FINAL ANALYTICAL REPORT FOR SAMPLES FROM WASTE MANAGEMENT AREA C FOR CORE HOLE C7670 IN SUPPORT OF RCRA SOIL CHARACTERIZATION

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Abstract: This final report contains the analytical results supporting the RCRA characterization of Vadose samples from core 7670 in C Farm. It also contains the results for associated field and trip blanks supporting the sampling effort.

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FINAL ANALYTICAL REPORT FOR SAMPLES FROM WASTE MANAGEMENT AREA C FOR CORE HOLE C7670, IN SUPPORT OF RCRA SOIL CHARACTERIZATION

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222-S LABORATORY

FINAL ANALYTICAL REPORT FOR SAMPLES FROM WASTE MANAGEMENT AREA C FOR CORE HOLE C7670 IN SUPPORT OF RCRA SOIL CHARACTERIZATION

1.0 INTRODUCTION

This final report presents the results for the samples taken from Waste Management Area C between April 15, 2010 and May 11, 2010. The report is a reissue of ATL-20100213 Rev.0 with changes based on the Report Comment Record received from the Vadose client (see Attachment 8). In addition the laboratory made the following changes:

- Attachment 6: Analytical Batch and Laboratory Sample Identification Number Index
- Various editorial corrections
- Discussion of bulk density

The samples were analyzed in accordance with RPP-PLAN-40564, *Field Sampling and Analysis Plan for Sites P and L at Waste Management Area C* (FSAP); RPP-PLAN-38777, *Sampling and Analysis Plan for Phase 2 Characterization of Vadose Zone Soil in Waste Management Area C* (SAP); ATL-MP-1011, *ATL Quality Assurance Project Plan for 222-S Laboratory* (QAPP); SW-846, *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*; and the additional guidance given by the client's point of contact.

Because the 222-S Laboratory facility was designed to analyze hazardous and complex tank waste samples, most SW-846 test methods performed at the 222-S Laboratory contain deviations that are listed in an appendix in the analytical procedures. All other known deviations or variances from SW-846 are documented in this narrative. The following attachments are included in this report.

Attachment 1	Data Summary Report
Attachment 2	Sample Breakdown Diagrams
Attachment 3	Holding Time Report
Attachment 4	Additional Analyses QC Results
Attachment 5	Tentatively Identified Compounds (TIC) for Organic Analyses
Attachment 6	Analytical Batch and Laboratory Sample Identification Number Index
Attachment 7	Geological Report
Attachment 8	Characterization Change Notices (CCN) and Correspondence
Attachment 9	Receipt Paperwork

2.0 SAMPLE RECEIPT AND BREAKDOWN

2.1 SAMPLE RECEIPT

A total of nine core intervals and two surface grab samples from core hole C7670 along with eight field blanks and eight trip blanks were received by the 222-S Laboratory between April 15, 2010 and May 11, 2010. The samples were delivered in a cooler with ice or, in the case of the volatile organic samples, in a freezer. The temperatures of the temperature blanks were measured and recorded on the sample receipt check list and/or the chain of custody form.

2.2 SAMPLE BREAKDOWN

The laboratory received each core interval as a set of volatile organic analysis (VOA) samples and three liner samples when complete core recovery was obtained. The VOA samples were made from the shoe section of each core interval following SW-846 5035. The liner samples from each core interval were extruded, described, and composited by the Washington River Protection Solutions, Inc. (WRPS) geologist. The WRPS geologist also measured the bulk density for core liners that had sufficient recovery (see Attachments 1 and 2). The geologist's report is included in Attachment 7. Provided sufficient samples existed, the composite for each core interval was analyzed as described in the SAP and FSAP. Five core intervals (I002, I003, I004, I008, and I009) had less than full recovery (see Attachment 2 and Attachment 9). Interval I004 was extruded and composited in the normal manner. Interval I002 was combined with I003 to form a single composite. Interval I003 was taken immediately below I002 (see Attachment 8, CCN-WMAC-005). Interval I008 was combined with I009 to form a single composite. Interval I009 was taken immediately below I008 (see Attachment 8, CCN-WMAC-006). The surface samples were received as a single grab in a 500-mL jar and a set of VOA samples.

WRPS shipped subsamples of the composites to Test America Laboratories, Inc. (TAL) in St Louis, Missouri and Knoxville, Tennessee to be analyzed for dibutyl and monobutyl phosphate, total petroleum hydrocarbons (diesel and gasoline range), ethylene glycol, chlorinated pesticides, and polychlorinated biphenyls (Aroclors and congeners). TAL subsequently subcontracted the monobutyl and dibutyl phosphate analyses to Southwest Research Institute. The results of these analyses will be released in the final WRPS report.

3.0 ANALYTICAL RESULTS SUMMARY

The Data Summary Report (Attachment 1) presents the final analytical results for those analytes requested in the SAP and FSAP. Secondary analytes are only reported if detected. The TIC from gas chromatography-mass spectrometry (GC/MS) analysis of semivolatile organic compounds (SVOC) is presented in Attachment 5. In addition to the required isotopes, all isotopes with positive gamma energy analysis (GEA) results were reported.

The "Det Limit" column in Attachment 1 contains the method detection limit (MDL) for non-radionuclide analyses, or the minimum detectable activity for radionuclides.

In Attachment 1, the column labeled "A#" indicates the aliquot class or the method used for sample preparation before analysis. For solid samples, the aliquot classes are defined as follows:

"A" indicates samples that were prepared by SW-846 3050B.

"E" indicates samples that were prepared by a strong acid digest.

"O" indicates samples that were extracted for organic analysis.

"S" indicates samples that were prepared by a distillation.

"W" indicates samples that were prepared by a standard water digest.

"WV" indicates samples that were prepared by a "Vadose" water digest.

Samples without a letter identifier in the "A#" column were analyzed directly with no separate preparation or with sample preparation performed as a part of the procedure steps.

The "Qual Flags" column in Attachment 1 contains data qualifier flags from FEAD CP-15383, *Common Requirements of the Format for Electronic Analytical Data,* that are defined as follows:

"B" for organic or radiochemistry results is used to indicate that the analyte was detected in the method or preparation blank and in the sample.

"B" for inorganic results is used to indicate that the reported result should be considered an estimate because it is below the quantitation limit. The "B" flag is applied to sample concentrations that are greater than the MDL but less than the quantitation limit.

"C" for inorganic results is used to indicate that the analyte was detected in the method or preparation blank and in the sample, and the result for the blank was greater than or equal to 20% of the reported sample result.

"J" for organic results is used to indicate that the reported result should be considered an estimate because it is below the quantitation limit. The "J" flag is applied to sample concentrations that are greater than the MDL but less than the quantitation limit.

"N" for all but GC/MS is used to indicate that the MS recovery or MSD recovery was outside of the specified range in the QAPP or SAP.

"N" for GC/MS is used to indicate a TIC which has been named.

"M" for inorganic results is used to indicate that the relative percent difference (RPD) between the sample and the duplicate is greater than 30%.

"T" for organics is used to indicate that the MS recovery or MSD recovery was outside of the specified range in the QAPP or SAP.

"U" for all results is used to indicate that the reported result is less than the calculated detection limit.

Manual calculations using rounded results from the Data Summary Report (Attachment 1) or result calculation forms may differ slightly from the actual results derived from the raw data.

3.1 SAMPLE DIGESTIONS

3.1.1 Radiochemistry Strong Acid Digestion

Strong acid digestions with a hot plate for the heat source were performed using a mixture of concentrated nitric and hydrochloric acids. For each digest, approximately 1 to 10 g of sample was digested depending on the analysis being performed. The digestate was then filtered and diluted to a final volume. This digestion was used for all radiochemical analyses except ^{3}H, ^{14}C, and ^{129}I. This digestion is a leach of the acid soluble species only.

3.1.2 SW-846 3050B - Acid Digestion-Heating Block

This acid digestion follows SW-846 3050B using a heating block and nitric and hydrochloric acids. An aliquot of 0.25 g or 5 g of sample was digested. All heating-block digestions were filtered and diluted to a final volume of 50 mL. In soil, this digestion is a leach of the acid soluble species only. This digestion was used for all inductively coupled plasma/mass spectrometry (ICP/MS) and inductively coupled plasma/atomic emission spectroscopy (ICP/AES) analyses except for ^{99}Tc and isotopic tin (^{117}Sn and ^{126}Sn) analyses. The digestion is modified for the ^{99}Tc analysis by using only nitric acid. This is done to eliminate the possibility of the formation a zinc-chlorine ion pair of mass 99. The laboratory believes this ion, when present, is responsible for low level false positives. A separate digestion for antimony was prepared using additional hydrochloric acid, as recommended in SW-846.

3.1.3 Water Digestion

A water digestion or leach was prepared for the anions by ion chromatography, ^{14}C, and ^{3}H analyses using approximately 0.25 to 4 g of sample diluted to 25 mL. Sonification was used, and the leachate was then filtered. In soil, this digestion is a leach of the water soluble species only.

3.1.4 Vadose Water Digestion

A 70-g sample of soil was leached using a ratio of one part water to one part soil. To maintain a one-to-one ratio, the amount of water added to the sample was adjusted based on the percent moisture of the soil. The slurries were placed on a shaker table for about 1 hour. They were then transferred to a centrifuge tube and centrifuged at 4,000 rpm for 30 minutes. The sample was filtered using a disposable vacuum filtration system. The filtrates were transferred to a clean bottle and then analyzed ^{99}Tc by ICP/MS analysis.

3.2 INORGANIC ANALYSES

3.2.1 Cyanide

The cyanide analysis by distillation and spectrophotometry was performed on direct subsamples of the grab samples and liner composite samples. All analyses met the SW-846 holding time of 14 days. There was no required reporting limit in the SAP for cyanide. The target detection limit was 0.5 µg/g, which is at least an order of magnitude lower than the current laboratory method (lachet micro-distillation) can reach.

Batches 19042 and 19150: There were no notable quality control (QC) issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batch 19456: The low level standard (LLS) was recovered outside the ±25% requirement at 65%. Since the results were well below the MDL, there was no affect on data quality. Eleven samples were analyzed between the initial calibration blank and the next calibration verification standard (CCV). This did not meet the requirement in the QAPP; however, since there was no affect on the results, the data was accepted. Reanalysis would have exceeded the holding time for some samples in the batch.

3.2.2 Sulfide

Sulfide analysis by distillation and ion selective electrode was performed on direct subsamples of the grab samples and liner composite samples. All analyses met the SW-846 holding time of 7 days. There was no required reporting limit in the SAP for sulfide. The target detection limit was 5 µg/g. All sample results had adjusted MDLs of approximately 7 µg/g. There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.2.3 pH Analysis

The pH analysis was performed on the grab samples and liner composite samples. These analyses met all QC requirements in the FSAP, SAP, and QAPP. The FSAP lists a pH holding time requirement of "as soon as possible." All pH measurements were taken immediately after the water leach was performed, but the sampling to analysis date varied from 2 to 14 days (see Attachment 3). There is no correlation between pH results and days to analysis, and the results fall within an expected range for alkaline soils. This indicates that the variation in time has no apparent effect on the results. The lapse time of up to 6 days for the analysis was due to the time taken between sampling and extrusion/compositing of the liners; most samples fall in to this range. Three samples were analyzed between day 11 and day 14. There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.2.4 Mercury

Analysis for mercury by cold-vapor/atomic absorption was performed on digested subsamples of the grab samples and liner composite samples. All results met the QC requirements in the FSAP, SAP, and QAPP. All analyses met the holding time of 28 days. This analysis met the required and target detection limits.

3.2.5 Ion Chromatography – Ammonium

Analysis for ammonium was performed using a distillation preparation of the grab samples and liner composite samples. The SAP lists an administrative holding time of 7 days. The laboratory believes that after distillation and preservation, the holding time is 28 days, based on U.S. Environmental Protection Agency drinking water and waste water holding times for preserved samples. There is no regulatory holding time limit promulgated for ammonium in soil. All samples met the SAP holding times. These analyses met the target detection limit listed in the SAP. There was no required reporting limit in the SAP or FSAP for ammonium.

Batches 19076, 19246, and 19420: There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batch 19029: Ammonium was detected in the preparation blanks at a level below the quantitation limit and above the MDL. Ammonium was also detected in the samples at a similar level; these results have been flagged with a "C". Since all results were below the quantitation limit, reanalysis was not required.

3.2.6 Ion Chromatography – Anions and Small Organic Acids

Ion chromatography analysis was performed on a standard water digest of subsamples from all grab samples and soil composite samples. The laboratory met all of the required and target detection limits. All analyses were within the applicable holding time. The sample spikes used for the standard water digestions are predigestion spikes. Due to the large aliquot size (approximately 70 g) used in the Vadose water digestion, the spikes were post-digestion.

Batches 19147, and 19446: There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batch 19058: The RPD for oxalate exceed the ±30% requirement in the SAP and FSAP at 61%. The sample result was slightly above the quantification limit and the duplicate result was below. The result has been flagged with an "M".

Batch 22897: The preparation blank contained nitrite below the quantitation limit, but at greater than 20% of the sample results. All sample results have been flagged with a "C". Since the sample and blank results were below the quantitation level, reanalysis was not required. The RPD for acetate exceeded the ±30% requirement in the SAP and FSAP; however, since the sample result was below the quantitation limit, this criterion does not apply.

3.2.7 Inductively Coupled Plasma/Atomic Emission Spectroscopy

The ICP/AES analysis was performed on an acid-digest (SW-846 3050B) of all grab samples and liner composite samples. The ICP/AES analysis was unable to obtain the required detection limit for antimony, arsenic, cadmium, selenium, silver, and thallium. These elements have been reported from separate ICP/MS analyses. Lead by ICP/MS is also reported on all but one sample. Total uranium has not been reported by the ICP/AES analysis since it cannot meet the required detection limits in the SAP. The isotopic uranium analysis by ICP/MS met the required detection limit for ^{238}U, which is essentially total uranium and can be used in place of ICP/AES total uranium. This does not affect the overall data usability. For all other metals reported by ICP/AES, all target and required detection limits were met. All analysis were within the SW-846 six month holding time.

Batch 19876: The ICSAB had results above the quantitation limits for neodymium and palladium. This indicates that spectral interference was occurring. Neodymium and palladium results were not reported due to the high probability that they were the result of interferences. Results slightly above the MDL for lead, manganese, and tungsten in the ICSA indicate a possible high bias for these elements. However, the recoveries of these elements in the ISCAB were within the ±20% requirement; this would indicate no significant bias. Low levels of iron,

zinc, and calcium were detected in the preparation blank, but reanalysis was not required since these levels were less than 20% of the lowest sample result. The MS recoveries for aluminum, calcium, iron, magnesium, and titanium exceeded the ±25% requirement in the FSAP and SAP. Since the sample results for these elements exceeded the matrix spike level by more than four times, this criterion does not apply. The MS recoveries for sodium, silicon, and zirconium exceeded the ±25% requirement. All sample results in this batch for sodium, silicon, and zirconium have been flagged with "N". The exact cause for these failures is not known, but it should be noted that this digestion is not one that should be used to report silicon from siliceous material. It should be noted that silicon is not listed with other elements in SW-846 3050B, section 1.1, under "Scope and Application" for the method. Since none of these were primary analytes, reanalysis was not required. The mid-run continuing calibration blank (CCB) demonstrated a zirconium result slightly above the MDL and below the quantitation level. The blank result was more that 20% of the some sample results, and a "C" flag was applied as appropriate. Since the blank result was below the quantitation limit, reanalysis was not required.

Batch 20066: The MS recovery for potassium exceeded the ±25% requirement in the FSAP and SAP. Since the sample result exceeded the matrix spike level by more than four times, this criterion does not apply.

Batch 20874: The ICSAB had a result above the quantitation limits for neodymium. This indicates that spectral interference was occurring. Neodymium results were not reported due to the high probability that they were the result of this interference. Results slightly above the MDL for cadmium and manganese in the ICSA indicate a possible high bias for these elements. However, the recoveries of cadmium and manganese in the ISCAB were within the ±20% requirement; this indicates no significant bias was present. Low levels of iron and calcium were detected in the preparation blank, but reanalysis was not required since these levels were less than 20% of the lowest sample result. The MS recoveries for aluminum, calcium, iron, magnesium, manganese, potassium, and sodium silicon and titanium exceeded the ±25% requirement in the FSAP and SAP. Since the sample results for these elements exceeded the matrix spike level by more than four times, this criterion does not apply. The RPD for nickel exceeded the ±30% requirement at 51%. All sample results in this batch for nickel have been flagged with "M". The laboratory believes this exceedance may have also been caused by sample inhomogeneity. Additionally, silicon experienced LCS failures and reanalysis was not required for this secondary element. It should be noted that silicon is not listed with other elements in SW-846 3050B, section 1.1, under "Scope and Application" for the method.

3.2.8 Inductively Coupled Plasma/Mass Spectroscopy

The ICP/MS actinide and trace metal analyses were performed on the standard SW-846 3050 acid digestion of all grab samples and liner composite samples. The ICP/MS ^{126}Sn and ^{99}Tc analysis was performed on the sample digest without the addition of the hydrochloric acid. Hydrochloric acid is not used for ^{99}Tc analysis because of the potential formation of a ZnCl ion pair with mass 99. ICP/MS trace metal analysis for antimony was perform on the same digest with additional hydrochloric acid, which is required to keep antimony in solution. In addition to these acid digestions, ICP/MS ^{99}Tc analysis was performed on a vadose water digest.

Direct is the most accurate type of calibration; however, standard material is not commercially available for all the isotopes of interest. Concentrations of those isotopes without available standards are estimated based on the instrument's mass-response curve, which is generated by using the intensity/concentration relationship for the available isotope standards. Results estimated in this manner are designated "semi-quantitative."

Table 1. Inductively Coupled Plasma-Mass Spectroscopy Standards and Spikes

Standard Type	Analytes Analyzed
Initial calibration verification (nondigested)	^{232}Th, ^{235}U, ^{238}U, ^{237}Np, ^{99}Tc, ^{117}Sn
Acid digest standard (laboratory control standard)	^{232}Th, ^{235}U, ^{238}U, ^{237}Np, ^{99}Tc, ^{117}Sn
Predigest spike (MS)	^{232}Th, ^{235}U, ^{238}U, ^{237}Np, ^{99}Tc, ^{117}Sn
Post-digest spike	^{232}Th, ^{235}U, ^{238}U, ^{237}Np, ^{99}Tc, ^{117}Sn
No standard or spike of either type	^{126}Sn, ^{230}Th, ^{233}U, ^{234}U, ^{236}U

3.2.8.1 Technetium-99 and Tin-126

The required detection limit listed in the SAP for ^{99}Tc was met. The target detection limit for ^{99}Tc was not met. There were no required or target detection limits for ^{126}Sn listed in the SAP. The SAP lists a holding time of 6 months for isotopic analytes. All samples were analyzed within the holding time.

Because there is no available source for ^{126}Sn, ^{117}Sn is used to monitor the chemical recovery for this analysis. Though not specifically requested in the SAP, ^{117}Sn is reported for the LCS and MS in order to demonstrate method accuracy and presence of possible matrix interference.

Batch 19814: There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batch 20169: The matrix spike recovered ^{117}Sn outside the ±25% required in the QAPP and SAP at 59%. These samples were initially analyzed in batch 19814 with a similar results. This would indicate that there is a matrix interference for tin when spiked at these levels. All sample results in the batch have been flagged with a "N".

Batch 20677: The matrix spike recovered ^{117}Sn outside the ±25% required in the QAPP and SAP at 59%. Since the post-digestion spike passed and the previous batch (20169) was reanalyze without improvement of the MS recovery, matrix interference was inferred and reanalysis was not performed. If tin is spiked at a level similar to the one used for the ICPAES analysis, the recoveries are generally within the required ±25%. However, this not appropriate for ^{126}Sn analysis. Results for this analysis should be considered biased low, but the laboratory believes that even sample levels of 10 µg/Kg should be easily detected. All sample results in the batch have been flagged with a "N".

3.2.8.2 Technetium-99 (Vadose Water Digest)

The required and target detection limits listed in the SAP for ^{99}Tc were met. The SAP lists a holding time of 6 months for isotopic analytes. All holding times were met. A predigestion matrix is not prepared as part of this procedure. This is partially due to the large size of the aliquot—approximately 70 g. All other standard QC requirements were meet for this batch.

3.2.8.3 Actinides

The required and target detection limits were met for all isotopes and in all samples. The SAP lists the holding time for isotopic analytes as 6 months. All samples were analyzed within the holding time.

Batch 19661: The ending LLS for ^{232}Th exceeded the ±30% requirement at 134%. This could indicate a high bias for ^{232}Th results near the LLS level. However, the lowest sample result for ^{232}Th was approximately 100 times the LLS level and the data quality was not affected. The low level MS for ^{232}Th failed at 62%. It is the laboratory's opinion that this failure is due to inhomogeneity (RPD of 18%) and the ^{232}Th result in the sample being nearly four times the spike amount. If the duplicate result is used to calculate the MS recovery, it is within the ±25% requirement. A higher level spike was also analyzed; it passed at 100%. This was discussed with the client, and the laboratory was instructed to report the low level MS (see details discussed in Attachment 8).

Batch 20266: Th-230 was detected in a mid-run CCB at the MDL. However, this was more than 20% of one sample in the batch, which had a result slightly above the MDL. This sample was flagged with a "B". The ending LLS for ^{235}U exceeded the ±30% requirement at 53%. This could indicate a low bias for ^{235}U results near the LLS level. However, the lowest sample result for ^{235}U was approximately 25 times the LLS level and the data quality was not affected.

3.2.8.4 Trace Metals

Antimony, arsenic, cadmium, selenium, silver, and thallium were analyzed by ICP/MS to obtain the required detection limits in the SAP. Lead was also reported in four samples. Except for the required detection limit for selenium, all required and target detection limits were met or the sample results were above the quantitation limit, and the sample detection limit criteria do not apply. The required detection limit for selenium was approximately an order of magnitude below the detection limit obtained by using ICP/MS. The laboratory does not anticipate reaching this detection limit for future projects. The reporting limit for selenium ranged from 0.3 µg/g to 0.6 µg/g depending on the matrix interference encountered during the analysis. SW-846 lists the holding time of metals as 6 months. All samples were analyzed within the holding time except for sample B23KP9 (S10V003308), which was reanalyzed for arsenic one day into the 7th month. The laboratory does not believe the result was affected.

Batch 20363 and 23807: There were no notable issues with this batch, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batch 19915: Two of the LLSs for selenium exceeded the ±30% requirement at 64% and 67%. This could indicate a low bias for selenium results near the LLS level. However, since the selenium signal was well below the MDL, the data quality was not affected.

Batch 20171: Thallium was detected in the preparation blank below the quantitation limit. The blank result was approximately 30% of the sample results, and a "C" flag was applied. Since the blank result was below the quantitation limit and the all sample results were below the required detection limit, reanalysis was not required.

Batch 20590: The first CCB had a result for antimony slightly above the MDL. All affected samples have been flagged with a "C". Since the blank result was below the quantitation limit, reanalysis was not required.

Batch 23628: The closing LLSs for selenium exceeded the ±30% requirement at 152%. This could indicate a high bias for selenium results near the LLS level. However, since the selenium signal was well below the MDL, the data quality was not affected.

3.3 RADIOCHEMICAL ANALYSIS

The holding time listed in the SAP for radioactive isotopes is 6 months. The FSAP list the holding time as "none." SW-846 does not address holding times for radiochemical analytes. All radiochemical analyses met the 6-month holding time listed in the SAP. With the exception of the ^{14}C and ^{3}H analyses, tracers and spikes are added prior to the digestion. The laboratory is investigating the possibility of performing predigestion spikes for the ^{3}H and ^{14}C analyses.

3.3.1 Gamma Energy Analysis

GEA was performed directly on approximately 60 mL of soil from all grab samples and liner composite samples. The SAP requires the reporting of all isotopes with positive results above the minimum detectable activity (MDA); therefore, isotopes in addition to those required in the SAP were report when detected. The GEA analysis met all of the required detection limits in the SAP. The laboratory was unable to meet any of the target detection limits.

Batch 19658: The RPD for ^{212}Pb and ^{40}K exceeded the ±30% requirement in the SAP and FSAP. Since relative error for ^{40}K exceeded 30%, the result is considered to be below the quantification limit and this criterion does not apply. The ^{212}Pb result was above the quantification level. However, since ^{212}Pb is not a required analyte, reanalysis was not required.

3.3.2 Strontium-89/90

Strontium-89/90 analysis was performed on a strong acid digest of all grab samples and liner composite samples. All of the sample analyses met the required and target detection limits. The FSAP and SAP requested ^{90}Sr, not $^{89/90}Sr$, be reported. The 222-S Laboratory only performs the latter analysis. Since the half-life for ^{89}Sr is approximately 51 days and ^{89}Sr has not been produced at Hanford for years, $^{89/90}Sr$ is essentially ^{90}Sr. There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.3.3 Tritium

The ^{3}H analysis by liquid scintillation counting (LSC) was performed on a water leach of all grab samples and liner composite samples. This method only measured the ^{3}H in the samples that could be dissolved in water. This analysis achieved the required and target detection limits in the FSAP. There were no notable issues with the ^{3}H batch, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.3.4 Selenium-79

The ^{79}Se analysis by LSC was performed on a strong acid digest of all grab samples and liner composite samples. The analysis achieved the target detection limit in the FSAP. No required detection limit was listed. No standard is currently available for ^{79}Se. A cold carrier is used to monitor recovery and is measured gravimetrically. The ^{14}C LSC curve is used to determine the ^{79}Se results since their energies are similar.

Since both ^{63}Ni and ^{79}Se use a single digestion batch that is equally split prior to the separation step, the maximum trace/carrier recovery is 50%. There were no notable issues with the batch, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.3.5 Carbon-14

The ^{14}C analysis by LSC was performed on a water leach of all grab samples and liner composite samples. The analysis achieved the required detection limit in the FSAP but exceeded the target detection limit. This analysis will only detect water soluble forms of ^{14}C. There were no notable issues with the batch, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.3.6 Nickel-63

The ^{63}Ni analysis by LSC was performed on a strong acid digest of all grab samples and liner composite samples. The analysis achieved the required and target detection limits in the FSAP. There were no notable issues with these ^{63}Ni batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Since both ^{63}Ni and ^{79}Se use a single digestion batch that is equally split prior to the separation step, the maximum trace/carrier recovery is 50%.

3.3.7 Iodine-129

Analysis for ^{129}I by low energy GEA was performed on an iodine-specific fusion digest of all grab samples and liner composite samples. The required detection limit in the SAP was met. Four samples slightly exceeded the 2 pCi/g required detection limit with detection limits between 2.5 and 2.7 pCi/g. There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

3.3.8 Americium-241, Curium-243/244, and Curium-242

Analysis for ^{241}Am, $^{243/244}Cm$, and ^{242}Cm by alpha energy analysis (AEA) was performed on a strong acid digest of all grab samples and liner composite samples. For this analysis, there were

no notable issues and all QC requirements in the FSAP, SAP, and the QAPP were met. The required and target detection limits in the SAP were met. The SAP and FSAP requested ^{243}Cm and ^{244}Cm be reported separately. Since it is not possible to resolve these individual isotopes when using AEA, these isotopes have been report as $^{243/244}$Cm.

3.3.9 Plutonium-238 and Plutonium-239/240

Plutonium isotopic (^{238}Pu and $^{239/240}$Pu) analysis by AEA was performed on a strong acid digest of all grab samples and liner composite samples. For this analysis, there were no notable issues with any batches and all QC requirements in the FSAP, SAP, and the QAPP were met. The required and target detection limits in the SAP were met.

3.4 ORGANIC ANALYSES

3.4.1 Volatile Organic Analysis

The VOA by GC/MS was performed on all field samples by purge and trap. Field sampling methods, sample containers, and preservation methods followed SW-846 5035. The soil samples were delivered in a freezer, in pre-weighed VOA vials with magnetic stir bars and approximately 5 g of sample. After receipt, the VOA samples were stored in a freezer. For each sample interval, an additional high level sample preserved in methanol was also received. These were not used because none of the results for the frozen samples were above the calibration range. The exact weight of the sample and the tare weight of the VOA vials were recorded by sampling personnel and delivered with the samples. Eight field blanks and eight trip blanks were also received and analyzed. The samples were preserved with either HCl or H_2SO_4 to a pH < 2. All samples met the required holding times except for samples B23KN6 (S10V000368) and B23KN9 (S10V000369), which were placed in a refrigerator instead of a freezer. This reduces the holding time to 48 hours (see Attachment 3). Due to this taking place over a weekend, the sample storage error was not detected for approximately 90 hours. The samples were then properly stored and later analyzed.

The VOA analysis met the target and required detection limits in the SAP. The SAP and FSAP requested m-xylene and p-xylene be reported separately. Since it is not possible to resolve these individual compounds when performing VOA by SW-846 8260B, these compounds have been report as m+p xylene. The SAP and FSAP request that methanol be reported with this analysis; however, this compound is too polar to be purged and cannot be reported (see Attachment 8).

All field and trip blanks contained chloroform above the estimated quantification level. Since chloroform is a common chlorination byproduct, the laboratory believes the source of chloroform could be the water used by sampling personnel to make the various blanks.

The laboratory method blanks generally contained a very low level of toluene, which was also present in the samples at a similar level. The blank contamination was usually just above the MDL and always below the quantitation limit. This contamination was 4 to 5 orders of magnitude below the required detection limit and 17 to 90 times less than the target detection limit. For these reasons, reanalysis was not necessary. “B” flags have been applied when appropriate. For analyses performed after these, toluene was only occasionally found in the

blank. The laboratory is not sure of the source of the toluene, but it may be related to construction or maintenance activities.

All laboratory blanks for the liquid sample batches contained acetone at a level slightly below the quantitation level, based the low calibration. Some blanks were 30 to 50 times the MDL. Fortunately, the samples contained only a trace of acetone; most results were below the MDL and all were below the quantitation level. "B" flags have been applied when appropriate. For this reason, reanalysis was not required. The laboratory believes that this relatively high level of acetone in the method blanks was due to contamination in the hydrochloric acid used in the blanks. For analyses performed after these, acetone was only occasionally found in the blank and generally at a level below the quantitation level.

LCS, MS, and matrix spike duplicate (MSD) recoveries were compared against the laboratory's statistical process control (SPC) limits, as required by SW-846. The use of SPC limits is allowed in the FSAP, SAP, and QAPP.

Batch 18960: The method blank contained toluene as discussed above.

Batch 19080: The method blank contained acetone and toluene as discussed above.

Batch 19081: The method blank contained acetone and toluene as discussed above. The MS and MSD sample vials failed to purge, and no MS/MSD pair is contained in this batch. Since additional MS/MSD pairs exist for the field QC samples for this core hole, client requirements have been meet (see Attachment 8).

Batch 19123: The MS was recovered above the statistically determined limits for acetone, hexone, and 2-butanone. All sample result for hexone and 2-butanone were below the MDL, and the data usability was not affected. One sample had a result above the quantitation limit. This result should be considered biased high. Reanalysis was not performed due to the holding time. All results for these compounds have been flagged with a "T". The method blank contained toluene as discussed above.

Batch 19447: The LCS recovery for acetone was above the upper limit of 139% at 152%. Due to the holding time limitation, reanalysis was not performed. Since the result for acetone was below the quantitation limit and flagged with a "J", the data usability was not affected and reanalysis was unnecessary. The % difference for acetone and the % drift for trans-1,2-dichloroethene were high at 26%, which indicates a high bias for these compounds. Since the acetone result was below the quantitation level and the trans-1,2-dichloroethene was non-detect, the CCV was acceptable. The method blank contained acetone and toluene as discussed above.

Batch 19485: The LCS recovery for acetone was above the upper limit of 139% at 160%. Due to the holding time limitation, reanalysis was not performed. Since the results for acetone were either below the MDL or below the quantitation limit and flagged with a "J", the data usability was not affected and reanalysis was unnecessary. The % difference for acetone and the % drift for trans-1,2-dichloroethene were high at 24% and 31%, respectively, which indicates a high bias for these compounds. Since the acetone results were below the MDL or below quantitation level and the trans-1,2-dichloroethene was non-detect, the CCV was acceptable. The method blank contained acetone and toluene as discussed above. The MS for 1-butanol failed low at 69%. Due

to the holding time limitation, reanalysis was not performed. All sample results were below the MDL and have been flagged with a "T".

Batch 19486: The % difference for acetone and the % drift for trans-1,2-dichloroethene were high at 24% and 31%, respectively, which indicates a high bias for these compounds. Since the acetone and 1,2-Dichloroethene results were below the MDL, the CCV was acceptable. The LCS recovery for acetone was above the upper limit of 134% at 150%. Due to the holding time limitation, reanalysis was not performed. Since the results for acetone were below the MDL, the data usability was not affected and reanalysis was unnecessary. All results for acetone in the batch have been flagged with "T".

Batch 19566: It is apparent from the following discussion that this batch should have been reanalyzed; however, due to a pending instrument outage and an expiring holding time, these are the only results available. With the exception of acetone, all QC failures indicate a high bias; the impact on the data is minimal. 2 Hexanone was detected in the sample and method blanks above the MDL and below the quantitation limit. The sample results have been flagged with a "B". Since the results were below the quantitation limit, reanalysis was not required. The MS failed high for acetone, 2-butanone, 2-hexanone, and hexone. The acetone and 2-hexanone results were above the MDL. All results have been flagged with a "T". Since the 2-hexanone result was below the quantitation limit and flagged with "J", this result was not affected. The acetone result was above the quantitation limit and should be considered biased high. A "J" flag has been applied to this result. The LCS for acetone failed high, again indicating a high bias. Two CCVs were analyzed with this batch; the closing CCV was normal with only 2 compounds slightly above the ±20% requirement. However, the first CCV had six primary analytes above this requirement. As previously discussed, only acetone was affected by this high bias. The method blank contained toluene as discussed above.

Batch 19680: The LCS recovery for acetone was above the upper limit of 136% at 172%. Due to the holding time limitation, reanalysis was not performed. Since the results for acetone were below the quantitation limit or below the MDL and flagged with a "J" or "U", the data usability was not affected and reanalysis was unnecessary. The % difference for 2 hexanone was high at 21%, which indicates a high bias for these compounds. Since 2-hexanone was below the quantitation limit and is not a primary analyte, the CCV was acceptable. The method blank contained acetone as discussed above.

Batch 20082: The method blank contained m,p-xylene at a level slightly above the MDL. Since the sample result for this compound was below the MDL, the blank was acceptable. The method blank contained toluene as discussed above. The RPD between the MS and MSD exceeded the ±30% requirement at 67%. Since the sample result was 72.5 ug/kg, the blank result was below the MDL, and all other QC for acetone was acceptable, inhomogeneity is suspected. Reanalysis was not performed due to holding time expiration.

Batch 20256: The method blank contained acetone and toluene as discussed above.

3.4.2 Semivolatile Organic Analysis

The semivolatile organic analysis (SVOA) by GC/MS was performed on methylene chloride extractions of all grab samples and liner composite samples. All holding times were met.

The SVOA analysis met the required and target detection limits with two exceptions:

- The adjusted MDLs for cyclohexanone were above the 0.5 mg/kg target detection limit for most samples. This compound obtained detection limits between 0.5 mg/kg an 0.6 mg/kg.
- The adjusted MDLs for di-n-butyl-phthalate were above the target detection limit of 0.33 mg/kg. The analysis achieved a detection limit of between 0.5 mg/kg and 0.6 mg/kg for this compound.

The LCS, MS, and MSD recoveries were compared against the laboratory's SPC limits, as required by SW-846. The use of SPC limits is permitted in the FSAP, SAP, and QAPP.

The SAP and FSAP requested m-cresol and p- cresol be reported separately. Since it is not possible to resolve these individual compounds when performing SVOA by SW-846 8270C, these compounds have been report as m+p cresol.

Isobutanol is listed as a required volatile organic compound in the FSAP. Since it does not purge well, it was analyzed as using SVOA.

Batch 19182: There were no notable issues with these batches, and all QC requirements in the FSAP, SAP, and the QAPP were met.

Batches 19296 and 19488: Butylbenzylphthalate was detected in the method blank slightly above the MDL and below the quantitation limit. This compound was detected in the samples at a similar level and has been flagged with a "B". Since all results were below the quantitation level, reanalysis was not required and the blank is acceptable.

Batch 19779: The MS recovery for 4-Chloro-3-methylphenol was above the 103% upper limit at 108%. Since this compound was not detected in the sample, reanalysis was not required.

3.4.3 Tentatively Identified Compounds

Unassigned peaks or TICs were treated as follows. Standards were obtained and analyzed for each secondary analyte identified in the SAP. This data was accumulated in the Hanford library. Following analysis, the largest TICs, with instrument responses greater than 10% of the response of the nearest internal standard, were evaluated and compared to the Hanford library. The estimated concentration of these TICs was calculated using measured response factors from the Hanford library compound list.

After comparison to the Hanford library, remaining unknowns were compared to the National Institute of Standards and Technology's *HP Mass Spectral (compound) Libraries* (NIST 02). The estimated concentration of compounds identified in the NIST library was calculated based on an arbitrary response factor of 1.0. If the compounds were not identified as a result of this

comparison, they were reported as "unknown." Summaries of the SVOA and VOA TICs from the field samples and method blanks are provided in Attachment 5. TICs that were found in the field samples and were present in the associated batch method blank have been flagged with "B".

4.0 PROCEDURES

Table 2 lists the analytical procedures used for analysis of the Area C samples.

