Method Last Saved: 2/22/2016 5:01:30 PM

IEC File:

MSF File:

Method Description: 8300 All Wavelengths Method

=====

Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank 1

Date Collected: 2/24/2016 11:26:27 AM

Analyst:

Data Type: Reprocessed on 2/24/2016 1:19:56 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: Calib Blank 1

Analyte Back Pressure

Flow

All 192.0 kPa 0.55 L/min

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Rep#	Analyte	Net	Corrected	Calib.	Analysis
		Intensity	Intensity	Conc. Units	Time
1	Y 371.029	2392388.1	2392388.1	5.064 mg/L	11:27:54 AM
1	As 188.979†	1157.1	1142.5	[0.00] mg/L	11:28:17 AM
1	Cr 283.563†	7719.2	7621.8	[0.00] mg/L	11:27:57 AM
2	Y 371.029	2348408.3	2348408.3	4.971 mg/L	11:28:24 AM
2	As 188.979†	1147.7	1154.4	[0.00] mg/L	11:28:47 AM
2	Cr 283.563†	7791.0	7836.7	[0.00] mg/L	11:28:26 AM
3	Y 371.029	2345807.2	2345807.2	4.965 mg/L	11:28:54 AM
3	As 188.979†	1127.7	1135.6	[0.00] mg/L	11:29:16 AM
3	Cr 283.563†	7679.5	7733.2	[0.00] mg/L	11:28:56 AM

Analyte	Mean Corrected	Std.Dev.	RSD	Calib
	Intensity			Conc. Units
Y 371.029	2362201.2	26174.92	1.11%	5.000 mg/L
As 188.979†	1144.2	9.50	0.83%	[0.00] mg/L
Cr 283.563†	7730.5	107.50	1.39%	[0.00] mg/L

=====

Sequence No.: 2

Autosampler Location: 2

Sample ID: 40ppb,1mg/kg

Date Collected: 2/24/2016 11:30:21 AM

Analyst:

Data Type: Reprocessed on 2/24/2016 1:19:56 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:
Dilution:
Wash Time:

Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 40ppb,1mg/kg

Analyte	Back Pressure	Flow
All	192.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: 40ppb,1mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2329442.7	2329442.7	4.931 mg/L	11:31:49 AM
1	As 188.979†	106.4	-1036.3	[0.040] mg/L	11:32:11 AM
1	Cr 283.563†	11423.1	3853.2	[0.040] mg/L	11:31:51 AM
2	Y 371.029	2347976.3	2347976.3	4.970 mg/L	11:32:18 AM
2	As 188.979†	100.0	-1043.6	[0.040] mg/L	11:32:40 AM
2	Cr 283.563†	11725.6	4066.1	[0.040] mg/L	11:32:20 AM
3	Y 371.029	2328448.0	2328448.0	4.929 mg/L	11:32:47 AM
3	As 188.979†	99.8	-1042.9	[0.040] mg/L	11:33:09 AM
3	Cr 283.563†	11959.4	4402.2	[0.040] mg/L	11:32:49 AM

Mean Data: 40ppb,1mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2335289.0	10998.77	0.47%	4.943 mg/L
As 188.979†	-1040.9	4.05	0.39%	[0.040] mg/L
Cr 283.563†	4107.2	276.82	6.74%	[0.040] mg/L

Standard intensity and concentration values are not in the same order.

Sequence No.: 3

Sample ID: Calib Blank 1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/24/2016 11:35:59 AM

Data Type: Reprocessed on 2/24/2016 1:19:56 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	192.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: Calib Blank 1

Net	Corrected	Calib.	Analysis
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Repl#	Analyte	Intensity	Intensity	Conc. Units	Time
1	Y 371.029	2416046.9	2416046.9	5.114 mg/L	11:37:26 AM
1	As 188.979†	23.7	23.2	[0.00] mg/L	11:37:48 AM
1	Cr 283.563†	5014.3	4902.6	[0.00] mg/L	11:37:28 AM
2	Y 371.029	2408577.7	2408577.7	5.098 mg/L	11:37:55 AM
2	As 188.979†	14.6	14.3	[0.00] mg/L	11:38:17 AM
2	Cr 283.563†	4878.1	4784.2	[0.00] mg/L	11:37:57 AM
3	Y 371.029	2399079.7	2399079.7	5.078 mg/L	11:38:24 AM
3	As 188.979†	19.1	18.8	[0.00] mg/L	11:38:47 AM
3	Cr 283.563†	5000.3	4923.4	[0.00] mg/L	11:38:27 AM

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2407901.4	8503.76	0.35%	5.097 mg/L
As 188.979†	18.8	4.43	23.62%	[0.00] mg/L
Cr 283.563†	4870.0	75.10	1.54%	[0.00] mg/L

Sequence No.: 4

Autosampler Location: 2

Sample ID: 40ppb,1mg/kg

Date Collected: 2/24/2016 11:39:51 AM

Analyst:

Data Type: Reprocessed on 2/24/2016 1:19:56 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: 40ppb,1mg/kg

Analyte	Back Pressure	Flow
All	192.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: 40ppb,1mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2373739.8	2373739.8	5.024 mg/L	11:41:19 AM
1	As 188.979†	82.7	63.6	[0.040] mg/L	11:41:41 AM
1	Cr 283.563†	11978.8	7050.5	[0.040] mg/L	11:41:21 AM
2	Y 371.029	2422472.4	2422472.4	5.128 mg/L	11:41:48 AM
2	As 188.979†	89.7	68.7	[0.040] mg/L	11:42:10 AM
2	Cr 283.563†	11496.6	6340.5	[0.040] mg/L	11:41:50 AM
3	Y 371.029	2376182.2	2376182.2	5.030 mg/L	11:42:18 AM
3	As 188.979†	93.8	74.5	[0.040] mg/L	11:42:40 AM
3	Cr 283.563†	11659.5	6720.8	[0.040] mg/L	11:42:20 AM

Mean Data: 40ppb,1mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2390798.1	27457.87	1.15%	5.061 mg/L
As 188.979†	68.9	5.49	7.96%	[0.040] mg/L
Cr 283.563†	6704.0	355.30	5.30%	[0.040] mg/L

Sequence No.: 5

Autosampler Location: 3

Sample ID: 200ppb,10.0mg/kg

Date Collected: 2/24/2016 11:43:44 AM

Analyst:

Data Type: Reprocessed on 2/24/2016 1:19:56 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: 200ppb,10.0mg/kg

Analyte	Back Pressure	Flow
All	192.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Analyte			
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 200ppb,10.0mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2304836.2	2304836.2	4.879 mg/L	11:45:15 AM
1	As 188.979†	345.5	335.4	[0.200] mg/L	11:45:38 AM
1	Cr 283.563†	36357.6	32392.5	[0.200] mg/L	11:45:18 AM
2	Y 371.029	2288596.8	2288596.8	4.844 mg/L	11:45:48 AM
2	As 188.979†	341.0	333.2	[0.200] mg/L	11:46:10 AM
2	Cr 283.563†	35285.7	31550.5	[0.200] mg/L	11:45:50 AM
3	Y 371.029	2291636.9	2291636.9	4.851 mg/L	11:46:20 AM
3	As 188.979†	344.8	336.7	[0.200] mg/L	11:46:43 AM
3	Cr 283.563†	35558.3	31783.2	[0.200] mg/L	11:46:23 AM

Mean Data: 200ppb,10.0mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib. Conc. Units
Y 371.029	2295023.3	8633.06	0.38%	4.858 mg/L
As 188.979†	335.1	1.74	0.52%	[0.200] mg/L
Cr 283.563†	31908.7	434.83	1.36%	[0.200] mg/L

Sequence No.: 6

Autosampler Location: 4

Sample ID: 1ppm,50mg/kg

Date Collected: 2/24/2016 11:48:48 AM

Analyst:

Data Type: Reprocessed on 2/24/2016 1:19:56 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: 1ppm,50mg/kg

Analyte	Back Pressure	Flow
All	192.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Analyte			
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 1ppm,50mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2222939.8	2222939.8	4.705 mg/L	11:50:24 AM
1	As 188.979†	1561.0	1640.0	[1.00] mg/L	11:50:47 AM
1	Cr 283.563†	147104.0	151449.6	[1.00] mg/L	11:50:26 AM
2	Y 371.029	2250389.2	2250389.2	4.763 mg/L	11:51:01 AM
2	As 188.979†	1535.1	1592.6	[1.00] mg/L	11:51:23 AM
2	Cr 283.563†	150453.4	153058.7	[1.00] mg/L	11:51:03 AM
3	Y 371.029	2252467.3	2252467.3	4.768 mg/L	11:51:37 AM
3	As 188.979†	1544.1	1600.6	[1.00] mg/L	11:52:00 AM
3	Cr 283.563†	148769.4	151147.0	[1.00] mg/L	11:51:40 AM

Mean Data: 1ppm,50mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2241932.1	16480.59	0.74%	4.745 mg/L
As 188.979†	1611.1	25.39	1.58%	[1.00] mg/L
Cr 283.563†	151885.1	1027.55	0.68%	[1.00] mg/L

Sequence No.: 7

Sample ID: 2ppm,100mg/kg

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/24/2016 11:54:05 AM

Data Type: Reprocessed on 2/24/2016 1:19:56 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: 2ppm,100mg/kg

Analyte	Back Pressure	Flow
All	193.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 2ppm,100mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2190965.0	2190965.0	4.638 mg/L	11:55:53 AM
1	As 188.979†	3093.8	3316.9	[2.00] mg/L	11:56:15 AM
1	Cr 283.563†	289096.0	306820.4	[2.00] mg/L	11:55:55 AM
2	Y 371.029	2159466.1	2159466.1	4.571 mg/L	11:56:40 AM
2	As 188.979†	3067.3	3336.5	[2.00] mg/L	11:57:03 AM
2	Cr 283.563†	290534.7	312940.6	[2.00] mg/L	11:56:43 AM
3	Y 371.029	2250540.6	2250540.6	4.764 mg/L	11:57:28 AM
3	As 188.979†	3084.4	3218.7	[2.00] mg/L	11:57:51 AM
3	Cr 283.563†	294420.9	304158.5	[2.00] mg/L	11:57:31 AM

Mean Data: 2ppm,100mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2200323.9	46252.95	2.10%	4.657 mg/L
As 188.979†	3290.7	63.14	1.92%	[2.00] mg/L
Cr 283.563†	307973.2	4503.11	1.46%	[2.00] mg/L

Sequence No.: 8

Sample ID: 4ppm, 200mg/kg

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 6

Date Collected: 2/24/2016 11:59:57 AM

Data Type: Reprocessed on 2/24/2016 1:19:56 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: 4ppm, 200mg/kg

Analyte	Back Pressure	Flow
All	195.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: 4ppm, 200mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2190231.5	2190231.5	4.636 mg/L	12:01:43 PM
1	As 188.979†	6310.8	6787.6	[4.00] mg/L	12:02:06 PM
1	Cr 283.563†	549766.1	588061.8	[4.00] mg/L	12:01:43 PM
2	Y 371.029	2208598.0	2208598.0	4.675 mg/L	12:02:28 PM
2	As 188.979†	6354.5	6777.7	[4.00] mg/L	12:02:51 PM
2	Cr 283.563†	555522.3	589287.6	[4.00] mg/L	12:02:28 PM
3	Y 371.029	2214091.6	2214091.6	4.687 mg/L	12:03:14 PM
3	As 188.979†	6363.3	6770.2	[4.00] mg/L	12:03:37 PM
3	Cr 283.563†	555764.1	588071.4	[4.00] mg/L	12:03:14 PM

Mean Data: 4ppm, 200mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib. Conc. Units
Y 371.029	2204307.0	12495.43	0.57%	4.666 mg/L
As 188.979†	6778.5	8.69	0.13%	[4.00] mg/L
Cr 283.563†	588473.6	704.95	0.12%	[4.00] mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Re
As 188.979	5	Lin Thru 0	0.0	1681	0.00000	0.999891	
Cr 283.563	5	Lin Thru 0	0.0	148700	0.00000	0.999820	

Calibration data for As 188.979

Equation: Linear Through Zero

ID	Mean Signal (Em)	Entered Conc. mg/L	Calculated Conc. mg/L	Standard Deviation	%RSD
Calib Blank 1	0.0	0	0.00000	4.43	23.62
40ppb, 1mg/kg	68.9	0.040	0.04099	5.49	7.96
200ppb, 10.0mg/kg	335.1	0.200	0.19931	1.74	0.52
1ppm, 50mg/kg	1611.1	1.00	0.95827	25.39	1.58
2ppm, 100mg/kg	3290.7	2.00	1.95728	63.14	1.92
4ppm, 200mg/kg	6778.5	4.00	4.03182	8.69	0.13

Correlation Coef.: 0.999891 Slope: 1681 Intercept: 0.0

Calibration data for Cr 283.563

Equation: Linear Through Zero

ID	Mean Signal (Em)	Entered Conc. mg/L	Calculated Conc. mg/L	Standard Deviation	%RSD
Calib Blank 1	0.0	0	0.00000	75.10	1.54
40ppb, 1mg/kg	6704.0	0.040	0.04509	355.30	5.30
200ppb, 10.0mg/kg	31908.7	0.200	0.21462	434.83	1.36
1ppm, 50mg/kg	151885.1	1.00	1.02159	1027.55	0.68
2ppm, 100mg/kg	307973.2	2.00	2.07144	4503.11	1.46
4ppm, 200mg/kg	588473.6	4.00	3.95810	704.95	0.12

Correlation Coef.: 0.999820 Slope: 148700 Intercept: 0.0

Sequence No.: 9

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/24/2016 12:05:43 PM

Data Type: Reprocessed on 2/24/2016 1:19:57 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	196.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal Time
1	Y 371.029	2235707.6	2235707.6	4.732 mg/L		12:00
1	As 188.979†	3122.6	3280.5	1.951 mg/L		12:00
1	Cr 283.563†	291147.9	302750.6	2.036 mg/L		12:00
2	Y 371.029	2242639.5	2242639.5	4.747 mg/L		12:00
2	As 188.979†	3115.7	3263.0	1.941 mg/L		12:00
2	Cr 283.563†	297080.7	308048.9	2.072 mg/L		12:00
3	Y 371.029	2249993.3	2249993.3	4.762 mg/L		12:00
3	As 188.979†	3136.3	3274.0	1.947 mg/L		12:00
3	Cr 283.563†	298893.1	308929.0	2.078 mg/L		12:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2242780.1	4.747 mg/L	0.0151		
As 188.979†	3272.5	1.946 mg/L	0.0052		
QC value within limits for As 188.979 Recovery = 97.32%					
Cr 283.563†	306576.2	2.062 mg/L	0.0225		
QC value within limits for Cr 283.563 Recovery = 103.10%					
All analyte(s) passed QC.					

Sequence No.: 10

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Autosampler Location: 1

Date Collected: 2/24/2016 12:11:34 PM

Data Type: Reprocessed on 2/24/2016 1:19:57 PM

Initial Sample Vol:

Dilution:
Wash Time:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	197.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2501157.3	2501157.3	5.294 mg/L		12:00
1	As 188.979†	9.2	-10.1	-0.00601 mg/L		12:00
1	Cr 283.563†	4764.6	-370.1	-0.00249 mg/L		12:00
2	Y 371.029	2532469.6	2532469.6	5.360 mg/L		12:00
2	As 188.979†	17.1	-2.8	-0.00169 mg/L		12:00
2	Cr 283.563†	4744.0	-445.0	-0.00299 mg/L		12:00
3	Y 371.029	2468590.8	2468590.8	5.225 mg/L		12:00
3	As 188.979†	23.2	3.4	0.00204 mg/L		12:00
3	Cr 283.563†	4927.7	-154.7	-0.00104 mg/L		12:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2500739.2	5.293 mg/L	0.0676		
As 188.979†	-3.2	-0.00189 mg/L	0.004030		21.0
QC value within limits for As 188.979 Recovery = Not calculated					
Cr 283.563†	-323.3	-0.00217 mg/L	0.001014		4.0
QC value within limits for Cr 283.563 Recovery = Not calculated					
All analyte(s) passed QC.					

Sequence No.: 11

Sample ID: ICV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 7

Date Collected: 2/24/2016 12:15:27 PM

Data Type: Reprocessed on 2/24/2016 1:19:57 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: ICV

Analyte	Back Pressure	Flow
All	199.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal Time
1	Y 371.029	2320280.1	2320280.1	4.911 mg/L		12:11
1	As 188.979†	4001.9	4055.4	2.412 mg/L		12:11
1	Cr 283.563†	369336.1	371138.9	2.496 mg/L		12:11
2	Y 371.029	2316972.0	2316972.0	4.904 mg/L		12:11
2	As 188.979†	4019.3	4079.0	2.426 mg/L		12:11
2	Cr 283.563†	371031.9	373404.7	2.512 mg/L		12:11
3	Y 371.029	2325995.3	2325995.3	4.923 mg/L		12:11
3	As 188.979†	4035.4	4079.4	2.426 mg/L		12:11
3	Cr 283.563†	373920.8	374871.2	2.521 mg/L		12:11

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2321082.5	4.913 mg/L	0.0097		(
As 188.979†	4071.3	2.422 mg/L	0.0082		(
QC value within limits for As 188.979 Recovery = 96.86%					
Cr 283.563†	373138.3	2.510 mg/L	0.0126		(
QC value within limits for Cr 283.563 Recovery = 100.39%					
All analyte(s) passed QC.					

=====

Sequence No.: 12
Sample ID: LLCVS@2mg/kg
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1 g
Dilution:
Wash Time:

Autosampler Location: 11
Date Collected: 2/24/2016 12:21:14 PM
Data Type: Reprocessed on 2/24/2016 1:19:57 PM
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: LLCVS@2mg/kg

Analyte	Back Pressure	Flow
All	198.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: LLCVS@2mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal Time
1	Y 371.029	2539080.4	2539080.4	5.374 mg/L		12:11
1	As 188.979†	81.9	57.5	0.03419 mg/L	1.709 mg/kg	12:11
1	Cr 283.563†	11090.4	5447.7	0.03664 mg/L	1.832 mg/kg	12:11
2	Y 371.029	2539108.3	2539108.3	5.374 mg/L		12:11
2	As 188.979†	80.8	56.4	0.03354 mg/L	1.677 mg/kg	12:11
2	Cr 283.563†	11200.7	5550.3	0.03733 mg/L	1.867 mg/kg	12:11
3	Y 371.029	2538734.3	2538734.3	5.374 mg/L		12:11
3	As 188.979†	91.2	66.1	0.03932 mg/L	1.966 mg/kg	12:11
3	Cr 283.563†	11247.0	5594.9	0.03763 mg/L	1.882 mg/kg	12:11

Mean Data: LLCVS@2mg/kg

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2538974.3	5.374 mg/L	0.0004		(
As 188.979†	60.0	0.03568 mg/L	0.003164	1.784 mg/kg	0.1582

Cr 283.563† 5531.0 0.03720 mg/L 0.000507 1.860 mg/kg 0.0254 :

Sequence No.: 13

Sample ID: ICS A

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 12

Date Collected: 2/24/2016 12:25:08 PM

Data Type: Reprocessed on 2/24/2016 1:19:57 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS A

Analyte	Back Pressure	Flow
All	200.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T
1	Y 371.029	2429237.6	2429237.6	5.142 mg/L		12:3
1	As 188.979†	14.8	-4.4	-0.00262 mg/L	-0.1309 mg/kg	12:3
1	Cr 283.563†	4886.9	-118.0	-0.00079 mg/L	-0.03969 mg/kg	12:3
2	Y 371.029	2463169.2	2463169.2	5.214 mg/L		12:3
2	As 188.979†	23.6	3.8	0.00228 mg/L	0.1139 mg/kg	12:3
2	Cr 283.563†	5106.1	26.7	0.00018 mg/L	0.00899 mg/kg	12:3
3	Y 371.029	2486999.5	2486999.5	5.264 mg/L		12:3
3	As 188.979†	11.3	-8.0	-0.00478 mg/L	-0.2392 mg/kg	12:3
3	Cr 283.563†	4962.3	-156.8	-0.00105 mg/L	-0.05273 mg/kg	12:3

Mean Data: ICS A

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2459802.1	5.207 mg/L	0.0614		
As 188.979†	-2.9	-0.00171 mg/L	0.003618	-0.08538 mg/kg	0.180903 21
Cr 283.563†	-82.7	-0.00056 mg/L	0.000651	-0.02781 mg/kg	0.032526 11

Sequence No.: 14

Sample ID: ICS AB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 13

Date Collected: 2/24/2016 12:29:05 PM

Data Type: Reprocessed on 2/24/2016 1:19:57 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS AB

Analyte	Back Pressure	Flow
All	201.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000

As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T:
1	Y 371.029	2425633.1	2425633.1	5.134 mg/L		12:1
1	As 188.979†	3207.2	3104.5	1.847 mg/L	92.33 mg/kg	12:1
1	Cr 283.563†	307386.9	294478.5	1.981 mg/L	99.03 mg/kg	12:1
2	Y 371.029	2417515.4	2417515.4	5.117 mg/L		12:1
2	As 188.979†	3237.8	3145.0	1.871 mg/L	93.53 mg/kg	12:1
2	Cr 283.563†	302569.4	290776.4	1.956 mg/L	97.79 mg/kg	12:1
3	Y 371.029	2399443.3	2399443.3	5.079 mg/L		12:1
3	As 188.979†	3258.8	3189.5	1.897 mg/L	94.85 mg/kg	12:1
3	Cr 283.563†	305163.4	295556.9	1.988 mg/L	99.40 mg/kg	12:1

Mean Data: ICS AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2414197.3	5.110 mg/L	0.0284		(
As 188.979†	3146.3	1.871 mg/L	0.0253	93.57 mg/kg	1.263 :
Cr 283.563†	293603.9	1.975 mg/L	0.0169	98.74 mg/kg	0.843 (

Sequence No.: 15

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/24/2016 12:35:07 PM

Data Type: Reprocessed on 2/24/2016 1:19:58 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	202.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T:
1	Y 371.029	2459256.8	2459256.8	5.205 mg/L		12:1
1	As 188.979†	3478.6	3322.5	1.976 mg/L		12:1
1	Cr 283.563†	332774.5	314771.4	2.117 mg/L		12:1
2	Y 371.029	2446593.0	2446593.0	5.179 mg/L		12:1
2	As 188.979†	3512.2	3372.3	2.006 mg/L		12:1
2	Cr 283.563†	322974.0	306963.4	2.065 mg/L		12:1
3	Y 371.029	2483838.3	2483838.3	5.257 mg/L		12:1
3	As 188.979†	3528.5	3336.9	1.985 mg/L		12:1
3	Cr 283.563†	334656.0	313397.3	2.108 mg/L		12:1

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
---------	--------------------------	--------------------	----------	--------------------	----------

Y 371.029 2463229.4 5.214 mg/L 0.0401
 As 188.979† 3343.9 1.989 mg/L 0.0152
 QC value within limits for As 188.979 Recovery = 99.45%
 Cr 283.563† 311710.7 2.097 mg/L 0.0280
 QC value within limits for Cr 283.563 Recovery = 104.83%
 All analyte(s) passed QC.

Sequence No.: 16 Autosampler Location: 1
 Sample ID: CCB Date Collected: 2/24/2016 12:40:56 PM
 Analyst: Data Type: Reprocessed on 2/24/2016 1:19:58 PM
 Logged In Analyst (Original) : ICP03
 Initial Sample Wt: Initial Sample Vol:
 Dilution: Sample Prep Vol:
 Wash Time:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	203.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. Ti
1	Y 371.029	2647495.4	2647495.4	5.604 mg/L		12:4
1	As 188.979†	9.4	-10.3	-0.00615 mg/L		12:4
1	Cr 283.563†	4928.3	-472.8	-0.00318 mg/L		12:4
2	Y 371.029	2674723.1	2674723.1	5.662 mg/L		12:4
2	As 188.979†	0.8	-18.1	-0.01074 mg/L		12:4
2	Cr 283.563†	5076.5	-386.7	-0.00260 mg/L		12:4
3	Y 371.029	2636652.3	2636652.3	5.581 mg/L		12:4
3	As 188.979†	11.3	-8.6	-0.00513 mg/L		12:4
3	Cr 283.563†	4822.2	-549.8	-0.00370 mg/L		12:4

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2652956.9	5.615 mg/L	0.0415		
As 188.979†	-12.3	-0.00734 mg/L	0.002986		
QC value within limits for As 188.979 Recovery = Not calculated					
Cr 283.563†	-469.8	-0.00316 mg/L	0.000549		
QC value within limits for Cr 283.563 Recovery = Not calculated					
All analyte(s) passed QC.					

Sequence No.: 17 Autosampler Location: 14
 Sample ID: LDR I Date Collected: 2/24/2016 12:52:53 PM
 Analyst: Data Type: Reprocessed on 2/24/2016 1:19:58 PM
 Logged In Analyst (Original) : ICP03
 Initial Sample Wt: 1 g Initial Sample Vol:
 Dilution: Sample Prep Vol: 50 mL
 Wash Time:

Nebulizer Parameters: LDR I

Analyte	Back Pressure	Flow
All	206.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	0.200	10	2.000
Cr 283.563	0.010	200	2.000

Replicate Data: LDR I

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. T:
1	Y 371.029	2353962.9	2353962.9	4.983 mg/L		12:!
1	As 188.979†	16493.9	16532.8	9.834 mg/L	491.7 mg/kg	12:!
1	Cr 283.563†	1494386.0	1494746.0	10.05 mg/L	502.7 mg/kg	12:!
2	Y 371.029	2363131.2	2363131.2	5.002 mg/L		12:!
2	As 188.979†	16034.6	16009.5	9.522 mg/L	476.1 mg/kg	12:!
2	Cr 283.563†	1466966.0	1461518.6	9.830 mg/L	491.5 mg/kg	12:!
3	Y 371.029	2378137.9	2378137.9	5.034 mg/L		12:!
3	As 188.979†	15715.9	15591.8	9.274 mg/L	463.7 mg/kg	12:!
3	Cr 283.563†	1431123.1	1416662.6	9.529 mg/L	476.4 mg/kg	12:!

Mean Data: LDR I

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2365077.3	5.006 mg/L	0.0258		
As 188.979†	16044.7	9.543 mg/L	0.2804	477.2 mg/kg	14.02
Concentration greater than upper limit for As 188.979.					
Cr 283.563†	1457642.4	9.804 mg/L	0.2636	490.2 mg/kg	13.18
Concentration greater than upper limit for Cr 283.563.					

Sequence No.: 18

Sample ID: LDR II

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 15

Date Collected: 2/24/2016 12:44:47 PM

Data Type: Reprocessed on 2/24/2016 1:19:58 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: LDR II

Analyte	Back Pressure	Flow
All	205.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	0.200	10	2.000
Cr 283.563	0.010	200	2.000

Replicate Data: LDR II

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. T:
1	Y 371.029	2303613.8	2303613.8	4.876 mg/L		12:!
1	As 188.979†	31029.8	31800.3	18.91 mg/L	945.7 mg/kg	12:!
1	Cr 283.563†	2831423.5	2898564.5	19.50 mg/L	974.8 mg/kg	12:!
2	Y 371.029	2316765.6	2316765.6	4.904 mg/L		12:!

2	As 188.979†	31720.7	32324.0	19.23 mg/L	961.3 mg/kg	12.4
2	Cr 283.563†	2848310.6	2899300.6	19.50 mg/L	975.0 mg/kg	12.4
3	Y 371.029	2326554.7	2326554.7	4.925 mg/L		12.4
3	As 188.979†	31656.5	32122.7	19.11 mg/L	955.3 mg/kg	12.4
3	Cr 283.563†	2852856.9	2891697.1	19.45 mg/L	972.5 mg/kg	12.4

Mean Data: LDR II

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2315644.7	4.901 mg/L	0.0244		(
As 188.979†	32082.3	19.08 mg/L	0.157	954.1 mg/kg	7.86 (
Concentration greater than upper limit for As 188.979.					
Cr 283.563†	2896520.7	19.48 mg/L	0.028	974.1 mg/kg	1.41 (
Concentration greater than upper limit for Cr 283.563.					

LOW LEVEL CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0644-012 Calibration Date: 02/24/16 10:00
Sequence: SZB0644 Injection Date: 02/24/16
Lab Sample ID: SZB0644-LCV3 Injection Time: 12:24

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			LCV Lower Limit	Upper Limit
		STD	LCV	ICAL	LCV	% Rec		
Arsenic	L	0.0400	0.036	1669.918	1499.725	89.2	70	130
Chromium	L	0.0400	0.037	156026.5	138274.4	93.0	70	130

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

INITIAL CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0644-009 Calibration Date: 02/24/16 10:00
Sequence: SZB0644 Injection Date: 02/24/16
Lab Sample ID: SZB0644-ICV1 Injection Time: 12:09

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			ICV Lower Limit	Upper Limit
		STD	ICV	ICAL	ICV	% Rec		
Arsenic	L	2.00	1.95	1669.918	1636.254	97.3	95	105
Chromium	L	2.00	2.06	156026.5	153288.1	103	95	105

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

INITIAL CALIBRATION DATA

SW6010C

Client: Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)

Calibration: AB60137

Instrument: ICP03

Calibration Date: 2/27/2016 8:00:24PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Arsenic	0.04	1567.472	0.2	1631.964	1	1589.351	2	1636.502	4	1610.17		
Chromium	0.04	146246.5	0.2	161280.7	1	150210.9	2	153462	4	147636.2		

INITIAL CALIBRATION DATA (Continued)

SW6010C

Client: Draper Aden Associates-Richm

Project: New Kent Wood Preservatives (

Calibration: AB60137

Instrument: ICP03

Calibration Date: 2/27/2016 8:00:24PM

COMPOUND	Mean RF	RF RSD	Linear r	Quad COD	LIMIT	Q
Arsenic	1607.092	1.808131	0.9998955			
Chromium	151767.3	3.944403	0.9995998			

* Values outside of QC limits

Analysis Sequence

Printed: 02/27/2016 8:01 pm

SZB0704

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60137

Sequence Date: 02/25/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
SZB0704-CAL1		Cal Standard	1		6B01825			
SZB0704-CAL2		Cal Standard	2		6B01824			
SZB0704-CAL3		Cal Standard	3		6B01823			
SZB0704-CAL4		Cal Standard	4		6B01822			
SZB0704-CAL5		Cal Standard	5		6B01821			
SZB0704-ICV1		Initial Cal Check	6		6B01822			
SZB0704-ICB1		Initial Cal Blank	7					
SZB0704-SCV1		Secondary Cal Check	8		6B01826			
SZB0704-LCV3		Low Cal Check	9		6B01828			
SZB0704-IFA1		Interference Check A	10		6B01832			
SZB0704-IFB1		Interference Check B	11		6B01833			
SZB0704-CCV1		Calibration Check	12		6B01822			
SZB0704-CCB1		Calibration Blank	13					
SZB0704-HCV1		High Cal Check	14		6B01834			
SZB0704-HCV2		High Cal Check	15		6B01835			

=====

Reprocessing Begun

Logged In Analyst: ICP03

Technique: ICP Continuous

Results Data Set (original): 160224CWO-lwood4

Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

Results Data Set (reprocessed): 160225CWO-SZB0704

Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

=====

Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank 1

Date Collected: 2/25/2016 3:24:10 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 7:54:51 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	210.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: Calib Blank 1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2546843.5	2546843.5	4.987 mg/L	3:25:36 PM
1	As 188.979†	5.5	5.5	[0.00] mg/L	3:25:59 PM
1	Cr 283.563†	4355.1	4366.0	[0.00] mg/L	3:25:39 PM
2	Y 371.029	2566912.7	2566912.7	5.027 mg/L	3:26:06 PM
2	As 188.979†	-6.9	-6.9	[0.00] mg/L	3:26:28 PM
2	Cr 283.563†	4457.2	4433.4	[0.00] mg/L	3:26:08 PM
3	Y 371.029	2545991.5	2545991.5	4.986 mg/L	3:26:35 PM
3	As 188.979†	10.9	10.9	[0.00] mg/L	3:26:57 PM
3	Cr 283.563†	4552.2	4565.2	[0.00] mg/L	3:26:37 PM

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2553249.2	11840.57	0.46%	5.000 mg/L
As 188.979†	3.2	9.13	288.33%	[0.00] mg/L
Cr 283.563†	4454.9	101.31	2.27%	[0.00] mg/L

=====

Sequence No.: 2

Autosampler Location: 2

Sample ID: 40ppb,1mg/kg

Date Collected: 2/25/2016 3:28:02 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 7:54:52 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: 40ppb,1mg/kg

Analyte	Back Pressure	Flow
All	211.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: 40ppb,1mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2539875.8	2539875.8	4.974 mg/L	3:29:29 PM
1	As 188.979†	71.2	68.4	[0.040] mg/L	3:29:51 PM
1	Cr 283.563†	10249.2	5848.3	[0.040] mg/L	3:29:31 PM
2	Y 371.029	2572535.9	2572535.9	5.038 mg/L	3:29:58 PM
2	As 188.979†	65.3	61.6	[0.040] mg/L	3:30:21 PM
2	Cr 283.563†	10356.1	5823.6	[0.040] mg/L	3:30:01 PM
3	Y 371.029	2529999.1	2529999.1	4.954 mg/L	3:30:27 PM
3	As 188.979†	60.7	58.1	[0.040] mg/L	3:30:50 PM
3	Cr 283.563†	10238.5	5877.7	[0.040] mg/L	3:30:30 PM

Mean Data: 40ppb,1mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2547470.3	22262.10	0.87%	4.989 mg/L
As 188.979†	62.7	5.22	8.32%	[0.040] mg/L
Cr 283.563†	5849.9	27.09	0.46%	[0.040] mg/L

Sequence No.: 3

Sample ID: 200ppb,10.0mg/kg

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 3

Date Collected: 2/25/2016 3:31:54 PM

Data Type: Reprocessed on 2/27/2016 7:54:52 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: 200ppb,10.0mg/kg

Analyte	Back Pressure	Flow
All	211.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: 200ppb,10.0mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2463910.4	2463910.4	4.825 mg/L	3:33:24 PM
1	As 188.979†	320.9	329.4	[0.200] mg/L	3:33:47 PM
1	Cr 283.563†	35439.6	32269.7	[0.200] mg/L	3:33:26 PM
2	Y 371.029	2497067.2	2497067.2	4.890 mg/L	3:33:55 PM
2	As 188.979†	322.3	326.4	[0.200] mg/L	3:34:17 PM
2	Cr 283.563†	36376.0	32739.5	[0.200] mg/L	3:33:57 PM
3	Y 371.029	2521782.0	2521782.0	4.938 mg/L	3:34:25 PM
3	As 188.979†	322.5	323.4	[0.200] mg/L	3:34:48 PM
3	Cr 283.563†	35767.8	31759.2	[0.200] mg/L	3:34:28 PM

Mean Data: 200ppb,10.0mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2494253.2	29038.23	1.16%	4.884 mg/L
As 188.979†	326.4	3.02	0.92%	[0.200] mg/L
Cr 283.563†	32256.1	490.29	1.52%	[0.200] mg/L

Sequence No.: 4

Autosampler Location: 4

Sample ID: 1ppm,50mg/kg

Date Collected: 2/25/2016 3:36:53 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 7:54:52 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: 1ppm,50mg/kg

Analyte	Back Pressure	Flow
All	210.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 1ppm,50mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2427891.7	2427891.7	4.755 mg/L	3:38:29 PM
1	As 188.979†	1520.6	1595.9	[1.00] mg/L	3:38:52 PM
1	Cr 283.563†	146839.6	149966.3	[1.00] mg/L	3:38:32 PM
2	Y 371.029	2427124.2	2427124.2	4.753 mg/L	3:39:06 PM
2	As 188.979†	1513.5	1589.0	[1.00] mg/L	3:39:29 PM
2	Cr 283.563†	148348.8	151602.8	[1.00] mg/L	3:39:09 PM
3	Y 371.029	2433877.2	2433877.2	4.766 mg/L	3:39:43 PM
3	As 188.979†	1512.1	1583.1	[1.00] mg/L	3:40:05 PM
3	Cr 283.563†	146341.1	149063.6	[1.00] mg/L	3:39:45 PM

Mean Data: 1ppm,50mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2429631.0	3697.24	0.15%	4.758 mg/L
As 188.979†	1589.4	6.41	0.40%	[1.00] mg/L
Cr 283.563†	150210.9	1287.13	0.86%	[1.00] mg/L

Sequence No.: 5

Autosampler Location: 5

Sample ID: 2ppm,100mg/kg

Date Collected: 2/25/2016 3:42:11 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 7:54:52 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: 2ppm,100mg/kg

Analyte	Back Pressure	Flow
All	211.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 2ppm,100mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2349345.4	2349345.4	4.601 mg/L	3:43:58 PM
1	As 188.979†	3017.6	3276.4	[2.00] mg/L	3:44:21 PM
1	Cr 283.563†	286489.7	306899.8	[2.00] mg/L	3:44:01 PM
2	Y 371.029	2347680.0	2347680.0	4.597 mg/L	3:44:46 PM
2	As 188.979†	3024.3	3286.0	[2.00] mg/L	3:45:09 PM
2	Cr 283.563†	287031.6	307709.9	[2.00] mg/L	3:44:49 PM
3	Y 371.029	2370360.2	2370360.2	4.642 mg/L	3:45:35 PM
3	As 188.979†	3026.3	3256.7	[2.00] mg/L	3:45:57 PM
3	Cr 283.563†	288368.0	306162.6	[2.00] mg/L	3:45:37 PM

Mean Data: 2ppm,100mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2355795.2	12641.13	0.54%	4.613 mg/L
As 188.979†	3273.0	14.93	0.46%	[2.00] mg/L
Cr 283.563†	306924.1	773.96	0.25%	[2.00] mg/L

=====

Sequence No.: 6

Sample ID: 4ppm, 200mg/kg

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 6

Date Collected: 2/25/2016 3:48:03 PM

Data Type: Reprocessed on 2/27/2016 7:54:52 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: 4ppm, 200mg/kg

Analyte	Back Pressure	Flow
All	211.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	0.200	10	2.000
Cr 283.563	0.010	200	2.000

Replicate Data: 4ppm, 200mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2352339.0	2352339.0	4.607 mg/L	3:49:50 PM
1	As 188.979†	5890.8	6390.7	[4.00] mg/L	3:49:53 PM
1	Cr 283.563†	549193.4	591644.4	[4.00] mg/L	3:49:50 PM
2	Y 371.029	2364261.4	2364261.4	4.630 mg/L	3:50:37 PM
2	As 188.979†	6081.0	6563.9	[4.00] mg/L	3:50:39 PM
2	Cr 283.563†	550590.3	590147.0	[4.00] mg/L	3:50:37 PM
3	Y 371.029	2408342.0	2408342.0	4.716 mg/L	3:51:23 PM
3	As 188.979†	6009.0	6367.4	[4.00] mg/L	3:51:26 PM
3	Cr 283.563†	560569.5	589843.4	[4.00] mg/L	3:51:23 PM

Mean Data: 4ppm, 200mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2374980.8	29500.19	1.24%	4.651 mg/L
As 188.979†	6440.7	107.32	1.67%	[4.00] mg/L
Cr 283.563†	590545.0	964.19	0.16%	[4.00] mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
As 188.979	5	Lin Thru 0	0.0	1614	0.00000	0.999974	
Cr 283.563	5	Lin Thru 0	0.0	148900	0.00000	0.999875	

Calibration data for As 188.979

Equation: Linear Through Zero

ID	Mean Signal (Em)	Entered Conc. mg/L	Calculated Conc. mg/L	Standard Deviation	%RSD
Calib Blank 1	0.0	0	0.00000	9.13	288.33
40ppb, 1mg/kg	62.7	0.040	0.03884	5.22	8.32
200ppb, 10.0mg/kg	326.4	0.200	0.20220	3.02	0.92
1ppm, 50mg/kg	1589.4	1.00	0.98459	6.41	0.40
2ppm, 100mg/kg	3273.0	2.00	2.02760	14.93	0.46
4ppm, 200mg/kg	6440.7	4.00	3.98995	107.32	1.67
Correlation Coef.: 0.999974 Slope: 1614 Intercept: 0.0					

Calibration data for Cr 283.563

Equation: Linear Through Zero

ID	Mean Signal (Em)	Entered Conc. mg/L	Calculated Conc. mg/L	Standard Deviation	%RSD
Calib Blank 1	0.0	0	0.00000	101.31	2.27
40ppb, 1mg/kg	5849.9	0.040	0.03929	27.09	0.46
200ppb, 10.0mg/kg	32256.1	0.200	0.21664	490.29	1.52
1ppm, 50mg/kg	150210.9	1.00	1.00886	1287.13	0.86
2ppm, 100mg/kg	306924.1	2.00	2.06139	773.96	0.25
4ppm, 200mg/kg	590545.0	4.00	3.96627	964.19	0.16
Correlation Coef.: 0.999875 Slope: 148900 Intercept: 0.0					

=====

Sequence No.: 7

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/25/2016 4:01:46 PM

Data Type: Reprocessed on 2/27/2016 7:54:53 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2454553.3	2454553.3	4.807 mg/L		4:03:35 PM
1	As 188.979†	3227.4	3354.0	2.078 mg/L		4:03:58 PM

1	Cr 283.563†	301501.0	309169.2	2.076 mg/L	4:03:38 PM
2	Y 371.029	2522753.7	2522753.7	4.940 mg/L	4:04:26 PM
2	As 188.979†	3230.4	3266.3	2.023 mg/L	4:04:49 PM
2	Cr 283.563†	304076.7	303297.5	2.037 mg/L	4:04:29 PM
3	Y 371.029	2508255.7	2508255.7	4.912 mg/L	4:05:17 PM
3	As 188.979†	3236.8	3291.7	2.039 mg/L	4:05:39 PM
3	Cr 283.563†	302475.6	303446.5	2.038 mg/L	4:05:19 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2495187.6	4.886 mg/L	0.0704			1.44%
As 188.979†	3304.0	2.047 mg/L	0.0280			1.37%
QC value within limits for As 188.979 Recovery = 102.34%						
Cr 283.563†	305304.4	2.051 mg/L	0.0225			1.10%
QC value within limits for Cr 283.563 Recovery = 102.53%						
All analyte(s) passed QC.						

=====

Sequence No.: 8

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/25/2016 4:07:45 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 7:54:53 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	213.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2649700.0	2649700.0	5.189 mg/L		4:09:11 PM
1	As 188.979†	7.0	3.6	0.00221 mg/L		4:09:33 PM
1	Cr 283.563†	4609.4	-13.3	-0.00009 mg/L		4:09:13 PM
2	Y 371.029	2688917.2	2688917.2	5.266 mg/L		4:09:40 PM
2	As 188.979†	5.8	2.4	0.00146 mg/L		4:10:03 PM
2	Cr 283.563†	4592.2	-94.4	-0.00063 mg/L		4:09:43 PM
3	Y 371.029	2653661.6	2653661.6	5.197 mg/L		4:10:10 PM
3	As 188.979†	3.8	0.5	0.00030 mg/L		4:10:32 PM
3	Cr 283.563†	4698.8	66.1	0.00044 mg/L		4:10:12 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2664092.9	5.217 mg/L	0.0423			0.81%
As 188.979†	2.1	0.00132 mg/L	0.000960			72.60%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-13.9	-0.00009 mg/L	0.000539			577.69%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 9
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 2/25/2016 4:10:44 PM
Data Type: Reprocessed on 2/27/2016 7:54:53 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICV

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2504347.1	2504347.1	4.904 mg/L		4:12:28 PM
1	As 188.979†	3989.4	4064.1	2.518 mg/L		4:12:50 PM
1	Cr 283.563†	370605.6	373387.5	2.508 mg/L		4:12:28 PM
2	Y 371.029	2507812.6	2507812.6	4.911 mg/L		4:13:11 PM
2	As 188.979†	3986.2	4055.2	2.512 mg/L		4:13:34 PM
2	Cr 283.563†	371231.0	373502.1	2.509 mg/L		4:13:11 PM
3	Y 371.029	2491745.9	2491745.9	4.880 mg/L		4:13:54 PM
3	As 188.979†	4056.4	4153.4	2.573 mg/L		4:14:17 PM
3	Cr 283.563†	371643.3	376361.6	2.528 mg/L		4:13:54 PM

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2501301.8	4.898 mg/L	0.0166			0.34%
As 188.979†	4090.9	2.534 mg/L	0.0336			1.33%
QC value within limits for As 188.979 Recovery = 101.37%						
Cr 283.563†	374417.1	2.515 mg/L	0.0113			0.45%
QC value within limits for Cr 283.563 Recovery = 100.59%						
All analyte(s) passed QC.						

Sequence No.: 10
Sample ID: LLCVS@2mg/kg
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1 g
Dilution:
Wash Time:

Autosampler Location: 11
Date Collected: 2/25/2016 4:18:01 PM
Data Type: Reprocessed on 2/27/2016 7:54:53 PM
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: LLCVS@2mg/kg

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: LLCVS@2mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2585717.3	2585717.3	5.064 mg/L		4:19:28 PM
1	As 188.979†	70.1	66.1	0.04095 mg/L	2.047 mg/kg	4:19:50 PM
1	Cr 283.563†	10640.7	6052.2	0.04065 mg/L	2.032 mg/kg	4:19:30 PM
2	Y 371.029	2615690.4	2615690.4	5.122 mg/L		4:19:57 PM
2	As 188.979†	68.4	63.6	0.03941 mg/L	1.971 mg/kg	4:20:20 PM
2	Cr 283.563†	10732.7	6021.6	0.04044 mg/L	2.022 mg/kg	4:20:00 PM
3	Y 371.029	2595436.1	2595436.1	5.083 mg/L		4:20:27 PM
3	As 188.979†	66.5	62.3	0.03857 mg/L	1.928 mg/kg	4:20:49 PM
3	Cr 283.563†	10504.6	5879.0	0.03948 mg/L	1.974 mg/kg	4:20:29 PM

Mean Data: LLCVS@2mg/kg

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2598947.9	5.089 mg/L	0.0299			0.59%
As 188.979†	64.0	0.03964 mg/L	0.001207	1.982 mg/kg	0.0604	3.05%
Cr 283.563†	5984.2	0.04019 mg/L	0.000621	2.010 mg/kg	0.0310	1.54%

Sequence No.: 11

Sample ID: ICS A

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 12

Date Collected: 2/25/2016 4:21:53 PM

Data Type: Reprocessed on 2/27/2016 7:54:53 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS A

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2429790.3	2429790.3	4.758 mg/L		4:23:22 PM
1	As 188.979†	1.6	-1.5	-0.00092 mg/L	-0.04582 mg/kg	4:23:45 PM
1	Cr 283.563†	4443.6	214.5	0.00144 mg/L	0.07203 mg/kg	4:23:25 PM
2	Y 371.029	2448378.4	2448378.4	4.795 mg/L		4:23:52 PM
2	As 188.979†	-10.9	-14.5	-0.00899 mg/L	-0.4496 mg/kg	4:24:15 PM
2	Cr 283.563†	4467.2	203.6	0.00137 mg/L	0.06837 mg/kg	4:23:55 PM
3	Y 371.029	2465380.2	2465380.2	4.828 mg/L		4:24:23 PM
3	As 188.979†	5.0	2.0	0.00123 mg/L	0.06135 mg/kg	4:24:46 PM
3	Cr 283.563†	4505.8	211.5	0.00142 mg/L	0.07102 mg/kg	4:24:26 PM

Mean Data: ICS A

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2447849.6	4.794 mg/L	0.0349			0.73%
As 188.979†	-4.7	-0.00289 mg/L	0.005388	-0.1447 mg/kg	0.26942	186.22%
Cr 283.563†	209.9	0.00141 mg/L	0.000038	0.07048 mg/kg	0.001890	2.68%

Sequence No.: 12
 Sample ID: ICS AB
 Analyst:
 Logged In Analyst (Original) : ICP03
 Initial Sample Wt: 1 g
 Dilution:
 Wash Time:

Autosampler Location: 13
 Date Collected: 2/25/2016 4:25:51 PM
 Data Type: Reprocessed on 2/27/2016 7:54:53 PM
 Initial Sample Vol:
 Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS AB

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2426862.1	2426862.1	4.752 mg/L		4:27:38 PM
1	As 188.979†	3000.4	3153.5	1.954 mg/L	97.68 mg/kg	4:28:01 PM
1	Cr 283.563†	281996.3	292227.3	1.963 mg/L	98.13 mg/kg	4:27:41 PM
2	Y 371.029	2440750.8	2440750.8	4.780 mg/L		4:28:27 PM
2	As 188.979†	3045.5	3182.7	1.972 mg/L	98.58 mg/kg	4:28:50 PM
2	Cr 283.563†	284678.0	293344.4	1.970 mg/L	98.51 mg/kg	4:28:29 PM
3	Y 371.029	2404577.1	2404577.1	4.709 mg/L		4:29:15 PM
3	As 188.979†	3037.4	3222.0	1.996 mg/L	99.80 mg/kg	4:29:38 PM
3	Cr 283.563†	284743.0	297893.5	2.001 mg/L	100.0 mg/kg	4:29:18 PM

Mean Data: ICS AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2424063.3	4.747 mg/L	0.0357			0.75%
As 188.979†	3186.1	1.974 mg/L	0.0213	98.69 mg/kg	1.065	1.08%
Cr 283.563†	294488.4	1.978 mg/L	0.0202	98.89 mg/kg	1.008	1.02%

Sequence No.: 13
 Sample ID: CCV
 Analyst:
 Logged In Analyst (Original) : ICP03
 Initial Sample Wt:
 Dilution:
 Wash Time:

Autosampler Location: 5
 Date Collected: 2/25/2016 4:31:43 PM
 Data Type: Reprocessed on 2/27/2016 7:54:54 PM
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2498565.7	2498565.7	4.893 mg/L		4:33:32 PM
1	As 188.979†	3244.4	3312.2	2.052 mg/L		4:33:54 PM
1	Cr 283.563†	308905.4	311211.2	2.090 mg/L		4:33:34 PM
2	Y 371.029	2499740.4	2499740.4	4.895 mg/L		4:34:20 PM
2	As 188.979†	3223.8	3289.6	2.038 mg/L		4:34:42 PM
2	Cr 283.563†	306566.7	308674.1	2.073 mg/L		4:34:22 PM
3	Y 371.029	2508794.7	2508794.7	4.913 mg/L		4:35:08 PM
3	As 188.979†	3226.5	3280.5	2.032 mg/L		4:35:31 PM
3	Cr 283.563†	302413.6	303317.3	2.037 mg/L		4:35:11 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2502367.0	4.900 mg/L	0.0110			0.22%
As 188.979†	3294.1	2.041 mg/L	0.0101			0.50%
QC value within limits for As 188.979 Recovery = 102.03%						
Cr 283.563†	307734.2	2.067 mg/L	0.0271			1.31%
QC value within limits for Cr 283.563 Recovery = 103.34%						
All analyte(s) passed QC.						

Sequence No.: 14

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/25/2016 4:37:37 PM

Data Type: Reprocessed on 2/27/2016 7:54:54 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	216.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2704206.6	2704206.6	5.296 mg/L		4:39:04 PM
1	As 188.979†	-0.5	-3.6	-0.00224 mg/L		4:39:26 PM
1	Cr 283.563†	4733.2	14.1	0.00009 mg/L		4:39:06 PM
2	Y 371.029	2709265.7	2709265.7	5.306 mg/L		4:39:33 PM
2	As 188.979†	0.7	-2.5	-0.00154 mg/L		4:39:56 PM
2	Cr 283.563†	4566.6	-151.2	-0.00102 mg/L		4:39:35 PM
3	Y 371.029	2688335.8	2688335.8	5.265 mg/L		4:40:02 PM
3	As 188.979†	2.0	-1.3	-0.00079 mg/L		4:40:25 PM
3	Cr 283.563†	4618.6	-68.4	-0.00046 mg/L		4:40:05 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2700602.7	5.289 mg/L	0.0214			0.40%
As 188.979†	-2.5	-0.00153 mg/L	0.000723			47.42%
QC value within limits for As 188.979 Recovery = Not calculated						

Cr 283.563† -68.5 -0.00046 mg/L 0.000555 120.67%
 QC value within limits for Cr 283.563 Recovery = Not calculated
 All analyte(s) passed QC.

Sequence No.: 15 Autosampler Location: 14
 Sample ID: LDR I Date Collected: 2/25/2016 4:42:40 PM
 Analyst: Data Type: Reprocessed on 2/27/2016 7:54:54 PM
 Logged In Analyst (Original) : ICP03
 Initial Sample Wt: 1 g Initial Sample Vol:
 Dilution: Sample Prep Vol: 50 mL
 Wash Time:

Nebulizer Parameters: LDR I
 Analyte Back Pressure Flow
 All 216.0 kPa 0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	0.200	10	2.000
Cr 283.563	0.010	200	2.000

Replicate Data: LDR I

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2421401.4	2421401.4	4.742 mg/L		4:44:25 PM
1	As 188.979†	15122.9	15943.2	9.877 mg/L	493.8 mg/kg	4:44:28 PM
1	Cr 283.563†	1354995.4	1424321.4	9.566 mg/L	478.3 mg/kg	4:44:25 PM
2	Y 371.029	2425341.0	2425341.0	4.750 mg/L		4:45:10 PM
2	As 188.979†	15160.7	15957.1	9.885 mg/L	494.3 mg/kg	4:45:13 PM
2	Cr 283.563†	1357911.3	1425070.2	9.571 mg/L	478.6 mg/kg	4:45:10 PM
3	Y 371.029	2465599.9	2465599.9	4.828 mg/L		4:45:55 PM
3	As 188.979†	15242.5	15781.2	9.776 mg/L	488.8 mg/kg	4:45:57 PM
3	Cr 283.563†	1390016.1	1434974.7	9.638 mg/L	481.9 mg/kg	4:45:55 PM

Mean Data: LDR I

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2437447.4	4.773 mg/L	0.0479			1.00%
As 188.979†	15893.8	9.846 mg/L	0.0606	492.3 mg/kg	3.03	0.62%
Concentration greater than upper limit for As 188.979.						
Cr 283.563†	1428122.1	9.592 mg/L	0.0399	479.6 mg/kg	2.00	0.42%
Concentration greater than upper limit for Cr 283.563.						

Sequence No.: 16 Autosampler Location: 15
 Sample ID: LDR II Date Collected: 2/25/2016 4:48:23 PM
 Analyst: Data Type: Reprocessed on 2/27/2016 7:54:54 PM
 Logged In Analyst (Original) : ICP03
 Initial Sample Wt: 1 g Initial Sample Vol:
 Dilution: Sample Prep Vol: 50 mL
 Wash Time:

Nebulizer Parameters: LDR II
 Analyte Back Pressure Flow
 All 219.0 kPa 0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
---------	-------------	-----------	------

Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	0.200	10	2.000
Cr 283.563	0.010	200	2.000

Replicate Data: LDR II

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2284707.9	2284707.9	4.474 mg/L		4:50:08 PM
1	As 188.979†	28840.1	32226.7	19.96 mg/L	998.2 mg/kg	4:50:10 PM
1	Cr 283.563†	2565778.0	2862900.9	19.23 mg/L	961.4 mg/kg	4:50:08 PM
2	Y 371.029	2336057.9	2336057.9	4.575 mg/L		4:50:52 PM
2	As 188.979†	29390.3	32119.6	19.90 mg/L	994.9 mg/kg	4:50:55 PM
2	Cr 283.563†	2622724.8	2862113.7	19.22 mg/L	961.1 mg/kg	4:50:52 PM
3	Y 371.029	2356186.8	2356186.8	4.614 mg/L		4:51:36 PM
3	As 188.979†	29827.3	32318.8	20.02 mg/L	1001 mg/kg	4:51:39 PM
3	Cr 283.563†	2639108.0	2855378.0	19.18 mg/L	958.9 mg/kg	4:51:36 PM

Mean Data: LDR II

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2325650.9	4.554 mg/L	0.0722			1.58%
As 188.979†	32221.7	19.96 mg/L	0.062	998.1 mg/kg	3.09	0.31%
Concentration greater than upper limit for As 188.979.						
Cr 283.563†	2860130.9	19.21 mg/L	0.028	960.5 mg/kg	1.39	0.14%
Concentration greater than upper limit for Cr 283.563.						

LOW LEVEL CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0704-010 Calibration Date: 02/27/16 20:00
Sequence: SZB0704 Injection Date: 02/25/16
Lab Sample ID: SZB0704-LCV3 Injection Time: 16:20

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			LCV Lower Limit	Upper Limit
		STD	LCV	ICAL	LCV	% Rec		
Arsenic	L	0.0400	0.040	1607.092	1599.826	99.1	70	130
Chromium	L	0.0400	0.040	151767.3	149606.1	100	70	130

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

INITIAL CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0704-007 Calibration Date: 02/27/16 20:00
Sequence: SZB0704 Injection Date: 02/25/16
Lab Sample ID: SZB0704-ICV1 Injection Time: 16:05

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			ICV Lower Limit	Upper Limit
		STD	ICV	ICAL	ICV	% Rec		
Arsenic	L	2.00	2.05	1607.092	1651.99	102	95	105
Chromium	L	2.00	2.05	151767.3	152652.2	103	95	105

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

INITIAL CALIBRATION DATA

SW6010C

Client: Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)

Calibration:	AB60139	Instrument:	ICP03
		Calibration Date:	2/29/2016 10:39:00AM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Arsenic	0.04	1648.28	0.2	1758.309	1	1714.294	2	1709.063	4	1774.304		
Chromium	0.04	169420.2	0.2	166826.4	1	156483.4	2	157798.5	4	151086.8		

INITIAL CALIBRATION DATA (Continued)

SW6010C

Client: Draper Aden Associates-Richm

Project: New Kent Wood Preservatives (

Calibration: AB60139

Instrument: ICP03

Calibration Date: 2/29/2016 10:39:00AM

COMPOUND	Mean RF	RF RSD	Linear r	Quad COD	LIMIT	Q
Arsenic	1720.85	2.862928	0.9996181			
Chromium	160323.1	4.744897	0.9995161			

* Values outside of QC limits

Analysis Sequence

Printed: 02/29/2016 10:39 am

SZB0782

Department: Metals-ICP
Instrument: ICP03
Calibration ID: AB60139

Sequence Date: 02/29/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
SZB0782-CAL1		Cal Standard	1		6B01968			
SZB0782-CAL2		Cal Standard	2		6B01967			
SZB0782-CAL3		Cal Standard	3		6B01966			
SZB0782-CAL4		Cal Standard	4		6B01965			
SZB0782-CAL5		Cal Standard	5		6B01963			
SZB0782-ICV1		Initial Cal Check	6		6B01965			
SZB0782-ICB1		Initial Cal Blank	7					
SZB0782-SCV1		Secondary Cal Check	8		6B01970			
SZB0782-LCV3		Low Cal Check	9		6B01972			
SZB0782-IFA1		Interference Check A	10		6B01976			
SZB0782-IFB1		Interference Check B	11		6B01977			
SZB0782-CCV1		Calibration Check	12		6B01965			
SZB0782-CCB1		Calibration Blank	13					
SZB0782-HCV1		High Cal Check	14		6B01961			
SZB0782-HCV2		High Cal Check	15		6B01962			

=====

Reprocessing Begun

Logged In Analyst: ICP03

Technique: ICP Continuous

Results Data Set (original): 160229CWO-lwood5

Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

Results Data Set (reprocessed): 160225CWO-SZB0772

Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

=====

Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank 1

Date Collected: 2/29/2016 8:57:05 AM

Analyst:

Data Type: Reprocessed on 2/29/2016 10:23:35 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	198.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: Calib Blank 1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2879897.6	2879897.6	4.985 mg/L	8:58:32 AM
1	As 188.979†	4.0	4.0	[0.00] mg/L	8:58:54 AM
1	Cr 283.563†	4475.3	4489.3	[0.00] mg/L	8:58:34 AM
2	Y 371.029	2875134.5	2875134.5	4.976 mg/L	8:59:01 AM
2	As 188.979†	-6.5	-6.5	[0.00] mg/L	8:59:23 AM
2	Cr 283.563†	4462.5	4483.8	[0.00] mg/L	8:59:03 AM
3	Y 371.029	2911519.7	2911519.7	5.039 mg/L	8:59:30 AM
3	As 188.979†	7.5	7.4	[0.00] mg/L	8:59:53 AM
3	Cr 283.563†	4507.2	4472.1	[0.00] mg/L	8:59:33 AM

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2888850.6	19775.95	0.68%	5.000 mg/L
As 188.979†	1.7	7.26	439.10%	[0.00] mg/L
Cr 283.563†	4481.7	8.78	0.20%	[0.00] mg/L

=====

Sequence No.: 2

Autosampler Location: 2

Sample ID: 40ppb,1mg/kg

Date Collected: 2/29/2016 9:00:58 AM

Analyst:

Data Type: Reprocessed on 2/29/2016 10:23:35 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: 40ppb,1mg/kg

Analyte	Back Pressure	Flow
All	198.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: 40ppb,1mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2911674.2	2911674.2	5.040 mg/L	9:02:26 AM
1	As 188.979†	69.2	67.0	[0.040] mg/L	9:02:48 AM
1	Cr 283.563†	11213.3	6643.7	[0.040] mg/L	9:02:28 AM
2	Y 371.029	2939240.0	2939240.0	5.087 mg/L	9:02:55 AM
2	As 188.979†	70.0	67.1	[0.040] mg/L	9:03:17 AM
2	Cr 283.563†	11481.1	6802.6	[0.040] mg/L	9:02:57 AM
3	Y 371.029	2867829.2	2867829.2	4.964 mg/L	9:03:24 AM
3	As 188.979†	64.9	63.7	[0.040] mg/L	9:03:47 AM
3	Cr 283.563†	11283.1	6884.1	[0.040] mg/L	9:03:27 AM

Mean Data: 40ppb,1mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2906247.8	36013.34	1.24%	5.030 mg/L
As 188.979†	65.9	1.94	2.94%	[0.040] mg/L
Cr 283.563†	6776.8	122.25	1.80%	[0.040] mg/L

Sequence No.: 3

Autosampler Location: 3

Sample ID: 200ppb,10.0mg/kg

Date Collected: 2/29/2016 9:04:52 AM

Analyst:

Data Type: Reprocessed on 2/29/2016 10:23:36 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: 200ppb,10.0mg/kg

Analyte	Back Pressure	Flow
All	198.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: 200ppb,10.0mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2867227.8	2867227.8	4.963 mg/L	9:06:21 AM
1	As 188.979†	357.5	358.6	[0.200] mg/L	9:06:43 AM
1	Cr 283.563†	37625.0	33427.1	[0.200] mg/L	9:06:23 AM
2	Y 371.029	2880180.6	2880180.6	4.985 mg/L	9:06:51 AM
2	As 188.979†	344.8	344.2	[0.200] mg/L	9:07:14 AM
2	Cr 283.563†	37901.9	33534.3	[0.200] mg/L	9:06:54 AM
3	Y 371.029	2859606.3	2859606.3	4.949 mg/L	9:07:22 AM
3	As 188.979†	350.3	352.3	[0.200] mg/L	9:07:44 AM
3	Cr 283.563†	37235.4	33134.5	[0.200] mg/L	9:07:24 AM

Mean Data: 200ppb,10.0mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2869004.9	10401.62	0.36%	4.966 mg/L
As 188.979†	351.7	7.21	2.05%	[0.200] mg/L
Cr 283.563†	33365.3	206.90	0.62%	[0.200] mg/L

=====

Sequence No.: 4

Sample ID: 1ppm,50mg/kg

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 4

Date Collected: 2/29/2016 9:09:50 AM

Data Type: Reprocessed on 2/29/2016 10:23:36 AM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: 1ppm,50mg/kg

Analyte	Back Pressure	Flow
All	198.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 1ppm,50mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2736633.1	2736633.1	4.737 mg/L	9:11:26 AM
1	As 188.979†	1649.2	1739.3	[1.00] mg/L	9:11:48 AM
1	Cr 283.563†	152173.2	156155.7	[1.00] mg/L	9:11:28 AM
2	Y 371.029	2757047.5	2757047.5	4.772 mg/L	9:12:02 AM
2	As 188.979†	1624.8	1700.8	[1.00] mg/L	9:12:24 AM
2	Cr 283.563†	154288.7	157182.9	[1.00] mg/L	9:12:04 AM
3	Y 371.029	2768725.9	2768725.9	4.792 mg/L	9:12:38 AM
3	As 188.979†	1633.5	1702.8	[1.00] mg/L	9:13:01 AM
3	Cr 283.563†	153915.5	156111.6	[1.00] mg/L	9:12:41 AM

Mean Data: 1ppm,50mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2754135.5	16243.33	0.59%	4.767 mg/L
As 188.979†	1714.3	21.69	1.27%	[1.00] mg/L
Cr 283.563†	156483.4	606.19	0.39%	[1.00] mg/L

=====

Sequence No.: 5

Sample ID: 2ppm,100mg/kg

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/29/2016 9:15:06 AM

Data Type: Reprocessed on 2/29/2016 10:23:36 AM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: 2ppm,100mg/kg

Analyte	Back Pressure	Flow
All	199.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 2ppm,100mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2658166.0	2658166.0	4.601 mg/L	9:16:50 AM
1	As 188.979†	3155.2	3427.3	[2.00] mg/L	9:17:12 AM
1	Cr 283.563†	297948.1	319323.4	[2.00] mg/L	9:16:52 AM
2	Y 371.029	2680235.9	2680235.9	4.639 mg/L	9:17:34 AM
2	As 188.979†	3193.0	3439.9	[2.00] mg/L	9:17:56 AM
2	Cr 283.563†	296765.8	315382.8	[2.00] mg/L	9:17:36 AM
3	Y 371.029	2698488.6	2698488.6	4.671 mg/L	9:18:18 AM
3	As 188.979†	3165.5	3387.2	[2.00] mg/L	9:18:41 AM
3	Cr 283.563†	295706.0	312084.5	[2.00] mg/L	9:18:20 AM

Mean Data: 2ppm,100mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2678963.5	20191.40	0.75%	4.637 mg/L
As 188.979†	3418.1	27.54	0.81%	[2.00] mg/L
Cr 283.563†	315596.9	3624.17	1.15%	[2.00] mg/L

=====

Sequence No.: 6	Autosampler Location: 6
Sample ID: 4ppm, 200mg/kg	Date Collected: 2/29/2016 9:20:47 AM
Analyst:	Data Type: Reprocessed on 2/29/2016 10:23:36 AM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Nebulizer Parameters: 4ppm, 200mg/kg

Analyte	Back Pressure	Flow
All	199.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: 4ppm, 200mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Y 371.029	2622623.8	2622623.8	4.539 mg/L	9:22:25 AM
1	As 188.979†	6528.5	7189.6	[4.00] mg/L	9:22:48 AM
1	Cr 283.563†	554307.3	606094.3	[4.00] mg/L	9:22:25 AM
2	Y 371.029	2672621.9	2672621.9	4.626 mg/L	9:23:03 AM
2	As 188.979†	6415.5	6932.9	[4.00] mg/L	9:23:26 AM
2	Cr 283.563†	554473.2	594851.3	[4.00] mg/L	9:23:03 AM
3	Y 371.029	2629172.7	2629172.7	4.551 mg/L	9:23:41 AM
3	As 188.979†	6526.3	7169.2	[4.00] mg/L	9:24:04 AM
3	Cr 283.563†	561154.2	612096.5	[4.00] mg/L	9:23:41 AM

Mean Data: 4ppm, 200mg/kg

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Y 371.029	2641472.8	27173.90	1.03%	4.572 mg/L
As 188.979†	7097.2	142.66	2.01%	[4.00] mg/L
Cr 283.563†	604347.4	8754.36	1.45%	[4.00] mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
As 188.979	5	Lin Thru 0	0.0	1759	0.00000	0.999879	
Cr 283.563	5	Lin Thru 0	0.0	152700	0.00000	0.999828	

Calibration data for As 188.979

Equation: Linear Through Zero

ID	Mean Signal (Em)	Entered Conc. mg/L	Calculated Conc. mg/L	Standard Deviation	%RSD
Calib Blank 1	0.0	0	0.00000	7.26	439.10
40ppb, 1mg/kg	65.9	0.040	0.03748	1.94	2.94
200ppb, 10.0mg/kg	351.7	0.200	0.19992	7.21	2.05
1ppm, 50mg/kg	1714.3	1.00	0.97458	21.69	1.27
2ppm, 100mg/kg	3418.1	2.00	1.94321	27.54	0.81
4ppm, 200mg/kg	7097.2	4.00	4.03478	142.66	2.01
Correlation Coef.: 0.999879 Slope: 1759 Intercept: 0.0					

Calibration data for Cr 283.563

Equation: Linear Through Zero

ID	Mean Signal (Em)	Entered Conc. mg/L	Calculated Conc. mg/L	Standard Deviation	%RSD
Calib Blank 1	0.0	0	0.00000	8.78	0.20
40ppb, 1mg/kg	6776.8	0.040	0.04439	122.25	1.80
200ppb, 10.0mg/kg	33365.3	0.200	0.21857	206.90	0.62
1ppm, 50mg/kg	156483.4	1.00	1.02511	606.19	0.39
2ppm, 100mg/kg	315596.9	2.00	2.06745	3624.17	1.15
4ppm, 200mg/kg	604347.4	4.00	3.95903	8754.36	1.45
Correlation Coef.: 0.999828 Slope: 152700 Intercept: 0.0					

=====

Sequence No.: 7

Autosampler Location: 5

Sample ID: CCV

Date Collected: 2/29/2016 9:26:11 AM

Analyst:

Data Type: Reprocessed on 2/29/2016 10:23:36 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	199.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2758212.1	2758212.1	4.774 mg/L		9:27:59 AM
1	As 188.979†	3237.2	3388.8	1.927 mg/L		9:28:21 AM

1	Cr 283.563†	301071.7	310849.8	2.036 mg/L	9:28:01 AM
2	Y 371.029	2746480.6	2746480.6	4.754 mg/L	9:28:47 AM
2	As 188.979†	3247.8	3414.5	1.941 mg/L	9:29:09 AM
2	Cr 283.563†	307010.0	318442.8	2.086 mg/L	9:28:49 AM
3	Y 371.029	2710319.8	2710319.8	4.691 mg/L	9:29:35 AM
3	As 188.979†	3229.6	3440.6	1.956 mg/L	9:29:58 AM
3	Cr 283.563†	302434.9	317874.8	2.082 mg/L	9:29:38 AM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2738337.5	4.739 mg/L	0.0432			0.91%
As 188.979†	3414.6	1.941 mg/L	0.0147			0.76%
QC value within limits for As 188.979 Recovery = 97.06%						
Cr 283.563†	315722.5	2.068 mg/L	0.0277			1.34%
QC value within limits for Cr 283.563 Recovery = 103.41%						
All analyte(s) passed QC.						

=====

Sequence No.: 8
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 2/29/2016 9:32:04 AM
Data Type: Reprocessed on 2/29/2016 10:23:36 AM

Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	199.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2961776.0	2961776.0	5.126 mg/L		9:33:31 AM
1	As 188.979†	13.6	11.6	0.00659 mg/L		9:33:53 AM
1	Cr 283.563†	4507.5	-85.1	-0.00056 mg/L		9:33:33 AM
2	Y 371.029	2951179.2	2951179.2	5.108 mg/L		9:34:01 AM
2	As 188.979†	-1.8	-3.4	-0.00196 mg/L		9:34:23 AM
2	Cr 283.563†	4501.8	-74.9	-0.00049 mg/L		9:34:03 AM
3	Y 371.029	2974265.7	2974265.7	5.148 mg/L		9:34:30 AM
3	As 188.979†	-4.8	-6.3	-0.00358 mg/L		9:34:52 AM
3	Cr 283.563†	4660.1	44.6	0.00029 mg/L		9:34:32 AM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2962407.0	5.127 mg/L	0.0200			0.39%
As 188.979†	0.6	0.00035 mg/L	0.005460			>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-38.5	-0.00025 mg/L	0.000473			187.36%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 9

Sample ID: ICV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 7

Date Collected: 2/29/2016 9:37:26 AM

Data Type: Reprocessed on 2/29/2016 10:23:37 AM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: ICV

Analyte	Back Pressure	Flow
All	199.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2704935.9	2704935.9	4.682 mg/L		9:39:10 AM
1	As 188.979†	3999.6	4269.9	2.427 mg/L		9:39:32 AM
1	Cr 283.563†	367052.3	387527.3	2.539 mg/L		9:39:10 AM
2	Y 371.029	2716673.0	2716673.0	4.702 mg/L		9:39:53 AM
2	As 188.979†	4019.1	4272.2	2.429 mg/L		9:40:16 AM
2	Cr 283.563†	367869.3	386702.5	2.533 mg/L		9:39:53 AM
3	Y 371.029	2774048.7	2774048.7	4.801 mg/L		9:40:36 AM
3	As 188.979†	4038.9	4204.4	2.390 mg/L		9:40:59 AM
3	Cr 283.563†	374942.8	385977.8	2.529 mg/L		9:40:36 AM

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2731885.9	4.728 mg/L	0.0640			1.35%
As 188.979†	4248.9	2.415 mg/L	0.0219			0.91%
QC value within limits for As 188.979 Recovery = 96.62%						
Cr 283.563†	386735.9	2.533 mg/L	0.0051			0.20%
QC value within limits for Cr 283.563 Recovery = 101.34%						
All analyte(s) passed QC.						

=====

Sequence No.: 10

Sample ID: LLCVS@2mg/kg

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 11

Date Collected: 2/29/2016 9:43:05 AM

Data Type: Reprocessed on 2/29/2016 10:23:37 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: LLCVS@2mg/kg

Analyte	Back Pressure	Flow
All	199.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: LLCVS@2mg/kg

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2897415.5	2897415.5	5.015 mg/L		9:44:32 AM
1	As 188.979†	57.1	55.2	0.03141 mg/L	1.570 mg/kg	9:44:55 AM
1	Cr 283.563†	10519.1	6006.3	0.03935 mg/L	1.967 mg/kg	9:44:34 AM
2	Y 371.029	2900720.7	2900720.7	5.021 mg/L		9:45:01 AM
2	As 188.979†	65.7	63.7	0.03624 mg/L	1.812 mg/kg	9:45:24 AM
2	Cr 283.563†	10711.9	6186.3	0.04053 mg/L	2.026 mg/kg	9:45:04 AM
3	Y 371.029	2917115.6	2917115.6	5.049 mg/L		9:45:31 AM
3	As 188.979†	68.3	65.9	0.03749 mg/L	1.874 mg/kg	9:45:53 AM
3	Cr 283.563†	10522.8	5939.2	0.03891 mg/L	1.945 mg/kg	9:45:33 AM

Mean Data: LLCVS@2mg/kg

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2905083.9	5.028 mg/L	0.0183			0.36%
As 188.979†	61.6	0.03504 mg/L	0.003209	1.752 mg/kg	0.1605	9.16%
Cr 283.563†	6043.9	0.03959 mg/L	0.000837	1.980 mg/kg	0.0419	2.11%

=====

Sequence No.: 11

Sample ID: ICS A

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 12

Date Collected: 2/29/2016 9:46:58 AM

Data Type: Reprocessed on 2/29/2016 10:23:37 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS A

Analyte	Back Pressure	Flow
All	199.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2718565.4	2718565.4	4.705 mg/L		9:48:26 AM
1	As 188.979†	1.4	-0.2	-0.00011 mg/L	-0.00555 mg/kg	9:48:48 AM
1	Cr 283.563†	4496.4	296.3	0.00194 mg/L	0.09706 mg/kg	9:48:28 AM
2	Y 371.029	2745822.5	2745822.5	4.752 mg/L		9:48:56 AM
2	As 188.979†	-1.7	-3.5	-0.00197 mg/L	-0.09857 mg/kg	9:49:19 AM
2	Cr 283.563†	4698.3	461.3	0.00302 mg/L	0.1511 mg/kg	9:48:59 AM
3	Y 371.029	2756195.1	2756195.1	4.770 mg/L		9:49:27 AM
3	As 188.979†	6.5	5.2	0.00294 mg/L	0.1471 mg/kg	9:49:49 AM
3	Cr 283.563†	4568.7	306.9	0.00201 mg/L	0.1005 mg/kg	9:49:29 AM

Mean Data: ICS A

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2740194.3	4.743 mg/L	0.0336			0.71%
As 188.979†	0.5	0.00029 mg/L	0.002481	0.01433 mg/kg	0.124040	865.69%
Cr 283.563†	354.8	0.00232 mg/L	0.000605	0.1162 mg/kg	0.03025	26.02%

Sequence No.: 12

Sample ID: ICS AB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 13

Date Collected: 2/29/2016 9:50:53 AM

Data Type: Reprocessed on 2/29/2016 10:23:37 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS AB

Analyte	Back Pressure	Flow
All	200.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2725874.1	2725874.1	4.718 mg/L		9:52:40 AM
1	As 188.979†	3115.3	3299.9	1.876 mg/L	93.80 mg/kg	9:53:03 AM
1	Cr 283.563†	281618.7	293974.6	1.926 mg/L	96.29 mg/kg	9:52:43 AM
2	Y 371.029	2723195.5	2723195.5	4.713 mg/L		9:53:29 AM
2	As 188.979†	3158.2	3348.7	1.904 mg/L	95.19 mg/kg	9:53:52 AM
2	Cr 283.563†	293069.8	306415.9	2.007 mg/L	100.4 mg/kg	9:53:32 AM
3	Y 371.029	2705031.1	2705031.1	4.682 mg/L		9:54:18 AM
3	As 188.979†	3174.0	3388.1	1.926 mg/L	96.31 mg/kg	9:54:40 AM
3	Cr 283.563†	295601.3	311207.1	2.039 mg/L	101.9 mg/kg	9:54:20 AM

Mean Data: ICS AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2718033.6	4.704 mg/L	0.0196			0.42%
As 188.979†	3345.5	1.902 mg/L	0.0251	95.10 mg/kg	1.255	1.32%
Cr 283.563†	303865.9	1.991 mg/L	0.0583	99.53 mg/kg	2.913	2.93%

Sequence No.: 13

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/29/2016 9:56:45 AM

Data Type: Reprocessed on 2/29/2016 10:23:37 AM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	201.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2749688.2	2749688.2	4.759 mg/L		9:58:34 AM
1	As 188.979†	3286.0	3450.6	1.962 mg/L		9:58:57 AM
1	Cr 283.563†	304150.4	315061.9	2.064 mg/L		9:58:37 AM
2	Y 371.029	2715821.1	2715821.1	4.701 mg/L		9:59:23 AM
2	As 188.979†	3256.7	3462.6	1.968 mg/L		9:59:46 AM
2	Cr 283.563†	308121.4	323270.6	2.118 mg/L		9:59:25 AM
3	Y 371.029	2766054.2	2766054.2	4.787 mg/L		10:00:11 AM
3	As 188.979†	3310.3	3455.6	1.965 mg/L		10:00:34 AM
3	Cr 283.563†	302845.1	311807.9	2.043 mg/L		10:00:14 AM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2743854.5	4.749 mg/L	0.0443			0.93%
As 188.979†	3456.3	1.965 mg/L	0.0034			0.17%
QC value within limits for As 188.979 Recovery = 98.24%						
Cr 283.563†	316713.5	2.075 mg/L	0.0387			1.87%
QC value within limits for Cr 283.563 Recovery = 103.74%						
All analyte(s) passed QC.						

Sequence No.: 14

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/29/2016 10:02:40 AM

Analyst:

Data Type: Reprocessed on 2/29/2016 10:23:38 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	201.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2930644.2	2930644.2	5.072 mg/L		10:04:07 AM
1	As 188.979†	-4.8	-6.4	-0.00365 mg/L		10:04:30 AM
1	Cr 283.563†	4740.6	191.3	0.00125 mg/L		10:04:09 AM
2	Y 371.029	2982849.4	2982849.4	5.163 mg/L		10:04:37 AM
2	As 188.979†	1.9	0.1	0.00008 mg/L		10:04:59 AM
2	Cr 283.563†	4656.9	28.5	0.00019 mg/L		10:04:39 AM
3	Y 371.029	2984994.6	2984994.6	5.166 mg/L		10:05:06 AM
3	As 188.979†	9.6	7.6	0.00433 mg/L		10:05:28 AM
3	Cr 283.563†	4578.4	-50.8	-0.00033 mg/L		10:05:08 AM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2966162.7	5.134 mg/L	0.0533			1.04%
As 188.979†	0.4	0.00025 mg/L	0.003995			>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						

Cr 283.563† 56.3 0.00037 mg/L 0.000809 219.16%
 QC value within limits for Cr 283.563 Recovery = Not calculated
 All analyte(s) passed QC.

=====

Sequence No.: 15	Autosampler Location: 14
Sample ID: LDR I	Date Collected: 2/29/2016 10:09:58 AM
Analyst:	Data Type: Reprocessed on 2/29/2016 10:23:38 AM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt: 1 g	Initial Sample Vol:
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: LDR I

Analyte	Back Pressure	Flow
All	202.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	0.200	10	2.000
Cr 283.563	0.010	200	2.000

Replicate Data: LDR I

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2680436.3	2680436.3	4.639 mg/L		10:11:43 AM
1	As 188.979†	15200.8	16381.0	9.313 mg/L	465.6 mg/kg	10:11:46 AM
1	Cr 283.563†	1366466.8	1468233.1	9.618 mg/L	480.9 mg/kg	10:11:43 AM
2	Y 371.029	2654342.7	2654342.7	4.594 mg/L		10:12:28 AM
2	As 188.979†	15446.0	16809.0	9.556 mg/L	477.8 mg/kg	10:12:30 AM
2	Cr 283.563†	1362610.6	1478513.8	9.686 mg/L	484.3 mg/kg	10:12:28 AM
3	Y 371.029	2696467.8	2696467.8	4.667 mg/L		10:13:12 AM
3	As 188.979†	15513.7	16618.9	9.448 mg/L	472.4 mg/kg	10:13:15 AM
3	Cr 283.563†	1385310.4	1479665.4	9.693 mg/L	484.7 mg/kg	10:13:12 AM

Mean Data: LDR I

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2677082.3	4.633 mg/L	0.0368			0.79%
As 188.979†	16603.0	9.439 mg/L	0.1219	471.9 mg/kg	6.09	1.29%
Concentration greater than upper limit for As 188.979.						
Cr 283.563†	1475470.8	9.666 mg/L	0.0412	483.3 mg/kg	2.06	0.43%
Concentration greater than upper limit for Cr 283.563.						

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Sequence No.: 16

Sample ID: LDR II	Autosampler Location: 15
Analyst:	Date Collected: 2/29/2016 10:15:40 AM
Logged In Analyst (Original) : ICP03	Data Type: Reprocessed on 2/29/2016 10:23:38 AM
Initial Sample Wt: 1 g	Initial Sample Vol:
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: LDR II

Analyte	Back Pressure	Flow
All	204.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
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Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	0.200	10	2.000
Cr 283.563	0.010	200	2.000

Replicate Data: LDR II

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2671966.5	2671966.5	4.625 mg/L		10:17:26 AM
1	As 188.979†	30779.4	33276.1	18.92 mg/L	945.9 mg/kg	10:17:28 AM
1	Cr 283.563†	2747529.9	2966065.9	19.43 mg/L	971.5 mg/kg	10:17:26 AM
2	Y 371.029	2691760.0	2691760.0	4.659 mg/L		10:18:11 AM
2	As 188.979†	30822.2	33077.3	18.80 mg/L	940.2 mg/kg	10:18:14 AM
2	Cr 283.563†	2750843.3	2947778.3	19.31 mg/L	965.5 mg/kg	10:18:11 AM
3	Y 371.029	2675763.4	2675763.4	4.631 mg/L		10:18:57 AM
3	As 188.979†	30248.7	32656.0	18.56 mg/L	928.2 mg/kg	10:18:59 AM
3	Cr 283.563†	2728463.3	2941265.6	19.27 mg/L	963.4 mg/kg	10:18:57 AM

Mean Data: LDR II

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2679829.9	4.638 mg/L	0.0182			0.39%
As 188.979†	33003.1	18.76 mg/L	0.180	938.1 mg/kg	9.00	0.96%
Concentration greater than upper limit for As 188.979.						
Cr 283.563†	2951703.3	19.34 mg/L	0.084	966.8 mg/kg	4.21	0.44%
Concentration greater than upper limit for Cr 283.563.						

Sequence No.: 1
 Sample ID: LLCVS 0.050
 Analyst:
 Logged In Analyst (Original) : ICP02
 Initial Sample Wt:
 Dilution:

Autosampler Location: 18
 Date Collected: 2/29/2016 11:30:52
 Data Type: Reprocessed on 2/29/2016 11:54:48
 Initial Sample Vol:
 Sample Prep Vol:

Nebulizer Parameters: LLCVS 0.050

Analyte Back Pressure Flow
 All 229.0 kPa 0.60 L/min

Replicate Data: LLCVS 0.050

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3371471.0	3371471.0	9.91 mg/L		11:32:08
1	Ti 334.940†	38471.5	39119.2	0.04944 mg/L	0.04944 mg/L	11:32:08
1	Sb 206.836†	212.5	226.1	0.04429 mg/L	0.04429 mg/L	11:32:29
1	As 188.979†	186.4	142.6	0.05041 mg/L	0.05041 mg/L	11:32:29
1	Ca 317.933†	40066.4	11855.2	0.05616 mg/L	0.05616 mg/L	11:32:08
1	Cr 267.716†	5768.0	5453.1	0.051255 mg/L	0.051255 mg/L	11:32:29
1	Cu 324.752†	20606.3	16208.1	0.04968 mg/L	0.04968 mg/L	11:32:08
1	Fe 238.204†	7709.7	7732.5	0.05161 mg/L	0.05161 mg/L	11:32:29
1	Pb 220.353†	852.6	805.8	0.05267 mg/L	0.05267 mg/L	11:32:29
1	Mg 279.077†	1755.1	1535.0	0.05272 mg/L	0.05272 mg/L	11:32:29
1	Ni 231.604†	2124.7	2391.8	0.05153 mg/L	0.05153 mg/L	11:32:29
1	Tl 190.801†	239.2	177.0	0.05152 mg/L	0.05152 mg/L	11:32:29
1	Be 234.861†	56222.1	57126.7	0.04996 mg/L	0.04996 mg/L	11:32:08
1	Ba 233.527†	12232.3	12558.3	0.05129 mg/L	0.05129 mg/L	11:32:29
1	Co 228.616†	3700.9	3891.9	0.05175 mg/L	0.05175 mg/L	11:32:29
1	Se 196.026†	301.3	236.1	0.04949 mg/L	0.04949 mg/L	11:32:29
1	Ag 328.068†	1380.5	1412.1	0.01267 mg/L	0.01267 mg/L	11:32:08
1	V 292.402†	9406.4	8445.2	0.04978 mg/L	0.04978 mg/L	11:32:29
1	Zn 206.200†	5431.2	5418.3	0.05191 mg/L	0.05191 mg/L	11:32:29
1	Cd 226.502†	9215.8	9115.3	0.05135 mg/L	0.05135 mg/L	11:32:29
1	Mn 257.610†	54276.4	54110.7	0.05147 mg/L	0.05147 mg/L	11:32:08
1	B 249.772†	8941.3	6155.2	0.05451 mg/L	0.05451 mg/L	11:32:29
1	Mo 202.031†	1204.1	1143.1	0.04852 mg/L	0.04852 mg/L	11:32:29
1	Al 396.153†	10617.6	10135.6	0.05248 mg/L	0.05248 mg/L	11:32:08
1	Sr 460.733†	35208.9	38115.8	0.04253 mg/L	0.04253 mg/L	11:32:08
1	Sn 189.927†	575.5	544.6	0.04300 mg/L	0.04300 mg/L	11:32:29
2	Y 371.029	3395637.0	3395637.0	9.99 mg/L		11:32:37
2	Ti 334.940†	40032.7	41106.5	0.05104 mg/L	0.05104 mg/L	11:32:37
2	Sb 206.836†	236.0	248.2	0.04862 mg/L	0.04862 mg/L	11:32:58
2	As 188.979†	189.6	144.5	0.05110 mg/L	0.05110 mg/L	11:32:58
2	Ca 317.933†	40647.8	11149.9	0.05755 mg/L	0.05755 mg/L	11:32:37
2	Cr 267.716†	5876.1	5410.0	0.051883 mg/L	0.051883 mg/L	11:32:58
2	Cu 324.752†	21269.1	16113.9	0.05126 mg/L	0.05126 mg/L	11:32:37
2	Fe 238.204†	7848.8	7716.4	0.05217 mg/L	0.05217 mg/L	11:32:58
2	Pb 220.353†	865.0	811.1	0.05309 mg/L	0.05309 mg/L	11:32:58
2	Mg 279.077†	1758.0	1515.3	0.05239 mg/L	0.05239 mg/L	11:32:58
2	Ni 231.604†	2150.6	2111.5	0.05176 mg/L	0.05176 mg/L	11:32:58
2	Tl 190.801†	260.8	171.0	0.05523 mg/L	0.05523 mg/L	11:32:58
2	Be 234.861†	58184.6	58111.6	0.05132 mg/L	0.05132 mg/L	11:32:37
2	Ba 233.527†	12370.2	11111.6	0.05149 mg/L	0.05149 mg/L	11:32:58
2	Co 228.616†	3767.0	3711.6	0.05228 mg/L	0.05228 mg/L	11:32:58
2	Se 196.026†	321.0	243.7	0.05317 mg/L	0.05317 mg/L	11:32:58
2	Ag 328.068†	1449.4	1411.1	0.01306 mg/L	0.01306 mg/L	11:32:37
2	V 292.402†	9590.9	9411.4	0.05040 mg/L	0.05040 mg/L	11:32:58
2	Zn 206.200†	5533.8	5412.0	0.05250 mg/L	0.05250 mg/L	11:32:58
2	Cd 226.502†	9369.4	9113.0	0.05182 mg/L	0.05182 mg/L	11:32:58
2	Mn 257.610†	56136.2	56113.7	0.05285 mg/L	0.05285 mg/L	11:32:37
2	B 249.772†	9063.3	6115.2	0.05498 mg/L	0.05498 mg/L	11:32:58
2	Mo 202.031†	1258.4	1114.9	0.05027 mg/L	0.05027 mg/L	11:32:58

2	Al 396.153†	10840.4	10840.4	0.05325	0.05325 mg/L	11:32:37
2	Sr 460.733†	36116.4	36116.4	0.04328	0.04328 mg/L	11:32:37
2	Sn 189.927†	607.7	607.7	0.04517	0.04517 mg/L	11:32:58

Mean Data: LLCVS 0.050

Analyte	Mean Corrected Intensity	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3383554.0	9.95	0.000			0.51%
Ti 334.940†	40562.9	0.05024	0.001127	0.05024 mg/L	0.001127	2.24%
Sb 206.836†	237.1	0.04645	0.003058	0.04645 mg/L	0.003058	6.58%
As 188.979†	143.6	0.05075	0.000483	0.05075 mg/L	0.000483	0.95%
Ca 317.933†	12002.6	0.05685	0.000987	0.05685 mg/L	0.000987	1.74%
Cr 267.716†	5486.6	0.051569	0.0004443	0.051569 mg/L	0.0004443	0.86%
Cu 324.752†	16466.0	0.05047	0.001118	0.05047 mg/L	0.001118	2.22%
Fe 238.204†	7774.4	0.05189	0.000396	0.05189 mg/L	0.000396	0.76%
Pb 220.353†	809.0	0.05288	0.000292	0.05288 mg/L	0.000292	0.55%
Mg 279.077†	1530.1	0.05255	0.000236	0.05255 mg/L	0.000236	0.45%
Ni 231.604†	2397.2	0.05165	0.000163	0.05165 mg/L	0.000163	0.32%
Tl 190.801†	287.0	0.05338	0.002620	0.05338 mg/L	0.002620	4.91%
Be 234.861†	58507.7	0.05064	0.000956	0.05064 mg/L	0.000956	1.89%
Ba 233.527†	12583.5	0.05139	0.000145	0.05139 mg/L	0.000145	0.28%
Co 228.616†	3911.8	0.05201	0.000373	0.05201 mg/L	0.000373	0.72%
Se 196.026†	244.9	0.05133	0.002600	0.05133 mg/L	0.002600	5.07%
Ag 328.068†	1941.6	0.01286	0.000277	0.01286 mg/L	0.000277	2.15%
V 292.402†	9504.8	0.05009	0.000437	0.05009 mg/L	0.000437	0.87%
Zn 206.200†	5650.1	0.05221	0.000416	0.05221 mg/L	0.000416	0.80%
Cd 226.502†	9659.2	0.05159	0.000331	0.05159 mg/L	0.000331	0.64%
Mn 257.610†	55717.2	0.05216	0.000975	0.05216 mg/L	0.000975	1.87%
B 249.772†	6784.2	0.05475	0.000331	0.05475 mg/L	0.000331	0.60%
Mo 202.031†	1286.0	0.04939	0.001242	0.04939 mg/L	0.001242	2.52%
Al 396.153†	10209.0	0.05287	0.000538	0.05287 mg/L	0.000538	1.02%
Sr 460.733†	37443.8	0.04291	0.000532	0.04291 mg/L	0.000532	1.24%
Sn 189.927†	568.6	0.04409	0.001538	0.04409 mg/L	0.001538	3.49%

Sequence No.: 2

Sample ID: ICB

Analyst:

Logged In Analyst (Original) : ICP02

Initial Sample Wt:

Dilution:

Aut sampler location: 1

Date Collected: 2/29/2016 11:35:35

Data Type: Reprocessed on 2/29/2016 11:54:49

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	228.0 kPa	1.0 L/min

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3369687.3	3369687.3	9.91 mg/L		11:36:50
1	Ti 334.940†	-897.7	-897.7	0.00026 mg/L	0.00026 mg/L	11:36:50
1	Sb 206.836†	-6.6	-6.6	0.00101 mg/L	0.00101 mg/L	11:37:11
1	As 188.979†	41.3	41.3	-0.00131 mg/L	-0.00131 mg/L	11:37:11
1	Ca 317.933†	28390.9	28390.9	0.00044 mg/L	0.00044 mg/L	11:36:50
1	Cr 267.716†	404.4	404.4	0.000407 mg/L	0.000407 mg/L	11:37:11
1	Cu 324.752†	4701.8	4701.8	0.00052 mg/L	0.00052 mg/L	11:36:50
1	Fe 238.204†	55.7	55.7	0.00008 mg/L	0.00008 mg/L	11:37:11
1	Pb 220.353†	30.5	30.5	-0.00153 mg/L	-0.00153 mg/L	11:37:11
1	Mg 279.077†	276.0	276.0	0.00148 mg/L	0.00148 mg/L	11:37:11
1	Ni 231.604†	-256.5	-256.5	-0.00022 mg/L	-0.00022 mg/L	11:37:11
1	Tl 190.801†	-33.1	-33.1	0.00043 mg/L	0.00043 mg/L	11:37:11
1	Be 234.861†	-1038.6	-1038.6	-0.00003 mg/L	-0.00003 mg/L	11:37:11
1	Ba 233.527†	-212.6	-212.6	0.00002 mg/L	0.00002 mg/L	11:37:11
1	Co 228.616†	-152.1	-152.1	0.00007 mg/L	0.00007 mg/L	11:37:11

1	Se 196.026†	47.4	-19.9	-0.00418 mg/L	-0.00418 mg/L	11:37:11
1	Ag 328.068†	-554.4	-39.9	-0.00026 mg/L	-0.00026 mg/L	11:36:50
1	V 292.402†	37.3	-4.1	-0.00002 mg/L	-0.00002 mg/L	11:37:11
1	Zn 206.200†	-151.1	-10.5	-0.00012 mg/L	-0.00012 mg/L	11:37:11
1	Cd 226.502†	-311.9	-2.0	0.00003 mg/L	0.00003 mg/L	11:37:11
1	Mn 257.610†	-233.7	-1.6	0.00000 mg/L	0.00000 mg/L	11:37:11
1	B 249.772†	2884.3	647.3	0.00522 mg/L	0.00522 mg/L	11:37:11
1	Mo 202.031†	-27.6	10.8	0.00080 mg/L	0.00080 mg/L	11:37:11
1	Al 396.153†	898.2	32.5	0.00172 mg/L	0.00172 mg/L	11:36:50
1	Sr 460.733†	-1606.2	10.2	-0.00002 mg/L	-0.00002 mg/L	11:36:50
1	Sn 189.927†	41.4	16.9	0.00123 mg/L	0.00123 mg/L	11:37:11
2	Y 371.029	3355241.4	9189.1	0.00022 mg/L	0.00022 mg/L	11:37:18
2	Ti 334.940†	-955.6	177.3	0.00022 mg/L	0.00022 mg/L	11:37:18
2	Sb 206.836†	-25.7	-4.6	-0.00089 mg/L	-0.00089 mg/L	11:37:39
2	As 188.979†	42.5	-3.0	-0.00106 mg/L	-0.00106 mg/L	11:37:39
2	Ca 317.933†	28346.4	132.9	0.00063 mg/L	0.00063 mg/L	11:37:18
2	Cr 267.716†	419.6	51.9	0.000488 mg/L	0.000488 mg/L	11:37:39
2	Cu 324.752†	4615.4	134.7	0.00041 mg/L	0.00041 mg/L	11:37:18
2	Fe 238.204†	57.7	13.3	0.00009 mg/L	0.00009 mg/L	11:37:39
2	Pb 220.353†	20.9	-28.2	-0.00184 mg/L	-0.00184 mg/L	11:37:39
2	Mg 279.077†	265.6	38.5	0.00132 mg/L	0.00132 mg/L	11:37:39
2	Ni 231.604†	-276.5	-20.8	-0.00045 mg/L	-0.00045 mg/L	11:37:39
2	Tl 190.801†	-36.4	0.5	0.00010 mg/L	0.00010 mg/L	11:37:39
2	Be 234.861†	-1014.4	-20.5	-0.00002 mg/L	-0.00002 mg/L	11:37:39
2	Ba 233.527†	-235.8	-6.8	-0.00003 mg/L	-0.00003 mg/L	11:37:39
2	Co 228.616†	-171.9	-4.8	-0.00006 mg/L	-0.00006 mg/L	11:37:39
2	Se 196.026†	66.3	-10.2	-0.00214 mg/L	-0.00214 mg/L	11:37:39
2	Ag 328.068†	-488.2	-7.6	-0.00005 mg/L	-0.00005 mg/L	11:37:18
2	V 292.402†	49.3	2.1	0.00001 mg/L	0.00001 mg/L	11:37:39
2	Zn 206.200†	-146.4	-10.5	-0.00010 mg/L	-0.00010 mg/L	11:37:39
2	Cd 226.502†	-324.9	-2.3	-0.00001 mg/L	-0.00001 mg/L	11:37:39
2	Mn 257.610†	-233.0	-1.8	0.00000 mg/L	0.00000 mg/L	11:37:39
2	B 249.772†	2889.6	656.2	0.00530 mg/L	0.00530 mg/L	11:37:39
2	Mo 202.031†	-37.2	15.9	0.00061 mg/L	0.00061 mg/L	11:37:39
2	Al 396.153†	774.7	271.8	0.00141 mg/L	0.00141 mg/L	11:37:18
2	Sr 460.733†	-1508.7	26.8	0.00003 mg/L	0.00003 mg/L	11:37:18
2	Sn 189.927†	27.5	11.0	0.00015 mg/L	0.00015 mg/L	11:37:39

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Slope	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3362464.4	9189.1 mg/L	0.00022	0.00022 mg/L	0.000055	0.30%
Ti 334.940†	177.3	0.00022 mg/L	0.00022	0.00022 mg/L	0.000055	24.95%
Sb 206.836†	-4.6	-0.00089 mg/L	-0.00089	-0.00089 mg/L	0.002689	301.05%
As 188.979†	-3.0	-0.00106 mg/L	-0.00106	-0.00106 mg/L	0.000359	33.94%
Ca 317.933†	132.9	0.00063 mg/L	0.00063	0.00063 mg/L	0.000262	41.61%
Cr 267.716†	51.9	0.000488 mg/L	0.000488	0.000488 mg/L	0.0001146	23.49%
Cu 324.752†	134.7	0.00041 mg/L	0.00041	0.00041 mg/L	0.000146	35.29%
Fe 238.204†	13.3	0.00009 mg/L	0.00009	0.00009 mg/L	0.000011	12.08%
Pb 220.353†	-28.2	-0.00184 mg/L	-0.00184	-0.00184 mg/L	0.000444	24.11%
Mg 279.077†	38.5	0.00132 mg/L	0.00132	0.00132 mg/L	0.000227	17.14%
Ni 231.604†	-20.8	-0.00045 mg/L	-0.00045	-0.00045 mg/L	0.000324	72.31%
Tl 190.801†	0.5	0.00010 mg/L	0.00010	0.00010 mg/L	0.000459	453.87%
Be 234.861†	-20.5	-0.00002 mg/L	-0.00002	-0.00002 mg/L	0.000012	69.01%
Ba 233.527†	-6.8	-0.00003 mg/L	-0.00003	-0.00003 mg/L	0.000071	254.93%
Co 228.616†	-4.8	-0.00006 mg/L	-0.00006	-0.00006 mg/L	0.000195	304.96%
Se 196.026†	-10.2	-0.00214 mg/L	-0.00214	-0.00214 mg/L	0.002875	134.15%
Ag 328.068†	-7.6	-0.00005 mg/L	-0.00005	-0.00005 mg/L	0.000303	603.06%
V 292.402†	2.1	0.00001 mg/L	0.00001	0.00001 mg/L	0.000046	414.93%
Zn 206.200†	-10.5	-0.00010 mg/L	-0.00010	-0.00010 mg/L	0.000027	27.89%
Cd 226.502†	-2.3	-0.00001 mg/L	-0.00001	-0.00001 mg/L	0.000055	446.64%
Mn 257.610†	-1.8	0.00000 mg/L	0.00000	0.00000 mg/L	0.000000	13.61%
B 249.772†	656.2	0.00530 mg/L	0.00530	0.00530 mg/L	0.000103	1.94%
Mo 202.031†	15.9	0.00061 mg/L	0.00061	0.00061 mg/L	0.000269	44.12%
Al 396.153†	271.8	0.00141 mg/L	0.00141	0.00141 mg/L	0.000444	31.55%
Sr 460.733†	26.8	0.00003 mg/L	0.00003	0.00003 mg/L	0.000074	242.58%

Sn 189.927†	8.9	0.00069	0.00069	0.00069 mg/L	0.000762 110.44%
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LOW LEVEL CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60139
Lab File ID: 160229CWO-SZB0782-010 Calibration Date: 02/29/16 10:39
Sequence: SZB0782 Injection Date: 02/29/16
Lab Sample ID: SZB0782-LCV3 Injection Time: 09:45

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			LCV Lower Limit	Upper Limit
		STD	LCV	ICAL	LCV	% Rec		
Arsenic	L	0.0400	0.035	1720.85	1541.071	87.6	70	130
Chromium	L	0.0400	0.040	160323.1	151098.6	99.0	70	130

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

INITIAL CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60139
Lab File ID: 160229CWO-SZB0782-007 Calibration Date: 02/29/16 10:39
Sequence: SZB0782 Injection Date: 02/29/16
Lab Sample ID: SZB0782-ICV1 Injection Time: 09:29

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			ICV Lower Limit	Upper Limit
		STD	ICV	ICAL	ICV	% Rec		
Arsenic	L	2.00	1.94	1720.85	1707.32	97.1	95	105
Chromium	L	2.00	2.07	160323.1	157861.3	103	95	105

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60108
Lab File ID: 160222CWO-SZB0601-003 Calibration Date: 02/23/16 10:31
Sequence: SZB0601 Injection Date: 02/22/16
Lab Sample ID: SZB0601-CCV1 Injection Time: 11:36

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.96	1562.799	1474.78	98.2	90	110
Chromium	L	2.00	2.05	147362.3	139618.2	103	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60108
Lab File ID: 160222CWO-SZB0601-016 Calibration Date: 02/23/16 10:31
Sequence: SZB0601 Injection Date: 02/22/16
Lab Sample ID: SZB0601-CCV3 Injection Time: 13:53

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.97	1562.799	1480.331	98.6	90	110
Chromium	L	2.00	2.08	147362.3	141317.2	104	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60108
Lab File ID: 160222CWO-SZB0601-019 Calibration Date: 02/23/16 10:31
Sequence: SZB0601 Injection Date: 02/22/16
Lab Sample ID: SZB0601-CCV4 Injection Time: 14:27

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.95	1562.799	1467.147	97.7	90	110
Chromium	L	2.00	2.04	147362.3	138740.2	102	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60108
Lab File ID: 160222CWO-SZB0601-032 Calibration Date: 02/23/16 10:31
Sequence: SZB0601 Injection Date: 02/22/16
Lab Sample ID: SZB0601-CCV5 Injection Time: 15:36

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.91	1562.799	1437.249	95.7	90	110
Chromium	L	2.00	1.99	147362.3	135331.4	99.4	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60108
Lab File ID: 160222CWO-SZB0601-045 Calibration Date: 02/23/16 10:31
Sequence: SZB0601 Injection Date: 02/22/16
Lab Sample ID: SZB0601-CCV6 Injection Time: 16:41

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.92	1562.799	1437.771	95.8	90	110
Chromium	L	2.00	2.01	147362.3	136668.4	100	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60108
Lab File ID: 160222CWO-SZB0601-050 Calibration Date: 02/23/16 10:31
Sequence: SZB0601 Injection Date: 02/22/16
Lab Sample ID: SZB0601-CCV7 Injection Time: 17:05

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.92	1562.799	1438.484	95.8	90	110
Chromium	L	2.00	1.98	147362.3	134540.4	98.9	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0671a-003 Calibration Date: 02/24/16 10:00
Sequence: SZB0671 Injection Date: 02/24/16
Lab Sample ID: SZB0671-CCV1 Injection Time: 13:12

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.95	1669.918	1708.306	97.6	90	110
Chromium	L	2.00	2.05	156026.5	158949.4	103	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0671a-015 Calibration Date: 02/24/16 10:00
Sequence: SZB0671 Injection Date: 02/24/16
Lab Sample ID: SZB0671-CCV2 Injection Time: 14:14

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.98	1669.918	1730.585	98.8	90	110
Chromium	L	2.00	2.08	156026.5	161148.7	104	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0671a-028 Calibration Date: 02/24/16 10:00
Sequence: SZB0671 Injection Date: 02/24/16
Lab Sample ID: SZB0671-CCV3 Injection Time: 15:28

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.93	1669.918	1685.929	96.3	90	110
Chromium	L	2.00	2.03	156026.5	157007.3	101	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0671a-040 Calibration Date: 02/24/16 10:00
Sequence: SZB0671 Injection Date: 02/24/16
Lab Sample ID: SZB0671-CCV4 Injection Time: 16:31

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.90	1669.918	1666.892	95.2	90	110
Chromium	L	2.00	2.02	156026.5	156040.3	101	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0671a-044 Calibration Date: 02/24/16 10:00
Sequence: SZB0671 Injection Date: 02/24/16
Lab Sample ID: SZB0671-CCV5 Injection Time: 17:43

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.91	1669.918	1670.54	95.4	90	110
Chromium	L	2.00	1.99	156026.5	154364.6	99.7	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0700-003 Calibration Date: 02/24/16 10:00
Sequence: SZB0700 Injection Date: 02/24/16
Lab Sample ID: SZB0700-CCV1 Injection Time: 16:31

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.90	1669.918	1666.892	95.2	90	110
Chromium	L	2.00	2.02	156026.5	156040.3	101	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0700-015 Calibration Date: 02/24/16 10:00
Sequence: SZB0700 Injection Date: 02/24/16
Lab Sample ID: SZB0700-CCV2 Injection Time: 17:43

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.91	1669.918	1670.54	95.4	90	110
Chromium	L	2.00	1.99	156026.5	154364.6	99.7	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0700-027 Calibration Date: 02/24/16 10:00
Sequence: SZB0700 Injection Date: 02/24/16
Lab Sample ID: SZB0700-CCV3 Injection Time: 18:46

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.88	1669.918	1649.036	94.2	90	110
Chromium	L	2.00	1.98	156026.5	153417.3	99.1	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0700-038 Calibration Date: 02/24/16 10:00
Sequence: SZB0700 Injection Date: 02/24/16
Lab Sample ID: SZB0700-CCV4 Injection Time: 19:51

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.90	1669.918	1662.538	95.0	90	110
Chromium	L	2.00	2.00	156026.5	154884.8	100	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0701-003 Calibration Date: 02/24/16 10:00
Sequence: SZB0701 Injection Date: 02/24/16
Lab Sample ID: SZB0701-CCV1 Injection Time: 18:46

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.88	1669.918	1649.036	94.2	90	110
Chromium	L	2.00	1.98	156026.5	153417.3	99.1	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0701-008 Calibration Date: 02/24/16 10:00
Sequence: SZB0701 Injection Date: 02/24/16
Lab Sample ID: SZB0701-CCV2 Injection Time: 19:51

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.90	1669.918	1662.538	95.0	90	110
Chromium	L	2.00	2.00	156026.5	154884.8	100	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0701-020 Calibration Date: 02/24/16 10:00
Sequence: SZB0701 Injection Date: 02/24/16
Lab Sample ID: SZB0701-CCV3 Injection Time: 20:54

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.88	1669.918	1649.893	94.2	90	110
Chromium	L	2.00	1.97	156026.5	152793.8	98.7	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0701-032 Calibration Date: 02/24/16 10:00
Sequence: SZB0701 Injection Date: 02/24/16
Lab Sample ID: SZB0701-CCV4 Injection Time: 21:56

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.91	1669.918	1673.156	95.6	90	110
Chromium	L	2.00	2.02	156026.5	156113.7	101	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60120
Lab File ID: 160224CWO-SZB0701-039 Calibration Date: 02/24/16 10:00
Sequence: SZB0701 Injection Date: 02/24/16
Lab Sample ID: SZB0701-CCV5 Injection Time: 22:33

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.90	1669.918	1662.981	95.0	90	110
Chromium	L	2.00	1.98	156026.5	153375.8	99.1	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0704-013 Calibration Date: 02/27/16 20:00
Sequence: SZB0704 Injection Date: 02/25/16
Lab Sample ID: SZB0704-CCV1 Injection Time: 16:35

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.04	1607.092	1647.054	102	90	110
Chromium	L	2.00	2.07	151767.3	153867.1	103	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0770A-003 Calibration Date: 02/27/16 20:00
Sequence: SZB0770 Injection Date: 02/25/16
Lab Sample ID: SZB0770-CCV1 Injection Time: 16:58

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.03	1607.092	1635.175	101	90	110
Chromium	L	2.00	2.00	151767.3	149035.9	100	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0770A-006 Calibration Date: 02/27/16 20:00
Sequence: SZB0770 Injection Date: 02/25/16
Lab Sample ID: SZB0770-CCV2 Injection Time: 17:12

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.04	1607.092	1646.684	102	90	110
Chromium	L	2.00	2.04	151767.3	151880	102	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0770A-018 Calibration Date: 02/27/16 20:00
Sequence: SZB0770 Injection Date: 02/25/16
Lab Sample ID: SZB0770-CCV3 Injection Time: 18:14

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.05	1607.092	1655.661	103	90	110
Chromium	L	2.00	2.04	151767.3	151527.1	102	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0770A-030 Calibration Date: 02/27/16 20:00
Sequence: SZB0770 Injection Date: 02/25/16
Lab Sample ID: SZB0770-CCV4 Injection Time: 19:16

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.05	1607.092	1651.37	102	90	110
Chromium	L	2.00	2.04	151767.3	152049.2	102	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0770A-039 Calibration Date: 02/27/16 20:00
Sequence: SZB0770 Injection Date: 02/25/16
Lab Sample ID: SZB0770-CCV5 Injection Time: 20:18

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.01	1607.092	1624.089	101	90	110
Chromium	L	2.00	2.00	151767.3	148971.3	100	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0771-003 Calibration Date: 02/27/16 20:00
Sequence: SZB0771 Injection Date: 02/25/16
Lab Sample ID: SZB0771-CCV1 Injection Time: 19:16

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.05	1607.092	1651.37	102	90	110
Chromium	L	2.00	2.04	151767.3	152049.2	102	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0771-008 Calibration Date: 02/27/16 20:00
Sequence: SZB0771 Injection Date: 02/25/16
Lab Sample ID: SZB0771-CCV2 Injection Time: 20:18

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.01	1607.092	1624.089	101	90	110
Chromium	L	2.00	2.00	151767.3	148971.3	100	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0771-014 Calibration Date: 02/27/16 20:00
Sequence: SZB0771 Injection Date: 02/25/16
Lab Sample ID: SZB0771-CCV3 Injection Time: 21:12

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.03	1607.092	1635.927	101	90	110
Chromium	L	2.00	2.02	151767.3	150566.4	101	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0771-017 Calibration Date: 02/27/16 20:00
Sequence: SZB0771 Injection Date: 02/25/16
Lab Sample ID: SZB0771-CCV4 Injection Time: 21:36

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.02	1607.092	1628.146	101	90	110
Chromium	L	2.00	2.02	151767.3	150352	101	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60139
Lab File ID: 160229CWO-SZB0782-013 Calibration Date: 02/29/16 10:39
Sequence: SZB0782 Injection Date: 02/29/16
Lab Sample ID: SZB0782-CCV1 Injection Time: 10:00

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.96	1720.85	1728.127	98.2	90	110
Chromium	L	2.00	2.07	160323.1	158356.8	104	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60139
Lab File ID: 160229CWO-SZB0783-003 Calibration Date: 02/29/16 10:39
Sequence: SZB0783 Injection Date: 02/29/16
Lab Sample ID: SZB0783-CCV1 Injection Time: 10:25

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.96	1720.85	1725.033	98.1	90	110
Chromium	L	2.00	2.06	160323.1	157023.1	103	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60139
Lab File ID: 160229CWO-SZB0783-010 Calibration Date: 02/29/16 10:39
Sequence: SZB0783 Injection Date: 02/29/16
Lab Sample ID: SZB0783-CCV2 Injection Time: 11:04

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.95	1720.85	1716.52	97.6	90	110
Chromium	L	2.00	2.04	160323.1	155506.5	102	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0472
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60139
Lab File ID: 160229CWO-SZB0783-013 Calibration Date: 02/29/16 10:39
Sequence: SZB0783 Injection Date: 02/29/16
Lab Sample ID: SZB0783-CCV3 Injection Time: 11:22

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	1.94	1720.85	1705.169	96.9	90	110
Chromium	L	2.00	2.05	160323.1	156559.7	103	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

METHOD BLANK DATA SHEET

SW6010C

Client: Draper Aden Associates-Richmond

Work Order: 16B0472

Project: New Kent Wood Preservatives (NKWP)

Laboratory ID: BZB0484-BLK1

Prepared: 02/20/16 10:00

Preparation: SW3050B

Matrix: Solids

Analyzed: 02/22/16 12:39

Instrument: ICP03

File ID: 160222CWO-SZB0601-005

Batch: BZB0484

Sequence: SZB0601

CAS NO.	COMPOUND	CONC. (mg/kg wet)	MDL	RL	Q
7440-38-2	Arsenic	ND	1.87	2.00	
7440-47-3	Chromium	ND	1.87	2.00	

LCS / LCS DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method	SW6010C
Prep Batch:	BZB0484	Prep Method:	SW3050B
		Lab Sample ID:	BZB0484-BS1

ANALYTE	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC.	QC LIMITS REC.
Arsenic	99.3	88.3	88.9	80 - 120
Chromium	99.3	97.0	97.7	80 - 120

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	BZB0484	Prep Method:	SW3050B
Percent Solids:	93.51	Laboratory ID:	BZB0484-MS1
		Source Sample ID:	16B0472-01

ANALYTE	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.	QC LIMITS REC.
Arsenic	99.0	ND	85.6	86.4	75 - 125
Chromium	99.0	12.2	110	98.7	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
 Project: New Kent Wood Preservatives (NKWP)
 Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	BZB0484	Prep Method:	SW3050B
Percent Solids:	92.09	Laboratory ID:	BZB0484-MS2
		Source Sample ID:	16B0472-20

ANALYTE	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.	QC LIMITS REC.
Arsenic	104	ND	90.8	87.3	75 - 125
Chromium	104	16.7	116	95.9	75 - 125

* Values outside of QC limits

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	SZB0601	Prep Method:	SW3050B
Percent Solids:	93.51	Laboratory ID:	BZB0484-DUP1
		Source Sample ID:	16B0472-01

ANALYTE	DUPLICATE CONCENTRATION (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	% RPD	RPD QC LIMITS
Arsenic	ND	ND		20
Chromium	12.8	12.2	5.41	20

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	SZB0601	Prep Method:	SW3050B
Percent Solids:	92.09	Laboratory ID:	BZB0484-DUP2
		Source Sample ID:	16B0472-20

ANALYTE	DUPLICATE CONCENTRATION (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	% RPD	RPD QC LIMITS
Arsenic	ND	ND		20
Chromium	14.8	16.7	11.8	20

* Values outside of QC limits

METHOD BLANK DATA SHEET

SW6010C

Client: Draper Aden Associates-Richmond

Work Order: 16B0472

Project: New Kent Wood Preservatives (NKWP)

Laboratory ID: BZB0486-BLK1

Prepared: 02/20/16 10:00

Preparation: SW3050B

Matrix: Solids

Analyzed: 02/24/16 13:26

Instrument: ICP03

File ID: 160224CWO-SZB0671a-006

Batch: BZB0486

Sequence: SZB0671

CAS NO.	COMPOUND	CONC. (mg/kg wet)	MDL	RL	Q
7440-38-2	Arsenic	ND	1.89	2.00	
7440-47-3	Chromium	ND	1.89	2.00	

LCS / LCS DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method	SW6010C
Prep Batch:	BZB0486	Prep Method:	SW3050B
		Lab Sample ID:	BZB0486-BS1

ANALYTE	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC.	QC LIMITS REC.
Arsenic	93.9	84.0	89.5	80 - 120
Chromium	93.9	92.3	98.3	80 - 120

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	BZB0486	Prep Method:	SW3050B
Percent Solids:	92.76	Laboratory ID:	BZB0486-MS1
		Source Sample ID:	16B0472-24

ANALYTE	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.	QC LIMITS REC.
Arsenic	102	5.07	93.8	87.4	75 - 125
Chromium	102	17.4	125	106	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	BZB0486	Prep Method:	SW3050B
Percent Solids:	93.63	Laboratory ID:	BZB0486-MS2
		Source Sample ID:	16B0472-30

ANALYTE	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.	QC LIMITS REC.
Arsenic	104	ND	89.2	85.8	75 - 125
Chromium	104	6.42	110	100	75 - 125

* Values outside of QC limits

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	SZB0671	Prep Method:	SW3050B
Percent Solids:	92.76	Laboratory ID:	BZB0486-DUP1
		Source Sample ID:	16B0472-24

ANALYTE	DUPLICATE CONCENTRATION (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	% RPD	RPD QC LIMITS
Arsenic	2.43	5.07	70.3	20
Chromium	17.3	17.4	0.834	20

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	SZB0671	Prep Method:	SW3050B
Percent Solids:	93.63	Laboratory ID:	BZB0486-DUP2
		Source Sample ID:	16B0472-30

ANALYTE	DUPLICATE CONCENTRATION (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	% RPD	RPD QC LIMITS
Arsenic	ND	ND		20
Chromium	6.57	6.42	2.36	20

METHOD BLANK DATA SHEET

SW6010C

Client: Draper Aden Associates-Richmond

Work Order: 16B0472

Project: New Kent Wood Preservatives (NKWP)

Laboratory ID: BZB0487-BLK1

Prepared: 02/21/16 10:45

Preparation: SW3050B

Matrix: Solids

Analyzed: 02/24/16 16:55

Instrument: ICP03

File ID: 160224CWO-SZB0700-006

Batch: BZB0487

Sequence: SZB0700

CAS NO.	COMPOUND	CONC. (mg/kg wet)	MDL	RL	Q
7440-38-2	Arsenic	ND	1.96	2.00	
7440-47-3	Chromium	ND	1.96	2.00	

LCS / LCS DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method	SW6010C
Prep Batch:	BZB0487	Prep Method:	SW3050B
		Lab Sample ID:	BZB0487-BS1

ANALYTE	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC.	QC LIMITS REC.
Arsenic	97.1	86.5	89.0	80 - 120
Chromium	97.1	95.0	97.9	80 - 120

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	BZB0487	Prep Method:	SW3050B
Percent Solids:	93.17	Laboratory ID:	BZB0487-MS1
		Source Sample ID:	16B0472-42

ANALYTE	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.	QC LIMITS REC.
Arsenic	106	ND	95.5	89.8	75 - 125
Chromium	106	8.76	116	100	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	BZB0487	Prep Method:	SW3050B
Percent Solids:	93.26	Laboratory ID:	BZB0487-MS2
		Source Sample ID:	16B0472-52

ANALYTE	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.	QC LIMITS REC.
Arsenic	100	8.77	98.5	89.3	75 - 125
Chromium	100	29.4	120	89.7	75 - 125

* Values outside of QC limits

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	SZB0700	Prep Method:	SW3050B
Percent Solids:	93.17	Laboratory ID:	BZB0487-DUP1
		Source Sample ID:	16B0472-42

ANALYTE	DUPLICATE CONCENTRATION (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	% RPD	RPD QC LIMITS
Arsenic	3.66	ND		20
Chromium	10.2	8.76	15.5	20

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	SZB0700	Prep Method:	SW3050B
Percent Solids:	93.26	Laboratory ID:	BZB0487-DUP2
		Source Sample ID:	16B0472-52

ANALYTE	DUPLICATE CONCENTRATION (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	% RPD	RPD QC LIMITS
Arsenic	11.6	8.77	28.1	20
Chromium	26.1	29.4	12.2	20

* Values outside of QC limits

METHOD BLANK DATA SHEET

SW6010C

Client: Draper Aden Associates-Richmond

Work Order: 16B0472

Project: New Kent Wood Preservatives (NKWP)

Laboratory ID: BZB0488-BLK1

Prepared: 02/21/16 10:45

Preparation: SW3050B

Matrix: Solids

Analyzed: 02/24/16 19:40

Instrument: ICP03

File ID: 160224CWO-SZB0701-006

Batch: BZB0488

Sequence: SZB0701

CAS NO.	COMPOUND	CONC. (mg/kg wet)	MDL	RL	Q
7440-38-2	Arsenic	ND	1.95	2.00	
7440-47-3	Chromium	ND	1.95	2.00	

LCS / LCS DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method	SW6010C
Prep Batch:	BZB0488	Prep Method:	SW3050B
		Lab Sample ID:	BZB0488-BS1

ANALYTE	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC.	QC LIMITS REC.
Arsenic	99.2	86.8	87.5	80 - 120
Chromium	99.2	95.1	95.8	80 - 120

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	BZB0488	Prep Method:	SW3050B
Percent Solids:	90.52	Laboratory ID:	BZB0488-MS1
		Source Sample ID:	16B0472-62

ANALYTE	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.	QC LIMITS REC.
Arsenic	108	16.3	120	96.4	75 - 125
Chromium	108	32.0	142	102	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
 Project: New Kent Wood Preservatives (NKWP)
 Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	BZB0488	Prep Method:	SW3050B
Percent Solids:	95.08	Laboratory ID:	BZB0488-MS2
		Source Sample ID:	16B0472-77

ANALYTE	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.	QC LIMITS REC.
Arsenic	98.9	22.9	117	95.6	75 - 125
Chromium	98.9	34.5	131	97.6	75 - 125

* Values outside of QC limits

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	SZB0701	Prep Method:	SW3050B
Percent Solids:	90.52	Laboratory ID:	BZB0488-DUP1
		Source Sample ID:	16B0472-62

ANALYTE	DUPLICATE CONCENTRATION (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	% RPD	RPD QC LIMITS
Arsenic	8.05	16.3	67.8	20
Chromium	24.7	32.0	25.7	20

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	SZB0701	Prep Method:	SW3050B
Percent Solids:	95.08	Laboratory ID:	BZB0488-DUP2
		Source Sample ID:	16B0472-77

ANALYTE	DUPLICATE CONCENTRATION (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	% RPD	RPD QC LIMITS
Arsenic	27.5	22.9	18.3	20
Chromium	40.3	34.5	15.5	20

* Values outside of QC limits

METHOD BLANK DATA SHEET

SW6010C

Client: Draper Aden Associates-Richmond

Work Order: 16B0472

Project: New Kent Wood Preservatives (NKWP)

Laboratory ID: BZB0557-BLK1

Prepared: 02/23/16 09:40

Preparation: SW3050B

Matrix: Solids

Analyzed: 02/25/16 17:21

Instrument: ICP03

File ID: 160225CWO-SZB0770A-008

Batch: BZB0557

Sequence: SZB0770

CAS NO.	COMPOUND	CONC. (mg/kg wet)	MDL	RL	Q
7440-38-2	Arsenic	ND	1.96	2.00	
7440-47-3	Chromium	ND	1.96	2.00	

LCS / LCS DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method	SW6010C
Prep Batch:	BZB0557	Prep Method:	SW3050B
		Lab Sample ID:	BZB0557-BS1

ANALYTE	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC.	QC LIMITS REC.
Arsenic	95.2	91.6	96.2	80 - 120
Chromium	95.2	93.5	98.2	80 - 120

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	BZB0557	Prep Method:	SW3050B
Percent Solids:	90.88	Laboratory ID:	BZB0557-MS1
		Source Sample ID:	16B0472-82

ANALYTE	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.	QC LIMITS REC.
Arsenic	108	5.07	105	92.5	75 - 125
Chromium	108	10.9	119	99.6	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	BZB0557	Prep Method:	SW3050B
Percent Solids:	93.10	Laboratory ID:	BZB0557-MS2
		Source Sample ID:	16B0472-92

ANALYTE	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.	QC LIMITS REC.
Arsenic	99.9	5.81	95.4	89.7	75 - 125
Chromium	99.9	15.9	110	94.6	75 - 125

* Values outside of QC limits

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	SZB0770	Prep Method:	SW3050B
Percent Solids:	90.88	Laboratory ID:	BZB0557-DUP1
		Source Sample ID:	16B0472-82

ANALYTE	DUPLICATE CONCENTRATION (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	% RPD	RPD QC LIMITS
Arsenic	5.54	5.07	8.77	20
Chromium	10.7	10.9	1.52	20

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	SZB0770	Prep Method:	SW3050B
Percent Solids:	93.10	Laboratory ID:	BZB0557-DUP2
		Source Sample ID:	16B0472-92

ANALYTE	DUPLICATE CONCENTRATION (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	% RPD	RPD QC LIMITS
Arsenic	7.01	5.81	18.8	20
Chromium	15.7	15.9	1.09	20

* Values outside of QC limits

METHOD BLANK DATA SHEET

SW6010C

Client: Draper Aden Associates-Richmond

Work Order: 16B0472

Project: New Kent Wood Preservatives (NKWP)

Laboratory ID: BZB0558-BLK1

Prepared: 02/23/16 09:40

Preparation: SW3050B

Matrix: Solids

Analyzed: 02/25/16 20:02

Instrument: ICP03

File ID: 160225CWO-SZB0771-005

Batch: BZB0558

Sequence: SZB0771

CAS NO.	COMPOUND	CONC. (mg/kg wet)	MDL	RL	Q
7440-38-2	Arsenic	ND	1.85	2.00	
7440-47-3	Chromium	ND	1.85	2.00	

LCS / LCS DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method	SW6010C
Prep Batch:	BZB0558	Prep Method:	SW3050B
		Lab Sample ID:	BZB0558-BS1

ANALYTE	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC.	QC LIMITS REC.
Arsenic	99.9	92.2	92.3	80 - 120
Chromium	99.9	95.5	95.6	80 - 120

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	BZB0558	Prep Method:	SW3050B
Percent Solids:	91.74	Laboratory ID:	BZB0558-MS1
		Source Sample ID:	16B0472-AB

ANALYTE	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.	QC LIMITS REC.
Arsenic	101	ND	98.2	97.1	75 - 125
Chromium	101	8.09	110	101	75 - 125

* Values outside of QC limits

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	SZB0771	Prep Method:	SW3050B
Percent Solids:	91.74	Laboratory ID:	BZB0558-DUP1
		Source Sample ID:	16B0472-AB

ANALYTE	DUPLICATE CONCENTRATION (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	% RPD	RPD QC LIMITS
Arsenic	ND	ND		20
Chromium	8.13	8.09	0.479	20

* Values outside of QC limits

METHOD BLANK DATA SHEET

SW6010C

Client: Draper Aden Associates-Richmond

Work Order: 16B0472

Project: New Kent Wood Preservatives (NKWP)

Laboratory ID: BZB0642-BLK1

Prepared: 02/26/16 10:01

Preparation: SW3050B

Matrix: Solids

Analyzed: 02/29/16 10:33

Instrument: ICP03

File ID: 160229CWO-SZB0783-005

Batch: BZB0642

Sequence: SZB0783

CAS NO.	COMPOUND	CONC. (mg/kg wet)	MDL	RL	Q
7440-38-2	Arsenic	ND	1.89	2.00	
7440-47-3	Chromium	ND	1.89	2.00	

LCS / LCS DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method	SW6010C
Prep Batch:	BZB0642	Prep Method:	SW3050B
		Lab Sample ID:	BZB0642-BS1

ANALYTE	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC.	QC LIMITS REC.
Arsenic	93.5	87.1	93.1	80 - 120
Chromium	93.5	95.4	102	80 - 120

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
 Project: New Kent Wood Preservatives (NKWP)
 Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	BZB0642	Prep Method:	SW3050B
Percent Solids:	28.63	Laboratory ID:	BZB0642-MS1
		Source Sample ID:	16B0472-ACRE1

ANALYTE	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.	QC LIMITS REC.
Arsenic	87.3	ND	74.7	85.5	75 - 125
Chromium	87.3	5.85	82.2	87.5	75 - 125

* Values outside of QC limits

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0472

Matrix:	Solids	Analysis Method:	SW6010C
Prep Batch:	SZB0783	Prep Method:	SW3050B
Percent Solids:	28.63	Laboratory ID:	BZB0642-DUP1
		Source Sample ID:	16B0472-ACRE1

ANALYTE	DUPLICATE CONCENTRATION (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	% RPD	RPD QC LIMITS
Arsenic	ND	ND		20
Chromium	5.40	5.85	8.06	20

* Values outside of QC limits

SERIAL DILUTION

SW6010C

LW-07-12

Laboratory: Air Water and Soil Laboratories, Inc.

SDG: NKWP 160219

Client: Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)

Matrix: Solids

Laboratory ID: SZB0601-SRD1

Sequence: SZB0601

Lab Source ID: 16B0472-13

Preparation: BZB0484

Initial/Final: 1.052 / 50

Source Sample Name: LW-07-12

% Solids: 88.47

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method	QC Limits % Difference
Arsenic	36.0		36.1		0.348	#	SW6010C	20
Chromium	60.8		60.7		0.0635	#	SW6010C	20

* Values outside of QC limits

SERIAL DILUTION

SW6010C

LW-11-12

Laboratory: Air Water and Soil Laboratories, Inc.

SDG: NKWP 160219

Client: Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)

Matrix: Solids

Laboratory ID: SZB0671-SRD1

Sequence: SZB0671

Lab Source ID: 16B0472-21

Preparation: BZB0486

Initial/Final: 1.013 / 50

Source Sample Name: LW-11-12

% Solids: 94.55

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method	QC Limits % Difference
Arsenic	63.3		62.9		0.592	#	SW6010C	20
Chromium	80.1		78.7		1.80	#	SW6010C	20

* Values outside of QC limits

SERIAL DILUTION

SW6010C

LW-21-12

Laboratory: Air Water and Soil Laboratories, Inc.

SDG: NKWP 160219

Client: Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)

Matrix: Solids

Laboratory ID: SZB0700-SRD1

Sequence: SZB0700

Lab Source ID: 16B0472-41

Preparation: BZB0487

Initial/Final: 1.038 / 50

Source Sample Name: LW-21-12

% Solids: 91.39

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method	QC Limits % Difference
Arsenic	23.5		17.8		27.6	#	SW6010C	20
Chromium	42.5		37.8		11.8	#	SW6010C	20

* Values outside of QC limits

SERIAL DILUTION

SW6010C

LW-32-12

Laboratory: Air Water and Soil Laboratories, Inc.

SDG: NKWP 160219

Client: Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)

Matrix: Solids

Laboratory ID: SZB0701-SRD1

Sequence: SZB0701

Lab Source ID: 16B0472-63

Preparation: BZB0488

Initial/Final: 1.036 / 50

Source Sample Name: LW-32-12

% Solids: 90.51

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method	QC Limits % Difference
Arsenic	20.6		19.2		7.05	#	SW6010C	20
Chromium	41.6		43.1		3.34	#	SW6010C	20

* Values outside of QC limits

SERIAL DILUTION

SW6010C

LW-44-12

Laboratory: Air Water and Soil Laboratories, Inc.

SDG: NKWP 160219

Client: Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)

Matrix: Solids

Laboratory ID: SZB0770-SRD1

Sequence: SZB0770

Lab Source ID: 16B0472-87

Preparation: BZB0488

Initial/Final: 1.09 / 50

Source Sample Name: LW-44-12

% Solids: 79.27

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method	QC Limits % Difference
Arsenic	82.2		69.4		16.9	#	SW6010C	20
Chromium	88.2		74.7		16.6	#	SW6010C	20

* Values outside of QC limits

SERIAL DILUTION

SW6010C

LW-SP-Dark

Laboratory: Air Water and Soil Laboratories, Inc.

SDG: NKWP 160219

Client: Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)

Matrix: Solids

Laboratory ID: SZB0771-SRD1

Sequence: SZB0771

Lab Source ID: 16B0472-AD

Preparation: BZB0558

Initial/Final: 1.093 / 50

Source Sample Name: LW-SP-Dark

% Solids: 34.64

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method	QC Limits % Difference
Arsenic	29.7		27.7		6.99	#	SW6010C	20
Chromium	121		118		2.93	#	SW6010C	20

* Values outside of QC limits

SERIAL DILUTION

SW6010C

LW-SP-Light

Laboratory: Air Water and Soil Laboratories, Inc.

SDG: NKWP 160219

Client: Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)

Matrix: Solids

Laboratory ID: SZB0783-SRD1

Sequence: SZB0783

Lab Source ID: 16B0472-ACRE1

Preparation: BZB0642

Initial/Final: 4.005 / 50

Source Sample Name: LW-SP-Light

% Solids: 28.63

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method	QC Limits % Difference
Arsenic	ND		ND				SW6010C	20
Chromium	5.85		5.56		5.15	#	SW6010C	20

* Values outside of QC limits

PREPARATION BENCH SHEET

BZB0484

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 11:58:16AM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0472-01 LW-01-12	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.048	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-02 LW-01-24	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.043	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-03 LW-02-12	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.062	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-04 LW-02-24	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.062	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-05 LW-03-12	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.002	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-06 LW-03-24	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.056	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-07 LW-04-12	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.025	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-08 LW-04-24	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.067	50				

PREPARATION BENCH SHEET

BZB0484

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 11:58:16AM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-09 LW-05-12	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.046	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					
16B0472-10 LW-05-24	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.036	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-11 LW-06-12	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.054	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-12 LW-06-24	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.065	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-13 LW-07-12	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.052	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					
16B0472-14 LW-07-24	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.081	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-15 LW-08-12	A	Draper Aden Associates-Richmond	02/20/2016 10:00	1.037	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					

PREPARATION BENCH SHEET

BZB0484

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 11:58:16AM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0472-16 LW-08-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.041	50				
<i>Cr SW6010</i> / / /			<i>As SW6010</i> / / /						
16B0472-17 LW-09-12	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.015	50				
<i>Cr SW6010</i> / / /			<i>As SW6010</i> / / /						
16B0472-18 LW-09-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.073	50				
<i>As SW6010</i> / / /			<i>Cr SW6010</i> / / /						
16B0472-18RE LW-09-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.073	50				
<i>As SW6010</i> / / /			Added 2/23/2016 by BG Added 2/23/2016 by BG; Auto-update of ExInfo5 field to RE1 2/23/2016 11:45:00 AM						
16B0472-19 LW-10-12	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.035	50				
<i>Cr SW6010</i> / / /			<i>As SW6010</i> / / /						
16B0472-20 LW-10-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.028	50				
<i>As SW6010</i> / / /			<i>Cr SW6010</i> / / /						
BZB0484-BLK1 Blank			02/20/2016 10:00	1.069	50				
BZB0484-BS1 LCS			02/20/2016 10:00	1.007	50	5B01101		1000	
BZB0484-DUP1 Duplicate			02/20/2016 10:00	1.063	50		16B0472-01		

PREPARATION BENCH SHEET

BZB0484

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

rinted: 3/8/2016 11:58:16AM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
BZB0484-DUP2 Duplicate			02/20/2016 10:00	1.003	50		16B0472-20		
BZB0484-MS1 Matrix Spike			02/20/2016 10:00	1.08	50	5B01101	16B0472-01	1000	
BZB0484-MS2 Matrix Spike			02/20/2016 10:00	1.044	50	5B01101	16B0472-20	1000	

PREPARATION BENCH SHEET

BZB0486

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 11:58:52AM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0472-21 LW-11-12	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.013	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-22 LW-11-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.026	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-23 LW-12-12	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.002	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-24 LW-12-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.044	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-25 LW-13-12	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.049	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-26 LW-13-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.023	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-27 LW-14-12	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.061	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-28 LW-14-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.086	50				

PREPARATION BENCH SHEET

BZB0486

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 11:58:52AM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					
16B0472-29 LW-15-12	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.044	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					
16B0472-30 LW-15-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.045	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-31 LW-16-12	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.019	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					
16B0472-32 LW-16-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.048	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-33 LW-17-12	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.063	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-34 LW-17-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.047	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-35 LW-18-12	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.055	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					

PREPARATION BENCH SHEET

BZB0486

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 11:58:52AM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0472-36 LW-18-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.07	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-37 LW-19-12	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.015	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-38 LW-19-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.055	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-39 LW-20-12	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.039	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-40 LW-20-24	A	Draper Aden Associates-Ri chmond	02/20/2016 10:00	1.043	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
BZB0486-BLK1 Blank			02/20/2016 10:00	1.058	50				
BZB0486-BS1 LCS			02/20/2016 10:00	1.065	50	5B01101		1000	
BZB0486-DUP1 Duplicate			02/20/2016 10:00	1.05	50		16B0472-24		
BZB0486-DUP2 Duplicate			02/20/2016 10:00	1.059	50		16B0472-30		
BZB0486-MS1 Matrix Spike			02/20/2016 10:00	1.061	50	5B01101	16B0472-24	1000	
BZB0486-MS2 Matrix Spike			02/20/2016 10:00	1.027	50	5B01101	16B0472-30	1000	

PREPARATION BENCH SHEET

BZB0486

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

rinted: 3/8/2016 11:58:52AM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
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PREPARATION BENCH SHEET

BZB0487

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

rinted: 3/8/2016 11:59:33AM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0472-41 LW-21-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.038	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-42 LW-21-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.055	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-43 LW-22-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.026	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-44 LW-22-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.037	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-45 LW-23-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.053	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-46 LW-23-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.008	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-47 LW-24-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.016	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-48 LW-24-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.087	50				

PREPARATION BENCH SHEET

BZB0487

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 11:59:33AM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					
16B0472-49 LW-25-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.038	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					
16B0472-50 LW-25-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.049	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-51 LW-26-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.017	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					
16B0472-52 LW-26-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.053	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-53 LW-27-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.04	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-54 LW-27-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.002	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-55 LW-28-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.026	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					

PREPARATION BENCH SHEET

BZB0487

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 11:59:33AM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0472-56 LW-28-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.007	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-57 LW-29-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.038	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-58 LW-29-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.044	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-59 LW-30-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.042	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-60 LW-30-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.032	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
BZB0487-BLK1 Blank			02/21/2016 10:45	1.021	50				
BZB0487-BS1 LCS			02/21/2016 10:45	1.03	50	5B01101		1000	
BZB0487-DUP1 Duplicate			02/21/2016 10:45	1.023	50		16B0472-42		
BZB0487-DUP2 Duplicate			02/21/2016 10:45	1.045	50		16B0472-52		
BZB0487-MS1 Matrix Spike			02/21/2016 10:45	1.009	50	5B01101	16B0472-42	1000	
BZB0487-MS2 Matrix Spike			02/21/2016 10:45	1.067	50	5B01101	16B0472-52	1000	

PREPARATION BENCH SHEET

BZB0487

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

rinted: 3/8/2016 11:59:33AM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
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PREPARATION BENCH SHEET

BZB0488

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 12:02:15PM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0472-61 LW-31-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.017	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-62 LW-31-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.059	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-63 LW-32-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.036	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-64 LW-32-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.02	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-65 LW-33-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.01	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-66 LW-33-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.065	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-67 LW-34-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.012	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-68 LW-34-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.034	50				

PREPARATION BENCH SHEET

BZB0488

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 12:02:15PM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-69 LW-35-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.026	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-70 LW-35-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.026	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-71 LW-36-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.039	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-72 LW-36-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.038	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-73 LW-37-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.008	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					
16B0472-74 LW-37-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.023	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-75 LW-38-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.014	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					

PREPARATION BENCH SHEET

BZB0488

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 12:02:15PM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0472-76 LW-38-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.015	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-77 LW-39-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.048	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-78 LW-39-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.028	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-79 LW-40-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.02	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
16B0472-79RE A LW-40-12	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.02	50				
<i>As SW6010 / / Added 2/25/2016 by CWO / Added 2/25/2016 by CWO; Auto-update of ExInfo5 field to RE1 2/25/2016 1:50:00 PM Cr SW6010 / / Added 2/25/2016 by CWO / Added 2/25/2016 by CWO; Auto-update of ExInfo5 field to RE1 2/25/2016 1:50:00 PM</i>									
16B0472-80 LW-40-24	A	Draper Aden Associates-Ri chmond	02/21/2016 10:45	1.071	50				
<i>As SW6010 / / / Cr SW6010 / / /</i>									
BZB0488-BLK1 Blank			02/21/2016 10:45	1.027	50				
BZB0488-BS1 LCS			02/21/2016 10:45	1.008	50	5B01101		1000	
BZB0488-DUP1 Duplicate			02/21/2016 10:45	1.017	50		16B0472-62		

PREPARATION BENCH SHEET

BZB0488

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

rinted: 3/8/2016 12:02:15PM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
BZB0488-DUP2 Duplicate			02/21/2016 10:45	1.006	50		16B0472-77		
BZB0488-MS1 Matrix Spike			02/21/2016 10:45	1.024	50	5B01101	16B0472-62	1000	
BZB0488-MS2 Matrix Spike			02/21/2016 10:45	1.063	50	5B01101	16B0472-77	1000	

PREPARATION BENCH SHEET

BZB0557

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 12:02:48PM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0472-81 LW-41-12	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.004	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-82 LW-41-24	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.016	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-83 LW-42-12	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.026	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-84 LW-42-24	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.073	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-85 LW-43-12	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.027	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-86 LW-43-24	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.084	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-87 LW-44-12	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.09	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-88 LW-44-24	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.04	50				

PREPARATION BENCH SHEET

BZB0557

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 12:02:48PM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					
16B0472-89 LW-45-12	A	Draper Aden Associates-Richmond	02/23/2016 09:40	1.072	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					
16B0472-90 LW-45-24	A	Draper Aden Associates-Richmond	02/23/2016 09:40	1.033	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-91 LW-46-12	A	Draper Aden Associates-Richmond	02/23/2016 09:40	1.032	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					
16B0472-92 LW-46-24	A	Draper Aden Associates-Richmond	02/23/2016 09:40	1.022	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-93 LW-47-12	A	Draper Aden Associates-Richmond	02/23/2016 09:40	1.076	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-94 LW-47-24	A	Draper Aden Associates-Richmond	02/23/2016 09:40	1.063	50				
<i>As SW6010</i>	/ / /		<i>Cr SW6010</i>	/ / /					
16B0472-95 LW-48-12	A	Draper Aden Associates-Richmond	02/23/2016 09:40	1.028	50				
<i>Cr SW6010</i>	/ / /		<i>As SW6010</i>	/ / /					

PREPARATION BENCH SHEET

BZB0557

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 12:02:48PM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0472-96 LW-48-24	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.027	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-97 LW-10-24 Dup	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.057	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-98 LW-19-12 Dup	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.022	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-99 LW-29-24 Dup	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.012	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
16B0472-AA LW-39-12 Dup	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.035	50				
<i>Cr SW6010 / / / As SW6010 / / /</i>									
BZB0557-BLK1 Blank			02/23/2016 09:40	1.021	50				
BZB0557-BS1 LCS			02/23/2016 09:40	1.05	50	5B01101		1000	
BZB0557-DUP1 Duplicate			02/23/2016 09:40	1.042	50		16B0472-82		
BZB0557-DUP2 Duplicate			02/23/2016 09:40	1.06	50		16B0472-92		
BZB0557-MS1 Matrix Spike			02/23/2016 09:40	1.016	50	5B01101	16B0472-82	1000	
BZB0557-MS2 Matrix Spike			02/23/2016 09:40	1.075	50	5B01101	16B0472-92	1000	

PREPARATION BENCH SHEET

BZB0557

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

rinted: 3/8/2016 12:02:48PM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
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PREPARATION BENCH SHEET

BZB0558

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 12:03:27PM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0472-AB LW-48-12 Dup	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.009	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-AC LW-SP-Light	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.054	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0472-AD LW-SP-Dark	A	Draper Aden Associates-Ri chmond	02/23/2016 09:40	1.093	50				
Cr SW6010	/ / /		As SW6010	/ / /					
BZB0558-BLK1 Blank			02/23/2016 09:40	1.084	50				
BZB0558-BS1 LCS			02/23/2016 09:40	1.001	50	5B01101		1000	
BZB0558-DUP1 Duplicate			02/23/2016 09:40	1.045	50		16B0472-AB		
BZB0558-MS1 Matrix Spike			02/23/2016 09:40	1.077	50	5B01101	16B0472-AB	1000	

PREPARATION BENCH SHEET

BZB0642

Air Water and Soil Laboratories, Inc.