Table 2. Analytical Procedures

Analysis	Preparation Method	Analysis Procedure
Inorganic Analyses		
Cyanide	LA-695-103, Rev. I-0, J-0 (SW-846 9010C)	LA-695-103, Rev. J-0 (SW-846 9014)
Sulfide	LA-361-101, Rev. D-0 (SW-846 9030B)	LA-361-101, Rev. D-0 (SW-846 9215)
pH (solid)	LA-212-105, Rev. G-0 (SW-846 9045D)	LA-212-105, Rev. G-0 (SW-846 9045D)
pH (liquid)	Direct	LA-212-106, Rev. H-0 (SW-846 9040D)
Mercury – Cold Vapor Atomic Absorption	LA-325-106, Rev. G-0 (SW-846 7470A, 7471A)	LA-325-106, Rev. G-0 (SW-846 7470A, 7471A)
Ammonia – IC	LA-544-112, Rev. E-0	LA-533-101, Rev. Q-0
Anions & Organic Acids – IC	LA-504-101, Rev. L-0	LA-533-115, Rev. J-0
Metals – ICP /AES	LA-505-163, Rev. G-0 (SW-846 3050B)	LA-505-161, Rev. J-0-A (SW-846 6010C)
^{99}Tc, ^{126}Sn – ICP/MS	LA-505-163, Rev. G-0 (SW-846 3050B)	LA-506-102, Rev. F-1
^{99}Tc – ICP/MS	08-ATL-078 Vadose Water Digest	LA-506-103, Rev. A-0
Metals – ICP/MS	LA-505-163, Rev. G-0 (SW-846 3050B)	LA-506-102, Rev. E-0, F-1 LA-506-103, Rev. A-0 (SW-846 6020A)
Actinides – ICP/MS	LA-505-163, Rev. G-0 (SW-846 3050B)	LA-506-1-2, Rev. F-1 LA-506-103, Rev. A-0
Radiochemical Analyses		
GEA	Direct	LA-548-121, Rev. I-0
^{90}Sr – Separation/Beta counting (Solid)	LA-544-101, Rev. F-0	LA-220-103, Rev. J-0
^{90}Sr – Separation/Beta counting (Liquid)	LA-220-104, Rev. I-0	LA-220-104, Rev. I-0
^{3}H – LSC	LA-504-101, Rev. L-0	LA-218-111, Rev. G-0
^{14}C – LSC	LA-504-101, Rev. L-0	LA-348-104, Rev. H-0
^{79}Se – Separation/LSC	LA-544-101, Rev. F-0	LA-365-132, Rev. I-0

Analysis	Preparation Method	Analysis Procedure
^{63}Ni – Separation/LSC	LA-544-101, Rev. F-0	LA-285-102, Rev. E-0
^{129}I – Separation/GEA	LA-378-105, Rev. C-0	LA-378-105, Rev. C-0
^{241}Am, $^{243/244, 242}$Cm – Separation/AEA	LA-544-101, Rev. F-0	LA-953-104, Rev. H-1
$^{239/240, 238}$Pu – Separation/AEA	LA-544-101, Rev. F-0	LA-953-104, Rev. H-1
Organic Analyses		
VOC – GC/MS	Direct	LA-523-118, Rev. G-O-A (SW-846 8260B)
SVOC – GC/MS	LA-523-138, Rev. F-0 (SW-846 3540C)	LA-523-135, Rev. C-0, D-0 (SW-846 8270C)

5.0 REFERENCES

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Attachment 1

DATA SUMMARY REPORT

11 - Mar - 2011 12:21:51
DSRHardcopyWOLimits 2.7.26a
DSR.Jar v. 2.7.27

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B238F5
Sample Depth: Trip Blank-1

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000320		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000320		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000320		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000320		75-35-4	1,1-Dichloroethene	ug/L	108	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000320		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000320		71-36-3	1-Butanol	ug/L	89.4	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000320		108-10-1	Hexone	ug/L	112	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000320		67-64-1	Acetone	ug/L	85.2	4.52	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000320		71-43-2	Benzene	ug/L	99.0	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000320		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000320		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000320		67-66-3	Chloroform	ug/L	n/a	<0.0414	0.707	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000320		108-90-7	Chlorobenzene	ug/L	101	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000320		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000320		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000320		78-93-3	2-Butanone	ug/L	97.3	<0.458	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000320		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000320		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000320		108-88-3	Toluene	ug/L	102	0.112	0.200	n/a	n/a	n/a	n/a	0.0580	n/a	BJ
S10V000320		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000320		79-01-6	Trichloroethene	ug/L	95.6	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000320		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000320		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000320		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000320		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000320		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000320		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000320		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000320		75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B238F5
Sample Depth: Trip Blank-1

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000320			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000320			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

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Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B238F6
Sample Depth: Trip Blank-2

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000321		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000321		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000321		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000321		75-35-4	1,1-Dichloroethene	ug/L	108	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000321		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000321		71-36-3	1-Butanol	ug/L	89.4	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000321		108-10-1	Hexone	ug/L	112	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000321		67-64-1	Acetone	ug/L	85.2	4.52	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000321		71-43-2	Benzene	ug/L	99.0	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000321		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000321		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000321		67-66-3	Chloroform	ug/L	n/a	<0.0414	0.580	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000321		108-90-7	Chlorobenzene	ug/L	101	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000321		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000321		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000321		78-93-3	2-Butanone	ug/L	97.3	<0.458	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000321		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000321		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000321		108-88-3	Toluene	ug/L	102	0.112	0.145	n/a	n/a	n/a	n/a	0.0580	n/a	BJ
S10V000321		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000321		79-01-6	Trichloroethene	ug/L	95.6	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000321		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000321		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000321		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000321		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000321		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000321		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000321		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000321		75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B238F6
Sample Depth: Trip Blank-2

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000321			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000321			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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N - MS/MSD Outside Range
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U - Less Than Detection Limit
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J - Estimated

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Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MP2
Sample Depth: Trip Blank-3

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000322			71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000322			79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000322			79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000322			75-35-4	1,1-Dichloroethene	ug/L	111	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000322			107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000322			71-36-3	1-Butanol	ug/L	106	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000322			108-10-1	Hexone	ug/L	114	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000322			67-64-1	Acetone	ug/L	123	4.86	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000322			71-43-2	Benzene	ug/L	101	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000322			75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000322			56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000322			67-66-3	Chloroform	ug/L	n/a	<0.0414	0.562	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000322			108-90-7	Chlorobenzene	ug/L	100	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000322			100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000322			1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000322			74-87-3	Chloromethane	ug/L	n/a	<0.0275	0.221	n/a	n/a	n/a	n/a	0.0306	n/a	J
S10V000322			78-93-3	2-Butanone	ug/L	103	<0.458	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000322			75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000322			127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000322			108-88-3	Toluene	ug/L	105	0.0849	0.0645	n/a	n/a	n/a	n/a	0.0580	n/a	BJ
S10V000322			10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000322			79-01-6	Trichloroethene	ug/L	98.5	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000322			75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000322			156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000322			156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000322			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000322			79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000322			141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000322			60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U

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B - Blank Contamination
M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MP2

Sample Depth: Trip Blank-3

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000322			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U
S10V000322			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000322			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

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Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MP3
Sample Depth: Trip Blank-4

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000323		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000323		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000323		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000323		75-35-4	1,1-Dichloroethene	ug/L	111	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000323		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000323		71-36-3	1-Butanol	ug/L	106	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000323		108-10-1	Hexone	ug/L	114	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000323		67-64-1	Acetone	ug/L	123	4.86	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000323		71-43-2	Benzene	ug/L	101	<0.0163	0.0498	n/a	n/a	n/a	n/a	0.0181	n/a	J
S10V000323		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000323		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000323		67-66-3	Chloroform	ug/L	n/a	<0.0414	0.593	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000323		108-90-7	Chlorobenzene	ug/L	100	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000323		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000323		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000323		74-87-3	Chloromethane	ug/L	n/a	<0.0275	0.278	n/a	n/a	n/a	n/a	0.0306	n/a	J
S10V000323		78-93-3	2-Butanone	ug/L	103	<0.458	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000323		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000323		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000323		108-88-3	Toluene	ug/L	105	0.0849	<0.0580	n/a	n/a	n/a	n/a	0.0580	n/a	U
S10V000323		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000323		79-01-6	Trichloroethene	ug/L	98.5	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000323		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000323		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000323		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000323		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000323		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000323		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000323		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MP3

Sample Depth: Trip Blank-4

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000323			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U
S10V000323			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000323			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
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Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MP4
Sample Depth: Trip Blank-5

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000324			71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000324			79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000324			79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000324			75-35-4	1,1-Dichloroethene	ug/L	109	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000324			107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000324			71-36-3	1-Butanol	ug/L	77.1	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	UT
S10V000324			108-10-1	Hexone	ug/L	109	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000324			67-64-1	Acetone	ug/L	160	25.7	2.52	n/a	n/a	n/a	n/a	0.637	n/a	BJ
S10V000324			71-43-2	Benzene	ug/L	97.8	0.0422	0.0444	n/a	n/a	n/a	n/a	0.0181	n/a	BJ
S10V000324			75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000324			56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000324			67-66-3	Chloroform	ug/L	n/a	<0.0414	0.513	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000324			108-90-7	Chlorobenzene	ug/L	96.5	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000324			100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000324			1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000324			78-93-3	2-Butanone	ug/L	94.3	1.51	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000324			75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000324			127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000324			108-88-3	Toluene	ug/L	99.3	0.0553	0.189	n/a	n/a	n/a	n/a	0.0580	n/a	BJ
S10V000324			10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000324			79-01-6	Trichloroethene	ug/L	93.7	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000324			75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000324			156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000324			156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000324			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000324			79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000324			141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000324			60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000324			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MP4

Sample Depth: Trip Blank-5

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000324			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000324			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MP5
Sample Depth: Trip Blank-6

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000325			71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000325			79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000325			79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000325			75-35-4	1,1-Dichloroethene	ug/L	109	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000325			107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000325			71-36-3	1-Butanol	ug/L	77.1	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	UT
S10V000325			108-10-1	Hexone	ug/L	109	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000325			67-64-1	Acetone	ug/L	160	25.7	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000325			71-43-2	Benzene	ug/L	97.8	0.0422	0.0504	n/a	n/a	n/a	n/a	0.0181	n/a	BJ
S10V000325			75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000325			56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000325			67-66-3	Chloroform	ug/L	n/a	<0.0414	0.604	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000325			108-90-7	Chlorobenzene	ug/L	96.5	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000325			100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000325			1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000325			78-93-3	2-Butanone	ug/L	94.3	1.51	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000325			75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000325			127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000325			108-88-3	Toluene	ug/L	99.3	0.0553	0.122	n/a	n/a	n/a	n/a	0.0580	n/a	BJ
S10V000325			10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000325			79-01-6	Trichloroethene	ug/L	93.7	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000325			75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000325			156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000325			156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000325			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000325			79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000325			141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000325			60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000325			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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N - MS/MSD Outside Range
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U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MP5

Sample Depth: Trip Blank-6

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000325			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000325			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MP6
Sample Depth: Trip Blank-7

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000326			71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000326			79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000326			79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000326			75-35-4	1,1-Dichloroethene	ug/L	109	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000326			107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000326			71-36-3	1-Butanol	ug/L	77.1	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	UT
S10V000326			108-10-1	Hexone	ug/L	109	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000326			67-64-1	Acetone	ug/L	160	25.7	2.10	n/a	n/a	n/a	n/a	0.637	n/a	BJ
S10V000326			71-43-2	Benzene	ug/L	97.8	0.0422	0.0326	n/a	n/a	n/a	n/a	0.0181	n/a	BJ
S10V000326			75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000326			56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000326			67-66-3	Chloroform	ug/L	n/a	<0.0414	1.11	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000326			108-90-7	Chlorobenzene	ug/L	96.5	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000326			100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000326			1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000326			78-93-3	2-Butanone	ug/L	94.3	1.51	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000326			75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000326			127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000326			108-88-3	Toluene	ug/L	99.3	0.0553	0.228	n/a	n/a	n/a	n/a	0.0580	n/a	BJ
S10V000326			10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000326			79-01-6	Trichloroethene	ug/L	93.7	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000326			75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000326			156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000326			156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000326			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000326			79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000326			141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000326			60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000326			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MP6

Sample Depth: Trip Blank-7

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000326			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000326			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MP7
Sample Depth: Trip Blank-8

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000327			71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000327			79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000327			79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000327			75-35-4	1,1-Dichloroethene	ug/L	101	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000327			107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000327			71-36-3	1-Butanol	ug/L	81.7	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000327			108-10-1	Hexone	ug/L	123	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000327			67-64-1	Acetone	ug/L	172	30.5	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000327			71-43-2	Benzene	ug/L	95.1	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000327			75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000327			56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000327			67-66-3	Chloroform	ug/L	n/a	<0.0414	0.959	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000327			108-90-7	Chlorobenzene	ug/L	102	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000327			100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000327			1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000327			78-93-3	2-Butanone	ug/L	97.1	1.66	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000327			75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000327			127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000327			108-88-3	Toluene	ug/L	104	<0.0522	0.234	n/a	n/a	n/a	n/a	0.0580	n/a	J
S10V000327			10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000327			79-01-6	Trichloroethene	ug/L	90.6	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000327			75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000327			156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000327			156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000327			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000327			79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000327			141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000327			60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000327			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MP7

Sample Depth: Trip Blank-8

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000327			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000327			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MR0
Sample Depth: Field Blank-1

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000310			71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000310			79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000310			79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000310			75-35-4	1,1-Dichloroethene	ug/L	108	<0.172	<0.191	n/a	n/a	n/a	101	0.191	n/a	U
S10V000310			107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000310			71-36-3	1-Butanol	ug/L	89.4	<1.15	<1.28	n/a	n/a	n/a	94.5	1.28	n/a	U
S10V000310			108-10-1	Hexone	ug/L	112	<0.453	<0.503	n/a	n/a	n/a	97.6	0.503	n/a	U
S10V000310			67-64-1	Acetone	ug/L	85.2	4.52	<0.637	n/a	n/a	n/a	90.9	0.637	n/a	U
S10V000310			71-43-2	Benzene	ug/L	99.0	<0.0163	0.0458	n/a	n/a	n/a	93.5	0.0181	n/a	J
S10V000310			75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000310			56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000310			67-66-3	Chloroform	ug/L	n/a	<0.0414	0.673	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000310			108-90-7	Chlorobenzene	ug/L	101	<0.0320	<0.0356	n/a	n/a	n/a	94.0	0.0356	n/a	U
S10V000310			100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000310			1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000310			78-93-3	2-Butanone	ug/L	97.3	<0.458	<0.509	n/a	n/a	n/a	88.9	0.509	n/a	U
S10V000310			75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000310			127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000310			108-88-3	Toluene	ug/L	102	0.112	0.0914	n/a	n/a	n/a	96.3	0.0580	n/a	BJ
S10V000310			10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000310			79-01-6	Trichloroethene	ug/L	95.6	<0.0378	<0.0420	n/a	n/a	n/a	91.4	0.0420	n/a	U
S10V000310			75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000310			156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000310			156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000310			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000310			79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000310			141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000310			60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000310			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR0

Sample Depth: Field Blank-1

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000310			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000310			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MR1
Sample Depth: Field Blank-2

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000311			71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000311			79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000311			79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000311			75-35-4	1,1-Dichloroethene	ug/L	111	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000311			107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000311			71-36-3	1-Butanol	ug/L	106	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000311			108-10-1	Hexone	ug/L	114	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000311			67-64-1	Acetone	ug/L	123	4.86	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000311			71-43-2	Benzene	ug/L	101	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000311			75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000311			56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000311			67-66-3	Chloroform	ug/L	n/a	<0.0414	0.596	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000311			108-90-7	Chlorobenzene	ug/L	100	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000311			100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000311			1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000311			74-87-3	Chloromethane	ug/L	n/a	<0.0275	0.858	n/a	n/a	n/a	n/a	0.0306	n/a	
S10V000311			78-93-3	2-Butanone	ug/L	103	<0.458	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000311			75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000311			127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000311			108-88-3	Toluene	ug/L	105	0.0849	0.183	n/a	n/a	n/a	n/a	0.0580	n/a	BJ
S10V000311			10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000311			79-01-6	Trichloroethene	ug/L	98.5	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000311			75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000311			156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000311			156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000311			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000311			79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000311			141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000311			60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U

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B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR1

Sample Depth: Field Blank-2

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000311			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U
S10V000311			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000311			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
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B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MR2
Sample Depth: Field Blank-3

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000312			71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000312			79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000312			79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000312			75-35-4	1,1-Dichloroethene	ug/L	108	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000312			107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000312			71-36-3	1-Butanol	ug/L	89.4	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000312			108-10-1	Hexone	ug/L	112	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000312			67-64-1	Acetone	ug/L	85.2	4.52	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000312			71-43-2	Benzene	ug/L	99.0	<0.0163	<0.0181	n/a	n/a	n/a	n/a	0.0181	n/a	U
S10V000312			75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000312			56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000312			67-66-3	Chloroform	ug/L	n/a	<0.0414	0.535	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000312			108-90-7	Chlorobenzene	ug/L	101	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000312			100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000312			1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000312			78-93-3	2-Butanone	ug/L	97.3	<0.458	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000312			75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000312			127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000312			108-88-3	Toluene	ug/L	102	0.112	0.158	n/a	n/a	n/a	n/a	0.0580	n/a	BJ
S10V000312			10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000312			79-01-6	Trichloroethene	ug/L	95.6	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000312			75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000312			156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000312			156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000312			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000312			79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000312			141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000312			60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000312			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR2

Sample Depth: Field Blank-3

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000312			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000312			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MR3
Sample Depth: Field Blank-4

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000313			71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000313			79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000313			79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000313			75-35-4	1,1-Dichloroethene	ug/L	95.6	<0.172	<0.191	n/a	n/a	n/a	88.2	0.191	n/a	U
S10V000313			107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000313			71-36-3	1-Butanol	ug/L	77.2	<1.15	<1.28	n/a	n/a	n/a	85.8	1.28	n/a	U
S10V000313			108-10-1	Hexone	ug/L	98.3	<0.453	<0.503	n/a	n/a	n/a	103	0.503	n/a	U
S10V000313			67-64-1	Acetone	ug/L	82.3	11.2	<0.637	n/a	n/a	n/a	90.4	0.637	n/a	U
S10V000313			71-43-2	Benzene	ug/L	87.5	<0.0163	0.0458	n/a	n/a	n/a	87.2	0.0181	n/a	J
S10V000313			75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000313			56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000313			67-66-3	Chloroform	ug/L	n/a	<0.0414	0.536	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000313			108-90-7	Chlorobenzene	ug/L	92.8	<0.0320	<0.0356	n/a	n/a	n/a	89.5	0.0356	n/a	U
S10V000313			100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000313			1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000313			78-93-3	2-Butanone	ug/L	83.2	<0.458	<0.509	n/a	n/a	n/a	87.5	0.509	n/a	U
S10V000313			75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000313			127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000313			108-88-3	Toluene	ug/L	95.4	0.0943	0.114	n/a	n/a	n/a	93.1	0.0580	n/a	BJ
S10V000313			10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000313			79-01-6	Trichloroethene	ug/L	85.6	<0.0378	<0.0420	n/a	n/a	n/a	80.9	0.0420	n/a	U
S10V000313			75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000313			156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000313			156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000313			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000313			79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000313			141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000313			60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000313			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR3

Sample Depth: Field Blank-4

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000313			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000313			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MR4
Sample Depth: Field Blank-5

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000314		71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000314		79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000314		79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000314		75-35-4	1,1-Dichloroethene	ug/L	119	<0.172	<0.191	n/a	n/a	n/a	107	0.191	n/a	U
S10V000314		107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000314		71-36-3	1-Butanol	ug/L	89.1	<1.15	<1.28	n/a	n/a	n/a	80.7	1.28	n/a	U
S10V000314		108-10-1	Hexone	ug/L	112	<0.453	<0.503	n/a	n/a	n/a	99.0	0.503	n/a	U
S10V000314		67-64-1	Acetone	ug/L	152	21.6	3.65	n/a	n/a	n/a	98.2	0.637	n/a	BJ
S10V000314		71-43-2	Benzene	ug/L	101	<0.0163	0.0524	n/a	n/a	n/a	92.1	0.0181	n/a	J
S10V000314		75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000314		56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000314		67-66-3	Chloroform	ug/L	n/a	<0.0414	0.500	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000314		108-90-7	Chlorobenzene	ug/L	102	<0.0320	<0.0356	n/a	n/a	n/a	94.2	0.0356	n/a	U
S10V000314		100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000314		1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000314		78-93-3	2-Butanone	ug/L	95.8	<0.458	<0.509	n/a	n/a	n/a	87.2	0.509	n/a	U
S10V000314		75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000314		127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000314		108-88-3	Toluene	ug/L	103	0.0699	0.163	n/a	n/a	n/a	97.0	0.0580	n/a	BJ
S10V000314		10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000314		79-01-6	Trichloroethene	ug/L	98.7	<0.0378	<0.0420	n/a	n/a	n/a	88.0	0.0420	n/a	U
S10V000314		75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000314		156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000314		156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000314		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000314		79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000314		141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000314		60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000314		75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR4

Sample Depth: Field Blank-5

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000314			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000314			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MR5
Sample Depth: Field Blank-6

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000315			71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000315			79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000315			79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000315			75-35-4	1,1-Dichloroethene	ug/L	109	<0.172	<0.191	n/a	n/a	n/a	105	0.191	n/a	U
S10V000315			107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000315			71-36-3	1-Butanol	ug/L	77.1	<1.15	<1.28	n/a	n/a	n/a	68.7	1.28	n/a	UT
S10V000315			108-10-1	Hexone	ug/L	109	<0.453	<0.503	n/a	n/a	n/a	93.6	0.503	n/a	U
S10V000315			67-64-1	Acetone	ug/L	160	25.7	2.89	n/a	n/a	n/a	97.9	0.637	n/a	BJ
S10V000315			71-43-2	Benzene	ug/L	97.8	0.0422	<0.0181	n/a	n/a	n/a	95.0	0.0181	n/a	U
S10V000315			75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000315			56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000315			67-66-3	Chloroform	ug/L	n/a	<0.0414	0.533	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000315			108-90-7	Chlorobenzene	ug/L	96.5	<0.0320	<0.0356	n/a	n/a	n/a	95.1	0.0356	n/a	U
S10V000315			100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000315			1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000315			78-93-3	2-Butanone	ug/L	94.3	1.51	<0.509	n/a	n/a	n/a	83.4	0.509	n/a	U
S10V000315			75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000315			127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000315			108-88-3	Toluene	ug/L	99.3	0.0553	0.126	n/a	n/a	n/a	99.9	0.0580	n/a	BJ
S10V000315			10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000315			79-01-6	Trichloroethene	ug/L	93.7	<0.0378	<0.0420	n/a	n/a	n/a	93.6	0.0420	n/a	U
S10V000315			75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000315			156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000315			156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000315			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000315			79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000315			141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000315			60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000315			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR5

Sample Depth: Field Blank-6

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000315			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000315			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
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B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MR6
Sample Depth: Field Blank-7

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000316			71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000316			79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000316			79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000316			75-35-4	1,1-Dichloroethene	ug/L	109	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000316			107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000316			71-36-3	1-Butanol	ug/L	77.1	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	UT
S10V000316			108-10-1	Hexone	ug/L	109	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000316			67-64-1	Acetone	ug/L	160	25.7	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000316			71-43-2	Benzene	ug/L	97.8	0.0422	0.0437	n/a	n/a	n/a	n/a	0.0181	n/a	BJ
S10V000316			75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000316			56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000316			67-66-3	Chloroform	ug/L	n/a	<0.0414	1.11	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000316			108-90-7	Chlorobenzene	ug/L	96.5	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000316			100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000316			1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000316			78-93-3	2-Butanone	ug/L	94.3	1.51	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000316			75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000316			127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000316			108-88-3	Toluene	ug/L	99.3	0.0553	0.262	n/a	n/a	n/a	n/a	0.0580	n/a	BJ
S10V000316			10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000316			79-01-6	Trichloroethene	ug/L	93.7	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000316			75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000316			156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000316			156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000316			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000316			79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000316			141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000316			60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U
S10V000316			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U

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B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR6

Sample Depth: Field Blank-7

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000316			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000316			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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J - Estimated

Data Summary Report

Sample Group: 20100160
Core Number: C7670
Customer Sample ID: B23MR7
Sample Depth: Field Blank-8

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000317			71-55-6	1,1,1-Trichloroethane	ug/L	n/a	<0.0433	<0.0481	n/a	n/a	n/a	n/a	0.0481	n/a	U
S10V000317			79-00-5	1,1,2-Trichloroethane	ug/L	n/a	<0.0230	<0.0256	n/a	n/a	n/a	n/a	0.0256	n/a	U
S10V000317			79-34-5	1,1,2,2-Tetrachloroethane	ug/L	n/a	<0.0203	<0.0226	n/a	n/a	n/a	n/a	0.0226	n/a	U
S10V000317			75-35-4	1,1-Dichloroethene	ug/L	101	<0.172	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000317			107-06-2	1,2-Dichloroethane	ug/L	n/a	<0.0243	<0.0270	n/a	n/a	n/a	n/a	0.0270	n/a	U
S10V000317			71-36-3	1-Butanol	ug/L	81.7	<1.15	<1.28	n/a	n/a	n/a	n/a	1.28	n/a	U
S10V000317			591-78-6	2-Hexanone	ug/L	n/a	<0.454	0.776	n/a	n/a	n/a	n/a	0.505	n/a	J
S10V000317			108-10-1	Hexone	ug/L	123	<0.453	<0.503	n/a	n/a	n/a	n/a	0.503	n/a	U
S10V000317			67-64-1	Acetone	ug/L	172	30.5	3.45	n/a	n/a	n/a	n/a	0.637	n/a	BJ
S10V000317			71-43-2	Benzene	ug/L	95.1	<0.0163	0.0585	n/a	n/a	n/a	n/a	0.0181	n/a	J
S10V000317			75-15-0	Carbon disulfide	ug/L	n/a	<0.0211	<0.0234	n/a	n/a	n/a	n/a	0.0234	n/a	U
S10V000317			56-23-5	Carbon tetrachloride	ug/L	n/a	<0.0479	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000317			67-66-3	Chloroform	ug/L	n/a	<0.0414	0.938	n/a	n/a	n/a	n/a	0.0460	n/a	
S10V000317			108-90-7	Chlorobenzene	ug/L	102	<0.0320	<0.0356	n/a	n/a	n/a	n/a	0.0356	n/a	U
S10V000317			100-41-4	Ethylbenzene	ug/L	n/a	<0.0334	<0.0371	n/a	n/a	n/a	n/a	0.0371	n/a	U
S10V000317			1330-20-7	Xylenes (total)	ug/L	n/a	<0.0940	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000317			78-93-3	2-Butanone	ug/L	97.1	1.66	<0.509	n/a	n/a	n/a	n/a	0.509	n/a	U
S10V000317			75-09-2	Methylenechloride	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000317			127-18-4	Tetrachloroethene	ug/L	n/a	<0.0583	<0.0648	n/a	n/a	n/a	n/a	0.0648	n/a	U
S10V000317			108-88-3	Toluene	ug/L	104	<0.0522	0.102	n/a	n/a	n/a	n/a	0.0580	n/a	J
S10V000317			10061-02-6	trans-1,3-Dichloropropene	ug/L	n/a	<0.0591	<0.0657	n/a	n/a	n/a	n/a	0.0657	n/a	U
S10V000317			79-01-6	Trichloroethene	ug/L	90.6	<0.0378	<0.0420	n/a	n/a	n/a	n/a	0.0420	n/a	U
S10V000317			75-01-4	Vinyl chloride	ug/L	n/a	<0.0486	<0.0540	n/a	n/a	n/a	n/a	0.0540	n/a	U
S10V000317			156-59-2	cis-Dichloroethylene	ug/L	n/a	<0.0582	<0.0647	n/a	n/a	n/a	n/a	0.0647	n/a	U
S10V000317			156-60-5	trans-Dichloroethylene	ug/L	n/a	<0.0752	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000317			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	n/a	<0.0396	<0.0440	n/a	n/a	n/a	n/a	0.0440	n/a	U
S10V000317			79-46-9	2-Nitropropane	ug/L	n/a	<0.265	<0.295	n/a	n/a	n/a	n/a	0.295	n/a	U
S10V000317			141-78-6	Ethyl acetate	ug/L	n/a	<0.183	<0.204	n/a	n/a	n/a	n/a	0.204	n/a	U
S10V000317			60-29-7	Diethyl ether	ug/L	n/a	<0.0423	<0.0470	n/a	n/a	n/a	n/a	0.0470	n/a	U

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J - Estimated

Data Summary Report

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR7

Sample Depth: Field Blank-8

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000317			75-69-4	Trichlorofluoromethane	ug/L	n/a	<0.0458	<0.0509	n/a	n/a	n/a	n/a	0.0509	n/a	U
S10V000317			95-47-6	o-Xylene	ug/L	n/a	<0.0325	<0.0361	n/a	n/a	n/a	n/a	0.0361	n/a	U
S10V000317			179601-23-1	m,p-Xylene	ug/L	n/a	<0.0703	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23R25
Sample Depth: Surface

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000401		%WATERA	%WATER-APD	%	n/a	n/a	8.090	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000401		57-12-5	Cyanide	ug/g	97.0	<0.0370	<2.35	<2.33	n/a	n/a	96.9	2.35	n/a	U
S10V000401		7439-97-6	Mercury	ug/g	102	<1.00E-04	<8.65E-03	n/a	n/a	n/a	n/a	8.65E-03	n/a	U
S10V000401		PH	pH	unitless	n/a	n/a	8.84	n/a	n/a	n/a	n/a	0.0100	n/a	
S10V000401		12597-04-5	Sulfide	ug/g	89.6	<0.180	27.3	25.6	26.4	6.57	81.8	7.20	n/a	B
S10V000418	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	66.6	<77.4	<76.5	n/a	n/a	n/a	77.7	76.5	n/a	U
S10V000418	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<99.6	n/a	n/a	n/a	n/a	99.6	n/a	U
S10V000418	O	121-14-2	2,4-Dinitrotoluene	ug/kg	87.3	<38.1	<37.7	n/a	n/a	n/a	97.2	37.7	n/a	U
S10V000418	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<43.5	n/a	n/a	n/a	n/a	43.5	n/a	U
S10V000418	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<49.0	n/a	n/a	n/a	n/a	49.0	n/a	U
S10V000418	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<56.9	n/a	n/a	n/a	n/a	56.9	n/a	U
S10V000418	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<53.1	n/a	n/a	n/a	n/a	53.1	n/a	U
S10V000418	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<50.8	n/a	n/a	n/a	n/a	50.8	n/a	U
S10V000418	O	83-32-9	Acenaphthene	ug/kg	72.2	<17.6	<17.4	n/a	n/a	n/a	84.3	17.4	n/a	U
S10V000418	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<37.4	n/a	n/a	n/a	n/a	37.4	n/a	U
S10V000418	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<48.4	n/a	n/a	n/a	n/a	48.4	n/a	U
S10V000418	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<40.7	n/a	n/a	n/a	n/a	40.7	n/a	U
S10V000418	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<584	n/a	n/a	n/a	n/a	584	n/a	U
S10V000418	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<38.7	n/a	n/a	n/a	n/a	38.7	n/a	U
S10V000418	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	<50.0	<49.4	n/a	n/a	n/a	n/a	49.4	n/a	U
S10V000418	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	72.5	<43.2	<42.7	n/a	n/a	n/a	84.5	42.7	n/a	U
S10V000418	O	95-57-8	2-Chlorophenol	ug/kg	68.6	<66.5	<65.8	n/a	n/a	n/a	81.5	65.8	n/a	U
S10V000418	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<80.5	n/a	n/a	n/a	n/a	80.5	n/a	U
S10V000418	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<50.5	n/a	n/a	n/a	n/a	50.5	n/a	U
S10V000418	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<556	n/a	n/a	n/a	n/a	556	n/a	U
S10V000418	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	<47.2	n/a	n/a	n/a	n/a	47.2	n/a	U
S10V000418	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	67.1	<58.1	<57.5	n/a	n/a	n/a	75.4	57.5	n/a	U
S10V000418	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<35.0	n/a	n/a	n/a	n/a	35.0	n/a	U
S10V000418	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<68.9	n/a	n/a	n/a	n/a	68.9	n/a	U

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N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23R25
Sample Depth: Surface

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000418		O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<111	n/a	n/a	n/a	n/a	111	n/a	U
S10V000418		O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<50.4	n/a	n/a	n/a	n/a	50.4	n/a	U
S10V000418		O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<61.9	n/a	n/a	n/a	n/a	61.9	n/a	U
S10V000418		O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<63.9	n/a	n/a	n/a	n/a	63.9	n/a	U
S10V000418		O	129-00-0	Pyrene	ug/kg	93.9	<62.9	<62.2	n/a	n/a	n/a	95.8	62.2	n/a	U
S10V000418		O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<64.3	n/a	n/a	n/a	n/a	64.3	n/a	U
S10V000418		O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<107	n/a	n/a	n/a	n/a	107	n/a	U
S10V000418		O	128-37-0	BHT	ug/kg	n/a	<236	<233	n/a	n/a	n/a	n/a	233	n/a	U
S10V000418		O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<180	n/a	n/a	n/a	n/a	180	n/a	U
S10V000418		O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<105	n/a	n/a	n/a	n/a	105	n/a	U
S10V000418		O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<552	n/a	n/a	n/a	n/a	552	n/a	U
S10V000418		O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<189	n/a	n/a	n/a	n/a	189	n/a	U
S10V000418		O	78-83-1	Isobutanol	ug/kg	n/a	<460	<455	n/a	n/a	n/a	n/a	455	n/a	U
S10V000419		W	16984-48-8	Fluoride	ug/g	103	<1.61E-03	1.04	n/a	n/a	n/a	n/a	0.0160	n/a	
S10V000419		W	GLYCOLAT	Glycolate	ug/g	101	<9.37E-03	<0.0930	n/a	n/a	n/a	n/a	0.0930	n/a	U
S10V000419		W	71-50-1	Acetate	ug/g	98.8	<6.04E-03	0.163	n/a	n/a	n/a	n/a	0.0599	n/a	B
S10V000419		W	FORMATE	Formate	ug/g	102	<4.67E-03	0.564	n/a	n/a	n/a	n/a	0.0463	n/a	B
S10V000419		W	16887-00-6	Chloride	ug/g	100	<9.98E-03	1.23	n/a	n/a	n/a	n/a	0.0990	n/a	
S10V000419		W	14797-65-0	Nitrite	ug/g	100	0.0449	1.40	n/a	n/a	n/a	n/a	0.190	n/a	CB
S10V000419		W	14808-79-8	Sulfate	ug/g	102	<0.0187	2.76	n/a	n/a	n/a	n/a	0.186	n/a	B
S10V000419		W	338-70-5	Oxalate	ug/g	101	<0.0231	0.472	n/a	n/a	n/a	n/a	0.229	n/a	B
S10V000419		W	24959-67-9	Bromide	ug/g	101	<0.0580	<0.575	n/a	n/a	n/a	n/a	0.575	n/a	U
S10V000419		W	14797-55-8	Nitrate	ug/g	101	<0.0208	4.08	n/a	n/a	n/a	n/a	0.206	n/a	
S10V000419		W	14265-44-2	Phosphate	ug/g	101	<0.0167	0.552	n/a	n/a	n/a	n/a	0.166	n/a	B
S10V000420		A	7429-90-5	Aluminum	ug/g	94.0	<0.0300	6.58E+03	6.93E+03	6.75E+03	5.17	1.94E+03	3.28	n/a	
S10V000420		A	7440-39-3	Barium	ug/g	96.6	<3.00E-03	86.3	87.3	86.8	1.08	106	0.328	n/a	
S10V000420		A	7440-41-7	Beryllium	ug/g	100	<1.00E-03	0.216	0.208	0.212	3.79	101	0.109	n/a	B
S10V000420		A	7440-69-9	Bismuth	ug/g	91.8	<0.100	12.2	<10.3	n/a	n/a	114	10.9	n/a	B
S10V000420		A	7440-70-2	Calcium	ug/g	91.3	0.586	1.13E+04	1.18E+04	1.15E+04	5.11	1.71E+03	5.47	n/a	

NA = Not Analyzed, ND = Not Detected

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N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23R25
Sample Depth: Surface

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000420	A	7440-45-1	Cerium	ug/g	98.1	<0.0300	23.6	21.3	22.5	10.2	100	3.28	n/a	B
S10V000420	A	7440-48-4	Cobalt	ug/g	93.9	<0.0100	7.58	8.70	8.14	13.8	104	1.09	n/a	B
S10V000420	A	7440-47-3	Chromium	ug/g	93.9	<5.00E-03	7.35	7.65	7.50	3.99	104	0.547	n/a	
S10V000420	A	7440-50-8	Copper	ug/g	95.3	<5.00E-03	11.5	12.1	11.8	5.07	101	0.547	n/a	
S10V000420	A	7439-89-6	Iron	ug/g	93.8	0.0228	1.90E+04	1.93E+04	1.92E+04	1.88	2.07E+03	0.547	n/a	
S10V000420	A	7440-09-7	Potassium	ug/g	102	<0.500	1.45E+03	1.49E+03	1.47E+03	2.42	357	54.7	n/a	
S10V000420	A	7439-91-0	Lanthanum	ug/g	96.3	<3.00E-03	10.0	9.81	9.91	2.06	99.8	0.328	n/a	
S10V000420	A	7439-93-2	Lithium	ug/g	100	<3.00E-03	7.28	7.66	7.47	5.14	103	0.328	n/a	
S10V000420	A	7439-95-4	Magnesium	ug/g	92.3	<0.0500	4.90E+03	4.98E+03	4.94E+03	1.67	1.07E+03	5.47	n/a	
S10V000420	A	7439-96-5	Manganese	ug/g	93.3	<3.00E-03	348	341	344	2.12	107	0.328	n/a	
S10V000420	A	7439-98-7	Molybdenum	ug/g	93.9	<0.0200	<2.19	<2.07	n/a	n/a	93.8	2.19	n/a	U
S10V000420	A	7440-23-5	Sodium	ug/g	98.1	<0.100	200	207	203	3.82	249	10.9	n/a	N
S10V000420	A	7440-02-0	Nickel	ug/g	92.8	<0.0200	10.6	11.0	10.8	3.70	107	2.19	n/a	B
S10V000420	A	7723-14-0	Phosphorus	ug/g	93.9	<0.0500	862	912	887	5.64	108	5.47	n/a	
S10V000420	A	7439-92-1	Lead	ug/g	95.2	<0.0500	9.00	8.76	8.88	2.71	105	5.47	n/a	B
S10V000420	A	7704-34-9	Sulfur	ug/g	94.7	<0.100	60.1	67.2	63.6	11.2	111	10.9	n/a	B
S10V000420	A	7440-21-3	Silicon	ug/g	85.0	<0.0300	150	n/a	n/a	n/a	196	3.28	n/a	N
S10V000420	A	7440-24-6	Strontium	ug/g	96.3	<3.00E-03	31.4	34.5	32.9	9.41	108	0.328	n/a	
S10V000420	A	7440-32-6	Titanium	ug/g	93.9	<5.00E-03	968	1000	984	3.20	169	0.547	n/a	
S10V000420	A	7440-62-2	Vanadium	ug/g	95.9	<5.00E-03	33.3	33.9	33.6	1.71	106	0.547	n/a	
S10V000420	A	7440-65-5	Yttrium	ug/g	91.7	<2.00E-03	9.98	n/a	n/a	n/a	95.5	0.219	n/a	
S10V000420	A	7440-66-6	Zinc	ug/g	92.7	9.32E-03	35.9	37.6	36.7	4.65	104	0.547	n/a	
S10V000420	A	7440-67-7	Zirconium	ug/g	92.8	<5.00E-03	4.27	3.32	3.80	25.2	34.3	0.547	n/a	CBN
S10V000420	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	3.83E-05	<2.90E-05	n/a	n/a	n/a	3.06E-05	n/a	
S10V000420	A	TH-232	Thorium-232	ug/g	106	<6.80E-05	3.77	3.17	3.47	17.5	62.2	7.44E-04	n/a	N
S10V000420	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	1.16E-04	1.26E-04	1.21E-04	8.04	n/a	4.38E-05	n/a	
S10V000420	A	13966-29-5	Uranium-234	ug/g	n/a	<2.00E-06	<2.19E-05	<2.07E-05	n/a	n/a	n/a	2.19E-05	n/a	U
S10V000420	A	15117-96-1	Uranium-235	ug/g	96.7	<4.40E-06	3.83E-03	4.56E-03	4.19E-03	17.6	88.6	4.81E-05	n/a	
S10V000420	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	2.07E-05	<1.65E-05	n/a	n/a	n/a	1.75E-05	n/a	