Matrix: Solids

Prepared using: Metals-ICP - SW3050B

Printed: 3/8/2016 12:04:13PM

Lab Number	Cont	Client	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0472-ACRE A LW-SP-Light		Draper Aden Associates-Ri chmond	02/26/2016 10:01	4.005	50				From BZB0558 on 2/26/2016 by RCV
Cr SW6010	From BZB0558 by RCV on 02/26/2016 From BZB0558 by RCV on 02/26/2016; Auto-update of ExInfo5 field to RE1 2/26/2016 11:05:00 AM; Auto-update of ExInfo5 field to RE1 2/26/2016 11:15:00 AM; Auto-update of ExInfo5 field to RE1 2/26/2016 11:20:00 AM		As SW6010	From BZB0558 by RCV on 02/26/2016 From BZB0558 by RCV on 02/26/2016; Auto-update of ExInfo5 field to RE1 2/26/2016 11:05:00 AM; Auto-update of ExInfo5 field to RE1 2/26/2016 11:15:00 AM; Auto-update of ExInfo5 field to RE1 2/26/2016 11:20:00 AM					
BZB0642-BLK1 Blank			02/26/2016 10:01	1.056	50				From BZB0558 on 2/26/2016 by RCV
BZB0642-BS1 LCS			02/26/2016 10:01	1.069	50	5B01101		1000	From BZB0558 on 2/26/2016 by RCV
BZB0642-DUP1 Duplicate			02/26/2016 10:01	4.001	50		16B0472-ACRE1		From BZB0558 on 2/26/2016 by RCV
BZB0642-MS1 Matrix Spike			02/26/2016 10:01	4.002	50	5B01101	16B0472-ACRE1	1000	From BZB0558 on 2/26/2016 by RCV

From BZB0558 on 2/26/2016 by RCV

Analysis Sequence Raw Data

Sequence	SZB0601
Instrument	ICP03
Analysis	Cr SW6010

Analysis Sequence

Printed: 02/23/2016 11:28 am

SZB0601

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60108

Sequence Date: 02/22/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
SZB0601-CCB1			1					
SZB0601-CCB2			2					
SZB0601-CCB3			3					
SZB0601-CCB4			4					
SZB0601-CCB5			5					
SZB0601-CCB6			6					
SZB0601-CCB7			7					
SZB0601-CCB8			8					
SZB0601-CCB9			9					
SZB0601-CCBA			10					
SZB0601-CCBB			11					
SZB0601-CCBC			12					
SZB0601-CCBD			13					
SZB0601-CCBE			14					
SZB0601-CCBF			15					
SZB0601-CCBG			16					
SZB0601-CCV1			17		6B01555			
SZB0601-CCV2			18		6B01555			
SZB0601-CCV3			19		6B01555			
SZB0601-CCV4			20		6B01555			
SZB0601-CCV5			21		6B01555			
SZB0601-CCV6			22		6B01555			
SZB0601-CCV7			23		6B01555			

Analysis Sequence

Printed: 02/23/2016 11:28 am

SZB0601

(Continued)

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60108

Sequence Date: 02/22/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
SZB0601-IFA1			24		6B01514			
SZB0601-IFB1			25		6B01557			
16B0472-01	A	LW-01-12	26				Draper Aden Associates-Richmond	
16B0472-01	A	LW-01-12	27				Draper Aden Associates-Richmond	
16B0472-02	A	LW-01-24	28				Draper Aden Associates-Richmond	
16B0472-02	A	LW-01-24	29				Draper Aden Associates-Richmond	
16B0472-03	A	LW-02-12	30				Draper Aden Associates-Richmond	
16B0472-03	A	LW-02-12	31				Draper Aden Associates-Richmond	
16B0472-04	A	LW-02-24	32				Draper Aden Associates-Richmond	
16B0472-04	A	LW-02-24	33				Draper Aden Associates-Richmond	
16B0472-05	A	LW-03-12	34				Draper Aden Associates-Richmond	
16B0472-05	A	LW-03-12	35				Draper Aden Associates-Richmond	
16B0472-06	A	LW-03-24	36				Draper Aden Associates-Richmond	
16B0472-06	A	LW-03-24	37				Draper Aden Associates-Richmond	
16B0472-07	A	LW-04-12	38				Draper Aden Associates-Richmond	
16B0472-07	A	LW-04-12	39				Draper Aden Associates-Richmond	
16B0472-08	A	LW-04-24	40				Draper Aden Associates-Richmond	
16B0472-08	A	LW-04-24	41				Draper Aden Associates-Richmond	
16B0472-09	A	LW-05-12	42				Draper Aden Associates-Richmond	
16B0472-09	A	LW-05-12	43				Draper Aden Associates-Richmond	
16B0472-10	A	LW-05-24	44				Draper Aden Associates-Richmond	
16B0472-10	A	LW-05-24	45				Draper Aden Associates-Richmond	
16B0472-11	A	LW-06-12	46				Draper Aden Associates-Richmond	

Analysis Sequence

Printed: 02/23/2016 11:28 am

SZB0601

(Continued)

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60108

Sequence Date: 02/22/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
16B0472-11	A	LW-06-12	47				Draper Aden Associates-Richmond	
16B0472-12	A	LW-06-24	48				Draper Aden Associates-Richmond	
16B0472-12	A	LW-06-24	49				Draper Aden Associates-Richmond	
16B0472-13	A	LW-07-12	50				Draper Aden Associates-Richmond	
16B0472-13	A	LW-07-12	51				Draper Aden Associates-Richmond	
16B0472-14	A	LW-07-24	52				Draper Aden Associates-Richmond	
16B0472-14	A	LW-07-24	53				Draper Aden Associates-Richmond	
16B0472-15	A	LW-08-12	54				Draper Aden Associates-Richmond	
16B0472-15	A	LW-08-12	55				Draper Aden Associates-Richmond	
16B0472-16	A	LW-08-24	56				Draper Aden Associates-Richmond	
16B0472-16	A	LW-08-24	57				Draper Aden Associates-Richmond	
16B0472-17	A	LW-09-12	58				Draper Aden Associates-Richmond	
16B0472-17	A	LW-09-12	59				Draper Aden Associates-Richmond	
16B0472-18	A	LW-09-24	60				Draper Aden Associates-Richmond	
16B0472-18	A	LW-09-24	61				Draper Aden Associates-Richmond	
16B0472-19	A	LW-10-12	62				Draper Aden Associates-Richmond	
16B0472-19	A	LW-10-12	63				Draper Aden Associates-Richmond	
16B0472-20	A	LW-10-24	64				Draper Aden Associates-Richmond	
16B0472-20	A	LW-10-24	65				Draper Aden Associates-Richmond	
BZB0484-DUP2		Duplicate	66					
BZB0484-MS2		Matrix Spike	67					
BZB0484-MS1		Matrix Spike	68					
BZB0484-DUP1		Duplicate	69					

Analysis Sequence

Printed: 02/23/2016 11:28 am

SZB0601

(Continued)

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60108

Sequence Date: 02/22/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
BZB0484-BS1		LCS	70					
BZB0484-BLK1		Blank	71					
SZB0601-SRD1			72					

=====

Reprocessing Begun

Logged In Analyst: ICP03

Technique: ICP Continuous

Results Data Set (original): 160222CWO-lwood1

Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

Results Data Set (reprocessed): 160222CWO-SZB0601

Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

=====

Sequence No.: 1

Autosampler Location: 12

Sample ID: ICS A

Date Collected: 2/22/2016 10:56:34 AM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:31 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS A

Repl#	Analyte	Net	Corrected	Calib.	Sample	Analysis
		Intensity	Intensity	Conc. Units	Conc. Units	Time
1	Y 371.029	1841434.8	1841434.8	5.235 mg/L		10:58:06 AM
1	Rh 343.489	3293.2	3293.2	5.055 mg/L		10:58:09 AM
1	As 188.979†	1.0	4.5	0.00298 mg/L	0.1490 mg/kg	10:58:29 AM
1	Cr 283.563†	4147.7	125.8	0.00092 mg/L	0.04623 mg/kg	10:58:09 AM
2	Y 371.029	1829703.6	1829703.6	5.202 mg/L		10:58:39 AM
2	Rh 343.489	3401.8	3401.8	5.222 mg/L		10:58:41 AM
2	As 188.979†	-3.1	0.5	0.00035 mg/L	0.01774 mg/kg	10:59:01 AM
2	Cr 283.563†	4116.5	121.2	0.00089 mg/L	0.04454 mg/kg	10:58:41 AM
3	Y 371.029	1810468.6	1810468.6	5.147 mg/L		10:59:11 AM
3	Rh 343.489	3366.9	3366.9	5.168 mg/L		10:59:14 AM
3	As 188.979†	-7.5	-3.8	-0.00251 mg/L	-0.1257 mg/kg	10:59:34 AM
3	Cr 283.563†	4174.7	219.8	0.00162 mg/L	0.08075 mg/kg	10:59:14 AM

Mean Data: ICS A

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Y 371.029	1827202.4	5.195 mg/L	0.0444			0.86%
Rh 343.489	3353.9	5.149 mg/L	0.0851			1.65%
As 188.979†	0.4	0.00027 mg/L	0.002748	0.01369 mg/kg	0.137422	>999.9%
Cr 283.563†	155.6	0.00114 mg/L	0.000409	0.05717 mg/kg	0.020437	35.75%

=====

Sequence No.: 2

Autosampler Location: 13

Sample ID: ICS AB

Date Collected: 2/22/2016 11:01:41 AM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:31 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)

Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1820246.7	1820246.7	5.175 mg/L		11:03:33 AM
1	Rh 343.489	3425.4	3425.4	5.258 mg/L		11:03:36 AM
1	As 188.979†	3079.0	2978.4	1.984 mg/L	99.18 mg/kg	11:03:56 AM
1	Cr 283.563†	295005.8	281193.0	2.066 mg/L	103.3 mg/kg	11:03:36 AM
2	Y 371.029	1826243.1	1826243.1	5.192 mg/L		11:04:25 AM
2	Rh 343.489	3572.6	3572.6	5.484 mg/L		11:04:28 AM
2	As 188.979†	3074.2	2964.0	1.974 mg/L	98.70 mg/kg	11:04:48 AM
2	Cr 283.563†	294095.3	279380.3	2.053 mg/L	102.6 mg/kg	11:04:28 AM
3	Y 371.029	1830190.3	1830190.3	5.203 mg/L		11:05:16 AM
3	Rh 343.489	3458.9	3458.9	5.310 mg/L		11:05:19 AM
3	As 188.979†	3060.9	2944.9	1.961 mg/L	98.06 mg/kg	11:05:39 AM
3	Cr 283.563†	289245.9	274109.6	2.014 mg/L	100.7 mg/kg	11:05:19 AM

Mean Data: ICS AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1825560.0	5.190 mg/L	0.0142			0.27%
Rh 343.489	3485.6	5.351 mg/L	0.1185			2.21%
As 188.979†	2962.4	1.973 mg/L	0.0112	98.65 mg/kg	0.560	0.57%
Cr 283.563†	278227.6	2.044 mg/L	0.0270	102.2 mg/kg	1.35	1.32%

=====

Sequence No.: 3	Autosampler Location: 5
Sample ID: CCV	Date Collected: 2/22/2016 11:32:14 AM
Analyst:	Data Type: Reprocessed on 2/23/2016 10:37:31 AM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1773640.7	1773640.7	5.043 mg/L		11:34:03 AM
1	Rh 343.489	3283.2	3283.2	5.040 mg/L		11:34:06 AM
1	As 188.979†	2999.9	2978.2	1.983 mg/L		11:34:26 AM
1	Cr 283.563†	287471.5	281212.0	2.066 mg/L		11:34:06 AM
2	Y 371.029	1790294.3	1790294.3	5.090 mg/L		11:34:50 AM
2	Rh 343.489	3322.9	3322.9	5.101 mg/L		11:34:53 AM
2	As 188.979†	3008.7	2959.1	1.971 mg/L		11:35:13 AM
2	Cr 283.563†	288725.1	279791.9	2.056 mg/L		11:34:53 AM
3	Y 371.029	1792159.0	1792159.0	5.095 mg/L		11:35:37 AM
3	Rh 343.489	3242.3	3242.3	4.977 mg/L		11:35:40 AM
3	As 188.979†	2963.2	2911.4	1.939 mg/L		11:36:00 AM
3	Cr 283.563†	285880.3	276705.1	2.033 mg/L		11:35:40 AM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1785364.7	5.076 mg/L	0.0290			0.57%
Rh 343.489	3282.8	5.039 mg/L	0.0618			1.23%
As 188.979†	2949.6	1.964 mg/L	0.0229			1.17%
QC value within limits for As 188.979 Recovery = 98.22%						
Cr 283.563†	279236.3	2.052 mg/L	0.0169			0.83%
QC value within limits for Cr 283.563 Recovery = 102.59%						
All analyte(s) passed QC.						

```

=====
Sequence No.: 4                      Autosampler Location: 1
Sample ID: CCB                      Date Collected: 2/22/2016 11:38:08 AM
Analyst:                            Data Type: Reprocessed on 2/23/2016 10:37:31 AM
Logged In Analyst (Original) : ICP03
Initial Sample Wt:                  Initial Sample Vol:
Dilution:                          Sample Prep Vol:
Wash Time:
=====

```

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1901666.3	1901666.3	5.406 mg/L		11:39:36 AM
1	Rh 343.489	3562.2	3562.2	5.468 mg/L		11:39:39 AM
1	As 188.979†	0.9	4.3	0.00289 mg/L		11:39:59 AM
1	Cr 283.563†	3835.5	-288.4	-0.00212 mg/L		11:39:39 AM
2	Y 371.029	1896516.3	1896516.3	5.392 mg/L		11:40:06 AM
2	Rh 343.489	3518.2	3518.2	5.401 mg/L		11:40:08 AM
2	As 188.979†	5.3	8.5	0.00564 mg/L		11:40:28 AM
2	Cr 283.563†	4017.9	-109.7	-0.00081 mg/L		11:40:08 AM
3	Y 371.029	1911901.9	1911901.9	5.436 mg/L		11:40:35 AM
3	Rh 343.489	3437.7	3437.7	5.277 mg/L		11:40:37 AM
3	As 188.979†	-2.0	1.7	0.00116 mg/L		11:40:57 AM
3	Cr 283.563†	3866.4	-279.0	-0.00205 mg/L		11:40:37 AM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1903361.5	5.411 mg/L	0.0223			0.41%
Rh 343.489	3506.0	5.382 mg/L	0.0969			1.80%
As 188.979†	4.9	0.00323 mg/L	0.002260			69.91%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-225.7	-0.00166 mg/L	0.000739			44.57%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

```

=====
Sequence No.: 5                      Autosampler Location: 16
Sample ID: BZB0484-BLK1            Date Collected: 2/22/2016 12:36:28 PM
Analyst:                            Data Type: Reprocessed on 2/23/2016 10:37:32 AM
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1.069 g          Initial Sample Vol:
Dilution:                          Sample Prep Vol: 50 mL
Wash Time:
=====

```

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: BZB0484-BLK1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1836124.0	1836124.0	5.220 mg/L		12:37:59 PM
1	Rh 343.489	3482.2	3482.2	5.346 mg/L		12:38:01 PM
1	As 188.979†	9.5	12.6	0.00842 mg/L	0.3937 mg/kg	12:38:21 PM
1	Cr 283.563†	3773.4	-221.3	-0.00163 mg/L	-0.07605 mg/kg	12:38:01 PM
2	Y 371.029	1841739.2	1841739.2	5.236 mg/L		12:38:28 PM
2	Rh 343.489	3445.5	3445.5	5.289 mg/L		12:38:30 PM
2	As 188.979†	-2.4	1.3	0.00087 mg/L	0.04069 mg/kg	12:38:51 PM
2	Cr 283.563†	3928.4	-84.2	-0.00062 mg/L	-0.02895 mg/kg	12:38:30 PM
3	Y 371.029	1847282.6	1847282.6	5.252 mg/L		12:38:57 PM
3	Rh 343.489	3489.3	3489.3	5.356 mg/L		12:39:00 PM
3	As 188.979†	8.5	11.7	0.00776 mg/L	0.3629 mg/kg	12:39:20 PM
3	Cr 283.563†	3827.5	-191.6	-0.00141 mg/L	-0.06587 mg/kg	12:39:00 PM

Mean Data: BZB0484-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1841715.3	5.236 mg/L	0.0159			0.30%
Rh 343.489	3472.3	5.330 mg/L	0.0361			0.68%
As 188.979†	8.5	0.00568 mg/L	0.004180	0.2658 mg/kg	0.19552	73.57%
Cr 283.563†	-165.7	-0.00122 mg/L	0.000530	-0.05696 mg/kg	0.024782	43.51%

Sequence No.: 6

Autosampler Location: 17

Sample ID: BZB0484-BS1

Date Collected: 2/22/2016 12:40:28 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:32 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.007 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0484-BS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1726172.0	1726172.0	4.908 mg/L		12:42:11 PM
1	Rh 343.489	3406.4	3406.4	5.229 mg/L		12:42:14 PM
1	As 188.979†	2736.2	2791.3	1.859 mg/L	92.30 mg/kg	12:42:34 PM
1	Cr 283.563†	272375.5	273670.3	2.011 mg/L	99.85 mg/kg	12:42:14 PM
2	Y 371.029	1720646.9	1720646.9	4.892 mg/L		12:42:52 PM
2	Rh 343.489	3283.8	3283.8	5.041 mg/L		12:42:54 PM
2	As 188.979†	2536.1	2595.7	1.729 mg/L	85.84 mg/kg	12:43:14 PM
2	Cr 283.563†	261549.6	263496.2	1.936 mg/L	96.14 mg/kg	12:42:54 PM
3	Y 371.029	1736746.7	1736746.7	4.938 mg/L		12:43:33 PM
3	Rh 343.489	3369.5	3369.5	5.173 mg/L		12:43:35 PM

3	As 188.979†	2588.9	2625.1	1.748 mg/L	86.81 mg/kg	12:43:55 PM
3	Cr 283.563†	260892.7	260352.7	1.913 mg/L	94.99 mg/kg	12:43:35 PM

Mean Data: BZB0484-BS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1727855.2	4.912 mg/L	0.0233			0.47%
Rh 343.489	3353.3	5.148 mg/L	0.0965			1.87%
As 188.979†	2670.7	1.779 mg/L	0.0702	88.32 mg/kg	3.488	3.95%
Cr 283.563†	265839.7	1.953 mg/L	0.0512	96.99 mg/kg	2.540	2.62%

Matrix Recovery Check: BZB0484-BS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
As 188.979	100.3	88.32	3.488	mg/kg	88.0
Cr 283.563	99.94	96.99	2.540	mg/kg	97.0

=====

Sequence No.: 7	Autosampler Location: 18
Sample ID: 16B0472-01	Date Collected: 2/22/2016 12:46:04 PM
Analyst:	Data Type: Reprocessed on 2/23/2016 10:37:32 AM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt: 1.048 g	Initial Sample Vol:
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-01

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1821529.0	1821529.0	5.179 mg/L		12:47:42 PM
1	Rh 343.489	3433.1	3433.1	5.270 mg/L		12:47:44 PM
1	As 188.979†	37.4	39.7	0.02643 mg/L	1.261 mg/kg	12:48:05 PM
1	Cr 283.563†	36739.3	31636.3	0.2325 mg/L	11.09 mg/kg	12:47:44 PM
2	Y 371.029	1818184.6	1818184.6	5.169 mg/L		12:48:18 PM
2	Rh 343.489	3456.9	3456.9	5.307 mg/L		12:48:20 PM
2	As 188.979†	23.8	26.6	0.01772 mg/L	0.8456 mg/kg	12:48:40 PM
2	Cr 283.563†	37600.0	32534.0	0.2391 mg/L	11.41 mg/kg	12:48:20 PM
3	Y 371.029	1830143.7	1830143.7	5.203 mg/L		12:48:54 PM
3	Rh 343.489	3672.2	3672.2	5.637 mg/L		12:48:56 PM
3	As 188.979†	44.0	45.8	0.03051 mg/L	1.455 mg/kg	12:49:16 PM
3	Cr 283.563†	38401.0	33066.1	0.2430 mg/L	11.59 mg/kg	12:48:56 PM

Mean Data: 16B0472-01

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1823285.8	5.184 mg/L	0.0175			0.34%
Rh 343.489	3520.7	5.405 mg/L	0.2022			3.74%
As 188.979†	37.4	0.02489 mg/L	0.006530	1.187 mg/kg	0.3115	26.24%
Cr 283.563†	32412.1	0.2382 mg/L	0.00531	11.36 mg/kg	0.253	2.23%

=====

Sequence No.: 8	Autosampler Location: 19
Sample ID: BZB0484-DUP1	Date Collected: 2/22/2016 1:02:45 PM
Analyst:	Data Type: Reprocessed on 2/23/2016 10:37:32 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.063 g

Dilution:

Wash Time:

Initial Sample Vol:

Sample Prep Vol: 50 mL

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0484-DUP1

Repl#	Analyte	Net	Corrected	Calib.	Sample	Analysis
		Intensity	Intensity	Conc. Units	Conc. Units	Time
1	Y 371.029	1746466.3	1746466.3	4.965 mg/L		1:04:25 PM
1	Rh 343.489	3409.7	3409.7	5.234 mg/L		1:04:28 PM
1	As 188.979†	21.6	25.3	0.01682 mg/L	0.7911 mg/kg	1:04:48 PM
1	Cr 283.563†	37885.3	34314.8	0.2521 mg/L	11.86 mg/kg	1:04:28 PM
2	Y 371.029	1759984.6	1759984.6	5.004 mg/L		1:05:03 PM
2	Rh 343.489	3341.8	3341.8	5.130 mg/L		1:05:05 PM
2	As 188.979†	36.2	39.7	0.02647 mg/L	1.245 mg/kg	1:05:25 PM
2	Cr 283.563†	38608.0	34743.9	0.2553 mg/L	12.01 mg/kg	1:05:05 PM
3	Y 371.029	1792257.6	1792257.6	5.095 mg/L		1:05:40 PM
3	Rh 343.489	3353.6	3353.6	5.148 mg/L		1:05:43 PM
3	As 188.979†	27.7	30.7	0.02047 mg/L	0.9627 mg/kg	1:06:03 PM
3	Cr 283.563†	39635.1	35057.1	0.2576 mg/L	12.12 mg/kg	1:05:43 PM

Mean Data: BZB0484-DUP1

Analyte	Mean	Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units			Conc. Units		
Y 371.029	1766236.2	5.021 mg/L		0.0669			1.33%
Rh 343.489	3368.3	5.171 mg/L		0.0556			1.08%
As 188.979†	31.9	0.02125 mg/L		0.004872	0.9996 mg/kg	0.22918	22.93%
Cr 283.563†	34705.3	0.2550 mg/L		0.00274	12.00 mg/kg	0.129	1.07%

Duplicate Check: BZB0484-DUP1

Analyte	Expected	Measured	Std.	Units	Difference
	Conc.	Conc.	Dev.		(%)
Y 371.029			0.000	mg/L	Not calculated
Rh 343.489			0.000	mg/L	Not calculated
As 188.979	1.187	0.9996	0.229	mg/kg	17.2
Cr 283.563	11.36	12.00	0.129	mg/kg	5.4

Sequence No.: 9

Sample ID: BZB0484-MS1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.08 g

Dilution:

Wash Time:

Autosampler Location: 20

Date Collected: 2/22/2016 1:08:12 PM

Data Type: Reprocessed on 2/23/2016 10:37:32 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0484-MS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1718134.6	1718134.6	4.885 mg/L		1:10:00 PM
1	Rh 343.489	3388.7	3388.7	5.202 mg/L		1:10:03 PM
1	As 188.979†	2558.0	2621.9	1.746 mg/L	80.84 mg/kg	1:10:23 PM
1	Cr 283.563†	299305.4	302534.0	2.223 mg/L	102.9 mg/kg	1:10:03 PM
2	Y 371.029	1747076.4	1747076.4	4.967 mg/L		1:10:47 PM
2	Rh 343.489	3360.4	3360.4	5.158 mg/L		1:10:49 PM
2	As 188.979†	2533.5	2553.9	1.701 mg/L	78.74 mg/kg	1:11:09 PM
2	Cr 283.563†	298170.5	296316.2	2.177 mg/L	100.8 mg/kg	1:10:49 PM
3	Y 371.029	1709358.5	1709358.5	4.860 mg/L		1:11:33 PM
3	Rh 343.489	3499.6	3499.6	5.372 mg/L		1:11:35 PM
3	As 188.979†	2531.3	2607.9	1.737 mg/L	80.41 mg/kg	1:11:55 PM
3	Cr 283.563†	302516.7	307410.9	2.259 mg/L	104.6 mg/kg	1:11:35 PM

Mean Data: BZB0484-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1724856.5	4.904 mg/L	0.0561			1.14%
Rh 343.489	3416.2	5.244 mg/L	0.1130			2.15%
As 188.979†	2594.6	1.728 mg/L	0.0239	80.00 mg/kg	1.108	1.39%
Cr 283.563†	302087.0	2.220 mg/L	0.0409	102.8 mg/kg	1.89	1.84%

Duplicate Check: BZB0484-MS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Y 371.029			0.000	mg/L	Not calculated
Rh 343.489			0.000	mg/L	Not calculated
As 188.979	1.187	80.00	1.108	mg/kg	194.1
Cr 283.563	11.36	102.8	1.892	mg/kg	160.2

Sequence No.: 10

Autosampler Location: 21

Sample ID: 16B0472-02

Date Collected: 2/22/2016 1:14:05 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:33 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.043 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-02

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1763520.8	1763520.8	5.014 mg/L		1:15:46 PM
1	Rh 343.489	3334.0	3334.0	5.118 mg/L		1:15:49 PM
1	As 188.979†	20.6	24.1	0.01605 mg/L	0.7694 mg/kg	1:16:09 PM
1	Cr 283.563†	35130.2	31198.4	0.2292 mg/L	10.99 mg/kg	1:15:49 PM
2	Y 371.029	1737163.6	1737163.6	4.939 mg/L		1:16:26 PM
2	Rh 343.489	3300.5	3300.5	5.067 mg/L		1:16:28 PM
2	As 188.979†	29.2	33.1	0.02208 mg/L	1.058 mg/kg	1:16:48 PM
2	Cr 283.563†	35601.2	32206.7	0.2367 mg/L	11.35 mg/kg	1:16:28 PM
3	Y 371.029	1773089.0	1773089.0	5.041 mg/L		1:17:05 PM
3	Rh 343.489	3275.8	3275.8	5.029 mg/L		1:17:07 PM

3	As 188.979†	36.4	39.6	0.02638 mg/L	1.265 mg/kg	1:17:27 PM
3	Cr 283.563†	35729.1	31603.3	0.2322 mg/L	11.13 mg/kg	1:17:07 PM

Mean Data: 16B0472-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1757924.5	4.998 mg/L	0.0529			1.06%
Rh 343.489	3303.4	5.071 mg/L	0.0448			0.88%
As 188.979†	32.3	0.02150 mg/L	0.005188	1.031 mg/kg	0.2487	24.13%
Cr 283.563†	31669.5	0.2327 mg/L	0.00373	11.16 mg/kg	0.179	1.60%

=====

Sequence No.: 11

Autosampler Location: 22

Sample ID: 16B0472-03

Date Collected: 2/22/2016 1:19:36 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:33 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.062 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-03

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1829351.2	1829351.2	5.201 mg/L		1:21:17 PM
1	Rh 343.489	3424.2	3424.2	5.256 mg/L		1:21:19 PM
1	As 188.979†	94.5	94.4	0.06286 mg/L	2.960 mg/kg	1:21:40 PM
1	Cr 283.563†	84131.8	77046.4	0.5661 mg/L	26.65 mg/kg	1:21:19 PM
2	Y 371.029	1821658.3	1821658.3	5.179 mg/L		1:21:55 PM
2	Rh 343.489	3577.6	3577.6	5.492 mg/L		1:21:57 PM
2	As 188.979†	96.3	96.6	0.06431 mg/L	3.028 mg/kg	1:22:17 PM
2	Cr 283.563†	84584.9	77825.3	0.5719 mg/L	26.92 mg/kg	1:21:57 PM
3	Y 371.029	1830359.6	1830359.6	5.204 mg/L		1:22:33 PM
3	Rh 343.489	3603.1	3603.1	5.531 mg/L		1:22:35 PM
3	As 188.979†	101.5	101.1	0.06734 mg/L	3.171 mg/kg	1:22:55 PM
3	Cr 283.563†	83251.2	76155.7	0.5596 mg/L	26.35 mg/kg	1:22:35 PM

Mean Data: 16B0472-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1827123.0	5.195 mg/L	0.0135			0.26%
Rh 343.489	3535.0	5.426 mg/L	0.1486			2.74%
As 188.979†	97.4	0.06484 mg/L	0.002286	3.053 mg/kg	0.1076	3.53%
Cr 283.563†	77009.1	0.5659 mg/L	0.00614	26.64 mg/kg	0.289	1.08%

=====

Sequence No.: 12

Autosampler Location: 23

Sample ID: 16B0472-04

Date Collected: 2/22/2016 1:25:05 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:33 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.062 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-04

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1827125.5	1827125.5	5.195 mg/L		1:26:40 PM
1	Rh 343.489	3503.9	3503.9	5.379 mg/L		1:26:43 PM
1	As 188.979†	29.6	32.0	0.02133 mg/L	1.004 mg/kg	1:27:03 PM
1	Cr 283.563†	37164.7	31937.1	0.2347 mg/L	11.05 mg/kg	1:26:43 PM
2	Y 371.029	1800748.4	1800748.4	5.120 mg/L		1:27:14 PM
2	Rh 343.489	3407.5	3407.5	5.231 mg/L		1:27:17 PM
2	As 188.979†	24.1	27.1	0.01805 mg/L	0.8496 mg/kg	1:27:37 PM
2	Cr 283.563†	36696.6	32003.9	0.2352 mg/L	11.07 mg/kg	1:27:17 PM
3	Y 371.029	1809476.7	1809476.7	5.144 mg/L		1:27:48 PM
3	Rh 343.489	3297.5	3297.5	5.062 mg/L		1:27:50 PM
3	As 188.979†	24.6	27.5	0.01832 mg/L	0.8623 mg/kg	1:28:10 PM
3	Cr 283.563†	36061.2	31213.4	0.2294 mg/L	10.80 mg/kg	1:27:50 PM

Mean Data: 16B0472-04

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1812450.2	5.153 mg/L	0.0382			0.74%
Rh 343.489	3403.0	5.224 mg/L	0.1585			3.03%
As 188.979†	28.9	0.01923 mg/L	0.001823	0.9054 mg/kg	0.08581	9.48%
Cr 283.563†	31718.2	0.2331 mg/L	0.00322	10.97 mg/kg	0.152	1.38%

Sequence No.: 13

Sample ID: 16B0472-05

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.002 g

Dilution:

Wash Time:

Autosampler Location: 24

Date Collected: 2/22/2016 1:30:18 PM

Data Type: Reprocessed on 2/23/2016 10:37:33 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-05

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1850793.6	1850793.6	5.262 mg/L		1:31:52 PM
1	Rh 343.489	3457.6	3457.6	5.308 mg/L		1:31:54 PM
1	As 188.979†	325.1	312.5	0.2081 mg/L	10.38 mg/kg	1:32:15 PM
1	Cr 283.563†	91599.9	83205.7	0.6114 mg/L	30.51 mg/kg	1:31:54 PM
2	Y 371.029	1834124.1	1834124.1	5.214 mg/L		1:32:25 PM
2	Rh 343.489	3476.7	3476.7	5.337 mg/L		1:32:28 PM
2	As 188.979†	329.8	319.8	0.2130 mg/L	10.63 mg/kg	1:32:48 PM
2	Cr 283.563†	93432.2	85753.8	0.6301 mg/L	31.44 mg/kg	1:32:28 PM
3	Y 371.029	1822153.6	1822153.6	5.180 mg/L		1:32:58 PM
3	Rh 343.489	3431.3	3431.3	5.267 mg/L		1:33:01 PM
3	As 188.979†	334.1	326.0	0.2171 mg/L	10.83 mg/kg	1:33:21 PM
3	Cr 283.563†	93030.7	85954.8	0.6316 mg/L	31.52 mg/kg	1:33:01 PM

Mean Data: 16B0472-05

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1835690.5	5.219 mg/L	0.0409			0.78%
Rh 343.489	3455.2	5.304 mg/L	0.0350			0.66%
As 188.979†	319.4	0.2127 mg/L	0.00451	10.62 mg/kg	0.225	2.12%
Cr 283.563†	84971.4	0.6244 mg/L	0.01126	31.16 mg/kg	0.562	1.80%

Sequence No.: 14

Sample ID: 16B0472-06

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.056 g

Dilution:

Wash Time:

Autosampler Location: 25

Date Collected: 2/22/2016 1:35:28 PM

Data Type: Reprocessed on 2/23/2016 10:37:33 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Analyte			
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-06

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1716102.5	1716102.5	4.879 mg/L		1:37:02 PM
1	Rh 343.489	3365.4	3365.4	5.166 mg/L		1:37:04 PM
1	As 188.979†	127.3	134.0	0.08923 mg/L	4.225 mg/kg	1:37:24 PM
1	Cr 283.563†	39281.0	36420.2	0.2676 mg/L	12.67 mg/kg	1:37:04 PM
2	Y 371.029	1713055.6	1713055.6	4.870 mg/L		1:37:34 PM
2	Rh 343.489	3212.1	3212.1	4.931 mg/L		1:37:37 PM
2	As 188.979†	131.8	138.8	0.09245 mg/L	4.377 mg/kg	1:37:57 PM
2	Cr 283.563†	38330.8	35516.2	0.2610 mg/L	12.36 mg/kg	1:37:37 PM
3	Y 371.029	1686950.2	1686950.2	4.796 mg/L		1:38:07 PM
3	Rh 343.489	3105.5	3105.5	4.767 mg/L		1:38:10 PM
3	As 188.979†	119.0	127.7	0.08501 mg/L	4.025 mg/kg	1:38:30 PM
3	Cr 283.563†	37259.7	35008.5	0.2572 mg/L	12.18 mg/kg	1:38:10 PM

Mean Data: 16B0472-06

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1705369.4	4.848 mg/L	0.0456			0.94%
Rh 343.489	3227.7	4.955 mg/L	0.2006			4.05%
As 188.979†	133.5	0.08890 mg/L	0.003729	4.209 mg/kg	0.1766	4.20%
Cr 283.563†	35648.3	0.2619 mg/L	0.00525	12.40 mg/kg	0.249	2.01%

Sequence No.: 15

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/22/2016 1:40:37 PM

Data Type: Reprocessed on 2/23/2016 10:37:33 AM

Initial Sample Vol:

Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Analyte			

Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2663907.3	2663907.3	7.574 mg/L		1:42:24 PM
1	Rh 343.489	6110.6	6110.6	9.380 mg/L		1:42:27 PM
1	As 188.979†	0.8	4.1	0.00273 mg/L		1:42:47 PM
1	Cr 283.563†	2300.8	-2316.6	-0.01702 mg/L		1:42:27 PM
2	Y 371.029	3031735.3	3031735.3	8.619 mg/L		1:43:08 PM
2	Rh 343.489	5701.4	5701.4	8.752 mg/L		1:43:11 PM
2	As 188.979†	-6.3	-0.1	-0.00007 mg/L		1:43:31 PM
2	Cr 283.563†	2097.9	-2618.6	-0.01924 mg/L		1:43:11 PM
3	Y 371.029	2498008.0	2498008.0	7.102 mg/L		1:43:53 PM
3	Rh 343.489	4530.5	4530.5	6.955 mg/L		1:43:55 PM
3	As 188.979†	-11.6	-4.6	-0.00305 mg/L		1:44:16 PM
3	Cr 283.563†	1836.1	-2542.8	-0.01868 mg/L		1:43:55 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2731216.8	7.765 mg/L	0.7766			10.00%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 155.3%						
Rh 343.489	5447.5	8.362 mg/L	1.2589			15.05%
Internal Standard Check greater than the upper limit for Rh 343.489. Recovery = 167.2%						
As 188.979†	-0.2	-0.00013 mg/L	0.002891			>999.9%
QC value less than the lower limit for As 188.979 Recovery = -0.01%						
Cr 283.563†	-2492.7	-0.01832 mg/L	0.001155			6.30%
QC value less than the lower limit for Cr 283.563 Recovery = -0.92%						
Internal Standard Check failed. Retry.						

=====

Sequence No.: 16

Autosampler Location: 5

Sample ID: CCV

Date Collected: 2/22/2016 1:50:12 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:33 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2077185.8	2077185.8	5.906 mg/L		1:52:01 PM
1	Rh 343.489	3933.0	3933.0	6.037 mg/L		1:52:04 PM
1	As 188.979†	3506.3	2972.2	1.979 mg/L		1:52:24 PM
1	Cr 283.563†	337274.3	281723.6	2.070 mg/L		1:52:04 PM
2	Y 371.029	2075721.9	2075721.9	5.901 mg/L		1:52:48 PM
2	Rh 343.489	4041.8	4041.8	6.204 mg/L		1:52:51 PM
2	As 188.979†	3493.6	2963.6	1.974 mg/L		1:53:11 PM
2	Cr 283.563†	339472.2	283787.1	2.085 mg/L		1:52:51 PM
3	Y 371.029	2073476.8	2073476.8	5.895 mg/L		1:53:35 PM

3	Rh 343.489	3845.1	3845.1	5.902 mg/L	1:53:38 PM
3	As 188.979†	3469.3	2946.2	1.962 mg/L	1:53:58 PM
3	Cr 283.563†	337460.3	282392.2	2.075 mg/L	1:53:38 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2075461.5	5.901 mg/L	0.0053			0.09%
Rh 343.489	3939.9	6.048 mg/L	0.1513			2.50%
Internal Standard Check greater than the upper limit for Rh 343.489. Recovery = 121.0%						
As 188.979†	2960.7	1.972 mg/L	0.0088			0.45%
QC value within limits for As 188.979 Recovery = 98.59%						
Cr 283.563†	282634.3	2.077 mg/L	0.0077			0.37%
QC value within limits for Cr 283.563 Recovery = 103.84%						
Internal Standard Check failed. Retry.						

=====

Sequence No.: 17	Autosampler Location: 1
Sample ID: CCB	Date Collected: 2/22/2016 1:56:07 PM
Analyst:	Data Type: Reprocessed on 2/23/2016 10:37:34 AM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2193178.2	2193178.2	6.235 mg/L		1:57:37 PM
1	Rh 343.489	3991.4	3991.4	6.127 mg/L		1:57:39 PM
1	As 188.979†	0.6	4.0	0.00269 mg/L		1:57:59 PM
1	Cr 283.563†	4152.8	-505.5	-0.00371 mg/L		1:57:39 PM
2	Y 371.029	2222550.3	2222550.3	6.319 mg/L		1:58:06 PM
2	Rh 343.489	4086.9	4086.9	6.274 mg/L		1:58:08 PM
2	As 188.979†	9.7	11.3	0.00749 mg/L		1:58:28 PM
2	Cr 283.563†	4169.5	-536.2	-0.00394 mg/L		1:58:08 PM
3	Y 371.029	2230970.0	2230970.0	6.343 mg/L		1:58:35 PM
3	Rh 343.489	3914.2	3914.2	6.009 mg/L		1:58:38 PM
3	As 188.979†	1.7	4.9	0.00325 mg/L		1:58:58 PM
3	Cr 283.563†	4284.8	-457.8	-0.00336 mg/L		1:58:38 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2215566.2	6.299 mg/L	0.0564			0.90%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 126.0%						
Rh 343.489	3997.5	6.136 mg/L	0.1328			2.16%
Internal Standard Check greater than the upper limit for Rh 343.489. Recovery = 122.7%						
As 188.979†	6.7	0.00448 mg/L	0.002625			58.61%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-499.8	-0.00367 mg/L	0.000290			7.91%
QC value within limits for Cr 283.563 Recovery = Not calculated						
Internal Standard Check failed. Retry.						

Sequence No.: 18
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 2/22/2016 1:59:47 PM
Data Type: Reprocessed on 2/23/2016 10:37:34 AM
Initial Sample Vol:
Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2192796.2	2192796.2	6.234 mg/L		2:01:17 PM
1	Rh 343.489	3886.8	3886.8	5.967 mg/L		2:01:19 PM
1	As 188.979†	-0.5	3.2	0.00211 mg/L		2:01:39 PM
1	Cr 283.563†	4175.3	-486.8	-0.00358 mg/L		2:01:19 PM
2	Y 371.029	2173004.1	2173004.1	6.178 mg/L		2:01:46 PM
2	Rh 343.489	4013.3	4013.3	6.161 mg/L		2:01:48 PM
2	As 188.979†	-0.4	3.2	0.00214 mg/L		2:02:08 PM
2	Cr 283.563†	4244.1	-400.6	-0.00294 mg/L		2:01:48 PM
3	Y 371.029	2162655.6	2162655.6	6.149 mg/L		2:02:15 PM
3	Rh 343.489	4023.7	4023.7	6.177 mg/L		2:02:17 PM
3	As 188.979†	11.6	13.0	0.00863 mg/L		2:02:37 PM
3	Cr 283.563†	4294.5	-343.2	-0.00252 mg/L		2:02:17 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2176152.0	6.187 mg/L	0.0435			0.70%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 123.7%						
Rh 343.489	3974.6	6.101 mg/L	0.1170			1.92%
Internal Standard Check greater than the upper limit for Rh 343.489. Recovery = 122.0%						
As 188.979†	6.5	0.00430 mg/L	0.003754			87.38%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-410.2	-0.00301 mg/L	0.000531			17.62%
QC value within limits for Cr 283.563 Recovery = Not calculated						
Internal Standard Check failed. Retry.						

Sequence No.: 19
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 2/22/2016 2:24:00 PM
Data Type: Reprocessed on 2/23/2016 10:37:34 AM
Initial Sample Vol:
Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1960843.7	1960843.7	5.575 mg/L		2:25:47 PM
1	Rh 343.489	3824.6	3824.6	5.871 mg/L		2:25:50 PM
1	As 188.979†	3312.3	2974.3	1.981 mg/L		2:26:10 PM
1	Cr 283.563†	318015.4	281393.2	2.068 mg/L		2:25:50 PM
2	Y 371.029	2007593.3	2007593.3	5.708 mg/L		2:26:32 PM
2	Rh 343.489	3754.4	3754.4	5.763 mg/L		2:26:34 PM
2	As 188.979†	3270.6	2868.7	1.910 mg/L		2:26:54 PM
2	Cr 283.563†	318795.3	275434.5	2.024 mg/L		2:26:34 PM
3	Y 371.029	1998356.6	1998356.6	5.681 mg/L		2:27:16 PM
3	Rh 343.489	3870.1	3870.1	5.941 mg/L		2:27:19 PM
3	As 188.979†	3359.2	2959.9	1.971 mg/L		2:27:39 PM
3	Cr 283.563†	317531.8	275613.4	2.025 mg/L		2:27:19 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1988931.2	5.655 mg/L	0.0704			1.24%
Rh 343.489	3816.4	5.858 mg/L	0.0895			1.53%
As 188.979†	2934.3	1.954 mg/L	0.0382			1.95%
QC value within limits for As 188.979 Recovery = 97.71%						
Cr 283.563†	277480.3	2.039 mg/L	0.0249			1.22%
QC value within limits for Cr 283.563 Recovery = 101.95%						
All analyte(s) passed QC.						

Sequence No.: 20

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/22/2016 2:28:10 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:34 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2143319.2	2143319.2	6.094 mg/L		2:29:40 PM
1	Rh 343.489	3910.4	3910.4	6.003 mg/L		2:29:42 PM
1	As 188.979†	11.3	12.8	0.00853 mg/L		2:30:03 PM
1	Cr 283.563†	4252.8	-345.9	-0.00254 mg/L		2:29:42 PM
2	Y 371.029	2147540.2	2147540.2	6.106 mg/L		2:30:09 PM
2	Rh 343.489	3975.7	3975.7	6.103 mg/L		2:30:12 PM
2	As 188.979†	-3.5	0.7	0.00045 mg/L		2:30:32 PM
2	Cr 283.563†	4199.6	-396.3	-0.00291 mg/L		2:30:12 PM
3	Y 371.029	2109478.6	2109478.6	5.997 mg/L		2:30:39 PM
3	Rh 343.489	3953.9	3953.9	6.070 mg/L		2:30:41 PM
3	As 188.979†	0.2	3.7	0.00246 mg/L		2:31:01 PM
3	Cr 283.563†	4149.7	-375.9	-0.00276 mg/L		2:30:41 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
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Y 371.029 2133446.0 6.065 mg/L 0.0593 0.98%
 Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 121.3%
 Rh 343.489 3946.7 6.058 mg/L 0.0510 0.84%
 Internal Standard Check greater than the upper limit for Rh 343.489. Recovery = 121.2%
 As 188.979† 5.7 0.00381 mg/L 0.004205 110.24%
 QC value within limits for As 188.979 Recovery = Not calculated
 Cr 283.563† -372.7 -0.00274 mg/L 0.000186 6.80%
 QC value within limits for Cr 283.563 Recovery = Not calculated
 Internal Standard Check failed. Retry.

Sequence No.: 21

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/22/2016 2:33:49 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:34 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2115030.2	2115030.2	6.013 mg/L		2:35:19 PM
1	Rh 343.489	3937.8	3937.8	6.045 mg/L		2:35:21 PM
1	As 188.979†	-4.8	-0.4	-0.00029 mg/L		2:35:41 PM
1	Cr 283.563†	4153.4	-381.9	-0.00281 mg/L		2:35:21 PM
2	Y 371.029	2068437.7	2068437.7	5.881 mg/L		2:35:48 PM
2	Rh 343.489	3818.2	3818.2	5.861 mg/L		2:35:50 PM
2	As 188.979†	9.2	11.4	0.00760 mg/L		2:36:10 PM
2	Cr 283.563†	4183.9	-278.2	-0.00204 mg/L		2:35:50 PM
3	Y 371.029	2055634.1	2055634.1	5.844 mg/L		2:36:17 PM
3	Rh 343.489	3748.0	3748.0	5.754 mg/L		2:36:19 PM
3	As 188.979†	-4.7	-0.5	-0.00034 mg/L		2:36:39 PM
3	Cr 283.563†	4091.1	-335.4	-0.00246 mg/L		2:36:19 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2079700.7	5.913 mg/L	0.0889			1.50%
Rh 343.489	3834.7	5.887 mg/L	0.1473			2.50%
As 188.979†	3.5	0.00232 mg/L	0.004568			196.51%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-331.8	-0.00244 mg/L	0.000382			15.66%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 22

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/22/2016 2:37:48 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:34 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2111884.5	2111884.5	6.004 mg/L		2:39:17 PM
1	Rh 343.489	3959.9	3959.9	6.079 mg/L		2:39:20 PM
1	As 188.979†	-0.2	3.4	0.00226 mg/L		2:39:40 PM
1	Cr 283.563†	4162.8	-368.9	-0.00271 mg/L		2:39:20 PM
2	Y 371.029	2142606.0	2142606.0	6.091 mg/L		2:39:47 PM
2	Rh 343.489	3926.7	3926.7	6.028 mg/L		2:39:49 PM
2	As 188.979†	-3.4	0.8	0.00051 mg/L		2:40:09 PM
2	Cr 283.563†	4078.6	-487.8	-0.00358 mg/L		2:39:49 PM
3	Y 371.029	2097840.4	2097840.4	5.964 mg/L		2:40:16 PM
3	Rh 343.489	3755.9	3755.9	5.766 mg/L		2:40:18 PM
3	As 188.979†	2.1	5.3	0.00353 mg/L		2:40:38 PM
3	Cr 283.563†	4131.4	-372.1	-0.00273 mg/L		2:40:18 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2117443.6	6.020 mg/L	0.0651			1.08%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 120.4%						
Rh 343.489	3880.8	5.957 mg/L	0.1681			2.82%
As 188.979†	3.2	0.00210 mg/L	0.001514			72.08%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-409.6	-0.00301 mg/L	0.000498			16.54%
QC value within limits for Cr 283.563 Recovery = Not calculated						
Internal Standard Check failed. Retry.						

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Sequence No.: 23

Sample ID: 16B0472-07

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.025 g

Dilution:

Wash Time:

Autosampler Location: 26

Date Collected: 2/22/2016 2:41:45 PM

Data Type: Reprocessed on 2/23/2016 10:37:35 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-07

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1932954.1	1932954.1	5.495 mg/L		2:43:24 PM
1	Rh 343.489	3694.3	3694.3	5.671 mg/L		2:43:26 PM
1	As 188.979†	375.9	345.5	0.2301 mg/L	11.22 mg/kg	2:43:46 PM
1	Cr 283.563†	86627.9	74982.3	0.5510 mg/L	26.88 mg/kg	2:43:26 PM
2	Y 371.029	1938640.5	1938640.5	5.512 mg/L		2:44:00 PM
2	Rh 343.489	3795.4	3795.4	5.826 mg/L		2:44:03 PM
2	As 188.979†	383.8	351.7	0.2342 mg/L	11.43 mg/kg	2:44:23 PM

2	Cr 283.563†	89173.9	77060.7	0.5662 mg/L	27.62 mg/kg	2:44:03 PM
3	Y 371.029	1943296.4	1943296.4	5.525 mg/L		2:44:37 PM
3	Rh 343.489	3768.6	3768.6	5.785 mg/L		2:44:40 PM
3	As 188.979†	381.9	349.1	0.2325 mg/L	11.34 mg/kg	2:45:00 PM
3	Cr 283.563†	87646.2	75484.3	0.5547 mg/L	27.06 mg/kg	2:44:40 PM

Mean Data: 16B0472-07

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1938297.0	5.511 mg/L	0.0147			0.27%
Rh 343.489	3752.7	5.761 mg/L	0.0804			1.40%
As 188.979†	348.8	0.2323 mg/L	0.00207	11.33 mg/kg	0.101	0.89%
Cr 283.563†	75842.5	0.5573 mg/L	0.00797	27.19 mg/kg	0.389	1.43%

Sequence No.: 24

Autosampler Location: 27

Sample ID: 16B0472-08

Date Collected: 2/22/2016 2:47:07 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:35 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.067 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-08

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1949373.1	1949373.1	5.542 mg/L		2:48:41 PM
1	Rh 343.489	3764.3	3764.3	5.778 mg/L		2:48:43 PM
1	As 188.979†	94.9	89.2	0.05938 mg/L	2.782 mg/kg	2:49:03 PM
1	Cr 283.563†	35707.2	28378.8	0.2085 mg/L	9.772 mg/kg	2:48:43 PM
2	Y 371.029	1990018.0	1990018.0	5.658 mg/L		2:49:13 PM
2	Rh 343.489	3786.6	3786.6	5.813 mg/L		2:49:16 PM
2	As 188.979†	99.8	91.7	0.06109 mg/L	2.863 mg/kg	2:49:36 PM
2	Cr 283.563†	35566.9	27596.9	0.2028 mg/L	9.503 mg/kg	2:49:16 PM
3	Y 371.029	1977827.1	1977827.1	5.623 mg/L		2:49:45 PM
3	Rh 343.489	3832.8	3832.8	5.884 mg/L		2:49:48 PM
3	As 188.979†	87.4	81.2	0.05409 mg/L	2.535 mg/kg	2:50:08 PM
3	Cr 283.563†	35537.7	27764.6	0.2040 mg/L	9.560 mg/kg	2:49:48 PM

Mean Data: 16B0472-08

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1972406.1	5.608 mg/L	0.0593			1.06%
Rh 343.489	3794.5	5.825 mg/L	0.0537			0.92%
As 188.979†	87.4	0.05819 mg/L	0.003648	2.727 mg/kg	0.1710	6.27%
Cr 283.563†	27913.4	0.2051 mg/L	0.00303	9.612 mg/kg	0.1418	1.47%

Sequence No.: 25

Autosampler Location: 28

Sample ID: 16B0472-09

Date Collected: 2/22/2016 2:52:15 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:35 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.046 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-09

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1888240.5	1888240.5	5.368 mg/L		2:53:52 PM
1	Rh 343.489	3697.0	3697.0	5.675 mg/L		2:53:55 PM
1	As 188.979†	75.0	73.4	0.04892 mg/L	2.338 mg/kg	2:54:15 PM
1	Cr 283.563†	35539.8	29265.8	0.2150 mg/L	10.28 mg/kg	2:53:55 PM
2	Y 371.029	1920062.2	1920062.2	5.459 mg/L		2:54:27 PM
2	Rh 343.489	3696.6	3696.6	5.675 mg/L		2:54:29 PM
2	As 188.979†	66.0	64.0	0.04264 mg/L	2.038 mg/kg	2:54:50 PM
2	Cr 283.563†	35554.2	28730.4	0.2111 mg/L	10.09 mg/kg	2:54:29 PM
3	Y 371.029	1904319.8	1904319.8	5.414 mg/L		2:55:02 PM
3	Rh 343.489	3681.2	3681.2	5.651 mg/L		2:55:04 PM
3	As 188.979†	88.5	85.3	0.05678 mg/L	2.714 mg/kg	2:55:24 PM
3	Cr 283.563†	35856.0	29278.3	0.2151 mg/L	10.28 mg/kg	2:55:04 PM

Mean Data: 16B0472-09

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1904207.5	5.414 mg/L	0.0452			0.84%
Rh 343.489	3691.6	5.667 mg/L	0.0138			0.24%
As 188.979†	74.2	0.04945 mg/L	0.007089	2.364 mg/kg	0.3389	14.34%
Cr 283.563†	29091.5	0.2138 mg/L	0.00230	10.22 mg/kg	0.110	1.08%

Sequence No.: 26

Sample ID: 16B0472-10

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.036 g

Dilution:

Wash Time:

Autosampler Location: 29

Date Collected: 2/22/2016 2:57:33 PM

Data Type: Reprocessed on 2/23/2016 10:37:35 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1982541.1	1982541.1	5.636 mg/L		2:59:08 PM
1	Rh 343.489	3770.4	3770.4	5.788 mg/L		2:59:10 PM
1	As 188.979†	21.8	22.9	0.01526 mg/L	0.7363 mg/kg	2:59:31 PM
1	Cr 283.563†	32450.0	24950.4	0.1833 mg/L	8.848 mg/kg	2:59:10 PM
2	Y 371.029	1962897.1	1962897.1	5.581 mg/L		2:59:40 PM
2	Rh 343.489	3753.9	3753.9	5.763 mg/L		2:59:43 PM
2	As 188.979†	23.8	24.9	0.01658 mg/L	0.8001 mg/kg	3:00:03 PM
2	Cr 283.563†	32446.0	25234.9	0.1854 mg/L	8.949 mg/kg	2:59:43 PM
3	Y 371.029	1990586.6	1990586.6	5.659 mg/L		3:00:13 PM

3	Rh 343.489	3709.1	3709.1	5.694 mg/L		3:00:16 PM
3	As 188.979†	15.5	17.3	0.01150 mg/L	0.5549 mg/kg	3:00:36 PM
3	Cr 283.563†	32053.0	24483.4	0.1799 mg/L	8.683 mg/kg	3:00:16 PM

Mean Data: 16B0472-10

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1978674.9	5.625 mg/L	0.0405			0.72%
Rh 343.489	3744.5	5.748 mg/L	0.0487			0.85%
As 188.979†	21.7	0.01444 mg/L	0.002636	0.6971 mg/kg	0.12720	18.25%
Cr 283.563†	24889.6	0.1829 mg/L	0.00279	8.827 mg/kg	0.1346	1.52%

=====

Sequence No.: 27

Autosampler Location: 30

Sample ID: 16B0472-11

Date Collected: 2/22/2016 3:02:43 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:35 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.054 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-11

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1920591.8	1920591.8	5.460 mg/L		3:04:21 PM
1	Rh 343.489	3710.0	3710.0	5.695 mg/L		3:04:23 PM
1	As 188.979†	519.5	479.3	0.3192 mg/L	15.14 mg/kg	3:04:44 PM
1	Cr 283.563†	103063.1	90539.3	0.6653 mg/L	31.56 mg/kg	3:04:23 PM
2	Y 371.029	1931406.9	1931406.9	5.491 mg/L		3:04:56 PM
2	Rh 343.489	3747.3	3747.3	5.752 mg/L		3:04:59 PM
2	As 188.979†	509.4	467.4	0.3113 mg/L	14.77 mg/kg	3:05:19 PM
2	Cr 283.563†	104743.7	91541.2	0.6727 mg/L	31.91 mg/kg	3:04:59 PM
3	Y 371.029	1943477.4	1943477.4	5.525 mg/L		3:05:31 PM
3	Rh 343.489	3671.9	3671.9	5.637 mg/L		3:05:34 PM
3	As 188.979†	519.9	474.0	0.3157 mg/L	14.98 mg/kg	3:05:54 PM
3	Cr 283.563†	102771.7	89164.3	0.6552 mg/L	31.08 mg/kg	3:05:34 PM

Mean Data: 16B0472-11

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1931825.4	5.492 mg/L	0.0325			0.59%
Rh 343.489	3709.7	5.695 mg/L	0.0579			1.02%
As 188.979†	473.6	0.3154 mg/L	0.00395	14.96 mg/kg	0.188	1.25%
Cr 283.563†	90414.9	0.6644 mg/L	0.00877	31.52 mg/kg	0.416	1.32%

=====

Sequence No.: 28

Autosampler Location: 31

Sample ID: 16B0472-12

Date Collected: 2/22/2016 3:08:02 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:35 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.065 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-12

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1933061.5	1933061.5	5.496 mg/L		3:09:39 PM
1	Rh 343.489	3669.9	3669.9	5.634 mg/L		3:09:41 PM
1	As 188.979†	28.9	29.8	0.01985 mg/L	0.9318 mg/kg	3:10:01 PM
1	Cr 283.563†	53078.6	44455.0	0.3267 mg/L	15.34 mg/kg	3:09:41 PM
2	Y 371.029	1912636.9	1912636.9	5.438 mg/L		3:10:14 PM
2	Rh 343.489	3746.7	3746.7	5.751 mg/L		3:10:16 PM
2	As 188.979†	22.1	23.9	0.01590 mg/L	0.7466 mg/kg	3:10:36 PM
2	Cr 283.563†	54272.2	46068.2	0.3385 mg/L	15.89 mg/kg	3:10:16 PM
3	Y 371.029	1903537.3	1903537.3	5.412 mg/L		3:10:48 PM
3	Rh 343.489	3651.9	3651.9	5.606 mg/L		3:10:51 PM
3	As 188.979†	22.9	24.7	0.01648 mg/L	0.7736 mg/kg	3:11:11 PM
3	Cr 283.563†	53582.5	45669.5	0.3356 mg/L	15.76 mg/kg	3:10:51 PM

Mean Data: 16B0472-12

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1916411.9	5.448 mg/L	0.0430			0.79%
Rh 343.489	3689.5	5.664 mg/L	0.0773			1.37%
As 188.979†	26.1	0.01741 mg/L	0.002131	0.8173 mg/kg	0.10006	12.24%
Cr 283.563†	45397.6	0.3336 mg/L	0.00617	15.66 mg/kg	0.290	1.85%

=====

Autosampler Location: 32

Sequence No.: 29

Date Collected: 2/22/2016 3:13:19 PM

Sample ID: 16B0472-13

Data Type: Reprocessed on 2/23/2016 10:37:35 AM

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Vol:

Initial Sample Wt: 1.052 g

Sample Prep Vol: 50 mL

Dilution:

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-13

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1923396.8	1923396.8	5.468 mg/L		3:14:56 PM
1	Rh 343.489	3615.2	3615.2	5.550 mg/L		3:14:59 PM
1	As 188.979†	1092.3	1002.3	0.6675 mg/L	31.73 mg/kg	3:15:19 PM
1	Cr 283.563†	168234.3	149991.9	1.102 mg/L	52.38 mg/kg	3:14:59 PM
2	Y 371.029	1896622.8	1896622.8	5.392 mg/L		3:15:30 PM
2	Rh 343.489	3644.1	3644.1	5.594 mg/L		3:15:33 PM
2	As 188.979†	1099.7	1023.2	0.6815 mg/L	32.39 mg/kg	3:15:53 PM
2	Cr 283.563†	172066.5	155716.9	1.144 mg/L	54.38 mg/kg	3:15:33 PM
3	Y 371.029	1908779.3	1908779.3	5.427 mg/L		3:16:04 PM
3	Rh 343.489	3841.3	3841.3	5.897 mg/L		3:16:07 PM
3	As 188.979†	1070.4	989.8	0.6592 mg/L	31.33 mg/kg	3:16:27 PM

3 Cr 283.563† 173540.1 156058.5 1.147 mg/L 54.50 mg/kg 3:16:07 PM

Mean Data: 16B0472-13

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1909599.6	5.429 mg/L	0.0381			0.70%
Rh 343.489	3700.2	5.680 mg/L	0.1889			3.32%
As 188.979†	1005.1	0.6694 mg/L	0.01125	31.82 mg/kg	0.535	1.68%
Cr 283.563†	153922.5	1.131 mg/L	0.0250	53.76 mg/kg	1.190	2.21%

Sequence No.: 30

Autosampler Location: 33

Sample ID: 16B0472-14

Date Collected: 2/22/2016 3:18:35 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:36 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.081 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-14

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1978057.3	1978057.3	5.624 mg/L		3:20:13 PM
1	Rh 343.489	3760.7	3760.7	5.773 mg/L		3:20:15 PM
1	As 188.979†	84.0	78.3	0.05213 mg/L	2.411 mg/kg	3:20:35 PM
1	Cr 283.563†	52708.7	43027.6	0.3162 mg/L	14.62 mg/kg	3:20:15 PM
2	Y 371.029	1979262.5	1979262.5	5.627 mg/L		3:20:47 PM
2	Rh 343.489	3819.6	3819.6	5.863 mg/L		3:20:50 PM
2	As 188.979†	81.8	76.2	0.05075 mg/L	2.347 mg/kg	3:21:10 PM
2	Cr 283.563†	53541.3	43738.9	0.3214 mg/L	14.87 mg/kg	3:20:50 PM
3	Y 371.029	1999076.8	1999076.8	5.683 mg/L		3:21:22 PM
3	Rh 343.489	3799.1	3799.1	5.832 mg/L		3:21:25 PM
3	As 188.979†	84.2	77.6	0.05171 mg/L	2.392 mg/kg	3:21:45 PM
3	Cr 283.563†	53032.5	42819.7	0.3146 mg/L	14.55 mg/kg	3:21:25 PM

Mean Data: 16B0472-14

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1985465.6	5.645 mg/L	0.0336			0.59%
Rh 343.489	3793.1	5.823 mg/L	0.0459			0.79%
As 188.979†	77.4	0.05153 mg/L	0.000709	2.383 mg/kg	0.0328	1.37%
Cr 283.563†	43195.4	0.3174 mg/L	0.00354	14.68 mg/kg	0.164	1.12%

Sequence No.: 31

Autosampler Location: 34

Sample ID: 16B0472-15

Date Collected: 2/22/2016 3:23:53 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:36 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.037 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
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Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-15

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1914106.6	1914106.6	5.442 mg/L		3:25:30 PM
1	Rh 343.489	3625.2	3625.2	5.565 mg/L		3:25:32 PM
1	As 188.979†	651.5	602.1	0.4010 mg/L	19.33 mg/kg	3:25:53 PM
1	Cr 283.563†	103117.4	90909.0	0.6680 mg/L	32.21 mg/kg	3:25:32 PM
2	Y 371.029	1936861.2	1936861.2	5.507 mg/L		3:26:04 PM
2	Rh 343.489	3635.6	3635.6	5.581 mg/L		3:26:06 PM
2	As 188.979†	655.7	599.0	0.3989 mg/L	19.23 mg/kg	3:26:27 PM
2	Cr 283.563†	102040.9	88818.4	0.6526 mg/L	31.47 mg/kg	3:26:06 PM
3	Y 371.029	1905354.7	1905354.7	5.417 mg/L		3:26:38 PM
3	Rh 343.489	3660.9	3660.9	5.620 mg/L		3:26:40 PM
3	As 188.979†	654.4	607.6	0.4047 mg/L	19.51 mg/kg	3:27:00 PM
3	Cr 283.563†	102044.0	90353.4	0.6639 mg/L	32.01 mg/kg	3:26:40 PM

Mean Data: 16B0472-15

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1918774.1	5.455 mg/L	0.0462			0.85%
Rh 343.489	3640.6	5.589 mg/L	0.0282			0.50%
As 188.979†	602.9	0.4015 mg/L	0.00292	19.36 mg/kg	0.141	0.73%
Cr 283.563†	90026.9	0.6615 mg/L	0.00796	31.90 mg/kg	0.384	1.20%

=====

Sequence No.: 32

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/22/2016 3:33:13 PM

Data Type: Reprocessed on 2/23/2016 10:37:36 AM

Initial Sample Vol:

Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2032400.0	2032400.0	5.778 mg/L		3:35:00 PM
1	Rh 343.489	3697.0	3697.0	5.675 mg/L		3:35:02 PM
1	As 188.979†	3341.9	2895.4	1.928 mg/L		3:35:23 PM
1	Cr 283.563†	314676.1	268461.3	1.973 mg/L		3:35:02 PM
2	Y 371.029	2007415.7	2007415.7	5.707 mg/L		3:35:44 PM
2	Rh 343.489	3899.4	3899.4	5.986 mg/L		3:35:47 PM
2	As 188.979†	3283.6	2880.3	1.918 mg/L		3:36:07 PM
2	Cr 283.563†	316840.2	273746.3	2.012 mg/L		3:35:47 PM
3	Y 371.029	1999386.5	1999386.5	5.684 mg/L		3:36:28 PM
3	Rh 343.489	3787.7	3787.7	5.814 mg/L		3:36:31 PM
3	As 188.979†	3233.6	2847.8	1.897 mg/L		3:36:51 PM
3	Cr 283.563†	311064.1	269780.3	1.982 mg/L		3:36:31 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2013067.4	5.723 mg/L	0.0489			0.86%
Rh 343.489	3794.7	5.825 mg/L	0.1556			2.67%
As 188.979†	2874.5	1.914 mg/L	0.0162			0.84%
QC value within limits for As 188.979 Recovery = 95.72%						
Cr 283.563†	270662.7	1.989 mg/L	0.0202			1.02%
QC value within limits for Cr 283.563 Recovery = 99.44%						
All analyte(s) passed QC.						

=====

Sequence No.: 33

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/22/2016 3:38:59 PM

Data Type: Reprocessed on 2/23/2016 10:37:36 AM

Initial Sample Vol:

Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2117367.1	2117367.1	6.020 mg/L		3:40:29 PM
1	Rh 343.489	3901.8	3901.8	5.990 mg/L		3:40:31 PM
1	As 188.979†	-1.3	2.4	0.00162 mg/L		3:40:51 PM
1	Cr 283.563†	4197.6	-349.0	-0.00256 mg/L		3:40:31 PM
2	Y 371.029	2132211.8	2132211.8	6.062 mg/L		3:40:58 PM
2	Rh 343.489	3827.2	3827.2	5.875 mg/L		3:41:00 PM
2	As 188.979†	5.0	7.7	0.00510 mg/L		3:41:20 PM
2	Cr 283.563†	4066.1	-481.7	-0.00354 mg/L		3:41:00 PM
3	Y 371.029	2103510.4	2103510.4	5.980 mg/L		3:41:27 PM
3	Rh 343.489	3862.1	3862.1	5.929 mg/L		3:41:29 PM
3	As 188.979†	-9.8	-4.6	-0.00307 mg/L		3:41:49 PM
3	Cr 283.563†	4112.3	-397.3	-0.00292 mg/L		3:41:29 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2117696.4	6.021 mg/L	0.0408			0.68%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 120.4%						
Rh 343.489	3863.7	5.931 mg/L	0.0573			0.97%
As 188.979†	1.8	0.00122 mg/L	0.004097			337.03%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-409.4	-0.00301 mg/L	0.000493			16.41%
QC value within limits for Cr 283.563 Recovery = Not calculated						
Internal Standard Check failed. Retry.						

=====

Sequence No.: 34

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/22/2016 3:42:56 PM

Data Type: Reprocessed on 2/23/2016 10:37:36 AM

Initial Sample Vol:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2124806.9	2124806.9	6.041 mg/L		3:44:26 PM
1	Rh 343.489	3910.3	3910.3	6.003 mg/L		3:44:28 PM
1	As 188.979†	7.4	9.7	0.00645 mg/L		3:44:48 PM
1	Cr 283.563†	3877.7	-626.0	-0.00460 mg/L		3:44:28 PM
2	Y 371.029	2118109.1	2118109.1	6.022 mg/L		3:44:55 PM
2	Rh 343.489	3868.7	3868.7	5.939 mg/L		3:44:58 PM
2	As 188.979†	-0.4	3.2	0.00215 mg/L		3:45:18 PM
2	Cr 283.563†	4018.8	-498.6	-0.00366 mg/L		3:44:58 PM
3	Y 371.029	2140225.3	2140225.3	6.085 mg/L		3:45:24 PM
3	Rh 343.489	3818.9	3818.9	5.862 mg/L		3:45:27 PM
3	As 188.979†	4.2	7.0	0.00466 mg/L		3:45:47 PM
3	Cr 283.563†	3995.1	-552.6	-0.00406 mg/L		3:45:27 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2127713.8	6.049 mg/L	0.0322			0.53%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 121.0%						
Rh 343.489	3866.0	5.935 mg/L	0.0703			1.18%
As 188.979†	6.6	0.00442 mg/L	0.002160			48.85%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-559.1	-0.00411 mg/L	0.000470			11.43%
QC value within limits for Cr 283.563 Recovery = Not calculated						
Internal Standard Check failed. Retry.						

Sequence No.: 35

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/22/2016 3:47:10 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:36 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2104749.9	2104749.9	5.984 mg/L		3:48:40 PM
1	Rh 343.489	3852.5	3852.5	5.914 mg/L		3:48:42 PM
1	As 188.979†	-5.2	-0.8	-0.00053 mg/L		3:49:02 PM
1	Cr 283.563†	4282.7	-257.0	-0.00189 mg/L		3:48:42 PM

2	Y 371.029	2128428.4	2128428.4	6.051 mg/L	3:49:09 PM
2	Rh 343.489	3904.2	3904.2	5.993 mg/L	3:49:11 PM
2	As 188.979†	-7.5	-2.6	-0.00174 mg/L	3:49:31 PM
2	Cr 283.563†	4066.2	-475.7	-0.00350 mg/L	3:49:11 PM
3	Y 371.029	2122189.0	2122189.0	6.033 mg/L	3:49:38 PM
3	Rh 343.489	3960.8	3960.8	6.080 mg/L	3:49:40 PM
3	As 188.979†	0.3	3.8	0.00254 mg/L	3:50:00 PM
3	Cr 283.563†	4012.2	-510.6	-0.00375 mg/L	3:49:40 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2118455.8	6.023 mg/L	0.0349			0.58%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 120.5%						
Rh 343.489	3905.9	5.996 mg/L	0.0832			1.39%
As 188.979†	0.1	0.00009 mg/L	0.002205			>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-414.4	-0.00305 mg/L	0.001010			33.16%
QC value within limits for Cr 283.563 Recovery = Not calculated						
Internal Standard Check failed. Retry.						

Sequence No.: 36

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/22/2016 3:51:07 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:37 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2105667.1	2105667.1	5.986 mg/L		3:52:37 PM
1	Rh 343.489	3807.0	3807.0	5.844 mg/L		3:52:39 PM
1	As 188.979†	5.0	7.7	0.00515 mg/L		3:52:59 PM
1	Cr 283.563†	4129.5	-386.5	-0.00284 mg/L		3:52:39 PM
2	Y 371.029	2086229.3	2086229.3	5.931 mg/L		3:53:06 PM
2	Rh 343.489	3859.3	3859.3	5.924 mg/L		3:53:08 PM
2	As 188.979†	6.0	8.6	0.00574 mg/L		3:53:28 PM
2	Cr 283.563†	4039.8	-430.0	-0.00316 mg/L		3:53:08 PM
3	Y 371.029	2114704.0	2114704.0	6.012 mg/L		3:53:35 PM
3	Rh 343.489	3931.3	3931.3	6.035 mg/L		3:53:37 PM
3	As 188.979†	-8.3	-3.4	-0.00223 mg/L		3:53:57 PM
3	Cr 283.563†	4020.5	-491.9	-0.00361 mg/L		3:53:37 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2102200.1	5.977 mg/L	0.0414			0.69%
Rh 343.489	3865.9	5.934 mg/L	0.0958			1.61%
As 188.979†	4.3	0.00288 mg/L	0.004443			154.01%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-436.2	-0.00320 mg/L	0.000389			12.14%
QC value within limits for Cr 283.563 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 37

Autosampler Location: 35

Sample ID: 16B0472-16

Date Collected: 2/22/2016 3:55:04 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:37 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.041 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-16

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1881394.3	1881394.3	5.349 mg/L		3:56:38 PM
1	Rh 343.489	3693.9	3693.9	5.670 mg/L		3:56:41 PM
1	As 188.979†	378.1	357.0	0.2377 mg/L	11.42 mg/kg	3:57:01 PM
1	Cr 283.563†	50243.9	43131.4	0.3169 mg/L	15.22 mg/kg	3:56:41 PM
2	Y 371.029	1875052.2	1875052.2	5.331 mg/L		3:57:11 PM
2	Rh 343.489	3623.6	3623.6	5.563 mg/L		3:57:13 PM
2	As 188.979†	362.1	343.2	0.2286 mg/L	10.98 mg/kg	3:57:33 PM
2	Cr 283.563†	49861.3	42931.3	0.3155 mg/L	15.15 mg/kg	3:57:13 PM
3	Y 371.029	1889631.0	1889631.0	5.372 mg/L		3:57:43 PM
3	Rh 343.489	3710.5	3710.5	5.696 mg/L		3:57:46 PM
3	As 188.979†	378.2	355.5	0.2368 mg/L	11.37 mg/kg	3:58:06 PM
3	Cr 283.563†	50248.4	42930.8	0.3155 mg/L	15.15 mg/kg	3:57:46 PM

Mean Data: 16B0472-16

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1882025.8	5.351 mg/L	0.0208			0.39%
Rh 343.489	3676.0	5.643 mg/L	0.0708			1.25%
As 188.979†	351.9	0.2343 mg/L	0.00504	11.26 mg/kg	0.242	2.15%
Cr 283.563†	42997.8	0.3160 mg/L	0.00085	15.18 mg/kg	0.041	0.27%

Sequence No.: 38

Autosampler Location: 36

Sample ID: 16B0472-17

Date Collected: 2/22/2016 4:00:13 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:37 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.015 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-17

Net	Corrected	Calib.	Sample	Analysis
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Repl#	Analyte	Intensity	Intensity	Conc. Units	Conc. Units	Time
1	Y 371.029	1884450.9	1884450.9	5.358 mg/L		4:01:53 PM
1	Rh 343.489	3601.3	3601.3	5.528 mg/L		4:01:56 PM
1	As 188.979†	542.8	510.1	0.3397 mg/L	16.73 mg/kg	4:02:16 PM
1	Cr 283.563†	105089.1	94240.0	0.6925 mg/L	34.11 mg/kg	4:01:56 PM
2	Y 371.029	1866241.9	1866241.9	5.306 mg/L		4:02:33 PM
2	Rh 343.489	3521.7	3521.7	5.406 mg/L		4:02:36 PM
2	As 188.979†	542.5	514.8	0.3429 mg/L	16.89 mg/kg	4:02:56 PM
2	Cr 283.563†	105586.8	95666.0	0.7030 mg/L	34.63 mg/kg	4:02:36 PM
3	Y 371.029	1882823.5	1882823.5	5.353 mg/L		4:03:13 PM
3	Rh 343.489	3460.9	3460.9	5.313 mg/L		4:03:15 PM
3	As 188.979†	548.5	515.9	0.3436 mg/L	16.92 mg/kg	4:03:35 PM
3	Cr 283.563†	104790.0	94045.5	0.6911 mg/L	34.04 mg/kg	4:03:15 PM

Mean Data: 16B0472-17

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1877838.7	5.339 mg/L	0.0286			0.54%
Rh 343.489	3527.9	5.416 mg/L	0.1081			2.00%
As 188.979†	513.6	0.3420 mg/L	0.00206	16.85 mg/kg	0.101	0.60%
Cr 283.563†	94650.5	0.6955 mg/L	0.00650	34.26 mg/kg	0.320	0.93%

Sequence No.: 39

Sample ID: 16B0472-18

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.073 g

Dilution:

Wash Time:

Autosampler Location: 37

Date Collected: 2/22/2016 4:05:42 PM

Data Type: Reprocessed on 2/23/2016 10:37:37 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-18

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1917585.4	1917585.4	5.452 mg/L		4:07:16 PM
1	Rh 343.489	3647.4	3647.4	5.599 mg/L		4:07:18 PM
1	As 188.979†	90.9	86.9	0.05788 mg/L	2.697 mg/kg	4:07:39 PM
1	Cr 283.563†	44189.3	36692.0	0.2696 mg/L	12.56 mg/kg	4:07:18 PM
2	Y 371.029	1902354.8	1902354.8	5.408 mg/L		4:07:49 PM
2	Rh 343.489	3656.9	3656.9	5.614 mg/L		4:07:52 PM
2	As 188.979†	60.0	59.0	0.03929 mg/L	1.831 mg/kg	4:08:12 PM
2	Cr 283.563†	43986.3	36828.8	0.2706 mg/L	12.61 mg/kg	4:07:52 PM
3	Y 371.029	1925131.9	1925131.9	5.473 mg/L		4:08:22 PM
3	Rh 343.489	3657.9	3657.9	5.615 mg/L		4:08:25 PM
3	As 188.979†	68.6	66.2	0.04412 mg/L	2.056 mg/kg	4:08:45 PM
3	Cr 283.563†	44512.1	36828.0	0.2706 mg/L	12.61 mg/kg	4:08:25 PM

Mean Data: 16B0472-18

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1915024.0	5.444 mg/L	0.0330			0.61%
Rh 343.489	3654.1	5.609 mg/L	0.0089			0.16%
As 188.979†	70.7	0.04710 mg/L	0.009647	2.195 mg/kg	0.4495	20.48%
Cr 283.563†	36783.0	0.2703 mg/L	0.00058	12.59 mg/kg	0.027	0.21%

Sequence No.: 40

Sample ID: 16B0472-19

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.035 g

Dilution:

Wash Time:

Autosampler Location: 38

Date Collected: 2/22/2016 4:10:52 PM

Data Type: Reprocessed on 2/23/2016 10:37:37 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.100	20	2.000
As 188.979	2.000	10	20.000
Cr 283.563	0.100	20	2.000

Replicate Data: 16B0472-19

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1750255.9	1750255.9	4.976 mg/L		4:12:31 PM
1	Rh 343.489	3262.8	3262.8	5.009 mg/L		4:12:33 PM
1	As 188.979†	737.4	744.5	0.4958 mg/L	23.95 mg/kg	4:12:54 PM
1	Cr 283.563†	143681.9	140538.3	1.033 mg/L	49.89 mg/kg	4:12:33 PM
2	Y 371.029	1732160.8	1732160.8	4.925 mg/L		4:13:08 PM
2	Rh 343.489	3334.9	3334.9	5.119 mg/L		4:13:11 PM
2	As 188.979†	732.8	747.6	0.4979 mg/L	24.05 mg/kg	4:13:31 PM
2	Cr 283.563†	143824.0	142190.8	1.045 mg/L	50.47 mg/kg	4:13:11 PM
3	Y 371.029	1751892.7	1751892.7	4.981 mg/L		4:13:46 PM
3	Rh 343.489	3426.5	3426.5	5.260 mg/L		4:13:49 PM
3	As 188.979†	749.1	755.5	0.5032 mg/L	24.31 mg/kg	4:14:09 PM
3	Cr 283.563†	144940.6	141667.0	1.041 mg/L	50.29 mg/kg	4:13:49 PM

Mean Data: 16B0472-19

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1744769.8	4.960 mg/L	0.0311			0.63%
Rh 343.489	3341.4	5.129 mg/L	0.1259			2.45%
As 188.979†	749.2	0.4990 mg/L	0.00378	24.10 mg/kg	0.182	0.76%
Cr 283.563†	141465.4	1.039 mg/L	0.0062	50.22 mg/kg	0.300	0.60%

Sequence No.: 41

Sample ID: 16B0472-20

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.028 g

Dilution:

Wash Time:

Autosampler Location: 39

Date Collected: 2/22/2016 4:16:16 PM

Data Type: Reprocessed on 2/23/2016 10:37:37 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-20

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1902183.2	1902183.2	5.408 mg/L		4:17:51 PM

1	Rh 343.489	3561.9	3561.9	5.468 mg/L		4:17:53 PM
1	As 188.979†	41.2	41.7	0.02776 mg/L	1.350 mg/kg	4:18:13 PM
1	Cr 283.563†	49991.3	42384.5	0.3114 mg/L	15.15 mg/kg	4:17:53 PM
2	Y 371.029	1900450.2	1900450.2	5.403 mg/L		4:18:24 PM
2	Rh 343.489	3648.3	3648.3	5.600 mg/L		4:18:27 PM
2	As 188.979†	53.1	52.7	0.03510 mg/L	1.707 mg/kg	4:18:47 PM
2	Cr 283.563†	51258.5	43599.3	0.3204 mg/L	15.58 mg/kg	4:18:27 PM
3	Y 371.029	1922545.6	1922545.6	5.466 mg/L		4:18:57 PM
3	Rh 343.489	3757.7	3757.7	5.768 mg/L		4:19:00 PM
3	As 188.979†	46.7	46.2	0.03080 mg/L	1.498 mg/kg	4:19:20 PM
3	Cr 283.563†	51126.5	42933.4	0.3155 mg/L	15.34 mg/kg	4:19:00 PM

Mean Data: 16B0472-20

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1908393.0	5.426 mg/L	0.0349			0.64%
Rh 343.489	3656.0	5.612 mg/L	0.1507			2.68%
As 188.979†	46.9	0.03122 mg/L	0.003686	1.518 mg/kg	0.1793	11.81%
Cr 283.563†	42972.4	0.3158 mg/L	0.00447	15.36 mg/kg	0.217	1.42%

Sequence No.: 42

Sample ID: BZB0484-DUP2

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.003 g

Dilution:

Wash Time:

Autosampler Location: 40

Date Collected: 2/22/2016 4:21:27 PM

Data Type: Reprocessed on 2/23/2016 10:37:37 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0484-DUP2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1878285.3	1878285.3	5.340 mg/L		4:23:03 PM
1	Rh 343.489	3624.7	3624.7	5.564 mg/L		4:23:05 PM
1	As 188.979†	37.9	39.0	0.02600 mg/L	1.296 mg/kg	4:23:25 PM
1	Cr 283.563†	43770.6	37147.9	0.2730 mg/L	13.61 mg/kg	4:23:05 PM
2	Y 371.029	1890768.5	1890768.5	5.376 mg/L		4:23:36 PM
2	Rh 343.489	3700.2	3700.2	5.680 mg/L		4:23:39 PM
2	As 188.979†	30.3	31.7	0.02113 mg/L	1.053 mg/kg	4:23:59 PM
2	Cr 283.563†	44369.7	37434.7	0.2751 mg/L	13.71 mg/kg	4:23:39 PM
3	Y 371.029	1903237.3	1903237.3	5.411 mg/L		4:24:10 PM
3	Rh 343.489	3771.8	3771.8	5.790 mg/L		4:24:13 PM
3	As 188.979†	37.7	38.4	0.02555 mg/L	1.274 mg/kg	4:24:33 PM
3	Cr 283.563†	44438.9	37228.2	0.2736 mg/L	13.64 mg/kg	4:24:13 PM

Mean Data: BZB0484-DUP2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1890763.7	5.376 mg/L	0.0355			0.66%
Rh 343.489	3698.9	5.678 mg/L	0.1129			1.99%
As 188.979†	36.4	0.02423 mg/L	0.002692	1.208 mg/kg	0.1342	11.11%
Cr 283.563†	37270.3	0.2739 mg/L	0.00109	13.65 mg/kg	0.054	0.40%

Duplicate Check: BZB0484-DUP2

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Y 371.029			0.000	mg/L	Not calculated
Rh 343.489			0.000	mg/L	Not calculated
As 188.979	1.518	1.208	0.134	mg/kg	22.8
Cr 283.563	15.36	13.65	0.054	mg/kg	11.8

Sequence No.: 43

Autosampler Location: 41

Sample ID: BZB0484-MS2

Date Collected: 2/22/2016 4:26:40 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:38 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.044 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0484-MS2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	1856222.6	1856222.6	5.277 mg/L		4:28:37 PM
1	Rh 343.489	3816.6	3816.6	5.859 mg/L		4:28:39 PM
1	As 188.979†	2775.4	2633.1	1.754 mg/L	83.98 mg/kg	4:28:59 PM
1	Cr 283.563†	332889.6	311562.0	2.289 mg/L	109.6 mg/kg	4:28:39 PM
2	Y 371.029	1878683.2	1878683.2	5.341 mg/L		4:29:30 PM
2	Rh 343.489	3655.0	3655.0	5.611 mg/L		4:29:32 PM
2	As 188.979†	2776.8	2603.0	1.734 mg/L	83.02 mg/kg	4:29:53 PM
2	Cr 283.563†	325141.4	300538.0	2.208 mg/L	105.8 mg/kg	4:29:32 PM
3	Y 371.029	1881237.3	1881237.3	5.348 mg/L		4:30:23 PM
3	Rh 343.489	3736.4	3736.4	5.736 mg/L		4:30:26 PM
3	As 188.979†	2808.9	2629.5	1.751 mg/L	83.87 mg/kg	4:30:46 PM
3	Cr 283.563†	326824.8	301698.5	2.217 mg/L	106.2 mg/kg	4:30:26 PM

Mean Data: BZB0484-MS2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	1872047.7	5.322 mg/L	0.0391			0.74%
Rh 343.489	3736.0	5.735 mg/L	0.1240			2.16%
As 188.979†	2621.9	1.746 mg/L	0.0110	83.63 mg/kg	0.525	0.63%
Cr 283.563†	304599.5	2.238 mg/L	0.0445	107.2 mg/kg	2.13	1.99%

Matrix Recovery Check: BZB0484-MS2

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
As 188.979	101.5	83.63	0.525	mg/kg	82.1
Cr 283.563	115.4	107.2	2.132	mg/kg	91.8

Sequence No.: 44

Autosampler Location: 42

Sample ID: 16B0472-13X10

Date Collected: 2/22/2016 4:32:54 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:38 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.052 g

Initial Sample Vol:

Dilution: 10X

Sample Prep Vol: 50 mL

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-13X10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2028186.4	2028186.4	5.766 mg/L		4:34:30 PM
1	Rh 343.489	3878.6	3878.6	5.954 mg/L		4:34:32 PM
1	As 188.979†	111.9	100.6	0.06700 mg/L	31.85 mg/kg	4:34:52 PM
1	Cr 283.563†	22456.7	15637.2	0.1149 mg/L	54.61 mg/kg	4:34:32 PM
2	Y 371.029	2047823.6	2047823.6	5.822 mg/L		4:35:03 PM
2	Rh 343.489	3722.9	3722.9	5.715 mg/L		4:35:05 PM
2	As 188.979†	108.5	96.7	0.06441 mg/L	30.61 mg/kg	4:35:25 PM
2	Cr 283.563†	22180.4	15213.1	0.1118 mg/L	53.13 mg/kg	4:35:05 PM
3	Y 371.029	2071082.7	2071082.7	5.888 mg/L		4:35:36 PM
3	Rh 343.489	3800.9	3800.9	5.835 mg/L		4:35:38 PM
3	As 188.979†	119.8	105.3	0.07010 mg/L	33.32 mg/kg	4:35:58 PM
3	Cr 283.563†	22531.2	15297.2	0.1124 mg/L	53.42 mg/kg	4:35:38 PM

Mean Data: 16B0472-13X10

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2049030.9	5.825 mg/L	0.0611			1.05%
Rh 343.489	3800.8	5.835 mg/L	0.1195			2.05%
As 188.979†	100.9	0.06717 mg/L	0.002849	31.93 mg/kg	1.354	4.24%
Cr 283.563†	15382.5	0.1130 mg/L	0.00165	53.72 mg/kg	0.784	1.46%

Sequence No.: 45

Autosampler Location: 5

Sample ID: CCV

Date Collected: 2/22/2016 4:38:06 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:38 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2024346.1	2024346.1	5.755 mg/L		4:39:56 PM
1	Rh 343.489	3864.5	3864.5	5.932 mg/L		4:39:58 PM
1	As 188.979†	3327.6	2894.4	1.928 mg/L		4:40:18 PM
1	Cr 283.563†	312711.9	267838.3	1.968 mg/L		4:39:58 PM
2	Y 371.029	2025209.2	2025209.2	5.758 mg/L		4:40:42 PM
2	Rh 343.489	3917.6	3917.6	6.014 mg/L		4:40:45 PM
2	As 188.979†	3311.6	2879.3	1.918 mg/L		4:41:05 PM
2	Cr 283.563†	321876.2	275680.7	2.026 mg/L		4:40:45 PM
3	Y 371.029	2023645.5	2023645.5	5.753 mg/L		4:41:29 PM
3	Rh 343.489	3886.0	3886.0	5.965 mg/L		4:41:32 PM

3	As 188.979†	3278.6	2852.9	1.900 mg/L	4:41:52 PM
3	Cr 283.563†	322560.0	276491.0	2.032 mg/L	4:41:32 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2024400.3	5.755 mg/L	0.0022			0.04%
Rh 343.489	3889.3	5.970 mg/L	0.0410			0.69%
As 188.979†	2875.5	1.915 mg/L	0.0140			0.73%
QC value within limits for As 188.979 Recovery = 95.75%						
Cr 283.563†	273336.7	2.008 mg/L	0.0351			1.75%
QC value within limits for Cr 283.563 Recovery = 100.42%						
All analyte(s) passed QC.						