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U - Less Than Detection Limit
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J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23R25
Sample Depth: Surface

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000420	A	13994-20-2	Neptunium-237	ug/g	103	<2.12E-05	<2.32E-04	<2.19E-04	n/a	n/a	106	2.32E-04	n/a	U
S10V000420	A	U-238	Uranium-238	ug/g	105	<2.20E-04	0.558	0.660	0.609	16.7	94.5	2.41E-03	n/a	
S10V000420	A	7440-22-4	Silver	ug/g	97.1	<8.00E-03	<0.0875	0.121	n/a	n/a	108	0.0875	n/a	U
S10V000420	A	7440-38-2	Arsenic	ug/g	112	<0.0420	3.91	3.94	3.92	0.855	95.6	0.460	n/a	
S10V000420	A	7440-43-9	Cadmium	ug/g	98.1	<3.00E-03	0.101	0.0862	0.0937	16.0	110	0.0328	n/a	
S10V000420	A	7782-49-2	Selenium	ug/g	107	<0.0610	<0.667	<0.631	n/a	n/a	101	0.667	n/a	U
S10V000420	A	7440-28-0	Thallium	ug/g	92.9	2.23E-03	0.0994	0.0917	0.0956	8.05	95.7	6.57E-03	n/a	C
S10V000421	S	14798-03-9	Ammonium	ug/g	95.4	0.183	2.97	n/a	n/a	n/a	n/a	0.474	n/a	CB
S10V000422	A	14133-76-7	Technetium-99	ug/g	104	<3.00E-05	<3.52E-04	<3.43E-04	n/a	n/a	101	3.52E-04	n/a	U
S10V000422	A	SN-117	Tin-117	ug/g	109	<1.10E-03	0.0174	0.0166	0.0170	4.90	58.6	0.0109	n/a	N
S10V000422	A	15832-50-5	Tin-126	ug/g	n/a	<2.00E-05	2.17E-04	2.51E-04	2.34E-04	14.9	n/a	1.98E-04	n/a	N
S10V000571		13966-00-2	Potassium-40	uCi/g	n/a	<7.29E-06	8.59E-06	n/a	n/a	n/a	n/a	6.33E-06	47.38	
S10V000571		10198-40-0	Cobalt-60	uCi/g	99.3	<2.87E-07	<3.33E-07	n/a	n/a	n/a	n/a	3.33E-07	n/a	U
S10V000571		14234-35-6	Antimony-125	uCi/g	n/a	<7.84E-07	<1.00E-06	n/a	n/a	n/a	n/a	1.00E-06	n/a	U
S10V000571		10045-97-3	Cesium-137	uCi/g	99.7	<3.71E-07	7.52E-06	n/a	n/a	n/a	n/a	3.73E-07	7.59	
S10V000571		14683-23-9	Europium-152	uCi/g	n/a	<1.61E-06	<1.59E-06	n/a	n/a	n/a	n/a	1.59E-06	n/a	U
S10V000571		15585-10-1	Europium-154	uCi/g	n/a	<9.14E-07	<1.02E-06	n/a	n/a	n/a	n/a	1.02E-06	n/a	U
S10V000571		14391-16-3	Europium-155	uCi/g	n/a	<4.78E-07	<5.72E-07	n/a	n/a	n/a	n/a	5.72E-07	n/a	U
S10V000571		15067-28-4	Lead-214	uCi/g	n/a	<5.69E-07	1.06E-06	n/a	n/a	n/a	n/a	8.95E-07	26.21	
S10V000571		14274-82-9	Thorium-228	uCi/g	n/a	<8.12E-06	<1.08E-05	n/a	n/a	n/a	n/a	1.08E-05	n/a	U
S10V000571		15065-10-8	Thorium-234	uCi/g	n/a	<2.54E-06	<3.65E-06	n/a	n/a	n/a	n/a	3.65E-06	n/a	U
S10V000571		15046-84-1	Iodine-129	uCi/g	106	<2.36E-07	<1.70E-07	n/a	n/a	n/a	n/a	1.70E-07	n/a	U
S10V000572	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.15E-07	<1.63E-07	n/a	n/a	n/a	n/a	1.63E-07	n/a	U
S10V000572	E	14596-10-2	Americium-241	uCi/g	100	<5.39E-07	<4.07E-07	n/a	n/a	n/a	n/a	4.07E-07	n/a	U
S10V000572	E	15510-73-3	Curium-242	uCi/g	n/a	<2.15E-07	<1.63E-07	n/a	n/a	n/a	n/a	1.63E-07	n/a	U
S10V000572	E	PU-239/240	Plutonium-239/240	uCi/g	94.1	<2.75E-07	<2.78E-07	n/a	n/a	n/a	n/a	2.78E-07	n/a	U
S10V000572	E	13981-16-3	Plutonium-238	uCi/g	n/a	<2.75E-07	<2.78E-07	n/a	n/a	n/a	n/a	2.78E-07	n/a	U
S10V000573	E	SR-89/90	Strontium-89/90	uCi/g	96.2	<4.45E-07	1.34E-06	n/a	n/a	n/a	n/a	1.12E-07	19.729	
S10V000574	E	13981-37-8	Nickel-63	uCi/g	108	<2.44E-05	1.56E-05	n/a	n/a	n/a	n/a	1.06E-05	142.893	

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C - Blank Contamination
T - MS/MSD Outside Range
B - Estimated
M - RPD Outside Range
N - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated

Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23R25

Sample Depth: Surface

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000574		E	15758-45-9	Selenium-79	uCi/g	n/a	<7.37E-07	<8.94E-07	n/a	n/a	n/a	n/a	8.94E-07	n/a	U
S10V001175		W	14762-75-5	Carbon-14	uCi/g	93.5	<1.73E-07	<2.58E-06	n/a	n/a	n/a	n/a	2.58E-06	n/a	U
S10V001175		W	10028-17-8	Tritium	uCi/g	94.2	<4.07E-06	<3.89E-06	n/a	n/a	n/a	n/a	3.89E-06	n/a	U
S10V001219		A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.286	0.290	0.288	1.27	89.5	9.60E-03	n/a	
S10V001729		WV	14133-76-7	Technetium-99	ug/g	107	<4.00E-06	<4.17E-06	<4.26E-06	n/a	n/a	90.8	4.17E-06	n/a	U

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J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KN6
Sample Depth: Surface

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000368			71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0757	n/a	n/a	n/a	n/a	0.0757	n/a	U
S10V000368			79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.136	n/a	n/a	n/a	n/a	0.136	n/a	U
S10V000368			79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.174	n/a	n/a	n/a	n/a	0.174	n/a	U
S10V000368			75-35-4	1,1-Dichloroethene	ug/kg	115	<0.423	<0.348	n/a	n/a	n/a	102	0.348	n/a	U
S10V000368			107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0442	n/a	n/a	n/a	n/a	0.0442	n/a	U
S10V000368			71-36-3	1-Butanol	ug/kg	102	<10.3	<8.46	n/a	n/a	n/a	111	8.46	n/a	U
S10V000368			108-10-1	Hexone	ug/kg	126	<1.71	<1.40	n/a	n/a	n/a	140	1.40	n/a	U
S10V000368			67-64-1	Acetone	ug/kg	101	<2.20	<1.81	n/a	n/a	n/a	122	1.81	n/a	U
S10V000368			71-43-2	Benzene	ug/kg	103	<0.147	<0.121	n/a	n/a	n/a	94.5	0.121	n/a	U
S10V000368			75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.132	n/a	n/a	n/a	n/a	0.132	n/a	U
S10V000368			56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0768	n/a	n/a	n/a	n/a	0.0768	n/a	U
S10V000368			67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.108	n/a	n/a	n/a	n/a	0.108	n/a	U
S10V000368			108-90-7	Chlorobenzene	ug/kg	107	<0.0864	<0.0711	n/a	n/a	n/a	96.9	0.0711	n/a	U
S10V000368			100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.0882	n/a	n/a	n/a	n/a	0.0882	n/a	U
S10V000368			1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.167	n/a	n/a	n/a	n/a	0.167	n/a	U
S10V000368			78-93-3	2-Butanone	ug/kg	108	<1.96	<1.62	n/a	n/a	n/a	122	1.62	n/a	U
S10V000368			75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0526	n/a	n/a	n/a	n/a	0.0526	n/a	U
S10V000368			127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.0903	n/a	n/a	n/a	n/a	0.0903	n/a	U
S10V000368			108-88-3	Toluene	ug/kg	107	0.287	0.360	n/a	n/a	n/a	97.5	0.0660	n/a	BJ
S10V000368			10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.223	n/a	n/a	n/a	n/a	0.223	n/a	U
S10V000368			79-01-6	Trichloroethene	ug/kg	98.7	<0.121	<0.0995	n/a	n/a	n/a	88.2	0.0995	n/a	U
S10V000368			75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.143	n/a	n/a	n/a	n/a	0.143	n/a	U
S10V000368			156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.149	n/a	n/a	n/a	n/a	0.149	n/a	U
S10V000368			156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.249	n/a	n/a	n/a	n/a	0.249	n/a	U
S10V000368			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.0956	n/a	n/a	n/a	n/a	0.0956	n/a	U
S10V000368			79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.484	n/a	n/a	n/a	n/a	0.484	n/a	U
S10V000368			141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.483	n/a	n/a	n/a	n/a	0.483	n/a	U
S10V000368			60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.211	n/a	n/a	n/a	n/a	0.211	n/a	U
S10V000368			75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0773	n/a	n/a	n/a	n/a	0.0773	n/a	U

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B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KN6

Sample Depth: Surface

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000368			95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0757	n/a	n/a	n/a	n/a	0.0757	n/a	U
S10V000368			179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.138	n/a	n/a	n/a	n/a	0.138	n/a	U

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J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KN7
Sample Depth: Surface Dup

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000402		%WATERA	%WATER-APD	%	n/a	n/a	7.320	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000402		57-12-5	Cyanide	ug/g	97.0	<0.0370	<2.46	n/a	n/a	n/a	n/a	2.46	n/a	U
S10V000402		7439-97-6	Mercury	ug/g	102	<1.00E-04	<8.63E-03	n/a	n/a	n/a	n/a	8.63E-03	n/a	U
S10V000402		PH	pH	unitless	n/a	n/a	8.15	8.63	8.39	5.72	n/a	0.0100	n/a	
S10V000402		12597-04-5	Sulfide	ug/g	89.6	<0.180	34.8	n/a	n/a	n/a	n/a	7.23	n/a	B
S10V000575		13966-00-2	Potassium-40	uCi/g	n/a	<7.29E-06	1.46E-05	n/a	n/a	n/a	n/a	6.68E-06	30.93	
S10V000575		10198-40-0	Cobalt-60	uCi/g	99.3	<2.87E-07	<3.54E-07	n/a	n/a	n/a	n/a	3.54E-07	n/a	U
S10V000575		14234-35-6	Antimony-125	uCi/g	n/a	<7.84E-07	<9.75E-07	n/a	n/a	n/a	n/a	9.75E-07	n/a	U
S10V000575		10045-97-3	Cesium-137	uCi/g	99.7	<3.71E-07	5.40E-06	n/a	n/a	n/a	n/a	4.06E-07	8.93	
S10V000575		14683-23-9	Europium-152	uCi/g	n/a	<1.61E-06	<1.49E-06	n/a	n/a	n/a	n/a	1.49E-06	n/a	U
S10V000575		15585-10-1	Europium-154	uCi/g	n/a	<9.14E-07	<1.10E-06	n/a	n/a	n/a	n/a	1.10E-06	n/a	U
S10V000575		14391-16-3	Europium-155	uCi/g	n/a	<4.78E-07	<5.91E-07	n/a	n/a	n/a	n/a	5.91E-07	n/a	U
S10V000575		15092-94-1	Lead-212	uCi/g	n/a	<4.24E-07	5.33E-07	n/a	n/a	n/a	n/a	6.25E-07	47.66	
S10V000575		15067-28-4	Lead-214	uCi/g	n/a	<5.69E-07	7.51E-07	n/a	n/a	n/a	n/a	8.51E-07	44.49	
S10V000575		14274-82-9	Thorium-228	uCi/g	n/a	<8.12E-06	<1.10E-05	n/a	n/a	n/a	n/a	1.10E-05	n/a	U
S10V000575		15065-10-8	Thorium-234	uCi/g	n/a	<2.54E-06	<3.66E-06	n/a	n/a	n/a	n/a	3.66E-06	n/a	U
S10V000575		15046-84-1	Iodine-129	uCi/g	106	<2.36E-07	<2.14E-07	n/a	n/a	n/a	n/a	2.14E-07	n/a	U
S10V000576	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	66.6	<77.4	<69.7	n/a	n/a	n/a	n/a	69.7	n/a	U
S10V000576	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<90.6	n/a	n/a	n/a	n/a	90.6	n/a	U
S10V000576	O	121-14-2	2,4-Dinitrotoluene	ug/kg	87.3	<38.1	<34.3	n/a	n/a	n/a	n/a	34.3	n/a	U
S10V000576	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<39.6	n/a	n/a	n/a	n/a	39.6	n/a	U
S10V000576	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<44.6	n/a	n/a	n/a	n/a	44.6	n/a	U
S10V000576	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<51.8	n/a	n/a	n/a	n/a	51.8	n/a	U
S10V000576	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<48.3	n/a	n/a	n/a	n/a	48.3	n/a	U
S10V000576	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<46.3	n/a	n/a	n/a	n/a	46.3	n/a	U
S10V000576	O	83-32-9	Acenaphthene	ug/kg	72.2	<17.6	<15.8	n/a	n/a	n/a	n/a	15.8	n/a	U
S10V000576	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<34.0	n/a	n/a	n/a	n/a	34.0	n/a	U
S10V000576	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<44.0	n/a	n/a	n/a	n/a	44.0	n/a	U
S10V000576	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<37.1	n/a	n/a	n/a	n/a	37.1	n/a	U

NA = Not Analyzed, ND = Not Detected

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KN7
Sample Depth: Surface Dup

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000576	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<531	n/a	n/a	n/a	n/a	531	n/a	U
S10V000576	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<35.2	n/a	n/a	n/a	n/a	35.2	n/a	U
S10V000576	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	<50.0	<45.0	n/a	n/a	n/a	n/a	45.0	n/a	U
S10V000576	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	72.5	<43.2	<38.9	n/a	n/a	n/a	n/a	38.9	n/a	U
S10V000576	O	95-57-8	2-Chlorophenol	ug/kg	68.6	<66.5	<59.9	n/a	n/a	n/a	n/a	59.9	n/a	U
S10V000576	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<73.3	n/a	n/a	n/a	n/a	73.3	n/a	U
S10V000576	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<46.0	n/a	n/a	n/a	n/a	46.0	n/a	U
S10V000576	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<506	n/a	n/a	n/a	n/a	506	n/a	U
S10V000576	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	<42.9	n/a	n/a	n/a	n/a	42.9	n/a	U
S10V000576	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	67.1	<58.1	<52.3	n/a	n/a	n/a	n/a	52.3	n/a	U
S10V000576	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<31.9	n/a	n/a	n/a	n/a	31.9	n/a	U
S10V000576	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<62.7	n/a	n/a	n/a	n/a	62.7	n/a	U
S10V000576	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<101	n/a	n/a	n/a	n/a	101	n/a	U
S10V000576	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<45.9	n/a	n/a	n/a	n/a	45.9	n/a	U
S10V000576	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<56.3	n/a	n/a	n/a	n/a	56.3	n/a	U
S10V000576	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<58.1	n/a	n/a	n/a	n/a	58.1	n/a	U
S10V000576	O	129-00-0	Pyrene	ug/kg	93.9	<62.9	<56.6	n/a	n/a	n/a	n/a	56.6	n/a	U
S10V000576	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<58.5	n/a	n/a	n/a	n/a	58.5	n/a	U
S10V000576	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<97.0	n/a	n/a	n/a	n/a	97.0	n/a	U
S10V000576	O	128-37-0	BHT	ug/kg	n/a	<236	<212	n/a	n/a	n/a	n/a	212	n/a	U
S10V000576	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<164	n/a	n/a	n/a	n/a	164	n/a	U
S10V000576	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<95.9	n/a	n/a	n/a	n/a	95.9	n/a	U
S10V000576	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<502	n/a	n/a	n/a	n/a	502	n/a	U
S10V000576	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<172	n/a	n/a	n/a	n/a	172	n/a	U
S10V000576	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<414	n/a	n/a	n/a	n/a	414	n/a	U
S10V000577	W	14762-75-5	Carbon-14	uCi/g	93.5	<2.60E-07	<2.83E-06	n/a	n/a	n/a	n/a	2.83E-06	n/a	U
S10V000577	W	16984-48-8	Fluoride	ug/g	103	<1.61E-03	1.36	n/a	n/a	n/a	n/a	0.0161	n/a	
S10V000577	W	GLYCOLAT	Glycolate	ug/g	101	<9.37E-03	<0.0936	n/a	n/a	n/a	n/a	0.0936	n/a	U
S10V000577	W	71-50-1	Acetate	ug/g	98.8	<6.04E-03	<0.0603	n/a	n/a	n/a	n/a	0.0603	n/a	U

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J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KN7
Sample Depth: Surface Dup

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000577	W	FORMATE	Formate	ug/g	102	<4.67E-03	0.311	n/a	n/a	n/a	n/a	0.0467	n/a	B
S10V000577	W	16887-00-6	Chloride	ug/g	100	<9.98E-03	0.417	n/a	n/a	n/a	n/a	0.0997	n/a	B
S10V000577	W	14797-65-0	Nitrite	ug/g	100	0.0449	0.643	n/a	n/a	n/a	n/a	0.192	n/a	CB
S10V000577	W	14808-79-8	Sulfate	ug/g	102	<0.0187	2.00	n/a	n/a	n/a	n/a	0.187	n/a	B
S10V000577	W	338-70-5	Oxalate	ug/g	101	<0.0231	0.405	n/a	n/a	n/a	n/a	0.231	n/a	B
S10V000577	W	24959-67-9	Bromide	ug/g	101	<0.0580	<0.579	n/a	n/a	n/a	n/a	0.579	n/a	U
S10V000577	W	14797-55-8	Nitrate	ug/g	101	<0.0208	2.07	n/a	n/a	n/a	n/a	0.208	n/a	B
S10V000577	W	14265-44-2	Phosphate	ug/g	101	<0.0167	0.512	n/a	n/a	n/a	n/a	0.167	n/a	B
S10V000578	A	7429-90-5	Aluminum	ug/g	94.0	<0.0300	6.71E+03	n/a	n/a	n/a	n/a	3.16	n/a	
S10V000578	A	7440-39-3	Barium	ug/g	96.6	<3.00E-03	83.8	n/a	n/a	n/a	n/a	0.316	n/a	
S10V000578	A	7440-41-7	Beryllium	ug/g	100	<1.00E-03	0.191	n/a	n/a	n/a	n/a	0.105	n/a	B
S10V000578	A	7440-70-2	Calcium	ug/g	91.3	0.586	1.11E+04	n/a	n/a	n/a	n/a	5.27	n/a	
S10V000578	A	7440-45-1	Cerium	ug/g	98.1	<0.0300	20.8	n/a	n/a	n/a	n/a	3.16	n/a	B
S10V000578	A	7440-48-4	Cobalt	ug/g	93.9	<0.0100	8.81	n/a	n/a	n/a	n/a	1.05	n/a	B
S10V000578	A	7440-47-3	Chromium	ug/g	93.9	<5.00E-03	7.57	n/a	n/a	n/a	n/a	0.527	n/a	
S10V000578	A	7440-50-8	Copper	ug/g	95.3	<5.00E-03	11.4	n/a	n/a	n/a	n/a	0.527	n/a	
S10V000578	A	7439-89-6	Iron	ug/g	93.8	0.0228	2.01E+04	n/a	n/a	n/a	n/a	0.527	n/a	
S10V000578	A	7440-09-7	Potassium	ug/g	102	<0.500	1.33E+03	n/a	n/a	n/a	n/a	52.7	n/a	
S10V000578	A	7439-91-0	Lanthanum	ug/g	96.3	<3.00E-03	9.22	n/a	n/a	n/a	n/a	0.316	n/a	
S10V000578	A	7439-93-2	Lithium	ug/g	100	<3.00E-03	7.08	n/a	n/a	n/a	n/a	0.316	n/a	
S10V000578	A	7439-95-4	Magnesium	ug/g	92.3	<0.0500	4.85E+03	n/a	n/a	n/a	n/a	5.27	n/a	
S10V000578	A	7439-96-5	Manganese	ug/g	93.3	<3.00E-03	337	n/a	n/a	n/a	n/a	0.316	n/a	
S10V000578	A	7439-98-7	Molybdenum	ug/g	93.9	<0.0200	<2.11	n/a	n/a	n/a	n/a	2.11	n/a	U
S10V000578	A	7440-23-5	Sodium	ug/g	98.1	<0.100	201	n/a	n/a	n/a	n/a	10.5	n/a	N
S10V000578	A	7440-02-0	Nickel	ug/g	92.8	<0.0200	11.5	n/a	n/a	n/a	n/a	2.11	n/a	B
S10V000578	A	7723-14-0	Phosphorus	ug/g	93.9	<0.0500	889	n/a	n/a	n/a	n/a	5.27	n/a	
S10V000578	A	7704-34-9	Sulfur	ug/g	94.7	<0.100	61.9	n/a	n/a	n/a	n/a	10.5	n/a	B
S10V000578	A	7440-21-3	Silicon	ug/g	85.0	<0.0300	172	n/a	n/a	n/a	n/a	3.16	n/a	N
S10V000578	A	7440-24-6	Strontium	ug/g	96.3	<3.00E-03	33.3	n/a	n/a	n/a	n/a	0.316	n/a	

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KN7
Sample Depth: Surface Dup

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000578	A	7440-32-6	Titanium	ug/g	93.9	<5.00E-03	1.10E+03	n/a	n/a	n/a	n/a	0.527	n/a	
S10V000578	A	7440-62-2	Vanadium	ug/g	95.9	<5.00E-03	37.9	n/a	n/a	n/a	n/a	0.527	n/a	
S10V000578	A	7440-65-5	Yttrium	ug/g	91.7	<2.00E-03	9.91	n/a	n/a	n/a	n/a	0.211	n/a	
S10V000578	A	7440-66-6	Zinc	ug/g	92.7	9.32E-03	36.8	n/a	n/a	n/a	n/a	0.527	n/a	
S10V000578	A	7440-67-7	Zirconium	ug/g	92.8	<5.00E-03	2.88	n/a	n/a	n/a	n/a	0.527	n/a	CBN
S10V000578	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<2.95E-05	n/a	n/a	n/a	n/a	2.95E-05	n/a	U
S10V000578	A	TH-232	Thorium-232	ug/g	106	<6.80E-05	5.32	n/a	n/a	n/a	n/a	7.16E-04	n/a	N
S10V000578	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	2.16E-04	n/a	n/a	n/a	n/a	4.21E-05	n/a	
S10V000578	A	13966-29-5	Uranium-234	ug/g	n/a	<2.00E-06	4.14E-05	n/a	n/a	n/a	n/a	2.11E-05	n/a	
S10V000578	A	15117-96-1	Uranium-235	ug/g	96.7	<4.40E-06	6.60E-03	n/a	n/a	n/a	n/a	4.63E-05	n/a	
S10V000578	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	1.98E-05	n/a	n/a	n/a	n/a	1.69E-05	n/a	
S10V000578	A	13994-20-2	Neptunium-237	ug/g	103	<2.12E-05	<2.23E-04	n/a	n/a	n/a	n/a	2.23E-04	n/a	U
S10V000578	A	U-238	Uranium-238	ug/g	105	<2.20E-04	0.974	n/a	n/a	n/a	n/a	2.32E-03	n/a	
S10V000578	A	7440-22-4	Silver	ug/g	97.1	<8.00E-03	<0.0843	n/a	n/a	n/a	99.0	0.0843	n/a	U
S10V000578	A	7440-38-2	Arsenic	ug/g	112	<0.0420	4.52	n/a	n/a	n/a	n/a	0.442	n/a	
S10V000578	A	7440-43-9	Cadmium	ug/g	98.1	<3.00E-03	0.0892	n/a	n/a	n/a	n/a	0.0316	n/a	
S10V000578	A	7439-92-1	Lead	ug/g	101	<0.0310	6.28	n/a	n/a	n/a	n/a	0.327	n/a	
S10V000578	A	7782-49-2	Selenium	ug/g	107	<0.0610	<0.643	n/a	n/a	n/a	88.6	0.643	n/a	U
S10V000578	A	7440-28-0	Thallium	ug/g	92.9	2.23E-03	0.0852	n/a	n/a	n/a	n/a	6.32E-03	n/a	C
S10V000579	S	14798-03-9	Ammonium	ug/g	95.4	0.183	2.75	n/a	n/a	n/a	n/a	0.475	n/a	CB
S10V000624	A	14133-76-7	Technetium-99	ug/g	104	<3.00E-05	<3.28E-04	n/a	n/a	n/a	n/a	3.28E-04	n/a	U
S10V000624	A	SN-117	Tin-117	ug/g	109	<1.10E-03	0.0181	n/a	n/a	n/a	n/a	0.0102	n/a	N
S10V000624	A	15832-50-5	Tin-126	ug/g	n/a	<2.00E-05	2.79E-04	n/a	n/a	n/a	n/a	1.85E-04	n/a	N
S10V000625	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.15E-07	<1.82E-07	n/a	n/a	n/a	n/a	1.82E-07	n/a	U
S10V000625	E	14596-10-2	Americium-241	uCi/g	100	<5.39E-07	<4.56E-07	n/a	n/a	n/a	n/a	4.56E-07	n/a	U
S10V000625	E	15510-73-3	Curium-242	uCi/g	n/a	<2.15E-07	<1.82E-07	n/a	n/a	n/a	n/a	1.82E-07	n/a	U
S10V000625	E	PU-239/240	Plutonium-239/240	uCi/g	94.1	<2.75E-07	<2.47E-07	n/a	n/a	n/a	n/a	2.47E-07	n/a	U
S10V000625	E	13981-16-3	Plutonium-238	uCi/g	n/a	<2.75E-07	<2.47E-07	n/a	n/a	n/a	n/a	2.47E-07	n/a	U
S10V000626	E	SR-89/90	Strontium-89/90	uCi/g	96.2	<4.45E-07	1.45E-06	n/a	n/a	n/a	n/a	1.24E-07	20.079	

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J - Estimated

Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KN7

Sample Depth: Surface Dup

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000627		E	13981-37-8	Nickel-63	uCi/g	108	<2.44E-05	3.90E-04	n/a	n/a	n/a	n/a	1.08E-05	5.237	
S10V000627		E	15758-45-9	Selenium-79	uCi/g	n/a	<7.37E-07	<1.73E-06	n/a	n/a	n/a	n/a	1.73E-06	n/a	U
S10V001176		W	10028-17-8	Tritium	uCi/g	94.2	<4.07E-06	<4.85E-06	4.26E-06	n/a	n/a	94.5	4.85E-06	n/a	U
S10V001214		A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.267	n/a	n/a	n/a	n/a	9.34E-03	n/a	
S10V001730		WV	14133-76-7	Technetium-99	ug/g	107	<4.00E-06	<4.15E-06	n/a	n/a	n/a	n/a	4.15E-06	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KN9
Sample Depth: Surface Dup

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000369			71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0832	n/a	n/a	n/a	n/a	0.0832	n/a	U
S10V000369			79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.150	n/a	n/a	n/a	n/a	0.150	n/a	U
S10V000369			79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.191	n/a	n/a	n/a	n/a	0.191	n/a	U
S10V000369			75-35-4	1,1-Dichloroethene	ug/kg	115	<0.423	<0.383	n/a	n/a	n/a	n/a	0.383	n/a	U
S10V000369			107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0486	n/a	n/a	n/a	n/a	0.0486	n/a	U
S10V000369			71-36-3	1-Butanol	ug/kg	102	<10.3	22.2	n/a	n/a	n/a	n/a	9.31	n/a	J
S10V000369			108-10-1	Hexone	ug/kg	126	<1.71	<1.54	n/a	n/a	n/a	n/a	1.54	n/a	U
S10V000369			67-64-1	Acetone	ug/kg	101	<2.20	<1.99	n/a	n/a	n/a	n/a	1.99	n/a	U
S10V000369			71-43-2	Benzene	ug/kg	103	<0.147	<0.133	n/a	n/a	n/a	n/a	0.133	n/a	U
S10V000369			75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.145	n/a	n/a	n/a	n/a	0.145	n/a	U
S10V000369			56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0844	n/a	n/a	n/a	n/a	0.0844	n/a	U
S10V000369			67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.118	n/a	n/a	n/a	n/a	0.118	n/a	U
S10V000369			108-90-7	Chlorobenzene	ug/kg	107	<0.0864	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U
S10V000369			100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.0969	n/a	n/a	n/a	n/a	0.0969	n/a	U
S10V000369			1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.184	n/a	n/a	n/a	n/a	0.184	n/a	U
S10V000369			78-93-3	2-Butanone	ug/kg	108	<1.96	<1.78	n/a	n/a	n/a	n/a	1.78	n/a	U
S10V000369			75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0579	n/a	n/a	n/a	n/a	0.0579	n/a	U
S10V000369			127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.0993	n/a	n/a	n/a	n/a	0.0993	n/a	U
S10V000369			108-88-3	Toluene	ug/kg	107	0.287	0.416	n/a	n/a	n/a	n/a	0.0725	n/a	BJ
S10V000369			10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.245	n/a	n/a	n/a	n/a	0.245	n/a	U
S10V000369			79-01-6	Trichloroethene	ug/kg	98.7	<0.121	<0.109	n/a	n/a	n/a	n/a	0.109	n/a	U
S10V000369			75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.157	n/a	n/a	n/a	n/a	0.157	n/a	U
S10V000369			156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.164	n/a	n/a	n/a	n/a	0.164	n/a	U
S10V000369			156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.274	n/a	n/a	n/a	n/a	0.274	n/a	U
S10V000369			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.105	n/a	n/a	n/a	n/a	0.105	n/a	U
S10V000369			79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.532	n/a	n/a	n/a	n/a	0.532	n/a	U
S10V000369			141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.531	n/a	n/a	n/a	n/a	0.531	n/a	U
S10V000369			60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.232	n/a	n/a	n/a	n/a	0.232	n/a	U
S10V000369			75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0850	n/a	n/a	n/a	n/a	0.0850	n/a	U

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J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KN9
Sample Depth: Surface Dup

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000369			95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0832	n/a	n/a	n/a	n/a	0.0832	n/a	U
S10V000369			179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.151	n/a	n/a	n/a	n/a	0.151	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B238J9
Sample Depth: 5-7

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000403		%WATERA	%WATER-APD	%	n/a	n/a	3.690	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000403		57-12-5	Cyanide	ug/g	97.0	<0.0370	<2.48	n/a	n/a	n/a	n/a	2.48	n/a	U
S10V000403		7439-97-6	Mercury	ug/g	102	<1.00E-04	<9.34E-03	n/a	n/a	n/a	n/a	9.34E-03	n/a	U
S10V000403		PH	pH	unitless	n/a	n/a	8.46	8.53	8.50	0.824	n/a	0.0100	n/a	
S10V000403		12597-04-5	Sulfide	ug/g	108	<0.180	21.3	23.3	22.3	8.86	105	7.09	n/a	B
S10V000623		13966-00-2	Potassium-40	uCi/g	n/a	<7.29E-06	1.22E-05	n/a	n/a	n/a	n/a	5.37E-06	29.82	
S10V000623		10198-40-0	Cobalt-60	uCi/g	99.3	<2.87E-07	<3.03E-07	n/a	n/a	n/a	n/a	3.03E-07	n/a	U
S10V000623		14234-35-6	Antimony-125	uCi/g	n/a	<7.84E-07	<7.19E-07	n/a	n/a	n/a	n/a	7.19E-07	n/a	U
S10V000623		10045-97-3	Cesium-137	uCi/g	99.7	<3.71E-07	<3.39E-07	n/a	n/a	n/a	n/a	3.39E-07	n/a	U
S10V000623		14683-23-9	Europium-152	uCi/g	n/a	<1.61E-06	<1.19E-06	n/a	n/a	n/a	n/a	1.19E-06	n/a	U
S10V000623		15585-10-1	Europium-154	uCi/g	n/a	<9.14E-07	<8.71E-07	n/a	n/a	n/a	n/a	8.71E-07	n/a	U
S10V000623		14391-16-3	Europium-155	uCi/g	n/a	<4.78E-07	<4.51E-07	n/a	n/a	n/a	n/a	4.51E-07	n/a	U
S10V000623		15067-28-4	Lead-214	uCi/g	n/a	<5.69E-07	6.64E-07	n/a	n/a	n/a	n/a	5.80E-07	38.19	
S10V000623		14274-82-9	Thorium-228	uCi/g	n/a	<8.12E-06	<8.31E-06	n/a	n/a	n/a	n/a	8.31E-06	n/a	U
S10V000623		15065-10-8	Thorium-234	uCi/g	n/a	<2.54E-06	<2.85E-06	n/a	n/a	n/a	n/a	2.85E-06	n/a	U
S10V000623		15046-84-1	Iodine-129	uCi/g	106	<2.36E-07	<2.32E-07	n/a	n/a	n/a	n/a	2.32E-07	n/a	U
S10V000628	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	66.6	<77.4	<76.6	n/a	n/a	n/a	n/a	76.6	n/a	U
S10V000628	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<99.6	n/a	n/a	n/a	n/a	99.6	n/a	U
S10V000628	O	121-14-2	2,4-Dinitrotoluene	ug/kg	87.3	<38.1	<37.7	n/a	n/a	n/a	n/a	37.7	n/a	U
S10V000628	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<43.5	n/a	n/a	n/a	n/a	43.5	n/a	U
S10V000628	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<49.0	n/a	n/a	n/a	n/a	49.0	n/a	U
S10V000628	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<56.9	n/a	n/a	n/a	n/a	56.9	n/a	U
S10V000628	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<53.1	n/a	n/a	n/a	n/a	53.1	n/a	U
S10V000628	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<50.8	n/a	n/a	n/a	n/a	50.8	n/a	U
S10V000628	O	83-32-9	Acenaphthene	ug/kg	72.2	<17.6	<17.4	n/a	n/a	n/a	n/a	17.4	n/a	U
S10V000628	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<37.4	n/a	n/a	n/a	n/a	37.4	n/a	U
S10V000628	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<48.4	n/a	n/a	n/a	n/a	48.4	n/a	U
S10V000628	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<40.8	n/a	n/a	n/a	n/a	40.8	n/a	U
S10V000628	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<584	n/a	n/a	n/a	n/a	584	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B238J9
Sample Depth: 5-7

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000628	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<38.7	n/a	n/a	n/a	n/a	38.7	n/a	U
S10V000628	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	<50.0	<49.5	n/a	n/a	n/a	n/a	49.5	n/a	U
S10V000628	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	72.5	<43.2	<42.7	n/a	n/a	n/a	n/a	42.7	n/a	U
S10V000628	O	95-57-8	2-Chlorophenol	ug/kg	68.6	<66.5	<65.8	n/a	n/a	n/a	n/a	65.8	n/a	U
S10V000628	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<80.5	n/a	n/a	n/a	n/a	80.5	n/a	U
S10V000628	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<50.5	n/a	n/a	n/a	n/a	50.5	n/a	U
S10V000628	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<556	n/a	n/a	n/a	n/a	556	n/a	U
S10V000628	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	<47.2	n/a	n/a	n/a	n/a	47.2	n/a	U
S10V000628	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	67.1	<58.1	<57.5	n/a	n/a	n/a	n/a	57.5	n/a	U
S10V000628	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<35.0	n/a	n/a	n/a	n/a	35.0	n/a	U
S10V000628	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<68.9	n/a	n/a	n/a	n/a	68.9	n/a	U
S10V000628	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<111	n/a	n/a	n/a	n/a	111	n/a	U
S10V000628	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<50.4	n/a	n/a	n/a	n/a	50.4	n/a	U
S10V000628	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<61.9	n/a	n/a	n/a	n/a	61.9	n/a	U
S10V000628	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<63.9	n/a	n/a	n/a	n/a	63.9	n/a	U
S10V000628	O	129-00-0	Pyrene	ug/kg	93.9	<62.9	<62.2	n/a	n/a	n/a	n/a	62.2	n/a	U
S10V000628	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<64.3	n/a	n/a	n/a	n/a	64.3	n/a	U
S10V000628	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<107	n/a	n/a	n/a	n/a	107	n/a	U
S10V000628	O	128-37-0	BHT	ug/kg	n/a	<236	<233	n/a	n/a	n/a	n/a	233	n/a	U
S10V000628	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<180	n/a	n/a	n/a	n/a	180	n/a	U
S10V000628	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<105	n/a	n/a	n/a	n/a	105	n/a	U
S10V000628	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<552	n/a	n/a	n/a	n/a	552	n/a	U
S10V000628	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<189	n/a	n/a	n/a	n/a	189	n/a	U
S10V000628	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<455	n/a	n/a	n/a	n/a	455	n/a	U
S10V000629	W	14762-75-5	Carbon-14	uCi/g	93.5	<2.60E-07	<2.71E-06	<2.73E-06	n/a	n/a	n/a	2.71E-06	n/a	U
S10V000629	W	16984-48-8	Fluoride	ug/g	98.5	<1.61E-03	1.11	1.21	1.16	8.50	98.3	0.0170	n/a	
S10V000629	W	GLYCOLAT	Glycolate	ug/g	93.7	<9.37E-03	<0.0987	<0.0995	n/a	n/a	92.8	0.0987	n/a	U
S10V000629	W	71-50-1	Acetate	ug/g	92.9	<6.04E-03	0.528	0.675	0.601	24.4	93.6	0.0636	n/a	B
S10V000629	W	FORMATE	Formate	ug/g	96.2	<4.67E-03	0.740	0.740	0.740	0.0919	95.9	0.0492	n/a	B

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B238J9
Sample Depth: 5-7

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000629	W	16887-00-6	Chloride	ug/g	100	<9.98E-03	0.560	0.633	0.597	12.3	96.4	0.105	n/a	B
S10V000629	W	14797-65-0	Nitrite	ug/g	100	<0.0192	2.42	2.31	2.37	4.52	97.4	0.202	n/a	B
S10V000629	W	14808-79-8	Sulfate	ug/g	99.5	<0.0187	7.35	5.89	6.62	22.1	95.9	0.197	n/a	
S10V000629	W	338-70-5	Oxalate	ug/g	99.4	<0.0231	3.21	1.70	2.45	61.4	94.9	0.243	n/a	M
S10V000629	W	24959-67-9	Bromide	ug/g	99.4	<0.0580	<0.611	<0.616	n/a	n/a	95.8	0.611	n/a	U
S10V000629	W	14797-55-8	Nitrate	ug/g	98.0	<0.0208	5.87	5.93	5.90	1.07	94.7	0.219	n/a	
S10V000629	W	14265-44-2	Phosphate	ug/g	97.3	<0.0167	0.955	1.06	1.01	10.5	96.2	0.176	n/a	B
S10V000630	A	7429-90-5	Aluminum	ug/g	94.0	<0.0300	5.59E+03	n/a	n/a	n/a	n/a	3.13	n/a	
S10V000630	A	7440-39-3	Barium	ug/g	96.6	<3.00E-03	70.1	n/a	n/a	n/a	n/a	0.313	n/a	
S10V000630	A	7440-41-7	Beryllium	ug/g	100	<1.00E-03	0.144	n/a	n/a	n/a	n/a	0.104	n/a	B
S10V000630	A	7440-69-9	Bismuth	ug/g	91.8	<0.100	<10.4	n/a	n/a	n/a	n/a	10.4	n/a	U
S10V000630	A	7440-70-2	Calcium	ug/g	91.3	0.586	7.36E+03	n/a	n/a	n/a	n/a	5.22	n/a	
S10V000630	A	7440-45-1	Cerium	ug/g	98.1	<0.0300	19.1	n/a	n/a	n/a	n/a	3.13	n/a	B
S10V000630	A	7440-48-4	Cobalt	ug/g	93.9	<0.0100	5.32	n/a	n/a	n/a	n/a	1.04	n/a	B
S10V000630	A	7440-47-3	Chromium	ug/g	93.9	<5.00E-03	10.6	n/a	n/a	n/a	n/a	0.522	n/a	
S10V000630	A	7440-50-8	Copper	ug/g	95.3	<5.00E-03	11.0	n/a	n/a	n/a	n/a	0.522	n/a	
S10V000630	A	7439-89-6	Iron	ug/g	93.8	0.0228	1.60E+04	n/a	n/a	n/a	n/a	0.522	n/a	
S10V000630	A	7440-09-7	Potassium	ug/g	102	<0.500	945	n/a	n/a	n/a	n/a	52.2	n/a	
S10V000630	A	7439-91-0	Lanthanum	ug/g	96.3	<3.00E-03	8.28	n/a	n/a	n/a	n/a	0.313	n/a	
S10V000630	A	7439-93-2	Lithium	ug/g	100	<3.00E-03	6.32	n/a	n/a	n/a	n/a	0.313	n/a	
S10V000630	A	7439-95-4	Magnesium	ug/g	92.3	<0.0500	4.00E+03	n/a	n/a	n/a	n/a	5.22	n/a	
S10V000630	A	7439-96-5	Manganese	ug/g	93.3	<3.00E-03	241	n/a	n/a	n/a	n/a	0.313	n/a	
S10V000630	A	7439-98-7	Molybdenum	ug/g	93.9	<0.0200	<2.09	n/a	n/a	n/a	n/a	2.09	n/a	U
S10V000630	A	7440-23-5	Sodium	ug/g	98.1	<0.100	286	n/a	n/a	n/a	n/a	10.4	n/a	N
S10V000630	A	7440-02-0	Nickel	ug/g	92.8	<0.0200	10.6	n/a	n/a	n/a	n/a	2.09	n/a	B
S10V000630	A	7723-14-0	Phosphorus	ug/g	93.9	<0.0500	799	n/a	n/a	n/a	n/a	5.22	n/a	
S10V000630	A	7704-34-9	Sulfur	ug/g	94.7	<0.100	45.2	n/a	n/a	n/a	n/a	10.4	n/a	B
S10V000630	A	7440-21-3	Silicon	ug/g	85.0	<0.0300	105	n/a	n/a	n/a	n/a	3.13	n/a	N
S10V000630	A	7440-24-6	Strontium	ug/g	96.3	<3.00E-03	28.1	n/a	n/a	n/a	n/a	0.313	n/a	

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B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B238J9
Sample Depth: 5-7

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000630	A	7440-32-6	Titanium	ug/g	93.9	<5.00E-03	883	n/a	n/a	n/a	n/a	0.522	n/a	
S10V000630	A	7440-62-2	Vanadium	ug/g	95.9	<5.00E-03	32.0	n/a	n/a	n/a	n/a	0.522	n/a	
S10V000630	A	7440-65-5	Yttrium	ug/g	91.7	<2.00E-03	9.21	n/a	n/a	n/a	n/a	0.209	n/a	
S10V000630	A	7440-66-6	Zinc	ug/g	92.7	9.32E-03	28.3	n/a	n/a	n/a	n/a	0.522	n/a	
S10V000630	A	7440-67-7	Zirconium	ug/g	92.8	<5.00E-03	1.28	n/a	n/a	n/a	n/a	0.522	n/a	CBN
S10V000630	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	4.92E-05	n/a	n/a	n/a	n/a	2.93E-05	n/a	B
S10V000630	A	TH-232	Thorium-232	ug/g	106	<6.80E-05	2.35	n/a	n/a	n/a	n/a	2.09E-03	n/a	
S10V000630	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	1.15E-04	n/a	n/a	n/a	n/a	4.18E-05	n/a	
S10V000630	A	13966-29-5	Uranium-234	ug/g	n/a	<2.00E-06	<2.09E-05	n/a	n/a	n/a	n/a	2.09E-05	n/a	U
S10V000630	A	15117-96-1	Uranium-235	ug/g	96.7	<4.40E-06	3.08E-03	n/a	n/a	n/a	n/a	4.18E-05	n/a	
S10V000630	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.67E-05	n/a	n/a	n/a	n/a	1.67E-05	n/a	U
S10V000630	A	13994-20-2	Neptunium-237	ug/g	103	<2.12E-05	<4.18E-04	n/a	n/a	n/a	n/a	4.18E-04	n/a	U
S10V000630	A	U-238	Uranium-238	ug/g	105	<2.20E-04	0.444	n/a	n/a	n/a	n/a	2.09E-03	n/a	
S10V000630	A	7440-22-4	Silver	ug/g	97.1	<8.00E-03	<0.0836	n/a	n/a	n/a	n/a	0.0836	n/a	U
S10V000630	A	7440-38-2	Arsenic	ug/g	112	<0.0420	2.20	n/a	n/a	n/a	n/a	0.439	n/a	
S10V000630	A	7440-43-9	Cadmium	ug/g	98.1	<3.00E-03	0.0611	n/a	n/a	n/a	n/a	0.0313	n/a	
S10V000630	A	7439-92-1	Lead	ug/g	101	<0.0310	3.08	n/a	n/a	n/a	n/a	0.324	n/a	
S10V000630	A	7782-49-2	Selenium	ug/g	107	<0.0610	<0.637	n/a	n/a	n/a	n/a	0.637	n/a	U
S10V000630	A	7440-28-0	Thallium	ug/g	92.9	2.23E-03	0.0634	n/a	n/a	n/a	n/a	6.27E-03	n/a	C
S10V000631	S	14798-03-9	Ammonium	ug/g	90.5	0.195	0.729	0.960	0.845	27.3	94.8	0.476	n/a	CB
S10V000632	A	14133-76-7	Technetium-99	ug/g	104	<3.00E-05	<3.16E-04	n/a	n/a	n/a	n/a	3.16E-04	n/a	U
S10V000632	A	SN-117	Tin-117	ug/g	109	<1.10E-03	0.0134	n/a	n/a	n/a	n/a	0.0110	n/a	N
S10V000632	A	15832-50-5	Tin-126	ug/g	n/a	<2.00E-05	<2.00E-04	n/a	n/a	n/a	n/a	2.00E-04	n/a	UN
S10V000633	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.15E-07	<1.99E-07	n/a	n/a	n/a	n/a	1.99E-07	n/a	U
S10V000633	E	14596-10-2	Americium-241	uCi/g	100	<5.39E-07	<4.97E-07	n/a	n/a	n/a	n/a	4.97E-07	n/a	U
S10V000633	E	15510-73-3	Curium-242	uCi/g	n/a	<2.15E-07	<1.99E-07	n/a	n/a	n/a	n/a	1.99E-07	n/a	U
S10V000633	E	PU-239/240	Plutonium-239/240	uCi/g	94.1	<2.75E-07	<2.27E-07	n/a	n/a	n/a	n/a	2.27E-07	n/a	U
S10V000633	E	13981-16-3	Plutonium-238	uCi/g	n/a	<2.75E-07	<2.27E-07	n/a	n/a	n/a	n/a	2.27E-07	n/a	U
S10V000634	E	SR-89/90	Strontium-89/90	uCi/g	96.2	<4.45E-07	1.17E-07	n/a	n/a	n/a	n/a	1.10E-07	145.945	

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B238J9
Sample Depth: 5-7

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000635		E	13981-37-8	Nickel-63	uCi/g	108	<2.44E-05	<1.34E-05	n/a	n/a	n/a	n/a	1.34E-05	n/a	U
S10V000635		E	15758-45-9	Selenium-79	uCi/g	n/a	<7.37E-07	<1.50E-06	n/a	n/a	n/a	n/a	1.50E-06	n/a	U
S10V001177		W	10028-17-8	Tritium	uCi/g	94.2	<4.07E-06	4.65E-06	n/a	n/a	n/a	n/a	2.51E-06	81.595	
S10V001213		A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.0968	n/a	n/a	n/a	n/a	9.55E-03	n/a	B
S10V001731		WV	14133-76-7	Technetium-99	ug/g	107	<4.00E-06	<3.85E-06	n/a	n/a	n/a	n/a	3.85E-06	n/a	U

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Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B238J9A

Sample Depth: 5-7

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000412			BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.05	n/a	n/a	n/a	n/a	n/a	n/a	

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KN4
Sample Depth: 5-7

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000370			71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0941	n/a	n/a	n/a	n/a	0.0941	n/a	U
S10V000370			79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.170	n/a	n/a	n/a	n/a	0.170	n/a	U
S10V000370			79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.216	n/a	n/a	n/a	n/a	0.216	n/a	U
S10V000370			75-35-4	1,1-Dichloroethene	ug/kg	115	<0.423	<0.433	n/a	n/a	n/a	n/a	0.433	n/a	U
S10V000370			107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0550	n/a	n/a	n/a	n/a	0.0550	n/a	U
S10V000370			71-36-3	1-Butanol	ug/kg	102	<10.3	<10.5	n/a	n/a	n/a	n/a	10.5	n/a	U
S10V000370			108-10-1	Hexone	ug/kg	126	<1.71	<1.75	n/a	n/a	n/a	n/a	1.75	n/a	U
S10V000370			67-64-1	Acetone	ug/kg	101	<2.20	<2.25	n/a	n/a	n/a	n/a	2.25	n/a	U
S10V000370			71-43-2	Benzene	ug/kg	103	<0.147	<0.151	n/a	n/a	n/a	n/a	0.151	n/a	U
S10V000370			75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.164	n/a	n/a	n/a	n/a	0.164	n/a	U
S10V000370			56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0955	n/a	n/a	n/a	n/a	0.0955	n/a	U
S10V000370			67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.134	n/a	n/a	n/a	n/a	0.134	n/a	U
S10V000370			108-90-7	Chlorobenzene	ug/kg	107	<0.0864	<0.0883	n/a	n/a	n/a	n/a	0.0883	n/a	U
S10V000370			100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.110	n/a	n/a	n/a	n/a	0.110	n/a	U
S10V000370			1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.208	n/a	n/a	n/a	n/a	0.208	n/a	U
S10V000370			78-93-3	2-Butanone	ug/kg	108	<1.96	<2.01	n/a	n/a	n/a	n/a	2.01	n/a	U
S10V000370			75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0654	n/a	n/a	n/a	n/a	0.0654	n/a	U
S10V000370			127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.112	n/a	n/a	n/a	n/a	0.112	n/a	U
S10V000370			108-88-3	Toluene	ug/kg	107	0.287	0.598	n/a	n/a	n/a	n/a	0.0820	n/a	BJ
S10V000370			10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.277	n/a	n/a	n/a	n/a	0.277	n/a	U
S10V000370			79-01-6	Trichloroethene	ug/kg	98.7	<0.121	<0.124	n/a	n/a	n/a	n/a	0.124	n/a	U
S10V000370			75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.177	n/a	n/a	n/a	n/a	0.177	n/a	U
S10V000370			156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.186	n/a	n/a	n/a	n/a	0.186	n/a	U
S10V000370			156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.310	n/a	n/a	n/a	n/a	0.310	n/a	U
S10V000370			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.119	n/a	n/a	n/a	n/a	0.119	n/a	U
S10V000370			79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.601	n/a	n/a	n/a	n/a	0.601	n/a	U
S10V000370			141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.600	n/a	n/a	n/a	n/a	0.600	n/a	U
S10V000370			60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.262	n/a	n/a	n/a	n/a	0.262	n/a	U
S10V000370			75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0961	n/a	n/a	n/a	n/a	0.0961	n/a	U

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Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KN4

Sample Depth: 5-7

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000370			95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0941	n/a	n/a	n/a	n/a	0.0941	n/a	U
S10V000370			179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.171	n/a	n/a	n/a	n/a	0.171	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP2
Sample Depth: 10-12

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000371			71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0878	n/a	n/a	n/a	n/a	0.0878	n/a	U
S10V000371			79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.158	n/a	n/a	n/a	n/a	0.158	n/a	U
S10V000371			79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.202	n/a	n/a	n/a	n/a	0.202	n/a	U
S10V000371			75-35-4	1,1-Dichloroethene	ug/kg	102	<0.423	<0.404	n/a	n/a	n/a	95.1	0.404	n/a	U
S10V000371			107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0513	n/a	n/a	n/a	n/a	0.0513	n/a	U
S10V000371			71-36-3	1-Butanol	ug/kg	114	<10.3	<9.82	n/a	n/a	n/a	140	9.82	n/a	U
S10V000371			108-10-1	Hexone	ug/kg	132	<1.71	<1.63	n/a	n/a	n/a	156	1.63	n/a	UT
S10V000371			67-64-1	Acetone	ug/kg	95.1	<2.20	46.2	n/a	n/a	n/a	175	2.10	n/a	T
S10V000371			71-43-2	Benzene	ug/kg	96.5	<0.147	<0.141	n/a	n/a	n/a	92.1	0.141	n/a	U
S10V000371			75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.153	n/a	n/a	n/a	n/a	0.153	n/a	U
S10V000371			56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0891	n/a	n/a	n/a	n/a	0.0891	n/a	U
S10V000371			67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.125	n/a	n/a	n/a	n/a	0.125	n/a	U
S10V000371			108-90-7	Chlorobenzene	ug/kg	101	<0.0864	<0.0824	n/a	n/a	n/a	95.2	0.0824	n/a	U
S10V000371			100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.102	n/a	n/a	n/a	n/a	0.102	n/a	U
S10V000371			1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.194	n/a	n/a	n/a	n/a	0.194	n/a	U
S10V000371			78-93-3	2-Butanone	ug/kg	115	<1.96	<1.87	n/a	n/a	n/a	136	1.87	n/a	UT
S10V000371			75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0611	n/a	n/a	n/a	n/a	0.0611	n/a	U
S10V000371			127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.105	n/a	n/a	n/a	n/a	0.105	n/a	U
S10V000371			108-88-3	Toluene	ug/kg	101	0.115	0.325	n/a	n/a	n/a	94.7	0.0765	n/a	BJ
S10V000371			10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.259	n/a	n/a	n/a	n/a	0.259	n/a	U
S10V000371			79-01-6	Trichloroethene	ug/kg	92.0	<0.121	<0.115	n/a	n/a	n/a	86.4	0.115	n/a	U
S10V000371			75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.165	n/a	n/a	n/a	n/a	0.165	n/a	U
S10V000371			156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.173	n/a	n/a	n/a	n/a	0.173	n/a	U
S10V000371			156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.289	n/a	n/a	n/a	n/a	0.289	n/a	U
S10V000371			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.111	n/a	n/a	n/a	n/a	0.111	n/a	U
S10V000371			79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.561	n/a	n/a	n/a	n/a	0.561	n/a	U
S10V000371			141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.560	n/a	n/a	n/a	n/a	0.560	n/a	U
S10V000371			60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.244	n/a	n/a	n/a	n/a	0.244	n/a	U
S10V000371			75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0897	n/a	n/a	n/a	n/a	0.0897	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP2
Sample Depth: 10-12

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000371			95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0878	n/a	n/a	n/a	n/a	0.0878	n/a	U
S10V000371			179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.160	n/a	n/a	n/a	n/a	0.160	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B25CN2
Sample Depth: 10-14

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000404		%WATERA	%WATER-APD	%	n/a	n/a	3.890	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000404		57-12-5	Cyanide	ug/g	99.5	<0.0370	<2.85	<2.79	n/a	n/a	98.4	2.85	n/a	U
S10V000404		7439-97-6	Mercury	ug/g	102	<1.00E-04	0.0102	n/a	n/a	n/a	n/a	8.98E-03	n/a	B
S10V000404		PH	pH	unitless	n/a	n/a	9.33	n/a	n/a	n/a	n/a	0.0100	n/a	
S10V000404		12597-04-5	Sulfide	ug/g	106	<0.180	17.9	17.9	17.9	0.309	111	7.11	n/a	B
S10V000636		13966-00-2	Potassium-40	uCi/g	n/a	<7.29E-06	1.34E-05	n/a	n/a	n/a	n/a	5.20E-06	26.66	
S10V000636		10198-40-0	Cobalt-60	uCi/g	99.3	<2.87E-07	<2.34E-07	n/a	n/a	n/a	n/a	2.34E-07	n/a	U
S10V000636		14234-35-6	Antimony-125	uCi/g	n/a	<7.84E-07	<6.86E-07	n/a	n/a	n/a	n/a	6.86E-07	n/a	U
S10V000636		10045-97-3	Cesium-137	uCi/g	99.7	<3.71E-07	<3.33E-07	n/a	n/a	n/a	n/a	3.33E-07	n/a	U
S10V000636		14683-23-9	Europium-152	uCi/g	n/a	<1.61E-06	<1.13E-06	n/a	n/a	n/a	n/a	1.13E-06	n/a	U
S10V000636		15585-10-1	Europium-154	uCi/g	n/a	<9.14E-07	<8.19E-07	n/a	n/a	n/a	n/a	8.19E-07	n/a	U
S10V000636		14391-16-3	Europium-155	uCi/g	n/a	<4.78E-07	<4.31E-07	n/a	n/a	n/a	n/a	4.31E-07	n/a	U
S10V000636		15092-94-1	Lead-212	uCi/g	n/a	<4.24E-07	1.02E-06	n/a	n/a	n/a	n/a	4.72E-07	26.19	
S10V000636		15067-28-4	Lead-214	uCi/g	n/a	<5.69E-07	9.34E-07	n/a	n/a	n/a	n/a	6.24E-07	34.89	
S10V000636		14274-82-9	Thorium-228	uCi/g	n/a	<8.12E-06	<8.10E-06	n/a	n/a	n/a	n/a	8.10E-06	n/a	U
S10V000636		15065-10-8	Thorium-234	uCi/g	n/a	<2.54E-06	<2.66E-06	n/a	n/a	n/a	n/a	2.66E-06	n/a	U
S10V000636		15046-84-1	Iodine-129	uCi/g	106	<2.36E-07	<2.72E-07	n/a	n/a	n/a	n/a	2.72E-07	n/a	U
S10V000637	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	72.4	<774	<77.3	n/a	n/a	n/a	n/a	77.3	n/a	U
S10V000637	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<1.01E+03	<101	n/a	n/a	n/a	n/a	101	n/a	U
S10V000637	O	121-14-2	2,4-Dinitrotoluene	ug/kg	88.6	<381	<38.0	n/a	n/a	n/a	n/a	38.0	n/a	U
S10V000637	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<440	<43.9	n/a	n/a	n/a	n/a	43.9	n/a	U
S10V000637	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<495	<49.4	n/a	n/a	n/a	n/a	49.4	n/a	U
S10V000637	O	95-48-7	2-Methylphenol	ug/kg	n/a	<575	<57.4	n/a	n/a	n/a	n/a	57.4	n/a	U
S10V000637	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<537	<53.6	n/a	n/a	n/a	n/a	53.6	n/a	U
S10V000637	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<514	<51.3	n/a	n/a	n/a	n/a	51.3	n/a	U
S10V000637	O	83-32-9	Acenaphthene	ug/kg	76.0	<176	<17.6	n/a	n/a	n/a	n/a	17.6	n/a	U
S10V000637	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<378	<37.7	n/a	n/a	n/a	n/a	37.7	n/a	U
S10V000637	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<489	<48.8	n/a	n/a	n/a	n/a	48.8	n/a	U
S10V000637	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<412	<41.1	n/a	n/a	n/a	n/a	41.1	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B25CN2
Sample Depth: 10-14

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000637	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<5.90E+03	<589	n/a	n/a	n/a	n/a	589	n/a	U
S10V000637	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<391	<39.0	n/a	n/a	n/a	n/a	39.0	n/a	U
S10V000637	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	728	80.4	n/a	n/a	n/a	n/a	49.9	n/a	BJ
S10V000637	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	75.6	<432	<43.1	n/a	n/a	n/a	n/a	43.1	n/a	U
S10V000637	O	95-57-8	2-Chlorophenol	ug/kg	74.0	<665	<66.4	n/a	n/a	n/a	n/a	66.4	n/a	U
S10V000637	O	218-01-9	Chrysene	ug/kg	n/a	<814	<81.3	n/a	n/a	n/a	n/a	81.3	n/a	U
S10V000637	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<511	<51.0	n/a	n/a	n/a	n/a	51.0	n/a	U
S10V000637	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<5.62E+03	<561	n/a	n/a	n/a	n/a	561	n/a	U
S10V000637	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<477	<47.6	n/a	n/a	n/a	n/a	47.6	n/a	U
S10V000637	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	73.0	<581	<58.0	n/a	n/a	n/a	n/a	58.0	n/a	U
S10V000637	O	206-44-0	Fluoranthene	ug/kg	n/a	<354	<35.3	n/a	n/a	n/a	n/a	35.3	n/a	U
S10V000637	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<697	<69.6	n/a	n/a	n/a	n/a	69.6	n/a	U
S10V000637	O	67-72-1	Hexachloroethane	ug/kg	n/a	<1.12E+03	<112	n/a	n/a	n/a	n/a	112	n/a	U
S10V000637	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<510	<50.9	n/a	n/a	n/a	n/a	50.9	n/a	U
S10V000637	O	91-20-3	Naphthalene	ug/kg	n/a	<626	<62.5	n/a	n/a	n/a	n/a	62.5	n/a	U
S10V000637	O	98-95-3	Nitrobenzene	ug/kg	n/a	<646	<64.5	n/a	n/a	n/a	n/a	64.5	n/a	U
S10V000637	O	129-00-0	Pyrene	ug/kg	99.7	<629	<62.8	n/a	n/a	n/a	n/a	62.8	n/a	U
S10V000637	O	110-86-1	Pyridine	ug/kg	n/a	<650	<64.9	n/a	n/a	n/a	n/a	64.9	n/a	U
S10V000637	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<1.08E+03	<108	n/a	n/a	n/a	n/a	108	n/a	U
S10V000637	O	128-37-0	BHT	ug/kg	n/a	<2.36E+03	<235	n/a	n/a	n/a	n/a	235	n/a	U
S10V000637	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<1.82E+03	<182	n/a	n/a	n/a	n/a	182	n/a	U
S10V000637	O	108-94-1	Cyclohexanone	ug/kg	n/a	<5.58E+03	<557	n/a	n/a	n/a	n/a	557	n/a	U
S10V000637	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<1.91E+03	<191	n/a	n/a	n/a	n/a	191	n/a	U
S10V000637	O	78-83-1	Isobutanol	ug/kg	n/a	<4.60E+03	<460	n/a	n/a	n/a	n/a	460	n/a	U
S10V000638	W	16984-48-8	Fluoride	ug/g	102	<1.61E-03	0.940	0.888	0.914	5.68	102	0.0165	n/a	
S10V000638	W	GLYCOLAT	Glycolate	ug/g	98.2	<9.37E-03	<0.0960	<0.0984	n/a	n/a	99.8	0.0960	n/a	U
S10V000638	W	71-50-1	Acetate	ug/g	95.5	<6.04E-03	0.310	0.351	0.330	12.3	97.2	0.0619	n/a	B
S10V000638	W	FORMATE	Formate	ug/g	99.5	<4.67E-03	0.293	0.376	0.335	24.6	102	0.0478	n/a	B
S10V000638	W	16887-00-6	Chloride	ug/g	101	<9.98E-03	0.327	0.339	0.333	3.61	103	0.102	n/a	B

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B25CN2
Sample Depth: 10-14

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000638	W	14797-65-0	Nitrite	ug/g	103	<0.0192	1.79	1.66	1.73	7.73	104	0.197	n/a	B
S10V000638	W	14808-79-8	Sulfate	ug/g	102	<0.0187	3.59	3.01	3.30	17.5	104	0.192	n/a	
S10V000638	W	338-70-5	Oxalate	ug/g	100	<0.0231	0.709	0.536	0.623	27.7	102	0.237	n/a	B
S10V000638	W	24959-67-9	Bromide	ug/g	101	<0.0580	<0.594	<0.609	n/a	n/a	102	0.594	n/a	U
S10V000638	W	14797-55-8	Nitrate	ug/g	99.6	<0.0208	3.99	3.41	3.70	15.6	104	0.213	n/a	
S10V000638	W	14265-44-2	Phosphate	ug/g	100	<0.0167	1.13	0.949	1.04	17.6	94.8	0.171	n/a	B
S10V000639	A	7429-90-5	Aluminum	ug/g	94.0	<0.0300	5.25E+03	n/a	n/a	n/a	n/a	3.06	n/a	
S10V000639	A	7440-39-3	Barium	ug/g	96.6	<3.00E-03	51.1	n/a	n/a	n/a	n/a	0.306	n/a	
S10V000639	A	7440-41-7	Beryllium	ug/g	100	<1.00E-03	0.117	n/a	n/a	n/a	n/a	0.102	n/a	B
S10V000639	A	7440-69-9	Bismuth	ug/g	91.8	<0.100	<10.2	n/a	n/a	n/a	n/a	10.2	n/a	U
S10V000639	A	7440-70-2	Calcium	ug/g	91.3	0.586	7.02E+03	n/a	n/a	n/a	n/a	5.10	n/a	
S10V000639	A	7440-45-1	Cerium	ug/g	98.1	<0.0300	18.7	n/a	n/a	n/a	n/a	3.06	n/a	B
S10V000639	A	7440-48-4	Cobalt	ug/g	93.9	<0.0100	5.45	n/a	n/a	n/a	n/a	1.02	n/a	B
S10V000639	A	7440-47-3	Chromium	ug/g	93.9	<5.00E-03	8.59	n/a	n/a	n/a	n/a	0.510	n/a	
S10V000639	A	7440-50-8	Copper	ug/g	95.3	<5.00E-03	10.2	n/a	n/a	n/a	n/a	0.510	n/a	
S10V000639	A	7439-89-6	Iron	ug/g	93.8	0.0228	1.59E+04	n/a	n/a	n/a	n/a	0.510	n/a	
S10V000639	A	7440-09-7	Potassium	ug/g	102	<0.500	907	n/a	n/a	n/a	n/a	51.0	n/a	
S10V000639	A	7439-91-0	Lanthanum	ug/g	96.3	<3.00E-03	7.49	n/a	n/a	n/a	n/a	0.306	n/a	
S10V000639	A	7439-93-2	Lithium	ug/g	100	<3.00E-03	6.50	n/a	n/a	n/a	n/a	0.306	n/a	
S10V000639	A	7439-95-4	Magnesium	ug/g	92.3	<0.0500	3.68E+03	n/a	n/a	n/a	n/a	5.10	n/a	
S10V000639	A	7439-96-5	Manganese	ug/g	93.3	<3.00E-03	238	n/a	n/a	n/a	n/a	0.306	n/a	
S10V000639	A	7439-98-7	Molybdenum	ug/g	93.9	<0.0200	2.45	n/a	n/a	n/a	n/a	2.04	n/a	B
S10V000639	A	7440-23-5	Sodium	ug/g	98.1	<0.100	228	n/a	n/a	n/a	n/a	10.2	n/a	N
S10V000639	A	7440-02-0	Nickel	ug/g	92.8	<0.0200	8.18	n/a	n/a	n/a	n/a	2.04	n/a	B
S10V000639	A	7723-14-0	Phosphorus	ug/g	93.9	<0.0500	643	n/a	n/a	n/a	n/a	5.10	n/a	
S10V000639	A	7704-34-9	Sulfur	ug/g	94.7	<0.100	40.7	n/a	n/a	n/a	n/a	10.2	n/a	B
S10V000639	A	7440-21-3	Silicon	ug/g	85.0	<0.0300	95.5	n/a	n/a	n/a	n/a	3.06	n/a	N
S10V000639	A	7440-24-6	Strontium	ug/g	96.3	<3.00E-03	25.9	n/a	n/a	n/a	n/a	0.306	n/a	
S10V000639	A	7440-32-6	Titanium	ug/g	93.9	<5.00E-03	890	n/a	n/a	n/a	n/a	0.510	n/a	

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B25CN2
Sample Depth: 10-14

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000639	A	7440-62-2	Vanadium	ug/g	95.9	<5.00E-03	32.6	n/a	n/a	n/a	n/a	0.510	n/a	
S10V000639	A	7440-65-5	Yttrium	ug/g	91.7	<2.00E-03	7.38	n/a	n/a	n/a	n/a	0.204	n/a	
S10V000639	A	7440-66-6	Zinc	ug/g	92.7	9.32E-03	29.3	n/a	n/a	n/a	n/a	0.510	n/a	
S10V000639	A	7440-67-7	Zirconium	ug/g	92.8	<5.00E-03	3.07	n/a	n/a	n/a	n/a	0.510	n/a	CBN
S10V000639	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<2.86E-05	n/a	n/a	n/a	n/a	2.86E-05	n/a	U
S10V000639	A	TH-232	Thorium-232	ug/g	106	<6.80E-05	2.24	n/a	n/a	n/a	n/a	6.94E-04	n/a	N
S10V000639	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	1.58E-04	n/a	n/a	n/a	n/a	4.08E-05	n/a	
S10V000639	A	13966-29-5	Uranium-234	ug/g	n/a	<2.00E-06	<2.04E-05	n/a	n/a	n/a	n/a	2.04E-05	n/a	U
S10V000639	A	15117-96-1	Uranium-235	ug/g	96.7	<4.40E-06	2.70E-03	n/a	n/a	n/a	n/a	4.49E-05	n/a	
S10V000639	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.63E-05	n/a	n/a	n/a	n/a	1.63E-05	n/a	U
S10V000639	A	13994-20-2	Neptunium-237	ug/g	103	<2.12E-05	<2.16E-04	n/a	n/a	n/a	n/a	2.16E-04	n/a	U
S10V000639	A	U-238	Uranium-238	ug/g	105	<2.20E-04	0.399	n/a	n/a	n/a	n/a	2.25E-03	n/a	
S10V000639	A	7440-22-4	Silver	ug/g	97.1	<8.00E-03	<0.0816	n/a	n/a	n/a	n/a	0.0816	n/a	U
S10V000639	A	7440-38-2	Arsenic	ug/g	112	<0.0420	2.36	n/a	n/a	n/a	n/a	0.429	n/a	
S10V000639	A	7440-43-9	Cadmium	ug/g	98.1	<3.00E-03	0.0725	n/a	n/a	n/a	n/a	0.0306	n/a	
S10V000639	A	7439-92-1	Lead	ug/g	101	<0.0310	4.27	n/a	n/a	n/a	n/a	0.316	n/a	
S10V000639	A	7782-49-2	Selenium	ug/g	107	<0.0610	1.35	n/a	n/a	n/a	n/a	0.623	n/a	B
S10V000639	A	7440-28-0	Thallium	ug/g	92.9	2.23E-03	0.0520	n/a	n/a	n/a	n/a	6.12E-03	n/a	CB
S10V000640	S	14798-03-9	Ammonium	ug/g	91.4	<0.0120	1.07	1.27	1.17	16.8	94.4	0.478	n/a	B
S10V000641	A	14133-76-7	Technetium-99	ug/g	104	<3.00E-05	<3.07E-04	n/a	n/a	n/a	n/a	3.07E-04	n/a	U
S10V000641	A	SN-117	Tin-117	ug/g	109	<1.10E-03	0.0186	n/a	n/a	n/a	n/a	0.0106	n/a	N
S10V000641	A	15832-50-5	Tin-126	ug/g	n/a	<2.00E-05	<1.92E-04	n/a	n/a	n/a	n/a	1.92E-04	n/a	UN
S10V000642	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.15E-07	<2.42E-07	n/a	n/a	n/a	n/a	2.42E-07	n/a	U
S10V000642	E	14596-10-2	Americium-241	uCi/g	100	<5.39E-07	<6.05E-07	n/a	n/a	n/a	n/a	6.05E-07	n/a	U
S10V000642	E	15510-73-3	Curium-242	uCi/g	n/a	<2.15E-07	<2.42E-07	n/a	n/a	n/a	n/a	2.42E-07	n/a	U
S10V000642	E	PU-239/240	Plutonium-239/240	uCi/g	94.1	<2.75E-07	<2.38E-07	n/a	n/a	n/a	n/a	2.38E-07	n/a	U
S10V000642	E	13981-16-3	Plutonium-238	uCi/g	n/a	<2.75E-07	<2.38E-07	n/a	n/a	n/a	n/a	2.38E-07	n/a	U
S10V000643	E	SR-89/90	Strontium-89/90	uCi/g	96.2	<4.45E-07	<2.90E-07	n/a	n/a	n/a	n/a	2.90E-07	n/a	U
S10V000644	E	13981-37-8	Nickel-63	uCi/g	108	<2.44E-05	<1.65E-05	n/a	n/a	n/a	n/a	1.65E-05	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B25CN2
Sample Depth: 10-14

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000644		E	15758-45-9	Selenium-79	uCi/g	n/a	<7.37E-07	<2.40E-06	n/a	n/a	n/a	n/a	2.40E-06	n/a	U
S10V001178		W	14762-75-5	Carbon-14	uCi/g	93.5	<1.73E-07	<3.17E-06	n/a	n/a	n/a	n/a	3.17E-06	n/a	U
S10V001178		W	10028-17-8	Tritium	uCi/g	94.2	<4.07E-06	<4.94E-06	n/a	n/a	n/a	n/a	1.48E-06	n/a	U
S10V001220		A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.0800	n/a	n/a	n/a	n/a	9.65E-03	n/a	BJ
S10V001732		WV	14133-76-7	Technetium-99	ug/g	107	<4.00E-06	<3.82E-06	n/a	n/a	n/a	n/a	3.82E-06	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP6
Sample Depth: 14-16

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000406		%WATERA	%WATER-APD	%	n/a	n/a	3.930	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000406		57-12-5	Cyanide	ug/g	99.5	<0.0370	<2.62	n/a	n/a	n/a	n/a	2.62	n/a	U
S10V000406		7439-97-6	Mercury	ug/g	101	<1.00E-04	0.0171	n/a	n/a	n/a	n/a	8.94E-03	n/a	B
S10V000406		PH	pH	unitless	n/a	n/a	9.03	9.35	9.19	3.48	n/a	0.0100	n/a	
S10V000406		12597-04-5	Sulfide	ug/g	106	<0.180	17.0	n/a	n/a	n/a	n/a	7.18	n/a	B
S10V000654		13966-00-2	Potassium-40	uCi/g	n/a	<7.29E-06	1.01E-05	n/a	n/a	n/a	n/a	5.11E-06	33.70	
S10V000654		10198-40-0	Cobalt-60	uCi/g	99.3	<2.87E-07	<2.57E-07	n/a	n/a	n/a	n/a	2.57E-07	n/a	U
S10V000654		14234-35-6	Antimony-125	uCi/g	n/a	<7.84E-07	<6.93E-07	n/a	n/a	n/a	n/a	6.93E-07	n/a	U
S10V000654		10045-97-3	Cesium-137	uCi/g	99.7	<3.71E-07	<3.29E-07	n/a	n/a	n/a	n/a	3.29E-07	n/a	U
S10V000654		14683-23-9	Europium-152	uCi/g	n/a	<1.61E-06	<1.21E-06	n/a	n/a	n/a	n/a	1.21E-06	n/a	U
S10V000654		15585-10-1	Europium-154	uCi/g	n/a	<9.14E-07	<8.36E-07	n/a	n/a	n/a	n/a	8.36E-07	n/a	U
S10V000654		14391-16-3	Europium-155	uCi/g	n/a	<4.78E-07	<4.46E-07	n/a	n/a	n/a	n/a	4.46E-07	n/a	U
S10V000654		15092-94-1	Lead-212	uCi/g	n/a	<4.24E-07	7.46E-07	n/a	n/a	n/a	n/a	3.95E-07	20.84	
S10V000654		14733-03-0	Bismuth-214	uCi/g	n/a	<6.45E-07	8.44E-07	n/a	n/a	n/a	n/a	5.08E-07	37.33	
S10V000654		14274-82-9	Thorium-228	uCi/g	n/a	<8.12E-06	<8.17E-06	n/a	n/a	n/a	n/a	8.17E-06	n/a	U
S10V000654		15065-10-8	Thorium-234	uCi/g	n/a	<2.54E-06	<2.71E-06	n/a	n/a	n/a	n/a	2.71E-06	n/a	U
S10V000654		15046-84-1	Iodine-129	uCi/g	106	<2.36E-07	<2.68E-07	n/a	n/a	n/a	n/a	2.68E-07	n/a	U
S10V000655	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	72.4	<774	<76.2	n/a	n/a	n/a	n/a	76.2	n/a	U
S10V000655	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<1.01E+03	<99.1	n/a	n/a	n/a	n/a	99.1	n/a	U
S10V000655	O	121-14-2	2,4-Dinitrotoluene	ug/kg	88.6	<381	<37.5	n/a	n/a	n/a	n/a	37.5	n/a	U
S10V000655	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<440	<43.3	n/a	n/a	n/a	n/a	43.3	n/a	U
S10V000655	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<495	<48.7	n/a	n/a	n/a	n/a	48.7	n/a	U
S10V000655	O	95-48-7	2-Methylphenol	ug/kg	n/a	<575	<56.6	n/a	n/a	n/a	n/a	56.6	n/a	U
S10V000655	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<537	<52.8	n/a	n/a	n/a	n/a	52.8	n/a	U
S10V000655	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<514	<50.6	n/a	n/a	n/a	n/a	50.6	n/a	U
S10V000655	O	83-32-9	Acenaphthene	ug/kg	76.0	<176	<17.3	n/a	n/a	n/a	n/a	17.3	n/a	U
S10V000655	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<378	<37.2	n/a	n/a	n/a	n/a	37.2	n/a	U
S10V000655	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<489	<48.1	n/a	n/a	n/a	n/a	48.1	n/a	U
S10V000655	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<412	<40.5	n/a	n/a	n/a	n/a	40.5	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP6
Sample Depth: 14-16