=====

Sequence No.: 46	Autosampler Location: 1
Sample ID: CCB	Date Collected: 2/22/2016 4:44:00 PM
Analyst:	Data Type: Reprocessed on 2/23/2016 10:37:38 AM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2143526.3	2143526.3	6.094 mg/L		4:45:30 PM
1	Rh 343.489	3938.4	3938.4	6.046 mg/L		4:45:32 PM
1	As 188.979†	8.7	10.7	0.00711 mg/L		4:45:52 PM
1	Cr 283.563†	4146.0	-433.9	-0.00319 mg/L		4:45:32 PM
2	Y 371.029	2178940.3	2178940.3	6.195 mg/L		4:45:59 PM
2	Rh 343.489	3914.5	3914.5	6.009 mg/L		4:46:01 PM
2	As 188.979†	3.7	6.6	0.00437 mg/L		4:46:21 PM
2	Cr 283.563†	4105.1	-522.2	-0.00384 mg/L		4:46:01 PM
3	Y 371.029	2208415.0	2208415.0	6.279 mg/L		4:46:28 PM
3	Rh 343.489	3948.5	3948.5	6.061 mg/L		4:46:30 PM
3	As 188.979†	12.3	13.4	0.00890 mg/L		4:46:50 PM
3	Cr 283.563†	4145.5	-534.3	-0.00393 mg/L		4:46:30 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2176960.5	6.189 mg/L	0.0924			1.49%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 123.8%						
Rh 343.489	3933.8	6.039 mg/L	0.0268			0.44%
Internal Standard Check greater than the upper limit for Rh 343.489. Recovery = 120.8%						
As 188.979†	10.2	0.00679 mg/L	0.002277			33.52%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-496.8	-0.00365 mg/L	0.000403			11.03%
QC value within limits for Cr 283.563 Recovery = Not calculated						
Internal Standard Check failed. Retry.						

=====

Sequence No.: 47	Autosampler Location: 1
Sample ID: CCB	Date Collected: 2/22/2016 4:47:58 PM

Analyst:
 Logged In Analyst (Original) : ICP03
 Initial Sample Wt:
 Dilution:
 Wash Time:

Data Type: Reprocessed on 2/23/2016 10:37:38 AM

Initial Sample Vol:
 Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2169863.3	2169863.3	6.169 mg/L		4:49:27 PM
1	Rh 343.489	4014.0	4014.0	6.162 mg/L		4:49:29 PM
1	As 188.979†	4.4	7.1	0.00474 mg/L		4:49:49 PM
1	Cr 283.563†	4113.5	-501.5	-0.00369 mg/L		4:49:29 PM
2	Y 371.029	2159352.4	2159352.4	6.139 mg/L		4:49:56 PM
2	Rh 343.489	3945.2	3945.2	6.056 mg/L		4:49:59 PM
2	As 188.979†	-3.2	0.9	0.00063 mg/L		4:50:19 PM
2	Cr 283.563†	4291.3	-340.5	-0.00250 mg/L		4:49:59 PM
3	Y 371.029	2165486.7	2165486.7	6.157 mg/L		4:50:25 PM
3	Rh 343.489	3912.1	3912.1	6.005 mg/L		4:50:28 PM
3	As 188.979†	1.2	4.5	0.00300 mg/L		4:50:48 PM
3	Cr 283.563†	4009.5	-579.2	-0.00426 mg/L		4:50:28 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2164900.8	6.155 mg/L	0.0150			0.24%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 123.1%						
Rh 343.489	3957.1	6.074 mg/L	0.0798			1.31%
Internal Standard Check greater than the upper limit for Rh 343.489. Recovery = 121.5%						
As 188.979†	4.2	0.00279 mg/L	0.002063			73.96%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-473.7	-0.00348 mg/L	0.000895			25.70%
QC value within limits for Cr 283.563 Recovery = Not calculated						
Internal Standard Check failed. Retry.						

Sequence No.: 48

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/22/2016 4:54:28 PM

Data Type: Reprocessed on 2/23/2016 10:37:39 AM

Initial Sample Vol:

Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Net	Corrected	Calib.	Sample	Analysis
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Repl#	Analyte	Intensity	Intensity	Conc. Units	Conc. Units	Time
1	Y 371.029	2153701.0	2153701.0	6.123 mg/L		4:55:58 PM
1	Rh 343.489	3892.7	3892.7	5.976 mg/L		4:56:00 PM
1	As 188.979†	-2.3	1.7	0.00111 mg/L		4:56:20 PM
1	Cr 283.563†	4069.8	-512.2	-0.00376 mg/L		4:56:00 PM
2	Y 371.029	2166659.2	2166659.2	6.160 mg/L		4:56:27 PM
2	Rh 343.489	3954.5	3954.5	6.070 mg/L		4:56:29 PM
2	As 188.979†	0.6	4.0	0.00267 mg/L		4:56:49 PM
2	Cr 283.563†	4070.5	-531.5	-0.00391 mg/L		4:56:29 PM
3	Y 371.029	2166280.5	2166280.5	6.159 mg/L		4:56:56 PM
3	Rh 343.489	3920.5	3920.5	6.018 mg/L		4:56:58 PM
3	As 188.979†	-4.5	-0.1	-0.00008 mg/L		4:57:18 PM
3	Cr 283.563†	4237.1	-395.6	-0.00291 mg/L		4:56:58 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2162213.5	6.147 mg/L	0.0210			0.34%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 122.9%						
Rh 343.489	3922.6	6.021 mg/L	0.0475			0.79%
Internal Standard Check greater than the upper limit for Rh 343.489. Recovery = 120.4%						
As 188.979†	1.9	0.00123 mg/L	0.001380			111.86%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-479.8	-0.00353 mg/L	0.000540			15.32%
QC value within limits for Cr 283.563 Recovery = Not calculated						
Internal Standard Check failed. Retry.						

Sequence No.: 49

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/22/2016 4:58:24 PM

Data Type: Reprocessed on 2/23/2016 10:37:39 AM

Initial Sample Vol:

Sample Prep Vol:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2144968.9	2144968.9	6.098 mg/L		4:59:53 PM
1	Rh 343.489	3905.1	3905.1	5.995 mg/L		4:59:55 PM
1	As 188.979†	-2.6	1.4	0.00094 mg/L		5:00:15 PM
1	Cr 283.563†	4157.4	-426.8	-0.00314 mg/L		4:59:55 PM
2	Y 371.029	2160847.5	2160847.5	6.143 mg/L		5:00:22 PM
2	Rh 343.489	3887.4	3887.4	5.967 mg/L		5:00:25 PM
2	As 188.979†	-2.1	1.8	0.00122 mg/L		5:00:45 PM
2	Cr 283.563†	4149.5	-458.3	-0.00337 mg/L		5:00:25 PM
3	Y 371.029	2156924.9	2156924.9	6.132 mg/L		5:00:51 PM
3	Rh 343.489	3888.5	3888.5	5.969 mg/L		5:00:54 PM
3	As 188.979†	6.1	8.5	0.00568 mg/L		5:01:14 PM
3	Cr 283.563†	4084.0	-505.6	-0.00372 mg/L		5:00:54 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
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Y 371.029 2154247.1 6.125 mg/L 0.0235 0.38%
 Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 122.5%
 Rh 343.489 3893.7 5.977 mg/L 0.0153 0.26%
 As 188.979† 3.9 0.00261 mg/L 0.002658 101.69%
 QC value within limits for As 188.979 Recovery = Not calculated
 Cr 283.563† -463.6 -0.00341 mg/L 0.000291 8.55%
 QC value within limits for Cr 283.563 Recovery = Not calculated
 Internal Standard Check failed. Retry.

Sequence No.: 50

Autosampler Location: 5

Sample ID: CCV

Date Collected: 2/22/2016 5:01:53 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:39 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
Rh 343.489	0.200	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2005748.3	2005748.3	5.702 mg/L		5:03:40 PM
1	Rh 343.489	3974.7	3974.7	6.102 mg/L		5:03:43 PM
1	As 188.979†	3310.0	2905.8	1.935 mg/L		5:04:03 PM
1	Cr 283.563†	315046.0	272403.9	2.002 mg/L		5:03:43 PM
2	Y 371.029	2030782.1	2030782.1	5.774 mg/L		5:04:25 PM
2	Rh 343.489	3837.3	3837.3	5.891 mg/L		5:04:27 PM
2	As 188.979†	3310.9	2870.9	1.912 mg/L		5:04:47 PM
2	Cr 283.563†	313366.3	267544.0	1.966 mg/L		5:04:27 PM
3	Y 371.029	2041047.2	2041047.2	5.803 mg/L		5:05:09 PM
3	Rh 343.489	3890.0	3890.0	5.971 mg/L		5:05:11 PM
3	As 188.979†	3308.3	2854.2	1.901 mg/L		5:05:31 PM
3	Cr 283.563†	314660.5	267294.3	1.964 mg/L		5:05:11 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2025859.2	5.760 mg/L	0.0516			0.90%
Rh 343.489	3900.7	5.988 mg/L	0.1065			1.78%
As 188.979†	2877.0	1.916 mg/L	0.0176			0.92%
QC value within limits for As 188.979 Recovery = 95.80%						
Cr 283.563†	269080.7	1.977 mg/L	0.0212			1.07%
QC value within limits for Cr 283.563 Recovery = 98.86%						
All analyte(s) passed QC.						

Sequence No.: 51

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/22/2016 5:07:41 PM

Analyst:

Data Type: Reprocessed on 2/23/2016 10:37:39 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2160816.1	2160816.1	6.143 mg/L		5:09:11 PM
1	Rh 343.489	3995.8	3995.8	6.134 mg/L		5:09:13 PM
1	As 188.979†	-1.1	2.6	0.00176 mg/L		5:09:33 PM
1	Cr 283.563†	4103.4	-495.8	-0.00364 mg/L		5:09:13 PM
2	Y 371.029	2114208.1	2114208.1	6.011 mg/L		5:09:40 PM
2	Rh 343.489	3921.8	3921.8	6.020 mg/L		5:09:42 PM
2	As 188.979†	1.3	4.7	0.00311 mg/L		5:10:03 PM
2	Cr 283.563†	4114.5	-412.9	-0.00303 mg/L		5:09:42 PM
3	Y 371.029	2120800.7	2120800.7	6.030 mg/L		5:10:09 PM
3	Rh 343.489	3855.2	3855.2	5.918 mg/L		5:10:12 PM
3	As 188.979†	-11.0	-5.6	-0.00372 mg/L		5:10:32 PM
3	Cr 283.563†	3942.3	-566.4	-0.00416 mg/L		5:10:12 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2131941.7	6.061 mg/L	0.0717			1.18%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 121.2%						
Rh 343.489	3924.3	6.024 mg/L	0.1079			1.79%
Internal Standard Check greater than the upper limit for Rh 343.489. Recovery = 120.5%						
As 188.979†	0.6	0.00038 mg/L	0.003619			946.86%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-491.7	-0.00361 mg/L	0.000565			15.63%
QC value within limits for Cr 283.563 Recovery = Not calculated						
Internal Standard Check failed. Retry.						

=====

Sequence No.: 52

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/22/2016 5:11:39 PM

Data Type: Reprocessed on 2/23/2016 10:37:39 AM

Initial Sample Vol:

Sample Prep Vol:

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
Rh 343.489	0.500	4	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2142171.8	2142171.8	6.090 mg/L		5:13:08 PM
1	Rh 343.489	3938.7	3938.7	6.046 mg/L		5:13:11 PM
1	As 188.979†	-0.8	2.9	0.00194 mg/L		5:13:31 PM
1	Cr 283.563†	4113.3	-458.6	-0.00337 mg/L		5:13:11 PM
2	Y 371.029	2131952.8	2131952.8	6.061 mg/L		5:13:38 PM
2	Rh 343.489	3818.0	3818.0	5.861 mg/L		5:13:40 PM
2	As 188.979†	1.6	4.9	0.00325 mg/L		5:14:00 PM

2	Cr 283.563†	4102.0	-451.7	-0.00332 mg/L	5:13:40 PM
3	Y 371.029	2134372.4	2134372.4	6.068 mg/L	5:14:07 PM
3	Rh 343.489	3804.7	3804.7	5.841 mg/L	5:14:09 PM
3	As 188.979†	-5.1	-0.7	-0.00044 mg/L	5:14:29 PM
3	Cr 283.563†	4102.0	-455.6	-0.00335 mg/L	5:14:09 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2136165.7	6.073 mg/L	0.0152			0.25%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 121.5%						
Rh 343.489	3853.8	5.916 mg/L	0.1133			1.92%
As 188.979†	2.4	0.00158 mg/L	0.001870			118.15%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-455.3	-0.00335 mg/L	0.000025			0.76%
QC value within limits for Cr 283.563 Recovery = Not calculated						
Internal Standard Check failed. Retry.						

Analysis Sequence Raw Data

Sequence	SZB0671
Instrument	ICP03
Analysis	Cr SW6010

Analysis Sequence

Printed: 02/24/2016 6:37 pm

SZB0671

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60120

Sequence Date: 02/24/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
16B0472-21	A	LW-11-12	1				Draper Aden Associates-Richmond	
16B0472-21	A	LW-11-12	2				Draper Aden Associates-Richmond	
16B0472-22	A	LW-11-24	3				Draper Aden Associates-Richmond	
16B0472-22	A	LW-11-24	4				Draper Aden Associates-Richmond	
16B0472-23	A	LW-12-12	5				Draper Aden Associates-Richmond	
16B0472-23	A	LW-12-12	6				Draper Aden Associates-Richmond	
16B0472-24	A	LW-12-24	7				Draper Aden Associates-Richmond	
16B0472-24	A	LW-12-24	8				Draper Aden Associates-Richmond	
16B0472-25	A	LW-13-12	9				Draper Aden Associates-Richmond	
16B0472-25	A	LW-13-12	10				Draper Aden Associates-Richmond	
16B0472-26	A	LW-13-24	11				Draper Aden Associates-Richmond	
16B0472-26	A	LW-13-24	12				Draper Aden Associates-Richmond	
16B0472-27	A	LW-14-12	13				Draper Aden Associates-Richmond	
16B0472-27	A	LW-14-12	14				Draper Aden Associates-Richmond	
16B0472-28	A	LW-14-24	15				Draper Aden Associates-Richmond	
16B0472-28	A	LW-14-24	16				Draper Aden Associates-Richmond	
16B0472-29	A	LW-15-12	17				Draper Aden Associates-Richmond	
16B0472-29	A	LW-15-12	18				Draper Aden Associates-Richmond	
16B0472-30	A	LW-15-24	19				Draper Aden Associates-Richmond	
16B0472-30	A	LW-15-24	20				Draper Aden Associates-Richmond	
16B0472-31	A	LW-16-12	21				Draper Aden Associates-Richmond	
16B0472-31	A	LW-16-12	22				Draper Aden Associates-Richmond	
16B0472-32	A	LW-16-24	23				Draper Aden Associates-Richmond	

Analysis Sequence

Printed: 02/24/2016 6:37 pm

SZB0671

(Continued)

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60120

Sequence Date: 02/24/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
16B0472-32	A	LW-16-24	24				Draper Aden Associates-Richmond	
16B0472-33	A	LW-17-12	25				Draper Aden Associates-Richmond	
16B0472-33	A	LW-17-12	26				Draper Aden Associates-Richmond	
16B0472-34	A	LW-17-24	27				Draper Aden Associates-Richmond	
16B0472-34	A	LW-17-24	28				Draper Aden Associates-Richmond	
16B0472-35	A	LW-18-12	29				Draper Aden Associates-Richmond	
16B0472-35	A	LW-18-12	30				Draper Aden Associates-Richmond	
16B0472-36	A	LW-18-24	31				Draper Aden Associates-Richmond	
16B0472-36	A	LW-18-24	32				Draper Aden Associates-Richmond	
16B0472-37	A	LW-19-12	33				Draper Aden Associates-Richmond	
16B0472-37	A	LW-19-12	34				Draper Aden Associates-Richmond	
16B0472-38	A	LW-19-24	35				Draper Aden Associates-Richmond	
16B0472-38	A	LW-19-24	36				Draper Aden Associates-Richmond	
16B0472-39	A	LW-20-12	37				Draper Aden Associates-Richmond	
16B0472-39	A	LW-20-12	38				Draper Aden Associates-Richmond	
16B0472-40	A	LW-20-24	39				Draper Aden Associates-Richmond	
16B0472-40	A	LW-20-24	40				Draper Aden Associates-Richmond	
16B0472-18RE1	A	LW-09-24	41				Draper Aden Associates-Richmond	Added 2/23/2016 by BG; Auto-update of ExInfo5 field to RE1 2/23/2016 11:45:00 AM Added 2/23/2016 by BG
SZB0671-IFA1		Interference Check A	42		6B01701			
SZB0671-IFB1		Interference Check B	43		6B01702			
SZB0671-CCB1		Calibration Blank	44					

Analysis Sequence

Printed: 02/24/2016 6:37 pm

SZB0671

(Continued)

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60120

Sequence Date: 02/24/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
SZB0671-CCB2		Calibration Blank	45					
SZB0671-CCB3		Calibration Blank	46					
SZB0671-CCB4		Calibration Blank	47					
SZB0671-CCB5		Calibration Blank	48					
SZB0671-CCB6		Calibration Blank	49					
SZB0671-CCV1		Calibration Check	50		6B01695			
SZB0671-CCV2		Calibration Check	51		6B01695			
SZB0671-CCV3		Calibration Check	52		6B01695			
SZB0671-CCV4		Calibration Check	53		6B01695			
SZB0671-CCV5		Calibration Check	54		6B01695			
SZB0671-SRD1		Serial Dilution	55					
BZB0486-DUP2		Duplicate	56					
BZB0486-MS2		Matrix Spike	57					
BZB0486-MS1		Matrix Spike	58					
BZB0486-DUP1		Duplicate	59					
BZB0486-BS1		LCS	60					
BZB0486-BLK1		Blank	61					

=====

Reprocessing Begun

Logged In Analyst: ICP03

Technique: ICP Continuous

Results Data Set (original): 160224CWO-lwood3

Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

Results Data Set (reprocessed): 160224CWO-SZB0671a

Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

=====

Sequence No.: 1

Sample ID: ICS A

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 12

Date Collected: 2/24/2016 12:25:08 PM

Data Type: Reprocessed on 2/24/2016 6:22:12 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS A

Analyte	Back Pressure	Flow
All	200.0 kPa	0.55 L/min

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2429237.6	2429237.6	4.938 mg/L		12:25:08
1	As 188.979†	14.8	-4.6	-0.00262 mg/L	-0.1309 mg/kg	12:25:08
1	Cr 283.563†	4886.9	-122.9	-0.00079 mg/L	-0.03969 mg/kg	12:25:08
2	Y 371.029	2463169.2	2463169.2	5.007 mg/L		12:25:08
2	As 188.979†	23.6	4.0	0.00228 mg/L	0.1139 mg/kg	12:25:08
2	Cr 283.563†	5106.1	27.8	0.00018 mg/L	0.00899 mg/kg	12:25:08
3	Y 371.029	2486999.5	2486999.5	5.055 mg/L		12:25:08
3	As 188.979†	11.3	-8.4	-0.00478 mg/L	-0.2392 mg/kg	12:25:08
3	Cr 283.563†	4962.3	-163.3	-0.00105 mg/L	-0.05273 mg/kg	12:25:08

Mean Data: ICS A

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2459802.1	5.000 mg/L	0.0590		
As 188.979†	-3.0	-0.00171 mg/L	0.003618	-0.08538 mg/kg	0.180903 21%
Cr 283.563†	-86.1	-0.00056 mg/L	0.000651	-0.02781 mg/kg	0.032526 11%

=====

Sequence No.: 2

Sample ID: ICS AB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 13

Date Collected: 2/24/2016 12:29:05 PM

Data Type: Reprocessed on 2/24/2016 6:22:12 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS AB

Analyte	Back Pressure	Flow
All	201.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2425633.1	2425633.1	4.931 mg/L		12:11
1	As 188.979†	3207.2	3232.8	1.847 mg/L	92.33 mg/kg	12:11
1	Cr 283.563†	307386.9	306645.7	1.981 mg/L	99.03 mg/kg	12:11
2	Y 371.029	2417515.4	2417515.4	4.914 mg/L		12:11
2	As 188.979†	3237.8	3274.9	1.871 mg/L	93.53 mg/kg	12:11
2	Cr 283.563†	302569.4	302790.6	1.956 mg/L	97.79 mg/kg	12:11
3	Y 371.029	2399443.3	2399443.3	4.877 mg/L		12:11
3	As 188.979†	3258.8	3321.2	1.897 mg/L	94.85 mg/kg	12:11
3	Cr 283.563†	305163.4	307768.6	1.988 mg/L	99.40 mg/kg	12:11

Mean Data: ICS AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2414197.3	4.907 mg/L	0.0273		
As 188.979†	3276.3	1.871 mg/L	0.0253	93.57 mg/kg	1.263
Cr 283.563†	305735.0	1.975 mg/L	0.0169	98.74 mg/kg	0.843

Sequence No.: 3

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/24/2016 1:08:53 PM

Data Type: Reprocessed on 2/24/2016 6:22:12 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	211.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2449777.1	2449777.1	4.980 mg/L		1:10
1	As 188.979†	3405.8	3400.2	1.942 mg/L		1:11
1	Cr 283.563†	322031.2	318277.7	2.056 mg/L		1:10
2	Y 371.029	2467493.7	2467493.7	5.016 mg/L		1:11
2	As 188.979†	3418.7	3388.5	1.936 mg/L		1:11
2	Cr 283.563†	322094.1	316018.8	2.041 mg/L		1:11

3	Y 371.029	2447143.4	2447143.4	4.974 mg/L	1:10
3	As 188.979†	3462.8	3461.1	1.977 mg/L	1:10
3	Cr 283.563†	322800.9	319399.5	2.063 mg/L	1:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2454804.8	4.990 mg/L	0.0225		(
As 188.979†	3416.6	1.952 mg/L	0.0223		:
QC value within limits for As 188.979 Recovery = 97.58%					
Cr 283.563†	317898.7	2.053 mg/L	0.0111		(
QC value within limits for Cr 283.563 Recovery = 102.67%					
All analyte(s) passed QC.					

=====

Sequence No.: 4

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/24/2016 1:14:55 PM

Analyst:

Data Type: Reprocessed on 2/24/2016 6:22:13 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	210.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2586112.3	2586112.3	5.257 mg/L		1:10
1	As 188.979†	4.5	-15.3	-0.00872 mg/L		1:10
1	Cr 283.563†	4894.1	-416.2	-0.00269 mg/L		1:10
2	Y 371.029	2610021.1	2610021.1	5.305 mg/L		1:10
2	As 188.979†	21.5	0.7	0.00043 mg/L		1:10
2	Cr 283.563†	4838.3	-511.4	-0.00330 mg/L		1:10
3	Y 371.029	2601726.2	2601726.2	5.288 mg/L		1:10
3	As 188.979†	22.3	1.6	0.00089 mg/L		1:10
3	Cr 283.563†	4873.3	-463.8	-0.00300 mg/L		1:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2599286.5	5.284 mg/L	0.0247		(
As 188.979†	-4.3	-0.00247 mg/L	0.005418		219
QC value within limits for As 188.979 Recovery = Not calculated					
Cr 283.563†	-463.8	-0.00300 mg/L	0.000308		10
QC value within limits for Cr 283.563 Recovery = Not calculated					
All analyte(s) passed QC.					

=====

Sequence No.: 5

Autosampler Location: 16

Sample ID: 16B0472-18RE1

Date Collected: 2/24/2016 1:18:47 PM

Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1.073 g
Dilution:
Wash Time:

Data Type: Reprocessed on 2/24/2016 6:22:13 PM
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-18RE1

Analyte	Back Pressure	Flow
All	211.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-18RE1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T:
1	Y 371.029	2444418.4	2444418.4	4.969 mg/L		1:20
1	As 188.979†	100.1	81.2	0.04638 mg/L	2.161 mg/kg	1:20
1	Cr 283.563†	47032.2	42256.9	0.2729 mg/L	12.72 mg/kg	1:20
2	Y 371.029	2420230.1	2420230.1	4.920 mg/L		1:20
2	As 188.979†	89.3	71.3	0.04071 mg/L	1.897 mg/kg	1:20
2	Cr 283.563†	45700.9	41376.9	0.2673 mg/L	12.45 mg/kg	1:20
3	Y 371.029	2374366.7	2374366.7	4.826 mg/L		1:20
3	As 188.979†	83.1	66.6	0.03804 mg/L	1.772 mg/kg	1:20
3	Cr 283.563†	45843.4	42421.7	0.2740 mg/L	12.77 mg/kg	1:20

Mean Data: 16B0472-18RE1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2413005.1	4.905 mg/L	0.0723		
As 188.979†	73.0	0.04171 mg/L	0.004261	1.943 mg/kg	0.1986
Cr 283.563†	42018.5	0.2714 mg/L	0.00363	12.65 mg/kg	0.169

Sequence No.: 6

Sample ID: BZB0486-BLK1

Autosampler Location: 17

Date Collected: 2/24/2016 1:23:55 PM

Analyst:

Data Type: Reprocessed on 2/24/2016 6:22:13 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.058 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: BZB0486-BLK1

Analyte	Back Pressure	Flow
All	212.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: BZB0486-BLK1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T
1	Y 371.029	2626150.0	2626150.0	5.338 mg/L		1:2!
1	As 188.979†	13.3	-7.1	-0.00403 mg/L	-0.1905 mg/kg	1:2!
1	Cr 283.563†	5086.6	-306.9	-0.00198 mg/L	-0.09367 mg/kg	1:2!
2	Y 371.029	2652828.2	2652828.2	5.392 mg/L		1:2!
2	As 188.979†	9.9	-10.3	-0.00590 mg/L	-0.2789 mg/kg	1:2!
2	Cr 283.563†	4968.6	-464.2	-0.00300 mg/L	-0.1417 mg/kg	1:2!
3	Y 371.029	2640376.7	2640376.7	5.367 mg/L		1:2!
3	As 188.979†	4.8	-15.1	-0.00862 mg/L	-0.4073 mg/kg	1:2!
3	Cr 283.563†	4982.9	-429.2	-0.00277 mg/L	-0.1310 mg/kg	1:2!

Mean Data: BZB0486-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2639784.9	5.366 mg/L	0.0271		
As 188.979†	-10.8	-0.00618 mg/L	0.002307	-0.2922 mg/kg	0.10901
Cr 283.563†	-400.1	-0.00258 mg/L	0.000533	-0.1221 mg/kg	0.02521

Sequence No.: 7

Sample ID: BZB0486-BS1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.065 g

Dilution:

Wash Time:

Autosampler Location: 18

Date Collected: 2/24/2016 1:27:48 PM

Data Type: Reprocessed on 2/24/2016 6:22:13 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0486-BS1

Analyte	Back Pressure	Flow
All	211.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0486-BS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T
1	Y 371.029	2480209.5	2480209.5	5.041 mg/L		1:2!
1	As 188.979†	3183.1	3137.3	1.792 mg/L	84.13 mg/kg	1:2!
1	Cr 283.563†	314422.7	306764.3	1.981 mg/L	93.03 mg/kg	1:2!
2	Y 371.029	2500667.9	2500667.9	5.083 mg/L		1:3!
2	As 188.979†	3230.0	3157.7	1.804 mg/L	84.68 mg/kg	1:3!
2	Cr 283.563†	315872.6	305639.4	1.974 mg/L	92.68 mg/kg	1:3!
3	Y 371.029	2533398.0	2533398.0	5.150 mg/L		1:3!
3	As 188.979†	3215.5	3102.6	1.772 mg/L	83.20 mg/kg	1:3!
3	Cr 283.563†	314577.1	300367.3	1.940 mg/L	91.09 mg/kg	1:3!

Mean Data: BZB0486-BS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2504758.5	5.091 mg/L	0.0545		
As 188.979†	3132.5	1.789 mg/L	0.0159	84.00 mg/kg	0.747
Cr 283.563†	304257.0	1.965 mg/L	0.0221	92.27 mg/kg	1.036

Matrix Recovery Check: BZB0486-BS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
As 188.979	99.71	84.00	0.747	mg/kg	84.3
Cr 283.563	99.88	92.27	1.036	mg/kg	92.4

Sequence No.: 8

Sample ID: 16B0472-21

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.013 g

Dilution:

Wash Time:

Autosampler Location: 19

Date Collected: 2/24/2016 1:33:18 PM

Data Type: Reprocessed on 2/24/2016 6:22:13 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-21

Analyte	Back Pressure	Flow
All	212.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-21

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. T:
1	Y 371.029	2438196.7	2438196.7	4.956 mg/L		1:34
1	As 188.979†	2158.0	2157.6	1.232 mg/L	60.83 mg/kg	1:34
1	Cr 283.563†	245919.2	243027.1	1.570 mg/L	77.48 mg/kg	1:34
2	Y 371.029	2484771.9	2484771.9	5.051 mg/L		1:34
2	As 188.979†	2149.9	2108.8	1.205 mg/L	59.45 mg/kg	1:34
2	Cr 283.563†	243518.3	235999.9	1.524 mg/L	75.24 mg/kg	1:34
3	Y 371.029	2508602.5	2508602.5	5.099 mg/L		1:34
3	As 188.979†	2160.7	2099.2	1.199 mg/L	59.18 mg/kg	1:34
3	Cr 283.563†	243762.2	233949.0	1.511 mg/L	74.59 mg/kg	1:34

Mean Data: 16B0472-21

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2477190.4	5.035 mg/L	0.0728		
As 188.979†	2121.8	1.212 mg/L	0.0179	59.82 mg/kg	0.883
Cr 283.563†	237658.6	1.535 mg/L	0.0308	75.77 mg/kg	1.518

Sequence No.: 9

Sample ID: 16B0472-22

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.026 g

Dilution:

Wash Time:

Autosampler Location: 20

Date Collected: 2/24/2016 1:38:39 PM

Data Type: Reprocessed on 2/24/2016 6:22:14 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-22

Analyte	Back Pressure	Flow
All	213.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-22

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2492450.8	2492450.8	5.066 mg/L		1:40
1	As 188.979†	86.4	65.7	0.03754 mg/L	1.830 mg/kg	1:40
1	Cr 283.563†	58142.9	52310.0	0.3379 mg/L	16.47 mg/kg	1:40
2	Y 371.029	2477395.0	2477395.0	5.036 mg/L		1:40
2	As 188.979†	67.4	47.3	0.02704 mg/L	1.318 mg/kg	1:40
2	Cr 283.563†	57962.0	52479.1	0.3390 mg/L	16.52 mg/kg	1:40
3	Y 371.029	2478431.2	2478431.2	5.038 mg/L		1:40
3	As 188.979†	82.7	62.6	0.03573 mg/L	1.741 mg/kg	1:40
3	Cr 283.563†	56475.7	50979.9	0.3293 mg/L	16.05 mg/kg	1:40

Mean Data: 16B0472-22

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2482759.0	5.047 mg/L	0.0171		
As 188.979†	58.5	0.03344 mg/L	0.005615	1.630 mg/kg	0.2736
Cr 283.563†	51923.0	0.3354 mg/L	0.00530	16.34 mg/kg	0.258

=====

Sequence No.: 10

Sample ID: 16B0472-23

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.002 g

Dilution:

Wash Time:

Autosampler Location: 21

Date Collected: 2/24/2016 1:44:12 PM

Data Type: Reprocessed on 2/24/2016 6:22:14 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-23

Analyte	Back Pressure	Flow
All	213.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-23

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2451796.2	2451796.2	4.984 mg/L		1:40
1	As 188.979†	1922.1	1908.8	1.090 mg/L	54.41 mg/kg	1:40
1	Cr 283.563†	367938.9	364069.1	2.352 mg/L	117.3 mg/kg	1:40
2	Y 371.029	2445744.2	2445744.2	4.971 mg/L		1:40
2	As 188.979†	1921.5	1913.0	1.093 mg/L	54.53 mg/kg	1:40
2	Cr 283.563†	368636.6	365684.3	2.362 mg/L	117.9 mg/kg	1:40
3	Y 371.029	2459909.4	2459909.4	5.000 mg/L		1:40
3	As 188.979†	1913.8	1894.2	1.082 mg/L	53.99 mg/kg	1:40
3	Cr 283.563†	371359.3	366271.8	2.366 mg/L	118.1 mg/kg	1:40

Mean Data: 16B0472-23

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2452483.3	4.985 mg/L	0.0144		
As 188.979†	1905.3	1.088 mg/L	0.0056	54.31 mg/kg	0.282
Cr 283.563†	365341.7	2.360 mg/L	0.0074	117.8 mg/kg	0.37

Sequence No.: 11

Sample ID: SRD1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.013 g

Dilution: 5X

Wash Time:

Autosampler Location: 19

Date Collected: 2/24/2016 1:49:54 PM

Data Type: Reprocessed on 2/24/2016 6:22:14 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: SRD1

Analyte	Back Pressure	Flow
All	213.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: SRD1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal Time
1	Y 371.029	2572977.1	2572977.1	5.230 mg/L		1:51
1	As 188.979†	463.6	423.7	0.2420 mg/L	59.72 mg/kg	1:51
1	Cr 283.563†	54651.7	47176.6	0.3047 mg/L	75.20 mg/kg	1:51
2	Y 371.029	2568807.1	2568807.1	5.222 mg/L		1:51
2	As 188.979†	457.7	418.8	0.2392 mg/L	59.03 mg/kg	1:51
2	Cr 283.563†	53781.9	46428.4	0.2999 mg/L	74.01 mg/kg	1:51
3	Y 371.029	2572630.9	2572630.9	5.229 mg/L		1:51
3	As 188.979†	463.0	423.2	0.2417 mg/L	59.65 mg/kg	1:51
3	Cr 283.563†	53875.9	46441.7	0.3000 mg/L	74.03 mg/kg	1:51

Mean Data: SRD1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2571471.7	5.227 mg/L	0.0047		
As 188.979†	421.9	0.2410 mg/L	0.00153	59.47 mg/kg	0.378
Cr 283.563†	46682.2	0.3015 mg/L	0.00277	74.41 mg/kg	0.682

Dilution Check: SRD1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Y 371.029			0.000	mg/L	Not calculated
As 188.979	11.96	59.47	0.378	mg/kg	397.0
Cr 283.563	15.15	74.41	0.682	mg/kg	391.1

Sequence No.: 12

Sample ID: 16B0472-24

Analyst:

Logged In Analyst (Original) : ICP03

Autosampler Location: 22

Date Collected: 2/24/2016 1:54:57 PM

Data Type: Reprocessed on 2/24/2016 6:22:14 PM

Initial Sample Wt: 1.044 g
Dilution:
Wash Time:

Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-24

Analyte	Back Pressure	Flow
All	212.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-24

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. T:
1	Y 371.029	2461087.7	2461087.7	5.003 mg/L		1:56
1	As 188.979†	203.9	184.3	0.1053 mg/L	5.042 mg/kg	1:56
1	Cr 283.563†	56278.6	51177.9	0.3306 mg/L	15.83 mg/kg	1:56
2	Y 371.029	2457201.5	2457201.5	4.995 mg/L		1:57
2	As 188.979†	196.8	177.4	0.1013 mg/L	4.854 mg/kg	1:57
2	Cr 283.563†	57280.2	52269.5	0.3376 mg/L	16.17 mg/kg	1:57
3	Y 371.029	2458869.6	2458869.6	4.998 mg/L		1:57
3	As 188.979†	191.5	172.0	0.09826 mg/L	4.706 mg/kg	1:58
3	Cr 283.563†	56621.9	51572.1	0.3331 mg/L	15.95 mg/kg	1:57

Mean Data: 16B0472-24

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2459052.9	4.998 mg/L	0.0040		
As 188.979†	177.9	0.1016 mg/L	0.00351	4.867 mg/kg	0.1683
Cr 283.563†	51673.2	0.3338 mg/L	0.00357	15.98 mg/kg	0.171

Sequence No.: 13

Sample ID: BZB0486-DUP1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.05 g

Dilution:

Wash Time:

Autosampler Location: 23

Date Collected: 2/24/2016 2:00:18 PM

Data Type: Reprocessed on 2/24/2016 6:22:14 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0486-DUP1

Analyte	Back Pressure	Flow
All	212.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0486-DUP1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. T:
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Mean Data: BZB0486-DUP1									
Sample	Conc. Units	Std. Dev.	Conc. Units	Calib.	Conc.	Expected	Measured	Std. Dev.	Units
2:00	2.443 mg/kg	5.073	0.05130	mg/L	89.8	2495528.1	2495528.1	0.0073	mg/L
2:00	16.33 mg/kg	0.3429	0.089	mg/L	53094.3	2503524.3	53094.3	0.3429	mg/L
2:00	2.514 mg/kg	0.05280	0.05280	mg/L	92.4	2503524.3	2503524.3	0.05280	mg/L
2:00	16.20 mg/kg	0.3402	0.3402	mg/L	52668.1	58765.6	52668.1	0.3402	mg/L
2:00	2.508 mg/kg	0.05267	0.05267	mg/L	92.2	2500808.0	2500808.0	0.05267	mg/L
2:00	15.84 mg/kg	0.3325	0.3325	mg/L	51484.5	57498.6	51484.5	0.3325	mg/L
Mean Data: BZB0486-DUP1									
Sample	Conc. Units	Std. Dev.	Conc. Units	Calib.	Conc.	Expected	Measured	Std. Dev.	Units
2:00	0.0396	0.000832	0.000832	mg/L	0.05226	0.05226	0.05226	0.000832	mg/L
2:00	16.12 mg/kg	0.00539	0.00539	mg/L	0.3386	0.3386	0.3386	0.00539	mg/L
Duplicate Check: BZB0486-DUP1									
Sample	Conc. Units	Std. Dev.	Conc. Units	Calib.	Conc.	Expected	Measured	Std. Dev.	Units
2:00	0.0396	0.000832	0.000832	mg/L	0.05226	0.05226	0.05226	0.000832	mg/L
2:00	0.257	0.00539	0.00539	mg/L	0.3386	0.3386	0.3386	0.00539	mg/L
Duplicate Check: BZB0486-DUP1									
Sample	Conc. Units	Std. Dev.	Conc. Units	Calib.	Conc.	Expected	Measured	Std. Dev.	Units
2:00	0.0396	0.000832	0.000832	mg/L	0.05226	0.05226	0.05226	0.000832	mg/L
2:00	0.257	0.00539	0.00539	mg/L	0.3386	0.3386	0.3386	0.00539	mg/L
Duplicate Check: BZB0486-DUP1									
Sample	Conc. Units	Std. Dev.	Conc. Units	Calib.	Conc.	Expected	Measured	Std. Dev.	Units
2:00	0.0396	0.000832	0.000832	mg/L	0.05226	0.05226	0.05226	0.000832	mg/L
2:00	0.257	0.00539	0.00539	mg/L	0.3386	0.3386	0.3386	0.00539	mg/L
Duplicate Check: BZB0486-DUP1									
Sequence No.: 14									
Sample ID: BZB0486-MS1									
Analyst:									
Logged in Analyst (Original) : ICP03									
Initial Sample Wt: 1.061 g									
Dilution:									
Wash Time:									
Nebulizer Parameters: BZB0486-MS1									
Back Pressure									
212.0 kPa									
Flow									
0.55 L/min									
Auto-Integration Report									
Analyte									
Integration									
Time (s)									
0.010									
5.000									
As 188.979									
Cr 283.563									
Analyte									
Integration									
Time (s)									
2.000									
20.000									
As 188.979									
Cr 283.563									
Replicate Data: BZB0486-MS1									
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Analyte	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.
Y 371.029	2523960.6	5.130 mg/L	0.0204		
As 188.979†	19.8	0.01130 mg/L	0.005972	0.5326 mg/kg	0.28144
Cr 283.563†	41671.9	0.2692 mg/L	0.00335	12.68 mg/kg	0.158

Matrix Recovery Check: BZB0486-MS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
As 188.979	104.9	0.5326	0.281	mg/kg	-4.3
Cr 283.563	116.0	12.68	0.158	mg/kg	-3.3

Sequence No.: 15

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/24/2016 2:10:31 PM

Data Type: Reprocessed on 2/24/2016 6:22:15 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	213.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2542710.7	2542710.7	5.169 mg/L		2:11
1	As 188.979†	3589.5	3452.9	1.972 mg/L		2:11
1	Cr 283.563†	337119.9	321056.4	2.074 mg/L		2:11
2	Y 371.029	2535548.0	2535548.0	5.154 mg/L		2:11
2	As 188.979†	3604.3	3477.1	1.986 mg/L		2:11
2	Cr 283.563†	338191.8	323017.5	2.086 mg/L		2:11
3	Y 371.029	2558279.0	2558279.0	5.200 mg/L		2:11
3	As 188.979†	3612.1	3453.5	1.973 mg/L		2:11
3	Cr 283.563†	341016.6	322818.4	2.085 mg/L		2:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2545512.6	5.174 mg/L	0.0236		
As 188.979†	3461.2	1.977 mg/L	0.0079		
QC value within limits for As 188.979 Recovery = 98.85%					
Cr 283.563†	322297.4	2.082 mg/L	0.0070		
QC value within limits for Cr 283.563 Recovery = 104.09%					
All analyte(s) passed QC.					

Sequence No.: 16

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Autosampler Location: 1

Date Collected: 2/24/2016 2:16:11 PM

Data Type: Reprocessed on 2/24/2016 6:22:15 PM

Initial Sample Vol:

Dilution:
Wash Time:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2672440.5	2672440.5	5.432 mg/L		2:11
1	As 188.979†	12.2	-8.3	-0.00476 mg/L		2:11
1	Cr 283.563†	4983.9	-483.9	-0.00313 mg/L		2:11
2	Y 371.029	2721749.9	2721749.9	5.532 mg/L		2:11
2	As 188.979†	9.0	-11.4	-0.00652 mg/L		2:11
2	Cr 283.563†	5115.2	-448.4	-0.00290 mg/L		2:11
3	Y 371.029	2727438.6	2727438.6	5.544 mg/L		2:11
3	As 188.979†	15.6	-5.5	-0.00314 mg/L		2:11
3	Cr 283.563†	5112.4	-460.5	-0.00297 mg/L		2:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2707209.7	5.503 mg/L	0.0615		
As 188.979†	-8.4	-0.00481 mg/L	0.001687		3!
QC value within limits for As 188.979 Recovery = Not calculated					
Cr 283.563†	-464.3	-0.00300 mg/L	0.000117		
QC value within limits for Cr 283.563 Recovery = Not calculated					
All analyte(s) passed QC.					

=====

Sequence No.: 17
Sample ID: 16B0472-25

Autosampler Location: 25

Date Collected: 2/24/2016 2:20:02 PM

Analyst:

Data Type: Reprocessed on 2/24/2016 6:22:15 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.049 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-25

Analyte	Back Pressure	Flow
All	215.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-25

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T
1	Y 371.029	2466495.1	2466495.1	5.014 mg/L		2:2
1	As 188.979†	3278.0	3249.5	1.856 mg/L	88.47 mg/kg	2:2
1	Cr 283.563†	387891.2	381767.4	2.466 mg/L	117.5 mg/kg	2:2
2	Y 371.029	2454649.6	2454649.6	4.990 mg/L		2:2
2	As 188.979†	3239.7	3227.0	1.843 mg/L	87.86 mg/kg	2:2
2	Cr 283.563†	383325.0	379058.4	2.448 mg/L	116.7 mg/kg	2:2
3	Y 371.029	2467238.5	2467238.5	5.015 mg/L		2:2
3	As 188.979†	3239.6	3210.3	1.834 mg/L	87.40 mg/kg	2:2
3	Cr 283.563†	385476.5	379243.4	2.450 mg/L	116.8 mg/kg	2:2

Mean Data: 16B0472-25

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2462794.4	5.006 mg/L	0.0144		(
As 188.979†	3228.9	1.844 mg/L	0.0113	87.91 mg/kg	0.536 (
Cr 283.563†	380023.1	2.455 mg/L	0.0098	117.0 mg/kg	0.47 (

=====

Sequence No.: 18
Sample ID: 16B0472-24
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1.044 g
Dilution:
Wash Time:

Autosampler Location: 22
Date Collected: 2/24/2016 2:31:51 PM
Data Type: Reprocessed on 2/24/2016 6:22:15 PM
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-24

Analyte	Back Pressure	Flow
All	215.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-24

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T
1	Y 371.029	2391387.3	2391387.3	4.861 mg/L		2:3
1	As 188.979†	192.8	178.8	0.1021 mg/L	4.891 mg/kg	2:3
1	Cr 283.563†	56012.5	52543.7	0.3394 mg/L	16.25 mg/kg	2:3
2	Y 371.029	2408187.2	2408187.2	4.895 mg/L		2:3
2	As 188.979†	185.6	170.1	0.09714 mg/L	4.652 mg/kg	2:3
2	Cr 283.563†	56283.1	52418.1	0.3386 mg/L	16.22 mg/kg	2:3
3	Y 371.029	2439350.2	2439350.2	4.958 mg/L		2:3
3	As 188.979†	185.0	167.0	0.09542 mg/L	4.570 mg/kg	2:3
3	Cr 283.563†	56124.4	51523.7	0.3328 mg/L	15.94 mg/kg	2:3

Mean Data: 16B0472-24

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2412974.9	4.905 mg/L	0.0495		:
As 188.979†	172.0	0.09823 mg/L	0.003481	4.704 mg/kg	0.1667 :
Cr 283.563†	52161.8	0.3369 mg/L	0.00359	16.14 mg/kg	0.172 :

=====

Sequence No.: 19
 Sample ID: BZB0486-DUP1
 Analyst:
 Logged In Analyst (Original) : ICP03
 Initial Sample Wt: 1.05 g
 Dilution:
 Wash Time:

Autosampler Location: 23
 Date Collected: 2/24/2016 2:37:12 PM
 Data Type: Reprocessed on 2/24/2016 6:22:15 PM
 Initial Sample Vol:
 Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0486-DUP1

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0486-DUP1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. Time
1	Y 371.029	2447470.9	2447470.9	4.975 mg/L		2:31
1	As 188.979†	97.3	78.2	0.04469 mg/L	2.128 mg/kg	2:31
1	Cr 283.563†	56556.2	51769.9	0.3344 mg/L	15.92 mg/kg	2:31
2	Y 371.029	2454370.5	2454370.5	4.989 mg/L		2:31
2	As 188.979†	107.8	88.5	0.05056 mg/L	2.407 mg/kg	2:31
2	Cr 283.563†	57002.4	52057.2	0.3362 mg/L	16.01 mg/kg	2:31
3	Y 371.029	2443138.9	2443138.9	4.966 mg/L		2:31
3	As 188.979†	101.0	82.1	0.04692 mg/L	2.234 mg/kg	2:41
3	Cr 283.563†	56933.5	52250.5	0.3375 mg/L	16.07 mg/kg	2:31

Mean Data: BZB0486-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2448326.8	4.977 mg/L	0.0115		
As 188.979†	83.0	0.04739 mg/L	0.002962	2.257 mg/kg	0.1410
Cr 283.563†	52025.9	0.3360 mg/L	0.00156	16.00 mg/kg	0.074

Duplicate Check: BZB0486-DUP1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Y 371.029			0.000	mg/L	Not calculated
As 188.979	4.704	2.257	0.141	mg/kg	70.3
Cr 283.563	16.14	16.00	0.074	mg/kg	0.8

Sequence No.: 20
 Sample ID: BZB0486-MS1
 Analyst:
 Logged In Analyst (Original) : ICP03
 Initial Sample Wt: 1.061 g
 Dilution:
 Wash Time:

Autosampler Location: 24
 Date Collected: 2/24/2016 2:42:18 PM
 Data Type: Reprocessed on 2/24/2016 6:22:16 PM
 Initial Sample Vol:
 Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0486-MS1

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0486-MS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2422427.6	2422427.6	4.924 mg/L		2:41
1	As 188.979†	3192.6	3222.3	1.841 mg/L	86.74 mg/kg	2:41
1	Cr 283.563†	379982.8	380774.1	2.459 mg/L	115.9 mg/kg	2:41
2	Y 371.029	2436216.9	2436216.9	4.952 mg/L		2:41
2	As 188.979†	3220.1	3231.7	1.846 mg/L	86.99 mg/kg	2:41
2	Cr 283.563†	385796.2	384459.8	2.483 mg/L	117.0 mg/kg	2:41
3	Y 371.029	2435958.3	2435958.3	4.952 mg/L		2:41
3	As 188.979†	3234.3	3246.4	1.854 mg/L	87.39 mg/kg	2:41
3	Cr 283.563†	380218.9	378869.3	2.447 mg/L	115.3 mg/kg	2:41

Mean Data: BZB0486-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2431534.3	4.943 mg/L	0.0160		
As 188.979†	3233.5	1.847 mg/L	0.0069	87.04 mg/kg	0.327
Cr 283.563†	381367.7	2.463 mg/L	0.0184	116.1 mg/kg	0.87

Matrix Recovery Check: BZB0486-MS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
As 188.979	104.7	87.04	0.327	mg/kg	82.3
Cr 283.563	116.1	116.1	0.865	mg/kg	99.9

Sequence No.: 21

Sample ID: 16B0472-25

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.049 g

Dilution:

Wash Time:

Autosampler Location: 25

Date Collected: 2/24/2016 2:48:11 PM

Data Type: Reprocessed on 2/24/2016 6:22:16 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-25

Analyte	Back Pressure	Flow
All	215.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-25

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2467048.1	2467048.1	5.015 mg/L		2:41
1	As 188.979†	835.7	813.7	0.4648 mg/L	22.15 mg/kg	2:50

1	Cr 283.563†	136704.4	131231.6	0.8476 mg/L	40.40 mg/kg	2:49
2	Y 371.029	2507770.1	2507770.1	5.098 mg/L		2:50
2	As 188.979†	844.6	808.9	0.4620 mg/L	22.02 mg/kg	2:50
2	Cr 283.563†	136934.3	129243.8	0.8348 mg/L	39.79 mg/kg	2:50
3	Y 371.029	2461925.3	2461925.3	5.004 mg/L		2:51
3	As 188.979†	829.5	809.2	0.4622 mg/L	22.03 mg/kg	2:51
3	Cr 283.563†	135535.0	130346.8	0.8419 mg/L	40.13 mg/kg	2:51

Mean Data: 16B0472-25

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2478914.5	5.039 mg/L	0.0511		
As 188.979†	810.6	0.4630 mg/L	0.00153	22.07 mg/kg	0.073
Cr 283.563†	130274.1	0.8415 mg/L	0.00643	40.11 mg/kg	0.307

=====

Sequence No.: 22

Autosampler Location: 26

Sample ID: 16B0472-26

Date Collected: 2/24/2016 2:53:29 PM

Analyst:

Data Type: Reprocessed on 2/24/2016 6:22:16 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.023 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-26

Analyte	Back Pressure	Flow
All	215.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-26

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. Time
1	Y 371.029	2474108.9	2474108.9	5.029 mg/L		2:51
1	As 188.979†	808.4	784.2	0.4480 mg/L	21.89 mg/kg	2:51
1	Cr 283.563†	133625.9	127781.9	0.8254 mg/L	40.34 mg/kg	2:51
2	Y 371.029	2458637.7	2458637.7	4.998 mg/L		2:51
2	As 188.979†	815.9	796.7	0.4551 mg/L	22.24 mg/kg	2:51
2	Cr 283.563†	132524.6	127516.1	0.8236 mg/L	40.26 mg/kg	2:51
3	Y 371.029	2474185.9	2474185.9	5.029 mg/L		2:51
3	As 188.979†	790.1	766.0	0.4375 mg/L	21.39 mg/kg	2:51
3	Cr 283.563†	132396.8	126555.8	0.8174 mg/L	39.95 mg/kg	2:51

Mean Data: 16B0472-26

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2468977.5	5.019 mg/L	0.0182		
As 188.979†	782.3	0.4469 mg/L	0.00883	21.84 mg/kg	0.431
Cr 283.563†	127284.6	0.8222 mg/L	0.00417	40.18 mg/kg	0.204

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Sequence No.: 23

Autosampler Location: 27

Sample ID: 16B0472-27

Date Collected: 2/24/2016 2:58:48 PM

Analyst:

Data Type: Reprocessed on 2/24/2016 6:22:16 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.061 g
Dilution:
Wash Time:

Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-27

Analyte	Back Pressure	Flow
All	215.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	2.000	10	20.000
Cr 283.563	0.100	20	2.000

Replicate Data: 16B0472-27

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2323690.0	2323690.0	4.723 mg/L		3:00
1	As 188.979†	578.1	592.4	0.3384 mg/L	15.95 mg/kg	3:00
1	Cr 283.563†	116675.1	118438.1	0.7650 mg/L	36.05 mg/kg	3:00
2	Y 371.029	2330254.2	2330254.2	4.737 mg/L		3:00
2	As 188.979†	599.8	613.6	0.3505 mg/L	16.52 mg/kg	3:00
2	Cr 283.563†	115131.8	116461.2	0.7522 mg/L	35.45 mg/kg	3:00
3	Y 371.029	2349397.9	2349397.9	4.776 mg/L		3:00
3	As 188.979†	593.3	601.7	0.3437 mg/L	16.20 mg/kg	3:00
3	Cr 283.563†	116898.5	117320.6	0.7578 mg/L	35.71 mg/kg	3:00

Mean Data: 16B0472-27

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2334447.4	4.745 mg/L	0.0272		
As 188.979†	602.6	0.3442 mg/L	0.00608	16.22 mg/kg	0.286
Cr 283.563†	117406.6	0.7583 mg/L	0.00640	35.74 mg/kg	0.302

Sequence No.: 24

Sample ID: 16B0472-28

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.086 g

Dilution:

Wash Time:

Autosampler Location: 28

Date Collected: 2/24/2016 3:04:10 PM

Data Type: Reprocessed on 2/24/2016 6:22:16 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-28

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-28

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
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1	Y 371.029	2447052.6	2447052.6	4.974 mg/L		3:01
1	As 188.979†	8.4	-11.1	-0.00634 mg/L	-0.2921 mg/kg	3:01
1	Cr 283.563†	28734.6	23813.0	0.1538 mg/L	7.082 mg/kg	3:01
2	Y 371.029	2462340.2	2462340.2	5.005 mg/L		3:01
2	As 188.979†	19.4	-0.1	-0.00006 mg/L	-0.00298 mg/kg	3:01
2	Cr 283.563†	28488.1	23387.4	0.1511 mg/L	6.955 mg/kg	3:01
3	Y 371.029	2455924.0	2455924.0	4.992 mg/L		3:01
3	As 188.979†	18.0	-1.5	-0.00087 mg/L	-0.03993 mg/kg	3:01
3	Cr 283.563†	28322.9	23296.3	0.1505 mg/L	6.928 mg/kg	3:01

Mean Data: 16B0472-28

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2455105.6	4.990 mg/L	0.0156		
As 188.979†	-4.2	-0.00243 mg/L	0.003417	-0.1117 mg/kg	0.15732 140
Cr 283.563†	23498.9	0.1518 mg/L	0.00178	6.988 mg/kg	0.0820 :

=====

Sequence No.: 25

Autosampler Location: 29

Sample ID: 16B0472-29

Date Collected: 2/24/2016 3:09:19 PM

Analyst:

Data Type: Reprocessed on 2/24/2016 6:22:16 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.044 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-29

Analyte	Back Pressure	Flow
All	215.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	2.000	10	20.000
Cr 283.563	0.100	20	2.000

Replicate Data: 16B0472-29

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal Ti
1	Y 371.029	2295568.4	2295568.4	4.666 mg/L		3:11
1	As 188.979†	734.2	767.2	0.4382 mg/L	20.99 mg/kg	3:11
1	Cr 283.563†	133068.3	137517.2	0.8882 mg/L	42.54 mg/kg	3:11
2	Y 371.029	2299176.3	2299176.3	4.673 mg/L		3:11
2	As 188.979†	729.1	760.5	0.4344 mg/L	20.80 mg/kg	3:11
2	Cr 283.563†	134345.7	138660.2	0.8956 mg/L	42.89 mg/kg	3:11
3	Y 371.029	2325819.3	2325819.3	4.728 mg/L		3:11
3	As 188.979†	742.9	766.1	0.4376 mg/L	20.96 mg/kg	3:11
3	Cr 283.563†	133559.7	136182.3	0.8796 mg/L	42.13 mg/kg	3:11

Mean Data: 16B0472-29

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2306854.7	4.689 mg/L	0.0336		
As 188.979†	764.6	0.4367 mg/L	0.00206	20.92 mg/kg	0.098
Cr 283.563†	137453.2	0.8878 mg/L	0.00801	42.52 mg/kg	0.384

=====

Sequence No.: 26

Autosampler Location: 30

Sample ID: 16B0472-30

Date Collected: 2/24/2016 3:14:54 PM

Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1.045 g
Dilution:
Wash Time:

Data Type: Reprocessed on 2/24/2016 6:22:17 PM

Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-30

Analyte	Back Pressure	Flow
All	215.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-30

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. T:
1	Y 371.029	2457538.5	2457538.5	4.995 mg/L		3:16
1	As 188.979†	23.0	3.5	0.00200 mg/L	0.09589 mg/kg	3:16
1	Cr 283.563†	24654.1	19605.5	0.1266 mg/L	6.059 mg/kg	3:16
2	Y 371.029	2474248.0	2474248.0	5.029 mg/L		3:16
2	As 188.979†	23.8	4.1	0.00237 mg/L	0.1133 mg/kg	3:16
2	Cr 283.563†	24635.8	19420.7	0.1254 mg/L	6.002 mg/kg	3:16
3	Y 371.029	2500907.2	2500907.2	5.084 mg/L		3:16
3	As 188.979†	15.2	-4.6	-0.00265 mg/L	-0.1266 mg/kg	3:16
3	Cr 283.563†	24808.9	19329.9	0.1249 mg/L	5.974 mg/kg	3:16

Mean Data: 16B0472-30

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2477564.6	5.036 mg/L	0.0445		
As 188.979†	1.0	0.00058 mg/L	0.002796	0.02753 mg/kg	0.133762 48%
Cr 283.563†	19452.1	0.1256 mg/L	0.00091	6.012 mg/kg	0.0434

Sequence No.: 27

Sample ID: BZB0486-DUP2

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.059 g

Dilution:

Wash Time:

Autosampler Location: 31

Date Collected: 2/24/2016 3:19:58 PM

Data Type: Reprocessed on 2/24/2016 6:22:17 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0486-DUP2

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0486-DUP2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T:
1	Y 371.029	2492152.2	2492152.2	5.066 mg/L		3:21
1	As 188.979†	7.3	-12.3	-0.00703 mg/L	-0.3317 mg/kg	3:21
1	Cr 283.563†	25611.7	20208.0	0.1305 mg/L	6.163 mg/kg	3:21
2	Y 371.029	2518329.4	2518329.4	5.119 mg/L		3:21
2	As 188.979†	12.4	-7.4	-0.00425 mg/L	-0.2008 mg/kg	3:21
2	Cr 283.563†	25927.7	20253.9	0.1308 mg/L	6.177 mg/kg	3:21
3	Y 371.029	2538751.6	2538751.6	5.160 mg/L		3:21
3	As 188.979†	15.4	-4.6	-0.00264 mg/L	-0.1249 mg/kg	3:21
3	Cr 283.563†	25965.3	20086.6	0.1297 mg/L	6.126 mg/kg	3:21

Mean Data: BZB0486-DUP2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2516411.1	5.115 mg/L	0.0475		
As 188.979†	-8.1	-0.00464 mg/L	0.002217	-0.2191 mg/kg	0.10465
Cr 283.563†	20182.8	0.1304 mg/L	0.00056	6.155 mg/kg	0.0264

Duplicate Check: BZB0486-DUP2

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Y 371.029			0.000	mg/L	Not calculated
As 188.979	0.02753	-0.2191	0.105	mg/kg	-257.5
Cr 283.563	6.012	6.155	0.026	mg/kg	2.4

Sequence No.: 28

Autosampler Location: 5

Sample ID: CCV

Date Collected: 2/24/2016 3:25:11 PM

Analyst:

Data Type: Reprocessed on 2/24/2016 6:22:17 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	216.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T:
1	Y 371.029	2500347.7	2500347.7	5.082 mg/L		3:21
1	As 188.979†	3427.9	3352.7	1.915 mg/L		3:21
1	Cr 283.563†	326911.1	316538.7	2.045 mg/L		3:21
2	Y 371.029	2486735.9	2486735.9	5.055 mg/L		3:21
2	As 188.979†	3476.5	3419.3	1.953 mg/L		3:21
2	Cr 283.563†	322657.8	314091.8	2.029 mg/L		3:21
3	Y 371.029	2508784.5	2508784.5	5.100 mg/L		3:21
3	As 188.979†	3430.0	3343.5	1.910 mg/L		3:21
3	Cr 283.563†	322786.5	311413.0	2.011 mg/L		3:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2498622.7	5.079 mg/L	0.0226		(
As 188.979†	3371.9	1.926 mg/L	0.0236		:
QC value within limits for As 188.979 Recovery = 96.30%					
Cr 283.563†	314014.5	2.028 mg/L	0.0166		(
QC value within limits for Cr 283.563 Recovery = 101.41%					
All analyte(s) passed QC.					

Sequence No.: 29

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/24/2016 3:30:58 PM

Data Type: Reprocessed on 2/24/2016 6:22:17 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	215.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal Time
1	Y 371.029	2614979.0	2614979.0	5.315 mg/L		3:33
1	As 188.979†	0.7	-18.8	-0.01076 mg/L		3:33
1	Cr 283.563†	4879.6	-481.2	-0.00311 mg/L		3:33
2	Y 371.029	2587744.8	2587744.8	5.260 mg/L		3:33
2	As 188.979†	11.1	-9.0	-0.00514 mg/L		3:33
2	Cr 283.563†	4952.1	-364.0	-0.00235 mg/L		3:33
3	Y 371.029	2611339.4	2611339.4	5.308 mg/L		3:33
3	As 188.979†	-0.3	-19.8	-0.01132 mg/L		3:33
3	Cr 283.563†	4736.5	-609.7	-0.00394 mg/L		3:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2604687.7	5.295 mg/L	0.0301		(
As 188.979†	-15.9	-0.00908 mg/L	0.003418		3'
QC value within limits for As 188.979 Recovery = Not calculated					
Cr 283.563†	-484.9	-0.00313 mg/L	0.000794		2'
QC value within limits for Cr 283.563 Recovery = Not calculated					
All analyte(s) passed QC.					

Sequence No.: 30

Sample ID: BZB0486-MS2

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.027 g

Dilution:

Wash Time:

Autosampler Location: 32

Date Collected: 2/24/2016 3:34:50 PM

Data Type: Reprocessed on 2/24/2016 6:22:17 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0486-MS2

Analyte	Back Pressure	Flow
All	216.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0486-MS2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. T:
1	Y 371.029	2376402.3	2376402.3	4.830 mg/L		3:36
1	As 188.979†	2921.6	3004.6	1.716 mg/L	83.55 mg/kg	3:36
1	Cr 283.563†	322337.5	328578.6	2.122 mg/L	103.3 mg/kg	3:36
2	Y 371.029	2384919.5	2384919.5	4.848 mg/L		3:37
2	As 188.979†	2930.7	3003.2	1.715 mg/L	83.52 mg/kg	3:37
2	Cr 283.563†	325047.9	330182.7	2.133 mg/L	103.8 mg/kg	3:37
3	Y 371.029	2391596.5	2391596.5	4.861 mg/L		3:38
3	As 188.979†	2939.0	3003.2	1.715 mg/L	83.52 mg/kg	3:38
3	Cr 283.563†	323834.0	327998.1	2.119 mg/L	103.1 mg/kg	3:38

Mean Data: BZB0486-MS2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2384306.1	4.847 mg/L	0.0155		
As 188.979†	3003.7	1.716 mg/L	0.0004	83.53 mg/kg	0.021
Cr 283.563†	328919.8	2.125 mg/L	0.0073	103.4 mg/kg	0.36

Matrix Recovery Check: BZB0486-MS2

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
As 188.979	100.0	83.53	0.021	mg/kg	83.5
Cr 283.563	106.0	103.4	0.356	mg/kg	97.4

Sequence No.: 31

Sample ID: 16B0472-31

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.019 g

Dilution:

Wash Time:

Autosampler Location: 33

Date Collected: 2/24/2016 3:40:32 PM

Data Type: Reprocessed on 2/24/2016 6:22:18 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-31

Analyte	Back Pressure	Flow
All	215.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-31

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. T:
1	Y 371.029	2398671.2	2398671.2	4.876 mg/L		3:4'
1	As 188.979†	872.2	874.9	0.4997 mg/L	24.52 mg/kg	3:4'
1	Cr 283.563†	144910.5	143532.4	0.9271 mg/L	45.49 mg/kg	3:4'
2	Y 371.029	2407199.2	2407199.2	4.893 mg/L		3:4'
2	As 188.979†	871.4	870.9	0.4975 mg/L	24.41 mg/kg	3:4'
2	Cr 283.563†	145476.7	143584.4	0.9274 mg/L	45.51 mg/kg	3:4'
3	Y 371.029	2365731.8	2365731.8	4.809 mg/L		3:4'
3	As 188.979†	867.2	882.1	0.5039 mg/L	24.72 mg/kg	3:4'
3	Cr 283.563†	146315.3	147062.0	0.9499 mg/L	46.61 mg/kg	3:4'

Mean Data: 16B0472-31

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2390534.1	4.859 mg/L	0.0445		(
As 188.979†	876.0	0.5003 mg/L	0.00325	24.55 mg/kg	0.159 (
Cr 283.563†	144726.3	0.9348 mg/L	0.01307	45.87 mg/kg	0.641 :

Sequence No.: 32

Sample ID: 16B0472-32

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.048 g

Dilution:

Wash Time:

Autosampler Location: 34

Date Collected: 2/24/2016 3:45:53 PM

Data Type: Reprocessed on 2/24/2016 6:22:18 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-32

Analyte	Back Pressure	Flow
All	216.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-32

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. T:
1	Y 371.029	2405826.3	2405826.3	4.890 mg/L		3:4'
1	As 188.979†	61.8	43.7	0.02494 mg/L	1.190 mg/kg	3:4'
1	Cr 283.563†	32490.1	28147.8	0.1818 mg/L	8.674 mg/kg	3:4'
2	Y 371.029	2413668.7	2413668.7	4.906 mg/L		3:4'
2	As 188.979†	58.8	40.4	0.02309 mg/L	1.102 mg/kg	3:4'
2	Cr 283.563†	32544.3	28095.1	0.1815 mg/L	8.658 mg/kg	3:4'
3	Y 371.029	2389368.2	2389368.2	4.857 mg/L		3:4'
3	As 188.979†	52.9	34.9	0.01993 mg/L	0.9510 mg/kg	3:4'
3	Cr 283.563†	32834.9	28731.6	0.1856 mg/L	8.854 mg/kg	3:4'

Mean Data: 16B0472-32

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2402954.4	4.884 mg/L	0.0252		(
As 188.979†	39.7	0.02265 mg/L	0.002533	1.081 mg/kg	0.1209 1:
Cr 283.563†	28324.8	0.1830 mg/L	0.00228	8.729 mg/kg	0.1089 :

Sequence No.: 33

Sample ID: 16B0472-33

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.063 g

Dilution:

Wash Time:

Autosampler Location: 35

Date Collected: 2/24/2016 3:50:58 PM

Data Type: Reprocessed on 2/24/2016 6:22:18 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-33

Analyte	Back Pressure	Flow
All	216.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-33

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T:
1	Y 371.029	2274843.8	2274843.8	4.624 mg/L		3:5:
1	As 188.979†	1159.9	1234.7	0.7052 mg/L	33.17 mg/kg	3:5:
1	Cr 283.563†	162289.7	170413.6	1.101 mg/L	51.77 mg/kg	3:5:
2	Y 371.029	2295177.1	2295177.1	4.665 mg/L		3:5:
2	As 188.979†	1164.4	1228.3	0.7016 mg/L	33.00 mg/kg	3:5:
2	Cr 283.563†	164789.4	171537.9	1.108 mg/L	52.12 mg/kg	3:5:
3	Y 371.029	2299312.5	2299312.5	4.674 mg/L		3:5:
3	As 188.979†	1151.7	1212.6	0.6926 mg/L	32.58 mg/kg	3:5:
3	Cr 283.563†	162273.9	168529.1	1.089 mg/L	51.20 mg/kg	3:5:

Mean Data: 16B0472-33

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2289777.8	4.654 mg/L	0.0266		(
As 188.979†	1225.2	0.6998 mg/L	0.00650	32.92 mg/kg	0.306 (
Cr 283.563†	170160.2	1.099 mg/L	0.0098	51.70 mg/kg	0.462 (

Sequence No.: 34

Sample ID: 16B0472-34

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.047 g

Dilution:

Wash Time:

Autosampler Location: 36

Date Collected: 2/24/2016 3:56:18 PM

Data Type: Reprocessed on 2/24/2016 6:22:18 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-34

Analyte	Back Pressure	Flow
All	216.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000

Cr 283.563 0.200 10 2.000

Replicate Data: 16B0472-34

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T:
1	Y 371.029	2397012.8	2397012.8	4.872 mg/L		3:5'
1	As 188.979†	457.9	450.3	0.2572 mg/L	12.28 mg/kg	3:5'
1	Cr 283.563†	75084.2	71979.8	0.4649 mg/L	22.20 mg/kg	3:5'
2	Y 371.029	2422751.2	2422751.2	4.925 mg/L		3:5'
2	As 188.979†	450.1	437.5	0.2499 mg/L	11.93 mg/kg	3:5'
2	Cr 283.563†	77032.0	73138.8	0.4724 mg/L	22.56 mg/kg	3:5'
3	Y 371.029	2398532.8	2398532.8	4.875 mg/L		3:5'
3	As 188.979†	443.2	435.0	0.2485 mg/L	11.86 mg/kg	3:5'
3	Cr 283.563†	76839.3	73730.9	0.4762 mg/L	22.74 mg/kg	3:5'

Mean Data: 16B0472-34

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2406098.9	4.891 mg/L	0.0294		
As 188.979†	440.9	0.2519 mg/L	0.00470	12.03 mg/kg	0.225
Cr 283.563†	72949.8	0.4712 mg/L	0.00575	22.50 mg/kg	0.275

Sequence No.: 35

Sample ID: 16B0472-35

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.055 g

Dilution:

Wash Time:

Autosampler Location: 37

Date Collected: 2/24/2016 4:01:28 PM

Data Type: Reprocessed on 2/24/2016 6:22:18 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-35

Analyte	Back Pressure	Flow
All	216.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-35

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T:
1	Y 371.029	2250868.6	2250868.6	4.575 mg/L		4:0'
1	As 188.979†	1058.7	1137.4	0.6497 mg/L	30.79 mg/kg	4:0'
1	Cr 283.563†	167555.8	178037.6	1.150 mg/L	54.50 mg/kg	4:0'
2	Y 371.029	2274637.0	2274637.0	4.624 mg/L		4:0'
2	As 188.979†	1053.6	1119.8	0.6396 mg/L	30.31 mg/kg	4:0'
2	Cr 283.563†	163482.8	171719.8	1.109 mg/L	52.57 mg/kg	4:0'
3	Y 371.029	2265638.0	2265638.0	4.605 mg/L		4:0'
3	As 188.979†	1076.1	1148.8	0.6562 mg/L	31.10 mg/kg	4:0'
3	Cr 283.563†	164915.4	173977.3	1.124 mg/L	53.26 mg/kg	4:0'

Mean Data: 16B0472-35

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2263714.6	4.601 mg/L	0.0244		

As 188.979†	1135.3	0.6485 mg/L	0.00834	30.73 mg/kg	0.395	:
Cr 283.563†	174578.2	1.128 mg/L	0.0207	53.44 mg/kg	0.980	:

=====

Sequence No.: 36

Autosampler Location: 38

Sample ID: 16B0472-36

Date Collected: 2/24/2016 4:06:50 PM

Analyst:

Data Type: Reprocessed on 2/24/2016 6:22:18 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.07 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-36

Analyte	Back Pressure	Flow
All	216.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-36

Repl#	Analyte	Net	Corrected	Calib.	Sample	Ana.
		Intensity	Intensity	Conc. Units	Conc. Units	Time
1	Y 371.029	2347490.7	2347490.7	4.772 mg/L		4:01
1	As 188.979†	67.1	50.7	0.02898 mg/L	1.354 mg/kg	4:01
1	Cr 283.563†	45129.5	42217.4	0.2727 mg/L	12.74 mg/kg	4:01
2	Y 371.029	2369744.4	2369744.4	4.817 mg/L		4:01
2	As 188.979†	48.5	30.8	0.01761 mg/L	0.8231 mg/kg	4:01
2	Cr 283.563†	44546.3	41167.9	0.2659 mg/L	12.43 mg/kg	4:01
3	Y 371.029	2382321.6	2382321.6	4.843 mg/L		4:01
3	As 188.979†	46.8	28.7	0.01642 mg/L	0.7671 mg/kg	4:01
3	Cr 283.563†	44221.3	40588.3	0.2622 mg/L	12.25 mg/kg	4:01

Mean Data: 16B0472-36

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.
	Intensity	Conc. Units		Conc. Units	
Y 371.029	2366518.9	4.810 mg/L	0.0359		
As 188.979†	36.8	0.02100 mg/L	0.006934	0.9815 mg/kg	0.32401
Cr 283.563†	41324.5	0.2669 mg/L	0.00533	12.47 mg/kg	0.249

=====

Sequence No.: 37

Autosampler Location: 39

Sample ID: 16B0472-37

Date Collected: 2/24/2016 4:11:57 PM

Analyst:

Data Type: Reprocessed on 2/24/2016 6:22:19 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.015 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-37

Analyte	Back Pressure	Flow
All	217.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)

Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-37

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2332724.0	2332724.0	4.742 mg/L		4:11
1	As 188.979†	409.2	412.0	0.2353 mg/L	11.59 mg/kg	4:11
1	Cr 283.563†	125585.3	127355.5	0.8226 mg/L	40.52 mg/kg	4:11
2	Y 371.029	2307957.3	2307957.3	4.691 mg/L		4:14
2	As 188.979†	410.5	417.9	0.2387 mg/L	11.76 mg/kg	4:14
2	Cr 283.563†	123970.6	127055.6	0.8207 mg/L	40.43 mg/kg	4:14
3	Y 371.029	2315137.1	2315137.1	4.706 mg/L		4:14
3	As 188.979†	404.0	409.8	0.2340 mg/L	11.53 mg/kg	4:14
3	Cr 283.563†	124739.8	127463.1	0.8233 mg/L	40.56 mg/kg	4:14

Mean Data: 16B0472-37

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2318606.2	4.713 mg/L	0.0259		
As 188.979†	413.2	0.2360 mg/L	0.00241	11.63 mg/kg	0.119
Cr 283.563†	127291.4	0.8222 mg/L	0.00136	40.50 mg/kg	0.067

Sequence No.: 38

Sample ID: 16B0472-38

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.055 g

Dilution:

Wash Time:

Autosampler Location: 40

Date Collected: 2/24/2016 4:17:23 PM

Data Type: Reprocessed on 2/24/2016 6:22:19 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-38

Analyte	Back Pressure	Flow
All	217.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-38

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2320594.8	2320594.8	4.717 mg/L		4:11
1	As 188.979†	228.0	222.1	0.1269 mg/L	6.013 mg/kg	4:11
1	Cr 283.563†	98798.4	99653.8	0.6437 mg/L	30.51 mg/kg	4:11
2	Y 371.029	2372935.7	2372935.7	4.823 mg/L		4:11
2	As 188.979†	220.9	209.5	0.1196 mg/L	5.670 mg/kg	4:11
2	Cr 283.563†	98921.4	97471.4	0.6296 mg/L	29.84 mg/kg	4:11
3	Y 371.029	2339448.3	2339448.3	4.755 mg/L		4:20
3	As 188.979†	228.8	221.0	0.1263 mg/L	5.984 mg/kg	4:20
3	Cr 283.563†	98193.6	98173.9	0.6341 mg/L	30.05 mg/kg	4:20

Mean Data: 16B0472-38

Mean Corrected	Calib.	Sample
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Analyte	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.
Y 371.029	2344326.3	4.765 mg/L	0.0539		
As 188.979†	217.5	0.1243 mg/L	0.00401	5.889 mg/kg	0.1900
Cr 283.563†	98433.0	0.6358 mg/L	0.00720	30.13 mg/kg	0.341

Sequence No.: 39
Sample ID: 16B0472-39
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1.039 g
Dilution:
Wash Time:

Autosampler Location: 41
Date Collected: 2/24/2016 4:22:33 PM
Data Type: Reprocessed on 2/24/2016 6:22:19 PM
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-39

Analyte	Back Pressure	Flow
All	216.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-39

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T:
1	Y 371.029	2390930.0	2390930.0	4.860 mg/L		4:2'
1	As 188.979†	488.3	482.8	0.2758 mg/L	13.27 mg/kg	4:2'
1	Cr 283.563†	127042.1	125630.3	0.8115 mg/L	39.05 mg/kg	4:2'
2	Y 371.029	2402643.2	2402643.2	4.884 mg/L		4:2'
2	As 188.979†	486.8	478.9	0.2735 mg/L	13.16 mg/kg	4:2'
2	Cr 283.563†	129156.9	127158.2	0.8213 mg/L	39.53 mg/kg	4:2'
3	Y 371.029	2427662.0	2427662.0	4.935 mg/L		4:2'
3	As 188.979†	488.8	475.8	0.2718 mg/L	13.08 mg/kg	4:2'
3	Cr 283.563†	127378.4	123993.5	0.8009 mg/L	38.54 mg/kg	4:2'

Mean Data: 16B0472-39

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2407078.4	4.893 mg/L	0.0381		
As 188.979†	479.1	0.2737 mg/L	0.00201	13.17 mg/kg	0.097
Cr 283.563†	125594.0	0.8112 mg/L	0.01022	39.04 mg/kg	0.492

Sequence No.: 40
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 2/24/2016 4:27:49 PM
Data Type: Reprocessed on 2/24/2016 6:22:19 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	216.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T:
1	Y 371.029	2426165.3	2426165.3	4.932 mg/L		4:29
1	As 188.979†	3279.6	3305.6	1.888 mg/L		4:30
1	Cr 283.563†	310204.8	309434.3	1.999 mg/L		4:29
2	Y 371.029	2442408.4	2442408.4	4.965 mg/L		4:30
2	As 188.979†	3309.2	3313.3	1.893 mg/L		4:30
2	Cr 283.563†	316048.4	313227.9	2.023 mg/L		4:30
3	Y 371.029	2403786.3	2403786.3	4.886 mg/L		4:31
3	As 188.979†	3324.6	3382.5	1.932 mg/L		4:31
3	Cr 283.563†	311394.1	313579.3	2.025 mg/L		4:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2424120.0	4.927 mg/L	0.0394		(
As 188.979†	3333.8	1.904 mg/L	0.0242		:
QC value within limits for As 188.979 Recovery = 95.21%					
Cr 283.563†	312080.5	2.016 mg/L	0.0148		(
QC value within limits for Cr 283.563 Recovery = 100.79%					
All analyte(s) passed QC.					

=====

Sequence No.: 41

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/24/2016 4:33:50 PM

Analyst:

Data Type: Reprocessed on 2/24/2016 6:22:19 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. T:
1	Y 371.029	2588672.6	2588672.6	5.262 mg/L		4:31
1	As 188.979†	-0.8	-20.3	-0.01162 mg/L		4:31
1	Cr 283.563†	5144.4	-183.0	-0.00118 mg/L		4:31
2	Y 371.029	2634051.2	2634051.2	5.354 mg/L		4:31
2	As 188.979†	6.7	-13.3	-0.00760 mg/L		4:31
2	Cr 283.563†	5089.6	-318.4	-0.00206 mg/L		4:31
3	Y 371.029	2608375.4	2608375.4	5.302 mg/L		4:31
3	As 188.979†	-2.5	-21.9	-0.01250 mg/L		4:31

3 Cr 283.563† 4950.3 -402.9 -0.00260 mg/L 4:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2610366.4	5.306 mg/L	0.0463		
As 188.979†	-18.5	-0.01057 mg/L	0.002610		
QC value less than the lower limit for As 188.979 Recovery = Not calculated					
Cr 283.563†	-301.4	-0.00195 mg/L	0.000717		
QC value within limits for Cr 283.563 Recovery = Not calculated					
QC Failed. Continue with analysis.					

=====

Sequence No.: 42

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/24/2016 4:36:39 PM

Analyst:

Data Type: Reprocessed on 2/24/2016 6:22:19 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Anal. Time
1	Y 371.029	2577279.0	2577279.0	5.239 mg/L		4:36
1	As 188.979†	6.7	-13.1	-0.00749 mg/L		4:36
1	Cr 283.563†	4941.8	-354.7	-0.00229 mg/L		4:36
2	Y 371.029	2559133.6	2559133.6	5.202 mg/L		4:36
2	As 188.979†	-5.0	-24.3	-0.01390 mg/L		4:36
2	Cr 283.563†	5020.6	-245.6	-0.00159 mg/L		4:36
3	Y 371.029	2606225.7	2606225.7	5.298 mg/L		4:36
3	As 188.979†	8.0	-11.9	-0.00682 mg/L		4:36
3	Cr 283.563†	4909.8	-437.3	-0.00282 mg/L		4:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2580879.4	5.246 mg/L	0.0483		
As 188.979†	-16.5	-0.00940 mg/L	0.003906		
QC value within limits for As 188.979 Recovery = Not calculated					
Cr 283.563†	-345.8	-0.00223 mg/L	0.000621		
QC value within limits for Cr 283.563 Recovery = Not calculated					
All analyte(s) passed QC.					

=====

Sequence No.: 43

Autosampler Location: 42

Sample ID: 16B0472-40

Date Collected: 2/24/2016 4:47:11 PM

Analyst:

Data Type: Reprocessed on 2/24/2016 6:22:20 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.043 g
Dilution:
Wash Time:

Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-40

Analyte	Back Pressure	Flow
All	217.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-40

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. T:
1	Y 371.029	2421040.0	2421040.0	4.921 mg/L		4:41
1	As 188.979†	173.0	156.3	0.08926 mg/L	4.279 mg/kg	4:41
1	Cr 283.563†	52312.0	48078.3	0.3105 mg/L	14.89 mg/kg	4:41
2	Y 371.029	2398188.4	2398188.4	4.875 mg/L		4:41
2	As 188.979†	182.2	167.3	0.09557 mg/L	4.581 mg/kg	4:41
2	Cr 283.563†	51731.0	47988.8	0.3100 mg/L	14.86 mg/kg	4:41
3	Y 371.029	2426641.6	2426641.6	4.933 mg/L		4:41
3	As 188.979†	180.6	163.5	0.09341 mg/L	4.478 mg/kg	4:51
3	Cr 283.563†	52808.8	48459.2	0.3130 mg/L	15.01 mg/kg	4:41

Mean Data: 16B0472-40

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2415290.0	4.910 mg/L	0.0306		
As 188.979†	162.4	0.09274 mg/L	0.003209	4.446 mg/kg	0.1538
Cr 283.563†	48175.5	0.3112 mg/L	0.00161	14.92 mg/kg	0.077

=====

Sequence No.: 44

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/24/2016 5:39:26 PM

Data Type: Reprocessed on 2/24/2016 6:22:20 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana. T:
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1	Y 371.029	2462582.7	2462582.7	5.006 mg/L	5:41
1	As 188.979†	3390.9	3367.5	1.924 mg/L	5:41
1	Cr 283.563†	316487.5	311058.9	2.009 mg/L	5:41
2	Y 371.029	2485012.3	2485012.3	5.051 mg/L	5:41
2	As 188.979†	3386.9	3333.0	1.904 mg/L	5:41
2	Cr 283.563†	314384.9	306124.3	1.977 mg/L	5:41
3	Y 371.029	2491286.8	2491286.8	5.064 mg/L	5:41
3	As 188.979†	3385.0	3322.7	1.898 mg/L	5:41
3	Cr 283.563†	318095.8	309004.5	1.996 mg/L	5:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2479627.2	5.040 mg/L	0.0307		(
As 188.979†	3341.1	1.908 mg/L	0.0134		(
QC value within limits for As 188.979 Recovery = 95.42%					
Cr 283.563†	308729.2	1.994 mg/L	0.0160		(
QC value within limits for Cr 283.563 Recovery = 99.71%					
All analyte(s) passed QC.					

Sequence No.: 45

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/24/2016 5:45:19 PM

Data Type: Reprocessed on 2/24/2016 6:22:20 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Ana: T:
1	Y 371.029	2703163.8	2703163.8	5.495 mg/L		5:41
1	As 188.979†	-1.8	-21.1	-0.01207 mg/L		5:41
1	Cr 283.563†	5047.9	-477.9	-0.00309 mg/L		5:41
2	Y 371.029	2676890.4	2676890.4	5.441 mg/L		5:41
2	As 188.979†	12.5	-8.1	-0.00462 mg/L		5:41
2	Cr 283.563†	5142.5	-345.8	-0.00223 mg/L		5:41
3	Y 371.029	2666059.7	2666059.7	5.419 mg/L		5:41
3	As 188.979†	-1.4	-20.8	-0.01190 mg/L		5:41
3	Cr 283.563†	5176.7	-295.1	-0.00191 mg/L		5:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.
Y 371.029	2682038.0	5.452 mg/L	0.0388		(
As 188.979†	-16.7	-0.00953 mg/L	0.004253		41
QC value within limits for As 188.979 Recovery = Not calculated					
Cr 283.563†	-372.9	-0.00241 mg/L	0.000609		21

QC value within limits for Cr 283.563 Recovery = Not calculated
All analyte(s) passed QC.

Analysis Sequence Raw Data

Sequence	SZB0700
Instrument	ICP03
Analysis	Cr SW6010

Analysis Sequence

Printed: 02/27/2016 5:40 pm

SZB0700

Department: Metals-ICP
Instrument: ICP03
Calibration ID: AB60120

Sequence Date: 02/24/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
16B0472-41	A	LW-21-12	1				Draper Aden Associates-Richmond	
16B0472-41	A	LW-21-12	2				Draper Aden Associates-Richmond	
16B0472-42	A	LW-21-24	3				Draper Aden Associates-Richmond	
16B0472-42	A	LW-21-24	4				Draper Aden Associates-Richmond	
16B0472-43	A	LW-22-12	5				Draper Aden Associates-Richmond	
16B0472-43	A	LW-22-12	6				Draper Aden Associates-Richmond	
16B0472-44	A	LW-22-24	7				Draper Aden Associates-Richmond	
16B0472-44	A	LW-22-24	8				Draper Aden Associates-Richmond	
16B0472-45	A	LW-23-12	9				Draper Aden Associates-Richmond	
16B0472-45	A	LW-23-12	10				Draper Aden Associates-Richmond	
16B0472-46	A	LW-23-24	11				Draper Aden Associates-Richmond	
16B0472-46	A	LW-23-24	12				Draper Aden Associates-Richmond	
16B0472-47	A	LW-24-12	13				Draper Aden Associates-Richmond	
16B0472-47	A	LW-24-12	14				Draper Aden Associates-Richmond	
16B0472-48	A	LW-24-24	15				Draper Aden Associates-Richmond	
16B0472-48	A	LW-24-24	16				Draper Aden Associates-Richmond	
16B0472-49	A	LW-25-12	17				Draper Aden Associates-Richmond	
16B0472-49	A	LW-25-12	18				Draper Aden Associates-Richmond	
16B0472-50	A	LW-25-24	19				Draper Aden Associates-Richmond	
16B0472-50	A	LW-25-24	20				Draper Aden Associates-Richmond	
16B0472-51	A	LW-26-12	21				Draper Aden Associates-Richmond	
16B0472-51	A	LW-26-12	22				Draper Aden Associates-Richmond	
16B0472-52	A	LW-26-24	23				Draper Aden Associates-Richmond	

Analysis Sequence

Printed: 02/27/2016 5:40 pm

SZB0700

(Continued)

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60120

Sequence Date: 02/24/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
16B0472-52	A	LW-26-24	24				Draper Aden Associates-Richmond	
16B0472-53	A	LW-27-12	25				Draper Aden Associates-Richmond	
16B0472-53	A	LW-27-12	26				Draper Aden Associates-Richmond	
16B0472-54	A	LW-27-24	27				Draper Aden Associates-Richmond	
16B0472-54	A	LW-27-24	28				Draper Aden Associates-Richmond	
16B0472-55	A	LW-28-12	29				Draper Aden Associates-Richmond	
16B0472-55	A	LW-28-12	30				Draper Aden Associates-Richmond	
16B0472-56	A	LW-28-24	31				Draper Aden Associates-Richmond	
16B0472-56	A	LW-28-24	32				Draper Aden Associates-Richmond	
16B0472-57	A	LW-29-12	33				Draper Aden Associates-Richmond	
16B0472-57	A	LW-29-12	34				Draper Aden Associates-Richmond	
16B0472-58	A	LW-29-24	35				Draper Aden Associates-Richmond	
16B0472-58	A	LW-29-24	36				Draper Aden Associates-Richmond	
16B0472-59	A	LW-30-12	37				Draper Aden Associates-Richmond	
16B0472-59	A	LW-30-12	38				Draper Aden Associates-Richmond	
16B0472-60	A	LW-30-24	39				Draper Aden Associates-Richmond	
16B0472-60	A	LW-30-24	40				Draper Aden Associates-Richmond	
BZB0487-DUP2		Duplicate	41					
BZB0487-MS2		Matrix Spike	42					
BZB0487-MS1		Matrix Spike	43					
BZB0487-DUP1		Duplicate	44					
BZB0487-BS1		LCS	45					
BZB0487-BLK1		Blank	46					

Analysis Sequence

Printed: 02/27/2016 5:40 pm

SZB0700

(Continued)

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60120

Sequence Date: 02/24/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
SZB0700-CCB1		Calibration Blank	47					
SZB0700-CCB2		Calibration Blank	48					
SZB0700-CCB3		Calibration Blank	49					
SZB0700-CCB4		Calibration Blank	50					
SZB0700-CCB5		Calibration Blank	51					
SZB0700-CCB6		Calibration Blank	52					
SZB0700-CCV1		Calibration Check	53		6B01695			
SZB0700-CCV2		Calibration Check	54		6B01695			
SZB0700-CCV3		Calibration Check	55		6B01695			
SZB0700-CCV4		Calibration Check	56		6B01695			
SZB0700-IFA1		Interference Check A	57		6B01701			
SZB0700-IFB1		Interference Check B	58		6B01702			
SZB0700-SRD1		Serial Dilution	59					

=====

Reprocessing Begun

Logged In Analyst: ICP03

Technique: ICP Continuous

Results Data Set (original): 160224CWO-1wood3

Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

Results Data Set (reprocessed): 160224CWO-SZB0700

Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

=====

Sequence No.: 1

Autosampler Location: 12

Sample ID: ICS A

Date Collected: 2/24/2016 12:25:08 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:08:35 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: ICS A

Analyte	Back Pressure	Flow
All	200.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2429237.6	2429237.6	4.938 mg/L		12:26:36 PM
1	As 188.979†	14.8	-4.6	-0.00262 mg/L	-0.1309 mg/kg	12:26:59 PM
1	Cr 283.563†	4886.9	-122.9	-0.00079 mg/L	-0.03969 mg/kg	12:26:39 PM
2	Y 371.029	2463169.2	2463169.2	5.007 mg/L		12:27:07 PM
2	As 188.979†	23.6	4.0	0.00228 mg/L	0.1139 mg/kg	12:27:30 PM
2	Cr 283.563†	5106.1	27.8	0.00018 mg/L	0.00899 mg/kg	12:27:10 PM
3	Y 371.029	2486999.5	2486999.5	5.055 mg/L		12:27:37 PM
3	As 188.979†	11.3	-8.4	-0.00478 mg/L	-0.2392 mg/kg	12:28:00 PM
3	Cr 283.563†	4962.3	-163.3	-0.00105 mg/L	-0.05273 mg/kg	12:27:40 PM

Mean Data: ICS A

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2459802.1	5.000 mg/L	0.0590			1.18%
As 188.979†	-3.0	-0.00171 mg/L	0.003618	-0.08538 mg/kg	0.180903	211.87%
Cr 283.563†	-86.1	-0.00056 mg/L	0.000651	-0.02781 mg/kg	0.032526	116.96%

=====

Sequence No.: 2

Autosampler Location: 13

Sample ID: ICS AB

Date Collected: 2/24/2016 12:29:05 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:08:35 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: ICS AB

Analyte	Back Pressure	Flow
All	201.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2425633.1	2425633.1	4.931 mg/L		12:30:56 PM
1	As 188.979†	3207.2	3232.8	1.847 mg/L	92.33 mg/kg	12:31:18 PM
1	Cr 283.563†	307386.9	306645.7	1.981 mg/L	99.03 mg/kg	12:30:58 PM
2	Y 371.029	2417515.4	2417515.4	4.914 mg/L		12:31:47 PM
2	As 188.979†	3237.8	3274.9	1.871 mg/L	93.53 mg/kg	12:32:10 PM
2	Cr 283.563†	302569.4	302790.6	1.956 mg/L	97.79 mg/kg	12:31:50 PM
3	Y 371.029	2399443.3	2399443.3	4.877 mg/L		12:32:38 PM
3	As 188.979†	3258.8	3321.2	1.897 mg/L	94.85 mg/kg	12:33:01 PM
3	Cr 283.563†	305163.4	307768.6	1.988 mg/L	99.40 mg/kg	12:32:41 PM

Mean Data: ICS AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2414197.3	4.907 mg/L	0.0273			0.56%
As 188.979†	3276.3	1.871 mg/L	0.0253	93.57 mg/kg	1.263	1.35%
Cr 283.563†	305735.0	1.975 mg/L	0.0169	98.74 mg/kg	0.843	0.85%

Sequence No.: 3

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/24/2016 4:27:49 PM

Data Type: Reprocessed on 2/27/2016 5:08:35 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	216.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2426165.3	2426165.3	4.932 mg/L		4:29:40 PM
1	As 188.979†	3279.6	3305.6	1.888 mg/L		4:30:03 PM
1	Cr 283.563†	310204.8	309434.3	1.999 mg/L		4:29:43 PM
2	Y 371.029	2442408.4	2442408.4	4.965 mg/L		4:30:31 PM
2	As 188.979†	3309.2	3313.3	1.893 mg/L		4:30:53 PM
2	Cr 283.563†	316048.4	313227.9	2.023 mg/L		4:30:33 PM
3	Y 371.029	2403786.3	2403786.3	4.886 mg/L		4:31:21 PM
3	As 188.979†	3324.6	3382.5	1.932 mg/L		4:31:44 PM
3	Cr 283.563†	311394.1	313579.3	2.025 mg/L		4:31:24 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2424120.0	4.927 mg/L	0.0394			0.80%
As 188.979†	3333.8	1.904 mg/L	0.0242			1.27%
QC value within limits for As 188.979 Recovery = 95.21%						
Cr 283.563†	312080.5	2.016 mg/L	0.0148			0.74%
QC value within limits for Cr 283.563 Recovery = 100.79%						
All analyte(s) passed QC.						

=====

Sequence No.: 4	Autosampler Location: 1
Sample ID: CCB	Date Collected: 2/24/2016 4:33:50 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 5:08:35 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2588672.6	2588672.6	5.262 mg/L		4:35:17 PM
1	As 188.979†	-0.8	-20.3	-0.01162 mg/L		4:35:39 PM
1	Cr 283.563†	5144.4	-183.0	-0.00118 mg/L		4:35:19 PM
2	Y 371.029	2634051.2	2634051.2	5.354 mg/L		4:35:46 PM
2	As 188.979†	6.7	-13.3	-0.00760 mg/L		4:36:09 PM
2	Cr 283.563†	5089.6	-318.4	-0.00206 mg/L		4:35:49 PM
3	Y 371.029	2608375.4	2608375.4	5.302 mg/L		4:36:16 PM
3	As 188.979†	-2.5	-21.9	-0.01250 mg/L		4:36:38 PM
3	Cr 283.563†	4950.3	-402.9	-0.00260 mg/L		4:36:18 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2610366.4	5.306 mg/L	0.0463			0.87%
As 188.979†	-18.5	-0.01057 mg/L	0.002610			24.69%
QC value less than the lower limit for As 188.979 Recovery = Not calculated						
Cr 283.563†	-301.4	-0.00195 mg/L	0.000717			36.81%
QC value within limits for Cr 283.563 Recovery = Not calculated						
QC Failed. Continue with analysis.						

=====

Sequence No.: 5	Autosampler Location: 1
Sample ID: CCB	Date Collected: 2/24/2016 4:36:39 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 5:08:35 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2577279.0	2577279.0	5.239 mg/L		4:38:04 PM
1	As 188.979†	6.7	-13.1	-0.00749 mg/L		4:38:27 PM
1	Cr 283.563†	4941.8	-354.7	-0.00229 mg/L		4:38:07 PM
2	Y 371.029	2559133.6	2559133.6	5.202 mg/L		4:38:34 PM
2	As 188.979†	-5.0	-24.3	-0.01390 mg/L		4:38:56 PM
2	Cr 283.563†	5020.6	-245.6	-0.00159 mg/L		4:38:36 PM
3	Y 371.029	2606225.7	2606225.7	5.298 mg/L		4:39:03 PM
3	As 188.979†	8.0	-11.9	-0.00682 mg/L		4:39:25 PM
3	Cr 283.563†	4909.8	-437.3	-0.00282 mg/L		4:39:05 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2580879.4	5.246 mg/L	0.0483			0.92%
As 188.979†	-16.5	-0.00940 mg/L	0.003906			41.54%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-345.8	-0.00223 mg/L	0.000621			27.81%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 6

Sample ID: BZB0487-BLK1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.021 g

Dilution:

Wash Time:

Autosampler Location: 43

Date Collected: 2/24/2016 4:52:22 PM

Data Type: Reprocessed on 2/27/2016 5:08:36 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0487-BLK1

Analyte	Back Pressure	Flow
All	217.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: BZB0487-BLK1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2528741.3	2528741.3	5.140 mg/L		4:53:50 PM
1	As 188.979†	0.5	-19.1	-0.01088 mg/L	-0.5329 mg/kg	4:54:13 PM
1	Cr 283.563†	4907.5	-297.5	-0.00192 mg/L	-0.09412 mg/kg	4:53:52 PM

2	Y 371.029	2572238.4	2572238.4	5.229 mg/L		4:54:20 PM
2	As 188.979†	-0.6	-20.1	-0.01148 mg/L	-0.5624 mg/kg	4:54:42 PM
2	Cr 283.563†	4962.1	-326.0	-0.00211 mg/L	-0.1031 mg/kg	4:54:22 PM
3	Y 371.029	2568766.8	2568766.8	5.221 mg/L		4:54:50 PM
3	As 188.979†	-1.1	-20.6	-0.01178 mg/L	-0.5769 mg/kg	4:55:12 PM
3	Cr 283.563†	5022.2	-262.1	-0.00169 mg/L	-0.08292 mg/kg	4:54:52 PM

Mean Data: BZB0487-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2556582.2	5.197 mg/L	0.0491			0.95%
As 188.979†	-19.9	-0.01138 mg/L	0.000458	-0.5574 mg/kg	0.02242	4.02%
Cr 283.563†	-295.2	-0.00191 mg/L	0.000207	-0.09339 mg/kg	0.010125	10.84%

Sequence No.: 7

Autosampler Location: 44

Sample ID: BZB0487-BS1

Date Collected: 2/24/2016 4:56:17 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:08:36 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.03 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: BZB0487-BS1

Analyte	Back Pressure	Flow
All	218.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0487-BS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2398125.3	2398125.3	4.875 mg/L		4:58:03 PM
1	As 188.979†	3094.4	3154.4	1.802 mg/L	87.46 mg/kg	4:58:26 PM
1	Cr 283.563†	303285.8	306014.7	1.977 mg/L	95.95 mg/kg	4:58:06 PM
2	Y 371.029	2444675.9	2444675.9	4.969 mg/L		4:58:49 PM
2	As 188.979†	3080.2	3079.7	1.759 mg/L	85.39 mg/kg	4:59:12 PM
2	Cr 283.563†	302027.8	298825.3	1.930 mg/L	93.70 mg/kg	4:58:52 PM
3	Y 371.029	2454443.0	2454443.0	4.989 mg/L		4:59:35 PM
3	As 188.979†	3132.1	3119.4	1.782 mg/L	86.49 mg/kg	4:59:58 PM
3	Cr 283.563†	308869.7	304472.9	1.967 mg/L	95.47 mg/kg	4:59:38 PM

Mean Data: BZB0487-BS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2432414.7	4.944 mg/L	0.0612			1.24%
As 188.979†	3117.8	1.781 mg/L	0.0213	86.45 mg/kg	1.036	1.20%
Cr 283.563†	303104.3	1.958 mg/L	0.0244	95.04 mg/kg	1.187	1.25%

Sequence No.: 8

Autosampler Location: 45

Sample ID: 16B0472-41

Date Collected: 2/24/2016 5:02:04 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:08:36 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.038 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-41

Analyte	Back Pressure	Flow
All	219.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	2.000	10	20.000
Cr 283.563	0.100	20	2.000

Replicate Data: 16B0472-41

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2273941.4	2273941.4	4.622 mg/L		5:03:46 PM
1	As 188.979†	737.1	777.9	0.4443 mg/L	21.40 mg/kg	5:04:09 PM
1	Cr 283.563†	119751.7	124468.3	0.8040 mg/L	38.73 mg/kg	5:03:49 PM
2	Y 371.029	2262269.2	2262269.2	4.598 mg/L		5:04:28 PM
2	As 188.979†	742.7	788.0	0.4501 mg/L	21.68 mg/kg	5:04:52 PM
2	Cr 283.563†	118643.7	123931.9	0.8005 mg/L	38.56 mg/kg	5:04:31 PM
3	Y 371.029	2266992.6	2266992.6	4.608 mg/L		5:05:11 PM
3	As 188.979†	730.1	772.7	0.4414 mg/L	21.26 mg/kg	5:05:35 PM
3	Cr 283.563†	121234.6	126474.5	0.8169 mg/L	39.35 mg/kg	5:05:14 PM

Mean Data: 16B0472-41

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2267734.4	4.610 mg/L	0.0119			0.26%
As 188.979†	779.5	0.4453 mg/L	0.00446	21.45 mg/kg	0.215	1.00%
Cr 283.563†	124958.2	0.8071 mg/L	0.00866	38.88 mg/kg	0.417	1.07%

Sequence No.: 9

Sample ID: 16B0472-42

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.055 g

Dilution:

Wash Time:

Autosampler Location: 46

Date Collected: 2/24/2016 5:07:41 PM

Data Type: Reprocessed on 2/27/2016 5:08:36 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-42

Analyte	Back Pressure	Flow
All	218.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-42

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2455088.6	2455088.6	4.990 mg/L		5:09:16 PM
1	As 188.979†	83.8	64.5	0.03682 mg/L	1.745 mg/kg	5:09:39 PM
1	Cr 283.563†	31873.2	26863.2	0.1735 mg/L	8.223 mg/kg	5:09:18 PM
2	Y 371.029	2478932.0	2478932.0	5.039 mg/L		5:09:50 PM
2	As 188.979†	81.1	60.9	0.03481 mg/L	1.650 mg/kg	5:10:13 PM

2	Cr 283.563†	31740.3	26424.1	0.1707 mg/L	8.089 mg/kg	5:09:53 PM
3	Y 371.029	2457627.3	2457627.3	4.996 mg/L		5:10:25 PM
3	As 188.979†	80.1	60.7	0.03466 mg/L	1.642 mg/kg	5:10:48 PM
3	Cr 283.563†	31693.7	26650.5	0.1721 mg/L	8.158 mg/kg	5:10:28 PM

Mean Data: 16B0472-42

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2463882.6	5.008 mg/L	0.0266			0.53%
As 188.979†	62.0	0.03543 mg/L	0.001205	1.679 mg/kg	0.0571	3.40%
Cr 283.563†	26645.9	0.1721 mg/L	0.00142	8.157 mg/kg	0.0672	0.82%

=====

Sequence No.: 10
Sample ID: BZB0487-DUP1
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1.023 g
Dilution:
Wash Time:

Autosampler Location: 47
Date Collected: 2/24/2016 5:12:54 PM
Data Type: Reprocessed on 2/27/2016 5:08:36 PM
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0487-DUP1

Analyte	Back Pressure	Flow
All	218.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0487-DUP1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2433894.2	2433894.2	4.947 mg/L		5:14:27 PM
1	As 188.979†	144.8	126.8	0.07241 mg/L	3.539 mg/kg	5:14:50 PM
1	Cr 283.563†	34921.0	30221.5	0.1952 mg/L	9.541 mg/kg	5:14:30 PM
2	Y 371.029	2464550.2	2464550.2	5.010 mg/L		5:15:02 PM
2	As 188.979†	142.3	122.5	0.06998 mg/L	3.420 mg/kg	5:15:24 PM
2	Cr 283.563†	35354.2	30214.8	0.1952 mg/L	9.539 mg/kg	5:15:04 PM
3	Y 371.029	2467465.7	2467465.7	5.016 mg/L		5:15:37 PM
3	As 188.979†	137.2	117.2	0.06694 mg/L	3.272 mg/kg	5:15:59 PM
3	Cr 283.563†	35241.3	30060.6	0.1942 mg/L	9.490 mg/kg	5:15:39 PM

Mean Data: BZB0487-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2455303.4	4.991 mg/L	0.0378			0.76%
As 188.979†	122.2	0.06978 mg/L	0.002739	3.410 mg/kg	0.1339	3.93%
Cr 283.563†	30165.6	0.1948 mg/L	0.00059	9.523 mg/kg	0.0287	0.30%

=====

Sequence No.: 11
Sample ID: BZB0487-MS1
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1.009 g
Dilution:
Wash Time:

Autosampler Location: 48
Date Collected: 2/24/2016 5:18:04 PM
Data Type: Reprocessed on 2/27/2016 5:08:36 PM
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0487-MS1

Analyte	Back Pressure	Flow
All	219.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0487-MS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2426446.5	2426446.5	4.932 mg/L		5:19:49 PM
1	As 188.979†	3122.7	3146.1	1.797 mg/L	89.05 mg/kg	5:20:11 PM
1	Cr 283.563†	337771.0	337343.0	2.179 mg/L	108.0 mg/kg	5:19:51 PM
2	Y 371.029	2425990.3	2425990.3	4.931 mg/L		5:20:35 PM
2	As 188.979†	3134.8	3158.9	1.804 mg/L	89.41 mg/kg	5:20:58 PM
2	Cr 283.563†	338406.0	338051.3	2.184 mg/L	108.2 mg/kg	5:20:37 PM
3	Y 371.029	2439564.2	2439564.2	4.959 mg/L		5:21:21 PM
3	As 188.979†	3118.6	3124.9	1.785 mg/L	88.45 mg/kg	5:21:44 PM
3	Cr 283.563†	335724.4	333438.2	2.154 mg/L	106.7 mg/kg	5:21:24 PM

Mean Data: BZB0487-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2430667.0	4.941 mg/L	0.0157			0.32%
As 188.979†	3143.3	1.795 mg/L	0.0098	88.97 mg/kg	0.486	0.55%
Cr 283.563†	336277.5	2.172 mg/L	0.0160	107.6 mg/kg	0.80	0.74%

Sequence No.: 12

Sample ID: 16B0472-43

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.026 g

Dilution:

Wash Time:

Autosampler Location: 49

Date Collected: 2/24/2016 5:23:49 PM

Data Type: Reprocessed on 2/27/2016 5:08:37 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-43

Analyte	Back Pressure	Flow
All	220.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	2.000	10	20.000
Cr 283.563	0.100	20	2.000

Replicate Data: 16B0472-43

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2282126.8	2282126.8	4.639 mg/L		5:25:26 PM
1	As 188.979†	1007.1	1066.0	0.6089 mg/L	29.67 mg/kg	5:25:50 PM
1	Cr 283.563†	191298.3	201120.5	1.299 mg/L	63.31 mg/kg	5:25:29 PM
2	Y 371.029	2273956.8	2273956.8	4.622 mg/L		5:26:06 PM
2	As 188.979†	1011.9	1075.1	0.6141 mg/L	29.93 mg/kg	5:26:29 PM
2	Cr 283.563†	191499.3	202078.8	1.305 mg/L	63.61 mg/kg	5:26:09 PM
3	Y 371.029	2292698.0	2292698.0	4.660 mg/L		5:26:45 PM

3	As 188.979†	1004.0	1057.6	0.6041 mg/L	29.44 mg/kg	5:27:08 PM
3	Cr 283.563†	191970.8	200891.4	1.298 mg/L	63.24 mg/kg	5:26:48 PM

Mean Data: 16B0472-43

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2282927.2	4.640 mg/L	0.0191			0.41%
As 188.979†	1066.2	0.6090 mg/L	0.00500	29.68 mg/kg	0.244	0.82%
Cr 283.563†	201363.6	1.301 mg/L	0.0041	63.38 mg/kg	0.198	0.31%

=====

Sequence No.: 13	Autosampler Location: 50
Sample ID: 16B0472-44	Date Collected: 2/24/2016 5:29:13 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 5:08:37 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt: 1.037 g	Initial Sample Vol:
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: 16B0472-44

Analyte	Back Pressure	Flow
All	219.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-44

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2397780.0	2397780.0	4.874 mg/L		5:30:45 PM
1	As 188.979†	64.2	46.4	0.02649 mg/L	1.277 mg/kg	5:31:08 PM
1	Cr 283.563†	67871.7	64556.0	0.4170 mg/L	20.11 mg/kg	5:30:48 PM
2	Y 371.029	2389899.0	2389899.0	4.858 mg/L		5:31:19 PM
2	As 188.979†	73.9	56.5	0.03226 mg/L	1.556 mg/kg	5:31:42 PM
2	Cr 283.563†	68468.7	65400.1	0.4224 mg/L	20.37 mg/kg	5:31:22 PM
3	Y 371.029	2430751.0	2430751.0	4.941 mg/L		5:31:53 PM
3	As 188.979†	86.3	67.8	0.03873 mg/L	1.867 mg/kg	5:32:16 PM
3	Cr 283.563†	67175.9	62907.5	0.4063 mg/L	19.59 mg/kg	5:31:55 PM

Mean Data: 16B0472-44

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2406143.3	4.891 mg/L	0.0441			0.90%
As 188.979†	56.9	0.03249 mg/L	0.006125	1.567 mg/kg	0.2953	18.85%
Cr 283.563†	64287.9	0.4152 mg/L	0.00819	20.02 mg/kg	0.395	1.97%

=====

Sequence No.: 14	Autosampler Location: 51
Sample ID: 16B0472-45	Date Collected: 2/24/2016 5:34:21 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 5:08:37 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt: 1.053 g	Initial Sample Vol:
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: 16B0472-45

Analyte	Back Pressure	Flow
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All 219.0 kPa 0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-45

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2457727.4	2457727.4	4.996 mg/L		5:35:53 PM
1	As 188.979†	470.9	451.7	0.2580 mg/L	12.25 mg/kg	5:36:16 PM
1	Cr 283.563†	82359.6	77357.9	0.4997 mg/L	23.73 mg/kg	5:35:55 PM
2	Y 371.029	2477724.8	2477724.8	5.036 mg/L		5:36:26 PM
2	As 188.979†	479.4	456.4	0.2607 mg/L	12.38 mg/kg	5:36:48 PM
2	Cr 283.563†	80987.7	75330.6	0.4866 mg/L	23.10 mg/kg	5:36:28 PM
3	Y 371.029	2482321.9	2482321.9	5.046 mg/L		5:36:58 PM
3	As 188.979†	463.5	439.8	0.2512 mg/L	11.93 mg/kg	5:37:21 PM
3	Cr 283.563†	82496.4	76676.8	0.4953 mg/L	23.52 mg/kg	5:37:01 PM

Mean Data: 16B0472-45

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2472591.4	5.026 mg/L	0.0266			0.53%
As 188.979†	449.3	0.2567 mg/L	0.00490	12.19 mg/kg	0.233	1.91%
Cr 283.563†	76455.1	0.4938 mg/L	0.00666	23.45 mg/kg	0.316	1.35%

Sequence No.: 15

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/24/2016 5:39:26 PM

Data Type: Reprocessed on 2/27/2016 5:08:37 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2462582.7	2462582.7	5.006 mg/L		5:41:13 PM
1	As 188.979†	3390.9	3367.5	1.924 mg/L		5:41:36 PM
1	Cr 283.563†	316487.5	311058.9	2.009 mg/L		5:41:16 PM
2	Y 371.029	2485012.3	2485012.3	5.051 mg/L		5:42:02 PM
2	As 188.979†	3386.9	3333.0	1.904 mg/L		5:42:24 PM
2	Cr 283.563†	314384.9	306124.3	1.977 mg/L		5:42:04 PM
3	Y 371.029	2491286.8	2491286.8	5.064 mg/L		5:42:50 PM
3	As 188.979†	3385.0	3322.7	1.898 mg/L		5:43:13 PM
3	Cr 283.563†	318095.8	309004.5	1.996 mg/L		5:42:52 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2479627.2	5.040 mg/L	0.0307			0.61%
As 188.979†	3341.1	1.908 mg/L	0.0134			0.70%
QC value within limits for As 188.979 Recovery = 95.42%						
Cr 283.563†	308729.2	1.994 mg/L	0.0160			0.80%
QC value within limits for Cr 283.563 Recovery = 99.71%						
All analyte(s) passed QC.						

=====

Sequence No.: 16

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/24/2016 5:45:19 PM

Data Type: Reprocessed on 2/27/2016 5:08:37 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2703163.8	2703163.8	5.495 mg/L		5:46:45 PM
1	As 188.979†	-1.8	-21.1	-0.01207 mg/L		5:47:07 PM
1	Cr 283.563†	5047.9	-477.9	-0.00309 mg/L		5:46:47 PM
2	Y 371.029	2676890.4	2676890.4	5.441 mg/L		5:47:14 PM
2	As 188.979†	12.5	-8.1	-0.00462 mg/L		5:47:37 PM
2	Cr 283.563†	5142.5	-345.8	-0.00223 mg/L		5:47:17 PM
3	Y 371.029	2666059.7	2666059.7	5.419 mg/L		5:47:44 PM
3	As 188.979†	-1.4	-20.8	-0.01190 mg/L		5:48:06 PM
3	Cr 283.563†	5176.7	-295.1	-0.00191 mg/L		5:47:46 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2682038.0	5.452 mg/L	0.0388			0.71%
As 188.979†	-16.7	-0.00953 mg/L	0.004253			44.62%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-372.9	-0.00241 mg/L	0.000609			25.30%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

=====

Sequence No.: 17

Sample ID: 16B0472-46

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.008 g

Dilution:

Wash Time:

Autosampler Location: 52

Date Collected: 2/24/2016 5:49:10 PM

Data Type: Reprocessed on 2/27/2016 5:08:37 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-46

Analyte	Back Pressure	Flow
All	220.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-46

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2518876.9	2518876.9	5.120 mg/L		5:50:44 PM
1	As 188.979†	9.4	-10.3	-0.00591 mg/L	-0.2932 mg/kg	5:51:07 PM
1	Cr 283.563†	21727.7	16146.8	0.1043 mg/L	5.173 mg/kg	5:50:47 PM
2	Y 371.029	2486255.1	2486255.1	5.054 mg/L		5:51:19 PM
2	As 188.979†	9.1	-10.5	-0.00599 mg/L	-0.2973 mg/kg	5:51:41 PM
2	Cr 283.563†	21921.6	16617.1	0.1073 mg/L	5.324 mg/kg	5:51:21 PM
3	Y 371.029	2485020.5	2485020.5	5.051 mg/L		5:51:54 PM
3	As 188.979†	10.5	-9.2	-0.00525 mg/L	-0.2604 mg/kg	5:52:16 PM
3	Cr 283.563†	21452.3	16163.3	0.1044 mg/L	5.179 mg/kg	5:51:56 PM

Mean Data: 16B0472-46

Analyte	Mean Intensity	Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2496717.5	5.075 mg/L	0.0390				0.77%
As 188.979†	-10.0	-0.00572 mg/L	0.000409		-0.2836 mg/kg	0.02027	7.15%
Cr 283.563†	16309.1	0.1053 mg/L	0.00172		5.225 mg/kg	0.0855	1.64%

Sequence No.: 18

Autosampler Location: 53

Sample ID: 16B0472-47

Date Collected: 2/24/2016 5:54:21 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:08:38 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.016 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-47

Analyte	Back Pressure	Flow
All	220.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-47

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2470751.8	2470751.8	5.022 mg/L		5:55:57 PM
1	As 188.979†	678.9	656.4	0.3749 mg/L	18.45 mg/kg	5:56:20 PM
1	Cr 283.563†	105692.0	100152.3	0.6469 mg/L	31.84 mg/kg	5:55:59 PM
2	Y 371.029	2453240.4	2453240.4	4.987 mg/L		5:56:33 PM
2	As 188.979†	681.0	663.3	0.3789 mg/L	18.65 mg/kg	5:56:56 PM

2	Cr 283.563†	107452.0	102668.1	0.6632 mg/L	32.64 mg/kg	5:56:36 PM
3	Y 371.029	2428068.5	2428068.5	4.935 mg/L		5:57:10 PM
3	As 188.979†	669.8	659.0	0.3764 mg/L	18.52 mg/kg	5:57:32 PM
3	Cr 283.563†	105758.5	102069.4	0.6593 mg/L	32.45 mg/kg	5:57:12 PM

Mean Data: 16B0472-47

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2450686.9	4.981 mg/L	0.0436			0.88%
As 188.979†	659.6	0.3767 mg/L	0.00200	18.54 mg/kg	0.099	0.53%
Cr 283.563†	101630.0	0.6564 mg/L	0.00849	32.31 mg/kg	0.418	1.29%

=====

Sequence No.: 19

Autosampler Location: 54

Sample ID: 16B0472-48

Date Collected: 2/24/2016 5:59:38 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:08:38 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.087 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-48

Analyte	Back Pressure	Flow
All	220.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-48

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2444318.3	2444318.3	4.969 mg/L		6:01:11 PM
1	As 188.979†	179.9	161.5	0.09224 mg/L	4.243 mg/kg	6:01:33 PM
1	Cr 283.563†	48757.9	43995.5	0.2842 mg/L	13.07 mg/kg	6:01:13 PM
2	Y 371.029	2475149.8	2475149.8	5.031 mg/L		6:01:43 PM
2	As 188.979†	173.3	152.7	0.08722 mg/L	4.012 mg/kg	6:02:06 PM
2	Cr 283.563†	48308.0	42937.2	0.2773 mg/L	12.76 mg/kg	6:01:46 PM
3	Y 371.029	2456500.6	2456500.6	4.993 mg/L		6:02:16 PM
3	As 188.979†	193.0	173.7	0.09923 mg/L	4.564 mg/kg	6:02:39 PM
3	Cr 283.563†	48835.9	43830.3	0.2831 mg/L	13.02 mg/kg	6:02:19 PM

Mean Data: 16B0472-48

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2458656.2	4.998 mg/L	0.0316			0.63%
As 188.979†	162.6	0.09290 mg/L	0.006031	4.273 mg/kg	0.2774	6.49%
Cr 283.563†	43587.6	0.2815 mg/L	0.00368	12.95 mg/kg	0.169	1.31%

=====

Sequence No.: 20

Autosampler Location: 55

Sample ID: 16B0472-49

Date Collected: 2/24/2016 6:04:45 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:08:38 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.038 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-49

Analyte	Back Pressure	Flow
All	220.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-49

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2476252.5	2476252.5	5.033 mg/L		6:06:19 PM
1	As 188.979†	821.7	796.7	0.4551 mg/L	21.92 mg/kg	6:06:42 PM
1	Cr 283.563†	163694.8	157536.0	1.018 mg/L	49.02 mg/kg	6:06:21 PM
2	Y 371.029	2456876.3	2456876.3	4.994 mg/L		6:06:54 PM
2	As 188.979†	832.7	814.2	0.4651 mg/L	22.40 mg/kg	6:07:17 PM
2	Cr 283.563†	163017.8	158140.7	1.021 mg/L	49.20 mg/kg	6:06:56 PM
3	Y 371.029	2476961.8	2476961.8	5.035 mg/L		6:07:29 PM
3	As 188.979†	826.3	801.1	0.4576 mg/L	22.04 mg/kg	6:07:52 PM
3	Cr 283.563†	161659.8	155468.6	1.004 mg/L	48.37 mg/kg	6:07:31 PM

Mean Data: 16B0472-49

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2470030.2	5.021 mg/L	0.0232			0.46%
As 188.979†	804.0	0.4592 mg/L	0.00520	22.12 mg/kg	0.251	1.13%
Cr 283.563†	157048.5	1.014 mg/L	0.0091	48.86 mg/kg	0.436	0.89%

Sequence No.: 21

Sample ID: 16B0472-50

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.049 g

Dilution:

Wash Time:

Autosampler Location: 56

Date Collected: 2/24/2016 6:09:58 PM

Data Type: Reprocessed on 2/27/2016 5:08:38 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-50

Analyte	Back Pressure	Flow
All	221.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-50

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2513589.5	2513589.5	5.109 mg/L		6:11:31 PM
1	As 188.979†	278.9	253.4	0.1447 mg/L	6.899 mg/kg	6:11:53 PM
1	Cr 283.563†	57524.8	51222.6	0.3309 mg/L	15.77 mg/kg	6:11:33 PM
2	Y 371.029	2515837.4	2515837.4	5.114 mg/L		6:12:03 PM
2	As 188.979†	289.1	263.1	0.1503 mg/L	7.163 mg/kg	6:12:26 PM
2	Cr 283.563†	57717.6	51360.8	0.3317 mg/L	15.81 mg/kg	6:12:06 PM
3	Y 371.029	2508693.3	2508693.3	5.099 mg/L		6:12:36 PM

3	As 188.979†	277.1	252.2	0.1440 mg/L	6.866 mg/kg	6:12:59 PM
3	Cr 283.563†	57506.2	51314.2	0.3314 mg/L	15.80 mg/kg	6:12:38 PM

Mean Data: 16B0472-50

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2512706.8	5.108 mg/L	0.0074			0.15%
As 188.979†	256.2	0.1464 mg/L	0.00342	6.976 mg/kg	0.1630	2.34%
Cr 283.563†	51299.2	0.3314 mg/L	0.00045	15.79 mg/kg	0.022	0.14%

=====

Sequence No.: 22	Autosampler Location: 57
Sample ID: 16B0472-51	Date Collected: 2/24/2016 6:15:05 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 5:08:38 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt: 1.017 g	Initial Sample Vol:
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: 16B0472-51

Analyte	Back Pressure	Flow
All	220.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-51

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2357563.4	2357563.4	4.792 mg/L		6:16:44 PM
1	As 188.979†	2443.0	2529.4	1.445 mg/L	71.03 mg/kg	6:17:07 PM
1	Cr 283.563†	236358.9	241537.6	1.560 mg/L	76.70 mg/kg	6:16:47 PM
2	Y 371.029	2362826.9	2362826.9	4.803 mg/L		6:17:24 PM
2	As 188.979†	2458.0	2539.3	1.450 mg/L	71.31 mg/kg	6:17:47 PM
2	Cr 283.563†	233651.5	238169.8	1.538 mg/L	75.63 mg/kg	6:17:27 PM
3	Y 371.029	2104602.3	2104602.3	4.278 mg/L		6:18:04 PM
3	As 188.979†	2464.9	2861.3	1.634 mg/L	80.35 mg/kg	6:18:27 PM
3	Cr 283.563†	233917.4	268325.0	1.733 mg/L	85.21 mg/kg	6:18:07 PM

Mean Data: 16B0472-51

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2274997.5	4.624 mg/L	0.3000			6.49%
As 188.979†	2643.4	1.510 mg/L	0.1079	74.23 mg/kg	5.302	7.14%
Cr 283.563†	249344.1	1.611 mg/L	0.1067	79.18 mg/kg	5.247	6.63%

=====

Sequence No.: 23	Autosampler Location: 58
Sample ID: 16B0472-52	Date Collected: 2/24/2016 6:20:33 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 5:08:38 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt: 1.053 g	Initial Sample Vol:
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: 16B0472-52

Analyte	Back Pressure	Flow
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All 221.0 kPa 0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-52

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2411975.7	2411975.7	4.903 mg/L		6:22:07 PM
1	As 188.979†	321.9	308.7	0.1764 mg/L	8.374 mg/kg	6:22:30 PM
1	Cr 283.563†	92222.0	88979.4	0.5747 mg/L	27.29 mg/kg	6:22:10 PM
2	Y 371.029	2419547.3	2419547.3	4.918 mg/L		6:22:41 PM
2	As 188.979†	314.0	299.7	0.1712 mg/L	8.128 mg/kg	6:23:04 PM
2	Cr 283.563†	93212.1	89691.6	0.5793 mg/L	27.51 mg/kg	6:22:44 PM
3	Y 371.029	2428028.1	2428028.1	4.935 mg/L		6:23:15 PM
3	As 188.979†	311.7	296.3	0.1692 mg/L	8.036 mg/kg	6:23:38 PM
3	Cr 283.563†	93788.0	89944.1	0.5810 mg/L	27.59 mg/kg	6:23:18 PM

Mean Data: 16B0472-52

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2419850.4	4.919 mg/L	0.0163			0.33%
As 188.979†	301.6	0.1722 mg/L	0.00368	8.179 mg/kg	0.1748	2.14%
Cr 283.563†	89538.4	0.5783 mg/L	0.00323	27.46 mg/kg	0.153	0.56%

Sequence No.: 24

Autosampler Location: 59

Sample ID: BZB0487-DUP2

Date Collected: 2/24/2016 6:25:44 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:08:39 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.045 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: BZB0487-DUP2

Analyte	Back Pressure	Flow
All	222.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0487-DUP2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2425289.9	2425289.9	4.930 mg/L		6:27:21 PM
1	As 188.979†	414.6	400.9	0.2290 mg/L	10.96 mg/kg	6:27:44 PM
1	Cr 283.563†	83390.7	79506.1	0.5135 mg/L	24.57 mg/kg	6:27:24 PM
2	Y 371.029	2437247.3	2437247.3	4.954 mg/L		6:27:59 PM
2	As 188.979†	415.1	399.4	0.2281 mg/L	10.92 mg/kg	6:28:22 PM
2	Cr 283.563†	82457.9	78149.7	0.5048 mg/L	24.15 mg/kg	6:28:02 PM
3	Y 371.029	2452850.6	2452850.6	4.986 mg/L		6:28:37 PM
3	As 188.979†	409.9	391.5	0.2236 mg/L	10.70 mg/kg	6:29:00 PM
3	Cr 283.563†	83160.6	78325.0	0.5059 mg/L	24.21 mg/kg	6:28:40 PM

Mean Data: BZB0487-DUP2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2438462.6	4.957 mg/L	0.0281			0.57%
As 188.979†	397.3	0.2269 mg/L	0.00289	10.86 mg/kg	0.138	1.27%
Cr 283.563†	78660.3	0.5081 mg/L	0.00477	24.31 mg/kg	0.228	0.94%

Sequence No.: 25

Sample ID: BZB0487-MS2

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.067 g

Dilution:

Wash Time:

Autosampler Location: 60

Date Collected: 2/24/2016 6:31:05 PM

Data Type: Reprocessed on 2/27/2016 5:08:39 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0487-MS2

Analyte	Back Pressure	Flow
All	221.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0487-MS2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2438467.6	2438467.6	4.957 mg/L		6:32:55 PM
1	As 188.979†	3374.6	3384.6	1.933 mg/L	90.59 mg/kg	6:33:18 PM
1	Cr 283.563†	368746.5	366901.4	2.370 mg/L	111.1 mg/kg	6:32:58 PM
2	Y 371.029	2398284.1	2398284.1	4.875 mg/L		6:33:47 PM
2	As 188.979†	3435.9	3504.5	2.002 mg/L	93.80 mg/kg	6:34:09 PM
2	Cr 283.563†	369199.7	373598.8	2.413 mg/L	113.1 mg/kg	6:33:49 PM
3	Y 371.029	2444314.9	2444314.9	4.969 mg/L		6:34:38 PM
3	As 188.979†	3406.5	3408.5	1.947 mg/L	91.23 mg/kg	6:35:00 PM
3	Cr 283.563†	368014.2	365274.7	2.359 mg/L	110.6 mg/kg	6:34:40 PM

Mean Data: BZB0487-MS2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2427022.2	4.933 mg/L	0.0509			1.03%
As 188.979†	3432.6	1.961 mg/L	0.0363	91.88 mg/kg	1.699	1.85%
Cr 283.563†	368591.6	2.381 mg/L	0.0285	111.6 mg/kg	1.34	1.20%

Sequence No.: 26

Sample ID: 16B0472-53

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.04 g

Dilution:

Wash Time:

Autosampler Location: 61

Date Collected: 2/24/2016 6:37:06 PM

Data Type: Reprocessed on 2/27/2016 5:08:39 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-53

Analyte	Back Pressure	Flow
All	221.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-53

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2474960.0	2474960.0	5.031 mg/L		6:38:39 PM
1	As 188.979†	804.1	779.6	0.4453 mg/L	21.41 mg/kg	6:39:02 PM
1	Cr 283.563†	129907.2	124040.4	0.8012 mg/L	38.52 mg/kg	6:38:42 PM
2	Y 371.029	2421427.7	2421427.7	4.922 mg/L		6:39:13 PM
2	As 188.979†	780.0	772.8	0.4414 mg/L	21.22 mg/kg	6:39:36 PM
2	Cr 283.563†	130415.8	127411.3	0.8230 mg/L	39.57 mg/kg	6:39:16 PM
3	Y 371.029	2438203.5	2438203.5	4.956 mg/L		6:39:48 PM
3	As 188.979†	791.8	779.2	0.4451 mg/L	21.40 mg/kg	6:40:10 PM
3	Cr 283.563†	130255.7	126338.3	0.8160 mg/L	39.23 mg/kg	6:39:50 PM

Mean Data: 16B0472-53

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2444863.7	4.970 mg/L	0.0557			1.12%
As 188.979†	777.2	0.4439 mg/L	0.00219	21.34 mg/kg	0.105	0.49%
Cr 283.563†	125930.0	0.8134 mg/L	0.01112	39.11 mg/kg	0.535	1.37%

Sequence No.: 27

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/24/2016 6:42:16 PM

Data Type: Reprocessed on 2/27/2016 5:08:39 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2524557.5	2524557.5	5.132 mg/L		6:44:03 PM
1	As 188.979†	3406.9	3300.0	1.885 mg/L		6:44:26 PM
1	Cr 283.563†	321753.4	308429.0	1.992 mg/L		6:44:06 PM
2	Y 371.029	2508558.9	2508558.9	5.099 mg/L		6:44:51 PM
2	As 188.979†	3412.3	3326.4	1.900 mg/L		6:45:14 PM
2	Cr 283.563†	318040.9	306788.1	1.982 mg/L		6:44:54 PM
3	Y 371.029	2535777.3	2535777.3	5.154 mg/L		6:45:39 PM
3	As 188.979†	3388.9	3267.8	1.867 mg/L		6:46:02 PM
3	Cr 283.563†	319943.5	305286.3	1.972 mg/L		6:45:42 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2522964.6	5.128 mg/L	0.0278			0.54%
As 188.979†	3298.1	1.884 mg/L	0.0168			0.89%
QC value within limits for As 188.979 Recovery = 94.19%						
Cr 283.563†	306834.5	1.982 mg/L	0.0102			0.51%
QC value within limits for Cr 283.563 Recovery = 99.09%						
All analyte(s) passed QC.						

Sequence No.: 28

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/24/2016 6:48:08 PM

Data Type: Reprocessed on 2/27/2016 5:08:39 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	222.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2657647.0	2657647.0	5.402 mg/L		6:49:34 PM
1	As 188.979†	-6.7	-25.8	-0.01472 mg/L		6:49:57 PM
1	Cr 283.563†	5108.1	-343.5	-0.00222 mg/L		6:49:37 PM
2	Y 371.029	2692191.8	2692191.8	5.472 mg/L		6:50:04 PM
2	As 188.979†	4.0	-15.9	-0.00910 mg/L		6:50:26 PM
2	Cr 283.563†	5275.2	-251.4	-0.00162 mg/L		6:50:06 PM
3	Y 371.029	2696890.0	2696890.0	5.482 mg/L		6:50:33 PM
3	As 188.979†	1.6	-18.0	-0.01031 mg/L		6:50:55 PM
3	Cr 283.563†	4987.4	-522.3	-0.00337 mg/L		6:50:35 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2682242.9	5.452 mg/L	0.0436			0.80%
As 188.979†	-19.9	-0.01137 mg/L	0.002957			26.00%
QC value less than the lower limit for As 188.979 Recovery = Not calculated						
Cr 283.563†	-372.4	-0.00241 mg/L	0.000890			36.99%
QC value within limits for Cr 283.563 Recovery = Not calculated						
QC Failed. Continue with analysis.						

Sequence No.: 29

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/24/2016 6:51:36 PM

Data Type: Reprocessed on 2/27/2016 5:08:39 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2664851.9	2664851.9	5.417 mg/L		6:53:03 PM
1	As 188.979†	5.3	-14.6	-0.00836 mg/L		6:53:26 PM
1	Cr 283.563†	4982.2	-472.4	-0.00305 mg/L		6:53:06 PM
2	Y 371.029	2637788.1	2637788.1	5.362 mg/L		6:53:33 PM
2	As 188.979†	1.3	-18.3	-0.01045 mg/L		6:53:55 PM
2	Cr 283.563†	4906.5	-495.8	-0.00320 mg/L		6:53:35 PM
3	Y 371.029	2665437.2	2665437.2	5.418 mg/L		6:54:02 PM
3	As 188.979†	10.3	-10.1	-0.00574 mg/L		6:54:24 PM
3	Cr 283.563†	4957.1	-496.6	-0.00321 mg/L		6:54:04 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2656025.7	5.399 mg/L	0.0321			0.59%
As 188.979†	-14.3	-0.00818 mg/L	0.002356			28.80%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-488.3	-0.00315 mg/L	0.000089			2.81%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 30

Sample ID: 16b0472-41x5

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.038 g

Dilution: 5X

Wash Time:

Autosampler Location: 45

Date Collected: 2/24/2016 6:55:28 PM

Data Type: Reprocessed on 2/27/2016 5:08:39 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16b0472-41x5

Analyte	Back Pressure	Flow
All	222.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16b0472-41x5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2444187.8	2444187.8	4.968 mg/L		6:56:59 PM
1	As 188.979†	131.2	112.5	0.06424 mg/L	15.47 mg/kg	6:57:22 PM
1	Cr 283.563†	27385.7	22489.4	0.1453 mg/L	34.99 mg/kg	6:57:02 PM
2	Y 371.029	2474618.2	2474618.2	5.030 mg/L		6:57:31 PM

2	As 188.979†	134.3	113.9	0.06508 mg/L	15.68 mg/kg	6:57:54 PM
2	Cr 283.563†	27688.2	22451.2	0.1450 mg/L	34.93 mg/kg	6:57:34 PM
3	Y 371.029	2455932.9	2455932.9	4.992 mg/L		6:58:03 PM
3	As 188.979†	147.1	127.8	0.07301 mg/L	17.58 mg/kg	6:58:25 PM
3	Cr 283.563†	26710.0	21680.9	0.1400 mg/L	33.73 mg/kg	6:58:05 PM

Mean Data: 16B0472-41x5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2458246.3	4.997 mg/L	0.0312			0.62%
As 188.979†	118.1	0.06745 mg/L	0.004836	16.24 mg/kg	1.165	7.17%
Cr 283.563†	22207.1	0.1434 mg/L	0.00295	34.55 mg/kg	0.710	2.05%

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Sequence No.: 31

Autosampler Location: 62

Sample ID: 16B0472-54

Date Collected: 2/24/2016 7:00:31 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:08:40 PM

Logged In Analyst (Original) : ICP03

Initial Sample Vol:

Initial Sample Wt: 1.002 g

Sample Prep Vol: 50 mL

Dilution:

Wash Time:

Nebulizer Parameters: 16B0472-54

Analyte	Back Pressure	Flow
All	222.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-54

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2448381.5	2448381.5	4.977 mg/L		7:02:05 PM
1	As 188.979†	77.0	57.9	0.03306 mg/L	1.650 mg/kg	7:02:27 PM
1	Cr 283.563†	76911.6	72199.1	0.4663 mg/L	23.27 mg/kg	7:02:07 PM
2	Y 371.029	2432551.2	2432551.2	4.945 mg/L		7:02:39 PM
2	As 188.979†	86.9	68.4	0.03905 mg/L	1.949 mg/kg	7:03:01 PM
2	Cr 283.563†	78522.3	74330.7	0.4801 mg/L	23.96 mg/kg	7:02:41 PM
3	Y 371.029	2445666.2	2445666.2	4.971 mg/L		7:03:13 PM
3	As 188.979†	102.6	83.6	0.04776 mg/L	2.383 mg/kg	7:03:35 PM
3	Cr 283.563†	78289.5	73670.8	0.4759 mg/L	23.75 mg/kg	7:03:15 PM

Mean Data: 16B0472-54

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2442199.6	4.964 mg/L	0.0172			0.35%
As 188.979†	69.9	0.03995 mg/L	0.007392	1.994 mg/kg	0.3688	18.50%
Cr 283.563†	73400.2	0.4741 mg/L	0.00705	23.66 mg/kg	0.352	1.49%

=====

Sequence No.: 32

Autosampler Location: 63

Sample ID: 16B0472-55

Date Collected: 2/24/2016 7:05:40 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:08:40 PM

Logged In Analyst (Original) : ICP03

Initial Sample Vol:

Initial Sample Wt: 1.026 g

Sample Prep Vol: 50 mL

Dilution:

Wash Time:

Nebulizer Parameters: 16B0472-55

Analyte	Back Pressure	Flow
All	222.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-55

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2501339.2	2501339.2	5.084 mg/L		7:07:16 PM
1	As 188.979†	464.7	437.5	0.2499 mg/L	12.18 mg/kg	7:07:38 PM
1	Cr 283.563†	104827.0	98015.0	0.6331 mg/L	30.85 mg/kg	7:07:18 PM
2	Y 371.029	2509688.1	2509688.1	5.101 mg/L		7:07:52 PM
2	As 188.979†	463.7	434.9	0.2484 mg/L	12.11 mg/kg	7:08:15 PM
2	Cr 283.563†	103531.8	96402.5	0.6227 mg/L	30.35 mg/kg	7:07:55 PM
3	Y 371.029	2467415.4	2467415.4	5.015 mg/L		7:08:29 PM
3	As 188.979†	481.8	460.8	0.2632 mg/L	12.83 mg/kg	7:08:52 PM
3	Cr 283.563†	101340.6	95956.7	0.6198 mg/L	30.20 mg/kg	7:08:32 PM

Mean Data: 16B0472-55

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2492814.3	5.067 mg/L	0.0455			0.90%
As 188.979†	444.4	0.2538 mg/L	0.00815	12.37 mg/kg	0.397	3.21%
Cr 283.563†	96791.4	0.6252 mg/L	0.00699	30.47 mg/kg	0.341	1.12%

Sequence No.: 33

Sample ID: 16B0472-56

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.007 g

Dilution:

Wash Time:

Autosampler Location: 64

Date Collected: 2/24/2016 7:10:57 PM

Data Type: Reprocessed on 2/27/2016 5:08:40 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-56

Analyte	Back Pressure	Flow
All	222.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-56

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2492040.9	2492040.9	5.066 mg/L		7:12:31 PM
1	As 188.979†	107.0	86.1	0.04917 mg/L	2.442 mg/kg	7:12:54 PM
1	Cr 283.563†	51584.2	45845.6	0.2961 mg/L	14.70 mg/kg	7:12:34 PM
2	Y 371.029	2487799.0	2487799.0	5.057 mg/L		7:13:06 PM
2	As 188.979†	126.9	105.9	0.06049 mg/L	3.003 mg/kg	7:13:28 PM
2	Cr 283.563†	50963.8	45319.0	0.2927 mg/L	14.53 mg/kg	7:13:08 PM

3	Y 371.029	2499950.8	2499950.8	5.082 mg/L		7:13:40 PM
3	As 188.979†	118.6	97.2	0.05550 mg/L	2.756 mg/kg	7:14:03 PM
3	Cr 283.563†	51649.5	45748.7	0.2955 mg/L	14.67 mg/kg	7:13:43 PM

Mean Data: 16B0472-56

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2493263.6	5.068 mg/L	0.0125			0.25%
As 188.979†	96.4	0.05505 mg/L	0.005671	2.734 mg/kg	0.2816	10.30%
Cr 283.563†	45637.8	0.2948 mg/L	0.00181	14.64 mg/kg	0.090	0.61%

=====

Sequence No.: 34	Autosampler Location: 65
Sample ID: 16B0472-57	Date Collected: 2/24/2016 7:16:08 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 5:08:40 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt: 1.038 g	Initial Sample Vol:
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: 16B0472-57

Analyte	Back Pressure	Flow
All	222.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-57

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2508877.1	2508877.1	5.100 mg/L		7:17:48 PM
1	As 188.979†	1085.3	1044.6	0.5966 mg/L	28.74 mg/kg	7:18:10 PM
1	Cr 283.563†	238222.8	228491.8	1.476 mg/L	71.09 mg/kg	7:17:50 PM
2	Y 371.029	2499974.5	2499974.5	5.082 mg/L		7:18:27 PM
2	As 188.979†	1074.8	1038.0	0.5929 mg/L	28.56 mg/kg	7:18:50 PM
2	Cr 283.563†	230971.9	222189.1	1.435 mg/L	69.13 mg/kg	7:18:29 PM
3	Y 371.029	2496006.1	2496006.1	5.074 mg/L		7:19:07 PM
3	As 188.979†	1090.0	1054.6	0.6024 mg/L	29.02 mg/kg	7:19:29 PM
3	Cr 283.563†	237174.7	228663.3	1.477 mg/L	71.15 mg/kg	7:19:09 PM

Mean Data: 16B0472-57

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2501619.2	5.085 mg/L	0.0134			0.26%
As 188.979†	1045.7	0.5973 mg/L	0.00479	28.77 mg/kg	0.231	0.80%
Cr 283.563†	226448.1	1.463 mg/L	0.0238	70.46 mg/kg	1.148	1.63%

=====

Sequence No.: 35	Autosampler Location: 66
Sample ID: 16B0472-58	Date Collected: 2/24/2016 7:21:34 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 5:08:40 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt: 1.044 g	Initial Sample Vol:
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: 16B0472-58

Analyte	Back Pressure	Flow
All	222.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-58

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2505735.9	2505735.9	5.093 mg/L		7:23:11 PM
1	As 188.979†	2242.5	2181.8	1.246 mg/L	59.69 mg/kg	7:23:34 PM
1	Cr 283.563†	305945.3	295265.6	1.907 mg/L	91.34 mg/kg	7:23:14 PM
2	Y 371.029	2499354.9	2499354.9	5.080 mg/L		7:23:49 PM
2	As 188.979†	2214.7	2160.2	1.234 mg/L	59.09 mg/kg	7:24:11 PM
2	Cr 283.563†	303438.0	293564.8	1.896 mg/L	90.81 mg/kg	7:23:51 PM
3	Y 371.029	2514121.2	2514121.2	5.110 mg/L		7:24:27 PM
3	As 188.979†	2227.3	2159.6	1.234 mg/L	59.08 mg/kg	7:24:49 PM
3	Cr 283.563†	305333.1	293665.0	1.897 mg/L	90.84 mg/kg	7:24:29 PM

Mean Data: 16B0472-58

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2506404.0	5.095 mg/L	0.0151			0.30%
As 188.979†	2167.2	1.238 mg/L	0.0072	59.29 mg/kg	0.347	0.58%
Cr 283.563†	294165.1	1.900 mg/L	0.0062	91.00 mg/kg	0.295	0.32%

Sequence No.: 36

Sample ID: 16B0472-59

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.042 g

Dilution:

Wash Time:

Autosampler Location: 67

Date Collected: 2/24/2016 7:26:55 PM

Data Type: Reprocessed on 2/27/2016 5:08:40 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-59

Analyte	Back Pressure	Flow
All	222.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	2.000	10	20.000
Cr 283.563	0.100	20	2.000

Replicate Data: 16B0472-59

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2297608.6	2297608.6	4.670 mg/L		7:28:40 PM
1	As 188.979†	1898.5	2012.9	1.150 mg/L	55.17 mg/kg	7:29:03 PM
1	Cr 283.563†	251174.2	263833.9	1.704 mg/L	81.77 mg/kg	7:28:43 PM
2	Y 371.029	2298539.8	2298539.8	4.672 mg/L		7:29:26 PM
2	As 188.979†	1901.0	2014.8	1.151 mg/L	55.22 mg/kg	7:29:49 PM
2	Cr 283.563†	248887.7	261278.1	1.688 mg/L	80.98 mg/kg	7:29:29 PM
3	Y 371.029	2297620.6	2297620.6	4.670 mg/L		7:30:12 PM
3	As 188.979†	1890.5	2004.5	1.145 mg/L	54.94 mg/kg	7:30:35 PM

3 Cr 283.563† 247423.4 259817.0 1.678 mg/L 80.53 mg/kg 7:30:15 PM

Mean Data: 16B0472-59

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2297923.0	4.671 mg/L	0.0011			0.02%
As 188.979†	2010.8	1.149 mg/L	0.0032	55.11 mg/kg	0.152	0.28%
Cr 283.563†	261643.0	1.690 mg/L	0.0131	81.09 mg/kg	0.630	0.78%

Sequence No.: 37

Autosampler Location: 68

Sample ID: 16B0472-60

Date Collected: 2/24/2016 7:32:41 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:08:41 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.032 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-60

Analyte	Back Pressure	Flow
All	221.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Analyte			
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-60

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2431537.5	2431537.5	4.943 mg/L		7:34:15 PM
1	As 188.979†	1232.2	1226.9	0.7008 mg/L	33.95 mg/kg	7:34:38 PM
1	Cr 283.563†	401312.3	400906.0	2.590 mg/L	125.5 mg/kg	7:34:18 PM
2	Y 371.029	2447194.6	2447194.6	4.974 mg/L		7:34:50 PM
2	As 188.979†	1221.7	1208.4	0.6902 mg/L	33.44 mg/kg	7:35:12 PM
2	Cr 283.563†	394918.3	391881.6	2.531 mg/L	122.6 mg/kg	7:34:52 PM
3	Y 371.029	2443338.5	2443338.5	4.967 mg/L		7:35:24 PM
3	As 188.979†	1239.5	1228.4	0.7016 mg/L	33.99 mg/kg	7:35:46 PM
3	Cr 283.563†	399988.3	397612.2	2.568 mg/L	124.4 mg/kg	7:35:26 PM

Mean Data: 16B0472-60

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2440690.2	4.961 mg/L	0.0166			0.33%
As 188.979†	1221.2	0.6976 mg/L	0.00635	33.80 mg/kg	0.308	0.91%
Cr 283.563†	396799.9	2.563 mg/L	0.0295	124.2 mg/kg	1.43	1.15%

Sequence No.: 38

Autosampler Location: 5

Sample ID: CCV

Date Collected: 2/24/2016 7:47:23 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:08:41 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2491112.7	2491112.7	5.064 mg/L		7:49:11 PM
1	As 188.979†	3397.9	3335.7	1.905 mg/L		7:49:33 PM
1	Cr 283.563†	321369.0	312258.4	2.017 mg/L		7:49:13 PM
2	Y 371.029	2518677.9	2518677.9	5.120 mg/L		7:49:58 PM
2	As 188.979†	3434.9	3335.1	1.905 mg/L		7:50:21 PM
2	Cr 283.563†	320491.4	307928.4	1.989 mg/L		7:50:00 PM
3	Y 371.029	2523558.2	2523558.2	5.130 mg/L		7:50:45 PM
3	As 188.979†	3410.2	3304.5	1.887 mg/L		7:51:08 PM
3	Cr 283.563†	322336.5	309121.6	1.997 mg/L		7:50:48 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2511116.3	5.104 mg/L	0.0356			0.70%
As 188.979†	3325.1	1.899 mg/L	0.0102			0.54%
QC value within limits for As 188.979 Recovery = 94.96%						
Cr 283.563†	309769.5	2.001 mg/L	0.0144			0.72%
QC value within limits for Cr 283.563 Recovery = 100.04%						
All analyte(s) passed QC.						

Sequence No.: 39

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/24/2016 7:53:14 PM

Data Type: Reprocessed on 2/27/2016 5:08:41 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2720708.6	2720708.6	5.530 mg/L		7:54:41 PM
1	As 188.979†	2.8	-17.0	-0.00973 mg/L		7:55:03 PM
1	Cr 283.563†	5205.0	-365.4	-0.00236 mg/L		7:54:43 PM
2	Y 371.029	2705310.4	2705310.4	5.499 mg/L		7:55:10 PM
2	As 188.979†	4.4	-15.5	-0.00887 mg/L		7:55:33 PM
2	Cr 283.563†	5084.7	-448.0	-0.00289 mg/L		7:55:13 PM
3	Y 371.029	2719362.4	2719362.4	5.528 mg/L		7:55:40 PM

3	As 188.979†	-0.9	-20.4	-0.01164 mg/L	7:56:02 PM
3	Cr 283.563†	5234.5	-336.4	-0.00217 mg/L	7:55:42 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2715127.1	5.519 mg/L	0.0173			0.31%
As 188.979†	-17.6	-0.01008 mg/L	0.001415			14.03%
QC value less than the lower limit for As 188.979 Recovery = Not calculated						
Cr 283.563†	-383.3	-0.00248 mg/L	0.000374			15.11%
QC value within limits for Cr 283.563 Recovery = Not calculated						
QC Failed. Continue with analysis.						