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000655	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<5.90E+03	<581	n/a	n/a	n/a	n/a	581	n/a	U
S10V000655	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<391	<38.5	n/a	n/a	n/a	n/a	38.5	n/a	U
S10V000655	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	728	76.2	n/a	n/a	n/a	n/a	49.2	n/a	BJ
S10V000655	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	75.6	<432	<42.5	n/a	n/a	n/a	n/a	42.5	n/a	U
S10V000655	O	95-57-8	2-Chlorophenol	ug/kg	74.0	<665	<65.4	n/a	n/a	n/a	n/a	65.4	n/a	U
S10V000655	O	218-01-9	Chrysene	ug/kg	n/a	<814	<80.1	n/a	n/a	n/a	n/a	80.1	n/a	U
S10V000655	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<511	<50.3	n/a	n/a	n/a	n/a	50.3	n/a	U
S10V000655	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<5.62E+03	<553	n/a	n/a	n/a	n/a	553	n/a	U
S10V000655	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<477	<46.9	n/a	n/a	n/a	n/a	46.9	n/a	U
S10V000655	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	73.0	<581	<57.2	n/a	n/a	n/a	n/a	57.2	n/a	U
S10V000655	O	206-44-0	Fluoranthene	ug/kg	n/a	<354	<34.8	n/a	n/a	n/a	n/a	34.8	n/a	U
S10V000655	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<697	<68.6	n/a	n/a	n/a	n/a	68.6	n/a	U
S10V000655	O	67-72-1	Hexachloroethane	ug/kg	n/a	<1.12E+03	<110	n/a	n/a	n/a	n/a	110	n/a	U
S10V000655	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<510	<50.2	n/a	n/a	n/a	n/a	50.2	n/a	U
S10V000655	O	91-20-3	Naphthalene	ug/kg	n/a	<626	<61.6	n/a	n/a	n/a	n/a	61.6	n/a	U
S10V000655	O	98-95-3	Nitrobenzene	ug/kg	n/a	<646	<63.6	n/a	n/a	n/a	n/a	63.6	n/a	U
S10V000655	O	129-00-0	Pyrene	ug/kg	99.7	<629	<61.9	n/a	n/a	n/a	n/a	61.9	n/a	U
S10V000655	O	110-86-1	Pyridine	ug/kg	n/a	<650	<64.0	n/a	n/a	n/a	n/a	64.0	n/a	U
S10V000655	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<1.08E+03	<106	n/a	n/a	n/a	n/a	106	n/a	U
S10V000655	O	128-37-0	BHT	ug/kg	n/a	<2.36E+03	<232	n/a	n/a	n/a	n/a	232	n/a	U
S10V000655	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<1.82E+03	<179	n/a	n/a	n/a	n/a	179	n/a	U
S10V000655	O	108-94-1	Cyclohexanone	ug/kg	n/a	<5.58E+03	<549	n/a	n/a	n/a	n/a	549	n/a	U
S10V000655	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<1.91E+03	<188	n/a	n/a	n/a	n/a	188	n/a	U
S10V000655	O	78-83-1	Isobutanol	ug/kg	n/a	<4.60E+03	<453	n/a	n/a	n/a	n/a	453	n/a	U
S10V000656	W	16984-48-8	Fluoride	ug/g	102	<1.61E-03	1.13	n/a	n/a	n/a	n/a	0.0163	n/a	
S10V000656	W	GLYCOLAT	Glycolate	ug/g	98.2	<9.37E-03	<0.0951	n/a	n/a	n/a	n/a	0.0951	n/a	U
S10V000656	W	71-50-1	Acetate	ug/g	95.5	<6.04E-03	0.467	n/a	n/a	n/a	n/a	0.0613	n/a	B
S10V000656	W	FORMATE	Formate	ug/g	99.5	<4.67E-03	0.575	n/a	n/a	n/a	n/a	0.0474	n/a	B
S10V000656	W	16887-00-6	Chloride	ug/g	101	<9.98E-03	0.625	n/a	n/a	n/a	n/a	0.101	n/a	

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP6
Sample Depth: 14-16

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000656	W	14797-65-0	Nitrite	ug/g	103	<0.0192	1.25	n/a	n/a	n/a	n/a	0.195	n/a	B
S10V000656	W	14808-79-8	Sulfate	ug/g	102	<0.0187	4.34	n/a	n/a	n/a	n/a	0.190	n/a	
S10V000656	W	338-70-5	Oxalate	ug/g	100	<0.0231	0.880	n/a	n/a	n/a	n/a	0.234	n/a	B
S10V000656	W	24959-67-9	Bromide	ug/g	101	<0.0580	<0.588	n/a	n/a	n/a	n/a	0.588	n/a	U
S10V000656	W	14797-55-8	Nitrate	ug/g	99.6	<0.0208	3.69	n/a	n/a	n/a	n/a	0.211	n/a	
S10V000656	W	14265-44-2	Phosphate	ug/g	100	<0.0167	1.00	n/a	n/a	n/a	n/a	0.169	n/a	B
S10V000657	A	7429-90-5	Aluminum	ug/g	94.0	<0.0300	5.37E+03	n/a	n/a	n/a	n/a	3.23	n/a	
S10V000657	A	7440-39-3	Barium	ug/g	96.6	<3.00E-03	55.4	n/a	n/a	n/a	n/a	0.323	n/a	
S10V000657	A	7440-41-7	Beryllium	ug/g	100	<1.00E-03	0.111	n/a	n/a	n/a	n/a	0.108	n/a	B
S10V000657	A	7440-70-2	Calcium	ug/g	91.3	0.586	7.11E+03	n/a	n/a	n/a	n/a	5.38	n/a	
S10V000657	A	7440-45-1	Cerium	ug/g	98.1	<0.0300	14.0	n/a	n/a	n/a	n/a	3.23	n/a	B
S10V000657	A	7440-48-4	Cobalt	ug/g	93.9	<0.0100	5.50	n/a	n/a	n/a	n/a	1.08	n/a	B
S10V000657	A	7440-47-3	Chromium	ug/g	93.9	<5.00E-03	8.36	n/a	n/a	n/a	n/a	0.538	n/a	
S10V000657	A	7440-50-8	Copper	ug/g	95.3	<5.00E-03	9.66	n/a	n/a	n/a	n/a	0.538	n/a	
S10V000657	A	7439-89-6	Iron	ug/g	93.8	0.0228	1.60E+04	n/a	n/a	n/a	n/a	0.538	n/a	
S10V000657	A	7440-09-7	Potassium	ug/g	102	<0.500	929	n/a	n/a	n/a	n/a	53.8	n/a	
S10V000657	A	7439-91-0	Lanthanum	ug/g	96.3	<3.00E-03	6.89	n/a	n/a	n/a	n/a	0.323	n/a	
S10V000657	A	7439-93-2	Lithium	ug/g	100	<3.00E-03	6.85	n/a	n/a	n/a	n/a	0.323	n/a	
S10V000657	A	7439-95-4	Magnesium	ug/g	92.3	<0.0500	3.94E+03	n/a	n/a	n/a	n/a	5.38	n/a	
S10V000657	A	7439-96-5	Manganese	ug/g	93.3	<3.00E-03	259	n/a	n/a	n/a	n/a	0.323	n/a	
S10V000657	A	7439-98-7	Molybdenum	ug/g	93.9	<0.0200	2.26	n/a	n/a	n/a	n/a	2.15	n/a	B
S10V000657	A	7440-23-5	Sodium	ug/g	98.1	<0.100	230	n/a	n/a	n/a	n/a	10.8	n/a	N
S10V000657	A	7440-02-0	Nickel	ug/g	92.8	<0.0200	7.70	n/a	n/a	n/a	n/a	2.15	n/a	B
S10V000657	A	7723-14-0	Phosphorus	ug/g	93.9	<0.0500	630	n/a	n/a	n/a	n/a	5.38	n/a	
S10V000657	A	7704-34-9	Sulfur	ug/g	94.7	<0.100	38.9	n/a	n/a	n/a	n/a	10.8	n/a	B
S10V000657	A	7440-21-3	Silicon	ug/g	85.0	<0.0300	109	n/a	n/a	n/a	n/a	3.23	n/a	N
S10V000657	A	7440-24-6	Strontium	ug/g	96.3	<3.00E-03	26.9	n/a	n/a	n/a	n/a	0.323	n/a	
S10V000657	A	7440-32-6	Titanium	ug/g	93.9	<5.00E-03	984	n/a	n/a	n/a	n/a	0.538	n/a	
S10V000657	A	7440-62-2	Vanadium	ug/g	95.9	<5.00E-03	33.5	n/a	n/a	n/a	n/a	0.538	n/a	

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T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP6
Sample Depth: 14-16

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000657	A	7440-65-5	Yttrium	ug/g	91.7	<2.00E-03	7.27	n/a	n/a	n/a	n/a	0.215	n/a	
S10V000657	A	7440-66-6	Zinc	ug/g	92.7	9.32E-03	33.7	n/a	n/a	n/a	n/a	0.538	n/a	
S10V000657	A	7440-67-7	Zirconium	ug/g	92.8	<5.00E-03	8.33	n/a	n/a	n/a	n/a	0.538	n/a	CN
S10V000657	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<3.01E-05	n/a	n/a	n/a	n/a	3.01E-05	n/a	U
S10V000657	A	TH-232	Thorium-232	ug/g	106	<6.80E-05	2.21	n/a	n/a	n/a	n/a	7.32E-04	n/a	N
S10V000657	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	9.70E-05	n/a	n/a	n/a	n/a	4.30E-05	n/a	
S10V000657	A	13966-29-5	Uranium-234	ug/g	n/a	<2.00E-06	2.67E-05	n/a	n/a	n/a	n/a	2.15E-05	n/a	
S10V000657	A	15117-96-1	Uranium-235	ug/g	96.7	<4.40E-06	2.93E-03	n/a	n/a	n/a	n/a	4.73E-05	n/a	
S10V000657	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.72E-05	n/a	n/a	n/a	n/a	1.72E-05	n/a	U
S10V000657	A	13994-20-2	Neptunium-237	ug/g	103	<2.12E-05	<2.28E-04	n/a	n/a	n/a	n/a	2.28E-04	n/a	U
S10V000657	A	U-238	Uranium-238	ug/g	105	<2.20E-04	0.416	n/a	n/a	n/a	n/a	2.37E-03	n/a	
S10V000657	A	7440-22-4	Silver	ug/g	97.1	<8.00E-03	<0.0861	n/a	n/a	n/a	n/a	0.0861	n/a	U
S10V000657	A	7440-38-2	Arsenic	ug/g	112	<0.0420	2.59	n/a	n/a	n/a	n/a	0.452	n/a	
S10V000657	A	7440-43-9	Cadmium	ug/g	98.1	<3.00E-03	0.0546	n/a	n/a	n/a	n/a	0.0323	n/a	
S10V000657	A	7439-92-1	Lead	ug/g	101	<0.0310	3.52	n/a	n/a	n/a	n/a	0.334	n/a	
S10V000657	A	7782-49-2	Selenium	ug/g	107	<0.0610	<0.656	n/a	n/a	n/a	n/a	0.656	n/a	U
S10V000657	A	7440-28-0	Thallium	ug/g	92.9	2.23E-03	0.0608	n/a	n/a	n/a	n/a	6.46E-03	n/a	CB
S10V000658	S	14798-03-9	Ammonium	ug/g	91.4	<0.0120	1.35	n/a	n/a	n/a	n/a	0.468	n/a	B
S10V000659	A	14133-76-7	Technetium-99	ug/g	104	<3.00E-05	<3.15E-04	n/a	n/a	n/a	n/a	3.15E-04	n/a	U
S10V000659	A	SN-117	Tin-117	ug/g	109	<1.10E-03	0.0132	n/a	n/a	n/a	n/a	0.0103	n/a	N
S10V000659	A	15832-50-5	Tin-126	ug/g	n/a	<2.00E-05	7.25E-04	n/a	n/a	n/a	n/a	1.88E-04	n/a	N
S10V000660	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.15E-07	<1.87E-07	n/a	n/a	n/a	n/a	1.87E-07	n/a	U
S10V000660	E	14596-10-2	Americium-241	uCi/g	100	<5.39E-07	<4.67E-07	n/a	n/a	n/a	n/a	4.67E-07	n/a	U
S10V000660	E	15510-73-3	Curium-242	uCi/g	n/a	<2.15E-07	<1.87E-07	n/a	n/a	n/a	n/a	1.87E-07	n/a	U
S10V000660	E	PU-239/240	Plutonium-239/240	uCi/g	94.1	<2.75E-07	<2.59E-07	n/a	n/a	n/a	n/a	2.59E-07	n/a	U
S10V000660	E	13981-16-3	Plutonium-238	uCi/g	n/a	<2.75E-07	<2.59E-07	n/a	n/a	n/a	n/a	2.59E-07	n/a	U
S10V000661	E	SR-89/90	Strontium-89/90	uCi/g	96.2	<4.45E-07	<3.42E-07	n/a	n/a	n/a	n/a	3.42E-07	n/a	U
S10V000662	E	13981-37-8	Nickel-63	uCi/g	108	<2.44E-05	<2.10E-05	n/a	n/a	n/a	n/a	2.10E-05	n/a	U
S10V000662	E	15758-45-9	Selenium-79	uCi/g	n/a	<7.37E-07	<1.06E-06	n/a	n/a	n/a	n/a	1.06E-06	n/a	U

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B - Blank Contamination
M - RPD Outside Range
C - Blank Contamination
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J - Estimated

Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KP6

Sample Depth: 14-16

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V001179		W	14762-75-5	Carbon-14	uCi/g	93.5	<1.73E-07	4.69E-06	n/a	n/a	n/a	n/a	4.28E-06	56.856	
S10V001179		W	10028-17-8	Tritium	uCi/g	94.2	<4.07E-06	<3.85E-06	n/a	n/a	n/a	n/a	3.85E-06	n/a	U
S10V001215		A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.0741	n/a	n/a	n/a	n/a	9.66E-03	n/a	BJ
S10V001733		WV	14133-76-7	Technetium-99	ug/g	107	<4.00E-06	<3.90E-06	n/a	n/a	n/a	n/a	3.90E-06	n/a	U

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C - Blank Contamination
N - MS/MSD Outside Range
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J - Estimated

Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KP6A

Sample Depth: 14-16

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000821			BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.13	n/a	n/a	n/a	n/a	n/a	n/a	

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J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP8
Sample Depth: 14-16

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000373			71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0764	n/a	n/a	n/a	n/a	0.0764	n/a	U
S10V000373			79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.138	n/a	n/a	n/a	n/a	0.138	n/a	U
S10V000373			79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.176	n/a	n/a	n/a	n/a	0.176	n/a	U
S10V000373			75-35-4	1,1-Dichloroethene	ug/kg	102	<0.423	<0.352	n/a	n/a	n/a	n/a	0.352	n/a	U
S10V000373			107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0447	n/a	n/a	n/a	n/a	0.0447	n/a	U
S10V000373			71-36-3	1-Butanol	ug/kg	114	<10.3	<8.55	n/a	n/a	n/a	n/a	8.55	n/a	U
S10V000373			108-10-1	Hexone	ug/kg	132	<1.71	<1.42	n/a	n/a	n/a	n/a	1.42	n/a	UT
S10V000373			67-64-1	Acetone	ug/kg	95.1	<2.20	<1.83	n/a	n/a	n/a	n/a	1.83	n/a	UT
S10V000373			71-43-2	Benzene	ug/kg	96.5	<0.147	<0.122	n/a	n/a	n/a	n/a	0.122	n/a	U
S10V000373			75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.134	n/a	n/a	n/a	n/a	0.134	n/a	U
S10V000373			56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0776	n/a	n/a	n/a	n/a	0.0776	n/a	U
S10V000373			67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.109	n/a	n/a	n/a	n/a	0.109	n/a	U
S10V000373			108-90-7	Chlorobenzene	ug/kg	101	<0.0864	<0.0718	n/a	n/a	n/a	n/a	0.0718	n/a	U
S10V000373			100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.0890	n/a	n/a	n/a	n/a	0.0890	n/a	U
S10V000373			1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.169	n/a	n/a	n/a	n/a	0.169	n/a	U
S10V000373			78-93-3	2-Butanone	ug/kg	115	<1.96	<1.63	n/a	n/a	n/a	n/a	1.63	n/a	UT
S10V000373			75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000373			127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.0912	n/a	n/a	n/a	n/a	0.0912	n/a	U
S10V000373			108-88-3	Toluene	ug/kg	101	0.115	0.351	n/a	n/a	n/a	n/a	0.0666	n/a	BJ
S10V000373			10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.225	n/a	n/a	n/a	n/a	0.225	n/a	U
S10V000373			79-01-6	Trichloroethene	ug/kg	92.0	<0.121	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S10V000373			75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.144	n/a	n/a	n/a	n/a	0.144	n/a	U
S10V000373			156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.151	n/a	n/a	n/a	n/a	0.151	n/a	U
S10V000373			156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.252	n/a	n/a	n/a	n/a	0.252	n/a	U
S10V000373			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.0965	n/a	n/a	n/a	n/a	0.0965	n/a	U
S10V000373			79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.488	n/a	n/a	n/a	n/a	0.488	n/a	U
S10V000373			141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.488	n/a	n/a	n/a	n/a	0.488	n/a	U
S10V000373			60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.213	n/a	n/a	n/a	n/a	0.213	n/a	U
S10V000373			75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0781	n/a	n/a	n/a	n/a	0.0781	n/a	U

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C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
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B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP8
Sample Depth: 14-16

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000373			95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0764	n/a	n/a	n/a	n/a	0.0764	n/a	U
S10V000373			179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.139	n/a	n/a	n/a	n/a	0.139	n/a	U

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N - MS/MSD Outside Range
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U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP9
Sample Depth: 39-41

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000407		%WATERA	%WATER-APD	%	n/a	n/a	7.240	7.650	7.445	5.507	n/a	0.01000	n/a	
S10V000407		57-12-5	Cyanide	ug/g	99.5	<0.0370	<2.58	n/a	n/a	n/a	n/a	2.58	n/a	U
S10V000407		7439-97-6	Mercury	ug/g	101	<1.00E-04	<8.00E-03	n/a	n/a	n/a	n/a	8.00E-03	n/a	U
S10V000407		PH	pH	unitless	n/a	n/a	9.19	n/a	n/a	n/a	n/a	0.0100	n/a	
S10V000407		12597-04-5	Sulfide	ug/g	106	<0.180	14.5	n/a	n/a	n/a	n/a	7.19	n/a	B
S10V000663		13966-00-2	Potassium-40	uCi/g	n/a	<7.29E-06	1.32E-05	n/a	n/a	n/a	n/a	7.51E-06	37.54	
S10V000663		10198-40-0	Cobalt-60	uCi/g	99.3	<2.87E-07	<3.76E-07	n/a	n/a	n/a	n/a	3.76E-07	n/a	U
S10V000663		14234-35-6	Antimony-125	uCi/g	n/a	<7.84E-07	<9.67E-07	n/a	n/a	n/a	n/a	9.67E-07	n/a	U
S10V000663		10045-97-3	Cesium-137	uCi/g	99.7	<3.71E-07	<4.99E-07	n/a	n/a	n/a	n/a	4.99E-07	n/a	U
S10V000663		14683-23-9	Europium-152	uCi/g	n/a	<1.61E-06	<1.91E-06	n/a	n/a	n/a	n/a	1.91E-06	n/a	U
S10V000663		15585-10-1	Europium-154	uCi/g	n/a	<9.14E-07	<1.19E-06	n/a	n/a	n/a	n/a	1.19E-06	n/a	U
S10V000663		14391-16-3	Europium-155	uCi/g	n/a	<4.78E-07	<6.28E-07	n/a	n/a	n/a	n/a	6.28E-07	n/a	U
S10V000663		15092-94-1	Lead-212	uCi/g	n/a	<4.24E-07	7.65E-07	n/a	n/a	n/a	n/a	7.12E-07	37.49	
S10V000663		15067-28-4	Lead-214	uCi/g	n/a	<5.69E-07	8.76E-07	n/a	n/a	n/a	n/a	8.69E-07	40.40	
S10V000663		14274-82-9	Thorium-228	uCi/g	n/a	<8.12E-06	<1.18E-05	n/a	n/a	n/a	n/a	1.18E-05	n/a	U
S10V000663		15065-10-8	Thorium-234	uCi/g	n/a	<2.54E-06	<4.06E-06	n/a	n/a	n/a	n/a	4.06E-06	n/a	U
S10V000663		15046-84-1	Iodine-129	uCi/g	106	<2.36E-07	<2.35E-07	n/a	n/a	n/a	n/a	2.35E-07	n/a	U
S10V000664	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	72.4	<774	<75.4	n/a	n/a	n/a	65.9	75.4	n/a	U
S10V000664	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<1.01E+03	<98.0	n/a	n/a	n/a	n/a	98.0	n/a	U
S10V000664	O	121-14-2	2,4-Dinitrotoluene	ug/kg	88.6	<381	<37.1	n/a	n/a	n/a	90.8	37.1	n/a	U
S10V000664	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<440	<42.8	n/a	n/a	n/a	n/a	42.8	n/a	U
S10V000664	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<495	<48.2	n/a	n/a	n/a	n/a	48.2	n/a	U
S10V000664	O	95-48-7	2-Methylphenol	ug/kg	n/a	<575	<56.0	n/a	n/a	n/a	n/a	56.0	n/a	U
S10V000664	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<537	<52.3	n/a	n/a	n/a	n/a	52.3	n/a	U
S10V000664	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<514	<50.0	n/a	n/a	n/a	n/a	50.0	n/a	U
S10V000664	O	83-32-9	Acenaphthene	ug/kg	76.0	<176	<17.1	n/a	n/a	n/a	74.8	17.1	n/a	U
S10V000664	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<378	<36.8	n/a	n/a	n/a	n/a	36.8	n/a	U
S10V000664	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<489	<47.6	n/a	n/a	n/a	n/a	47.6	n/a	U
S10V000664	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<412	<40.1	n/a	n/a	n/a	n/a	40.1	n/a	U

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N - MS/MSD Outside Range
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B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP9
Sample Depth: 39-41

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000664	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<5.90E+03	<575	n/a	n/a	n/a	n/a	575	n/a	U
S10V000664	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<391	<38.1	n/a	n/a	n/a	n/a	38.1	n/a	U
S10V000664	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	728	74.2	n/a	n/a	n/a	n/a	48.7	n/a	BJ
S10V000664	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	75.6	<432	<42.1	n/a	n/a	n/a	82.4	42.1	n/a	U
S10V000664	O	95-57-8	2-Chlorophenol	ug/kg	74.0	<665	<64.7	n/a	n/a	n/a	72.0	64.7	n/a	U
S10V000664	O	218-01-9	Chrysene	ug/kg	n/a	<814	<79.2	n/a	n/a	n/a	n/a	79.2	n/a	U
S10V000664	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<511	<49.7	n/a	n/a	n/a	n/a	49.7	n/a	U
S10V000664	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<5.62E+03	<547	n/a	n/a	n/a	n/a	547	n/a	U
S10V000664	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<477	<46.4	n/a	n/a	n/a	n/a	46.4	n/a	U
S10V000664	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	73.0	<581	<56.6	n/a	n/a	n/a	65.7	56.6	n/a	U
S10V000664	O	206-44-0	Fluoranthene	ug/kg	n/a	<354	<34.5	n/a	n/a	n/a	n/a	34.5	n/a	U
S10V000664	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<697	<67.9	n/a	n/a	n/a	n/a	67.9	n/a	U
S10V000664	O	67-72-1	Hexachloroethane	ug/kg	n/a	<1.12E+03	<109	n/a	n/a	n/a	n/a	109	n/a	U
S10V000664	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<510	<49.7	n/a	n/a	n/a	n/a	49.7	n/a	U
S10V000664	O	91-20-3	Naphthalene	ug/kg	n/a	<626	<60.9	n/a	n/a	n/a	n/a	60.9	n/a	U
S10V000664	O	98-95-3	Nitrobenzene	ug/kg	n/a	<646	<62.9	n/a	n/a	n/a	n/a	62.9	n/a	U
S10V000664	O	129-00-0	Pyrene	ug/kg	99.7	<629	<61.2	n/a	n/a	n/a	92.9	61.2	n/a	U
S10V000664	O	110-86-1	Pyridine	ug/kg	n/a	<650	<63.3	n/a	n/a	n/a	n/a	63.3	n/a	U
S10V000664	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<1.08E+03	<105	n/a	n/a	n/a	n/a	105	n/a	U
S10V000664	O	128-37-0	BHT	ug/kg	n/a	<2.36E+03	<229	n/a	n/a	n/a	n/a	229	n/a	U
S10V000664	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<1.82E+03	<178	n/a	n/a	n/a	n/a	178	n/a	U
S10V000664	O	108-94-1	Cyclohexanone	ug/kg	n/a	<5.58E+03	<543	n/a	n/a	n/a	n/a	543	n/a	U
S10V000664	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<1.91E+03	<186	n/a	n/a	n/a	n/a	186	n/a	U
S10V000664	O	78-83-1	Isobutanol	ug/kg	n/a	<4.60E+03	<448	n/a	n/a	n/a	n/a	448	n/a	U
S10V000665	W	16984-48-8	Fluoride	ug/g	102	<1.61E-03	1.73	n/a	n/a	n/a	n/a	0.0163	n/a	
S10V000665	W	GLYCOLAT	Glycolate	ug/g	98.2	<9.37E-03	<0.0948	n/a	n/a	n/a	n/a	0.0948	n/a	U
S10V000665	W	71-50-1	Acetate	ug/g	95.5	<6.04E-03	0.474	n/a	n/a	n/a	n/a	0.0611	n/a	B
S10V000665	W	FORMATE	Formate	ug/g	99.5	<4.67E-03	0.803	n/a	n/a	n/a	n/a	0.0473	n/a	B
S10V000665	W	16887-00-6	Chloride	ug/g	101	<9.98E-03	0.964	n/a	n/a	n/a	n/a	0.101	n/a	

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T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP9
Sample Depth: 39-41

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000665		W	14797-65-0	Nitrite	ug/g	103	<0.0192	1.69	n/a	n/a	n/a	n/a	0.194	n/a	B
S10V000665		W	14808-79-8	Sulfate	ug/g	102	<0.0187	11.7	n/a	n/a	n/a	n/a	0.189	n/a	
S10V000665		W	338-70-5	Oxalate	ug/g	100	<0.0231	1.41	n/a	n/a	n/a	n/a	0.234	n/a	B
S10V000665		W	24959-67-9	Bromide	ug/g	101	<0.0580	<0.587	n/a	n/a	n/a	n/a	0.587	n/a	U
S10V000665		W	14797-55-8	Nitrate	ug/g	99.6	<0.0208	11.1	n/a	n/a	n/a	n/a	0.211	n/a	
S10V000665		W	14265-44-2	Phosphate	ug/g	100	<0.0167	1.45	n/a	n/a	n/a	n/a	0.169	n/a	B
S10V000666		A	7429-90-5	Aluminum	ug/g	92.4	<0.0300	8.53E+03	8.14E+03	8.34E+03	4.68	1.69E+03	2.99	n/a	
S10V000666		A	7440-39-3	Barium	ug/g	98.4	<3.00E-03	78.4	67.8	73.1	14.4	85.0	0.299	n/a	
S10V000666		A	7440-41-7	Beryllium	ug/g	90.8	<1.00E-03	0.173	0.176	0.175	2.01	108	0.0997	n/a	B
S10V000666		A	7440-70-2	Calcium	ug/g	91.7	0.141	8.19E+03	8.06E+03	8.12E+03	1.58	798	4.98	n/a	
S10V000666		A	7440-45-1	Cerium	ug/g	94.2	<0.0300	18.3	18.4	18.4	0.828	109	2.99	n/a	B
S10V000666		A	7440-48-4	Cobalt	ug/g	92.4	<0.0100	8.25	7.66	7.95	7.43	108	0.997	n/a	B
S10V000666		A	7440-47-3	Chromium	ug/g	91.7	<5.00E-03	17.7	16.5	17.1	6.86	109	0.498	n/a	
S10V000666		A	7440-50-8	Copper	ug/g	101	<5.00E-03	11.5	11.3	11.4	1.90	106	0.498	n/a	
S10V000666		A	7439-89-6	Iron	ug/g	93.3	9.59E-03	1.95E+04	1.92E+04	1.94E+04	1.68	1.07E+03	0.498	n/a	
S10V000666		A	7440-09-7	Potassium	ug/g	108	<0.500	1.25E+03	1.13E+03	1.19E+03	10.1	47.6	49.8	n/a	
S10V000666		A	7439-91-0	Lanthanum	ug/g	97.6	<3.00E-03	8.80	8.81	8.81	0.0733	104	0.299	n/a	
S10V000666		A	7439-93-2	Lithium	ug/g	111	<3.00E-03	9.53	8.96	9.24	6.13	101	0.299	n/a	
S10V000666		A	7439-95-4	Magnesium	ug/g	91.9	<0.0500	5.47E+03	4.60E+03	5.03E+03	17.3	-1.28E+03	4.98	n/a	
S10V000666		A	7439-96-5	Manganese	ug/g	91.2	<3.00E-03	353	305	329	14.6	58.4	0.299	n/a	
S10V000666		A	7439-98-7	Molybdenum	ug/g	94.3	<0.0200	<1.99	<2.00	n/a	n/a	104	1.99	n/a	U
S10V000666		A	7440-23-5	Sodium	ug/g	115	<0.100	287	259	273	10.0	267	9.97	n/a	
S10V000666		A	7440-02-0	Nickel	ug/g	91.8	<0.0200	20.2	12.0	16.1	50.7	93.8	1.99	n/a	M
S10V000666		A	7723-14-0	Phosphorus	ug/g	92.7	<0.0500	601	593	597	1.42	83.2	4.98	n/a	
S10V000666		A	7704-34-9	Sulfur	ug/g	92.9	<0.100	32.8	28.1	30.5	15.6	111	9.97	n/a	B
S10V000666		A	7440-21-3	Silicon	ug/g	63.5	<0.0300	134	n/a	n/a	n/a	424	2.99	n/a	
S10V000666		A	7440-24-6	Strontium	ug/g	97.1	<3.00E-03	46.1	35.9	41.0	24.9	84.9	0.299	n/a	
S10V000666		A	7440-32-6	Titanium	ug/g	93.0	<5.00E-03	1.19E+03	1.16E+03	1.18E+03	2.48	236	0.498	n/a	
S10V000666		A	7440-62-2	Vanadium	ug/g	94.6	<5.00E-03	45.7	44.8	45.3	1.97	116	0.498	n/a	

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B - Estimated
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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP9
Sample Depth: 39-41

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000666	A	7440-65-5	Yttrium	ug/g	88.8	<2.00E-03	7.17	7.26	7.21	1.27	89.8	0.199	n/a	
S10V000666	A	7440-66-6	Zinc	ug/g	94.0	<5.00E-03	36.7	36.8	36.8	0.390	112	0.498	n/a	
S10V000666	A	7440-67-7	Zirconium	ug/g	92.1	<5.00E-03	10.8	10.7	10.7	1.20	28.4	0.498	n/a	N
S10V000666	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<3.38E-05	<3.24E-05	n/a	n/a	n/a	3.38E-05	n/a	U
S10V000666	A	TH-232	Thorium-232	ug/g	108	<6.80E-05	3.09	2.70	2.89	13.4	115	8.20E-04	n/a	
S10V000666	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	9.81E-05	8.67E-05	9.24E-05	12.4	n/a	4.83E-05	n/a	
S10V000666	A	13966-29-5	Uranium-234	ug/g	n/a	<2.00E-06	<2.41E-05	<2.31E-05	n/a	n/a	n/a	2.41E-05	n/a	U
S10V000666	A	15117-96-1	Uranium-235	ug/g	97.3	<4.40E-06	3.79E-03	3.23E-03	3.51E-03	16.0	98.5	5.31E-05	n/a	
S10V000666	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.93E-05	<1.85E-05	n/a	n/a	n/a	1.93E-05	n/a	U
S10V000666	A	13994-20-2	Neptunium-237	ug/g	106	<2.12E-05	<2.56E-04	<2.45E-04	n/a	n/a	103	2.56E-04	n/a	U
S10V000666	A	U-238	Uranium-238	ug/g	105	<2.20E-04	0.544	0.503	0.523	7.83	103	2.65E-03	n/a	
S10V000666	A	7440-22-4	Silver	ug/g	104	<1.60E-03	0.0582	0.0622	0.0602	6.66	99.8	0.0193	n/a	B
S10V000666	A	7440-43-9	Cadmium	ug/g	102	<6.00E-04	0.0672	0.0730	0.0701	8.27	101	7.24E-03	n/a	B
S10V000667	S	14798-03-9	Ammonium	ug/g	91.4	<0.0120	1.53	n/a	n/a	n/a	n/a	0.469	n/a	B
S10V000668	A	14133-76-7	Technetium-99	ug/g	99.1	<1.50E-04	<1.71E-03	<1.73E-03	n/a	n/a	101	1.71E-03	n/a	U
S10V000668	A	SN-117	Tin-117	ug/g	108	<5.50E-03	<0.0629	<0.0634	n/a	n/a	52.9	0.0629	n/a	UN
S10V000668	A	15832-50-5	Tin-126	ug/g	n/a	<1.00E-04	<1.14E-03	<1.15E-03	n/a	n/a	n/a	1.14E-03	n/a	UN
S10V000669	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.15E-07	<2.10E-07	n/a	n/a	n/a	n/a	2.10E-07	n/a	U
S10V000669	E	14596-10-2	Americium-241	uCi/g	100	<5.39E-07	<5.26E-07	n/a	n/a	n/a	n/a	5.26E-07	n/a	U
S10V000669	E	15510-73-3	Curium-242	uCi/g	n/a	<2.15E-07	<2.10E-07	n/a	n/a	n/a	n/a	2.10E-07	n/a	U
S10V000669	E	PU-239/240	Plutonium-239/240	uCi/g	94.1	<2.75E-07	<2.52E-07	n/a	n/a	n/a	n/a	2.52E-07	n/a	U
S10V000669	E	13981-16-3	Plutonium-238	uCi/g	n/a	<2.75E-07	<2.52E-07	n/a	n/a	n/a	n/a	2.52E-07	n/a	U
S10V000670	E	SR-89/90	Strontium-89/90	uCi/g	96.2	<4.45E-07	<3.38E-07	n/a	n/a	n/a	n/a	3.38E-07	n/a	U
S10V000671	E	13981-37-8	Nickel-63	uCi/g	108	<2.44E-05	<1.43E-05	n/a	n/a	n/a	n/a	1.43E-05	n/a	U
S10V000671	E	15758-45-9	Selenium-79	uCi/g	n/a	<7.37E-07	<1.38E-06	n/a	n/a	n/a	n/a	1.38E-06	n/a	U
S10V001180	W	14762-75-5	Carbon-14	uCi/g	93.5	<1.73E-07	<3.54E-06	n/a	n/a	n/a	n/a	3.54E-06	n/a	U
S10V001180	W	10028-17-8	Tritium	uCi/g	94.2	<4.07E-06	3.15E-06	n/a	n/a	n/a	n/a	2.47E-06	115.972	
S10V001216	A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.122	n/a	n/a	n/a	n/a	9.83E-03	n/a	B
S10V001734	WV	14133-76-7	Technetium-99	ug/g	107	<4.00E-06	<4.17E-06	n/a	n/a	n/a	n/a	4.17E-06	n/a	U

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B - Estimated
M - RPD Outside Range
N - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KP9
Sample Depth: 39-41

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V003308		A	7440-38-2	Arsenic	ug/g	88.8	<8.40E-03	2.29	2.31	2.30	0.991	75.6	0.0837	n/a	
S10V003308		A	7440-43-9	Cadmium	ug/g	102	<1.80E-03	0.0685	0.0640	0.0662	6.90	108	0.0120	n/a	B
S10V003308		A	7439-92-1	Lead	ug/g	94.1	<3.00E-03	3.41	3.28	3.34	3.74	104	0.0299	n/a	
S10V003308		A	7782-49-2	Selenium	ug/g	108	<0.0270	<0.269	<0.270	n/a	n/a	116	0.269	n/a	U
S10V003308		A	7440-28-0	Thallium	ug/g	98.0	<4.00E-04	0.0816	0.0753	0.0785	8.03	101	7.98E-03	n/a	

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Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KP9A

Sample Depth: 39-41

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000824			BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.20	n/a	n/a	n/a	n/a	n/a	n/a	

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J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR1
Sample Depth: 39-41