Analysis Sequence Raw Data

Sequence	SZB0701
Instrument	ICP03
Analysis	Cr SW6010

Analysis Sequence

Printed: 02/27/2016 6:14 pm

SZB0701

Department: Metals-ICP
Instrument: ICP03
Calibration ID: AB60120

Sequence Date: 02/24/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
16B0472-61	A	LW-31-12	1				Draper Aden Associates-Richmond	
16B0472-62	A	LW-31-24	2				Draper Aden Associates-Richmond	
16B0472-63	A	LW-32-12	3				Draper Aden Associates-Richmond	
16B0472-64	A	LW-32-24	4				Draper Aden Associates-Richmond	
16B0472-65	A	LW-33-12	5				Draper Aden Associates-Richmond	
16B0472-66	A	LW-33-24	6				Draper Aden Associates-Richmond	
16B0472-67	A	LW-34-12	7				Draper Aden Associates-Richmond	
16B0472-68	A	LW-34-24	8				Draper Aden Associates-Richmond	
16B0472-69	A	LW-35-12	9				Draper Aden Associates-Richmond	
16B0472-70	A	LW-35-24	10				Draper Aden Associates-Richmond	
16B0472-71	A	LW-36-12	11				Draper Aden Associates-Richmond	
16B0472-72	A	LW-36-24	12				Draper Aden Associates-Richmond	
16B0472-73	A	LW-37-12	13				Draper Aden Associates-Richmond	
16B0472-74	A	LW-37-24	14				Draper Aden Associates-Richmond	
16B0472-75	A	LW-38-12	15				Draper Aden Associates-Richmond	
16B0472-76	A	LW-38-24	16				Draper Aden Associates-Richmond	
16B0472-77	A	LW-39-12	17				Draper Aden Associates-Richmond	
16B0472-78	A	LW-39-24	18				Draper Aden Associates-Richmond	
16B0472-79	A	LW-40-12	19				Draper Aden Associates-Richmond	
16B0472-80	A	LW-40-24	20				Draper Aden Associates-Richmond	
BZB0488-DUP2		Duplicate	21					
BZB0488-MS2		Matrix Spike	22					
BZB0488-MS1		Matrix Spike	23					

Analysis Sequence

Printed: 02/27/2016 6:14 pm

SZB0701

(Continued)

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60120

Sequence Date: 02/24/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
BZB0488-DUP1		Duplicate	24					
BZB0488-BS1		LCS	25					
BZB0488-BLK1		Blank	26					
SZB0701-CCB1		Calibration Blank	27					
SZB0701-CCB2		Calibration Blank	28					
SZB0701-CCB3		Calibration Blank	29					
SZB0701-CCB4		Calibration Blank	30					
SZB0701-CCB5		Calibration Blank	31					
SZB0701-CCB6		Calibration Blank	32					
SZB0701-CCV1		Calibration Check	33		6B01695			
SZB0701-CCV2		Calibration Check	34		6B01695			
SZB0701-CCV3		Calibration Check	35		6B01695			
SZB0701-CCV4		Calibration Check	36		6B01695			
SZB0701-CCV5		Calibration Check	37		6B01695			
SZB0701-IFA1		Interference Check A	38		6B01701			
SZB0701-IFB1		Interference Check B	39		6B01702			
SZB0701-SRD1		Serial Dilution	40					

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Reprocessing Begun
Logged In Analyst: ICP03

Technique: ICP Continuous

Results Data Set (original): 160224CWO-lwood3
Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb
Results Data Set (reprocessed): 160224CWO-SZB0701
Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: ICS A
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1 g
Dilution:
Wash Time:

Autosampler Location: 12
Date Collected: 2/24/2016 12:25:08 PM
Data Type: Reprocessed on 2/27/2016 5:43:42 PM
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS A

Analyte	Back Pressure	Flow
All	200.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2429237.6	2429237.6	4.938 mg/L		12:26:36 PM
1	As 188.979†	14.8	-4.6	-0.00262 mg/L	-0.1309 mg/kg	12:26:59 PM
1	Cr 283.563†	4886.9	-122.9	-0.00079 mg/L	-0.03969 mg/kg	12:26:39 PM
2	Y 371.029	2463169.2	2463169.2	5.007 mg/L		12:27:07 PM
2	As 188.979†	23.6	4.0	0.00228 mg/L	0.1139 mg/kg	12:27:30 PM
2	Cr 283.563†	5106.1	27.8	0.00018 mg/L	0.00899 mg/kg	12:27:10 PM
3	Y 371.029	2486999.5	2486999.5	5.055 mg/L		12:27:37 PM
3	As 188.979†	11.3	-8.4	-0.00478 mg/L	-0.2392 mg/kg	12:28:00 PM
3	Cr 283.563†	4962.3	-163.3	-0.00105 mg/L	-0.05273 mg/kg	12:27:40 PM

Mean Data: ICS A

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2459802.1	5.000 mg/L	0.0590			1.18%
As 188.979†	-3.0	-0.00171 mg/L	0.003618	-0.08538 mg/kg	0.180903	211.87%
Cr 283.563†	-86.1	-0.00056 mg/L	0.000651	-0.02781 mg/kg	0.032526	116.96%

Sequence No.: 2
Sample ID: ICS AB
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1 g
Dilution:
Wash Time:

Autosampler Location: 13
Date Collected: 2/24/2016 12:29:05 PM
Data Type: Reprocessed on 2/27/2016 5:43:42 PM
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS AB

Analyte	Back Pressure	Flow
All	201.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2425633.1	2425633.1	4.931 mg/L		12:30:56 PM
1	As 188.979†	3207.2	3232.8	1.847 mg/L	92.33 mg/kg	12:31:18 PM
1	Cr 283.563†	307386.9	306645.7	1.981 mg/L	99.03 mg/kg	12:30:58 PM
2	Y 371.029	2417515.4	2417515.4	4.914 mg/L		12:31:47 PM
2	As 188.979†	3237.8	3274.9	1.871 mg/L	93.53 mg/kg	12:32:10 PM
2	Cr 283.563†	302569.4	302790.6	1.956 mg/L	97.79 mg/kg	12:31:50 PM
3	Y 371.029	2399443.3	2399443.3	4.877 mg/L		12:32:38 PM
3	As 188.979†	3258.8	3321.2	1.897 mg/L	94.85 mg/kg	12:33:01 PM
3	Cr 283.563†	305163.4	307768.6	1.988 mg/L	99.40 mg/kg	12:32:41 PM

Mean Data: ICS AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2414197.3	4.907 mg/L	0.0273			0.56%
As 188.979†	3276.3	1.871 mg/L	0.0253	93.57 mg/kg	1.263	1.35%
Cr 283.563†	305735.0	1.975 mg/L	0.0169	98.74 mg/kg	0.843	0.85%

Sequence No.: 3

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/24/2016 6:42:16 PM

Data Type: Reprocessed on 2/27/2016 5:43:43 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2524557.5	2524557.5	5.132 mg/L		6:44:03 PM
1	As 188.979†	3406.9	3300.0	1.885 mg/L		6:44:26 PM
1	Cr 283.563†	321753.4	308429.0	1.992 mg/L		6:44:06 PM
2	Y 371.029	2508558.9	2508558.9	5.099 mg/L		6:44:51 PM
2	As 188.979†	3412.3	3326.4	1.900 mg/L		6:45:14 PM
2	Cr 283.563†	318040.9	306788.1	1.982 mg/L		6:44:54 PM
3	Y 371.029	2535777.3	2535777.3	5.154 mg/L		6:45:39 PM
3	As 188.979†	3388.9	3267.8	1.867 mg/L		6:46:02 PM
3	Cr 283.563†	319943.5	305286.3	1.972 mg/L		6:45:42 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2522964.6	5.128 mg/L	0.0278			0.54%
As 188.979†	3298.1	1.884 mg/L	0.0168			0.89%
QC value within limits for As 188.979 Recovery = 94.19%						
Cr 283.563†	306834.5	1.982 mg/L	0.0102			0.51%
QC value within limits for Cr 283.563 Recovery = 99.09%						
All analyte(s) passed QC.						

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Sequence No.: 4	Autosampler Location: 1
Sample ID: CCB	Date Collected: 2/24/2016 6:48:08 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 5:43:43 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	222.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2657647.0	2657647.0	5.402 mg/L		6:49:34 PM
1	As 188.979†	-6.7	-25.8	-0.01472 mg/L		6:49:57 PM
1	Cr 283.563†	5108.1	-343.5	-0.00222 mg/L		6:49:37 PM
2	Y 371.029	2692191.8	2692191.8	5.472 mg/L		6:50:04 PM
2	As 188.979†	4.0	-15.9	-0.00910 mg/L		6:50:26 PM
2	Cr 283.563†	5275.2	-251.4	-0.00162 mg/L		6:50:06 PM
3	Y 371.029	2696890.0	2696890.0	5.482 mg/L		6:50:33 PM
3	As 188.979†	1.6	-18.0	-0.01031 mg/L		6:50:55 PM
3	Cr 283.563†	4987.4	-522.3	-0.00337 mg/L		6:50:35 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2682242.9	5.452 mg/L	0.0436			0.80%
As 188.979†	-19.9	-0.01137 mg/L	0.002957			26.00%
QC value less than the lower limit for As 188.979 Recovery = Not calculated						
Cr 283.563†	-372.4	-0.00241 mg/L	0.000890			36.99%
QC value within limits for Cr 283.563 Recovery = Not calculated						
QC Failed. Continue with analysis.						

=====

Sequence No.: 5	Autosampler Location: 1
Sample ID: CCB	Date Collected: 2/24/2016 6:51:36 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 5:43:43 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net	Corrected	Calib.	Sample	Analysis
		Intensity	Intensity	Conc. Units	Conc. Units	Time
1	Y 371.029	2664851.9	2664851.9	5.417 mg/L		6:53:03 PM
1	As 188.979†	5.3	-14.6	-0.00836 mg/L		6:53:26 PM
1	Cr 283.563†	4982.2	-472.4	-0.00305 mg/L		6:53:06 PM
2	Y 371.029	2637788.1	2637788.1	5.362 mg/L		6:53:33 PM
2	As 188.979†	1.3	-18.3	-0.01045 mg/L		6:53:55 PM
2	Cr 283.563†	4906.5	-495.8	-0.00320 mg/L		6:53:35 PM
3	Y 371.029	2665437.2	2665437.2	5.418 mg/L		6:54:02 PM
3	As 188.979†	10.3	-10.1	-0.00574 mg/L		6:54:24 PM
3	Cr 283.563†	4957.1	-496.6	-0.00321 mg/L		6:54:04 PM

Mean Data: CCB

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Y 371.029	2656025.7	5.399 mg/L	0.0321			0.59%
As 188.979†	-14.3	-0.00818 mg/L	0.002356			28.80%
QC value within limits for As 188.979		Recovery =	Not calculated			
Cr 283.563†	-488.3	-0.00315 mg/L	0.000089			2.81%
QC value within limits for Cr 283.563		Recovery =	Not calculated			

All analyte(s) passed QC.

=====

Sequence No.: 6

Sample ID: BZB0488-BLK1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.027 g

Dilution:

Wash Time:

Autosampler Location: 69

Date Collected: 2/24/2016 7:37:52 PM

Data Type: Reprocessed on 2/27/2016 5:43:43 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0488-BLK1

Analyte	Back Pressure	Flow
All	222.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: BZB0488-BLK1

Repl#	Analyte	Net	Corrected	Calib.	Sample	Analysis
		Intensity	Intensity	Conc. Units	Conc. Units	Time
1	Y 371.029	2646993.2	2646993.2	5.381 mg/L		7:39:21 PM
1	As 188.979†	-5.5	-24.7	-0.01410 mg/L	-0.6865 mg/kg	7:39:43 PM
1	Cr 283.563†	5298.8	-147.2	-0.00095 mg/L	-0.04629 mg/kg	7:39:23 PM

2	Y 371.029	2643748.6	2643748.6	5.374 mg/L		7:39:50 PM
2	As 188.979†	0.7	-18.9	-0.01078 mg/L	-0.5246 mg/kg	7:40:13 PM
2	Cr 283.563†	5185.3	-246.8	-0.00159 mg/L	-0.07760 mg/kg	7:39:53 PM
3	Y 371.029	2602417.2	2602417.2	5.290 mg/L		7:40:20 PM
3	As 188.979†	-12.1	-31.0	-0.01768 mg/L	-0.8608 mg/kg	7:40:43 PM
3	Cr 283.563†	5079.5	-270.1	-0.00174 mg/L	-0.08494 mg/kg	7:40:22 PM

Mean Data: BZB0488-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2631053.0	5.348 mg/L	0.0505			0.94%
As 188.979†	-24.8	-0.01419 mg/L	0.003454	-0.6907 mg/kg	0.16814	24.34%
Cr 283.563†	-221.4	-0.00143 mg/L	0.000422	-0.06961 mg/kg	0.020525	29.49%

Sequence No.: 7

Sample ID: BZB0488-BS1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.008 g

Dilution:

Wash Time:

Autosampler Location: 70

Date Collected: 2/24/2016 7:41:49 PM

Data Type: Reprocessed on 2/27/2016 5:43:43 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0488-BS1

Analyte	Back Pressure	Flow
All	222.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0488-BS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2487026.8	2487026.8	5.055 mg/L		7:43:30 PM
1	As 188.979†	3141.0	3087.1	1.763 mg/L	87.47 mg/kg	7:43:53 PM
1	Cr 283.563†	308630.2	300180.5	1.939 mg/L	96.18 mg/kg	7:43:33 PM
2	Y 371.029	2523426.3	2523426.3	5.129 mg/L		7:44:12 PM
2	As 188.979†	3175.2	3075.6	1.757 mg/L	87.14 mg/kg	7:44:35 PM
2	Cr 283.563†	311228.8	298310.4	1.927 mg/L	95.58 mg/kg	7:44:15 PM
3	Y 371.029	2563226.1	2563226.1	5.210 mg/L		7:44:54 PM
3	As 188.979†	3176.0	3028.3	1.730 mg/L	85.80 mg/kg	7:45:17 PM
3	Cr 283.563†	309045.0	291504.0	1.883 mg/L	93.40 mg/kg	7:44:57 PM

Mean Data: BZB0488-BS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2524559.7	5.132 mg/L	0.0775			1.51%
As 188.979†	3063.7	1.750 mg/L	0.0178	86.80 mg/kg	0.883	1.02%
Cr 283.563†	296665.0	1.916 mg/L	0.0295	95.05 mg/kg	1.463	1.54%

Sequence No.: 8

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/24/2016 7:47:23 PM

Data Type: Reprocessed on 2/27/2016 5:43:43 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2491112.7	2491112.7	5.064 mg/L		7:49:11 PM
1	As 188.979†	3397.9	3335.7	1.905 mg/L		7:49:33 PM
1	Cr 283.563†	321369.0	312258.4	2.017 mg/L		7:49:13 PM
2	Y 371.029	2518677.9	2518677.9	5.120 mg/L		7:49:58 PM
2	As 188.979†	3434.9	3335.1	1.905 mg/L		7:50:21 PM
2	Cr 283.563†	320491.4	307928.4	1.989 mg/L		7:50:00 PM
3	Y 371.029	2523558.2	2523558.2	5.130 mg/L		7:50:45 PM
3	As 188.979†	3410.2	3304.5	1.887 mg/L		7:51:08 PM
3	Cr 283.563†	322336.5	309121.6	1.997 mg/L		7:50:48 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2511116.3	5.104 mg/L	0.0356			0.70%
As 188.979†	3325.1	1.899 mg/L	0.0102			0.54%
QC value within limits for As 188.979 Recovery = 94.96%						
Cr 283.563†	309769.5	2.001 mg/L	0.0144			0.72%
QC value within limits for Cr 283.563 Recovery = 100.04%						
All analyte(s) passed QC.						

Sequence No.: 9

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/24/2016 7:53:14 PM

Data Type: Reprocessed on 2/27/2016 5:43:44 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2720708.6	2720708.6	5.530 mg/L		7:54:41 PM
1	As 188.979†	2.8	-17.0	-0.00973 mg/L		7:55:03 PM

1	Cr 283.563†	5205.0	-365.4	-0.00236 mg/L	7:54:43 PM
2	Y 371.029	2705310.4	2705310.4	5.499 mg/L	7:55:10 PM
2	As 188.979†	4.4	-15.5	-0.00887 mg/L	7:55:33 PM
2	Cr 283.563†	5084.7	-448.0	-0.00289 mg/L	7:55:13 PM
3	Y 371.029	2719362.4	2719362.4	5.528 mg/L	7:55:40 PM
3	As 188.979†	-0.9	-20.4	-0.01164 mg/L	7:56:02 PM
3	Cr 283.563†	5234.5	-336.4	-0.00217 mg/L	7:55:42 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2715127.1	5.519 mg/L	0.0173			0.31%
As 188.979†	-17.6	-0.01008 mg/L	0.001415			14.03%
QC value less than the lower limit for As 188.979 Recovery = Not calculated						
Cr 283.563†	-383.3	-0.00248 mg/L	0.000374			15.11%
QC value within limits for Cr 283.563 Recovery = Not calculated						
QC Failed. Continue with analysis.						

Sequence No.: 10

Sample ID: 16B0472-61

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.017 g

Dilution:

Wash Time:

Autosampler Location: 71

Date Collected: 2/24/2016 7:57:06 PM

Data Type: Reprocessed on 2/27/2016 5:43:44 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-61

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	2.000	10	20.000
Cr 283.563	0.100	20	2.000

Replicate Data: 16B0472-61

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2442685.7	2442685.7	4.965 mg/L		7:58:42 PM
1	As 188.979†	399.7	382.9	0.2187 mg/L	10.75 mg/kg	7:59:06 PM
1	Cr 283.563†	80527.4	76020.4	0.4910 mg/L	24.14 mg/kg	7:58:45 PM
2	Y 371.029	2465315.3	2465315.3	5.011 mg/L		7:59:20 PM
2	As 188.979†	407.3	386.9	0.2210 mg/L	10.86 mg/kg	7:59:43 PM
2	Cr 283.563†	80554.2	75302.7	0.4864 mg/L	23.91 mg/kg	7:59:23 PM
3	Y 371.029	2446992.0	2446992.0	4.974 mg/L		7:59:58 PM
3	As 188.979†	386.1	368.6	0.2105 mg/L	10.35 mg/kg	8:00:21 PM
3	Cr 283.563†	80085.7	75433.7	0.4872 mg/L	23.95 mg/kg	8:00:01 PM

Mean Data: 16B0472-61

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2451664.3	4.983 mg/L	0.0244			0.49%
As 188.979†	379.5	0.2167 mg/L	0.00550	10.66 mg/kg	0.271	2.54%
Cr 283.563†	75585.6	0.4882 mg/L	0.00247	24.00 mg/kg	0.121	0.51%

Sequence No.: 11

Sample ID: 16B0472-62

Analyst:

Autosampler Location: 72

Date Collected: 2/24/2016 8:02:26 PM

Data Type: Reprocessed on 2/27/2016 5:43:44 PM

Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1.059 g
Dilution:
Wash Time:

Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-62

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-62

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2492448.2	2492448.2	5.066 mg/L		8:04:04 PM
1	As 188.979†	575.8	548.7	0.3134 mg/L	14.80 mg/kg	8:04:26 PM
1	Cr 283.563†	102396.6	95984.2	0.6200 mg/L	29.27 mg/kg	8:04:06 PM
2	Y 371.029	2498149.2	2498149.2	5.078 mg/L		8:04:41 PM
2	As 188.979†	569.5	541.2	0.3091 mg/L	14.60 mg/kg	8:05:04 PM
2	Cr 283.563†	101374.5	94747.1	0.6120 mg/L	28.89 mg/kg	8:04:44 PM
3	Y 371.029	2501752.5	2501752.5	5.085 mg/L		8:05:19 PM
3	As 188.979†	580.9	551.6	0.3151 mg/L	14.88 mg/kg	8:05:42 PM
3	Cr 283.563†	101346.9	94576.2	0.6109 mg/L	28.84 mg/kg	8:05:22 PM

Mean Data: 16B0472-62

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2497450.0	5.077 mg/L	0.0095			0.19%
As 188.979†	547.2	0.3125 mg/L	0.00307	14.76 mg/kg	0.145	0.98%
Cr 283.563†	95102.5	0.6143 mg/L	0.00496	29.00 mg/kg	0.234	0.81%

Sequence No.: 12

Sample ID: BZB0488-DUP1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.017 g

Dilution:

Wash Time:

Autosampler Location: 73

Date Collected: 2/24/2016 8:07:47 PM

Data Type: Reprocessed on 2/27/2016 5:43:44 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0488-DUP1

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0488-DUP1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2531848.9	2531848.9	5.146 mg/L		8:09:20 PM

1	As 188.979†	286.8	259.1	0.1480 mg/L	7.276 mg/kg	8:09:43 PM
1	Cr 283.563†	77189.5	69921.7	0.4516 mg/L	22.20 mg/kg	8:09:23 PM
2	Y 371.029	2539239.5	2539239.5	5.161 mg/L		8:09:54 PM
2	As 188.979†	284.4	255.9	0.1462 mg/L	7.187 mg/kg	8:10:17 PM
2	Cr 283.563†	77711.8	70209.4	0.4535 mg/L	22.30 mg/kg	8:09:56 PM
3	Y 371.029	2515076.2	2515076.2	5.112 mg/L		8:10:28 PM
3	As 188.979†	288.9	263.1	0.1503 mg/L	7.387 mg/kg	8:10:51 PM
3	Cr 283.563†	78185.5	71395.9	0.4612 mg/L	22.67 mg/kg	8:10:30 PM

Mean Data: BZB0488-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2528721.5	5.140 mg/L	0.0252			0.49%
As 188.979†	259.4	0.1482 mg/L	0.00204	7.284 mg/kg	0.1001	1.37%
Cr 283.563†	70509.0	0.4554 mg/L	0.00505	22.39 mg/kg	0.248	1.11%

Sequence No.: 13

Sample ID: BZB0488-MS1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.024 g

Dilution:

Wash Time:

Autosampler Location: 74

Date Collected: 2/24/2016 8:12:56 PM

Data Type: Reprocessed on 2/27/2016 5:43:44 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0488-MS1

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: BZB0488-MS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2535534.8	2535534.8	5.154 mg/L		8:14:48 PM
1	As 188.979†	4014.7	3875.2	2.214 mg/L	108.1 mg/kg	8:15:11 PM
1	Cr 283.563†	422438.6	404749.7	2.614 mg/L	127.7 mg/kg	8:14:48 PM
2	Y 371.029	2514761.9	2514761.9	5.112 mg/L		8:15:40 PM
2	As 188.979†	4039.4	3931.6	2.246 mg/L	109.7 mg/kg	8:16:03 PM
2	Cr 283.563†	425836.5	411458.6	2.658 mg/L	129.8 mg/kg	8:15:40 PM
3	Y 371.029	2513687.0	2513687.0	5.110 mg/L		8:16:32 PM
3	As 188.979†	4007.8	3902.4	2.229 mg/L	108.8 mg/kg	8:16:55 PM
3	Cr 283.563†	423123.7	408982.1	2.642 mg/L	129.0 mg/kg	8:16:32 PM

Mean Data: BZB0488-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2521327.9	5.125 mg/L	0.0250			0.49%
As 188.979†	3903.1	2.229 mg/L	0.0161	108.9 mg/kg	0.79	0.72%
Cr 283.563†	408396.8	2.638 mg/L	0.0219	128.8 mg/kg	1.07	0.83%

Sequence No.: 14

Sample ID: 16B0472-63

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.036 g

Autosampler Location: 75

Date Collected: 2/24/2016 8:19:00 PM

Data Type: Reprocessed on 2/27/2016 5:43:44 PM

Initial Sample Vol:

Dilution:
Wash Time:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-63

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	2.000	10	20.000
Cr 283.563	0.100	20	2.000

Replicate Data: 16B0472-63

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2379603.3	2379603.3	4.837 mg/L		8:20:42 PM
1	As 188.979†	683.2	686.7	0.3923 mg/L	18.93 mg/kg	8:21:06 PM
1	Cr 283.563†	123984.1	123091.5	0.7951 mg/L	38.37 mg/kg	8:20:45 PM
2	Y 371.029	2396130.4	2396130.4	4.871 mg/L		8:21:26 PM
2	As 188.979†	675.4	673.8	0.3849 mg/L	18.58 mg/kg	8:21:49 PM
2	Cr 283.563†	121032.7	119177.6	0.7698 mg/L	37.15 mg/kg	8:21:29 PM
3	Y 371.029	2379011.5	2379011.5	4.836 mg/L		8:22:09 PM
3	As 188.979†	668.8	672.0	0.3838 mg/L	18.53 mg/kg	8:22:33 PM
3	Cr 283.563†	121373.6	120424.2	0.7778 mg/L	37.54 mg/kg	8:22:12 PM

Mean Data: 16B0472-63

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2384915.0	4.848 mg/L	0.0198			0.41%
As 188.979†	677.5	0.3870 mg/L	0.00458	18.68 mg/kg	0.221	1.18%
Cr 283.563†	120897.7	0.7809 mg/L	0.01291	37.69 mg/kg	0.623	1.65%

Sequence No.: 15

Sample ID: 16B0472-64

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.02 g

Dilution:

Wash Time:

Autosampler Location: 76

Date Collected: 2/24/2016 8:24:38 PM

Data Type: Reprocessed on 2/27/2016 5:43:45 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-64

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-64

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2490156.5	2490156.5	5.062 mg/L		8:26:09 PM
1	As 188.979†	27.8	7.9	0.00452 mg/L	0.2216 mg/kg	8:26:32 PM
1	Cr 283.563†	31717.8	26259.9	0.1696 mg/L	8.315 mg/kg	8:26:11 PM

2	Y 371.029	2512189.1	2512189.1	5.106 mg/L		8:26:41 PM
2	As 188.979†	30.0	9.8	0.00560 mg/L	0.2746 mg/kg	8:27:04 PM
2	Cr 283.563†	31697.1	25964.9	0.1677 mg/L	8.221 mg/kg	8:26:44 PM
3	Y 371.029	2521950.5	2521950.5	5.126 mg/L		8:27:14 PM
3	As 188.979†	33.5	13.1	0.00750 mg/L	0.3677 mg/kg	8:27:36 PM
3	Cr 283.563†	31467.5	25620.8	0.1655 mg/L	8.112 mg/kg	8:27:16 PM

Mean Data: 16B0472-64

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2508098.7	5.098 mg/L	0.0331			0.65%
As 188.979†	10.3	0.00587 mg/L	0.001509	0.2880 mg/kg	0.07396	25.68%
Cr 283.563†	25948.5	0.1676 mg/L	0.00207	8.216 mg/kg	0.1013	1.23%

Sequence No.: 16

Autosampler Location: 77

Sample ID: 16B0472-65

Date Collected: 2/24/2016 8:29:41 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:45 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.01 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-65

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: 16B0472-65

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2509150.4	2509150.4	5.100 mg/L		8:31:14 PM
1	As 188.979†	2598.2	2527.6	1.444 mg/L	71.47 mg/kg	8:31:37 PM
1	Cr 283.563†	483300.1	468723.6	3.028 mg/L	149.9 mg/kg	8:31:14 PM
2	Y 371.029	2526738.1	2526738.1	5.136 mg/L		8:31:48 PM
2	As 188.979†	2615.0	2526.2	1.443 mg/L	71.43 mg/kg	8:32:11 PM
2	Cr 283.563†	486029.5	468082.8	3.023 mg/L	149.7 mg/kg	8:31:48 PM
3	Y 371.029	2525645.0	2525645.0	5.134 mg/L		8:32:22 PM
3	As 188.979†	2597.2	2510.0	1.434 mg/L	70.97 mg/kg	8:32:45 PM
3	Cr 283.563†	484843.0	467132.0	3.017 mg/L	149.4 mg/kg	8:32:22 PM

Mean Data: 16B0472-65

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2520511.2	5.123 mg/L	0.0200			0.39%
As 188.979†	2521.2	1.440 mg/L	0.0056	71.29 mg/kg	0.277	0.39%
Cr 283.563†	467979.5	3.023 mg/L	0.0052	149.6 mg/kg	0.26	0.17%

Sequence No.: 17

Autosampler Location: 78

Sample ID: 16B0472-66

Date Collected: 2/24/2016 8:34:50 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:45 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.065 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-66

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-66

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2538583.9	2538583.9	5.160 mg/L		8:36:24 PM
1	As 188.979†	52.2	31.0	0.01772 mg/L	0.8320 mg/kg	8:36:47 PM
1	Cr 283.563†	56880.1	50043.6	0.3232 mg/L	15.18 mg/kg	8:36:27 PM
2	Y 371.029	2525650.2	2525650.2	5.134 mg/L		8:36:58 PM
2	As 188.979†	59.7	38.6	0.02204 mg/L	1.035 mg/kg	8:37:21 PM
2	Cr 283.563†	57386.9	50819.5	0.3283 mg/L	15.41 mg/kg	8:37:01 PM
3	Y 371.029	2538744.1	2538744.1	5.160 mg/L		8:37:32 PM
3	As 188.979†	38.7	18.0	0.01028 mg/L	0.4826 mg/kg	8:37:55 PM
3	Cr 283.563†	57385.7	50530.1	0.3264 mg/L	15.32 mg/kg	8:37:35 PM

Mean Data: 16B0472-66

Analyte	Mean Intensity	Corrected Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2534326.1	5.151 mg/L	0.0153			0.30%
As 188.979†	29.2	0.01668 mg/L	0.005949	0.7831 mg/kg	0.27930	35.66%
Cr 283.563†	50464.4	0.3260 mg/L	0.00253	15.30 mg/kg	0.119	0.78%

Sequence No.: 18

Sample ID: 16B0472-67

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.012 g

Dilution:

Wash Time:

Autosampler Location: 79

Date Collected: 2/24/2016 8:40:01 PM

Data Type: Reprocessed on 2/27/2016 5:43:45 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-67

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-67

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2495608.4	2495608.4	5.073 mg/L		8:41:33 PM
1	As 188.979†	1381.5	1342.2	0.7667 mg/L	37.88 mg/kg	8:41:56 PM
1	Cr 283.563†	308114.7	298622.7	1.929 mg/L	95.30 mg/kg	8:41:35 PM
2	Y 371.029	2509313.6	2509313.6	5.101 mg/L		8:42:06 PM
2	As 188.979†	1393.3	1346.3	0.7690 mg/L	37.99 mg/kg	8:42:28 PM

2	Cr 283.563†	313030.5	301782.7	1.949 mg/L	96.31 mg/kg	8:42:08 PM
3	Y 371.029	2523050.1	2523050.1	5.129 mg/L		8:42:39 PM
3	As 188.979†	1392.7	1338.3	0.7644 mg/L	37.77 mg/kg	8:43:01 PM
3	Cr 283.563†	308810.1	295997.6	1.912 mg/L	94.46 mg/kg	8:42:41 PM

Mean Data: 16B0472-67

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2509324.1	5.101 mg/L	0.0279			0.55%
As 188.979†	1342.3	0.7667 mg/L	0.00230	37.88 mg/kg	0.114	0.30%
Cr 283.563†	298801.0	1.930 mg/L	0.0187	95.36 mg/kg	0.924	0.97%

=====

Sequence No.: 19

Autosampler Location: 80

Sample ID: 16B0472-68

Date Collected: 2/24/2016 8:45:07 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:45 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.034 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-68

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-68

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2504061.0	2504061.0	5.090 mg/L		8:46:45 PM
1	As 188.979†	101.2	79.9	0.04563 mg/L	2.206 mg/kg	8:47:08 PM
1	Cr 283.563†	54175.4	48146.6	0.3110 mg/L	15.04 mg/kg	8:46:47 PM
2	Y 371.029	2515636.1	2515636.1	5.113 mg/L		8:47:23 PM
2	As 188.979†	98.9	77.2	0.04407 mg/L	2.131 mg/kg	8:47:46 PM
2	Cr 283.563†	54025.2	47754.9	0.3085 mg/L	14.92 mg/kg	8:47:26 PM
3	Y 371.029	2500829.8	2500829.8	5.083 mg/L		8:48:01 PM
3	As 188.979†	94.2	73.1	0.04175 mg/L	2.019 mg/kg	8:48:24 PM
3	Cr 283.563†	54660.3	48692.3	0.3145 mg/L	15.21 mg/kg	8:48:04 PM

Mean Data: 16B0472-68

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2506842.3	5.096 mg/L	0.0158			0.31%
As 188.979†	76.7	0.04382 mg/L	0.001954	2.119 mg/kg	0.0945	4.46%
Cr 283.563†	48197.9	0.3113 mg/L	0.00304	15.05 mg/kg	0.147	0.98%

=====

Sequence No.: 20

Autosampler Location: 5

Sample ID: CCV

Date Collected: 2/24/2016 8:50:29 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:45 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2561207.3	2561207.3	5.206 mg/L		8:52:19 PM
1	As 188.979†	3469.6	3312.7	1.892 mg/L		8:52:42 PM
1	Cr 283.563†	323379.1	305504.4	1.973 mg/L		8:52:22 PM
2	Y 371.029	2577334.0	2577334.0	5.239 mg/L		8:53:10 PM
2	As 188.979†	3469.7	3291.9	1.880 mg/L		8:53:33 PM
2	Cr 283.563†	329042.4	308966.1	1.996 mg/L		8:53:13 PM
3	Y 371.029	2605115.2	2605115.2	5.295 mg/L		8:54:01 PM
3	As 188.979†	3510.1	3294.8	1.882 mg/L		8:54:23 PM
3	Cr 283.563†	325520.8	302292.0	1.953 mg/L		8:54:03 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2581218.8	5.247 mg/L	0.0451			0.86%
As 188.979†	3299.8	1.885 mg/L	0.0064			0.34%
QC value within limits for As 188.979 Recovery = 94.24%						
Cr 283.563†	305587.5	1.974 mg/L	0.0216			1.09%
QC value within limits for Cr 283.563 Recovery = 98.69%						
All analyte(s) passed QC.						

Sequence No.: 21

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/24/2016 8:56:29 PM

Data Type: Reprocessed on 2/27/2016 5:43:46 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2780221.5	2780221.5	5.651 mg/L		8:57:56 PM
1	As 188.979†	-1.1	-20.5	-0.01171 mg/L		8:58:18 PM
1	Cr 283.563†	5328.3	-357.1	-0.00231 mg/L		8:57:58 PM
2	Y 371.029	2773944.7	2773944.7	5.639 mg/L		8:58:25 PM

2	As 188.979†	5.2	-14.9	-0.00850 mg/L	8:58:48 PM
2	Cr 283.563†	5170.5	-486.3	-0.00314 mg/L	8:58:28 PM
3	Y 371.029	2810172.5	2810172.5	5.712 mg/L	8:58:55 PM
3	As 188.979†	6.9	-13.5	-0.00770 mg/L	8:59:17 PM
3	Cr 283.563†	5341.8	-395.5	-0.00255 mg/L	8:58:57 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2788112.9	5.667 mg/L	0.0394			0.69%
As 188.979†	-16.3	-0.00931 mg/L	0.002122			22.80%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-413.0	-0.00267 mg/L	0.000429			16.07%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

=====

Sequence No.: 22
Sample ID: 16B0472-69

Autosampler Location: 81

Date Collected: 2/24/2016 9:00:21 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:46 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.026 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-69

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-69

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2616769.4	2616769.4	5.319 mg/L		9:01:58 PM
1	As 188.979†	916.2	841.7	0.4808 mg/L	23.43 mg/kg	9:02:21 PM
1	Cr 283.563†	117066.2	104972.7	0.6780 mg/L	33.04 mg/kg	9:02:01 PM
2	Y 371.029	2598389.1	2598389.1	5.282 mg/L		9:02:35 PM
2	As 188.979†	901.1	833.5	0.4761 mg/L	23.20 mg/kg	9:02:58 PM
2	Cr 283.563†	117827.4	106471.7	0.6877 mg/L	33.51 mg/kg	9:02:38 PM
3	Y 371.029	2586497.9	2586497.9	5.258 mg/L		9:03:12 PM
3	As 188.979†	912.3	848.0	0.4844 mg/L	23.61 mg/kg	9:03:35 PM
3	Cr 283.563†	117037.8	106233.7	0.6862 mg/L	33.44 mg/kg	9:03:15 PM

Mean Data: 16B0472-69

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2600552.1	5.286 mg/L	0.0310			0.59%
As 188.979†	841.1	0.4804 mg/L	0.00417	23.41 mg/kg	0.203	0.87%
Cr 283.563†	105892.7	0.6840 mg/L	0.00520	33.33 mg/kg	0.254	0.76%

=====

Sequence No.: 23

Autosampler Location: 82

Sample ID: 16B0472-70

Date Collected: 2/24/2016 9:05:41 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:46 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.026 g

Initial Sample Vol:

Dilution:
Wash Time:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-70

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-70

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2614683.5	2614683.5	5.315 mg/L		9:07:13 PM
1	As 188.979†	17.5	-3.1	-0.00176 mg/L	-0.08557 mg/kg	9:07:36 PM
1	Cr 283.563†	25879.1	19274.9	0.1245 mg/L	6.067 mg/kg	9:07:16 PM
2	Y 371.029	2578434.2	2578434.2	5.241 mg/L		9:07:45 PM
2	As 188.979†	21.4	0.9	0.00051 mg/L	0.02489 mg/kg	9:08:08 PM
2	Cr 283.563†	26162.3	19887.3	0.1285 mg/L	6.260 mg/kg	9:07:48 PM
3	Y 371.029	2592362.6	2592362.6	5.269 mg/L		9:08:18 PM
3	As 188.979†	26.5	5.6	0.00319 mg/L	0.1557 mg/kg	9:08:40 PM
3	Cr 283.563†	25790.5	19400.4	0.1253 mg/L	6.107 mg/kg	9:08:20 PM

Mean Data: 16B0472-70

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2595160.1	5.275 mg/L	0.0372			0.70%
As 188.979†	1.1	0.00065 mg/L	0.002478	0.03167 mg/kg	0.120766	381.34%
Cr 283.563†	19520.9	0.1261 mg/L	0.00209	6.145 mg/kg	0.1018	1.66%

Sequence No.: 24

Sample ID: 16B0472-71

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.039 g

Dilution:

Wash Time:

Autosampler Location: 83

Date Collected: 2/24/2016 9:10:46 PM

Data Type: Reprocessed on 2/27/2016 5:43:46 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-71

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-71

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2498004.7	2498004.7	5.078 mg/L		9:12:26 PM
1	As 188.979†	375.0	349.7	0.1998 mg/L	9.613 mg/kg	9:12:49 PM
1	Cr 283.563†	81512.0	75194.1	0.4857 mg/L	23.37 mg/kg	9:12:29 PM

2	Y 371.029	2489269.8	2489269.8	5.060 mg/L		9:13:06 PM
2	As 188.979†	377.3	353.3	0.2018 mg/L	9.712 mg/kg	9:13:29 PM
2	Cr 283.563†	81663.1	75625.1	0.4885 mg/L	23.51 mg/kg	9:13:09 PM
3	Y 371.029	2514434.1	2514434.1	5.111 mg/L		9:13:46 PM
3	As 188.979†	368.4	340.8	0.1947 mg/L	9.369 mg/kg	9:14:09 PM
3	Cr 283.563†	80910.6	74081.3	0.4785 mg/L	23.03 mg/kg	9:13:49 PM

Mean Data: 16B0472-71

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2500569.5	5.083 mg/L	0.0260			0.51%
As 188.979†	348.0	0.1988 mg/L	0.00367	9.565 mg/kg	0.1767	1.85%
Cr 283.563†	74966.9	0.4842 mg/L	0.00515	23.30 mg/kg	0.248	1.06%

Sequence No.: 25

Autosampler Location: 84

Sample ID: 16B0472-72

Date Collected: 2/24/2016 9:16:15 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:46 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.038 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-72

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-72

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2578344.6	2578344.6	5.241 mg/L		9:17:46 PM
1	As 188.979†	50.7	28.8	0.01647 mg/L	0.7933 mg/kg	9:18:09 PM
1	Cr 283.563†	38363.9	31528.8	0.2036 mg/L	9.810 mg/kg	9:17:48 PM
2	Y 371.029	2580703.4	2580703.4	5.246 mg/L		9:18:18 PM
2	As 188.979†	65.0	42.4	0.02421 mg/L	1.166 mg/kg	9:18:41 PM
2	Cr 283.563†	37881.2	31035.3	0.2005 mg/L	9.656 mg/kg	9:18:21 PM
3	Y 371.029	2600138.6	2600138.6	5.285 mg/L		9:18:51 PM
3	As 188.979†	53.8	31.3	0.01789 mg/L	0.8620 mg/kg	9:19:13 PM
3	Cr 283.563†	37651.0	30547.6	0.1973 mg/L	9.504 mg/kg	9:18:53 PM

Mean Data: 16B0472-72

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2586395.5	5.257 mg/L	0.0243			0.46%
As 188.979†	34.2	0.01953 mg/L	0.004122	0.9406 mg/kg	0.19855	21.11%
Cr 283.563†	31037.2	0.2005 mg/L	0.00317	9.657 mg/kg	0.1526	1.58%

Sequence No.: 26

Autosampler Location: 85

Sample ID: 16B0472-73

Date Collected: 2/24/2016 9:21:18 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:46 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.008 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-73

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-73

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2589737.5	2589737.5	5.264 mg/L		9:22:53 PM
1	As 188.979†	701.0	646.3	0.3692 mg/L	18.31 mg/kg	9:23:16 PM
1	Cr 283.563†	185563.1	171181.5	1.106 mg/L	54.85 mg/kg	9:22:56 PM
2	Y 371.029	2582273.8	2582273.8	5.249 mg/L		9:23:29 PM
2	As 188.979†	708.8	655.6	0.3745 mg/L	18.58 mg/kg	9:23:51 PM
2	Cr 283.563†	187209.3	173259.1	1.119 mg/L	55.51 mg/kg	9:23:31 PM
3	Y 371.029	2585363.6	2585363.6	5.255 mg/L		9:24:04 PM
3	As 188.979†	687.7	634.8	0.3626 mg/L	17.99 mg/kg	9:24:27 PM
3	Cr 283.563†	188091.8	173885.6	1.123 mg/L	55.71 mg/kg	9:24:06 PM

Mean Data: 16B0472-73

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2585791.7	5.256 mg/L	0.0076			0.15%
As 188.979†	645.6	0.3688 mg/L	0.00595	18.29 mg/kg	0.295	1.61%
Cr 283.563†	172775.4	1.116 mg/L	0.0091	55.36 mg/kg	0.454	0.82%

Sequence No.: 27

Autosampler Location: 86

Sample ID: 16B0472-74

Date Collected: 2/24/2016 9:26:33 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:47 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.023 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-74

Analyte	Back Pressure	Flow
All	223.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-74

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2569282.7	2569282.7	5.223 mg/L		9:28:05 PM
1	As 188.979†	490.0	449.6	0.2568 mg/L	12.55 mg/kg	9:28:27 PM
1	Cr 283.563†	101229.1	91844.3	0.5932 mg/L	29.00 mg/kg	9:28:07 PM
2	Y 371.029	2563030.7	2563030.7	5.210 mg/L		9:28:38 PM
2	As 188.979†	488.6	449.4	0.2567 mg/L	12.55 mg/kg	9:29:00 PM

2	Cr 283.563†	98527.7	89488.1	0.5780 mg/L	28.25 mg/kg	9:28:40 PM
3	Y 371.029	2549154.5	2549154.5	5.182 mg/L		9:29:10 PM
3	As 188.979†	470.9	434.9	0.2484 mg/L	12.14 mg/kg	9:29:33 PM
3	Cr 283.563†	101541.9	92911.4	0.6001 mg/L	29.33 mg/kg	9:29:13 PM

Mean Data: 16B0472-74

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2560489.3	5.205 mg/L	0.0209			0.40%
As 188.979†	444.6	0.2540 mg/L	0.00483	12.41 mg/kg	0.236	1.90%
Cr 283.563†	91414.6	0.5905 mg/L	0.01131	28.86 mg/kg	0.553	1.92%

=====

Sequence No.: 28

Autosampler Location: 87

Sample ID: 16B0472-75

Date Collected: 2/24/2016 9:31:38 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:47 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.014 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-75

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	2.000	10	20.000
Cr 283.563	0.100	20	2.000

Replicate Data: 16B0472-75

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2345966.2	2345966.2	4.769 mg/L		9:33:19 PM
1	As 188.979†	1063.1	1095.2	0.6256 mg/L	30.85 mg/kg	9:33:43 PM
1	Cr 283.563†	118087.7	118746.6	0.7670 mg/L	37.82 mg/kg	9:33:22 PM
2	Y 371.029	2318771.5	2318771.5	4.713 mg/L		9:34:02 PM
2	As 188.979†	1092.2	1139.1	0.6506 mg/L	32.08 mg/kg	9:34:25 PM
2	Cr 283.563†	118737.9	120888.4	0.7808 mg/L	38.50 mg/kg	9:34:05 PM
3	Y 371.029	2349717.4	2349717.4	4.776 mg/L		9:34:44 PM
3	As 188.979†	1108.5	1140.9	0.6516 mg/L	32.13 mg/kg	9:35:07 PM
3	Cr 283.563†	119705.2	120242.1	0.7767 mg/L	38.30 mg/kg	9:34:47 PM

Mean Data: 16B0472-75

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2338151.7	4.753 mg/L	0.0343			0.72%
As 188.979†	1125.0	0.6426 mg/L	0.01478	31.69 mg/kg	0.729	2.30%
Cr 283.563†	119959.0	0.7748 mg/L	0.00710	38.21 mg/kg	0.350	0.92%

=====

Sequence No.: 29

Autosampler Location: 88

Sample ID: 16B0472-76

Date Collected: 2/24/2016 9:37:14 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:47 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.015 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-76

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Analyte			
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-76

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2589362.3	2589362.3	5.263 mg/L		9:38:45 PM
1	As 188.979†	179.7	151.2	0.08634 mg/L	4.253 mg/kg	9:39:07 PM
1	Cr 283.563†	55145.6	47315.1	0.3056 mg/L	15.05 mg/kg	9:38:47 PM
2	Y 371.029	2630065.1	2630065.1	5.346 mg/L		9:39:17 PM
2	As 188.979†	182.3	151.0	0.08625 mg/L	4.249 mg/kg	9:39:40 PM
2	Cr 283.563†	56108.2	47404.7	0.3062 mg/L	15.08 mg/kg	9:39:20 PM
3	Y 371.029	2603754.1	2603754.1	5.293 mg/L		9:39:50 PM
3	As 188.979†	184.0	154.3	0.08814 mg/L	4.342 mg/kg	9:40:12 PM
3	Cr 283.563†	55627.5	47480.8	0.3067 mg/L	15.11 mg/kg	9:39:52 PM

Mean Data: 16B0472-76

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2607727.2	5.301 mg/L	0.0420			0.79%
As 188.979†	152.2	0.08691 mg/L	0.001068	4.281 mg/kg	0.0526	1.23%
Cr 283.563†	47400.2	0.3062 mg/L	0.00054	15.08 mg/kg	0.026	0.17%

Sequence No.: 30

Sample ID: 16B0472-77

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.048 g

Dilution:

Wash Time:

Autosampler Location: 89

Date Collected: 2/24/2016 9:42:17 PM

Data Type: Reprocessed on 2/27/2016 5:43:47 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-77

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Analyte			
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-77

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2545526.9	2545526.9	5.174 mg/L		9:43:54 PM
1	As 188.979†	853.4	805.1	0.4599 mg/L	21.94 mg/kg	9:44:17 PM
1	Cr 283.563†	114011.6	105100.8	0.6789 mg/L	32.39 mg/kg	9:43:57 PM
2	Y 371.029	2545728.6	2545728.6	5.175 mg/L		9:44:32 PM
2	As 188.979†	852.4	804.1	0.4593 mg/L	21.91 mg/kg	9:44:55 PM
2	Cr 283.563†	116718.8	107707.9	0.6957 mg/L	33.19 mg/kg	9:44:35 PM
3	Y 371.029	2570925.0	2570925.0	5.226 mg/L		9:45:10 PM

3	As 188.979†	841.8	785.9	0.4489 mg/L	21.42 mg/kg	9:45:33 PM
3	Cr 283.563†	116224.3	106129.4	0.6855 mg/L	32.71 mg/kg	9:45:13 PM

Mean Data: 16B0472-77

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2554060.2	5.192 mg/L	0.0297			0.57%
As 188.979†	798.4	0.4560 mg/L	0.00618	21.76 mg/kg	0.295	1.36%
Cr 283.563†	106312.7	0.6867 mg/L	0.00848	32.76 mg/kg	0.405	1.24%

=====

Sequence No.: 31	Autosampler Location: 90
Sample ID: BZB0488-DUP2	Date Collected: 2/24/2016 9:47:38 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 5:43:47 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt: 1.006 g	Initial Sample Vol:
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: BZB0488-DUP2

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0488-DUP2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2544348.1	2544348.1	5.172 mg/L		9:49:16 PM
1	As 188.979†	973.8	921.9	0.5266 mg/L	26.17 mg/kg	9:49:39 PM
1	Cr 283.563†	127287.2	117986.3	0.7621 mg/L	37.88 mg/kg	9:49:19 PM
2	Y 371.029	2560483.2	2560483.2	5.205 mg/L		9:49:55 PM
2	As 188.979†	976.7	918.7	0.5248 mg/L	26.08 mg/kg	9:50:17 PM
2	Cr 283.563†	131225.9	120994.7	0.7815 mg/L	38.84 mg/kg	9:49:57 PM
3	Y 371.029	2544872.1	2544872.1	5.173 mg/L		9:50:33 PM
3	As 188.979†	973.5	921.4	0.5263 mg/L	26.16 mg/kg	9:50:55 PM
3	Cr 283.563†	128003.3	118653.1	0.7664 mg/L	38.09 mg/kg	9:50:35 PM

Mean Data: BZB0488-DUP2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2549901.1	5.183 mg/L	0.0186			0.36%
As 188.979†	920.7	0.5259 mg/L	0.00098	26.14 mg/kg	0.049	0.19%
Cr 283.563†	119211.4	0.7700 mg/L	0.01021	38.27 mg/kg	0.507	1.33%

=====

Sequence No.: 32	Autosampler Location: 5
Sample ID: CCV	Date Collected: 2/24/2016 9:53:01 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 5:43:47 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
---------	---------------	------

All 224.0 kPa 0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2579501.3	2579501.3	5.243 mg/L		9:54:49 PM
1	As 188.979†	3560.8	3376.0	1.928 mg/L		9:55:11 PM
1	Cr 283.563†	335585.2	314941.5	2.034 mg/L		9:54:51 PM
2	Y 371.029	2621931.9	2621931.9	5.330 mg/L		9:55:37 PM
2	As 188.979†	3570.2	3329.9	1.902 mg/L		9:55:59 PM
2	Cr 283.563†	340202.0	314094.0	2.029 mg/L		9:55:39 PM
3	Y 371.029	2616149.3	2616149.3	5.318 mg/L		9:56:25 PM
3	As 188.979†	3565.6	3333.0	1.904 mg/L		9:56:48 PM
3	Cr 283.563†	332594.6	307646.7	1.987 mg/L		9:56:27 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2605860.8	5.297 mg/L	0.0468			0.88%
As 188.979†	3346.3	1.911 mg/L	0.0147			0.77%
QC value within limits for As 188.979 Recovery = 95.57%						
Cr 283.563†	312227.4	2.017 mg/L	0.0258			1.28%
QC value within limits for Cr 283.563 Recovery = 100.84%						
All analyte(s) passed QC.						

Sequence No.: 33

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/24/2016 9:58:54 PM

Data Type: Reprocessed on 2/27/2016 5:43:48 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	225.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2756639.7	2756639.7	5.603 mg/L		10:00:21 PM
1	As 188.979†	1.0	-18.6	-0.01064 mg/L		10:00:43 PM
1	Cr 283.563†	5203.9	-427.7	-0.00276 mg/L		10:00:23 PM
2	Y 371.029	2775210.2	2775210.2	5.641 mg/L		10:00:50 PM
2	As 188.979†	-18.6	-36.0	-0.02058 mg/L		10:01:13 PM
2	Cr 283.563†	5027.6	-615.0	-0.00397 mg/L		10:00:52 PM

3	Y 371.029	2783351.4	2783351.4	5.658 mg/L	10:01:20 PM
3	As 188.979†	-12.6	-30.7	-0.01751 mg/L	10:01:42 PM
3	Cr 283.563†	4983.4	-667.1	-0.00431 mg/L	10:01:22 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2771733.7	5.634 mg/L	0.0278			0.49%
As 188.979†	-28.4	-0.01624 mg/L	0.005093			31.36%
QC value less than the lower limit for As 188.979 Recovery = Not calculated						
Cr 283.563†	-570.0	-0.00368 mg/L	0.000813			22.10%
QC value within limits for Cr 283.563 Recovery = Not calculated						
QC Failed. Continue with analysis.						

=====

Sequence No.: 34

Autosampler Location: 91

Sample ID: BZB0488-MS2

Date Collected: 2/24/2016 10:02:46 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:48 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.063 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: BZB0488-MS2

Analyte	Back Pressure	Flow
All	225.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: BZB0488-MS2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2514677.5	2514677.5	5.112 mg/L		10:04:33 PM
1	As 188.979†	4284.2	4171.1	2.383 mg/L	112.1 mg/kg	10:04:56 PM
1	Cr 283.563†	424264.9	409935.3	2.648 mg/L	124.5 mg/kg	10:04:33 PM
2	Y 371.029	2562937.8	2562937.8	5.210 mg/L		10:05:20 PM
2	As 188.979†	4303.0	4110.3	2.348 mg/L	110.4 mg/kg	10:05:43 PM
2	Cr 283.563†	432043.4	409586.2	2.646 mg/L	124.4 mg/kg	10:05:20 PM
3	Y 371.029	2549120.1	2549120.1	5.182 mg/L		10:06:07 PM
3	As 188.979†	4361.7	4189.3	2.393 mg/L	112.6 mg/kg	10:06:29 PM
3	Cr 283.563†	430460.6	410306.6	2.650 mg/L	124.7 mg/kg	10:06:07 PM

Mean Data: BZB0488-MS2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2542245.1	5.168 mg/L	0.0505			0.98%
As 188.979†	4156.9	2.374 mg/L	0.0236	111.7 mg/kg	1.11	1.00%
Cr 283.563†	409942.7	2.648 mg/L	0.0023	124.5 mg/kg	0.11	0.09%

=====

Sequence No.: 35

Autosampler Location: 92

Sample ID: 16B0472-78

Date Collected: 2/24/2016 10:08:35 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:48 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.028 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-78

Analyte	Back Pressure	Flow
All	225.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-78

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2528319.1	2528319.1	5.139 mg/L		10:10:09 PM
1	As 188.979†	835.4	793.2	0.4531 mg/L	22.04 mg/kg	10:10:31 PM
1	Cr 283.563†	188603.1	178420.7	1.152 mg/L	56.05 mg/kg	10:10:11 PM
2	Y 371.029	2529440.8	2529440.8	5.142 mg/L		10:10:42 PM
2	As 188.979†	827.4	785.1	0.4485 mg/L	21.81 mg/kg	10:11:04 PM
2	Cr 283.563†	189132.9	178854.6	1.155 mg/L	56.19 mg/kg	10:10:44 PM
3	Y 371.029	2542285.4	2542285.4	5.168 mg/L		10:11:15 PM
3	As 188.979†	814.9	769.0	0.4392 mg/L	21.36 mg/kg	10:11:37 PM
3	Cr 283.563†	186953.2	175816.3	1.136 mg/L	55.23 mg/kg	10:11:17 PM

Mean Data: 16B0472-78

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2533348.4	5.149 mg/L	0.0158			0.31%
As 188.979†	782.4	0.4469 mg/L	0.00706	21.74 mg/kg	0.343	1.58%
Cr 283.563†	177697.2	1.148 mg/L	0.0106	55.83 mg/kg	0.516	0.92%

Sequence No.: 36

Sample ID: 16B0472-79

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.02 g

Dilution:

Wash Time:

Autosampler Location: 93

Date Collected: 2/24/2016 10:13:44 PM

Data Type: Reprocessed on 2/27/2016 5:43:48 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-79

Analyte	Back Pressure	Flow
All	225.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: 16B0472-79

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2507641.6	2507641.6	5.097 mg/L		10:15:27 PM
1	As 188.979†	8767.3	8580.5	4.901 mg/L	240.3 mg/kg	10:15:49 PM
1	Cr 283.563†	1485886.0	1452467.8	9.382 mg/L	459.9 mg/kg	10:15:27 PM
2	Y 371.029	2523779.4	2523779.4	5.130 mg/L		10:16:09 PM
2	As 188.979†	8822.3	8579.2	4.900 mg/L	240.2 mg/kg	10:16:31 PM

2	Cr 283.563†	1499755.2	1456665.5	9.409 mg/L	461.2 mg/kg	10:16:09 PM
3	Y 371.029	2513108.6	2513108.6	5.108 mg/L		10:16:51 PM
3	As 188.979†	8836.8	8629.8	4.929 mg/L	241.6 mg/kg	10:17:13 PM
3	Cr 283.563†	1501400.4	1464482.4	9.459 mg/L	463.7 mg/kg	10:16:51 PM

Mean Data: 16B0472-79

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2514843.2	5.112 mg/L	0.0167			0.33%
As 188.979†	8596.5	4.910 mg/L	0.0165	240.7 mg/kg	0.81	0.34%
Concentration greater than upper limit for As 188.979.						
Cr 283.563†	1457871.9	9.417 mg/L	0.0394	461.6 mg/kg	1.93	0.42%
Concentration greater than upper limit for Cr 283.563.						

=====

Sequence No.: 37 Autosampler Location: 94

Sample ID: 16B0472-80

Date Collected: 2/24/2016 10:19:20 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:48 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.071 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-80

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.010	200	2.000

Replicate Data: 16B0472-80

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2482117.3	2482117.3	5.045 mg/L		10:21:02 PM
1	As 188.979†	5207.7	5141.4	2.937 mg/L	137.1 mg/kg	10:21:24 PM
1	Cr 283.563†	577686.9	567422.1	3.665 mg/L	171.1 mg/kg	10:21:02 PM
2	Y 371.029	2530580.4	2530580.4	5.144 mg/L		10:21:43 PM
2	As 188.979†	5253.9	5087.5	2.906 mg/L	135.7 mg/kg	10:22:05 PM
2	Cr 283.563†	581941.1	560593.4	3.621 mg/L	169.0 mg/kg	10:21:43 PM
3	Y 371.029	2502822.8	2502822.8	5.087 mg/L		10:22:24 PM
3	As 188.979†	5277.1	5166.9	2.951 mg/L	137.8 mg/kg	10:22:46 PM
3	Cr 283.563†	575895.9	560925.6	3.623 mg/L	169.1 mg/kg	10:22:24 PM

Mean Data: 16B0472-80

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2505173.5	5.092 mg/L	0.0494			0.97%
As 188.979†	5131.9	2.931 mg/L	0.0232	136.8 mg/kg	1.08	0.79%
Cr 283.563†	562980.4	3.636 mg/L	0.0249	169.8 mg/kg	1.16	0.68%

=====

Sequence No.: 38 Autosampler Location: 95

Sample ID: 16B0472-63X5

Date Collected: 2/24/2016 10:24:52 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 5:43:48 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.036 g

Initial Sample Vol:

Dilution: 5X

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-63X5

Analyte	Back Pressure	Flow
All	225.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-63X5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2577628.3	2577628.3	5.240 mg/L		10:26:23 PM
1	As 188.979†	154.0	127.4	0.07278 mg/L	17.56 mg/kg	10:26:45 PM
1	Cr 283.563†	31474.8	24964.8	0.1613 mg/L	38.91 mg/kg	10:26:25 PM
2	Y 371.029	2574146.3	2574146.3	5.232 mg/L		10:26:55 PM
2	As 188.979†	149.4	123.2	0.07039 mg/L	16.99 mg/kg	10:27:18 PM
2	Cr 283.563†	31469.9	25000.8	0.1615 mg/L	38.97 mg/kg	10:26:57 PM
3	Y 371.029	2595105.1	2595105.1	5.275 mg/L		10:27:27 PM
3	As 188.979†	155.8	128.2	0.07322 mg/L	17.67 mg/kg	10:27:50 PM
3	Cr 283.563†	31763.5	25036.2	0.1617 mg/L	39.02 mg/kg	10:27:29 PM

Mean Data: 16B0472-63X5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2582293.2	5.249 mg/L	0.0228			0.43%
As 188.979†	126.3	0.07213 mg/L	0.001521	17.41 mg/kg	0.367	2.11%
Cr 283.563†	25000.6	0.1615 mg/L	0.00023	38.97 mg/kg	0.056	0.14%

Sequence No.: 39

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/24/2016 10:29:56 PM

Data Type: Reprocessed on 2/27/2016 5:43:49 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	225.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2606025.9	2606025.9	5.297 mg/L		10:31:40 PM
1	As 188.979†	3559.4	3340.2	1.908 mg/L		10:32:02 PM
1	Cr 283.563†	327228.5	303796.5	1.962 mg/L		10:31:42 PM
2	Y 371.029	2627508.3	2627508.3	5.341 mg/L		10:32:24 PM
2	As 188.979†	3552.8	3306.5	1.889 mg/L		10:32:47 PM

2	Cr 283.563†	330638.6	304463.7	1.967 mg/L	10:32:27 PM
3	Y 371.029	2602396.4	2602396.4	5.290 mg/L	10:33:08 PM
3	As 188.979†	3545.0	3331.2	1.903 mg/L	10:33:31 PM
3	Cr 283.563†	335445.7	311994.2	2.015 mg/L	10:33:11 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2611976.9	5.309 mg/L	0.0276			0.52%
As 188.979†	3326.0	1.900 mg/L	0.0100			0.52%
QC value within limits for As 188.979 Recovery = 94.99%						
Cr 283.563†	306751.5	1.981 mg/L	0.0294			1.48%
QC value within limits for Cr 283.563 Recovery = 99.07%						
All analyte(s) passed QC.						

=====

Sequence No.: 40

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/24/2016 10:35:37 PM

Data Type: Reprocessed on 2/27/2016 5:43:49 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	226.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2816530.7	2816530.7	5.725 mg/L		10:37:04 PM
1	As 188.979†	-6.9	-25.6	-0.01460 mg/L		10:37:26 PM
1	Cr 283.563†	5058.4	-653.6	-0.00422 mg/L		10:37:06 PM
2	Y 371.029	2839814.6	2839814.6	5.772 mg/L		10:37:33 PM
2	As 188.979†	7.5	-13.0	-0.00744 mg/L		10:37:56 PM
2	Cr 283.563†	5000.6	-739.8	-0.00478 mg/L		10:37:36 PM
3	Y 371.029	2793603.3	2793603.3	5.679 mg/L		10:38:03 PM
3	As 188.979†	-2.5	-21.8	-0.01243 mg/L		10:38:25 PM
3	Cr 283.563†	5005.0	-664.3	-0.00429 mg/L		10:38:05 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2816649.5	5.725 mg/L	0.0470			0.82%
As 188.979†	-20.1	-0.01149 mg/L	0.003671			31.94%
QC value less than the lower limit for As 188.979 Recovery = Not calculated						
Cr 283.563†	-685.9	-0.00443 mg/L	0.000304			6.85%
QC value within limits for Cr 283.563 Recovery = Not calculated						
QC Failed. Continue with analysis.						

Analysis Sequence Raw Data

Sequence	SZB0770
Instrument	ICP03
Analysis	Cr SW6010

Analysis Sequence

Printed: 02/27/2016 9:46 pm

SZB0770

Department: Metals-ICP
Instrument: ICP03
Calibration ID: AB60137

Sequence Date: 02/25/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
16B0472-81	A	LW-41-12	1				Draper Aden Associates-Richmond	
16B0472-81	A	LW-41-12	2				Draper Aden Associates-Richmond	
16B0472-82	A	LW-41-24	3				Draper Aden Associates-Richmond	
16B0472-82	A	LW-41-24	4				Draper Aden Associates-Richmond	
16B0472-83	A	LW-42-12	5				Draper Aden Associates-Richmond	
16B0472-83	A	LW-42-12	6				Draper Aden Associates-Richmond	
16B0472-84	A	LW-42-24	7				Draper Aden Associates-Richmond	
16B0472-84	A	LW-42-24	8				Draper Aden Associates-Richmond	
16B0472-85	A	LW-43-12	9				Draper Aden Associates-Richmond	
16B0472-85	A	LW-43-12	10				Draper Aden Associates-Richmond	
16B0472-86	A	LW-43-24	11				Draper Aden Associates-Richmond	
16B0472-86	A	LW-43-24	12				Draper Aden Associates-Richmond	
16B0472-87	A	LW-44-12	13				Draper Aden Associates-Richmond	
16B0472-87	A	LW-44-12	14				Draper Aden Associates-Richmond	
16B0472-88	A	LW-44-24	15				Draper Aden Associates-Richmond	
16B0472-88	A	LW-44-24	16				Draper Aden Associates-Richmond	
16B0472-89	A	LW-45-12	17				Draper Aden Associates-Richmond	
16B0472-89	A	LW-45-12	18				Draper Aden Associates-Richmond	
16B0472-90	A	LW-45-24	19				Draper Aden Associates-Richmond	
16B0472-90	A	LW-45-24	20				Draper Aden Associates-Richmond	
16B0472-91	A	LW-46-12	21				Draper Aden Associates-Richmond	
16B0472-91	A	LW-46-12	22				Draper Aden Associates-Richmond	
16B0472-92	A	LW-46-24	23				Draper Aden Associates-Richmond	

Analysis Sequence

Printed: 02/27/2016 9:46 pm

SZB0770

(Continued)

Department: Metals-ICP
Instrument: ICP03
Calibration ID: AB60137

Sequence Date: 02/25/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
16B0472-92	A	LW-46-24	24				Draper Aden Associates-Richmond	
16B0472-93	A	LW-47-12	25				Draper Aden Associates-Richmond	
16B0472-93	A	LW-47-12	26				Draper Aden Associates-Richmond	
16B0472-94	A	LW-47-24	27				Draper Aden Associates-Richmond	
16B0472-94	A	LW-47-24	28				Draper Aden Associates-Richmond	
16B0472-95	A	LW-48-12	29				Draper Aden Associates-Richmond	
16B0472-95	A	LW-48-12	30				Draper Aden Associates-Richmond	
16B0472-96	A	LW-48-24	31				Draper Aden Associates-Richmond	
16B0472-96	A	LW-48-24	32				Draper Aden Associates-Richmond	
16B0472-97	A	LW-10-24 Dup	33				Draper Aden Associates-Richmond	
16B0472-97	A	LW-10-24 Dup	34				Draper Aden Associates-Richmond	
16B0472-98	A	LW-19-12 Dup	35				Draper Aden Associates-Richmond	
16B0472-98	A	LW-19-12 Dup	36				Draper Aden Associates-Richmond	
16B0472-99	A	LW-29-24 Dup	37				Draper Aden Associates-Richmond	
16B0472-99	A	LW-29-24 Dup	38				Draper Aden Associates-Richmond	
16B0472-AA	A	LW-39-12 Dup	39				Draper Aden Associates-Richmond	
16B0472-AA	A	LW-39-12 Dup	40				Draper Aden Associates-Richmond	
BZB0557-DUP2		Duplicate	41					
BZB0557-MS2		Matrix Spike	42					
BZB0557-MS1		Matrix Spike	43					
BZB0557-DUP1		Duplicate	44					
BZB0557-BS1		LCS	45					
BZB0557-BLK1		Blank	46					

Analysis Sequence

Printed: 02/27/2016 9:46 pm

SZB0770

(Continued)

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60137

Sequence Date: 02/25/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
16B0472-79RE1	A	LW-40-12	47				Draper Aden Associates-Richmond	Added 2/25/2016 by CWO; Auto-update of ExInfo5 field to RE1 2/25/2016 1:50:00 PM Added 2/25/2016 by CWO
16B0472-79RE1	A	LW-40-12	48				Draper Aden Associates-Richmond	Added 2/25/2016 by CWO; Auto-update of ExInfo5 field to RE1 2/25/2016 1:50:00 PM Added 2/25/2016 by CWO
SZB0770-SRD1		Serial Dilution	49					
SZB0770-CCB1		Calibration Blank	50					
SZB0770-CCB2		Calibration Blank	51					
SZB0770-CCB3		Calibration Blank	52					
SZB0770-CCB4		Calibration Blank	53					
SZB0770-CCB5		Calibration Blank	54					
SZB0770-CCV1		Calibration Check	55		6B01822			
SZB0770-CCV2		Calibration Check	56		6B01822			
SZB0770-CCV3		Calibration Check	57		6B01822			
SZB0770-CCV4		Calibration Check	58		6B01822			
SZB0770-CCV5		Calibration Check	59		6B01822			
SZB0770-IFA1		Interference Check A	60		6B01832			
SZB0770-IFB1		Interference Check B	61		6B01833			

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Reprocessing Begun

Logged In Analyst: ICP03

Technique: ICP Continuous

Results Data Set (original): 160224CWO-lwood4

Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

Results Data Set (reprocessed): 160225CWO-SZB0770

Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

=====

Sequence No.: 1

Autosampler Location: 12

Sample ID: ICS A

Date Collected: 2/25/2016 4:21:53 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 9:02:54 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: ICS A

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2429790.3	2429790.3	4.758 mg/L		4:23:22 PM
1	As 188.979†	1.6	-1.5	-0.00092 mg/L	-0.04582 mg/kg	4:23:45 PM
1	Cr 283.563†	4443.6	214.5	0.00144 mg/L	0.07203 mg/kg	4:23:25 PM
2	Y 371.029	2448378.4	2448378.4	4.795 mg/L		4:23:52 PM
2	As 188.979†	-10.9	-14.5	-0.00899 mg/L	-0.4496 mg/kg	4:24:15 PM
2	Cr 283.563†	4467.2	203.6	0.00137 mg/L	0.06837 mg/kg	4:23:55 PM
3	Y 371.029	2465380.2	2465380.2	4.828 mg/L		4:24:23 PM
3	As 188.979†	5.0	2.0	0.00123 mg/L	0.06135 mg/kg	4:24:46 PM
3	Cr 283.563†	4505.8	211.5	0.00142 mg/L	0.07102 mg/kg	4:24:26 PM

Mean Data: ICS A

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2447849.6	4.794 mg/L	0.0349			0.73%
As 188.979†	-4.7	-0.00289 mg/L	0.005388	-0.1447 mg/kg	0.26942	186.22%
Cr 283.563†	209.9	0.00141 mg/L	0.000038	0.07048 mg/kg	0.001890	2.68%

=====

Sequence No.: 2

Autosampler Location: 13

Sample ID: ICS AB

Date Collected: 2/25/2016 4:25:51 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 9:02:54 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: ICS AB

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2426862.1	2426862.1	4.752 mg/L		4:27:38 PM
1	As 188.979†	3000.4	3153.5	1.954 mg/L	97.68 mg/kg	4:28:01 PM
1	Cr 283.563†	281996.3	292227.3	1.963 mg/L	98.13 mg/kg	4:27:41 PM
2	Y 371.029	2440750.8	2440750.8	4.780 mg/L		4:28:27 PM
2	As 188.979†	3045.5	3182.7	1.972 mg/L	98.58 mg/kg	4:28:50 PM
2	Cr 283.563†	284678.0	293344.4	1.970 mg/L	98.51 mg/kg	4:28:29 PM
3	Y 371.029	2404577.1	2404577.1	4.709 mg/L		4:29:15 PM
3	As 188.979†	3037.4	3222.0	1.996 mg/L	99.80 mg/kg	4:29:38 PM
3	Cr 283.563†	284743.0	297893.5	2.001 mg/L	100.0 mg/kg	4:29:18 PM

Mean Data: ICS AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2424063.3	4.747 mg/L	0.0357			0.75%
As 188.979†	3186.1	1.974 mg/L	0.0213	98.69 mg/kg	1.065	1.08%
Cr 283.563†	294488.4	1.978 mg/L	0.0202	98.89 mg/kg	1.008	1.02%

Sequence No.: 3

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/25/2016 4:54:26 PM

Data Type: Reprocessed on 2/27/2016 9:02:54 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	221.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2593765.0	2593765.0	5.079 mg/L		4:56:15 PM
1	As 188.979†	3329.6	3274.4	2.028 mg/L		4:56:37 PM
1	Cr 283.563†	305258.3	296035.1	1.988 mg/L		4:56:17 PM
2	Y 371.029	2602098.8	2602098.8	5.096 mg/L		4:57:03 PM
2	As 188.979†	3341.9	3276.0	2.029 mg/L		4:57:26 PM
2	Cr 283.563†	310434.0	300151.3	2.016 mg/L		4:57:05 PM
3	Y 371.029	2600855.7	2600855.7	5.093 mg/L		4:57:51 PM
3	As 188.979†	3324.7	3260.7	2.020 mg/L		4:58:14 PM
3	Cr 283.563†	308123.8	298029.0	2.002 mg/L		4:57:54 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2598906.5	5.089 mg/L	0.0088			0.17%
As 188.979†	3270.4	2.026 mg/L	0.0052			0.26%
QC value within limits for As 188.979 Recovery = 101.30%						
Cr 283.563†	298071.8	2.002 mg/L	0.0138			0.69%
QC value within limits for Cr 283.563 Recovery = 100.10%						
All analyte(s) passed QC.						

=====

Sequence No.: 4	Autosampler Location: 1
Sample ID: CCB	Date Collected: 2/25/2016 5:00:21 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 9:02:54 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	224.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2778063.5	2778063.5	5.440 mg/L		5:01:48 PM
1	As 188.979†	-3.9	-6.8	-0.00418 mg/L		5:02:10 PM
1	Cr 283.563†	4841.9	-4.9	-0.00003 mg/L		5:01:50 PM
2	Y 371.029	2739163.1	2739163.1	5.364 mg/L		5:02:17 PM
2	As 188.979†	13.2	9.1	0.00566 mg/L		5:02:40 PM
2	Cr 283.563†	4736.5	-39.8	-0.00027 mg/L		5:02:19 PM
3	Y 371.029	2717581.1	2717581.1	5.322 mg/L		5:02:46 PM
3	As 188.979†	5.5	2.0	0.00122 mg/L		5:03:09 PM
3	Cr 283.563†	4664.9	-72.0	-0.00048 mg/L		5:02:49 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2744935.9	5.375 mg/L	0.0600			1.12%
As 188.979†	1.5	0.00090 mg/L	0.004931			547.03%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-38.9	-0.00026 mg/L	0.000226			86.33%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

=====

Sequence No.: 5	Autosampler Location: 16
Sample ID: 16B0472-79RE1	Date Collected: 2/25/2016 5:03:38 PM
Analyst:	Data Type: Reprocessed on 2/27/2016 9:02:55 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt: 1.02 g	Initial Sample Vol:
Dilution: 5X	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: 16B0472-79RE1

Analyte	Back Pressure	Flow
All	227.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-79RE1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2585308.8	2585308.8	5.063 mg/L		5:05:10 PM
1	As 188.979†	1298.5	1279.2	0.7925 mg/L	194.2 mg/kg	5:05:32 PM
1	Cr 283.563†	242874.9	235408.2	1.581 mg/L	387.5 mg/kg	5:05:12 PM
2	Y 371.029	2603568.5	2603568.5	5.099 mg/L		5:05:43 PM
2	As 188.979†	1297.7	1269.5	0.7864 mg/L	192.8 mg/kg	5:06:05 PM
2	Cr 283.563†	244484.9	235304.8	1.580 mg/L	387.3 mg/kg	5:05:45 PM
3	Y 371.029	2598906.1	2598906.1	5.089 mg/L		5:06:16 PM
3	As 188.979†	1300.9	1274.8	0.7898 mg/L	193.6 mg/kg	5:06:38 PM
3	Cr 283.563†	243637.5	234902.5	1.578 mg/L	386.7 mg/kg	5:06:18 PM

Mean Data: 16B0472-79RE1

Analyte	Mean Intensity	Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2595927.8		5.084 mg/L	0.0186			0.37%
As 188.979†	1274.5		0.7895 mg/L	0.00301	193.5 mg/kg	0.74	0.38%
Cr 283.563†	235205.2		1.580 mg/L	0.0018	387.2 mg/kg	0.44	0.11%

Concentration greater than upper limit for Cr 283.563.

Sequence No.: 6

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/25/2016 5:08:45 PM

Data Type: Reprocessed on 2/27/2016 9:02:55 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	227.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2557613.7	2557613.7	5.009 mg/L		5:10:36 PM
1	As 188.979†	3310.3	3301.5	2.045 mg/L		5:10:59 PM
1	Cr 283.563†	309757.0	304773.5	2.047 mg/L		5:10:39 PM
2	Y 371.029	2569689.3	2569689.3	5.032 mg/L		5:11:27 PM
2	As 188.979†	3275.3	3251.1	2.014 mg/L		5:11:49 PM

2	Cr 283.563†	305910.0	299498.0	2.012 mg/L	5:11:29 PM
3	Y 371.029	2545265.9	2545265.9	4.984 mg/L	5:12:17 PM
3	As 188.979†	3320.2	3327.5	2.061 mg/L	5:12:40 PM
3	Cr 283.563†	310489.1	307008.1	2.062 mg/L	5:12:20 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2557523.0	5.008 mg/L	0.0239			0.48%
As 188.979†	3293.4	2.040 mg/L	0.0240			1.18%
QC value within limits for As 188.979 Recovery = 102.01%						
Cr 283.563†	303759.9	2.040 mg/L	0.0259			1.27%
QC value within limits for Cr 283.563 Recovery = 102.01%						
All analyte(s) passed QC.						

Sequence No.: 7

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/25/2016 5:14:46 PM

Data Type: Reprocessed on 2/27/2016 9:02:55 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2811622.1	2811622.1	5.506 mg/L		5:16:13 PM
1	As 188.979†	3.2	-0.3	-0.00016 mg/L		5:16:36 PM
1	Cr 283.563†	4636.7	-244.3	-0.00164 mg/L		5:16:15 PM
2	Y 371.029	2827197.8	2827197.8	5.536 mg/L		5:16:42 PM
2	As 188.979†	11.1	6.8	0.00422 mg/L		5:17:05 PM
2	Cr 283.563†	4689.2	-220.0	-0.00148 mg/L		5:16:45 PM
3	Y 371.029	2819094.2	2819094.2	5.521 mg/L		5:17:12 PM
3	As 188.979†	4.3	0.7	0.00043 mg/L		5:17:34 PM
3	Cr 283.563†	4746.2	-156.3	-0.00105 mg/L		5:17:14 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2819304.7	5.521 mg/L	0.0153			0.28%
As 188.979†	2.4	0.00150 mg/L	0.002377			158.55%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-206.9	-0.00139 mg/L	0.000305			21.97%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 8

Sample ID: BZB0557-BLK1

Analyst:

Autosampler Location: 17

Date Collected: 2/25/2016 5:18:38 PM

Data Type: Reprocessed on 2/27/2016 9:02:55 PM

Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1.021 g
Dilution:
Wash Time:

Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0557-BLK1

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: BZB0557-BLK1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2793354.7	2793354.7	5.470 mg/L		5:20:07 PM
1	As 188.979†	12.3	8.1	0.00502 mg/L	0.2457 mg/kg	5:20:29 PM
1	Cr 283.563†	4981.3	98.2	0.00066 mg/L	0.03231 mg/kg	5:20:09 PM
2	Y 371.029	2787728.2	2787728.2	5.459 mg/L		5:20:36 PM
2	As 188.979†	8.4	4.5	0.00279 mg/L	0.1364 mg/kg	5:20:59 PM
2	Cr 283.563†	4976.5	103.0	0.00069 mg/L	0.03389 mg/kg	5:20:39 PM
3	Y 371.029	2781390.1	2781390.1	5.447 mg/L		5:21:06 PM
3	As 188.979†	3.4	-0.0	-0.00001 mg/L	-0.00070 mg/kg	5:21:28 PM
3	Cr 283.563†	4724.7	-117.8	-0.00079 mg/L	-0.03874 mg/kg	5:21:08 PM

Mean Data: BZB0557-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2787491.0	5.459 mg/L	0.0117			0.21%
As 188.979†	4.2	0.00260 mg/L	0.002521	0.1271 mg/kg	0.12344	97.11%
Cr 283.563†	27.8	0.00019 mg/L	0.000847	0.00915 mg/kg	0.041483	453.23%

Sequence No.: 9

Sample ID: BZB0557-BS1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.05 g

Dilution:

Wash Time:

Autosampler Location: 18

Date Collected: 2/25/2016 5:22:34 PM

Data Type: Reprocessed on 2/27/2016 9:02:55 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0557-BS1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0557-BS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2731666.5	2731666.5	5.349 mg/L		5:24:19 PM

1	As 188.979†	3343.5	3121.9	1.934 mg/L	92.10 mg/kg	5:24:42 PM
1	Cr 283.563†	321456.6	296005.9	1.988 mg/L	94.67 mg/kg	5:24:22 PM
2	Y 371.029	2779083.5	2779083.5	5.442 mg/L		5:25:05 PM
2	As 188.979†	3369.8	3092.8	1.916 mg/L	91.24 mg/kg	5:25:28 PM
2	Cr 283.563†	323123.0	292410.4	1.964 mg/L	93.52 mg/kg	5:25:08 PM
3	Y 371.029	2783013.3	2783013.3	5.450 mg/L		5:25:51 PM
3	As 188.979†	3385.1	3102.4	1.922 mg/L	91.52 mg/kg	5:26:14 PM
3	Cr 283.563†	319527.2	288692.3	1.939 mg/L	92.33 mg/kg	5:25:54 PM

Mean Data: BZB0557-BS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2764587.8	5.414 mg/L	0.0560			1.03%
As 188.979†	3105.7	1.924 mg/L	0.0092	91.62 mg/kg	0.438	0.48%
Cr 283.563†	292369.5	1.964 mg/L	0.0246	93.51 mg/kg	1.170	1.25%

Matrix Recovery Check: BZB0557-BS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
As 188.979	100.1	91.62	0.438	mg/kg	91.5
Cr 283.563	100.0	93.51	1.170	mg/kg	93.5

Sequence No.: 10

Sample ID: 16B0472-81

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.004 g

Dilution:

Wash Time:

Autosampler Location: 19

Date Collected: 2/25/2016 5:28:20 PM

Data Type: Reprocessed on 2/27/2016 9:02:56 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-81

Analyte	Back Pressure	Flow
All	233.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-81

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2715081.9	2715081.9	5.317 mg/L		5:29:58 PM
1	As 188.979†	444.5	414.8	0.2570 mg/L	12.80 mg/kg	5:30:20 PM
1	Cr 283.563†	129360.5	117195.0	0.7871 mg/L	39.20 mg/kg	5:30:00 PM
2	Y 371.029	2741409.6	2741409.6	5.368 mg/L		5:30:35 PM
2	As 188.979†	452.3	418.1	0.2590 mg/L	12.90 mg/kg	5:30:58 PM
2	Cr 283.563†	130953.0	117510.0	0.7892 mg/L	39.30 mg/kg	5:30:38 PM
3	Y 371.029	2722279.7	2722279.7	5.331 mg/L		5:31:13 PM
3	As 188.979†	436.1	405.9	0.2514 mg/L	12.52 mg/kg	5:31:36 PM
3	Cr 283.563†	130576.7	118014.1	0.7926 mg/L	39.47 mg/kg	5:31:16 PM

Mean Data: 16B0472-81

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2726257.0	5.339 mg/L	0.0266			0.50%
As 188.979†	412.9	0.2558 mg/L	0.00393	12.74 mg/kg	0.196	1.54%
Cr 283.563†	117573.0	0.7897 mg/L	0.00277	39.33 mg/kg	0.138	0.35%

Sequence No.: 11

Sample ID: 16B0472-82

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.016 g

Dilution:

Wash Time:

Autosampler Location: 20

Date Collected: 2/25/2016 5:33:42 PM

Data Type: Reprocessed on 2/27/2016 9:02:56 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-82

Analyte	Back Pressure	Flow
All	232.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-82

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2749965.8	2749965.8	5.385 mg/L		5:35:18 PM
1	As 188.979†	173.3	157.7	0.09770 mg/L	4.808 mg/kg	5:35:41 PM
1	Cr 283.563†	37039.4	29934.9	0.2011 mg/L	9.894 mg/kg	5:35:21 PM
2	Y 371.029	2725867.9	2725867.9	5.338 mg/L		5:35:55 PM
2	As 188.979†	156.2	143.1	0.08868 mg/L	4.364 mg/kg	5:36:17 PM
2	Cr 283.563†	36905.2	30113.2	0.2022 mg/L	9.953 mg/kg	5:35:57 PM
3	Y 371.029	2746377.4	2746377.4	5.378 mg/L		5:36:31 PM
3	As 188.979†	167.6	152.7	0.09457 mg/L	4.654 mg/kg	5:36:54 PM
3	Cr 283.563†	36881.8	29833.4	0.2004 mg/L	9.861 mg/kg	5:36:34 PM

Mean Data: 16B0472-82

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2740737.0	5.367 mg/L	0.0255			0.47%
As 188.979†	151.2	0.09365 mg/L	0.004580	4.609 mg/kg	0.2254	4.89%
Cr 283.563†	29960.5	0.2012 mg/L	0.00095	9.903 mg/kg	0.0468	0.47%

Sequence No.: 12

Sample ID: BZB0557-DUP1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.042 g

Dilution:

Wash Time:

Autosampler Location: 21

Date Collected: 2/25/2016 5:39:00 PM

Data Type: Reprocessed on 2/27/2016 9:02:56 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0557-DUP1

Analyte	Back Pressure	Flow
All	233.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0557-DUP1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2713131.5	2713131.5	5.313 mg/L		5:40:36 PM
1	As 188.979†	177.7	164.1	0.1016 mg/L	4.878 mg/kg	5:40:58 PM
1	Cr 283.563†	37185.7	30539.5	0.2051 mg/L	9.842 mg/kg	5:40:38 PM
2	Y 371.029	2721646.7	2721646.7	5.330 mg/L		5:41:12 PM
2	As 188.979†	189.1	174.3	0.1079 mg/L	5.180 mg/kg	5:41:34 PM
2	Cr 283.563†	37112.0	30360.9	0.2039 mg/L	9.785 mg/kg	5:41:14 PM
3	Y 371.029	2744746.5	2744746.5	5.375 mg/L		5:41:48 PM
3	As 188.979†	185.6	169.4	0.1050 mg/L	5.037 mg/kg	5:42:10 PM
3	Cr 283.563†	36918.6	29887.9	0.2007 mg/L	9.632 mg/kg	5:41:50 PM

Mean Data: BZB0557-DUP1

Analyte	Mean Intensity	Corrected Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2726508.2	5.339 mg/L	0.0320			0.60%
As 188.979†	169.3	0.1049 mg/L	0.00315	5.031 mg/kg	0.1512	3.01%
Cr 283.563†	30262.8	0.2033 mg/L	0.00226	9.753 mg/kg	0.1085	1.11%

Duplicate Check: BZB0557-DUP1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Y 371.029			0.000	mg/L	Not calculated
As 188.979	4.609	5.031	0.151	mg/kg	8.8
Cr 283.563	9.903	9.753	0.109	mg/kg	1.5

Sequence No.: 13

Sample ID: BZB0557-MS1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.016 g

Dilution:

Wash Time:

Autosampler Location: 22

Date Collected: 2/25/2016 5:44:18 PM

Data Type: Reprocessed on 2/27/2016 9:02:56 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0557-MS1

Analyte	Back Pressure	Flow
All	228.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0557-MS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2572307.9	2572307.9	5.037 mg/L		5:46:06 PM
1	As 188.979†	3162.8	3136.2	1.943 mg/L	95.61 mg/kg	5:46:29 PM
1	Cr 283.563†	337738.7	330781.4	2.222 mg/L	109.3 mg/kg	5:46:09 PM
2	Y 371.029	2604578.0	2604578.0	5.101 mg/L		5:46:55 PM
2	As 188.979†	3208.1	3141.8	1.946 mg/L	95.78 mg/kg	5:47:18 PM
2	Cr 283.563†	332222.6	321220.6	2.157 mg/L	106.2 mg/kg	5:46:58 PM
3	Y 371.029	2618704.1	2618704.1	5.128 mg/L		5:47:44 PM
3	As 188.979†	3215.1	3131.5	1.940 mg/L	95.47 mg/kg	5:48:07 PM
3	Cr 283.563†	340597.6	327629.4	2.200 mg/L	108.3 mg/kg	5:47:47 PM

Mean Data: BZB0557-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2598530.0	5.089 mg/L	0.0466			0.92%
As 188.979†	3136.5	1.943 mg/L	0.0032	95.62 mg/kg	0.156	0.16%
Cr 283.563†	326543.8	2.193 mg/L	0.0327	107.9 mg/kg	1.61	1.49%

Matrix Recovery Check: BZB0557-MS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
As 188.979	104.6	95.62	0.156	mg/kg	91.0
Cr 283.563	109.9	107.9	1.610	mg/kg	98.0

Sequence No.: 14

Autosampler Location: 23

Sample ID: 16B0472-83

Date Collected: 2/25/2016 5:50:14 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 9:02:56 PM

Logged In Analyst (Original) : ICP03

Initial Sample Vol:

Initial Sample Wt: 1.026 g

Sample Prep Vol: 50 mL

Dilution:

Wash Time:

Nebulizer Parameters: 16B0472-83

Analyte	Back Pressure	Flow
All	227.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-83

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2648855.2	2648855.2	5.187 mg/L		5:51:46 PM
1	As 188.979†	499.5	478.3	0.2963 mg/L	14.44 mg/kg	5:52:08 PM
1	Cr 283.563†	116477.8	107818.8	0.7241 mg/L	35.29 mg/kg	5:51:48 PM
2	Y 371.029	2684154.8	2684154.8	5.256 mg/L		5:52:19 PM
2	As 188.979†	494.2	466.9	0.2892 mg/L	14.10 mg/kg	5:52:42 PM
2	Cr 283.563†	117879.9	107676.0	0.7232 mg/L	35.24 mg/kg	5:52:21 PM
3	Y 371.029	2648986.8	2648986.8	5.187 mg/L		5:52:52 PM
3	As 188.979†	495.0	474.0	0.2936 mg/L	14.31 mg/kg	5:53:15 PM
3	Cr 283.563†	116868.2	108189.6	0.7266 mg/L	35.41 mg/kg	5:52:55 PM

Mean Data: 16B0472-83

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2660665.6	5.210 mg/L	0.0398			0.76%
As 188.979†	473.1	0.2931 mg/L	0.00357	14.28 mg/kg	0.174	1.22%
Cr 283.563†	107894.8	0.7247 mg/L	0.00178	35.31 mg/kg	0.087	0.25%

Sequence No.: 15

Autosampler Location: 24

Sample ID: 16B0472-84

Date Collected: 2/25/2016 5:55:19 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 9:02:56 PM

Logged In Analyst (Original) : ICP03

Initial Sample Vol:

Initial Sample Wt: 1.073 g

Sample Prep Vol: 50 mL

Dilution:

Wash Time:

Nebulizer Parameters: 16B0472-84

Analyte	Back Pressure	Flow
All	227.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-84

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2659133.3	2659133.3	5.207 mg/L		5:56:52 PM
1	As 188.979†	23.4	19.3	0.01195 mg/L	0.5570 mg/kg	5:57:15 PM
1	Cr 283.563†	28551.8	22960.0	0.1542 mg/L	7.186 mg/kg	5:56:55 PM
2	Y 371.029	2683739.7	2683739.7	5.256 mg/L		5:57:27 PM
2	As 188.979†	27.0	22.5	0.01395 mg/L	0.6502 mg/kg	5:57:49 PM
2	Cr 283.563†	28603.2	22757.5	0.1528 mg/L	7.122 mg/kg	5:57:29 PM
3	Y 371.029	2684269.9	2684269.9	5.257 mg/L		5:58:01 PM
3	As 188.979†	34.1	29.2	0.01810 mg/L	0.8435 mg/kg	5:58:24 PM
3	Cr 283.563†	28170.7	22340.8	0.1500 mg/L	6.992 mg/kg	5:58:04 PM

Mean Data: 16B0472-84

Analyte	Mean Intensity	Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2675714.3		5.240 mg/L	0.0281			0.54%
As 188.979†	23.7	0.01467	mg/L	0.003136	0.6836 mg/kg	0.14615	21.38%
Cr 283.563†	22686.1	0.1524	mg/L	0.00212	7.100 mg/kg	0.0988	1.39%

Sequence No.: 16

Sample ID: 16B0472-85

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.027 g

Dilution:

Wash Time:

Autosampler Location: 25

Date Collected: 2/25/2016 6:00:28 PM

Data Type: Reprocessed on 2/27/2016 9:02:57 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-85

Analyte	Back Pressure	Flow
All	227.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-85

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2681179.3	2681179.3	5.251 mg/L		6:02:00 PM
1	As 188.979†	2115.7	2011.6	1.246 mg/L	60.67 mg/kg	6:02:23 PM
1	Cr 283.563†	300210.2	281431.0	1.890 mg/L	92.02 mg/kg	6:02:03 PM
2	Y 371.029	2686805.8	2686805.8	5.262 mg/L		6:02:33 PM
2	As 188.979†	2115.4	2007.1	1.243 mg/L	60.54 mg/kg	6:02:56 PM
2	Cr 283.563†	298691.0	279388.7	1.876 mg/L	91.36 mg/kg	6:02:36 PM

3	Y 371.029	2661466.6	2661466.6	5.212 mg/L		6:03:07 PM
3	As 188.979†	2068.0	1980.8	1.227 mg/L	59.74 mg/kg	6:03:30 PM
3	Cr 283.563†	298947.8	282337.5	1.896 mg/L	92.32 mg/kg	6:03:09 PM

Mean Data: 16B0472-85

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2676483.9	5.241 mg/L	0.0261			0.50%
As 188.979†	1999.8	1.239 mg/L	0.0103	60.32 mg/kg	0.502	0.83%
Cr 283.563†	281052.4	1.888 mg/L	0.0101	91.90 mg/kg	0.494	0.54%

=====

Sequence No.: 17

Sample ID: 16B0472-86

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.084 g

Dilution:

Wash Time:

Autosampler Location: 26

Date Collected: 2/25/2016 6:05:35 PM

Data Type: Reprocessed on 2/27/2016 9:02:57 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-86

Analyte	Back Pressure	Flow
All	228.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-86

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2667245.4	2667245.4	5.223 mg/L		6:07:08 PM
1	As 188.979†	1171.3	1118.0	0.6926 mg/L	31.95 mg/kg	6:07:31 PM
1	Cr 283.563†	82459.1	74479.9	0.5002 mg/L	23.07 mg/kg	6:07:11 PM
2	Y 371.029	2688597.3	2688597.3	5.265 mg/L		6:07:43 PM
2	As 188.979†	1173.7	1111.4	0.6885 mg/L	31.76 mg/kg	6:08:06 PM
2	Cr 283.563†	82367.3	73765.9	0.4954 mg/L	22.85 mg/kg	6:07:46 PM
3	Y 371.029	2679464.1	2679464.1	5.247 mg/L		6:08:18 PM
3	As 188.979†	1151.3	1093.9	0.6777 mg/L	31.26 mg/kg	6:08:41 PM
3	Cr 283.563†	81958.3	73642.8	0.4946 mg/L	22.81 mg/kg	6:08:21 PM

Mean Data: 16B0472-86

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2678435.6	5.245 mg/L	0.0210			0.40%
As 188.979†	1107.8	0.6863 mg/L	0.00771	31.65 mg/kg	0.356	1.12%
Cr 283.563†	73962.9	0.4968 mg/L	0.00304	22.91 mg/kg	0.140	0.61%

=====

Sequence No.: 18

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/25/2016 6:10:47 PM

Data Type: Reprocessed on 2/27/2016 9:02:57 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	228.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2669823.4	2669823.4	5.228 mg/L		6:12:37 PM
1	As 188.979†	3475.4	3320.5	2.057 mg/L		6:13:00 PM
1	Cr 283.563†	320602.5	302149.0	2.029 mg/L		6:12:40 PM
2	Y 371.029	2680828.8	2680828.8	5.250 mg/L		6:13:28 PM
2	As 188.979†	3496.1	3326.6	2.061 mg/L		6:13:51 PM
2	Cr 283.563†	325945.5	305979.0	2.055 mg/L		6:13:31 PM
3	Y 371.029	2714872.2	2714872.2	5.317 mg/L		6:14:19 PM
3	As 188.979†	3498.3	3286.9	2.036 mg/L		6:14:42 PM
3	Cr 283.563†	324826.9	301034.3	2.022 mg/L		6:14:22 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2688508.1	5.265 mg/L	0.0460			0.87%
As 188.979†	3311.3	2.051 mg/L	0.0133			0.65%
QC value within limits for As 188.979 Recovery = 102.57%						
Cr 283.563†	303054.1	2.035 mg/L	0.0174			0.86%
QC value within limits for Cr 283.563 Recovery = 101.77%						
All analyte(s) passed QC.						

Sequence No.: 19

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/25/2016 6:16:48 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 9:02:57 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2886851.8	2886851.8	5.653 mg/L		6:18:15 PM
1	As 188.979†	11.0	6.5	0.00406 mg/L		6:18:37 PM
1	Cr 283.563†	4755.4	-249.0	-0.00167 mg/L		6:18:17 PM
2	Y 371.029	2843703.2	2843703.2	5.569 mg/L		6:18:44 PM
2	As 188.979†	8.7	4.6	0.00285 mg/L		6:19:07 PM

2	Cr 283.563†	4636.4	-292.1	-0.00196 mg/L	6:18:46 PM
3	Y 371.029	2810362.8	2810362.8	5.504 mg/L	6:19:13 PM
3	As 188.979†	-0.9	-4.0	-0.00247 mg/L	6:19:36 PM
3	Cr 283.563†	4644.7	-235.2	-0.00158 mg/L	6:19:16 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2846972.6	5.575 mg/L	0.0751			1.35%
As 188.979†	2.4	0.00148 mg/L	0.003475			234.98%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-258.7	-0.00174 mg/L	0.000199			11.47%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 20

Autosampler Location: 27

Sample ID: 16B0472-87

Date Collected: 2/25/2016 6:20:40 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 9:02:57 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.09 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-87

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-87

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2612508.6	2612508.6	5.116 mg/L		6:22:13 PM
1	As 188.979†	2370.0	2313.0	1.433 mg/L	65.73 mg/kg	6:22:36 PM
1	Cr 283.563†	237850.6	228000.6	1.531 mg/L	70.24 mg/kg	6:22:16 PM
2	Y 371.029	2619572.3	2619572.3	5.130 mg/L		6:22:47 PM
2	As 188.979†	2344.0	2281.5	1.413 mg/L	64.83 mg/kg	6:23:10 PM
2	Cr 283.563†	235683.7	225261.7	1.513 mg/L	69.40 mg/kg	6:22:49 PM
3	Y 371.029	2633041.5	2633041.5	5.156 mg/L		6:23:21 PM
3	As 188.979†	2359.5	2284.8	1.415 mg/L	64.93 mg/kg	6:23:43 PM
3	Cr 283.563†	239611.0	227894.9	1.531 mg/L	70.21 mg/kg	6:23:23 PM

Mean Data: 16B0472-87

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2621707.5	5.134 mg/L	0.0204			0.40%
As 188.979†	2293.1	1.421 mg/L	0.0107	65.16 mg/kg	0.493	0.76%
Cr 283.563†	227052.4	1.525 mg/L	0.0104	69.95 mg/kg	0.478	0.68%

Sequence No.: 21

Autosampler Location: 28

Sample ID: 16B0472-88

Date Collected: 2/25/2016 6:25:49 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 9:02:57 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.04 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-88

Analyte	Back Pressure	Flow
All	228.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-88

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2701061.8	2701061.8	5.289 mg/L		6:27:24 PM
1	As 188.979†	73.1	65.9	0.04085 mg/L	1.964 mg/kg	6:27:46 PM
1	Cr 283.563†	29757.5	23674.1	0.1590 mg/L	7.644 mg/kg	6:27:26 PM
2	Y 371.029	2697258.5	2697258.5	5.282 mg/L		6:27:59 PM
2	As 188.979†	77.4	70.1	0.04340 mg/L	2.087 mg/kg	6:28:21 PM
2	Cr 283.563†	29160.5	23148.7	0.1555 mg/L	7.475 mg/kg	6:28:01 PM
3	Y 371.029	2685909.7	2685909.7	5.260 mg/L		6:28:34 PM
3	As 188.979†	82.3	75.1	0.04653 mg/L	2.237 mg/kg	6:28:56 PM
3	Cr 283.563†	29055.4	23165.4	0.1556 mg/L	7.480 mg/kg	6:28:36 PM

Mean Data: 16B0472-88

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2694743.3	5.277 mg/L	0.0154			0.29%
As 188.979†	70.4	0.04359 mg/L	0.002844	2.096 mg/kg	0.1367	6.52%
Cr 283.563†	23329.4	0.1567 mg/L	0.00201	7.533 mg/kg	0.0964	1.28%

Sequence No.: 22

Sample ID: 16B0472-89

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.072 g

Dilution:

Wash Time:

Autosampler Location: 29

Date Collected: 2/25/2016 6:31:01 PM

Data Type: Reprocessed on 2/27/2016 9:02:58 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-89

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-89

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2638050.6	2638050.6	5.166 mg/L		6:32:34 PM
1	As 188.979†	347.7	333.4	0.2065 mg/L	9.632 mg/kg	6:32:57 PM
1	Cr 283.563†	60693.9	54287.9	0.3646 mg/L	17.01 mg/kg	6:32:37 PM
2	Y 371.029	2646503.9	2646503.9	5.183 mg/L		6:33:08 PM

2	As 188.979†	335.3	320.3	0.1984 mg/L	9.255 mg/kg	6:33:31 PM
2	Cr 283.563†	59981.2	53412.7	0.3587 mg/L	16.73 mg/kg	6:33:11 PM
3	Y 371.029	2658080.6	2658080.6	5.205 mg/L		6:33:42 PM
3	As 188.979†	333.5	317.2	0.1965 mg/L	9.165 mg/kg	6:34:05 PM
3	Cr 283.563†	60468.6	53628.9	0.3602 mg/L	16.80 mg/kg	6:33:45 PM

Mean Data: 16B0472-89

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2647545.1	5.185 mg/L	0.0197			0.38%
As 188.979†	323.6	0.2005 mg/L	0.00531	9.351 mg/kg	0.2478	2.65%
Cr 283.563†	53776.5	0.3612 mg/L	0.00306	16.85 mg/kg	0.143	0.85%

=====

Sequence No.: 23

Sample ID: 16B0472-90

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.033 g

Dilution:

Wash Time:

Autosampler Location: 30

Date Collected: 2/25/2016 6:36:11 PM

Data Type: Reprocessed on 2/27/2016 9:02:58 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-90

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-90

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2556335.5	2556335.5	5.006 mg/L		6:37:42 PM
1	As 188.979†	662.2	658.2	0.4077 mg/L	19.74 mg/kg	6:38:05 PM
1	Cr 283.563†	128108.1	123498.5	0.8295 mg/L	40.15 mg/kg	6:37:45 PM
2	Y 371.029	2737339.3	2737339.3	5.361 mg/L		6:38:15 PM
2	As 188.979†	644.6	598.1	0.3705 mg/L	17.93 mg/kg	6:38:37 PM
2	Cr 283.563†	126431.4	113473.8	0.7621 mg/L	36.89 mg/kg	6:38:17 PM
3	Y 371.029	2708187.1	2708187.1	5.303 mg/L		6:38:47 PM
3	As 188.979†	663.4	622.3	0.3855 mg/L	18.66 mg/kg	6:39:10 PM
3	Cr 283.563†	128349.4	116551.5	0.7828 mg/L	37.89 mg/kg	6:38:50 PM

Mean Data: 16B0472-90

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2667287.3	5.223 mg/L	0.1903			3.64%
As 188.979†	626.2	0.3879 mg/L	0.01874	18.78 mg/kg	0.907	4.83%
Cr 283.563†	117841.3	0.7915 mg/L	0.03449	38.31 mg/kg	1.669	4.36%

=====

Sequence No.: 24

Sample ID: 16B0472-91

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.032 g

Dilution:

Wash Time:

Autosampler Location: 31

Date Collected: 2/25/2016 6:41:16 PM

Data Type: Reprocessed on 2/27/2016 9:02:58 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-91

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-91

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2645523.3	2645523.3	5.181 mg/L		6:42:52 PM
1	As 188.979†	551.3	528.9	0.3277 mg/L	15.88 mg/kg	6:43:15 PM
1	Cr 283.563†	123756.1	114984.7	0.7723 mg/L	37.42 mg/kg	6:42:55 PM
2	Y 371.029	2626260.2	2626260.2	5.143 mg/L		6:43:29 PM
2	As 188.979†	550.6	532.1	0.3297 mg/L	15.97 mg/kg	6:43:51 PM
2	Cr 283.563†	125404.6	117463.4	0.7889 mg/L	38.22 mg/kg	6:43:31 PM
3	Y 371.029	2641935.8	2641935.8	5.174 mg/L		6:44:05 PM
3	As 188.979†	544.0	522.5	0.3237 mg/L	15.68 mg/kg	6:44:28 PM
3	Cr 283.563†	123572.6	114969.5	0.7722 mg/L	37.41 mg/kg	6:44:08 PM

Mean Data: 16B0472-91

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2637906.4	5.166 mg/L	0.0201			0.39%
As 188.979†	527.9	0.3270 mg/L	0.00303	15.84 mg/kg	0.147	0.93%
Cr 283.563†	115805.9	0.7778 mg/L	0.00964	37.68 mg/kg	0.467	1.24%

Sequence No.: 25

Sample ID: SRD 87x5

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.09 g

Dilution: 5X

Wash Time:

Autosampler Location: 27

Date Collected: 2/25/2016 6:46:33 PM

Data Type: Reprocessed on 2/27/2016 9:02:58 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: SRD 87x5

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: SRD 87x5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2716494.9	2716494.9	5.320 mg/L		6:48:04 PM
1	As 188.979†	422.3	393.7	0.2439 mg/L	55.94 mg/kg	6:48:27 PM
1	Cr 283.563†	45994.0	38775.1	0.2604 mg/L	59.73 mg/kg	6:48:07 PM
2	Y 371.029	2734848.9	2734848.9	5.356 mg/L		6:48:37 PM
2	As 188.979†	410.4	380.0	0.2354 mg/L	53.99 mg/kg	6:49:00 PM
2	Cr 283.563†	45806.7	38310.2	0.2573 mg/L	59.01 mg/kg	6:48:39 PM

3	Y 371.029	2729470.5	2729470.5	5.345 mg/L		6:49:10 PM
3	As 188.979†	418.1	387.9	0.2403 mg/L	55.12 mg/kg	6:49:32 PM
3	Cr 283.563†	45691.7	38286.8	0.2571 mg/L	58.98 mg/kg	6:49:12 PM

Mean Data: SRD 87x5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2726938.1	5.340 mg/L	0.0185			0.35%
As 188.979†	387.2	0.2399 mg/L	0.00426	55.02 mg/kg	0.978	1.78%
Cr 283.563†	38457.4	0.2583 mg/L	0.00185	59.24 mg/kg	0.424	0.72%

=====

Sequence No.: 26

Autosampler Location: 32

Sample ID: 16B0472-92

Date Collected: 2/25/2016 6:51:37 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 9:02:58 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.022 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-92

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-92

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2688402.4	2688402.4	5.265 mg/L		6:53:14 PM
1	As 188.979†	198.5	185.4	0.1148 mg/L	5.619 mg/kg	6:53:36 PM
1	Cr 283.563†	52698.7	45594.5	0.3062 mg/L	14.98 mg/kg	6:53:16 PM
2	Y 371.029	2707088.4	2707088.4	5.301 mg/L		6:53:50 PM
2	As 188.979†	196.8	182.4	0.1130 mg/L	5.529 mg/kg	6:54:13 PM
2	Cr 283.563†	52356.9	44926.6	0.3017 mg/L	14.76 mg/kg	6:53:52 PM
3	Y 371.029	2711118.6	2711118.6	5.309 mg/L		6:54:26 PM
3	As 188.979†	181.0	167.3	0.1036 mg/L	5.070 mg/kg	6:54:49 PM
3	Cr 283.563†	52193.3	44699.2	0.3002 mg/L	14.69 mg/kg	6:54:29 PM

Mean Data: 16B0472-92

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2702203.2	5.292 mg/L	0.0237			0.45%
As 188.979†	178.4	0.1105 mg/L	0.00601	5.406 mg/kg	0.2942	5.44%
Cr 283.563†	45073.4	0.3027 mg/L	0.00313	14.81 mg/kg	0.153	1.03%

=====

Sequence No.: 27

Autosampler Location: 5

Sample ID: CCV

Date Collected: 2/25/2016 7:13:13 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 9:02:58 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCV

Sequence No.: 1

Sample ID: BZB0557-DUP2

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.06 g

Dilution:

Wash Time:

Autosampler Location: 33

Date Collected: 2/25/2016 6:56:55 PM

Data Type: Reprocessed on 2/27/2016 9:18:13 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0557-DUP2

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0557-DUP2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2674061.2	2674061.2	5.237 mg/L		6:58:31 PM
1	As 188.979†	245.9	231.6	0.1435 mg/L	6.767 mg/kg	6:58:54 PM
1	Cr 283.563†	53683.2	46802.9	0.3143 mg/L	14.83 mg/kg	6:58:34 PM
2	Y 371.029	2675851.8	2675851.8	5.240 mg/L		6:59:07 PM
2	As 188.979†	226.0	212.5	0.1316 mg/L	6.209 mg/kg	6:59:30 PM
2	Cr 283.563†	53094.1	46206.5	0.3103 mg/L	14.64 mg/kg	6:59:10 PM
3	Y 371.029	2672535.3	2672535.3	5.234 mg/L		6:59:44 PM
3	As 188.979†	240.1	226.2	0.1401 mg/L	6.609 mg/kg	7:00:06 PM
3	Cr 283.563†	52517.6	45718.7	0.3071 mg/L	14.48 mg/kg	6:59:46 PM

Mean Data: BZB0557-DUP2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2674149.4	5.237 mg/L	0.0033			0.06%
As 188.979†	223.4	0.1384 mg/L	0.00610	6.529 mg/kg	0.2876	4.40%
Cr 283.563†	46242.7	0.3106 mg/L	0.00365	14.65 mg/kg	0.172	1.17%

Sequence No.: 2

Sample ID: BZB0557-MS2

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.075 g

Dilution:

Wash Time:

Autosampler Location: 34

Date Collected: 2/25/2016 7:02:13 PM

Data Type: Reprocessed on 2/27/2016 9:18:13 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0557-MS2

Analyte	Back Pressure	Flow
All	228.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0557-MS2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2654344.3	2654344.3	5.198 mg/L		7:04:03 PM
1	As 188.979†	3212.7	3087.1	1.912 mg/L	88.95 mg/kg	7:04:26 PM
1	Cr 283.563†	345473.3	327860.5	2.202 mg/L	102.4 mg/kg	7:04:06 PM
2	Y 371.029	2661406.3	2661406.3	5.212 mg/L		7:04:54 PM
2	As 188.979†	3215.4	3081.6	1.909 mg/L	88.79 mg/kg	7:05:17 PM
2	Cr 283.563†	348339.1	329728.0	2.215 mg/L	103.0 mg/kg	7:04:56 PM
3	Y 371.029	2671778.8	2671778.8	5.232 mg/L		7:05:44 PM
3	As 188.979†	3229.3	3082.9	1.910 mg/L	88.83 mg/kg	7:06:07 PM
3	Cr 283.563†	349716.0	329746.4	2.215 mg/L	103.0 mg/kg	7:05:47 PM

Mean Data: BZB0557-MS2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2662509.8	5.214 mg/L	0.0172			0.33%
As 188.979†	3083.9	1.910 mg/L	0.0018	88.86 mg/kg	0.084	0.09%
Cr 283.563†	329111.6	2.210 mg/L	0.0073	102.8 mg/kg	0.34	0.33%

Sequence No.: 3

Autosampler Location: 35

Sample ID: 16B0472-93

Date Collected: 2/25/2016 7:08:13 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 9:18:13 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.076 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-93

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-93

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2634018.4	2634018.4	5.158 mg/L		7:09:43 PM
1	As 188.979†	512.9	494.0	0.3060 mg/L	14.22 mg/kg	7:10:06 PM
1	Cr 283.563†	72370.3	65696.2	0.4412 mg/L	20.50 mg/kg	7:09:46 PM
2	Y 371.029	2650982.1	2650982.1	5.191 mg/L		7:10:15 PM
2	As 188.979†	506.7	484.9	0.3004 mg/L	13.96 mg/kg	7:10:38 PM
2	Cr 283.563†	72094.6	64981.8	0.4364 mg/L	20.28 mg/kg	7:10:18 PM
3	Y 371.029	2659565.6	2659565.6	5.208 mg/L		7:10:47 PM
3	As 188.979†	513.0	489.3	0.3031 mg/L	14.09 mg/kg	7:11:09 PM
3	Cr 283.563†	71353.8	64046.5	0.4302 mg/L	19.99 mg/kg	7:10:49 PM

Mean Data: 16B0472-93

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2648188.7	5.186 mg/L	0.0255			0.49%
As 188.979†	489.4	0.3032 mg/L	0.00282	14.09 mg/kg	0.131	0.93%
Cr 283.563†	64908.2	0.4359 mg/L	0.00556	20.26 mg/kg	0.258	1.27%

Sequence No.: 4
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 2/25/2016 7:13:13 PM
Data Type: Reprocessed on 2/27/2016 9:18:14 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2707578.6	2707578.6	5.302 mg/L		7:14:57 PM
1	As 188.979†	3481.7	3280.0	2.032 mg/L		7:15:20 PM
1	Cr 283.563†	327656.2	304525.3	2.045 mg/L		7:15:00 PM
2	Y 371.029	2691044.5	2691044.5	5.270 mg/L		7:15:41 PM
2	As 188.979†	3498.5	3316.1	2.054 mg/L		7:16:04 PM
2	Cr 283.563†	327754.4	306516.8	2.059 mg/L		7:15:44 PM
3	Y 371.029	2691794.3	2691794.3	5.271 mg/L		7:16:25 PM
3	As 188.979†	3495.1	3312.0	2.052 mg/L		7:16:48 PM
3	Cr 283.563†	322295.9	301252.7	2.023 mg/L		7:16:28 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2696805.8	5.281 mg/L	0.0183			0.35%
As 188.979†	3302.7	2.046 mg/L	0.0122			0.60%
QC value within limits for As 188.979 Recovery = 102.30%						
Cr 283.563†	304098.3	2.042 mg/L	0.0179			0.87%
QC value within limits for Cr 283.563 Recovery = 102.12%						
All analyte(s) passed QC.						

Sequence No.: 5
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 2/25/2016 7:18:54 PM
Data Type: Reprocessed on 2/27/2016 9:18:14 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2911806.8	2911806.8	5.702 mg/L		7:20:20 PM
1	As 188.979†	5.1	1.3	0.00080 mg/L		7:20:43 PM
1	Cr 283.563†	4725.9	-310.9	-0.00209 mg/L		7:20:23 PM
2	Y 371.029	2909427.8	2909427.8	5.698 mg/L		7:20:50 PM
2	As 188.979†	-0.8	-3.9	-0.00240 mg/L		7:21:12 PM
2	Cr 283.563†	4680.0	-347.8	-0.00234 mg/L		7:20:52 PM
3	Y 371.029	2922839.7	2922839.7	5.724 mg/L		7:21:19 PM
3	As 188.979†	5.9	2.0	0.00123 mg/L		7:21:42 PM
3	Cr 283.563†	4693.3	-355.1	-0.00238 mg/L		7:21:22 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2914691.4	5.708 mg/L	0.0140			0.25%
As 188.979†	-0.2	-0.00012 mg/L	0.001986			>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-337.9	-0.00227 mg/L	0.000159			7.00%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

=====

Sequence No.: 6
Sample ID: 16B0472-94
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt: 1.063 g
Dilution:
Wash Time:

Autosampler Location: 36

Date Collected: 2/25/2016 7:22:47 PM

Data Type: Reprocessed on 2/27/2016 9:18:14 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-94

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-94

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2670356.7	2670356.7	5.229 mg/L		7:24:19 PM
1	As 188.979†	190.1	178.6	0.1106 mg/L	5.204 mg/kg	7:24:42 PM
1	Cr 283.563†	66744.5	59362.6	0.3987 mg/L	18.75 mg/kg	7:24:21 PM
2	Y 371.029	2674272.2	2674272.2	5.237 mg/L		7:24:53 PM
2	As 188.979†	204.7	192.3	0.1191 mg/L	5.604 mg/kg	7:25:16 PM
2	Cr 283.563†	66116.8	58669.8	0.3940 mg/L	18.53 mg/kg	7:24:55 PM
3	Y 371.029	2701607.9	2701607.9	5.291 mg/L		7:25:27 PM
3	As 188.979†	196.5	182.5	0.1131 mg/L	5.319 mg/kg	7:25:49 PM
3	Cr 283.563†	66299.7	58204.0	0.3909 mg/L	18.39 mg/kg	7:25:29 PM

Mean Data: 16B0472-94

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2682079.0	5.252 mg/L	0.0333			0.63%

As 188.979†	184.5	0.1143 mg/L	0.00437	5.376 mg/kg	0.2057	3.83%
Cr 283.563†	58745.5	0.3946 mg/L	0.00392	18.56 mg/kg	0.184	0.99%

Sequence No.: 7

Sample ID: 16B0472-95

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.028 g

Dilution:

Wash Time:

Autosampler Location: 37

Date Collected: 2/25/2016 7:27:54 PM

Data Type: Reprocessed on 2/27/2016 9:18:14 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-95

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-95

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2725437.2	2725437.2	5.337 mg/L		7:29:39 PM
1	As 188.979†	1981.0	1852.7	1.148 mg/L	55.82 mg/kg	7:30:02 PM
1	Cr 283.563†	277212.1	255243.5	1.714 mg/L	83.38 mg/kg	7:29:41 PM
2	Y 371.029	2722356.0	2722356.0	5.331 mg/L		7:30:24 PM
2	As 188.979†	1986.1	1859.5	1.152 mg/L	56.03 mg/kg	7:30:47 PM
2	Cr 283.563†	272558.6	251172.9	1.687 mg/L	82.05 mg/kg	7:30:27 PM
3	Y 371.029	2734558.5	2734558.5	5.355 mg/L		7:31:09 PM
3	As 188.979†	1997.1	1861.5	1.153 mg/L	56.09 mg/kg	7:31:32 PM
3	Cr 283.563†	276767.5	253962.1	1.706 mg/L	82.96 mg/kg	7:31:12 PM

Mean Data: 16B0472-95

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2727450.6	5.341 mg/L	0.0124			0.23%
As 188.979†	1857.9	1.151 mg/L	0.0029	55.98 mg/kg	0.139	0.25%
Cr 283.563†	253459.5	1.702 mg/L	0.0140	82.80 mg/kg	0.680	0.82%

Sequence No.: 8

Sample ID: 16B0472-96

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.027 g

Dilution:

Wash Time:

Autosampler Location: 38

Date Collected: 2/25/2016 7:33:36 PM

Data Type: Reprocessed on 2/27/2016 9:18:14 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-96

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000

Cr 283.563 0.200 10 2.000

Replicate Data: 16B0472-96

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2719974.1	2719974.1	5.326 mg/L		7:35:10 PM
1	As 188.979†	46.4	40.3	0.02499 mg/L	1.217 mg/kg	7:35:33 PM
1	Cr 283.563†	49319.9	41841.8	0.2810 mg/L	13.68 mg/kg	7:35:13 PM
2	Y 371.029	2716729.5	2716729.5	5.320 mg/L		7:35:45 PM
2	As 188.979†	59.0	52.3	0.03238 mg/L	1.576 mg/kg	7:36:08 PM
2	Cr 283.563†	49394.6	41967.4	0.2819 mg/L	13.72 mg/kg	7:35:48 PM
3	Y 371.029	2692163.9	2692163.9	5.272 mg/L		7:36:20 PM
3	As 188.979†	59.5	53.2	0.03299 mg/L	1.606 mg/kg	7:36:43 PM
3	Cr 283.563†	49353.3	42351.8	0.2844 mg/L	13.85 mg/kg	7:36:23 PM

Mean Data: 16B0472-96

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2709622.5	5.306 mg/L	0.0298			0.56%
As 188.979†	48.6	0.03012 mg/L	0.004449	1.466 mg/kg	0.2166	14.77%
Cr 283.563†	42053.7	0.2824 mg/L	0.00178	13.75 mg/kg	0.087	0.63%

Sequence No.: 9

Sample ID: 16B0472-97

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.057 g

Dilution:

Wash Time:

Autosampler Location: 39

Date Collected: 2/25/2016 7:38:48 PM

Data Type: Reprocessed on 2/27/2016 9:18:14 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-97

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-97

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2648692.2	2648692.2	5.187 mg/L		7:40:25 PM
1	As 188.979†	49.2	44.3	0.02744 mg/L	1.298 mg/kg	7:40:48 PM
1	Cr 283.563†	56598.7	50104.4	0.3365 mg/L	15.92 mg/kg	7:40:28 PM
2	Y 371.029	2676525.0	2676525.0	5.241 mg/L		7:41:04 PM
2	As 188.979†	53.8	48.1	0.02982 mg/L	1.411 mg/kg	7:41:26 PM
2	Cr 283.563†	56157.5	49116.1	0.3299 mg/L	15.60 mg/kg	7:41:06 PM
3	Y 371.029	2660751.5	2660751.5	5.211 mg/L		7:41:42 PM
3	As 188.979†	55.0	49.6	0.03074 mg/L	1.454 mg/kg	7:42:04 PM
3	Cr 283.563†	56454.4	49718.6	0.3339 mg/L	15.80 mg/kg	7:41:44 PM

Mean Data: 16B0472-97

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2661989.6	5.213 mg/L	0.0273			0.52%
As 188.979†	47.4	0.02933 mg/L	0.001704	1.388 mg/kg	0.0806	5.81%
Cr 283.563†	49646.3	0.3334 mg/L	0.00335	15.77 mg/kg	0.158	1.00%

Sequence No.: 10

Sample ID: 16B0472-98

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.022 g

Dilution:

Wash Time:

Autosampler Location: 40

Date Collected: 2/25/2016 7:44:10 PM

Data Type: Reprocessed on 2/27/2016 9:18:15 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-98

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-98

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2722440.9	2722440.9	5.331 mg/L		7:45:46 PM
1	As 188.979†	1820.4	1704.1	1.056 mg/L	51.65 mg/kg	7:46:09 PM
1	Cr 283.563†	231697.2	212843.0	1.430 mg/L	69.94 mg/kg	7:45:48 PM
2	Y 371.029	2722085.7	2722085.7	5.331 mg/L		7:46:23 PM
2	As 188.979†	1816.7	1700.9	1.054 mg/L	51.55 mg/kg	7:46:45 PM
2	Cr 283.563†	228238.4	209627.1	1.408 mg/L	68.88 mg/kg	7:46:25 PM
3	Y 371.029	2699582.0	2699582.0	5.287 mg/L		7:47:00 PM
3	As 188.979†	1828.4	1726.2	1.069 mg/L	52.32 mg/kg	7:47:22 PM
3	Cr 283.563†	228396.3	211561.0	1.421 mg/L	69.52 mg/kg	7:47:02 PM

Mean Data: 16B0472-98

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2714702.9	5.316 mg/L	0.0256			0.48%
As 188.979†	1710.4	1.060 mg/L	0.0085	51.84 mg/kg	0.417	0.80%
Cr 283.563†	211343.7	1.419 mg/L	0.0109	69.44 mg/kg	0.532	0.77%

Sequence No.: 11

Sample ID: 16B0472-99

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.012 g

Dilution:

Wash Time:

Autosampler Location: 41

Date Collected: 2/25/2016 7:49:27 PM

Data Type: Reprocessed on 2/27/2016 9:18:15 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-99

Analyte	Back Pressure	Flow
All	231.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-99

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2664862.9	2664862.9	5.219 mg/L		7:51:00 PM
1	As 188.979†	948.6	905.7	0.5611 mg/L	27.72 mg/kg	7:51:23 PM
1	Cr 283.563†	125641.4	115924.2	0.7786 mg/L	38.47 mg/kg	7:51:03 PM
2	Y 371.029	2670038.0	2670038.0	5.229 mg/L		7:51:34 PM
2	As 188.979†	949.4	904.7	0.5605 mg/L	27.69 mg/kg	7:51:57 PM
2	Cr 283.563†	125714.0	115760.3	0.7775 mg/L	38.41 mg/kg	7:51:37 PM
3	Y 371.029	2683612.9	2683612.9	5.255 mg/L		7:52:08 PM
3	As 188.979†	956.9	907.2	0.5620 mg/L	27.77 mg/kg	7:52:31 PM
3	Cr 283.563†	126502.2	115902.1	0.7784 mg/L	38.46 mg/kg	7:52:11 PM

Mean Data: 16B0472-99

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2672837.9	5.234 mg/L	0.0190			0.36%
As 188.979†	905.9	0.5612 mg/L	0.00078	27.73 mg/kg	0.038	0.14%
Cr 283.563†	115862.2	0.7782 mg/L	0.00060	38.45 mg/kg	0.030	0.08%

Sequence No.: 12

Autosampler Location: 42

Sample ID: 16B0472-AA

Date Collected: 2/25/2016 7:54:36 PM

Analyst:

Data Type: Reprocessed on 2/27/2016 9:18:15 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.035 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-AA

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-AA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2556676.3	2556676.3	5.007 mg/L		7:56:16 PM
1	As 188.979†	1158.2	1153.4	0.7145 mg/L	34.52 mg/kg	7:56:39 PM
1	Cr 283.563†	149487.4	144832.2	0.9727 mg/L	46.99 mg/kg	7:56:19 PM
2	Y 371.029	2632560.5	2632560.5	5.155 mg/L		7:56:56 PM
2	As 188.979†	1190.2	1151.2	0.7131 mg/L	34.45 mg/kg	7:57:19 PM
2	Cr 283.563†	150459.4	141471.6	0.9502 mg/L	45.90 mg/kg	7:56:59 PM
3	Y 371.029	2595112.9	2595112.9	5.082 mg/L		7:57:36 PM
3	As 188.979†	1151.6	1129.8	0.6999 mg/L	33.81 mg/kg	7:57:58 PM
3	Cr 283.563†	150057.2	143181.6	0.9616 mg/L	46.46 mg/kg	7:57:38 PM

Mean Data: 16B0472-AA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2594783.2	5.081 mg/L	0.0743			1.46%
As 188.979†	1144.8	0.7092 mg/L	0.00806	34.26 mg/kg	0.389	1.14%
Cr 283.563†	143161.8	0.9615 mg/L	0.01129	46.45 mg/kg	0.545	1.17%

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 2/25/2016 8:14:59 PM
Data Type: Reprocessed on 2/27/2016 9:18:15 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	231.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2693143.3	2693143.3	5.274 mg/L		8:16:45 PM
1	As 188.979†	3453.4	3270.8	2.026 mg/L		8:17:07 PM
1	Cr 283.563†	318516.5	297516.4	1.998 mg/L		8:16:47 PM
2	Y 371.029	2704835.5	2704835.5	5.297 mg/L		8:17:31 PM
2	As 188.979†	3430.8	3235.4	2.004 mg/L		8:17:54 PM
2	Cr 283.563†	319044.8	296709.8	1.993 mg/L		8:17:34 PM
3	Y 371.029	2703149.2	2703149.2	5.294 mg/L		8:18:18 PM
3	As 188.979†	3431.8	3238.3	2.006 mg/L		8:18:41 PM
3	Cr 283.563†	321907.5	299601.6	2.012 mg/L		8:18:21 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2700376.0	5.288 mg/L	0.0124			0.23%
As 188.979†	3248.2	2.012 mg/L	0.0122			0.61%
QC value within limits for As 188.979 Recovery = 100.61%						
Cr 283.563†	297942.6	2.001 mg/L	0.0100			0.50%
QC value within limits for Cr 283.563 Recovery = 100.05%						
All analyte(s) passed QC.						

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 2/25/2016 8:20:47 PM
Data Type: Reprocessed on 2/27/2016 9:18:15 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	232.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2538145.1	2538145.1	4.970 mg/L		8:22:14 PM
1	As 188.979†	-1.9	-5.1	-0.00313 mg/L		8:22:36 PM
1	Cr 283.563†	4591.5	164.0	0.00110 mg/L		8:22:16 PM
2	Y 371.029	2694719.9	2694719.9	5.277 mg/L		8:22:43 PM
2	As 188.979†	6.9	3.4	0.00209 mg/L		8:23:05 PM
2	Cr 283.563†	4720.9	18.2	0.00012 mg/L		8:22:45 PM
3	Y 371.029	2790586.2	2790586.2	5.465 mg/L		8:23:12 PM
3	As 188.979†	0.8	-2.4	-0.00148 mg/L		8:23:35 PM
3	Cr 283.563†	4501.0	-336.7	-0.00226 mg/L		8:23:15 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2674483.8	5.237 mg/L	0.2495			4.76%
As 188.979†	-1.4	-0.00084 mg/L	0.002667			316.47%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-51.5	-0.00035 mg/L	0.001730			499.76%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

Analysis Sequence Raw Data

Sequence	SZB0771
Instrument	ICP03
Analysis	Cr SW6010

Analysis Sequence

Printed: 02/28/2016 3:30 pm

SZB0771

Department: Metals-ICP
Instrument: ICP03
Calibration ID: AB60137

Sequence Date: 02/25/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
16B0472-AB	A	LW-48-12 Dup	1				Draper Aden Associates-Richmond	
16B0472-AC	A	LW-SP-Light	2				Draper Aden Associates-Richmond	
16B0472-AD	A	LW-SP-Dark	3				Draper Aden Associates-Richmond	
SZB0771-SRD1		Serial Dilution	4					
BZB0558-MS1		Matrix Spike	5					
BZB0558-DUP1		Duplicate	6					
BZB0558-BS1		LCS	7					
BZB0558-BLK1		Blank	8					
SZB0771-IFA1		Interference Check A	9		6B01832			
SZB0771-IFB1		Interference Check B	10		6B01833			
SZB0771-CCV1		Calibration Check	11		6B01822			
SZB0771-CCV2		Calibration Check	12		6B01822			
SZB0771-CCV3		Calibration Check	13		6B01822			
SZB0771-CCV4		Calibration Check	14		6B01822			
SZB0771-CCB1		Calibration Blank	15					
SZB0771-CCB2		Calibration Blank	16					
SZB0771-CCB3		Calibration Blank	17					
SZB0771-CCB4		Calibration Blank	18					

=====

Reprocessing Begun

Logged In Analyst: ICP03

Technique: ICP Continuous

Results Data Set (original): 160224CWO-lwood4

Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

Results Data Set (reprocessed): 160225CWO-SZB0771

Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

=====

Sequence No.: 1

Autosampler Location: 12

Sample ID: ICS A

Date Collected: 2/25/2016 4:21:53 PM

Analyst:

Data Type: Reprocessed on 2/28/2016 3:13:23 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: ICS A

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2429790.3	2429790.3	4.758 mg/L		4:23:22 PM
1	As 188.979†	1.6	-1.5	-0.00092 mg/L	-0.04582 mg/kg	4:23:45 PM
1	Cr 283.563†	4443.6	214.5	0.00144 mg/L	0.07203 mg/kg	4:23:25 PM
2	Y 371.029	2448378.4	2448378.4	4.795 mg/L		4:23:52 PM
2	As 188.979†	-10.9	-14.5	-0.00899 mg/L	-0.4496 mg/kg	4:24:15 PM
2	Cr 283.563†	4467.2	203.6	0.00137 mg/L	0.06837 mg/kg	4:23:55 PM
3	Y 371.029	2465380.2	2465380.2	4.828 mg/L		4:24:23 PM
3	As 188.979†	5.0	2.0	0.00123 mg/L	0.06135 mg/kg	4:24:46 PM
3	Cr 283.563†	4505.8	211.5	0.00142 mg/L	0.07102 mg/kg	4:24:26 PM

Mean Data: ICS A

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2447849.6	4.794 mg/L	0.0349			0.73%
As 188.979†	-4.7	-0.00289 mg/L	0.005388	-0.1447 mg/kg	0.26942	186.22%
Cr 283.563†	209.9	0.00141 mg/L	0.000038	0.07048 mg/kg	0.001890	2.68%

=====

Sequence No.: 2

Autosampler Location: 13

Sample ID: ICS AB

Date Collected: 2/25/2016 4:25:51 PM

Analyst:

Data Type: Reprocessed on 2/28/2016 3:13:23 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: ICS AB

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2426862.1	2426862.1	4.752 mg/L		4:27:38 PM
1	As 188.979†	3000.4	3153.5	1.954 mg/L	97.68 mg/kg	4:28:01 PM
1	Cr 283.563†	281996.3	292227.3	1.963 mg/L	98.13 mg/kg	4:27:41 PM
2	Y 371.029	2440750.8	2440750.8	4.780 mg/L		4:28:27 PM
2	As 188.979†	3045.5	3182.7	1.972 mg/L	98.58 mg/kg	4:28:50 PM
2	Cr 283.563†	284678.0	293344.4	1.970 mg/L	98.51 mg/kg	4:28:29 PM
3	Y 371.029	2404577.1	2404577.1	4.709 mg/L		4:29:15 PM
3	As 188.979†	3037.4	3222.0	1.996 mg/L	99.80 mg/kg	4:29:38 PM
3	Cr 283.563†	284743.0	297893.5	2.001 mg/L	100.0 mg/kg	4:29:18 PM

Mean Data: ICS AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2424063.3	4.747 mg/L	0.0357			0.75%
As 188.979†	3186.1	1.974 mg/L	0.0213	98.69 mg/kg	1.065	1.08%
Cr 283.563†	294488.4	1.978 mg/L	0.0202	98.89 mg/kg	1.008	1.02%

Sequence No.: 3

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/25/2016 7:13:13 PM

Data Type: Reprocessed on 2/28/2016 3:13:23 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2707578.6	2707578.6	5.302 mg/L		7:14:57 PM
1	As 188.979†	3481.7	3280.0	2.032 mg/L		7:15:20 PM
1	Cr 283.563†	327656.2	304525.3	2.045 mg/L		7:15:00 PM
2	Y 371.029	2691044.5	2691044.5	5.270 mg/L		7:15:41 PM
2	As 188.979†	3498.5	3316.1	2.054 mg/L		7:16:04 PM
2	Cr 283.563†	327754.4	306516.8	2.059 mg/L		7:15:44 PM
3	Y 371.029	2691794.3	2691794.3	5.271 mg/L		7:16:25 PM
3	As 188.979†	3495.1	3312.0	2.052 mg/L		7:16:48 PM
3	Cr 283.563†	322295.9	301252.7	2.023 mg/L		7:16:28 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2696805.8	5.281 mg/L	0.0183			0.35%
As 188.979†	3302.7	2.046 mg/L	0.0122			0.60%
QC value within limits for As 188.979 Recovery = 102.30%						
Cr 283.563†	304098.3	2.042 mg/L	0.0179			0.87%
QC value within limits for Cr 283.563 Recovery = 102.12%						
All analyte(s) passed QC.						

=====

Sequence No.: 4	Autosampler Location: 1
Sample ID: CCB	Date Collected: 2/25/2016 7:18:54 PM
Analyst:	Data Type: Reprocessed on 2/28/2016 3:13:24 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2911806.8	2911806.8	5.702 mg/L		7:20:20 PM
1	As 188.979†	5.1	1.3	0.00080 mg/L		7:20:43 PM
1	Cr 283.563†	4725.9	-310.9	-0.00209 mg/L		7:20:23 PM
2	Y 371.029	2909427.8	2909427.8	5.698 mg/L		7:20:50 PM
2	As 188.979†	-0.8	-3.9	-0.00240 mg/L		7:21:12 PM
2	Cr 283.563†	4680.0	-347.8	-0.00234 mg/L		7:20:52 PM
3	Y 371.029	2922839.7	2922839.7	5.724 mg/L		7:21:19 PM
3	As 188.979†	5.9	2.0	0.00123 mg/L		7:21:42 PM
3	Cr 283.563†	4693.3	-355.1	-0.00238 mg/L		7:21:22 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2914691.4	5.708 mg/L	0.0140			0.25%
As 188.979†	-0.2	-0.00012 mg/L	0.001986			>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-337.9	-0.00227 mg/L	0.000159			7.00%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

=====

Sequence No.: 5	Autosampler Location: 43
Sample ID: BZB0558-BLK1	Date Collected: 2/25/2016 8:00:04 PM
Analyst:	Data Type: Reprocessed on 2/28/2016 3:13:24 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt: 1.084 g	Initial Sample Vol:
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: BZB0558-BLK1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: BZB0558-BLK1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2821574.9	2821574.9	5.525 mg/L		8:01:33 PM
1	As 188.979†	-7.0	-9.5	-0.00590 mg/L	-0.2720 mg/kg	8:01:55 PM
1	Cr 283.563†	4823.5	-90.1	-0.00060 mg/L	-0.02790 mg/kg	8:01:35 PM
2	Y 371.029	2838343.5	2838343.5	5.558 mg/L		8:02:03 PM
2	As 188.979†	1.4	-1.9	-0.00116 mg/L	-0.05373 mg/kg	8:02:25 PM
2	Cr 283.563†	4717.9	-210.8	-0.00142 mg/L	-0.06532 mg/kg	8:02:05 PM
3	Y 371.029	2846204.3	2846204.3	5.574 mg/L		8:02:33 PM
3	As 188.979†	1.8	-1.6	-0.00097 mg/L	-0.04491 mg/kg	8:02:55 PM
3	Cr 283.563†	4661.7	-273.0	-0.00183 mg/L	-0.08457 mg/kg	8:02:35 PM

Mean Data: BZB0558-BLK1

Analyte	Mean Intensity	Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2835374.3	5.552 mg/L	0.0246				0.44%
As 188.979†	-4.3	-0.00268 mg/L	0.002788	-0.1235 mg/kg	0.12861	104.11%	
Cr 283.563†	-191.3	-0.00128 mg/L	0.000625	-0.05926 mg/kg	0.028816	48.62%	

Sequence No.: 6

Sample ID: BZB0558-BS1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.001 g

Dilution:

Wash Time:

Autosampler Location: 44

Date Collected: 2/25/2016 8:04:00 PM

Data Type: Reprocessed on 2/28/2016 3:13:24 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0558-BS1

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0558-BS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2727363.9	2727363.9	5.341 mg/L		8:05:45 PM
1	As 188.979†	3181.7	2975.4	1.843 mg/L	92.07 mg/kg	8:06:08 PM
1	Cr 283.563†	306087.3	282091.8	1.895 mg/L	94.64 mg/kg	8:05:48 PM
2	Y 371.029	2704376.3	2704376.3	5.296 mg/L		8:06:31 PM
2	As 188.979†	3160.4	2980.6	1.846 mg/L	92.23 mg/kg	8:06:54 PM
2	Cr 283.563†	307509.4	285870.1	1.920 mg/L	95.90 mg/kg	8:06:34 PM

3	Y 371.029	2705114.9	2705114.9	5.297 mg/L		8:07:17 PM
3	As 188.979†	3163.6	2982.8	1.848 mg/L	92.30 mg/kg	8:07:40 PM
3	Cr 283.563†	308142.2	286388.1	1.923 mg/L	96.08 mg/kg	8:07:20 PM

Mean Data: BZB0558-BS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2712285.0	5.311 mg/L	0.0256			0.48%
As 188.979†	2979.6	1.846 mg/L	0.0023	92.20 mg/kg	0.117	0.13%
Cr 283.563†	284783.4	1.913 mg/L	0.0158	95.54 mg/kg	0.787	0.82%

=====

Sequence No.: 7

Autosampler Location: 45

Sample ID: 16B0472-AB

Date Collected: 2/25/2016 8:09:46 PM

Analyst:

Data Type: Reprocessed on 2/28/2016 3:13:24 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.009 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-AB

Analyte	Back Pressure	Flow
All	231.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2688296.7	2688296.7	5.264 mg/L		8:11:21 PM
1	As 188.979†	42.2	36.9	0.02287 mg/L	1.133 mg/kg	8:11:43 PM
1	Cr 283.563†	28077.6	22212.2	0.1492 mg/L	7.393 mg/kg	8:11:23 PM
2	Y 371.029	2674804.6	2674804.6	5.238 mg/L		8:11:55 PM
2	As 188.979†	31.1	26.5	0.01643 mg/L	0.8140 mg/kg	8:12:18 PM
2	Cr 283.563†	28082.8	22351.6	0.1501 mg/L	7.439 mg/kg	8:11:58 PM
3	Y 371.029	2685365.5	2685365.5	5.259 mg/L		8:12:30 PM
3	As 188.979†	46.4	40.9	0.02536 mg/L	1.257 mg/kg	8:12:53 PM
3	Cr 283.563†	28214.9	22371.8	0.1503 mg/L	7.446 mg/kg	8:12:33 PM

Mean Data: 16B0472-AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2682822.2	5.254 mg/L	0.0139			0.26%
As 188.979†	34.8	0.02155 mg/L	0.004610	1.068 mg/kg	0.2285	21.39%
Cr 283.563†	22311.9	0.1499 mg/L	0.00058	7.426 mg/kg	0.0289	0.39%

=====

Sequence No.: 8

Autosampler Location: 5

Sample ID: CCV

Date Collected: 2/25/2016 8:14:59 PM

Analyst:

Data Type: Reprocessed on 2/28/2016 3:13:24 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	231.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2693143.3	2693143.3	5.274 mg/L		8:16:45 PM
1	As 188.979†	3453.4	3270.8	2.026 mg/L		8:17:07 PM
1	Cr 283.563†	318516.5	297516.4	1.998 mg/L		8:16:47 PM
2	Y 371.029	2704835.5	2704835.5	5.297 mg/L		8:17:31 PM
2	As 188.979†	3430.8	3235.4	2.004 mg/L		8:17:54 PM
2	Cr 283.563†	319044.8	296709.8	1.993 mg/L		8:17:34 PM
3	Y 371.029	2703149.2	2703149.2	5.294 mg/L		8:18:18 PM
3	As 188.979†	3431.8	3238.3	2.006 mg/L		8:18:41 PM
3	Cr 283.563†	321907.5	299601.6	2.012 mg/L		8:18:21 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2700376.0	5.288 mg/L	0.0124			0.23%
As 188.979†	3248.2	2.012 mg/L	0.0122			0.61%
QC value within limits for As 188.979 Recovery = 100.61%						
Cr 283.563†	297942.6	2.001 mg/L	0.0100			0.50%
QC value within limits for Cr 283.563 Recovery = 100.05%						
All analyte(s) passed QC.						

Sequence No.: 9

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/25/2016 8:20:47 PM

Data Type: Reprocessed on 2/28/2016 3:13:24 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	232.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2538145.1	2538145.1	4.970 mg/L		8:22:14 PM
1	As 188.979†	-1.9	-5.1	-0.00313 mg/L		8:22:36 PM
1	Cr 283.563†	4591.5	164.0	0.00110 mg/L		8:22:16 PM
2	Y 371.029	2694719.9	2694719.9	5.277 mg/L		8:22:43 PM
2	As 188.979†	6.9	3.4	0.00209 mg/L		8:23:05 PM

2	Cr 283.563†	4720.9	18.2	0.00012 mg/L	8:22:45 PM
3	Y 371.029	2790586.2	2790586.2	5.465 mg/L	8:23:12 PM
3	As 188.979†	0.8	-2.4	-0.00148 mg/L	8:23:35 PM
3	Cr 283.563†	4501.0	-336.7	-0.00226 mg/L	8:23:15 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2674483.8	5.237 mg/L	0.2495			4.76%
As 188.979†	-1.4	-0.00084 mg/L	0.002667			316.47%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-51.5	-0.00035 mg/L	0.001730			499.76%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 10

Autosampler Location: 46

Sample ID: BZB0558-DUP1

Date Collected: 2/25/2016 8:24:39 PM

Analyst:

Data Type: Reprocessed on 2/28/2016 3:13:25 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.045 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: BZB0558-DUP1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0558-DUP1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2625360.1	2625360.1	5.141 mg/L		8:26:12 PM
1	As 188.979†	37.9	33.7	0.02088 mg/L	0.9992 mg/kg	8:26:34 PM
1	Cr 283.563†	28590.9	23350.7	0.1568 mg/L	7.504 mg/kg	8:26:14 PM
2	Y 371.029	2630785.7	2630785.7	5.152 mg/L		8:26:44 PM
2	As 188.979†	48.6	44.0	0.02728 mg/L	1.305 mg/kg	8:27:07 PM
2	Cr 283.563†	28646.4	23347.3	0.1568 mg/L	7.503 mg/kg	8:26:47 PM
3	Y 371.029	2652986.2	2652986.2	5.195 mg/L		8:27:17 PM
3	As 188.979†	40.9	36.2	0.02243 mg/L	1.073 mg/kg	8:27:39 PM
3	Cr 283.563†	28484.4	22958.6	0.1542 mg/L	7.378 mg/kg	8:27:19 PM

Mean Data: BZB0558-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2636377.3	5.163 mg/L	0.0287			0.56%
As 188.979†	38.0	0.02353 mg/L	0.003336	1.126 mg/kg	0.1596	14.18%
Cr 283.563†	23218.9	0.1559 mg/L	0.00151	7.461 mg/kg	0.0724	0.97%

Sequence No.: 11

Autosampler Location: 47

Sample ID: BZB0558-MS1

Date Collected: 2/25/2016 8:29:46 PM

Analyst:

Data Type: Reprocessed on 2/28/2016 3:13:25 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.077 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: BZB0558-MS1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0558-MS1

Repl#	Analyte	Net	Corrected	Calib.	Sample	Analysis
		Intensity	Intensity	Conc. Units	Conc. Units	Time
1	Y 371.029	2574540.9	2574540.9	5.042 mg/L		8:31:30 PM
1	As 188.979†	3167.4	3138.1	1.944 mg/L	90.25 mg/kg	8:31:52 PM
1	Cr 283.563†	331795.6	324596.7	2.180 mg/L	101.2 mg/kg	8:31:32 PM
2	Y 371.029	2582293.7	2582293.7	5.057 mg/L		8:32:14 PM
2	As 188.979†	3187.8	3148.8	1.951 mg/L	90.56 mg/kg	8:32:37 PM
2	Cr 283.563†	337007.0	328761.6	2.208 mg/L	102.5 mg/kg	8:32:17 PM
3	Y 371.029	2596485.6	2596485.6	5.085 mg/L		8:32:59 PM
3	As 188.979†	3169.0	3113.1	1.929 mg/L	89.53 mg/kg	8:33:22 PM
3	Cr 283.563†	331302.7	321330.9	2.158 mg/L	100.2 mg/kg	8:33:02 PM

Mean Data: BZB0558-MS1

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Y 371.029	2584440.1	5.061 mg/L	0.0218			0.43%
As 188.979†	3133.3	1.941 mg/L	0.0113	90.11 mg/kg	0.526	0.58%
Cr 283.563†	324896.4	2.182 mg/L	0.0250	101.3 mg/kg	1.16	1.15%

Sequence No.: 12

Autosampler Location: 48

Sample ID: 16B0472-AC

Date Collected: 2/25/2016 8:35:26 PM

Analyst:

Data Type: Reprocessed on 2/28/2016 3:13:25 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.054 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-AC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-AC

Repl#	Analyte	Net	Corrected	Calib.	Sample	Analysis
		Intensity	Intensity	Conc. Units	Conc. Units	Time
1	Y 371.029	2714759.1	2714759.1	5.316 mg/L		8:36:54 PM
1	As 188.979†	4.0	0.6	0.00035 mg/L	0.01643 mg/kg	8:37:17 PM
1	Cr 283.563†	9781.3	4744.5	0.03187 mg/L	1.512 mg/kg	8:36:57 PM
2	Y 371.029	2701595.8	2701595.8	5.291 mg/L		8:37:24 PM

2	As 188.979†	18.2	14.0	0.00870 mg/L	0.4129 mg/kg	8:37:47 PM
2	Cr 283.563†	9987.8	4984.5	0.03348 mg/L	1.588 mg/kg	8:37:27 PM
3	Y 371.029	2720199.5	2720199.5	5.327 mg/L		8:37:55 PM
3	As 188.979†	14.1	10.1	0.00625 mg/L	0.2965 mg/kg	8:38:17 PM
3	Cr 283.563†	9972.1	4905.2	0.03294 mg/L	1.563 mg/kg	8:37:57 PM

Mean Data: 16B0472-AC

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2712184.8	5.311 mg/L	0.0187			0.35%
As 188.979†	8.2	0.00510 mg/L	0.004296	0.2419 mg/kg	0.20378	84.23%
Cr 283.563†	4878.0	0.03276 mg/L	0.000821	1.554 mg/kg	0.0390	2.51%

=====

Sequence No.: 13

Autosampler Location: 49

Sample ID: 16B0472-AD

Date Collected: 2/25/2016 8:39:22 PM

Analyst:

Data Type: Reprocessed on 2/28/2016 3:13:25 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.093 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: 16B0472-AD

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: 16B0472-AD

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2632925.9	2632925.9	5.156 mg/L		8:40:53 PM
1	As 188.979†	360.1	346.0	0.2144 mg/L	9.806 mg/kg	8:41:16 PM
1	Cr 283.563†	146457.3	137570.4	0.9240 mg/L	42.27 mg/kg	8:40:56 PM
2	Y 371.029	2606422.3	2606422.3	5.104 mg/L		8:41:27 PM
2	As 188.979†	390.6	379.5	0.2351 mg/L	10.75 mg/kg	8:41:49 PM
2	Cr 283.563†	145488.3	138065.3	0.9273 mg/L	42.42 mg/kg	8:41:29 PM
3	Y 371.029	2629824.1	2629824.1	5.150 mg/L		8:42:00 PM
3	As 188.979†	379.3	365.1	0.2262 mg/L	10.35 mg/kg	8:42:22 PM
3	Cr 283.563†	143284.1	134657.1	0.9044 mg/L	41.37 mg/kg	8:42:02 PM

Mean Data: 16B0472-AD

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2623057.4	5.137 mg/L	0.0284			0.55%
As 188.979†	363.5	0.2252 mg/L	0.01040	10.30 mg/kg	0.476	4.62%
Cr 283.563†	136764.3	0.9185 mg/L	0.01237	42.02 mg/kg	0.566	1.35%

=====

Sequence No.: 14

Autosampler Location: 5

Sample ID: CCV

Date Collected: 2/25/2016 9:08:58 PM

Analyst:

Data Type: Reprocessed on 2/28/2016 3:13:25 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2664227.6	2664227.6	5.217 mg/L		9:10:48 PM
1	As 188.979†	3421.8	3276.1	2.029 mg/L		9:11:10 PM
1	Cr 283.563†	317631.6	299945.8	2.015 mg/L		9:10:50 PM
2	Y 371.029	2660311.6	2660311.6	5.210 mg/L		9:11:39 PM
2	As 188.979†	3423.5	3282.5	2.033 mg/L		9:12:01 PM
2	Cr 283.563†	322202.0	304780.3	2.047 mg/L		9:11:41 PM
3	Y 371.029	2668108.5	2668108.5	5.225 mg/L		9:12:29 PM
3	As 188.979†	3406.8	3257.0	2.018 mg/L		9:12:52 PM
3	Cr 283.563†	316763.1	298671.9	2.006 mg/L		9:12:32 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2664215.9	5.217 mg/L	0.0076			0.15%
As 188.979†	3271.9	2.027 mg/L	0.0082			0.41%
QC value within limits for As 188.979 Recovery = 101.34%						
Cr 283.563†	301132.7	2.022 mg/L	0.0216			1.07%
QC value within limits for Cr 283.563 Recovery = 101.12%						
All analyte(s) passed QC.						

Sequence No.: 15

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 1

Date Collected: 2/25/2016 9:14:58 PM

Data Type: Reprocessed on 2/28/2016 3:13:25 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	231.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2832299.3	2832299.3	5.546 mg/L		9:16:25 PM
1	As 188.979†	12.7	8.2	0.00511 mg/L		9:16:47 PM
1	Cr 283.563†	4680.8	-235.2	-0.00158 mg/L		9:16:27 PM

2	Y 371.029	2834443.4	2834443.4	5.551 mg/L	9:16:54 PM
2	As 188.979†	12.8	8.3	0.00517 mg/L	9:17:16 PM
2	Cr 283.563†	4567.2	-340.8	-0.00229 mg/L	9:16:56 PM
3	Y 371.029	2836148.1	2836148.1	5.554 mg/L	9:17:23 PM
3	As 188.979†	0.3	-2.9	-0.00178 mg/L	9:17:46 PM
3	Cr 283.563†	4565.0	-345.2	-0.00232 mg/L	9:17:25 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2834297.0	5.550 mg/L	0.0038			0.07%
As 188.979†	4.6	0.00283 mg/L	0.003997			141.14%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-307.1	-0.00206 mg/L	0.000418			20.28%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

=====

Sequence No.: 16
Sample ID: SZB0771-SRD1

Autosampler Location: 57

Date Collected: 2/25/2016 9:23:56 PM

Analyst:

Data Type: Reprocessed on 2/28/2016 3:13:26 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.093 g

Initial Sample Vol:

Dilution: 5X

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: SZB0771-SRD1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: SZB0771-SRD1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2668040.8	2668040.8	5.225 mg/L		9:25:26 PM
1	As 188.979†	78.1	71.5	0.04431 mg/L	10.14 mg/kg	9:25:48 PM
1	Cr 283.563†	32530.9	26676.3	0.1792 mg/L	40.98 mg/kg	9:25:28 PM
2	Y 371.029	2688339.7	2688339.7	5.265 mg/L		9:25:56 PM
2	As 188.979†	75.1	68.2	0.04224 mg/L	9.662 mg/kg	9:26:19 PM
2	Cr 283.563†	32828.3	26723.8	0.1795 mg/L	41.05 mg/kg	9:25:59 PM
3	Y 371.029	2692711.3	2692711.3	5.273 mg/L		9:26:27 PM
3	As 188.979†	70.5	63.7	0.03944 mg/L	9.020 mg/kg	9:26:49 PM
3	Cr 283.563†	32422.1	26287.9	0.1766 mg/L	40.38 mg/kg	9:26:29 PM

Mean Data: SZB0771-SRD1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2683030.6	5.254 mg/L	0.0258			0.49%
As 188.979†	67.8	0.04200 mg/L	0.002447	9.606 mg/kg	0.5598	5.83%
Cr 283.563†	26562.7	0.1784 mg/L	0.00161	40.81 mg/kg	0.367	0.90%

=====

Sequence No.: 17
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : ICP03

Autosampler Location: 5

Date Collected: 2/25/2016 9:32:51 PM

Data Type: Reprocessed on 2/28/2016 3:13:26 PM

Initial Sample Wt:
Dilution:
Wash Time:

Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2606861.9	2606861.9	5.105 mg/L		9:34:34 PM
1	As 188.979†	3342.1	3270.2	2.026 mg/L		9:34:57 PM
1	Cr 283.563†	311976.8	301105.8	2.022 mg/L		9:34:37 PM
2	Y 371.029	2631932.4	2631932.4	5.154 mg/L		9:35:18 PM
2	As 188.979†	3355.4	3251.9	2.015 mg/L		9:35:41 PM
2	Cr 283.563†	315611.6	301721.3	2.026 mg/L		9:35:21 PM
3	Y 371.029	2634231.9	2634231.9	5.159 mg/L		9:36:03 PM
3	As 188.979†	3353.0	3246.8	2.011 mg/L		9:36:25 PM
3	Cr 283.563†	313373.7	299284.9	2.010 mg/L		9:36:05 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2624342.1	5.139 mg/L	0.0297			0.58%
As 188.979†	3256.3	2.017 mg/L	0.0076			0.38%
QC value within limits for As 188.979 Recovery = 100.86%						
Cr 283.563†	300704.0	2.020 mg/L	0.0085			0.42%
QC value within limits for Cr 283.563 Recovery = 100.98%						
All analyte(s) passed QC.						