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000374			71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0841	n/a	n/a	n/a	n/a	0.0841	n/a	U
S10V000374			79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.152	n/a	n/a	n/a	n/a	0.152	n/a	U
S10V000374			79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.193	n/a	n/a	n/a	n/a	0.193	n/a	U
S10V000374			75-35-4	1,1-Dichloroethene	ug/kg	92.3	<0.423	<0.387	n/a	n/a	n/a	96.7	0.387	n/a	U
S10V000374			107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0492	n/a	n/a	n/a	n/a	0.0492	n/a	U
S10V000374			71-36-3	1-Butanol	ug/kg	99.0	<10.3	<9.41	n/a	n/a	n/a	120	9.41	n/a	U
S10V000374			108-10-1	Hexone	ug/kg	126	<1.71	<1.56	n/a	n/a	n/a	138	1.56	n/a	U
S10V000374			67-64-1	Acetone	ug/kg	86.0	<2.20	72.5	n/a	n/a	n/a	95.7	2.01	n/a	
S10V000374			71-43-2	Benzene	ug/kg	90.8	<0.147	<0.135	n/a	n/a	n/a	94.2	0.135	n/a	U
S10V000374			75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.147	n/a	n/a	n/a	n/a	0.147	n/a	U
S10V000374			56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0854	n/a	n/a	n/a	n/a	0.0854	n/a	U
S10V000374			67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.120	n/a	n/a	n/a	n/a	0.120	n/a	U
S10V000374			108-90-7	Chlorobenzene	ug/kg	94.1	<0.0864	<0.0790	n/a	n/a	n/a	98.0	0.0790	n/a	U
S10V000374			100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.0980	n/a	n/a	n/a	n/a	0.0980	n/a	U
S10V000374			1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.186	n/a	n/a	n/a	n/a	0.186	n/a	U
S10V000374			78-93-3	2-Butanone	ug/kg	107	<1.96	<1.80	n/a	n/a	n/a	117	1.80	n/a	U
S10V000374			75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0585	n/a	n/a	n/a	n/a	0.0585	n/a	U
S10V000374			127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S10V000374			108-88-3	Toluene	ug/kg	94.5	0.183	0.360	n/a	n/a	n/a	97.7	0.0733	n/a	BJ
S10V000374			10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.248	n/a	n/a	n/a	n/a	0.248	n/a	U
S10V000374			79-01-6	Trichloroethene	ug/kg	86.8	<0.121	<0.111	n/a	n/a	n/a	90.8	0.111	n/a	U
S10V000374			75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.158	n/a	n/a	n/a	n/a	0.158	n/a	U
S10V000374			156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.166	n/a	n/a	n/a	n/a	0.166	n/a	U
S10V000374			156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.277	n/a	n/a	n/a	n/a	0.277	n/a	U
S10V000374			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.106	n/a	n/a	n/a	n/a	0.106	n/a	U
S10V000374			79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.537	n/a	n/a	n/a	n/a	0.537	n/a	U
S10V000374			141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.537	n/a	n/a	n/a	n/a	0.537	n/a	U
S10V000374			60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.234	n/a	n/a	n/a	n/a	0.234	n/a	U
S10V000374			75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0859	n/a	n/a	n/a	n/a	0.0859	n/a	U

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J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR1
Sample Depth: 39-41

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000374			95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0841	n/a	n/a	n/a	n/a	0.0841	n/a	U
S10V000374			179601-23-1	m,p-Xylene	ug/kg	n/a	0.172	<0.153	n/a	n/a	n/a	n/a	0.153	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR2
Sample Depth: 139-141

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000408		%WATERA	%WATER-APD	%	n/a	n/a	3.350	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000408		57-12-5	Cyanide	ug/g	88.8	<0.0370	<3.08	n/a	n/a	n/a	n/a	3.08	n/a	U
S10V000408		7439-97-6	Mercury	ug/g	103	<1.00E-04	<8.41E-03	n/a	n/a	n/a	98.8	8.41E-03	n/a	U
S10V000408		PH	pH	unitless	n/a	n/a	8.73	8.75	8.74	0.229	n/a	0.0100	n/a	
S10V000408		12597-04-5	Sulfide	ug/g	94.7	<0.180	7.21	7.91	7.56	9.16	101	7.17	n/a	B
S10V000672		13966-00-2	Potassium-40	uCi/g	n/a	<7.29E-06	1.10E-05	1.89E-05	1.50E-05	53.1	n/a	6.01E-06	36.08	
S10V000672		10198-40-0	Cobalt-60	uCi/g	99.3	<2.87E-07	<2.98E-07	<3.78E-07	n/a	n/a	n/a	2.98E-07	n/a	U
S10V000672		14234-35-6	Antimony-125	uCi/g	n/a	<7.84E-07	<8.02E-07	<9.81E-07	n/a	n/a	n/a	8.02E-07	n/a	U
S10V000672		10045-97-3	Cesium-137	uCi/g	99.7	<3.71E-07	<3.54E-07	<5.08E-07	n/a	n/a	n/a	3.54E-07	n/a	U
S10V000672		14683-23-9	Europium-152	uCi/g	n/a	<1.61E-06	<1.27E-06	<1.98E-06	n/a	n/a	n/a	1.27E-06	n/a	U
S10V000672		15585-10-1	Europium-154	uCi/g	n/a	<9.14E-07	<9.56E-07	<1.27E-06	n/a	n/a	n/a	9.56E-07	n/a	U
S10V000672		14391-16-3	Europium-155	uCi/g	n/a	<4.78E-07	<5.03E-07	<6.62E-07	n/a	n/a	n/a	5.03E-07	n/a	U
S10V000672		15092-94-1	Lead-212	uCi/g	n/a	<4.24E-07	7.72E-07	1.34E-06	1.06E-06	54.1	n/a	5.60E-07	23.60	
S10V000672		14274-82-9	Thorium-228	uCi/g	n/a	<8.12E-06	<9.20E-06	<1.25E-05	n/a	n/a	n/a	9.20E-06	n/a	U
S10V000672		15065-10-8	Thorium-234	uCi/g	n/a	<2.54E-06	<3.16E-06	<4.38E-06	n/a	n/a	n/a	3.16E-06	n/a	U
S10V000672		15046-84-1	Iodine-129	uCi/g	106	<2.36E-07	<2.56E-07	<2.16E-07	n/a	n/a	n/a	2.56E-07	n/a	U
S10V000673	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	63.8	<77.4	<77.0	n/a	n/a	n/a	66.7	77.0	n/a	U
S10V000673	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<100	n/a	n/a	n/a	n/a	100	n/a	U
S10V000673	O	121-14-2	2,4-Dinitrotoluene	ug/kg	80.3	<38.1	<37.9	n/a	n/a	n/a	80.7	37.9	n/a	U
S10V000673	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<43.8	n/a	n/a	n/a	n/a	43.8	n/a	U
S10V000673	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<49.2	n/a	n/a	n/a	n/a	49.2	n/a	U
S10V000673	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<57.2	n/a	n/a	n/a	n/a	57.2	n/a	U
S10V000673	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<53.4	n/a	n/a	n/a	n/a	53.4	n/a	U
S10V000673	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<51.1	n/a	n/a	n/a	n/a	51.1	n/a	U
S10V000673	O	83-32-9	Acenaphthene	ug/kg	67.9	<17.6	<17.5	n/a	n/a	n/a	70.7	17.5	n/a	U
S10V000673	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<37.6	n/a	n/a	n/a	n/a	37.6	n/a	U
S10V000673	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<48.6	n/a	n/a	n/a	n/a	48.6	n/a	U
S10V000673	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<41.0	n/a	n/a	n/a	n/a	41.0	n/a	U
S10V000673	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<587	n/a	n/a	n/a	n/a	587	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR2
Sample Depth: 139-141

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000673	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<38.9	n/a	n/a	n/a	n/a	38.9	n/a	U
S10V000673	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	74.0	75.6	n/a	n/a	n/a	n/a	49.7	n/a	BJ
S10V000673	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	67.8	<43.2	<43.0	n/a	n/a	n/a	75.1	43.0	n/a	U
S10V000673	O	95-57-8	2-Chlorophenol	ug/kg	66.3	<66.5	<66.2	n/a	n/a	n/a	68.3	66.2	n/a	U
S10V000673	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<81.0	n/a	n/a	n/a	n/a	81.0	n/a	U
S10V000673	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<50.8	n/a	n/a	n/a	n/a	50.8	n/a	U
S10V000673	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<559	n/a	n/a	n/a	n/a	559	n/a	U
S10V000673	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	<47.5	n/a	n/a	n/a	n/a	47.5	n/a	U
S10V000673	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	61.6	<58.1	<57.8	n/a	n/a	n/a	67.2	57.8	n/a	U
S10V000673	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<35.2	n/a	n/a	n/a	n/a	35.2	n/a	U
S10V000673	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<69.3	n/a	n/a	n/a	n/a	69.3	n/a	U
S10V000673	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<111	n/a	n/a	n/a	n/a	111	n/a	U
S10V000673	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<50.7	n/a	n/a	n/a	n/a	50.7	n/a	U
S10V000673	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<62.3	n/a	n/a	n/a	n/a	62.3	n/a	U
S10V000673	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<64.3	n/a	n/a	n/a	n/a	64.3	n/a	U
S10V000673	O	129-00-0	Pyrene	ug/kg	n/a	<62.9	<62.6	n/a	n/a	n/a	81.8	62.6	n/a	U
S10V000673	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<64.7	n/a	n/a	n/a	n/a	64.7	n/a	U
S10V000673	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<107	n/a	n/a	n/a	n/a	107	n/a	U
S10V000673	O	128-37-0	BHT	ug/kg	n/a	<236	<234	n/a	n/a	n/a	n/a	234	n/a	U
S10V000673	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<181	n/a	n/a	n/a	n/a	181	n/a	U
S10V000673	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<106	n/a	n/a	n/a	n/a	106	n/a	U
S10V000673	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<555	n/a	n/a	n/a	n/a	555	n/a	U
S10V000673	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<190	n/a	n/a	n/a	n/a	190	n/a	U
S10V000673	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<458	n/a	n/a	n/a	n/a	458	n/a	U
S10V000674	W	16984-48-8	Fluoride	ug/g	106	<1.61E-03	1.41	1.41	1.41	0.0569	104	0.0165	n/a	
S10V000674	W	GLYCOLAT	Glycolate	ug/g	102	<9.37E-03	<0.0958	<0.0959	n/a	n/a	99.0	0.0958	n/a	U
S10V000674	W	71-50-1	Acetate	ug/g	102	<6.04E-03	0.399	0.430	0.414	7.47	96.3	0.0617	n/a	B
S10V000674	W	FORMATE	Formate	ug/g	105	<4.67E-03	0.241	0.240	0.241	0.312	100	0.0477	n/a	B
S10V000674	W	16887-00-6	Chloride	ug/g	104	<9.98E-03	3.26	3.29	3.27	0.987	103	0.102	n/a	

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR2
Sample Depth: 139-141

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000674	W	14797-65-0	Nitrite	ug/g	105	<0.0192	1.04	1.03	1.03	1.28	98.4	0.196	n/a	B
S10V000674	W	14808-79-8	Sulfate	ug/g	106	<0.0187	113	114	114	0.843	104	0.191	n/a	
S10V000674	W	338-70-5	Oxalate	ug/g	104	<0.0231	<0.236	<0.236	n/a	n/a	102	0.236	n/a	U
S10V000674	W	24959-67-9	Bromide	ug/g	106	<0.0580	<0.593	<0.593	n/a	n/a	100	0.593	n/a	U
S10V000674	W	14797-55-8	Nitrate	ug/g	105	<0.0208	41.8	42.1	41.9	0.821	102	0.213	n/a	
S10V000674	W	14265-44-2	Phosphate	ug/g	104	<0.0167	0.281	0.290	0.285	3.16	101	0.171	n/a	B
S10V000675	A	7429-90-5	Aluminum	ug/g	92.4	<0.0300	7.17E+03	n/a	n/a	n/a	n/a	3.00	n/a	
S10V000675	A	7440-39-3	Barium	ug/g	98.4	<3.00E-03	64.5	n/a	n/a	n/a	n/a	0.300	n/a	
S10V000675	A	7440-41-7	Beryllium	ug/g	90.8	<1.00E-03	0.149	n/a	n/a	n/a	n/a	0.0999	n/a	B
S10V000675	A	7440-70-2	Calcium	ug/g	91.7	0.141	8.83E+03	n/a	n/a	n/a	n/a	5.00	n/a	
S10V000675	A	7440-45-1	Cerium	ug/g	94.2	<0.0300	20.9	n/a	n/a	n/a	n/a	3.00	n/a	B
S10V000675	A	7440-48-4	Cobalt	ug/g	92.4	<0.0100	5.65	n/a	n/a	n/a	n/a	0.999	n/a	B
S10V000675	A	7440-47-3	Chromium	ug/g	91.7	<5.00E-03	22.0	n/a	n/a	n/a	n/a	0.500	n/a	
S10V000675	A	7440-50-8	Copper	ug/g	101	<5.00E-03	9.18	n/a	n/a	n/a	n/a	0.500	n/a	
S10V000675	A	7439-89-6	Iron	ug/g	93.3	9.59E-03	1.75E+04	n/a	n/a	n/a	n/a	0.500	n/a	
S10V000675	A	7440-09-7	Potassium	ug/g	108	<0.500	1.13E+03	n/a	n/a	n/a	n/a	50.0	n/a	
S10V000675	A	7439-91-0	Lanthanum	ug/g	97.6	<3.00E-03	9.02	n/a	n/a	n/a	n/a	0.300	n/a	
S10V000675	A	7439-93-2	Lithium	ug/g	111	<3.00E-03	9.27	n/a	n/a	n/a	n/a	0.300	n/a	
S10V000675	A	7439-95-4	Magnesium	ug/g	91.9	<0.0500	4.71E+03	n/a	n/a	n/a	n/a	5.00	n/a	
S10V000675	A	7439-96-5	Manganese	ug/g	91.2	<3.00E-03	291	n/a	n/a	n/a	n/a	0.300	n/a	
S10V000675	A	7439-98-7	Molybdenum	ug/g	94.3	<0.0200	<2.00	n/a	n/a	n/a	n/a	2.00	n/a	U
S10V000675	A	7440-23-5	Sodium	ug/g	115	<0.100	204	n/a	n/a	n/a	n/a	9.99	n/a	
S10V000675	A	7440-02-0	Nickel	ug/g	91.8	<0.0200	10.9	n/a	n/a	n/a	n/a	2.00	n/a	BM
S10V000675	A	7723-14-0	Phosphorus	ug/g	92.7	<0.0500	452	n/a	n/a	n/a	n/a	5.00	n/a	
S10V000675	A	7704-34-9	Sulfur	ug/g	92.9	<0.100	53.2	n/a	n/a	n/a	n/a	9.99	n/a	B
S10V000675	A	7440-21-3	Silicon	ug/g	63.5	<0.0300	93.9	n/a	n/a	n/a	n/a	3.00	n/a	
S10V000675	A	7440-24-6	Strontium	ug/g	97.1	<3.00E-03	36.1	n/a	n/a	n/a	n/a	0.300	n/a	
S10V000675	A	7440-32-6	Titanium	ug/g	93.0	<5.00E-03	862	n/a	n/a	n/a	n/a	0.500	n/a	
S10V000675	A	7440-62-2	Vanadium	ug/g	94.6	<5.00E-03	36.8	n/a	n/a	n/a	n/a	0.500	n/a	

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR2
Sample Depth: 139-141

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000675	A	7440-65-5	Yttrium	ug/g	88.8	<2.00E-03	5.04	n/a	n/a	n/a	n/a	0.200	n/a	
S10V000675	A	7440-66-6	Zinc	ug/g	94.0	<5.00E-03	33.8	n/a	n/a	n/a	n/a	0.500	n/a	
S10V000675	A	7440-67-7	Zirconium	ug/g	92.1	<5.00E-03	5.85	n/a	n/a	n/a	n/a	0.500	n/a	N
S10V000675	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<3.35E-05	n/a	n/a	n/a	n/a	3.35E-05	n/a	U
S10V000675	A	TH-232	Thorium-232	ug/g	108	<6.80E-05	3.60	n/a	n/a	n/a	n/a	8.13E-04	n/a	
S10V000675	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	1.44E-04	n/a	n/a	n/a	n/a	4.78E-05	n/a	
S10V000675	A	13966-29-5	Uranium-234	ug/g	n/a	<2.00E-06	<2.39E-05	n/a	n/a	n/a	n/a	2.39E-05	n/a	U
S10V000675	A	15117-96-1	Uranium-235	ug/g	97.3	<4.40E-06	4.03E-03	n/a	n/a	n/a	n/a	5.26E-05	n/a	
S10V000675	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.91E-05	n/a	n/a	n/a	n/a	1.91E-05	n/a	U
S10V000675	A	13994-20-2	Neptunium-237	ug/g	106	<2.12E-05	<2.53E-04	n/a	n/a	n/a	n/a	2.53E-04	n/a	U
S10V000675	A	U-238	Uranium-238	ug/g	105	<2.20E-04	0.565	n/a	n/a	n/a	n/a	2.63E-03	n/a	
S10V000675	A	7440-22-4	Silver	ug/g	104	<1.60E-03	0.0466	n/a	n/a	n/a	n/a	0.0191	n/a	B
S10V000675	A	7440-43-9	Cadmium	ug/g	102	<6.00E-04	0.0629	n/a	n/a	n/a	n/a	7.17E-03	n/a	B
S10V000676	S	14798-03-9	Ammonium	ug/g	99.9	<0.0120	1.05	0.883	0.968	17.6	103	0.477	n/a	B
S10V000677	A	14133-76-7	Technetium-99	ug/g	99.1	<1.50E-04	1.96E-03	n/a	n/a	n/a	n/a	1.79E-03	n/a	
S10V000677	A	SN-117	Tin-117	ug/g	108	<5.50E-03	<0.0656	n/a	n/a	n/a	n/a	0.0656	n/a	UN
S10V000677	A	15832-50-5	Tin-126	ug/g	n/a	<1.00E-04	<1.19E-03	n/a	n/a	n/a	n/a	1.19E-03	n/a	UN
S10V000678	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.15E-07	<2.08E-07	<2.00E-07	n/a	n/a	n/a	2.08E-07	n/a	U
S10V000678	E	14596-10-2	Americium-241	uCi/g	100	<5.39E-07	<5.19E-07	<5.00E-07	n/a	n/a	n/a	5.19E-07	n/a	U
S10V000678	E	15510-73-3	Curium-242	uCi/g	n/a	<2.15E-07	<2.08E-07	<2.00E-07	n/a	n/a	n/a	2.08E-07	n/a	U
S10V000678	E	PU-239/240	Plutonium-239/240	uCi/g	94.1	<2.75E-07	<2.14E-07	<2.16E-07	n/a	n/a	n/a	2.14E-07	n/a	U
S10V000678	E	13981-16-3	Plutonium-238	uCi/g	n/a	<2.75E-07	<2.14E-07	<2.16E-07	n/a	n/a	n/a	2.14E-07	n/a	U
S10V000679	E	SR-89/90	Strontium-89/90	uCi/g	96.2	<4.45E-07	<4.68E-07	<4.42E-07	n/a	n/a	n/a	4.68E-07	n/a	U
S10V000680	E	13981-37-8	Nickel-63	uCi/g	108	<2.44E-05	<1.39E-05	<1.92E-05	n/a	n/a	n/a	1.39E-05	n/a	U
S10V000680	E	15758-45-9	Selenium-79	uCi/g	n/a	<7.37E-07	<1.84E-06	<1.57E-06	n/a	n/a	n/a	1.84E-06	n/a	U
S10V001181	W	14762-75-5	Carbon-14	uCi/g	93.5	<1.73E-07	<2.55E-06	n/a	n/a	n/a	n/a	2.55E-06	n/a	U
S10V001181	W	10028-17-8	Tritium	uCi/g	94.2	<4.07E-06	3.30E-06	n/a	n/a	n/a	n/a	1.49E-06	121.89	
S10V001217	A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.169	n/a	n/a	n/a	n/a	9.64E-03	n/a	B
S10V001735	WV	14133-76-7	Technetium-99	ug/g	107	<4.00E-06	1.57E-04	n/a	n/a	n/a	n/a	3.79E-06	n/a	

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C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR2
Sample Depth: 139-141

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V003309		A	7440-38-2	Arsenic	ug/g	88.8	<8.40E-03	2.90	n/a	n/a	n/a	n/a	0.0839	n/a	
S10V003309		A	7440-43-9	Cadmium	ug/g	102	<1.80E-03	0.0690	n/a	n/a	n/a	n/a	0.0120	n/a	B
S10V003309		A	7439-92-1	Lead	ug/g	94.1	<3.00E-03	13.8	n/a	n/a	n/a	n/a	0.0300	n/a	
S10V003309		A	7782-49-2	Selenium	ug/g	108	<0.0270	<0.270	n/a	n/a	n/a	n/a	0.270	n/a	U
S10V003309		A	7440-28-0	Thallium	ug/g	98.0	<4.00E-04	0.0788	n/a	n/a	n/a	n/a	7.99E-03	n/a	B

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J - Estimated

Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KR2A

Sample Depth: 139-141

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000827			BULKDENSI	Bulk Density	g/mL	n/a	n/a	1.98	n/a	n/a	n/a	n/a	n/a	n/a	

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KR2B

Sample Depth: 139-141

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000828			BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.03	n/a	n/a	n/a	n/a	n/a	n/a	

NA = Not Analyzed, ND = Not Detected

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M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR2C
Sample Depth: 139-141

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000829			BULKDENSI	Bulk Density	g/mL	n/a	n/a	1.95	n/a	n/a	n/a	n/a	n/a	n/a	

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C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR4
Sample Depth: 139-141

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000375			71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0920	n/a	n/a	n/a	n/a	0.0920	n/a	U
S10V000375			79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.166	n/a	n/a	n/a	n/a	0.166	n/a	U
S10V000375			79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.212	n/a	n/a	n/a	n/a	0.212	n/a	U
S10V000375			75-35-4	1,1-Dichloroethene	ug/kg	116	<0.423	<0.423	n/a	n/a	n/a	n/a	0.423	n/a	U
S10V000375			107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0538	n/a	n/a	n/a	n/a	0.0538	n/a	U
S10V000375			71-36-3	1-Butanol	ug/kg	84.0	<10.3	<10.3	n/a	n/a	n/a	n/a	10.3	n/a	U
S10V000375			108-10-1	Hexone	ug/kg	126	<1.71	<1.71	n/a	n/a	n/a	n/a	1.71	n/a	U
S10V000375			67-64-1	Acetone	ug/kg	126	<2.20	<2.20	n/a	n/a	n/a	n/a	2.20	n/a	UT
S10V000375			71-43-2	Benzene	ug/kg	108	<0.147	<0.147	n/a	n/a	n/a	n/a	0.147	n/a	U
S10V000375			75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.161	n/a	n/a	n/a	n/a	0.161	n/a	U
S10V000375			56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0934	n/a	n/a	n/a	n/a	0.0934	n/a	U
S10V000375			67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.131	n/a	n/a	n/a	n/a	0.131	n/a	U
S10V000375			108-90-7	Chlorobenzene	ug/kg	108	<0.0864	<0.0864	n/a	n/a	n/a	n/a	0.0864	n/a	U
S10V000375			100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.107	n/a	n/a	n/a	n/a	0.107	n/a	U
S10V000375			1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.203	n/a	n/a	n/a	n/a	0.203	n/a	U
S10V000375			78-93-3	2-Butanone	ug/kg	105	<1.96	<1.96	n/a	n/a	n/a	n/a	1.96	n/a	U
S10V000375			75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0640	n/a	n/a	n/a	n/a	0.0640	n/a	U
S10V000375			127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.110	n/a	n/a	n/a	n/a	0.110	n/a	U
S10V000375			108-88-3	Toluene	ug/kg	109	<0.0802	0.331	n/a	n/a	n/a	n/a	0.0802	n/a	J
S10V000375			10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.271	n/a	n/a	n/a	n/a	0.271	n/a	U
S10V000375			79-01-6	Trichloroethene	ug/kg	101	<0.121	<0.121	n/a	n/a	n/a	n/a	0.121	n/a	U
S10V000375			75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.173	n/a	n/a	n/a	n/a	0.173	n/a	U
S10V000375			156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.182	n/a	n/a	n/a	n/a	0.182	n/a	U
S10V000375			156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.303	n/a	n/a	n/a	n/a	0.303	n/a	U
S10V000375			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.116	n/a	n/a	n/a	n/a	0.116	n/a	U
S10V000375			79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.588	n/a	n/a	n/a	n/a	0.588	n/a	U
S10V000375			141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.587	n/a	n/a	n/a	n/a	0.587	n/a	U
S10V000375			60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.256	n/a	n/a	n/a	n/a	0.256	n/a	U
S10V000375			75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0940	n/a	n/a	n/a	n/a	0.0940	n/a	U

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J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR4
Sample Depth: 139-141

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000375			95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0920	n/a	n/a	n/a	n/a	0.0920	n/a	U
S10V000375			179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.167	n/a	n/a	n/a	n/a	0.167	n/a	U

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR5
Sample Depth: 163-165

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000409		%WATERA	%WATER-APD	%	n/a	n/a	2.680	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000409		57-12-5	Cyanide	ug/g	88.8	<0.0370	<2.81	<2.68	n/a	n/a	75.8	2.81	n/a	U
S10V000409		7439-97-6	Mercury	ug/g	103	<1.00E-04	<8.96E-03	n/a	n/a	n/a	n/a	8.96E-03	n/a	U
S10V000409		PH	pH	unitless	n/a	n/a	8.65	n/a	n/a	n/a	n/a	0.0100	n/a	
S10V000409		12597-04-5	Sulfide	ug/g	81.2	<0.180	<7.13	<7.14	n/a	n/a	86.7	7.13	n/a	U
S10V000681		13966-00-2	Potassium-40	uCi/g	n/a	<7.29E-06	1.46E-05	n/a	n/a	n/a	n/a	5.16E-06	24.67	
S10V000681		10198-40-0	Cobalt-60	uCi/g	99.3	<2.87E-07	<2.43E-07	n/a	n/a	n/a	n/a	2.43E-07	n/a	U
S10V000681		14234-35-6	Antimony-125	uCi/g	n/a	<7.84E-07	<6.46E-07	n/a	n/a	n/a	n/a	6.46E-07	n/a	U
S10V000681		10045-97-3	Cesium-137	uCi/g	99.7	<3.71E-07	<3.06E-07	n/a	n/a	n/a	n/a	3.06E-07	n/a	U
S10V000681		14683-23-9	Europium-152	uCi/g	n/a	<1.61E-06	<1.18E-06	n/a	n/a	n/a	n/a	1.18E-06	n/a	U
S10V000681		15585-10-1	Europium-154	uCi/g	n/a	<9.14E-07	<8.51E-07	n/a	n/a	n/a	n/a	8.51E-07	n/a	U
S10V000681		14391-16-3	Europium-155	uCi/g	n/a	<4.78E-07	<4.27E-07	n/a	n/a	n/a	n/a	4.27E-07	n/a	U
S10V000681		14913-50-9	Thallium-208	uCi/g	n/a	<2.94E-07	4.38E-07	n/a	n/a	n/a	n/a	3.25E-07	47.84	
S10V000681		15092-94-1	Lead-212	uCi/g	n/a	<4.24E-07	6.31E-07	n/a	n/a	n/a	n/a	4.02E-07	23.76	
S10V000681		14274-82-9	Thorium-228	uCi/g	n/a	<8.12E-06	<7.88E-06	n/a	n/a	n/a	n/a	7.88E-06	n/a	U
S10V000681		15065-10-8	Thorium-234	uCi/g	n/a	<2.54E-06	<2.63E-06	n/a	n/a	n/a	n/a	2.63E-06	n/a	U
S10V000681		15046-84-1	Iodine-129	uCi/g	106	<2.36E-07	<2.75E-07	n/a	n/a	n/a	n/a	2.75E-07	n/a	U
S10V000682	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	63.8	<77.4	<75.8	n/a	n/a	n/a	n/a	75.8	n/a	U
S10V000682	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<98.6	n/a	n/a	n/a	n/a	98.6	n/a	U
S10V000682	O	121-14-2	2,4-Dinitrotoluene	ug/kg	80.3	<38.1	<37.3	n/a	n/a	n/a	n/a	37.3	n/a	U
S10V000682	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<43.1	n/a	n/a	n/a	n/a	43.1	n/a	U
S10V000682	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<48.5	n/a	n/a	n/a	n/a	48.5	n/a	U
S10V000682	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<56.3	n/a	n/a	n/a	n/a	56.3	n/a	U
S10V000682	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<52.6	n/a	n/a	n/a	n/a	52.6	n/a	U
S10V000682	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<50.4	n/a	n/a	n/a	n/a	50.4	n/a	U
S10V000682	O	83-32-9	Acenaphthene	ug/kg	67.9	<17.6	<17.2	n/a	n/a	n/a	n/a	17.2	n/a	U
S10V000682	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<37.0	n/a	n/a	n/a	n/a	37.0	n/a	U
S10V000682	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<47.9	n/a	n/a	n/a	n/a	47.9	n/a	U
S10V000682	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<40.4	n/a	n/a	n/a	n/a	40.4	n/a	U

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N - MS/MSD Outside Range
T - MS/MSD Outside Range
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B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR5
Sample Depth: 163-165

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000682	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<578	n/a	n/a	n/a	n/a	578	n/a	U
S10V000682	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<38.3	n/a	n/a	n/a	n/a	38.3	n/a	U
S10V000682	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	74.0	84.4	n/a	n/a	n/a	n/a	49.0	n/a	BJ
S10V000682	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	67.8	<43.2	<42.3	n/a	n/a	n/a	n/a	42.3	n/a	U
S10V000682	O	95-57-8	2-Chlorophenol	ug/kg	66.3	<66.5	<65.1	n/a	n/a	n/a	n/a	65.1	n/a	U
S10V000682	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<79.7	n/a	n/a	n/a	n/a	79.7	n/a	U
S10V000682	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<50.1	n/a	n/a	n/a	n/a	50.1	n/a	U
S10V000682	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<551	n/a	n/a	n/a	n/a	551	n/a	U
S10V000682	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	<46.7	n/a	n/a	n/a	n/a	46.7	n/a	U
S10V000682	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	61.6	<58.1	<56.9	n/a	n/a	n/a	n/a	56.9	n/a	U
S10V000682	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<34.7	n/a	n/a	n/a	n/a	34.7	n/a	U
S10V000682	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<68.3	n/a	n/a	n/a	n/a	68.3	n/a	U
S10V000682	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<110	n/a	n/a	n/a	n/a	110	n/a	U
S10V000682	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<50.0	n/a	n/a	n/a	n/a	50.0	n/a	U
S10V000682	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<61.3	n/a	n/a	n/a	n/a	61.3	n/a	U
S10V000682	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<63.3	n/a	n/a	n/a	n/a	63.3	n/a	U
S10V000682	O	129-00-0	Pyrene	ug/kg	n/a	<62.9	<61.6	n/a	n/a	n/a	n/a	61.6	n/a	U
S10V000682	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<63.7	n/a	n/a	n/a	n/a	63.7	n/a	U
S10V000682	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<106	n/a	n/a	n/a	n/a	106	n/a	U
S10V000682	O	128-37-0	BHT	ug/kg	n/a	<236	<231	n/a	n/a	n/a	n/a	231	n/a	U
S10V000682	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<179	n/a	n/a	n/a	n/a	179	n/a	U
S10V000682	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<104	n/a	n/a	n/a	n/a	104	n/a	U
S10V000682	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<547	n/a	n/a	n/a	n/a	547	n/a	U
S10V000682	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<187	n/a	n/a	n/a	n/a	187	n/a	U
S10V000682	O	78-83-1	Isobutanol	ug/kg	n/a	<460	<451	n/a	n/a	n/a	n/a	451	n/a	U
S10V000683	W	16984-48-8	Fluoride	ug/g	106	<1.61E-03	0.780	n/a	n/a	n/a	n/a	0.0163	n/a	
S10V000683	W	GLYCOLAT	Glycolate	ug/g	102	<9.37E-03	<0.0949	n/a	n/a	n/a	n/a	0.0949	n/a	U
S10V000683	W	71-50-1	Acetate	ug/g	102	<6.04E-03	0.327	n/a	n/a	n/a	n/a	0.0612	n/a	B
S10V000683	W	FORMATE	Formate	ug/g	105	<4.67E-03	0.288	n/a	n/a	n/a	n/a	0.0473	n/a	B

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR5
Sample Depth: 163-165

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000683	W	16887-00-6	Chloride	ug/g	104	<9.98E-03	8.45	n/a	n/a	n/a	n/a	0.101	n/a	
S10V000683	W	14797-65-0	Nitrite	ug/g	105	<0.0192	0.982	n/a	n/a	n/a	n/a	0.195	n/a	B
S10V000683	W	14808-79-8	Sulfate	ug/g	106	<0.0187	66.5	n/a	n/a	n/a	n/a	0.189	n/a	
S10V000683	W	338-70-5	Oxalate	ug/g	104	<0.0231	0.812	n/a	n/a	n/a	n/a	0.234	n/a	B
S10V000683	W	24959-67-9	Bromide	ug/g	106	<0.0580	<0.588	n/a	n/a	n/a	n/a	0.588	n/a	U
S10V000683	W	14797-55-8	Nitrate	ug/g	105	<0.0208	6.68	n/a	n/a	n/a	n/a	0.211	n/a	
S10V000683	W	14265-44-2	Phosphate	ug/g	104	<0.0167	0.412	n/a	n/a	n/a	n/a	0.169	n/a	B
S10V000684	A	7429-90-5	Aluminum	ug/g	92.4	<0.0300	7.17E+03	n/a	n/a	n/a	n/a	2.99	n/a	
S10V000684	A	7440-39-3	Barium	ug/g	98.4	<3.00E-03	68.8	n/a	n/a	n/a	n/a	0.299	n/a	
S10V000684	A	7440-41-7	Beryllium	ug/g	90.8	<1.00E-03	0.135	n/a	n/a	n/a	n/a	0.0997	n/a	B
S10V000684	A	7440-70-2	Calcium	ug/g	91.7	0.141	7.13E+03	n/a	n/a	n/a	n/a	4.98	n/a	
S10V000684	A	7440-45-1	Cerium	ug/g	94.2	<0.0300	20.4	n/a	n/a	n/a	n/a	2.99	n/a	B
S10V000684	A	7440-48-4	Cobalt	ug/g	92.4	<0.0100	6.93	n/a	n/a	n/a	n/a	0.997	n/a	B
S10V000684	A	7440-47-3	Chromium	ug/g	91.7	<5.00E-03	23.5	n/a	n/a	n/a	n/a	0.498	n/a	
S10V000684	A	7440-50-8	Copper	ug/g	101	<5.00E-03	11.5	n/a	n/a	n/a	n/a	0.498	n/a	
S10V000684	A	7439-89-6	Iron	ug/g	93.3	9.59E-03	2.02E+04	n/a	n/a	n/a	n/a	0.498	n/a	
S10V000684	A	7440-09-7	Potassium	ug/g	108	<0.500	1.03E+03	n/a	n/a	n/a	n/a	49.8	n/a	
S10V000684	A	7439-91-0	Lanthanum	ug/g	97.6	<3.00E-03	9.34	n/a	n/a	n/a	n/a	0.299	n/a	
S10V000684	A	7439-93-2	Lithium	ug/g	111	<3.00E-03	8.38	n/a	n/a	n/a	n/a	0.299	n/a	
S10V000684	A	7439-95-4	Magnesium	ug/g	91.9	<0.0500	4.62E+03	n/a	n/a	n/a	n/a	4.98	n/a	
S10V000684	A	7439-96-5	Manganese	ug/g	91.2	<3.00E-03	282	n/a	n/a	n/a	n/a	0.299	n/a	
S10V000684	A	7439-98-7	Molybdenum	ug/g	94.3	<0.0200	<1.99	n/a	n/a	n/a	n/a	1.99	n/a	U
S10V000684	A	7440-23-5	Sodium	ug/g	115	<0.100	311	n/a	n/a	n/a	n/a	9.97	n/a	
S10V000684	A	7440-02-0	Nickel	ug/g	91.8	<0.0200	14.7	n/a	n/a	n/a	n/a	1.99	n/a	BM
S10V000684	A	7723-14-0	Phosphorus	ug/g	92.7	<0.0500	596	n/a	n/a	n/a	n/a	4.98	n/a	
S10V000684	A	7704-34-9	Sulfur	ug/g	92.9	<0.100	72.2	n/a	n/a	n/a	n/a	9.97	n/a	B
S10V000684	A	7440-21-3	Silicon	ug/g	63.5	<0.0300	83.9	n/a	n/a	n/a	n/a	2.99	n/a	
S10V000684	A	7440-24-6	Strontium	ug/g	97.1	<3.00E-03	29.4	n/a	n/a	n/a	n/a	0.299	n/a	
S10V000684	A	7440-32-6	Titanium	ug/g	93.0	<5.00E-03	1.29E+03	n/a	n/a	n/a	n/a	0.498	n/a	

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N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR5
Sample Depth: 163-165

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000684	A	7440-62-2	Vanadium	ug/g	94.6	<5.00E-03	48.8	n/a	n/a	n/a	n/a	0.498	n/a	
S10V000684	A	7440-65-5	Yttrium	ug/g	88.8	<2.00E-03	7.01	n/a	n/a	n/a	n/a	0.199	n/a	
S10V000684	A	7440-66-6	Zinc	ug/g	94.0	<5.00E-03	35.5	n/a	n/a	n/a	n/a	0.498	n/a	
S10V000684	A	7440-67-7	Zirconium	ug/g	92.1	<5.00E-03	9.81	n/a	n/a	n/a	n/a	0.498	n/a	N
S10V000684	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	<2.88E-05	n/a	n/a	n/a	n/a	2.88E-05	n/a	U
S10V000684	A	TH-232	Thorium-232	ug/g	108	<6.80E-05	3.15	n/a	n/a	n/a	n/a	7.01E-04	n/a	
S10V000684	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	7.66E-05	n/a	n/a	n/a	n/a	4.12E-05	n/a	
S10V000684	A	13966-29-5	Uranium-234	ug/g	n/a	<2.00E-06	3.29E-05	n/a	n/a	n/a	n/a	2.06E-05	n/a	
S10V000684	A	15117-96-1	Uranium-235	ug/g	97.3	<4.40E-06	3.98E-03	n/a	n/a	n/a	n/a	4.53E-05	n/a	
S10V000684	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.65E-05	n/a	n/a	n/a	n/a	1.65E-05	n/a	U
S10V000684	A	13994-20-2	Neptunium-237	ug/g	106	<2.12E-05	<2.18E-04	n/a	n/a	n/a	n/a	2.18E-04	n/a	U
S10V000684	A	U-238	Uranium-238	ug/g	105	<2.20E-04	0.555	n/a	n/a	n/a	n/a	2.27E-03	n/a	
S10V000684	A	7440-22-4	Silver	ug/g	104	<1.60E-03	0.0624	n/a	n/a	n/a	n/a	0.0165	n/a	B
S10V000684	A	7440-43-9	Cadmium	ug/g	102	<6.00E-04	0.0640	n/a	n/a	n/a	n/a	6.18E-03	n/a	
S10V000685	S	14798-03-9	Ammonium	ug/g	97.1	<0.0120	1.13	0.955	1.04	17.1	99.3	0.473	n/a	B
S10V000686	A	14133-76-7	Technetium-99	ug/g	99.1	<1.50E-04	1.76E-03	n/a	n/a	n/a	n/a	1.71E-03	n/a	
S10V000686	A	SN-117	Tin-117	ug/g	108	<5.50E-03	<0.0628	n/a	n/a	n/a	n/a	0.0628	n/a	UN
S10V000686	A	15832-50-5	Tin-126	ug/g	n/a	<1.00E-04	<1.14E-03	n/a	n/a	n/a	n/a	1.14E-03	n/a	UN
S10V000687	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.15E-07	<1.98E-07	n/a	n/a	n/a	n/a	1.98E-07	n/a	U
S10V000687	E	14596-10-2	Americium-241	uCi/g	100	<5.39E-07	<4.94E-07	n/a	n/a	n/a	n/a	4.94E-07	n/a	U
S10V000687	E	15510-73-3	Curium-242	uCi/g	n/a	<2.15E-07	<1.98E-07	n/a	n/a	n/a	n/a	1.98E-07	n/a	U
S10V000687	E	PU-239/240	Plutonium-239/240	uCi/g	94.1	<2.75E-07	<1.99E-07	n/a	n/a	n/a	n/a	1.99E-07	n/a	U
S10V000687	E	13981-16-3	Plutonium-238	uCi/g	n/a	<2.75E-07	<1.99E-07	n/a	n/a	n/a	n/a	1.99E-07	n/a	U
S10V000688	E	SR-89/90	Strontium-89/90	uCi/g	96.2	<4.45E-07	<4.92E-07	n/a	n/a	n/a	n/a	4.92E-07	n/a	U
S10V000689	E	13981-37-8	Nickel-63	uCi/g	108	<2.44E-05	<1.40E-05	n/a	n/a	n/a	n/a	1.40E-05	n/a	U
S10V000689	E	15758-45-9	Selenium-79	uCi/g	n/a	<7.37E-07	<1.14E-06	n/a	n/a	n/a	n/a	1.14E-06	n/a	U
S10V001182	W	14762-75-5	Carbon-14	uCi/g	93.5	<1.73E-07	<2.57E-06	n/a	n/a	n/a	n/a	2.57E-06	n/a	U
S10V001182	W	10028-17-8	Tritium	uCi/g	94.2	<4.07E-06	4.37E-06	n/a	n/a	n/a	n/a	2.50E-06	85.179	
S10V001218	A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.159	n/a	n/a	n/a	n/a	9.74E-03	n/a	B

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B - Estimated
M - RPD Outside Range
N - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated

Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KR5

Sample Depth: 163-165

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V001736		WV	14133-76-7	Technetium-99	ug/g	107	<4.00E-06	<3.78E-06	n/a	n/a	n/a	n/a	3.78E-06	n/a	U
S10V003310		A	7440-38-2	Arsenic	ug/g	88.8	<8.40E-03	2.80	n/a	n/a	n/a	n/a	0.0840	n/a	
S10V003310		A	7440-43-9	Cadmium	ug/g	102	<1.80E-03	0.0682	n/a	n/a	n/a	n/a	0.0120	n/a	B
S10V003310		A	7439-92-1	Lead	ug/g	94.1	<3.00E-03	5.41	n/a	n/a	n/a	n/a	0.0300	n/a	
S10V003310		A	7782-49-2	Selenium	ug/g	108	<0.0270	<0.270	n/a	n/a	n/a	n/a	0.270	n/a	U
S10V003310		A	7440-28-0	Thallium	ug/g	98.0	<4.00E-04	0.0659	n/a	n/a	n/a	n/a	8.00E-03	n/a	B

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C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KR5B

Sample Depth: 163-165

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000831			BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.31	n/a	n/a	n/a	n/a	n/a	n/a	

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U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR7
Sample Depth: 163-165

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000376			71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0827	n/a	n/a	n/a	n/a	0.0827	n/a	U
S10V000376			79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.149	n/a	n/a	n/a	n/a	0.149	n/a	U
S10V000376			79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.190	n/a	n/a	n/a	n/a	0.190	n/a	U
S10V000376			75-35-4	1,1-Dichloroethene	ug/kg	116	<0.423	<0.381	n/a	n/a	n/a	111	0.381	n/a	U
S10V000376			107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0484	n/a	n/a	n/a	n/a	0.0484	n/a	U
S10V000376			71-36-3	1-Butanol	ug/kg	84.0	<10.3	<9.26	n/a	n/a	n/a	102	9.26	n/a	U
S10V000376			108-10-1	Hexone	ug/kg	126	<1.71	<1.54	n/a	n/a	n/a	139	1.54	n/a	U
S10V000376			67-64-1	Acetone	ug/kg	126	<2.20	<1.98	n/a	n/a	n/a	150	1.98	n/a	UT
S10V000376			71-43-2	Benzene	ug/kg	108	<0.147	<0.133	n/a	n/a	n/a	105	0.133	n/a	U
S10V000376			75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.145	n/a	n/a	n/a	n/a	0.145	n/a	U
S10V000376			56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0840	n/a	n/a	n/a	n/a	0.0840	n/a	U
S10V000376			67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.118	n/a	n/a	n/a	n/a	0.118	n/a	U
S10V000376			108-90-7	Chlorobenzene	ug/kg	108	<0.0864	<0.0777	n/a	n/a	n/a	100	0.0777	n/a	U
S10V000376			100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.0964	n/a	n/a	n/a	n/a	0.0964	n/a	U
S10V000376			1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.183	n/a	n/a	n/a	n/a	0.183	n/a	U
S10V000376			78-93-3	2-Butanone	ug/kg	105	<1.96	<1.77	n/a	n/a	n/a	120	1.77	n/a	U
S10V000376			75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0576	n/a	n/a	n/a	n/a	0.0576	n/a	U
S10V000376			127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.0987	n/a	n/a	n/a	n/a	0.0987	n/a	U
S10V000376			108-88-3	Toluene	ug/kg	109	<0.0802	0.314	n/a	n/a	n/a	102	0.0721	n/a	J
S10V000376			10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.244	n/a	n/a	n/a	n/a	0.244	n/a	U
S10V000376			79-01-6	Trichloroethene	ug/kg	101	<0.121	<0.109	n/a	n/a	n/a	95.5	0.109	n/a	U
S10V000376			75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.156	n/a	n/a	n/a	n/a	0.156	n/a	U
S10V000376			156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.163	n/a	n/a	n/a	n/a	0.163	n/a	U
S10V000376			156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.272	n/a	n/a	n/a	n/a	0.272	n/a	U
S10V000376			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.104	n/a	n/a	n/a	n/a	0.104	n/a	U
S10V000376			79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.529	n/a	n/a	n/a	n/a	0.529	n/a	U
S10V000376			141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.528	n/a	n/a	n/a	n/a	0.528	n/a	U
S10V000376			60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.230	n/a	n/a	n/a	n/a	0.230	n/a	U
S10V000376			75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0845	n/a	n/a	n/a	n/a	0.0845	n/a	U

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J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KR7
Sample Depth: 163-165

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000376			95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0827	n/a	n/a	n/a	n/a	0.0827	n/a	U
S10V000376			179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.151	n/a	n/a	n/a	n/a	0.151	n/a	U

NA = Not Analyzed, ND = Not Detected

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C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B25ND7
Sample Depth: 220-224

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000410		%WATERA	%WATER-APD	%	n/a	n/a	4.720	n/a	n/a	n/a	n/a	0.01000	n/a	
S10V000410		57-12-5	Cyanide	ug/g	88.8	<0.0370	<2.80	n/a	n/a	n/a	n/a	2.80	n/a	U
S10V000410		7439-97-6	Mercury	ug/g	103	<1.00E-04	0.0681	n/a	n/a	n/a	n/a	8.38E-03	n/a	B
S10V000410		PH	pH	unitless	n/a	n/a	8.67	n/a	n/a	n/a	n/a	0.0100	n/a	
S10V000410		12597-04-5	Sulfide	ug/g	81.2	<0.180	<7.21	n/a	n/a	n/a	n/a	7.21	n/a	U
S10V000690		13966-00-2	Potassium-40	uCi/g	n/a	<7.29E-06	1.26E-05	n/a	n/a	n/a	n/a	5.54E-06	29.69	
S10V000690		10198-40-0	Cobalt-60	uCi/g	99.3	<2.87E-07	<2.74E-07	n/a	n/a	n/a	n/a	2.74E-07	n/a	U
S10V000690		14234-35-6	Antimony-125	uCi/g	n/a	<7.84E-07	<7.47E-07	n/a	n/a	n/a	n/a	7.47E-07	n/a	U
S10V000690		10045-97-3	Cesium-137	uCi/g	99.7	<3.71E-07	<3.42E-07	n/a	n/a	n/a	n/a	3.42E-07	n/a	U
S10V000690		14683-23-9	Europium-152	uCi/g	n/a	<1.61E-06	<1.40E-06	n/a	n/a	n/a	n/a	1.40E-06	n/a	U
S10V000690		15585-10-1	Europium-154	uCi/g	n/a	<9.14E-07	<8.96E-07	n/a	n/a	n/a	n/a	8.96E-07	n/a	U
S10V000690		14391-16-3	Europium-155	uCi/g	n/a	<4.78E-07	<4.70E-07	n/a	n/a	n/a	n/a	4.70E-07	n/a	U
S10V000690		15092-94-1	Lead-212	uCi/g	n/a	<4.24E-07	4.82E-07	n/a	n/a	n/a	n/a	4.80E-07	42.70	
S10V000690		14274-82-9	Thorium-228	uCi/g	n/a	<8.12E-06	<8.71E-06	n/a	n/a	n/a	n/a	8.71E-06	n/a	U
S10V000690		15065-10-8	Thorium-234	uCi/g	n/a	<2.54E-06	<2.86E-06	n/a	n/a	n/a	n/a	2.86E-06	n/a	U
S10V000690		15046-84-1	Iodine-129	uCi/g	106	<2.36E-07	<2.24E-07	n/a	n/a	n/a	n/a	2.24E-07	n/a	U
S10V000691	O	120-82-1	1,2,4-Trichlorobenzene	ug/kg	76.2	<77.4	<75.0	n/a	n/a	n/a	79.3	75.0	n/a	U
S10V000691	O	95-50-1	1,2-Dichlorobenzene	ug/kg	n/a	<101	<97.5	n/a	n/a	n/a	n/a	97.5	n/a	U
S10V000691	O	121-14-2	2,4-Dinitrotoluene	ug/kg	102	<38.1	<36.9	n/a	n/a	n/a	106	36.9	n/a	U
S10V000691	O	95-95-4	2,4,5-Trichlorophenol	ug/kg	n/a	<44.0	<42.6	n/a	n/a	n/a	n/a	42.6	n/a	U
S10V000691	O	88-06-2	2,4,6-Trichlorophenol	ug/kg	n/a	<49.5	<47.9	n/a	n/a	n/a	n/a	47.9	n/a	U
S10V000691	O	95-48-7	2-Methylphenol	ug/kg	n/a	<57.5	<55.7	n/a	n/a	n/a	n/a	55.7	n/a	U
S10V000691	O	88-75-5	2-Nitrophenol	ug/kg	n/a	<53.7	<52.0	n/a	n/a	n/a	n/a	52.0	n/a	U
S10V000691	O	65794-96-9	3 &4 Methylphenol	ug/kg	n/a	<51.4	<49.8	n/a	n/a	n/a	n/a	49.8	n/a	U
S10V000691	O	83-32-9	Acenaphthene	ug/kg	83.7	<17.6	<17.0	n/a	n/a	n/a	94.3	17.0	n/a	U
S10V000691	O	56-55-3	Benzo(a)anthracene	ug/kg	n/a	<37.8	<36.6	n/a	n/a	n/a	n/a	36.6	n/a	U
S10V000691	O	205-99-2	Benzo(b)fluoranthene	ug/kg	n/a	<48.9	<47.4	n/a	n/a	n/a	n/a	47.4	n/a	U
S10V000691	O	50-32-8	Benzo(a)pyrene	ug/kg	n/a	<41.2	<39.9	n/a	n/a	n/a	n/a	39.9	n/a	U
S10V000691	O	117-81-7	Bis(2-ethylhexyl) phthalate	ug/kg	n/a	<590	<572	n/a	n/a	n/a	n/a	572	n/a	U

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J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B25ND7
Sample Depth: 220-224

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000691	O	207-08-9	Benzo(k)fluoranthene	ug/kg	n/a	<39.1	<37.9	n/a	n/a	n/a	n/a	37.9	n/a	U
S10V000691	O	85-68-7	Butylbenzylphthalate	ug/kg	n/a	<50.0	<48.4	n/a	n/a	n/a	n/a	48.4	n/a	U
S10V000691	O	59-50-7	4-Chloro-3-methylphenol	ug/kg	95.9	<43.2	<41.8	n/a	n/a	n/a	108	41.8	n/a	UT
S10V000691	O	95-57-8	2-Chlorophenol	ug/kg	79.3	<66.5	<64.4	n/a	n/a	n/a	84.0	64.4	n/a	U
S10V000691	O	218-01-9	Chrysene	ug/kg	n/a	<81.4	<78.8	n/a	n/a	n/a	n/a	78.8	n/a	U
S10V000691	O	53-70-3	Dibenz[a,h]anthracene	ug/kg	n/a	<51.1	<49.5	n/a	n/a	n/a	n/a	49.5	n/a	U
S10V000691	O	84-74-2	Di-n-butylphthalate	ug/kg	n/a	<562	<545	n/a	n/a	n/a	n/a	545	n/a	U
S10V000691	O	117-84-0	Di-n-octylphthalate	ug/kg	n/a	<47.7	1.22E+03	n/a	n/a	n/a	n/a	46.2	n/a	
S10V000691	O	621-64-7	N-Nitroso-di-n-dipropylamine	ug/kg	70.4	<58.1	<56.3	n/a	n/a	n/a	73.7	56.3	n/a	U
S10V000691	O	206-44-0	Fluoranthene	ug/kg	n/a	<35.4	<34.3	n/a	n/a	n/a	n/a	34.3	n/a	U
S10V000691	O	87-68-3	Hexachlorobutadiene	ug/kg	n/a	<69.7	<67.5	n/a	n/a	n/a	n/a	67.5	n/a	U
S10V000691	O	67-72-1	Hexachloroethane	ug/kg	n/a	<112	<108	n/a	n/a	n/a	n/a	108	n/a	U
S10V000691	O	193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg	n/a	<51.0	<49.4	n/a	n/a	n/a	n/a	49.4	n/a	U
S10V000691	O	91-20-3	Naphthalene	ug/kg	n/a	<62.6	<60.6	n/a	n/a	n/a	n/a	60.6	n/a	U
S10V000691	O	98-95-3	Nitrobenzene	ug/kg	n/a	<64.6	<62.6	n/a	n/a	n/a	n/a	62.6	n/a	U
S10V000691	O	129-00-0	Pyrene	ug/kg	110	<62.9	<60.9	n/a	n/a	n/a	101	60.9	n/a	U
S10V000691	O	110-86-1	Pyridine	ug/kg	n/a	<65.0	<63.0	n/a	n/a	n/a	n/a	63.0	n/a	U
S10V000691	O	126-73-8	Tributyl phosphate	ug/kg	n/a	<108	<104	n/a	n/a	n/a	n/a	104	n/a	U
S10V000691	O	128-37-0	BHT	ug/kg	n/a	<236	<228	n/a	n/a	n/a	n/a	228	n/a	U
S10V000691	O	110-80-5	2-Ethoxyethanol	ug/kg	n/a	<182	<177	n/a	n/a	n/a	n/a	177	n/a	U
S10V000691	O	1319-77-3	Total Methylphenols	ug/kg	n/a	<107	<103	n/a	n/a	n/a	n/a	103	n/a	U
S10V000691	O	108-94-1	Cyclohexanone	ug/kg	n/a	<558	<541	n/a	n/a	n/a	n/a	541	n/a	U
S10V000691	O	59-89-2	N-Nitrosomorpholine	ug/kg	n/a	<191	<185	n/a	n/a	n/a	n/a	185	n/a	U
S10V000691	O	78-83-1	Isobutanol	ug/kg	n/a	n/a	<446	n/a	n/a	n/a	n/a	446	n/a	U
S10V000692	W	16984-48-8	Fluoride	ug/g	106	<1.61E-03	2.38	n/a	n/a	n/a	n/a	0.0163	n/a	
S10V000692	W	GLYCOLAT	Glycolate	ug/g	102	<9.37E-03	0.663	n/a	n/a	n/a	n/a	0.0951	n/a	B
S10V000692	W	71-50-1	Acetate	ug/g	102	<6.04E-03	4.28	n/a	n/a	n/a	n/a	0.0613	n/a	
S10V000692	W	FORMATE	Formate	ug/g	105	<4.67E-03	7.06	n/a	n/a	n/a	n/a	0.0474	n/a	
S10V000692	W	16887-00-6	Chloride	ug/g	104	<9.98E-03	6.43	n/a	n/a	n/a	n/a	0.101	n/a	

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B25ND7
Sample Depth: 220-224

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000692	W	14797-65-0	Nitrite	ug/g	105	<0.0192	2.47	n/a	n/a	n/a	n/a	0.195	n/a	
S10V000692	W	14808-79-8	Sulfate	ug/g	106	<0.0187	116	n/a	n/a	n/a	n/a	0.190	n/a	
S10V000692	W	338-70-5	Oxalate	ug/g	104	<0.0231	14.3	n/a	n/a	n/a	n/a	0.234	n/a	
S10V000692	W	24959-67-9	Bromide	ug/g	106	<0.0580	<0.589	n/a	n/a	n/a	n/a	0.589	n/a	U
S10V000692	W	14797-55-8	Nitrate	ug/g	105	<0.0208	12.1	n/a	n/a	n/a	n/a	0.211	n/a	
S10V000692	W	14265-44-2	Phosphate	ug/g	104	<0.0167	1.21	n/a	n/a	n/a	n/a	0.169	n/a	B
S10V000693	A	7429-90-5	Aluminum	ug/g	92.4	<0.0300	8.44E+03	n/a	n/a	n/a	n/a	3.00	n/a	
S10V000693	A	7440-39-3	Barium	ug/g	98.4	<3.00E-03	66.3	n/a	n/a	n/a	n/a	0.300	n/a	
S10V000693	A	7440-41-7	Beryllium	ug/g	90.8	<1.00E-03	<0.100	n/a	n/a	n/a	n/a	0.100	n/a	U
S10V000693	A	7440-70-2	Calcium	ug/g	91.7	0.141	6.57E+03	n/a	n/a	n/a	n/a	5.00	n/a	
S10V000693	A	7440-45-1	Cerium	ug/g	94.2	<0.0300	18.4	n/a	n/a	n/a	n/a	3.00	n/a	B
S10V000693	A	7440-48-4	Cobalt	ug/g	92.4	<0.0100	8.84	n/a	n/a	n/a	n/a	1.00	n/a	B
S10V000693	A	7440-47-3	Chromium	ug/g	91.7	<5.00E-03	32.2	n/a	n/a	n/a	n/a	0.500	n/a	
S10V000693	A	7440-50-8	Copper	ug/g	101	<5.00E-03	27.1	n/a	n/a	n/a	n/a	0.500	n/a	
S10V000693	A	7439-89-6	Iron	ug/g	93.3	9.59E-03	2.33E+04	n/a	n/a	n/a	n/a	0.500	n/a	
S10V000693	A	7440-09-7	Potassium	ug/g	108	<0.500	958	n/a	n/a	n/a	n/a	50.0	n/a	
S10V000693	A	7439-91-0	Lanthanum	ug/g	97.6	<3.00E-03	9.07	n/a	n/a	n/a	n/a	0.300	n/a	
S10V000693	A	7439-93-2	Lithium	ug/g	111	<3.00E-03	8.70	n/a	n/a	n/a	n/a	0.300	n/a	
S10V000693	A	7439-95-4	Magnesium	ug/g	91.9	<0.0500	4.56E+03	n/a	n/a	n/a	n/a	5.00	n/a	
S10V000693	A	7439-96-5	Manganese	ug/g	91.2	<3.00E-03	320	n/a	n/a	n/a	n/a	0.300	n/a	
S10V000693	A	7439-98-7	Molybdenum	ug/g	94.3	<0.0200	5.12	n/a	n/a	n/a	n/a	2.00	n/a	B
S10V000693	A	7440-23-5	Sodium	ug/g	115	<0.100	580	n/a	n/a	n/a	n/a	10.0	n/a	
S10V000693	A	7440-02-0	Nickel	ug/g	91.8	<0.0200	12.9	n/a	n/a	n/a	n/a	2.00	n/a	BM
S10V000693	A	7723-14-0	Phosphorus	ug/g	92.7	<0.0500	613	n/a	n/a	n/a	n/a	5.00	n/a	
S10V000693	A	7704-34-9	Sulfur	ug/g	92.9	<0.100	82.9	n/a	n/a	n/a	n/a	10.0	n/a	B
S10V000693	A	7440-21-3	Silicon	ug/g	63.5	<0.0300	90.6	n/a	n/a	n/a	n/a	3.00	n/a	
S10V000693	A	7440-24-6	Strontium	ug/g	97.1	<3.00E-03	30.3	n/a	n/a	n/a	n/a	0.300	n/a	
S10V000693	A	7440-32-6	Titanium	ug/g	93.0	<5.00E-03	1.52E+03	n/a	n/a	n/a	n/a	0.500	n/a	
S10V000693	A	7440-62-2	Vanadium	ug/g	94.6	<5.00E-03	60.0	n/a	n/a	n/a	n/a	0.500	n/a	

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Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B25ND7
Sample Depth: 220-224

Sample# R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000693	A	7440-65-5	Yttrium	ug/g	88.8	<2.00E-03	7.29	n/a	n/a	n/a	n/a	0.200	n/a	
S10V000693	A	7440-66-6	Zinc	ug/g	94.0	<5.00E-03	52.7	n/a	n/a	n/a	n/a	0.500	n/a	
S10V000693	A	7440-67-7	Zirconium	ug/g	92.1	<5.00E-03	10.2	n/a	n/a	n/a	n/a	0.500	n/a	N
S10V000693	A	14269-63-7	Thorium-230	ug/g	n/a	<2.80E-06	3.19E-05	n/a	n/a	n/a	n/a	2.99E-05	n/a	B
S10V000693	A	TH-232	Thorium-232	ug/g	108	<6.80E-05	2.63	n/a	n/a	n/a	n/a	7.26E-04	n/a	
S10V000693	A	13968-55-3	Uranium-233	ug/g	n/a	<4.00E-06	5.14E-05	n/a	n/a	n/a	n/a	4.27E-05	n/a	
S10V000693	A	13966-29-5	Uranium-234	ug/g	n/a	<2.00E-06	2.77E-05	n/a	n/a	n/a	n/a	2.13E-05	n/a	
S10V000693	A	15117-96-1	Uranium-235	ug/g	97.3	<4.40E-06	3.35E-03	n/a	n/a	n/a	n/a	4.69E-05	n/a	
S10V000693	A	13982-70-2	Uranium-236	ug/g	n/a	<1.60E-06	<1.71E-05	n/a	n/a	n/a	n/a	1.71E-05	n/a	U
S10V000693	A	13994-20-2	Neptunium-237	ug/g	106	<2.12E-05	<2.26E-04	n/a	n/a	n/a	n/a	2.26E-04	n/a	U
S10V000693	A	U-238	Uranium-238	ug/g	105	<2.20E-04	0.446	n/a	n/a	n/a	n/a	2.35E-03	n/a	
S10V000693	A	7440-22-4	Silver	ug/g	104	<1.60E-03	0.0337	n/a	n/a	n/a	n/a	8.54E-03	n/a	B
S10V000693	A	7440-43-9	Cadmium	ug/g	102	<6.00E-04	0.0377	n/a	n/a	n/a	n/a	3.20E-03	n/a	
S10V000694	S	14798-03-9	Ammonium	ug/g	97.1	<0.0120	4.24	n/a	n/a	n/a	n/a	0.471	n/a	B
S10V000695	A	14133-76-7	Technetium-99	ug/g	99.1	<1.50E-04	1.66E-03	n/a	n/a	n/a	n/a	1.60E-03	n/a	
S10V000695	A	SN-117	Tin-117	ug/g	108	<5.50E-03	<0.0587	n/a	n/a	n/a	n/a	0.0587	n/a	UN
S10V000695	A	15832-50-5	Tin-126	ug/g	n/a	<1.00E-04	<1.07E-03	n/a	n/a	n/a	n/a	1.07E-03	n/a	UN
S10V000696	E	CM-243/244	Curium-243/244	uCi/g	n/a	<2.15E-07	<2.00E-07	n/a	n/a	n/a	n/a	2.00E-07	n/a	U
S10V000696	E	14596-10-2	Americium-241	uCi/g	100	<5.39E-07	<4.99E-07	n/a	n/a	n/a	n/a	4.99E-07	n/a	U
S10V000696	E	15510-73-3	Curium-242	uCi/g	n/a	<2.15E-07	<2.00E-07	n/a	n/a	n/a	n/a	2.00E-07	n/a	U
S10V000696	E	PU-239/240	Plutonium-239/240	uCi/g	94.1	<2.75E-07	<2.29E-07	n/a	n/a	n/a	n/a	2.29E-07	n/a	U
S10V000696	E	13981-16-3	Plutonium-238	uCi/g	n/a	<2.75E-07	<2.29E-07	n/a	n/a	n/a	n/a	2.29E-07	n/a	U
S10V000697	E	SR-89/90	Strontium-89/90	uCi/g	96.2	<4.45E-07	<6.40E-07	n/a	n/a	n/a	n/a	6.40E-07	n/a	U
S10V000698	E	13981-37-8	Nickel-63	uCi/g	108	<2.44E-05	<1.23E-05	n/a	n/a	n/a	n/a	1.23E-05	n/a	U
S10V000698	E	15758-45-9	Selenium-79	uCi/g	n/a	<7.37E-07	<1.57E-06	n/a	n/a	n/a	n/a	1.57E-06	n/a	U
S10V001183	W	14762-75-5	Carbon-14	uCi/g	93.5	<1.73E-07	<2.89E-06	n/a	n/a	n/a	92.8	2.89E-06	n/a	U
S10V001183	W	10028-17-8	Tritium	uCi/g	94.2	<4.07E-06	<4.06E-06	n/a	n/a	n/a	n/a	4.06E-06	n/a	U
S10V001221	A	7440-36-0	Antimony	ug/g	99.4	<0.0100	0.247	n/a	n/a	n/a	n/a	9.39E-03	n/a	
S10V001737	WV	14133-76-7	Technetium-99	ug/g	107	<4.00E-06	<3.87E-06	n/a	n/a	n/a	n/a	3.87E-06	n/a	U

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B25ND7
Sample Depth: 220-224

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V003311		A	7440-38-2	Arsenic	ug/g	88.8	<8.40E-03	2.59	n/a	n/a	n/a	n/a	0.0831	n/a	
S10V003311		A	7440-43-9	Cadmium	ug/g	102	<1.80E-03	0.0946	n/a	n/a	n/a	n/a	0.0119	n/a	B
S10V003311		A	7439-92-1	Lead	ug/g	94.1	<3.00E-03	3.75	n/a	n/a	n/a	n/a	0.0297	n/a	
S10V003311		A	7782-49-2	Selenium	ug/g	108	<0.0270	<0.267	n/a	n/a	n/a	n/a	0.267	n/a	U
S10V003311		A	7440-28-0	Thallium	ug/g	98.0	<4.00E-04	0.0578	n/a	n/a	n/a	n/a	7.91E-03	n/a	B

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KT1B

Sample Depth: 222-224

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000837			BULKDENSI	Bulk Density	g/mL	n/a	n/a	2.14	n/a	n/a	n/a	n/a	n/a	n/a	

NA = Not Analyzed, ND = Not Detected

B - Blank Contamination
M - RPD Outside Range
C - Blank Contamination
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KT3
Sample Depth: 222-224

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000378			71-55-6	1,1,1-Trichloroethane	ug/kg	n/a	<0.0920	<0.0765	n/a	n/a	n/a	n/a	0.0765	n/a	U
S10V000378			79-00-5	1,1,2-Trichloroethane	ug/kg	n/a	<0.166	<0.138	n/a	n/a	n/a	n/a	0.138	n/a	U
S10V000378			79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	n/a	<0.212	<0.176	n/a	n/a	n/a	n/a	0.176	n/a	U
S10V000378			75-35-4	1,1-Dichloroethene	ug/kg	97.8	<0.423	<0.352	n/a	n/a	n/a	110	0.352	n/a	U
S10V000378			107-06-2	1,2-Dichloroethane	ug/kg	n/a	<0.0538	<0.0448	n/a	n/a	n/a	n/a	0.0448	n/a	U
S10V000378			71-36-3	1-Butanol	ug/kg	101	<10.3	<8.56	n/a	n/a	n/a	115	8.56	n/a	U
S10V000378			591-78-6	2-Hexanone	ug/kg	143	3.60	9.41	n/a	n/a	n/a	210	1.97	n/a	BJT
S10V000378			108-10-1	Hexone	ug/kg	138	<1.71	<1.42	n/a	n/a	n/a	213	1.42	n/a	UT
S10V000378			67-64-1	Acetone	ug/kg	145	<2.20	21.5	n/a	n/a	n/a	175	1.83	n/a	JT
S10V000378			71-43-2	Benzene	ug/kg	94.5	<0.147	0.395	n/a	n/a	n/a	98.0	0.123	n/a	J
S10V000378			75-15-0	Carbon disulfide	ug/kg	n/a	<0.161	<0.134	n/a	n/a	n/a	n/a	0.134	n/a	U
S10V000378			56-23-5	Carbon tetrachloride	ug/kg	n/a	<0.0934	<0.0777	n/a	n/a	n/a	n/a	0.0777	n/a	U
S10V000378			67-66-3	Chloroform	ug/kg	n/a	<0.131	<0.109	n/a	n/a	n/a	n/a	0.109	n/a	U
S10V000378			108-90-7	Chlorobenzene	ug/kg	99.4	<0.0864	<0.0719	n/a	n/a	n/a	98.0	0.0719	n/a	U
S10V000378			100-41-4	Ethylbenzene	ug/kg	n/a	<0.107	<0.0892	n/a	n/a	n/a	n/a	0.0892	n/a	U
S10V000378			1330-20-7	Xylenes (total)	ug/kg	n/a	<0.203	<0.169	n/a	n/a	n/a	n/a	0.169	n/a	U
S10V000378			78-93-3	2-Butanone	ug/kg	109	<1.96	<1.63	n/a	n/a	n/a	156	1.63	n/a	UT
S10V000378			75-09-2	Methylenechloride	ug/kg	n/a	<0.0640	<0.0532	n/a	n/a	n/a	n/a	0.0532	n/a	U
S10V000378			127-18-4	Tetrachloroethene	ug/kg	n/a	<0.110	<0.0913	n/a	n/a	n/a	n/a	0.0913	n/a	U
S10V000378			108-88-3	Toluene	ug/kg	102	<0.0802	0.325	n/a	n/a	n/a	103	0.0667	n/a	J
S10V000378			10061-02-6	trans-1,3-Dichloropropene	ug/kg	n/a	<0.271	<0.225	n/a	n/a	n/a	n/a	0.225	n/a	U
S10V000378			79-01-6	Trichloroethene	ug/kg	91.3	<0.121	<0.101	n/a	n/a	n/a	83.1	0.101	n/a	U
S10V000378			75-01-4	Vinyl chloride	ug/kg	n/a	<0.173	<0.144	n/a	n/a	n/a	n/a	0.144	n/a	U
S10V000378			156-59-2	cis-Dichloroethylene	ug/kg	n/a	<0.182	<0.151	n/a	n/a	n/a	n/a	0.151	n/a	U
S10V000378			156-60-5	trans-Dichloroethylene	ug/kg	n/a	<0.303	<0.252	n/a	n/a	n/a	n/a	0.252	n/a	U
S10V000378			76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	n/a	<0.116	<0.0967	n/a	n/a	n/a	n/a	0.0967	n/a	U
S10V000378			79-46-9	2-Nitropropane	ug/kg	n/a	<0.588	<0.489	n/a	n/a	n/a	n/a	0.489	n/a	U
S10V000378			141-78-6	Ethyl acetate	ug/kg	n/a	<0.587	<0.489	n/a	n/a	n/a	n/a	0.489	n/a	U
S10V000378			60-29-7	Diethyl ether	ug/kg	n/a	<0.256	<0.213	n/a	n/a	n/a	n/a	0.213	n/a	U

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N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Data Summary Report

Sample Group: 20100213
Core Number: C7670
Customer Sample ID: B23KT3
Sample Depth: 222-224

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10V000378			75-69-4	Trichlorofluoromethane	ug/kg	n/a	<0.0940	<0.0782	n/a	n/a	n/a	n/a	0.0782	n/a	U
S10V000378			95-47-6	o-Xylene	ug/kg	n/a	<0.0920	<0.0765	n/a	n/a	n/a	n/a	0.0765	n/a	U
S10V000378			179601-23-1	m,p-Xylene	ug/kg	n/a	<0.167	<0.139	n/a	n/a	n/a	n/a	0.139	n/a	U

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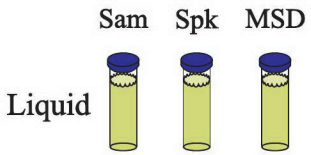
N - MS/MSD Outside Range
T - MS/MSD Outside Range
U - Less Than Detection Limit
B - Estimated
J - Estimated

Attachment 2

SAMPLE BREAKDOWN DIAGRAM

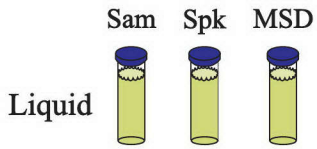
Vadose Zone: C Farm
Core No.: C7670
Group 20100160

Sample Depth: Field Blank-1
Customer ID. B23MR0



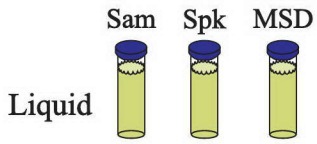
S10V000310
GC/MS VOA

Sample Depth: Field Blank-2
Customer ID. B23MR1



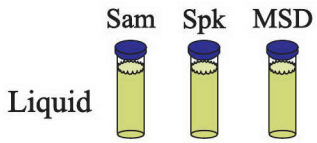
S10V000311
GC/MS VOA

Sample Depth: Field Blank-3
Customer ID. B23MR2



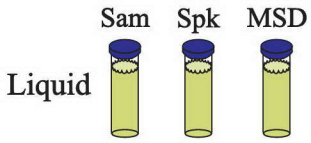
S10V000312
GC/MS VOA

Sample Depth: Field Blank-4
Customer ID. B23MR3



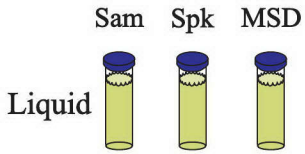
S10V000313
GC/MS VOA

Sample Depth: Field Blank-5
Customer ID. B23MR4



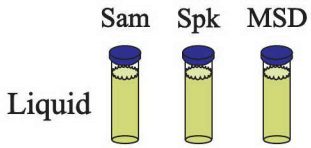
S10V000314
GC/MS VOA

Sample Depth: Field Blank-6
Customer ID. B23MR5



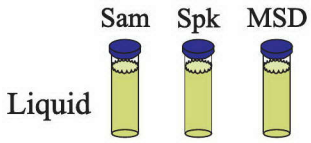
S10V000315
GC/MS VOA

Sample Depth: Field Blank-7
Customer ID. B23MR6



S10V000316
GC/MS VOA

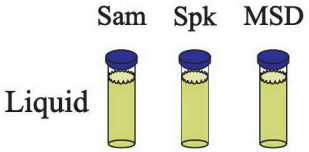
Sample Depth: Field Blank-8
Customer ID. B23MR7



S10V000317
GC/MS VOA

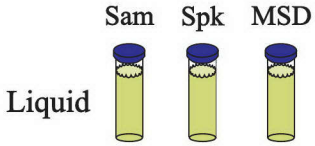
Vadose Zone: C Farm
Core No.: C7670
Group 20100160

Sample Depth: Trip Blank-1
Customer ID. B238F5



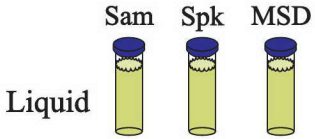
S10V000320
GC/MS VOA

Sample Depth: Trip Blank-2
Customer ID. B238F6



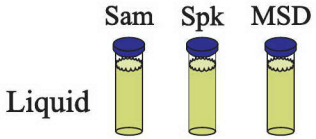
S10V000321
GC/MS VOA

Sample Depth: Trip Blank-3
Customer ID. B23MP2



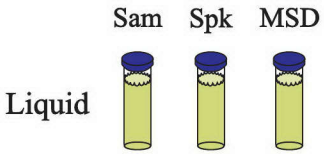
S10V000322
GC/MS VOA

Sample Depth: Trip Blank-4
Customer ID. B23MP3



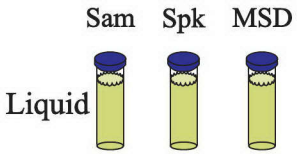
S10V000323
GC/MS VOA

Sample Depth: Trip Blank-5
Customer ID. B23MP4



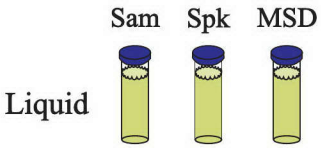
S10V000324
GC/MS VOA

Sample Depth: Trip Blank-6
Customer ID. B23MP5



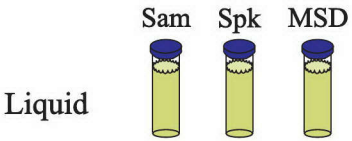
S10V000325
GC/MS VOA

Sample Depth: Trip Blank-7
Customer ID. B23MP6



S10V000326
GC/MS VOA

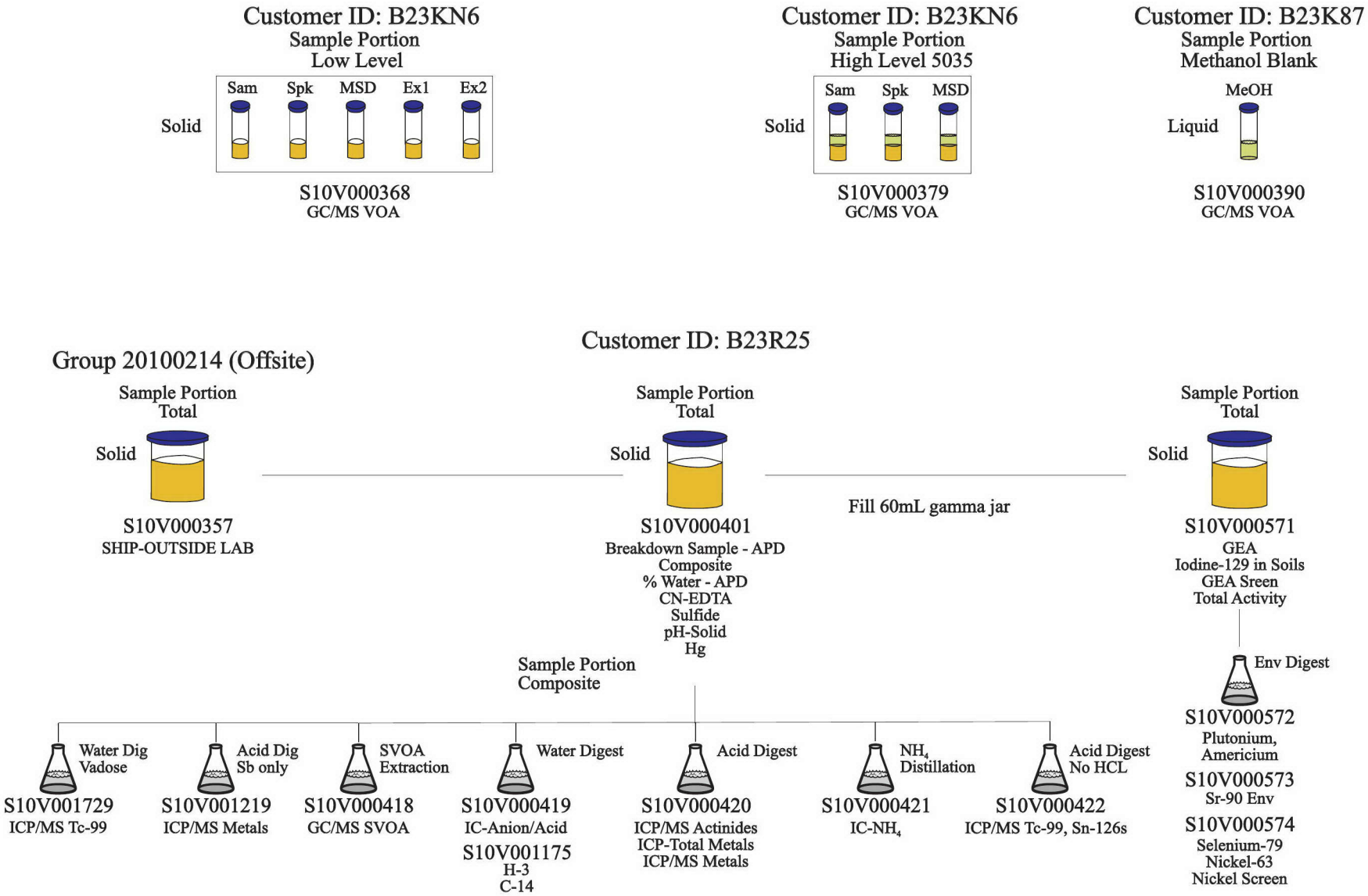
Sample Depth: Trip Blank-8
Customer ID. B23MP7