=====

Sequence No.: 18	Autosampler Location: 1
Sample ID: CCB	Date Collected: 2/25/2016 9:38:32 PM
Analyst:	Data Type: Reprocessed on 2/28/2016 3:13:26 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	232.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Net	Corrected	Calib.	Sample	Analysis
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Repl#	Analyte	Intensity	Intensity	Conc. Units	Conc. Units	Time
1	Y 371.029	2749987.1	2749987.1	5.385 mg/L		9:39:59 PM
1	As 188.979†	2.5	-0.9	-0.00054 mg/L		9:40:21 PM
1	Cr 283.563†	4420.8	-350.3	-0.00235 mg/L		9:40:01 PM
2	Y 371.029	2752018.4	2752018.4	5.389 mg/L		9:40:28 PM
2	As 188.979†	-4.0	-6.9	-0.00427 mg/L		9:40:50 PM
2	Cr 283.563†	4445.9	-330.1	-0.00222 mg/L		9:40:30 PM
3	Y 371.029	2733726.4	2733726.4	5.353 mg/L		9:40:57 PM
3	As 188.979†	-0.9	-4.0	-0.00248 mg/L		9:41:20 PM
3	Cr 283.563†	4423.8	-323.1	-0.00217 mg/L		9:41:00 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2745244.0	5.376 mg/L	0.0196			0.37%
As 188.979†	-3.9	-0.00243 mg/L	0.001869			76.93%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-334.5	-0.00225 mg/L	0.000095			4.22%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

Analysis Sequence Raw Data

Sequence	SZB0783
Instrument	ICP03
Analysis	Cr SW6010

Analysis Sequence

Printed: 02/29/2016 12:01 pm

SZB0783

Department: Metals-ICP
Instrument: ICP03
Calibration ID: AB60139

Sequence Date: 02/29/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
16B0472-ACRE1	A	LW-SP-Light	1				Draper Aden Associates-Richmond	From BZB0558 by RCV on 02/26/2016; Auto-update of ExInfo5 field to RE1 2/26/2016 11:05:00 AM; Auto-update of ExInfo5 field to RE1 2/26/2016 11:15:00 AM; Auto-update of ExInfo5 field to RE1 2/26/2016 11:20:00 AM From BZB0558 by RCV on 02/26/2016
16B0472-ACRE1	A	LW-SP-Light	2				Draper Aden Associates-Richmond	From BZB0558 by RCV on 02/26/2016; Auto-update of ExInfo5 field to RE1 2/26/2016 11:05:00 AM; Auto-update of ExInfo5 field to RE1 2/26/2016 11:15:00 AM; Auto-update of ExInfo5 field to RE1 2/26/2016 11:20:00 AM From BZB0558 by RCV on 02/26/2016
BZB0642-MS1		Matrix Spike	3					
BZB0642-DUP1		Duplicate	4					
BZB0642-BS1		LCS	5					
BZB0642-BLK1		Blank	6					
SZB0783-CCB1		Calibration Blank	7					
SZB0783-CCB2		Calibration Blank	8					
SZB0783-CCV1		Calibration Check	9		6B01965			
SZB0783-CCV2		Calibration Check	10		6B01965			
SZB0783-IFA1		Interference Check A	11		6B01976			
SZB0783-IFB1		Interference Check B	12		6B01977			
SZB0783-SRD1		Serial Dilution	13					
SZB0783-CCB3		Calibration Blank	14					

Analysis Sequence

Printed: 02/29/2016 12:01 pm

SZB0783

(Continued)

Department: Metals-ICP

Instrument: ICP03

Calibration ID: AB60139

Sequence Date: 02/29/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
SZB0783-CCV3		Calibration Check	15		6B01965			

=====

Reprocessing Begun

Logged In Analyst: ICP03

Technique: ICP Continuous

Results Data Set (original): 160229CWO-lwood5

Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

Results Data Set (reprocessed): 160229CWO-SZB0783

Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

=====

Sequence No.: 1

Sample ID: ICS A

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 12

Date Collected: 2/29/2016 9:46:58 AM

Data Type: Reprocessed on 2/29/2016 11:35:37 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS A

Analyte	Back Pressure	Flow
All	199.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2718565.4	2718565.4	4.705 mg/L		9:48:26 AM
1	As 188.979†	1.4	-0.2	-0.00011 mg/L	-0.00555 mg/kg	9:48:48 AM
1	Cr 283.563†	4496.4	296.3	0.00194 mg/L	0.09706 mg/kg	9:48:28 AM
2	Y 371.029	2745822.5	2745822.5	4.752 mg/L		9:48:56 AM
2	As 188.979†	-1.7	-3.5	-0.00197 mg/L	-0.09857 mg/kg	9:49:19 AM
2	Cr 283.563†	4698.3	461.3	0.00302 mg/L	0.1511 mg/kg	9:48:59 AM
3	Y 371.029	2756195.1	2756195.1	4.770 mg/L		9:49:27 AM
3	As 188.979†	6.5	5.2	0.00294 mg/L	0.1471 mg/kg	9:49:49 AM
3	Cr 283.563†	4568.7	306.9	0.00201 mg/L	0.1005 mg/kg	9:49:29 AM

Mean Data: ICS A

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2740194.3	4.743 mg/L	0.0336			0.71%
As 188.979†	0.5	0.00029 mg/L	0.002481	0.01433 mg/kg	0.124040	865.69%
Cr 283.563†	354.8	0.00232 mg/L	0.000605	0.1162 mg/kg	0.03025	26.02%

=====

Sequence No.: 2

Sample ID: ICS AB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 13

Date Collected: 2/29/2016 9:50:53 AM

Data Type: Reprocessed on 2/29/2016 11:35:37 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS AB

Analyte	Back Pressure	Flow
All	200.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2725874.1	2725874.1	4.718 mg/L		9:52:40 AM
1	As 188.979†	3115.3	3299.9	1.876 mg/L	93.80 mg/kg	9:53:03 AM
1	Cr 283.563†	281618.7	293974.6	1.926 mg/L	96.29 mg/kg	9:52:43 AM
2	Y 371.029	2723195.5	2723195.5	4.713 mg/L		9:53:29 AM
2	As 188.979†	3158.2	3348.7	1.904 mg/L	95.19 mg/kg	9:53:52 AM
2	Cr 283.563†	293069.8	30415.9	2.007 mg/L	100.4 mg/kg	9:53:32 AM
3	Y 371.029	2705031.1	2705031.1	4.682 mg/L		9:54:18 AM
3	As 188.979†	3174.0	3388.1	1.926 mg/L	96.31 mg/kg	9:54:40 AM
3	Cr 283.563†	295601.3	311807.1	2.039 mg/L	101.9 mg/kg	9:54:20 AM

Mean Data: ICS AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2718033.6	4.704 mg/L	0.0196			0.42%
As 188.979†	3345.5	1.902 mg/L	0.0251	95.10 mg/kg	1.255	1.32%
Cr 283.563†	303865.9	1.991 mg/L	0.0583	99.53 mg/kg	2.913	2.93%

Sequence No.: 3

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/29/2016 10:21:25 AM

Data Type: Reprocessed on 2/29/2016 11:35:37 AM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	206.0 kPa	0.11 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3008139.2	3008139.2	5.156 mg/L		10:23:09 AM
1	As 188.979†	3616.9	3711.9	1.874 mg/L		10:23:32 AM
1	Cr 283.563†	335084.8	312115.2	2.079 mg/L		10:23:12 AM
2	Y 371.029	3033511.9	3033511.9	5.250 mg/L		10:23:54 AM
2	As 188.979†	3625.7	3711.1	1.962 mg/L		10:24:16 AM
2	Cr 283.563†	334279.8	312115.0	2.056 mg/L		10:23:56 AM
3	Y 371.029	3036123.1	3036123.1	5.155 mg/L		10:24:38 AM
3	As 188.979†	3603.7	3727.2	1.948 mg/L		10:25:01 AM
3	Cr 283.563†	331529.2	312115.1	2.037 mg/L		10:24:40 AM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3025924.8	5.237 mg/L	0.0268			0.51%
As 188.979†	3450.1	1.961 mg/L	0.0127			0.65%
QC value within limits for As 188.979 Recovery = 98.07%						
Cr 283.563†	314046.1	2.057 mg/L	0.0208			1.01%
QC value within limits for Cr 283.563 Recovery = 102.46%						
All analyte(s) passed QC.						

=====

Sequence No.: 4

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/29/2016 10:27:07 AM

Analyst:

Data Type: Reprocessed on 2/29/2016 11:35:37 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	210.0 kPa	0.80 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3253299.8	3253299.8	5.631 mg/L		10:28:33 AM
1	As 188.979†	6.4	4.1	0.00231 mg/L		10:28:56 AM
1	Cr 283.563†	5123.7	111.1	0.00045 mg/L		10:28:36 AM
2	Y 371.029	3262337.8	3262337.8	5.646 mg/L		10:29:03 AM
2	As 188.979†	7.1	4.1	0.00264 mg/L		10:29:25 AM
2	Cr 283.563†	5203.2	111.1	0.00032 mg/L		10:29:05 AM
3	Y 371.029	3279804.5	3279804.5	5.677 mg/L		10:29:32 AM
3	As 188.979†	6.1	3.7	0.00109 mg/L		10:29:54 AM
3	Cr 283.563†	5246.4	111.1	0.00091 mg/L		10:29:34 AM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3265147.4	5.651 mg/L	0.0133			0.41%
As 188.979†	4.1	0.00235 mg/L	0.000277			11.77%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	111.1	0.00070 mg/L	0.000148			34.08%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

=====

Sequence No.: 5

Autosampler Location: 16

Sample ID: BZB0642-BLK1

Date Collected: 2/29/2016 10:30:21 AM

Analyst:

Data Type: Reprocessed on 2/29/2016 11:35:37 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.056 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: BZB0642-BLK1

Analyte	Back Pressure	Flow
All	211.0 kPa	1.10 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: BZB0642-BLK1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3228730.9	3228730.9	5.648 mg/L		10:31:50 AM
1	As 188.979†	11.1	11.1	0.00410 mg/L	0.2224 mg/kg	10:32:12 AM
1	Cr 283.563†	5463.2	4063.4	0.00266 mg/L	0.1260 mg/kg	10:31:52 AM
2	Y 371.029	3250272.1	3250272.1	5.686 mg/L		10:32:20 AM
2	As 188.979†	7.3	7.3	0.00133 mg/L	0.1290 mg/kg	10:32:42 AM
2	Cr 283.563†	5300.2	4200.1	0.00269 mg/L	0.07106 mg/kg	10:32:22 AM
3	Y 371.029	3299008.9	3299008.9	5.719 mg/L		10:32:49 AM
3	As 188.979†	2.7	2.7	0.00040 mg/L	0.01875 mg/kg	10:33:12 AM
3	Cr 283.563†	5207.2	4111.1	0.00261 mg/L	0.02423 mg/kg	10:32:52 AM

Mean Data: BZB0642-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3259337.3	5.641 mg/L	0.00023			1.10%
As 188.979†	4.6	0.00261 mg/L	0.000153	0.1234 mg/kg	0.10195	82.63%
Cr 283.563†	237.9	0.00261 mg/L	0.000176	0.07378 mg/kg	0.050964	69.08%

Sequence No.: 6

Autosampler Location: 17

Sample ID: BZB0642-BS1

Date Collected: 2/29/2016 10:34:17 AM

Analyst:

Data Type: Reprocessed on 2/29/2016 11:35:38 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1.069 g

Initial Sample Vol:

Dilution:

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: BZB0642-BS1

Analyte	Back Pressure	Flow
All	210.0 kPa	0.9 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	10	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0642-BS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3138590.2	3138590.2	5.641 mg/L		10:35:55 AM
1	As 188.979†	3553.5	3553.5	1.000 mg/L	86.93 mg/kg	10:36:17 AM
1	Cr 283.563†	343463.8	314477.6	0.00261 mg/L	95.49 mg/kg	10:35:57 AM
2	Y 371.029	3144772.6	3144772.6	5.643 mg/L		10:36:33 AM
2	As 188.979†	3591.8	3591.8	1.000 mg/L	87.69 mg/kg	10:36:55 AM
2	Cr 283.563†	347340.7	314477.6	0.00261 mg/L	96.39 mg/kg	10:36:35 AM

3	Y 371.029	3166187.2	3166187.2	5.481 mg/L		10:37:11 AM
3	As 188.979†	3578.1	3578.1	87.13 mg/kg	86.77 mg/kg	10:37:33 AM
3	Cr 283.563†	342145.4	342145.4	95.39 mg/kg	94.28 mg/kg	10:37:13 AM

Mean Data: BZB0642-BS1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3149850.0	5.481 mg/L		0.001			0.46%
As 188.979†	3276.7	1.863 mg/kg		0.001	87.13 mg/kg	0.495	0.57%
Cr 283.563†	311313.0	2.03 mg/kg		0.001	95.39 mg/kg	1.061	1.11%

Matrix Recovery Check: BZB0642-BS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
As 188.979	100.1	87.13	0.495	mg/kg	87.0
Cr 283.563	100.1	95.39	1.061	mg/kg	95.3

Sequence No.: 7

Sample ID: 16B0472-ACRE1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 4.005 g

Dilution:

Wash Time:

Autosampler Location: 18

Date Collected: 2/29/2016 10:39:40 AM

Data Type: Reprocessed on 2/29/2016 11:35:38 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0472-ACRE1

Analyte	Back Pressure	Flow
All	209.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	1	1.000
As 188.979	5.000	1	2.000
Cr 283.563	0.200	10	1.000

Replicate Data: 16B0472-ACRE1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3128402.5	3128402.5	5.481 mg/L		10:41:16 AM
1	As 188.979†	49.3	49.3	0.3312 mg/kg	0.3112 mg/kg	10:41:38 AM
1	Cr 283.563†	26638.7	26638.7	0.1318 mg/L	1.645 mg/kg	10:41:18 AM
2	Y 371.029	3071171.0	3071171.0	5.316 mg/L		10:41:52 AM
2	As 188.979†	51.8	51.8	0.3343 mg/kg	0.3343 mg/kg	10:42:14 AM
2	Cr 283.563†	26560.3	26560.3	0.1343 mg/L	1.677 mg/kg	10:41:54 AM
3	Y 371.029	3052294.6	3052294.6	5.113 mg/L		10:42:28 AM
3	As 188.979†	54.4	54.4	0.3538 mg/kg	0.3538 mg/kg	10:42:50 AM
3	Cr 283.563†	26759.2	26759.2	0.1356 mg/L	1.705 mg/kg	10:42:30 AM

Mean Data: 16B0472-ACRE1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3083956.0	5.316 mg/L		0.001			1.29%
As 188.979†	46.9	0.0203 mg/kg		0.001	0.3331 mg/kg	0.02135	6.41%
Cr 283.563†	20487.9	0.1343 mg/L		0.001	1.676 mg/kg	0.0298	1.78%

Sequence No.: 8

Sample ID: BZB0642-DUP1

Analyst:

Autosampler Location: 19

Date Collected: 2/29/2016 10:44:57 AM

Data Type: Reprocessed on 2/29/2016 11:35:38 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 4.001 g

Dilution:

Wash Time:

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0642-DUP1

Analyte	Back Pressure	Flow
All	208.0 kPa	0.15 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	1	2.000
As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0642-DUP1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3026269.6	3026269.6	0.0008 mg/L		10:46:30 AM
1	As 188.979†	34.7	31.5	0.0000 mg/L	0.2237 mg/kg	10:46:53 AM
1	Cr 283.563†	24644.7	19044.0	0.0008 mg/L	1.559 mg/kg	10:46:33 AM
2	Y 371.029	3085976.6	3085976.6	0.0008 mg/L		10:47:05 AM
2	As 188.979†	49.5	41.5	0.0002 mg/L	0.3177 mg/kg	10:47:28 AM
2	Cr 283.563†	24816.1	19044.0	0.0008 mg/L	1.535 mg/kg	10:47:08 AM
3	Y 371.029	3029771.3	3029771.3	0.0008 mg/L		10:47:40 AM
3	As 188.979†	34.4	31.5	0.0002 mg/L	0.2215 mg/kg	10:48:02 AM
3	Cr 283.563†	24470.8	19044.0	0.0008 mg/L	1.543 mg/kg	10:47:42 AM

Mean Data: BZB0642-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3047339.2	5.000 mg/L	0.0000			1.10%
As 188.979†	35.8	0.02035 mg/L	0.000096	0.2543 mg/kg	0.05493	21.60%
Cr 283.563†	18881.4	0.1007 mg/L	0.00098	1.546 mg/kg	0.0123	0.79%

Duplicate Check: BZB0642-DUP1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Y 371.029			0.000	mg/L	Not calculated
As 188.979	0.3331	0.2543	0.051	mg/kg	26.8
Cr 283.563	1.676	1.546	0.011	mg/kg	8.1

=====

Sequence No.: 9

Sample ID: BZB0642-MS1

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 4.002 g

Dilution:

Wash Time:

Autosampler Location: 20

Date Collected: 2/29/2016 10:50:09 AM

Data Type: Reprocessed on 2/29/2016 11:35:38 AM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0642-MS1

Analyte	Back Pressure	Flow
All	208.0 kPa	0.15 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	1	2.000

As 188.979	5.000	4	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0642-MS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3010638.2	3011738.6	5.12 mg/L		10:51:55 AM
1	As 188.979†	3134.2	3009.4	1.71 mg/L	21.35 mg/kg	10:52:18 AM
1	Cr 283.563†	305675.6	287559.6	1.82 mg/L	23.64 mg/kg	10:51:58 AM
2	Y 371.029	3019476.2	3011738.6	5.12 mg/L		10:52:41 AM
2	As 188.979†	3148.3	3009.4	1.71 mg/L	21.38 mg/kg	10:53:04 AM
2	Cr 283.563†	302562.5	287559.6	1.82 mg/L	23.33 mg/kg	10:52:44 AM
3	Y 371.029	3005101.3	3011738.6	5.12 mg/L		10:53:27 AM
3	As 188.979†	3134.8	3009.4	1.71 mg/L	21.39 mg/kg	10:53:50 AM
3	Cr 283.563†	305144.5	287559.6	1.82 mg/L	23.64 mg/kg	10:53:30 AM

Mean Data: BZB0642-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3011738.6	5.12 mg/L	0.005			0.24%
As 188.979†	3009.4	1.71 mg/L	0.018	21.37 mg/kg	0.023	0.11%
Cr 283.563†	287559.6	1.82 mg/L	0.046	23.54 mg/kg	0.182	0.77%

Matrix Recovery Check: BZB0642-MS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
As 188.979	100.3	21.37	0.023	mg/kg	21.0
Cr 283.563	101.7	23.54	0.182	mg/kg	21.9

Sequence No.: 10

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/29/2016 11:00:30 AM

Data Type: Reprocessed on 2/29/2016 11:35:38 AM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	209.0 kPa	1.0 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3023195.2	3011738.6	5.12 mg/L		11:02:14 AM
1	As 188.979†	3598.7	3009.4	1.71 mg/L		11:02:36 AM
1	Cr 283.563†	332987.6	287559.6	1.82 mg/L		11:02:16 AM
2	Y 371.029	3030914.4	3011738.6	5.12 mg/L		11:02:57 AM
2	As 188.979†	3608.3	3009.4	1.71 mg/L		11:03:20 AM
2	Cr 283.563†	326736.1	287559.6	1.82 mg/L		11:03:00 AM
3	Y 371.029	3044093.5	3011738.6	5.12 mg/L		11:03:41 AM
3	As 188.979†	3610.2	3009.4	1.71 mg/L		11:04:03 AM
3	Cr 283.563†	333900.1	287559.6	1.82 mg/L		11:03:43 AM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3032734.3	5.34 mg/L	0.83			0.35%
As 188.979†	3433.0	1.951 mg/L	0.42			0.22%
QC value within limits for As 188.979 Recovery = 97.1%						
Cr 283.563†	311012.9	2.037 mg/L	0.35			1.15%
QC value within limits for Cr 283.563 Recovery = 101.1%						
All analyte(s) passed QC.						

=====

Sequence No.: 11

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/29/2016 11:06:09 AM

Analyst:

Data Type: Reprocessed on 2/29/2016 11:35:39 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	209.0 kPa	1.50 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	1	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3284673.6	3284673.6	5.34 mg/L		11:07:36 AM
1	As 188.979†	9.7	6.9	0.1 mg/L		11:07:58 AM
1	Cr 283.563†	4993.1	-116.9	-0.0024 mg/L		11:07:38 AM
2	Y 371.029	3289840.3	3289840.3	5.34 mg/L		11:08:05 AM
2	As 188.979†	3.7	1.0	0.1 mg/L		11:08:28 AM
2	Cr 283.563†	4943.1	-116.9	-0.0024 mg/L		11:08:08 AM
3	Y 371.029	3271394.1	3271394.1	5.34 mg/L		11:08:35 AM
3	As 188.979†	6.6	1.1	0.1 mg/L		11:08:57 AM
3	Cr 283.563†	4939.9	-116.9	-0.0024 mg/L		11:08:37 AM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3281969.3	5.64 mg/L	0.85			0.29%
As 188.979†	4.2	0.0024 mg/L	0.0008			62.93%
QC value within limits for As 188.979 Recovery = Not Calculated						
Cr 283.563†	-116.9	-0.0024 mg/L	0.0007			21.79%
QC value within limits for Cr 283.563 Recovery = Not Calculated						
All analyte(s) passed QC.						

=====

Sequence No.: 12

Autosampler Location: 21

Sample ID: SZB0783-SRD1

Date Collected: 2/29/2016 11:14:42 AM

Analyst:

Data Type: Reprocessed on 2/29/2016 11:35:39 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 4.005 g

Initial Sample Vol:

Dilution: 5X

Sample Prep Vol: 50 mL

Wash Time:

Nebulizer Parameters: SZB0783-SRD1

Analyte	Back Pressure	Flow
All	209.0 kPa	0.85 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: SZB0783-SRD1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3240109.8	3235139.8	0.0000 mg/L		11:16:14 AM
1	As 188.979†	21.8	17.7	0.0000 mg/L	0.6295 mg/kg	11:16:36 AM
1	Cr 283.563†	9494.7	3983.7	0.0000 mg/L	1.629 mg/kg	11:16:16 AM
2	Y 371.029	3311959.1	3311959.1	0.0000 mg/L		11:16:46 AM
2	As 188.979†	13.3	0.9	0.0000 mg/L	0.3519 mg/kg	11:17:09 AM
2	Cr 283.563†	9390.3	3709.0	0.0000 mg/L	1.517 mg/kg	11:16:49 AM
3	Y 371.029	3275141.7	3275141.7	0.0000 mg/L		11:17:19 AM
3	As 188.979†	8.5	5.8	0.0000 mg/L	0.2059 mg/kg	11:17:41 AM
3	Cr 283.563†	9596.6	3501.6	0.0000 mg/L	1.629 mg/kg	11:17:21 AM

Mean Data: SZB0783-SRD1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3275736.8	5.0000 mg/L	0.0000			1.10%
As 188.979†	11.2	0.0060 mg/L	0.0000	0.3958 mg/kg	0.21516	54.37%
Cr 283.563†	3891.9	0.0200 mg/L	0.0000	1.591 mg/kg	0.0648	4.07%

Sequence No.: 13

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Acquired: 2/29/2016 11:18:47 AM

Data Acquired & Reprocessed on 2/29/2016 11:35:39 AM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	209.0 kPa	0.85 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3050060.2	3050060.2	0.0000 mg/L		11:20:29 AM
1	As 188.979†	3592.2	3592.2	0.0000 mg/L		11:20:52 AM
1	Cr 283.563†	335255.7	310000.0	0.0000 mg/L		11:20:32 AM
2	Y 371.029	3084483.0	3084483.0	0.0000 mg/L		11:21:12 AM
2	As 188.979†	3650.8	3650.8	0.0000 mg/L		11:21:35 AM

2	Cr 283.563†	339185.9	313119.4	2.651 mg/L	11:21:15 AM
3	Y 371.029	3093375.1	3075972.7	5.341 mg/L	11:21:55 AM
3	As 188.979†	3656.2	3410.3	1.96 mg/L	11:22:18 AM
3	Cr 283.563†	340079.2	313119.4	2.651 mg/L	11:21:58 AM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3075972.7	5.341 mg/L	0.000			0.74%
As 188.979†	3410.3	1.96 mg/L	0.000			0.26%
QC value within limits for As 188.979† Recovery = 96.1%						
Cr 283.563†	313119.4	2.651 mg/L	0.000			0.02%
QC value within limits for Cr 283.563† Recovery = 100.0%						
All analyte(s) passed QC.						

Sequence No.: 14

Autosampler Location: 1

Sample ID: CCB

Date Acquired: 2/29/2016 11:24:24 AM

Analyst:

Data Type: Reprocessed on 2/29/2016 11:35:39 AM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	209.0 kPa	1.0 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	1	0.000
As 188.979	10.000	2	0.000
Cr 283.563	0.500	4	0.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	3306226.6	3306173.5	5.341 mg/L		11:25:51 AM
1	As 188.979†	16.5	0.6	0.000 mg/L		11:26:14 AM
1	Cr 283.563†	4821.6	4780.0	-0.000 mg/L		11:25:54 AM
2	Y 371.029	3279621.6	3279568.5	5.341 mg/L		11:26:20 AM
2	As 188.979†	-5.7	-0.6	-0.000 mg/L		11:26:43 AM
2	Cr 283.563†	4920.4	4821.6	-0.000 mg/L		11:26:23 AM
3	Y 371.029	3332672.3	3332619.2	5.341 mg/L		11:26:50 AM
3	As 188.979†	-3.1	-0.6	-0.000 mg/L		11:27:12 AM
3	Cr 283.563†	4780.0	4780.0	-0.000 mg/L		11:26:52 AM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3306173.5	5.341 mg/L	0.000			0.80%
As 188.979†	0.6	0.000 mg/L	0.000			>999.9%
QC value within limits for As 188.979† Recovery = Not Calculated						
Cr 283.563†	-251.5	-0.000 mg/L	0.000			38.36%
QC value within limits for Cr 283.563† Recovery = Not Calculated						
All analyte(s) passed QC.						



1941 Reymet Road • Richmond, Virginia 23237 • Tel: (804)-358-8295 Fax: (804)-358-8297

ANALYTICAL RESULTS

AWS WORK ORDER NUMBER:

16B0474

Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)



1941 Reymet Road • Richmond, Virginia 23237 • Tel: (804)-358-8295 Fax: (804)-358-8297

QA Data Package
Analysis Class: METALS
Method:
SW6010C

Matrix: Non-Potable Water

Method: SW6010C

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0474
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0772-003 Calibration Date: 02/27/16 20:00
Sequence: SZB0772 Injection Date: 02/25/16
Lab Sample ID: SZB0772-CCV1 Injection Time: 20:18

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.01	1607.092	1624.089	101	90	110
Chromium	L	2.00	2.00	151767.3	148971.3	100	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0474
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0772-011 Calibration Date: 02/27/16 20:00
Sequence: SZB0772 Injection Date: 02/25/16
Lab Sample ID: SZB0772-CCV2 Injection Time: 21:12

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.03	1607.092	1635.927	101	90	110
Chromium	L	2.00	2.02	151767.3	150566.4	101	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

CONTINUING CALIBRATION VERIFICATION

SW6010C

Client: Draper Aden Associates-Richm
Work Order: 16B0474
Project: New Kent Wood Preservatives (

Instrument ID: ICP03 Calibration: AB60137
Lab File ID: 160225CWO-SZB0772-015 Calibration Date: 02/27/16 20:00
Sequence: SZB0772 Injection Date: 02/25/16
Lab Sample ID: SZB0772-CCV3 Injection Time: 21:36

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			CCV Lower Limit	Upper Limit
		STD	CCV	ICAL	CCV	% Rec		
Arsenic	L	2.00	2.02	1607.092	1628.146	101	90	110
Chromium	L	2.00	2.02	151767.3	150352	101	90	110

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

METHOD BLANK DATA SHEET

SW6010C

Client: Draper Aden Associates-Richmond

Work Order: 16B0474

Project: New Kent Wood Preservatives (NKWP)

Laboratory ID: BZB0601-BLK1

Prepared: 02/24/16 14:00

Preparation: EPA200.2/R2.8

Matrix: Non-Potable Water

Analyzed: 02/25/16 20:47

Instrument: ICP03

File ID: 160225CWO-SZB0772-005

Batch: BZB0601

Sequence: SZB0772

CAS NO.	COMPOUND	CONC. (mg/L wet)	MDL	RL	Q
7440-38-2	Arsenic	ND	0.0400	0.0400	
7440-47-3	Chromium	ND	0.0400	0.0400	

LCS / LCS DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
 Project: New Kent Wood Preservatives (NKWP)
 Work Order: 16B0474

Matrix:	Non-Potable Water	Analysis Method	SW6010C
Prep Batch:	BZB0601	Prep Method:	EPA200.2/R2.8
		Lab Sample ID:	BZB0601-BS1

ANALYTE	SPIKE ADDED (mg/L wet)	LCS CONCENTRATION (mg/L wet)	LCS % REC.	QC LIMITS REC.
Arsenic	0.500	0.483	96.5	80 - 120
Chromium	0.500	0.486	97.1	80 - 120

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0474

Matrix:	Non-Potable Water	Analysis Method:	SW6010C
Prep Batch:	BZB0601	Prep Method:	EPA200.2/R2.8
Percent Solids:		Laboratory ID:	BZB0601-MS1
		Source Sample ID:	16B0474-03

ANALYTE	SPIKE ADDED (mg/L wet)	SAMPLE CONCENTRATION (mg/L wet)	MS CONCENTRATION (mg/L wet)	MS % REC.	QC LIMITS REC.
Arsenic	1.00	ND	0.957	95.7	75 - 125
Chromium	1.00	ND	0.973	97.3	75 - 125

* Values outside of QC limits

DUPLICATE SUMMARY REPORT

SW6010C

Client: Draper Aden Associates-Richmond
Project: New Kent Wood Preservatives (NKWP)
Work Order: 16B0474

Matrix:	Non-Potable Water	Analysis Method:	SW6010C
Prep Batch:	SZB0772	Prep Method:	EPA200.2/R2.8
Percent Solids:		Laboratory ID:	BZB0601-DUP1
		Source Sample ID:	16B0474-03

ANALYTE	DUPLICATE CONCENTRATION (mg/L wet)	SAMPLE CONCENTRATION (mg/L wet)	% RPD	RPD QC LIMITS
Arsenic	ND	ND		20
Chromium	ND	ND		20

* Values outside of QC limits

SERIAL DILUTION

SW6010C

Equip Blank

Laboratory: Air Water and Soil Laboratories, Inc.

SDG: NKWP 160219

Client: Draper Aden Associates-Richmond

Project: New Kent Wood Preservatives (NKWP)

Matrix: Non-Potable Water

Laboratory ID: SZB0772-SRD1

Sequence: SZB0772

Lab Source ID: 16B0474-03

Preparation: BZB0601

Initial/Final: 25 / 50

Source Sample Name: Equip Blank

% Solids:

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method	QC Limits % Difference
Arsenic	ND		ND				SW6010C	20
Chromium	ND		ND				SW6010C	20

* Values outside of QC limits

Analysis Sequence Raw Data

Sequence	SZB0772
Instrument	ICP03
Analysis	Cr SW6010

PREPARATION BENCH SHEET

BZB0601

Air Water and Soil Laboratories, Inc.

Matrix: Non-Potable Water

Prepared using: Metals-ICP - EPA200.2/R2.8

Printed: 3/8/2016 12:17:02PM

Lab Number	Cont	Client	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	Comments Batch Comments
16B0474-01 Field Blank 1	A	Draper Aden Associates-Ri chmond	02/24/2016 14:00	25	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0474-02 Field Blank 2	A	Draper Aden Associates-Ri chmond	02/24/2016 14:00	25	50				
Cr SW6010	/ / /		As SW6010	/ / /					
16B0474-03 Equip Blank	A	Draper Aden Associates-Ri chmond	02/24/2016 14:00	25	50				
Cr SW6010	/ / /		As SW6010	/ / /					
BZB0601-BLK1 Blank			02/24/2016 14:00	50	50				
BZB0601-BS1 LCS			02/24/2016 14:00	50	50	5B01101		250	
BZB0601-DUP1 Duplicate			02/24/2016 14:00	25	50		16B0474-03		
BZB0601-MS1 Matrix Spike			02/24/2016 14:00	25	50	5B01101	16B0474-03	250	

Analysis Sequence

Printed: 02/28/2016 3:30 pm

SZB0772

Department: Metals-ICP
Instrument: ICP03
Calibration ID: AB60137

Sequence Date: 02/25/2016

Lab Number	Cont	Sample Name	Order	Position	STD ID	ISTD ID	Client	Comments Log Extraction
16B0474-01	A	Field Blank 1	1				Draper Aden Associates-Richmond	
16B0474-01	A	Field Blank 1	2				Draper Aden Associates-Richmond	
16B0474-02	A	Field Blank 2	3				Draper Aden Associates-Richmond	
16B0474-02	A	Field Blank 2	4				Draper Aden Associates-Richmond	
16B0474-03	A	Equip Blank	5				Draper Aden Associates-Richmond	
16B0474-03	A	Equip Blank	6				Draper Aden Associates-Richmond	
BZB0601-MS1		Matrix Spike	7					
BZB0601-DUP1		Duplicate	8					
BZB0601-BS1		LCS	9					
BZB0601-BLK1		Blank	10					
SZB0772-SRD1		Serial Dilution	11					
SZB0772-CCB1		Calibration Blank	12					
SZB0772-CCB2		Calibration Blank	13					
SZB0772-CCB3		Calibration Blank	14					
SZB0772-CCV1		Calibration Check	15		6B01822			
SZB0772-CCV2		Calibration Check	16		6B01822			
SZB0772-CCV3		Calibration Check	17		6B01822			
SZB0772-IFA1		Interference Check A	18		6B01832			
SZB0772-IFB1		Interference Check B	19		6B01833			

Sequence No.: 1

Sample ID: ICS A

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 12

Date Collected: 2/25/2016 4:21:53 PM

Data Type: Reprocessed on 2/28/2016 3:23:38 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS A

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2429790.3	2429790.3	4.758 mg/L		4:23:22 PM
1	As 188.979†	1.6	-1.5	-0.00092 mg/L	-0.04582 mg/kg	4:23:45 PM
1	Cr 283.563†	4443.6	214.5	0.00144 mg/L	0.07203 mg/kg	4:23:25 PM
2	Y 371.029	2448378.4	2448378.4	4.795 mg/L		4:23:52 PM
2	As 188.979†	-10.9	-14.5	-0.00899 mg/L	-0.4496 mg/kg	4:24:15 PM
2	Cr 283.563†	4467.2	203.6	0.00137 mg/L	0.06837 mg/kg	4:23:55 PM
3	Y 371.029	2465380.2	2465380.2	4.828 mg/L		4:24:23 PM
3	As 188.979†	5.0	2.0	0.00123 mg/L	0.06135 mg/kg	4:24:46 PM
3	Cr 283.563†	4505.8	211.5	0.00142 mg/L	0.07102 mg/kg	4:24:26 PM

Mean Data: ICS A

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2447849.6	4.794 mg/L	0.0349			0.73%
As 188.979†	-4.7	-0.00289 mg/L	0.005388	-0.1447 mg/kg	0.26942	186.22%
Cr 283.563†	209.9	0.00141 mg/L	0.000038	0.07048 mg/kg	0.001890	2.68%

Sequence No.: 2

Sample ID: ICS AB

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt: 1 g

Dilution:

Wash Time:

Autosampler Location: 13

Date Collected: 2/25/2016 4:25:51 PM

Data Type: Reprocessed on 2/28/2016 3:23:38 PM

Initial Sample Vol:

Sample Prep Vol: 50 mL

Nebulizer Parameters: ICS AB

Analyte	Back Pressure	Flow
All	214.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: ICS AB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2426862.1	2426862.1	4.752 mg/L		4:27:38 PM
1	As 188.979†	3000.4	3153.5	1.954 mg/L	97.68 mg/kg	4:28:01 PM
1	Cr 283.563†	281996.3	292227.3	1.963 mg/L	98.13 mg/kg	4:27:41 PM
2	Y 371.029	2440750.8	2440750.8	4.780 mg/L		4:28:27 PM
2	As 188.979†	3045.5	3182.7	1.972 mg/L	98.58 mg/kg	4:28:50 PM
2	Cr 283.563†	284678.0	293344.4	1.970 mg/L	98.51 mg/kg	4:28:29 PM
3	Y 371.029	2404577.1	2404577.1	4.709 mg/L		4:29:15 PM
3	As 188.979†	3037.4	3222.0	1.996 mg/L	99.80 mg/kg	4:29:38 PM
3	Cr 283.563†	284743.0	297893.5	2.001 mg/L	100.0 mg/kg	4:29:18 PM

Mean Data: ICS AB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2424063.3	4.747 mg/L	0.0357			0.75%
As 188.979†	3186.1	1.974 mg/L	0.0213	98.69 mg/kg	1.065	1.08%
Cr 283.563†	294488.4	1.978 mg/L	0.0202	98.89 mg/kg	1.008	1.02%

Sequence No.: 3

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/25/2016 8:14:59 PM

Data Type: Reprocessed on 2/28/2016 3:23:39 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	231.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2693143.3	2693143.3	5.274 mg/L		8:16:45 PM
1	As 188.979†	3453.4	3270.8	2.026 mg/L		8:17:07 PM
1	Cr 283.563†	318516.5	297516.4	1.998 mg/L		8:16:47 PM
2	Y 371.029	2704835.5	2704835.5	5.297 mg/L		8:17:31 PM
2	As 188.979†	3430.8	3235.4	2.004 mg/L		8:17:54 PM
2	Cr 283.563†	319044.8	296709.8	1.993 mg/L		8:17:34 PM
3	Y 371.029	2703149.2	2703149.2	5.294 mg/L		8:18:18 PM
3	As 188.979†	3431.8	3238.3	2.006 mg/L		8:18:41 PM
3	Cr 283.563†	321907.5	299601.6	2.012 mg/L		8:18:21 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2700376.0	5.288 mg/L	0.0124			0.23%
As 188.979†	3248.2	2.012 mg/L	0.0122			0.61%
QC value within limits for As 188.979 Recovery = 100.61%						
Cr 283.563†	297942.6	2.001 mg/L	0.0100			0.50%
QC value within limits for Cr 283.563 Recovery = 100.05%						

All analyte(s) passed QC.

Sequence No.: 4
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 2/25/2016 8:20:47 PM
Data Type: Reprocessed on 2/28/2016 3:23:39 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	232.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2538145.1	2538145.1	4.970 mg/L		8:22:14 PM
1	As 188.979†	-1.9	-5.1	-0.00313 mg/L		8:22:36 PM
1	Cr 283.563†	4591.5	164.0	0.00110 mg/L		8:22:16 PM
2	Y 371.029	2694719.9	2694719.9	5.277 mg/L		8:22:43 PM
2	As 188.979†	6.9	3.4	0.00209 mg/L		8:23:05 PM
2	Cr 283.563†	4720.9	18.2	0.00012 mg/L		8:22:45 PM
3	Y 371.029	2790586.2	2790586.2	5.465 mg/L		8:23:12 PM
3	As 188.979†	0.8	-2.4	-0.00148 mg/L		8:23:35 PM
3	Cr 283.563†	4501.0	-336.7	-0.00226 mg/L		8:23:15 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2674483.8	5.237 mg/L	0.2495			4.76%
As 188.979†	-1.4	-0.00084 mg/L	0.002667			316.47%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-51.5	-0.00035 mg/L	0.001730			499.76%
QC value within limits for Cr 283.563 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 5
Sample ID: BZB0601-BLK1
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 50
Date Collected: 2/25/2016 8:44:28 PM
Data Type: Reprocessed on 2/28/2016 3:23:39 PM
Initial Sample Vol: 50 mL
Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0601-BLK1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Analyte			

Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: BZB0601-BLK1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2823015.0	2823015.0	5.528 mg/L		8:45:55 PM
1	As 188.979†	1.6	-1.7	-0.00108 mg/L		8:46:18 PM
1	Cr 283.563†	4538.4	-350.2	-0.00235 mg/L		8:45:57 PM
2	Y 371.029	2858280.4	2858280.4	5.597 mg/L		8:46:25 PM
2	As 188.979†	-7.5	-9.9	-0.00610 mg/L		8:46:47 PM
2	Cr 283.563†	4336.5	-581.2	-0.00390 mg/L		8:46:27 PM
3	Y 371.029	2816065.4	2816065.4	5.515 mg/L		8:46:54 PM
3	As 188.979†	2.9	-0.5	-0.00033 mg/L		8:47:16 PM
3	Cr 283.563†	4499.9	-375.0	-0.00252 mg/L		8:46:56 PM

Mean Data: BZB0601-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2832453.6	5.547 mg/L	0.0443			0.80%
As 188.979†	-4.0	-0.00250 mg/L	0.003139			125.32%
Cr 283.563†	-435.4	-0.00292 mg/L	0.000852			29.13%

Sample conc. not calculated. Initial Wt. AND Prep. Volume required OR sample units incorrect.

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Sequence No.: 6	Autosampler Location: 51
Sample ID: BZB0601-BS1	Date Collected: 2/25/2016 8:48:20 PM
Analyst:	Data Type: Reprocessed on 2/28/2016 3:23:39 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol: 50 mL
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: BZB0601-BS1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0601-BS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2695518.4	2695518.4	5.279 mg/L		8:49:51 PM
1	As 188.979†	844.5	796.8	0.4936 mg/L		8:50:14 PM
1	Cr 283.563†	81891.5	73114.4	0.4911 mg/L		8:49:53 PM
2	Y 371.029	2700246.3	2700246.3	5.288 mg/L		8:50:23 PM
2	As 188.979†	828.1	779.9	0.4831 mg/L		8:50:46 PM
2	Cr 283.563†	80882.9	72024.9	0.4837 mg/L		8:50:26 PM
3	Y 371.029	2720329.6	2720329.6	5.327 mg/L		8:50:56 PM
3	As 188.979†	814.3	761.1	0.4715 mg/L		8:51:19 PM
3	Cr 283.563†	81174.7	71734.1	0.4818 mg/L		8:50:59 PM

Mean Data: BZB0601-BS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
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Y 371.029	2705364.8	5.298 mg/L	0.0258	0.49%
As 188.979†	779.2	0.4827 mg/L	0.01106	2.29%
Cr 283.563†	72291.1	0.4855 mg/L	0.00489	1.01%

Sample conc. not calculated. Initial Wt. AND Prep. Volume required OR sample units incorrect.

Sequence No.: 7
Sample ID: 16B0474-01
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 52
Date Collected: 2/25/2016 8:53:24 PM
Data Type: Reprocessed on 2/28/2016 3:23:39 PM
Initial Sample Vol: 25 mL
Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0474-01

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: 16B0474-01

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2837478.6	2837478.6	5.557 mg/L		8:54:52 PM
1	As 188.979†	-5.9	-8.5	-0.00524 mg/L		8:55:14 PM
1	Cr 283.563†	4644.1	-276.0	-0.00185 mg/L		8:54:54 PM
2	Y 371.029	2848023.0	2848023.0	5.577 mg/L		8:55:21 PM
2	As 188.979†	-6.4	-8.9	-0.00551 mg/L		8:55:43 PM
2	Cr 283.563†	4583.7	-345.6	-0.00232 mg/L		8:55:23 PM
3	Y 371.029	2844228.6	2844228.6	5.570 mg/L		8:55:50 PM
3	As 188.979†	-6.3	-8.8	-0.00547 mg/L		8:56:12 PM
3	Cr 283.563†	4389.9	-514.1	-0.00345 mg/L		8:55:52 PM

Mean Data: 16B0474-01

Analyte	Mean Intensity	Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2843243.4		5.568 mg/L	0.0105			0.19%
As 188.979†	-8.7	-0.00541 mg/L		0.000146			2.70%
Cr 283.563†	-378.6	-0.00254 mg/L		0.000822			32.34%

Sample conc. not calculated. Initial Wt. AND Prep. Volume required OR sample units incorrect.

Sequence No.: 8
Sample ID: 16B0474-02
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 53
Date Collected: 2/25/2016 8:57:17 PM
Data Type: Reprocessed on 2/28/2016 3:23:39 PM
Initial Sample Vol: 25 mL
Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0474-02

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
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Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: 16B0474-02

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2854939.4	2854939.4	5.591 mg/L		8:58:44 PM
1	As 188.979†	7.6	3.6	0.00224 mg/L		8:59:06 PM
1	Cr 283.563†	4660.3	-287.1	-0.00193 mg/L		8:58:46 PM
2	Y 371.029	2829271.3	2829271.3	5.541 mg/L		8:59:13 PM
2	As 188.979†	9.8	5.7	0.00352 mg/L		8:59:36 PM
2	Cr 283.563†	4591.1	-311.7	-0.00209 mg/L		8:59:15 PM
3	Y 371.029	2851303.0	2851303.0	5.584 mg/L		8:59:42 PM
3	As 188.979†	-9.2	-11.4	-0.00709 mg/L		9:00:05 PM
3	Cr 283.563†	4484.9	-438.8	-0.00295 mg/L		8:59:45 PM

Mean Data: 16B0474-02

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2845171.3	5.572 mg/L	0.0272			0.49%
As 188.979†	-0.7	-0.00044 mg/L	0.005794			>999.9%
Cr 283.563†	-345.9	-0.00232 mg/L	0.000547			23.54%

Sample conc. not calculated. Initial Wt. AND Prep. Volume required OR sample units incorrect.

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Sequence No.: 9

Sample ID: 16B0474-03

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 54
 Date Collected: 2/25/2016 9:01:10 PM
 Data Type: Reprocessed on 2/28/2016 3:23:40 PM
 Initial Sample Vol: 25 mL
 Sample Prep Vol: 50 mL

Nebulizer Parameters: 16B0474-03

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: 16B0474-03

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2826117.9	2826117.9	5.534 mg/L		9:02:38 PM
1	As 188.979†	-8.7	-11.0	-0.00683 mg/L		9:03:00 PM
1	Cr 283.563†	4645.1	-258.3	-0.00173 mg/L		9:02:40 PM
2	Y 371.029	2846602.7	2846602.7	5.574 mg/L		9:03:07 PM
2	As 188.979†	5.7	1.9	0.00118 mg/L		9:03:30 PM
2	Cr 283.563†	4648.8	-285.1	-0.00192 mg/L		9:03:10 PM
3	Y 371.029	2829434.2	2829434.2	5.541 mg/L		9:03:37 PM
3	As 188.979†	3.4	-0.1	-0.00003 mg/L		9:03:59 PM
3	Cr 283.563†	4706.8	-207.5	-0.00139 mg/L		9:03:39 PM

Mean Data: 16B0474-03

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Sample Conc. Units
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Analyte	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
Y 371.029	2834051.6	5.550 mg/L	0.0215			0.39%
As 188.979†	-3.1	-0.00189 mg/L	0.004316			227.75%
Cr 283.563†	-250.3	-0.00168 mg/L	0.000265			15.74%

Sample conc. not calculated. Initial Wt. AND Prep. Volume required OR sample units incorrect.

Sequence No.: 10
Sample ID: BZB0601-DUP1
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 55
Date Collected: 2/25/2016 9:05:04 PM
Data Type: Reprocessed on 2/28/2016 3:23:40 PM
Initial Sample Vol: 25 mL
Sample Prep Vol: 50 mL

Nebulizer Parameters: BZB0601-DUP1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: BZB0601-DUP1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2807917.9	2807917.9	5.499 mg/L		9:06:31 PM
1	As 188.979†	6.1	2.4	0.00148 mg/L		9:06:54 PM
1	Cr 283.563†	4583.7	-286.9	-0.00193 mg/L		9:06:34 PM
2	Y 371.029	2841493.4	2841493.4	5.564 mg/L		9:07:01 PM
2	As 188.979†	7.1	3.2	0.00199 mg/L		9:07:23 PM
2	Cr 283.563†	4470.2	-438.2	-0.00294 mg/L		9:07:03 PM
3	Y 371.029	2854857.1	2854857.1	5.591 mg/L		9:07:30 PM
3	As 188.979†	0.8	-2.4	-0.00151 mg/L		9:07:52 PM
3	Cr 283.563†	4625.1	-318.4	-0.00214 mg/L		9:07:32 PM

Mean Data: BZB0601-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2834756.1	5.551 mg/L	0.0474			0.85%
As 188.979†	1.1	0.00066 mg/L	0.001892			288.73%
Cr 283.563†	-347.8	-0.00234 mg/L	0.000536			22.95%

Sample conc. not calculated. Initial Wt. AND Prep. Volume required OR sample units incorrect.

Sequence No.: 11
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : ICP03
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 2/25/2016 9:08:58 PM
Data Type: Reprocessed on 2/28/2016 3:23:40 PM
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	229.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2664227.6	2664227.6	5.217 mg/L		9:10:48 PM
1	As 188.979†	3421.8	3276.1	2.029 mg/L		9:11:10 PM
1	Cr 283.563†	317631.6	299945.8	2.015 mg/L		9:10:50 PM
2	Y 371.029	2660311.6	2660311.6	5.210 mg/L		9:11:39 PM
2	As 188.979†	3423.5	3282.5	2.033 mg/L		9:12:01 PM
2	Cr 283.563†	322202.0	304780.3	2.047 mg/L		9:11:41 PM
3	Y 371.029	2668108.5	2668108.5	5.225 mg/L		9:12:29 PM
3	As 188.979†	3406.8	3257.0	2.018 mg/L		9:12:52 PM
3	Cr 283.563†	316763.1	298671.9	2.006 mg/L		9:12:32 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2664215.9	5.217 mg/L	0.0076			0.15%
As 188.979†	3271.9	2.027 mg/L	0.0082			0.41%
QC value within limits for As 188.979 Recovery = 101.34%						
Cr 283.563†	301132.7	2.022 mg/L	0.0216			1.07%
QC value within limits for Cr 283.563 Recovery = 101.12%						
All analyte(s) passed QC.						

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Sequence No.: 12	Autosampler Location: 1
Sample ID: CCB	Date Collected: 2/25/2016 9:14:58 PM
Analyst:	Data Type: Reprocessed on 2/28/2016 3:23:40 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol:
Dilution:	Sample Prep Vol:
Wash Time:	

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	231.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration	Number of	Read
Analyte	Time (s)	Integrations	Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2832299.3	2832299.3	5.546 mg/L		9:16:25 PM
1	As 188.979†	12.7	8.2	0.00511 mg/L		9:16:47 PM
1	Cr 283.563†	4680.8	-235.2	-0.00158 mg/L		9:16:27 PM
2	Y 371.029	2834443.4	2834443.4	5.551 mg/L		9:16:54 PM
2	As 188.979†	12.8	8.3	0.00517 mg/L		9:17:16 PM
2	Cr 283.563†	4567.2	-340.8	-0.00229 mg/L		9:16:56 PM
3	Y 371.029	2836148.1	2836148.1	5.554 mg/L		9:17:23 PM
3	As 188.979†	0.3	-2.9	-0.00178 mg/L		9:17:46 PM
3	Cr 283.563†	4565.0	-345.2	-0.00232 mg/L		9:17:25 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2834297.0	5.550 mg/L	0.0038			0.07%
As 188.979†	4.6	0.00283 mg/L	0.003997			141.14%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-307.1	-0.00206 mg/L	0.000418			20.28%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

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Sequence No.: 13	Autosampler Location: 56
Sample ID: BZB0601-MS1	Date Collected: 2/25/2016 9:18:51 PM
Analyst:	Data Type: Reprocessed on 2/28/2016 3:23:40 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol: 25 mL
Dilution:	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: BZB0601-MS1

Analyte	Back Pressure	Flow
All	231.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: BZB0601-MS1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2664979.3	2664979.3	5.219 mg/L		9:20:22 PM
1	As 188.979†	819.8	782.3	0.4846 mg/L		9:20:45 PM
1	Cr 283.563†	80074.3	72262.3	0.4853 mg/L		9:20:25 PM
2	Y 371.029	2673552.1	2673552.1	5.236 mg/L		9:20:55 PM
2	As 188.979†	810.2	770.6	0.4774 mg/L		9:21:18 PM
2	Cr 283.563†	79909.8	71859.2	0.4826 mg/L		9:20:58 PM
3	Y 371.029	2688372.2	2688372.2	5.265 mg/L		9:21:27 PM
3	As 188.979†	809.3	765.5	0.4742 mg/L		9:21:50 PM
3	Cr 283.563†	81650.1	73091.3	0.4909 mg/L		9:21:30 PM

Mean Data: BZB0601-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2675634.5	5.240 mg/L	0.0232			0.44%
As 188.979†	772.8	0.4787 mg/L	0.00535			1.12%
Cr 283.563†	72404.3	0.4863 mg/L	0.00422			0.87%
Sample conc. not calculated. Initial Wt. AND Prep. Volume required OR sample units incorrect.						

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Sequence No.: 14	Autosampler Location: 58
Sample ID: SZB0772-SRD1	Date Collected: 2/25/2016 9:28:56 PM
Analyst:	Data Type: Reprocessed on 2/28/2016 3:23:40 PM
Logged In Analyst (Original) : ICP03	
Initial Sample Wt:	Initial Sample Vol: 25 mL
Dilution: 5X	Sample Prep Vol: 50 mL
Wash Time:	

Nebulizer Parameters: SZB0772-SRD1

Analyte Back Pressure Flow
All 231.0 kPa 0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: SZB0772-SRD1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2824940.5	2824940.5	5.532 mg/L		9:30:24 PM
1	As 188.979†	2.4	-1.0	-0.00063 mg/L		9:30:46 PM
1	Cr 283.563†	4584.3	-311.5	-0.00209 mg/L		9:30:26 PM
2	Y 371.029	2827421.3	2827421.3	5.537 mg/L		9:30:53 PM
2	As 188.979†	6.5	2.7	0.00166 mg/L		9:31:15 PM
2	Cr 283.563†	4535.9	-358.8	-0.00241 mg/L		9:30:55 PM
3	Y 371.029	2836852.1	2836852.1	5.555 mg/L		9:31:22 PM
3	As 188.979†	1.2	-2.1	-0.00127 mg/L		9:31:45 PM
3	Cr 283.563†	4569.1	-342.6	-0.00230 mg/L		9:31:25 PM

Mean Data: SZB0772-SRD1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2829737.9	5.541 mg/L	0.0123			0.22%
As 188.979†	-0.1	-0.00008 mg/L	0.001539			>999.9%
Cr 283.563†	-337.7	-0.00227 mg/L	0.000161			7.12%

Sample conc. not calculated. Initial Wt. AND Prep. Volume required OR sample units incorrect.

Sequence No.: 15

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Dilution:

Wash Time:

Autosampler Location: 5

Date Collected: 2/25/2016 9:32:51 PM

Data Type: Reprocessed on 2/28/2016 3:23:41 PM

Initial Sample Vol:

Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte Back Pressure Flow
All 230.0 kPa 0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.010	200	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.200	10	2.000

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2606861.9	2606861.9	5.105 mg/L		9:34:34 PM
1	As 188.979†	3342.1	3270.2	2.026 mg/L		9:34:57 PM
1	Cr 283.563†	311976.8	301105.8	2.022 mg/L		9:34:37 PM
2	Y 371.029	2631932.4	2631932.4	5.154 mg/L		9:35:18 PM
2	As 188.979†	3355.4	3251.9	2.015 mg/L		9:35:41 PM
2	Cr 283.563†	315611.6	301721.3	2.026 mg/L		9:35:21 PM
3	Y 371.029	2634231.9	2634231.9	5.159 mg/L		9:36:03 PM

3	As 188.979†	3353.0	3246.8	2.011 mg/L	9:36:25 PM
3	Cr 283.563†	313373.7	299284.9	2.010 mg/L	9:36:05 PM

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2624342.1	5.139 mg/L	0.0297			0.58%
As 188.979†	3256.3	2.017 mg/L	0.0076			0.38%
QC value within limits for As 188.979 Recovery = 100.86%						
Cr 283.563†	300704.0	2.020 mg/L	0.0085			0.42%
QC value within limits for Cr 283.563 Recovery = 100.98%						
All analyte(s) passed QC.						

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Sequence No.: 16

Autosampler Location: 1

Sample ID: CCB

Date Collected: 2/25/2016 9:38:32 PM

Analyst:

Data Type: Reprocessed on 2/28/2016 3:23:41 PM

Logged In Analyst (Original) : ICP03

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Wash Time:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	232.0 kPa	0.55 L/min

Auto-Integration Report

Analyte	Integration Time (s)	Number of Integrations	Read Time (s)
Y 371.029	0.020	100	2.000
As 188.979	10.000	2	20.000
Cr 283.563	0.500	4	2.000

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Y 371.029	2749987.1	2749987.1	5.385 mg/L		9:39:59 PM
1	As 188.979†	2.5	-0.9	-0.00054 mg/L		9:40:21 PM
1	Cr 283.563†	4420.8	-350.3	-0.00235 mg/L		9:40:01 PM
2	Y 371.029	2752018.4	2752018.4	5.389 mg/L		9:40:28 PM
2	As 188.979†	-4.0	-6.9	-0.00427 mg/L		9:40:50 PM
2	Cr 283.563†	4445.9	-330.1	-0.00222 mg/L		9:40:30 PM
3	Y 371.029	2733726.4	2733726.4	5.353 mg/L		9:40:57 PM
3	As 188.979†	-0.9	-4.0	-0.00248 mg/L		9:41:20 PM
3	Cr 283.563†	4423.8	-323.1	-0.00217 mg/L		9:41:00 PM

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	2745244.0	5.376 mg/L	0.0196			0.37%
As 188.979†	-3.9	-0.00243 mg/L	0.001869			76.93%
QC value within limits for As 188.979 Recovery = Not calculated						
Cr 283.563†	-334.5	-0.00225 mg/L	0.000095			4.22%
QC value within limits for Cr 283.563 Recovery = Not calculated						
All analyte(s) passed QC.						

APPENDIX 8

**QUALIFICATIONS OF ENVIRONMENTAL
PROFESSIONALS**



23 years with the firm
39 years of experience

Office Location

- Richmond, VA

Education

- Ph.D./1981/Geology/University of California, Los Angeles
- M.S./1979/Geology/Virginia Tech
- B.S./1976/Geology/Virginia Tech

Professional Registration

- Professional Geologist/1991/VA
- Assistant Professor of Geology/VCU

Areas of Expertise

- Physical stratigraphy, seismic stratigraphy, geophysical log analysis, hydrogeology, geochemistry / hydrogeochemistry
- Soil and groundwater sampling protocols, analytical chemistry, fate and transport of contaminants
- Numerical methods of data analysis - regression, correlation, analysis of variance, multivariate classification

Leonard N. "Rip" Ford, PhD, PG

Senior Environmental Program Manager

For more than 20 years, Dr. Ford has been addressing environmental issues throughout Virginia. Dr. Ford is responsible for managing and conducting a wide range of environmental services (due diligence studies, geochemical and hydrogeochemical assessment, health risk analysis, remediation of contamination soil and groundwater, wetlands delineation and permitting) in the context of a broad spectrum of State and Federal Regulations.

King George County Annual Contract, Performed ESA's for the following projects in King George County, VA:

- 13283 James Madison Parkway - ESA - Phase 2: Conducted Phase 2 Environmental Site Assessment of property located on James Madison Pkwy.
- 9201 Kings Highway - ESA Phase 2: Conducted Phase 2 Environmental Site Assessment of property located at 9201-9213 Kings Highway.
- 9201 Kings Hwy - ESA Phase 1: Conducted Phase 1 Environmental Site Assessment of property located at 9201-9213 Kings Highway.
- RBS - Soil Feasibility Study: Conducted soil feasibility study for potential on-site wastewater disposal location.
- Smoot Library - Asbestos + Lead Inspections: Conducted asbestos and lead-based paint inspections of existing Smoot Library.
- 13283 James Madison Parkway - ESA - Phase 1: Conducted Phase 1 Environmental Site Assessment of property located on James Madison Pkwy.
- 10393 Rectory Lane - Due Diligence Studies: Conducted Phase 1 ESA; Phase 2 ESA; asbestos inspection of residential property located on Rectory Lane.
- Rectory Lane (Smoot Addition) - ESA Phase 1 & 2: Conducted Phase 1 & 2 environmental site assessment at property located on Rectory Lane.

Semi-annual Groundwater Monitoring and Reporting, Caroline County, VA: Senior Environmental Program Manager for semi-annual groundwater monitoring and reporting for the Caroline County Landfill.



(VCCS) Tidewater Community College Environmental Impact Report (EIR), Chesapeake, VA: Prepared an Environmental Impact Report (EIR) concerning the proposed construction of two buildings (Student Center and CN5) and the associated parking lots.

(VCCS) J. Sargeant Reynolds Community College Parking Deck, Richmond, VA: Provided Environmental Impact Report (EIR) for a new 600-space parking deck located behind the downtown campus building.

James Madison University, East Campus Library Harrisonburg, VA: Performed an Environmental Impact Report (EIR) for the new library along Carrier Drive on the CISAT campus.

Longwood University Grainger Hall Reconstruction, Farmville, VA: Managed EIR for the reconstruction of Grainger Hall.

Center for Communication Studies and Theatre, Longwood University, Farmville, VA: Environmental Scientist for a new facility at Franklin Street south of Bedford Hall. The three-story building will have an 18,900 SF footprint and include a black box theater as well as other academic support spaces.

Longwood University, 607 Race St Phase 1 ESA, Farmville, VA: Prepared Phase 1 Environmental Site Assessment of 607 Race Street.

Longwood University, Hull Springs Farm ESR, Farmville, VA: Performed an environmental site reconnaissance of Hull Springs Farm.

Longwood University, Lot 19 Race Street Phase 1 ESA, Farmville, VA: Prepared Phase 1 Environmental Site Assessment of Lot 19 Race Street.

Longwood Recreation Center-EIR, Farmville, VA: Prepared an Environmental Impact Report for the Recreation Center.

University of Mary Washington, Goolrick Hall Parking Deck and Fitness Center, Fredericksburg, VA: Managed ESA and EIR for a 3-level, 220-space parking deck and building renovation.

Utilities Annual Contract, Henrico County, VA: Oversight of environmental services associated with numerous utilities replacement and rehabilitation projects. Most such projects include delineation of jurisdictional wetlands, COE confirmation of wetlands boundaries, delineation of Resource Protection Areas, determination of stream perenniality, permitting, Stormwater Pollution Prevention Plans.

Solid Waste Annual Contract, Henrico County, VA: Oversight of environmental services associated with solid waste management in Henrico County. Regularly provided services include groundwater monitoring, landfill gas compliance monitoring, landfill gas extraction system monitoring, surface water monitoring, and groundwater corrective action. Ancillary services have included pre-acquisition site assessments (due diligence), waste characterization, and a noise study (methane power plant).

Virginia Commonwealth University, Richmond, VA: Managed multiple Phase I Environmental Site Assessments (ESA), Phase II ESA, remediation (phase III services), Environmental Impact Reports (EIR), SPCC plans, and asbestos and lead-based paint assessments for property acquisitions and development projects since 2001.

Various Site Characterization Studies and Corrective Action Plans, Statewide VA: Environmental Project Manager/Team Leader for over 50 Characterization Studies and Corrective Action Plans throughout the Commonwealth of Virginia.

Virginia Commonwealth University/Department of Game and Inland Fisheries, Regional Office Facility, Charles City County, VA: Managed Environmental Site Assessment (ESA) and Environmental Impact Report (EIR) for the construction of a one-story, 11,000 SF facility. Construction will include on-site sewage treatment facilities and a trailhead for the proposed VA Dept. of Transportation (VDOT) VA Capital Trail.

Cumberland County Solid Waste Management Annual Contract, Cumberland County, VA: Oversight of groundwater and gas monitoring services provided to Cumberland County under an annual services contract. Tasks under this contract have included groundwater monitoring for Madison, Hamilton, and Randolph closed landfill facilities, landfill gas control, general consulting, permitting, post-closure planning, and additional related solid waste evaluations and reports.

Cumberland County Public Schools Corrective Action Plan (CAP), Cumberland, VA: Environmental Services Project Manager for a Corrective Action Plan (CAP) in order to address a release of petroleum constituents that appeared to be attributed to a previously removed underground storage tank (UST) system located at the Cumberland County Public Schools. The CAP submittal was intended to fulfill requirements for a CAP in accordance with regulations promulgated by the Virginia Administrative Code (9 VAC 25-580-280).

Cumberland County Public Schools Corrective Action Plan (CAP)

Implementation (IMP) Report, Cumberland, VA: Environmental Services Team Leader for a Corrective Action Plan (CAP) Implementation (IMP) Report in order to address the release of petroleum constituents that has been attributed to a previously removed underground storage tank (UST) system located at the Cumberland County Public Schools Bus Complex. This submittal was intended to fulfill requirements for a CAP IMP in accordance with regulations promulgated by the Virginia Administrative Code (9 VAC 25-580-280).

Groundwater Monitoring: Program Development (in accordance with appropriate regulations.)

- Culpeper County, sanitary landfill (Culpeper, VA)
- Dinwiddie County, sanitary landfill (Five Forks, VA)
- Farmville, sanitary landfill (Farmville, VA)
- Fauquier County, sanitary landfill (Opal, VA)
- Greene County, sanitary landfill (Standardsville, VA)
- Harrisonburg City, sanitary landfill (Harrisonburg, VA)
- Hopewell City, sanitary landfill (Hopewell, VA)
- Mathews County, sanitary landfill (Mathews, VA)
- Norfolk, Campostella Road debris landfill (Norfolk, VA)
- Northumberland County School System, waste lagoon (North. Co., VA)
- Petersburg City, sanitary landfill (Petersburg, VA)

Groundwater Monitoring: Program Management (includes supervision, QA/QC review, statistical analysis of chemical data and/or report preparation.)

- Caroline County, sanitary landfill (Caroline County, VA)
- Chesterfield County, multiple sites (Chesterfield, VA)
- Dinwiddie County, sanitary landfill (Five Forks, VA)
- Fauquier County, sanitary landfill (Opal, VA)
- Goochland County sanitary landfill (Goochland, VA)
- Harrisonburg, sanitary landfill (Harrisonburg, VA)
- Orange County sanitary landfill (Orange, VA)
- Spotsylvania County, Chancellor sanitary landfill
- Spotsylvania County, Livingston sanitary landfill

Verizon Term Contract for Environmental Services, Richmond, VA:

Experience under the Verizon contract includes oversight of 52 projects, over the past eight years, in Virginia, North Carolina, and Kentucky. These projects have included Phase 1 and Phase 2 Environmental Site Assessments, UST / AST facilities (investigations, removals, closures), preparation and update of SPCC Plans, wastewater sampling, reporting and VPDES permit renewals, assessment of radiological conditions at a materials recycling facility (MRF), assessment of lead paint for removal

and disposal of a microwave tower, and Superfund site data review and consultation.

RCRA Facility Investigations (RFI) and Corrective Action (CA)

- Rehrig Manufacturing, Chesterfield, VA
- AERC, Richmond, VA: Project Manager for RFI work performed in accordance with DEQ Consent Order; work included RFI Work Plan preparation, RFI remedial action and closure of alleged improper hazardous waste management at a former universal waste recycling facility.
- Handcraft Cleaners, Richmond, VA: Project Manager for RFI work performed in accordance with DEQ Consent Order; work included preparation and implementation of Phase I RFI and CA work plans associated with PCE contaminated subsurface soils and groundwater. Groundwater remediation was accomplished by permanganate injections.

Waltrip Recycling Term Contract, Williamsburg, VA: Environmental Team Leader for landfill gas and groundwater monitoring services for the closed T & L Landfill since 2002.

DCR Powhatan State Park Phase I, Powhatan, VA: Environmental Services Team Leader for an EIR associated with the initial phase of development of Virginia State Parks' newest facility located on 1600 acres.

Barboursville Post Office, Orange County, VA: Environmental Project Manager for the associated environmental services for a proposed post office in front of the 4 County Players site.

Mountain Run Development/Federal Club On-Site Utilities, Hanover County, VA: Environmental Program Manager for the environmental services for a 65,000 gallons per day water and wastewater facility to serve a 100-lot exclusive subdivision and 27-hole Arnold Palmer Signature designed golf club.

Groundwater Management Study, Database Compilation, County of King George, VA: Managing hydrogeologist responsible for creating a groundwater information data base that will be used in a future groundwater management planning for the County. This consisted of developing information for 80 commercial and municipal wells including locations, yields, construction details (materials and depths), aquifer in which constructed, and groundwater quality.

Hampton Roads Sanitation District - Environmental Due Diligence for Chesapeake Avenue Pump Station Site, Hampton, VA: Project

Manager for a Phase 1 Environmental Site Assessment for the acquisition of the subject property at 2932 Chesapeake Ave in Hampton, VA. The ESA is being used to determine the viability of developing a pump station on the property.

Virginia Supportive Housing - Environmental Due Diligence for Site on Diamond Springs Road, Virginia Beach, VA: Project Manager for an environmental assessment (regulated substances, asbestos, lead) of a commercial property.

William & Mary Real Estate Foundation - Environmental Due Diligence for Multiple Sites, Williamsburg, VA: Project Manager for environmental assessments (regulated substances) of multiple commercial-institutional properties.

Enviva LLC - Port of Chesapeake, Portsmouth-Chesapeake, VA: Project Manager for an environmental assessment of large shipping terminal (former Giant Cement terminal).

Science Museum of Virginia – Environmental Impact Report, Richmond, VA: Project Manager for an environmental study and an environmental Impact Report pertaining to expansion of Museum.

Frontier Culture Museum of Virginia, Staunton, VA: Environmental Services Team Leader overseeing the development of an Environmental Impact Report (EIR) including research, field reconnaissance, and final report.

Piomingo Alley ESA Phase 1 & 2, City of Petersburg, VA: Environmental Team Leader for an environmental site assessment of site revealing arsenic and lead widely distributed on the property, with some areas classified as “hazardous waste”.

Tredegar Iron Works ESA Phase 1 & 2, City of Richmond, VA: Project Manager for study involving a portion of the former foundry, which included a former railroad yard, and a portion of the historic Richmond and Kanawha Canal. Concentrations of arsenic and lead exceeded EPA screening levels for those metals in soils in industrial settings.

Jefferson Avenue ESA Phase 1, Newport News, VA: Project Manager for an environmental site assessment of site with the presence of multiple large “oil circuit reclosers” within an area that represent a historic electric power station. Subsequent chemical analyses of soils did not detect the presence of polychlorinated biphenyls (PCBs) on the property.

ESA Phase 1, Northampton County, NC: Environmental Team Leader for an environmental site assessment of site consisting of 80 acres of land in agricultural / silvicultural use. A number of waste piles were found at various locations on the property, none revealed evidence that hazardous wastes had been disposed of at those locations.

Rehrig International Manufacturing Facility ESA, Richmond, VA: Project Manager for project involving EPA removal action, negotiation of RACA with EPA, preparing inventories of hazardous wastes, managing cleanup, conducting post-closure assessment, preparing a Post Removal Action Final Report, and serving as liaison between owner and USEPA, Virginia DEQ, and Chesterfield County. Services also included preparing and implementing Groundwater Monitoring Plan, Exterior Soil and Sediment Assessment Plan, Quality Assurance Project Plan, and Site Health and Safety Plans.

Dominion Power, Various Phase 1 and 2 Environmental Site Assessments, Various, VA: Senior Environmental Program Manager for various Phase 1 and 2 Environmental Site Assessments for Dominion Power. These ESAs include:

- Riggan Tract - ESA phase 2 Hopewell, VA
- Vint Hill - ESA phase 1 and 2, Gainesville, VA
- Lucky Hill - ESA phase 1, Remington, VA
- Reid Lane - ESA phase 1, Nokesville, VA
- Cedar Lane - ESA phase 1, Glen Allen, VA
- Covington Corner Road - ESA Phase 1, Glen Allen, VA
- Kilmarnock - ESA Phase 1, Kilmarnock, VA



Stephen G. Werner, PG

Project Coordinator

Mr. Werner has over 40 years of environmental, geological, groundwater supply and geophysical consulting experience. His responsibilities have included coordination and management of staff resources and technical support services, contract development and administration, senior level technical review, regulatory compliance, quality assurance/quality control, business development and overall responsibility for efficient and cost-effective service.

40+ years of experience

Office Location

- Richmond, VA

Education

- B.S./Geological Sciences/Campbell University
- Graduate Studies in Geology, Civil Engineering /Virginia Polytechnic Institute and State University

Professional Registration

- Certified Professional Geologist/Virginia; No. 175
- Professional Geologist/Delaware; No. 320
- Professional Geologist/Georgia; No. 1588
- Professional Geologist/Kentucky; No. 1182
- Professional Geologist/North Carolina; No. 715
- Professional Geologist/Pennsylvania; No. 2712-G
- Professional Geologist/South Carolina; No. 2230

Project Hydrogeologist/Reviewing Principal for Superfund and RCRA-related remedial investigations, feasibility and remedial design/remedial action studies and corrective action associated with contamination by hazardous substances, including various metals and solvents (EPA Regions 3, 4, and 5).

Project Hydrogeologist/Reviewing Principal for over 50 soil and groundwater contamination projects associated with various metals, solvents, PCB's and wastewaters. Services included site investigations, delineation of contaminant migration, remediation recommendations for soil and groundwater, observations of site cleanup, compliance monitoring and regulatory liaison.

Project Manager/Reviewing Principal for over 50 petroleum hydrocarbon contamination projects. Services included site characterization studies, corrective action plans, site remediation, post-remediation monitoring and regulatory liaison.

Project Hydrogeologist/Reviewing Principal for over 50 landfill sites, including siting of new facilities, expansion of existing facilities, closure, construction monitoring and groundwater compliance monitoring. Landfill types include hazardous and solid wastes (municipal, industrial and construction demolition debris).

Project Manager / Reviewing Principal for Brownfields and Voluntary Remediation projects in Virginia.

Project Manager/Reviewing Principal for closure of above ground and below ground hazardous waste storage tanks at a number of Virginia industrial facilities.



Areas of Expertise

- Soil and groundwater contamination assessment and remediation
- Litigation support and expert witness testimony
- Hydrogeology and groundwater supply evaluation
- Landfill siting/permitting/monitoring
- RCRA/CERCLA facility investigation, corrective measures assessment, corrective action, closure, and permitting
- UST-AST release characterization and remediation, preparation of SPCC plans
- NPDES permitting, preparation and implementation of SWPPPs, monitoring
- Stormwater improvement/stream bank restoration using Filtrexx® products
- Environmental Assessments – Phase 1, 2, and 3
- Voluntary Remediation/Brownfields.
- Geophysical exploration methods.
- Beneficial Use Demonstrations for waste materials

Project Manager/Reviewing Principal for numerous geophysical investigations including seismic refraction, electrical resistivity, electromagnetics, down-hole logging and ground-penetrating radar.

Project Manager/Reviewing Principal for over 200 Phase I and II Environmental Site Assessments associated with real estate transactions.

Reviewing Principal for wetland determination, delineation and permitting projects.

Project Manager/Reviewing Principal for industrial, municipal and residential groundwater supply projects including location studies/fracture trace analyses, aquifer testing and safe yield assessments.

Project Geologist for wastewater projects including mass drainfield and land application site assessments, seismic refraction surveys for establishing rock excavation requirements along sewer line routes.

Expert Testimony and Litigation Support for sand and gravel evaluations, contamination of residential wells from a Superfund site and a leaking underground storage tank, and environmental assessment of a commercial property.

Project Manager for beneficial reuse of waste materials including coal ash and cinders, dredge spoil materials, and petroleum contaminated soils.

Project Manager for permitting, preparation, implementation, compliance monitoring and training related to Spill Prevention Counter Measures Control (SPCC) Plans and Storm Water Pollution Prevention Plans (SWPPP).

Project Manager/Reviewing Principal for developing and implementing work plans reviewed and approved by EPA and state environmental agencies.