S10V000327
GC/MS VOA

Vadose Zone: C Farm 2010
Core No.: C7670
Group 20100213

Sample Depth: Surface
Segment No: Surface



Vadose Zone: C Farm 2010
Core No.: C7670
Group 20100213

Sample Depth: Surface-Dup
Segment No: Surface Dup

Customer ID: B23KN9
Sample Portion
Low Level

Solid: Sam, Spk, MSD, Ex1, Ex2

S10V000369
GC/MS VOA

Customer ID: B23KN9
Sample Portion
High Level 5035

Solid: Sam, Spk, MSD

S10V000380
GC/MS VOA

Customer ID: B23KN8
Sample Portion
Methanol Blank

Liquid: MeOH

S10V000391
GC/MS VOA

Customer ID: B23KN7

Group 20100214(Offsite)

Sample Portion
Total

Solid

S10V000358
SHIP-OUTSIDE LAB

Sample Portion
Total

Solid

S10V000402
Breakdown Sample - APD
Composite
% Water - APD
CN-EDTA
Sulfide
pH-Solid
Hg

Fill 60mL gamma jar

Sample Portion
Total

Solid

S10V000575
GEA
Iodine-129 in Soils
GEA Sreen
Total Activity

Env Digest

S10V000625
Plutonium,
Americium

S10V000626
Sr-90 Env

S10V000627
Selenium-79
Nickel-63
Nickel Screen

Sample Portion
Composite

Water Dig
Vadose

S10V001730
ICP/MS Tc-99

Acid Dig
Sb only

S10V001214
ICP/MS Metals

SVOA
Extraction

S10V000576
GC/MS SVOA

Water Digest

S10V000577
C-14
IC-Anion/Acid

S10V001176
H-3

Acid Digest

S10V000578
ICP/MS Actinides
ICP-Total Metals
ICP/MS Metals

NH_4
Distillation

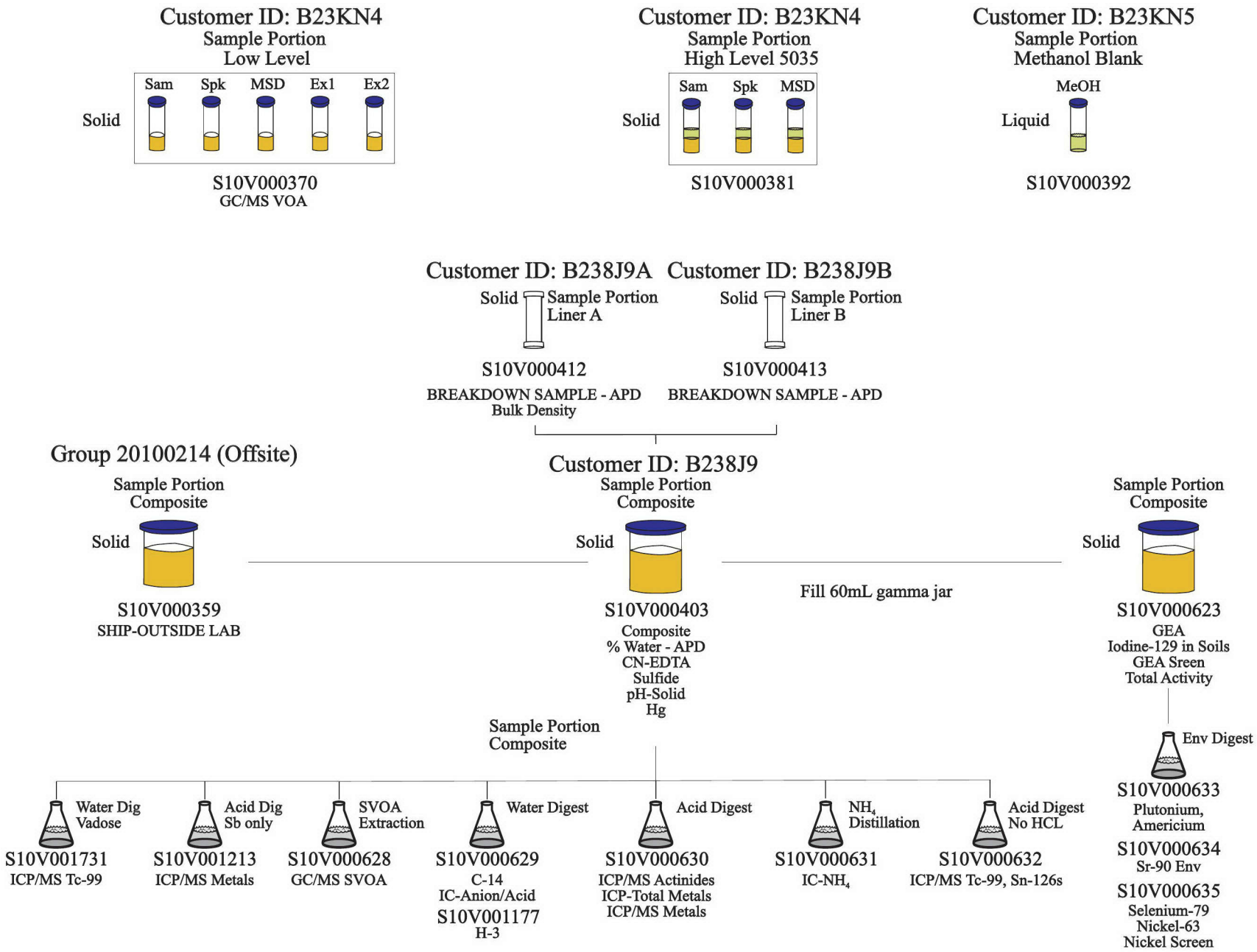
S10V000579
IC-NH_4

Acid Digest
No HCL

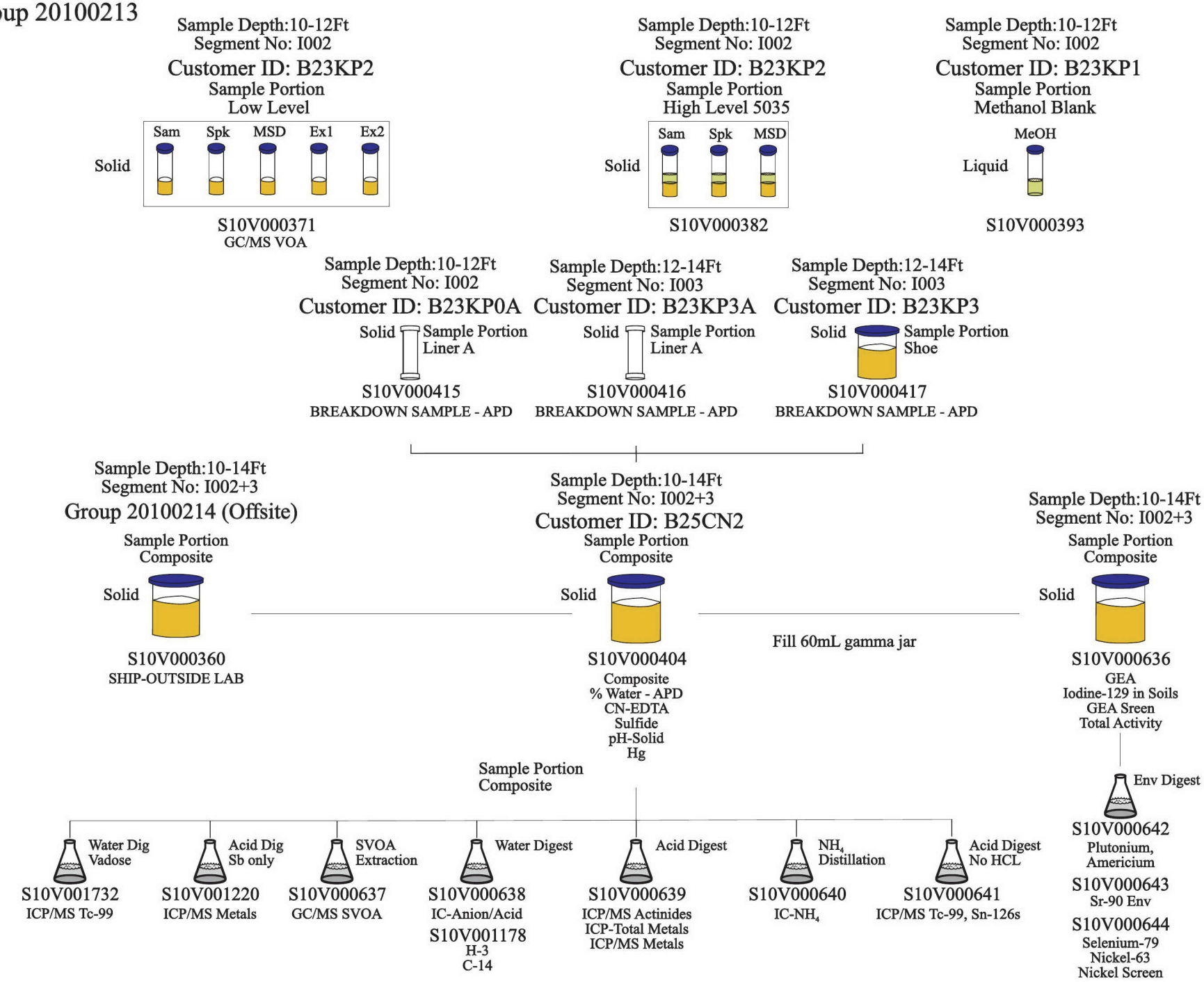
S10V000624
ICP/MS Tc-99, Sn-126s

Vadose Zone: C Farm 2010
Core No.: C7670
Group 20100213

Sample Depth:5-7Ft
Segment No: I001

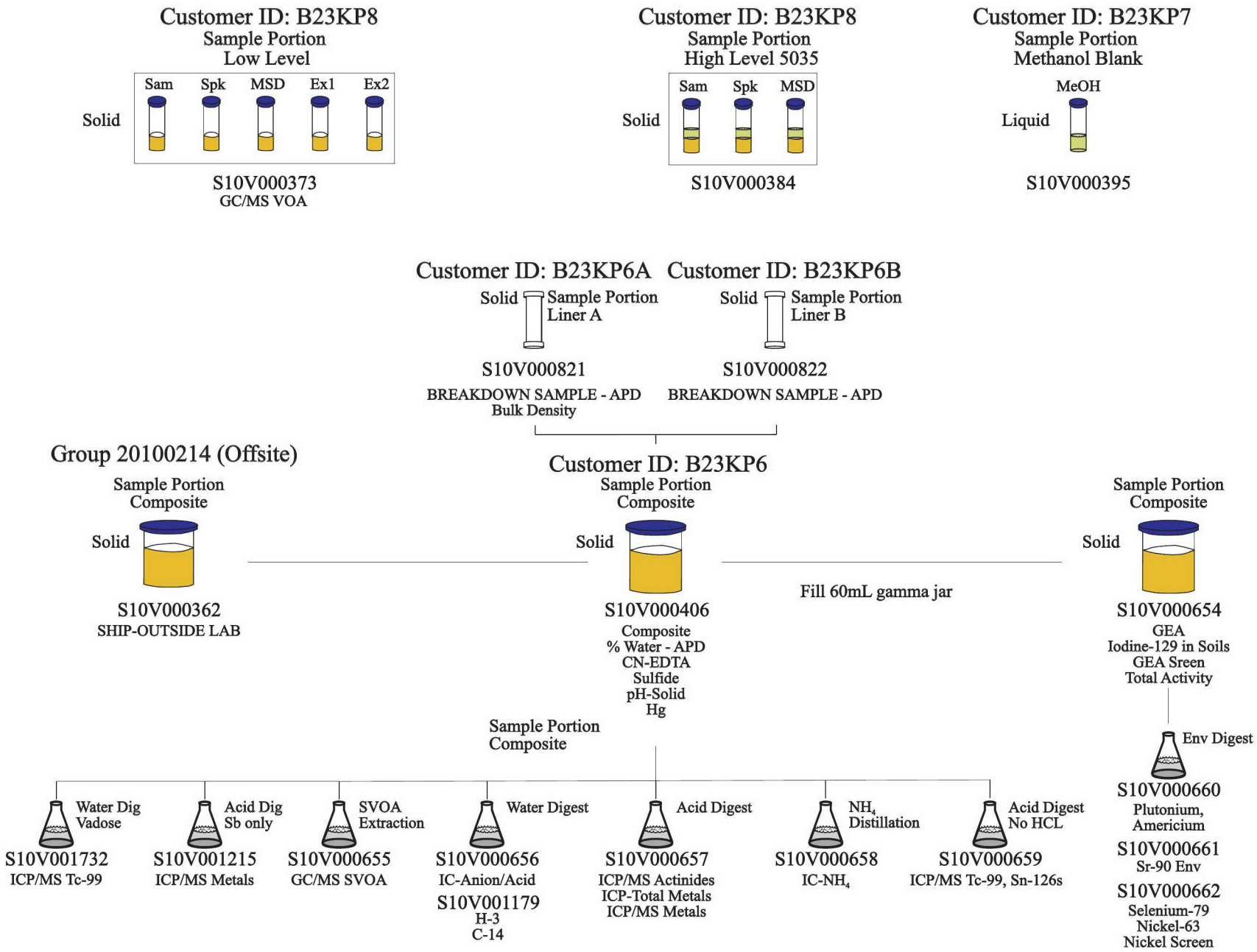


Vadose Zone: C Farm 2010
Core No.: C7670
Group 20100213



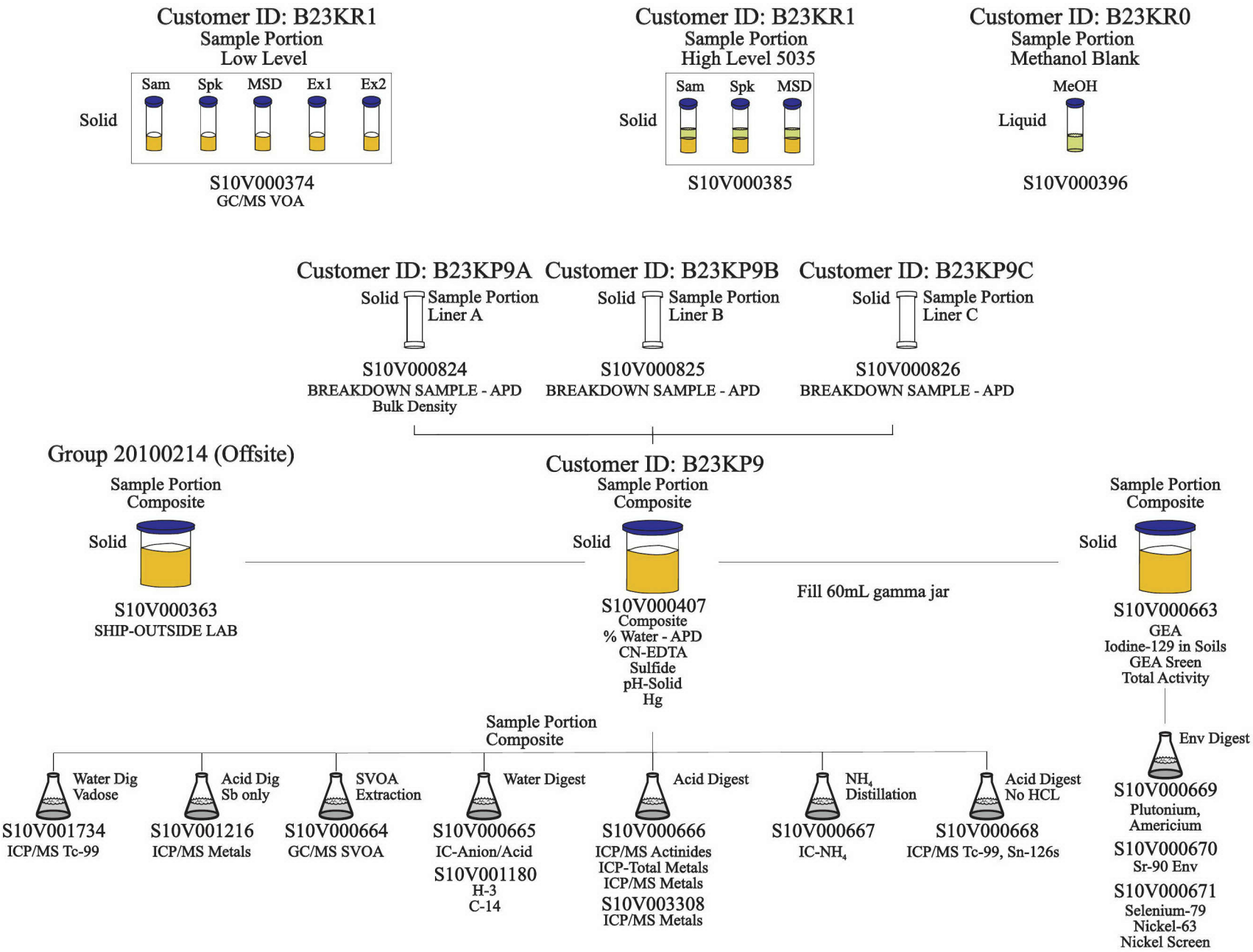
Vadose Zone: C Farm 2010
Core No.: C7670
Group 20100213

Sample Depth:14-16Ft
Segment No: I004



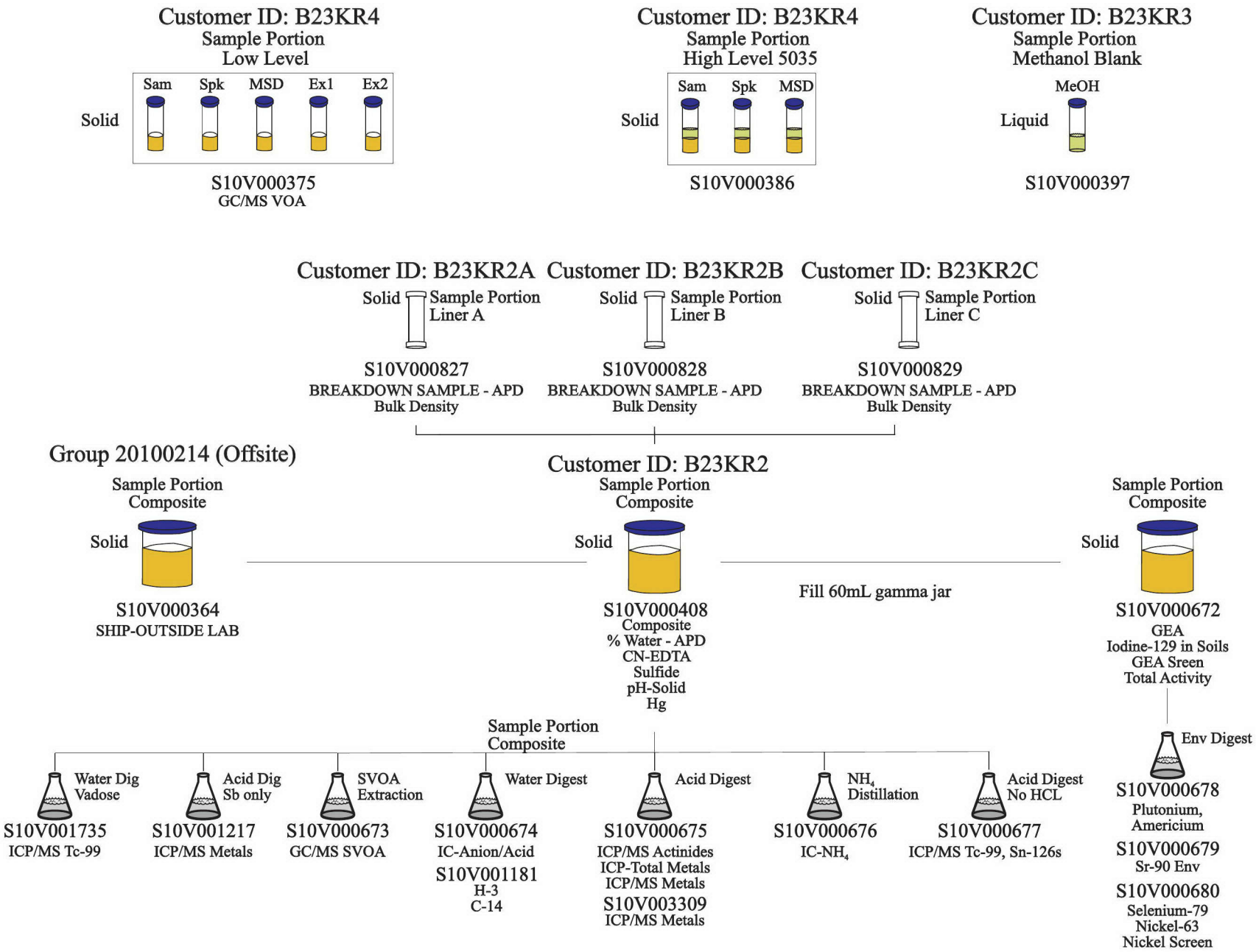
Vadose Zone: C Farm 2010
Core No.: C7670
Group 20100213

Sample Depth:39-41Ft
Segment No: I005



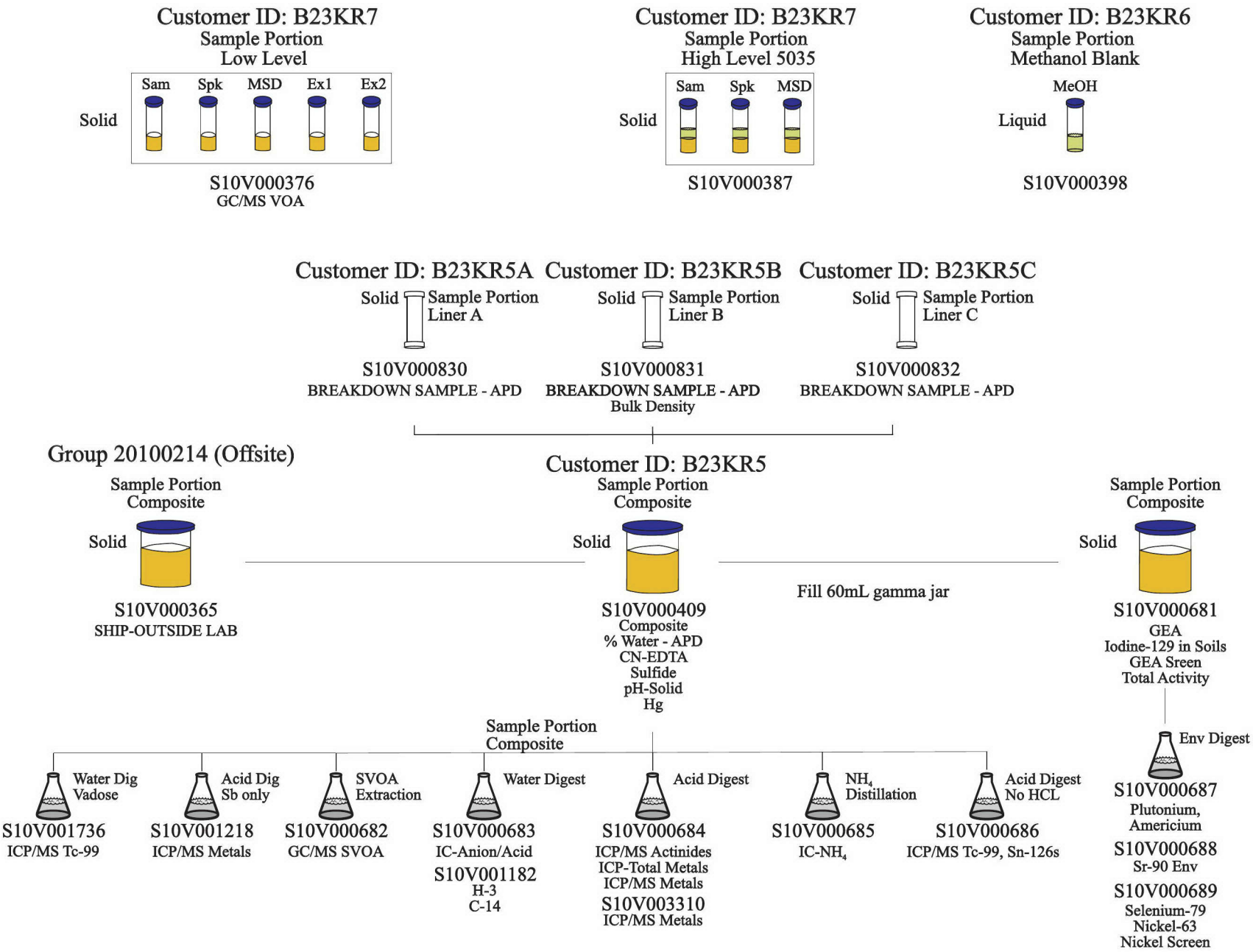
Vadose Zone: C Farm 2010
Core No.: C7670
Group 20100213

Sample Depth:139-141Ft
Segment No: I006

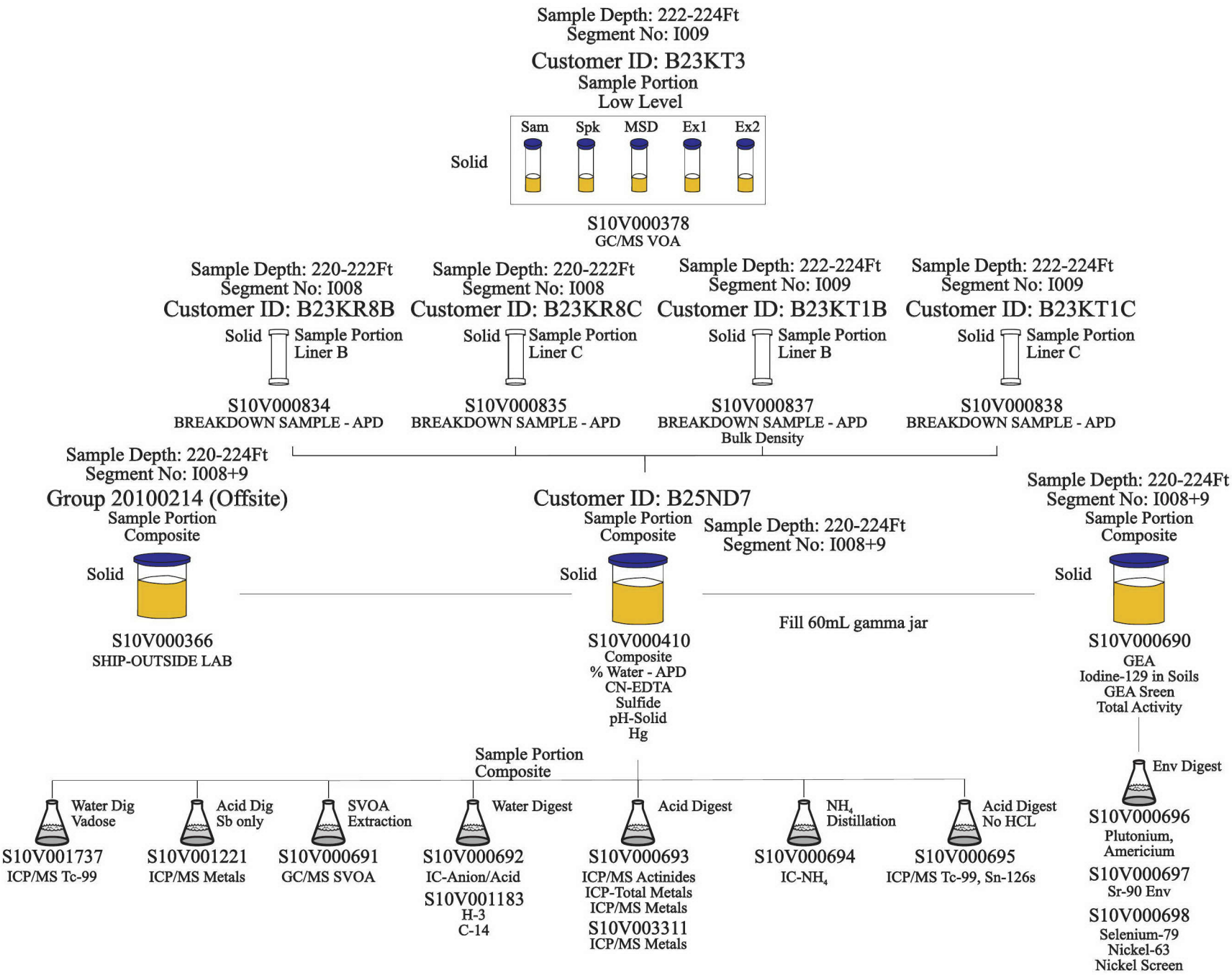


Vadose Zone: C Farm 2010
Core No.: C7670
Group 20100213

Sample Depth:163-165Ft
Segment No: I007



Vadose Zone: C Farm 2010
Core No.: C7670
Group 20100213



Attachment 3

HOLDING TIME REPORT

Holding Time Report: Cyanide

Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Analysis Date	Missed Holding Time
S10V000401	SOLID	SW846-9014	SW846-9010C	04/15/10 10:10	04/15/10 14:10	04/23/10 15:32	N
S10V000402	SOLID	SW846-9014	SW846-9010C	04/15/10 10:10	04/15/10 14:10	04/23/10 15:32	N
S10V000403	SOLID	SW846-9014	SW846-9010C	04/20/10 12:45	04/20/10 13:50	04/23/10 15:32	N
S10V000404	SOLID	SW846-9014	SW846-9010C	04/22/10 09:15	04/22/10 12:00	04/29/10 15:45	N
S10V000406	SOLID	SW846-9014	SW846-9010C	04/22/10 10:55	04/23/10 12:00	04/29/10 15:45	N
S10V000407	SOLID	SW846-9014	SW846-9010C	04/23/10 09:43	04/23/10 11:50	04/29/10 15:45	N
S10V000408	SOLID	SW846-9014	SW846-9010C	05/04/10 10:02	05/04/10 12:15	05/13/10 15:40	N
S10V000409	SOLID	SW846-9014	SW846-9010C	05/05/10 10:30	05/06/10 11:30	05/13/10 15:40	N
S10V000410	SOLID	SW846-9014	SW846-9010C	05/07/10 12:15	05/07/10 13:00	05/13/10 15:40	N

Holding Time Report: Sulfide

Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Analysis Date	Missed Holding Time
S10V000401	SOLID	SW846-9215	SW846-9030B	04/15/10 10:10	04/15/10 14:10	04/20/10 14:30	N
S10V000402	SOLID	SW846-9215	SW846-9030B	04/15/10 10:10	04/15/10 14:10	04/20/10 14:30	N
S10V000403	SOLID	SW846-9215	SW846-9030B	04/20/10 12:45	04/20/10 13:50	04/22/10 14:30	N
S10V000404	SOLID	SW846-9215	SW846-9030B	04/22/10 09:15	04/22/10 12:00	04/27/10 15:25	N
S10V000406	SOLID	SW846-9215	SW846-9030B	04/22/10 10:55	04/23/10 12:00	04/27/10 15:25	N
S10V000407	SOLID	SW846-9215	SW846-9030B	04/23/10 09:43	04/23/10 11:50	04/27/10 15:25	N
S10V000408	SOLID	SW846-9215	SW846-9030B	05/04/10 10:02	05/04/10 12:15	05/06/10 15:15	N
S10V000409	SOLID	SW846-9215	SW846-9030B	05/05/10 10:30	05/06/10 11:30	05/12/10 14:45	N
S10V000410	SOLID	SW846-9215	SW846-9030B	05/07/10 12:15	05/07/10 13:00	05/12/10 14:45	N

Hold Time Report: pH

Sample	Matrix	Method	Sample Date	Received Date	Analysis Date	Days Lapsed
S10V000401	SOLID	SW846-9045D	04/15/10 10:10	04/15/10 14:10	04/20/10 16:20	**5.3**
S10V000402	SOLID	SW846-9045D	04/15/10 10:10	04/15/10 14:10	04/20/10 16:20	**5.3**
S10V000403	SOLID	SW846-9045D	04/20/10 12:45	04/20/10 13:50	04/22/10 09:57	**1.9**
S10V000404	SOLID	SW846-9045D	04/22/10 09:15	04/22/10 12:00	04/28/10 15:15	**6.3**
S10V000406	SOLID	SW846-9045D	04/22/10 10:55	04/23/10 12:00	04/28/10 15:15	**6.2**
S10V000407	SOLID	SW846-9045D	04/23/10 09:43	04/23/10 11:50	04/28/10 15:15	**5.2**
S10V000408	SOLID	SW846-9045D	05/04/10 10:02	05/04/10 12:15	05/17/10 23:23	**13.6**
S10V000409	SOLID	SW846-9045D	05/05/10 10:30	05/06/10 11:30	05/17/10 23:23	**12.5**
S10V000410	SOLID	SW846-9045D	05/07/10 12:15	05/07/10 13:00	05/17/10 23:23	**10.5**

Holding Time Report: Mercury

Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Analysis Date	Missed Holding Time
S10V000401	SOLID	SW846-7471A	SW846-7471A	04/15/10 10:10	04/15/10 14:10	05/04/10 15:12	N
S10V000402	SOLID	SW846-7471A	SW846-7471A	04/15/10 10:10	04/15/10 14:10	05/04/10 15:12	N
S10V000403	SOLID	SW846-7471A	SW846-7471A	04/20/10 12:45	04/20/10 13:50	05/04/10 15:12	N
S10V000404	SOLID	SW846-7471A	SW846-7471A	04/22/10 09:15	04/22/10 12:00	05/04/10 15:12	N
S10V000406	SOLID	SW846-7471A	SW846-7471A	04/22/10 10:55	04/23/10 12:00	05/04/10 15:12	N
S10V000407	SOLID	SW846-7471A	SW846-7471A	04/23/10 09:43	04/23/10 11:50	05/04/10 15:12	N
S10V000408	SOLID	SW846-7471A	SW846-7471A	05/04/10 10:02	05/04/10 12:15	05/17/10 15:20	N
S10V000409	SOLID	SW846-7471A	SW846-7471A	05/05/10 10:30	05/06/10 11:30	05/17/10 15:20	N
S10V000410	SOLID	SW846-7471A	SW846-7471A	05/07/10 12:15	05/07/10 13:00	05/17/10 15:20	N

Holding Time Report: Ammonium

Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Prep Date	Analysis Date	Missed Holding Time
S10V000421	SOLID	EPA-300.7	NH4 DIST	04/15/10 10:10	04/15/10 14:10	04/22/10 15:52	04/22/10 18:34	N
S10V000579	SOLID	EPA-300.7	NH4 DIST	04/15/10 10:10	04/15/10 14:10	04/22/10 15:52	04/22/10 18:51	N
S10V000631	SOLID	EPA-300.7	NH4 DIST	04/20/10 12:45	04/20/10 13:50	04/22/10 15:52	04/22/10 20:16	N
S10V000640	SOLID	EPA-300.7	NH4 DIST	04/22/10 09:15	04/22/10 12:00	04/27/10 11:02	04/27/10 16:09	N
S10V000658	SOLID	EPA-300.7	NH4 DIST	04/22/10 10:55	04/23/10 12:00	04/27/10 11:02	04/27/10 17:17	N
S10V000667	SOLID	EPA-300.7	NH4 DIST	04/23/10 09:43	04/23/10 11:50	04/27/10 11:02	04/27/10 17:33	N
S10V000676	SOLID	EPA-300.7	NH4 DIST	05/04/10 10:02	05/04/10 12:15	05/06/10 14:38	05/07/10 02:05	N
S10V000685	SOLID	EPA-300.7	NH4 DIST	05/05/10 10:30	05/06/10 11:30	05/12/10 14:45	05/12/10 15:27	N
S10V000694	SOLID	EPA-300.7	NH4 DIST	05/07/10 12:15	05/12/10 13:36	05/12/10 14:45	05/12/10 20:04	N

Holding Time Report: IC-Anions

Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Prep Date	Analysis Date	Missed Holding Time
S10V000629	SOLID	SW846-9056A	WATER DIGEST	04/20/10 12:45	04/20/10 13:50	04/22/10 10:00	04/23/10 00:07	N
S10V000638	SOLID	SW846-9056A	WATER DIGEST	04/22/10 09:15	04/22/10 12:00	04/28/10 10:05	04/28/10 19:06	N
S10V000656	SOLID	SW846-9056A	WATER DIGEST	04/22/10 10:55	04/23/10 12:00	04/28/10 10:05	04/28/10 21:14	N
S10V000665	SOLID	SW846-9056A	WATER DIGEST	04/23/10 09:43	04/23/10 11:50	04/28/10 10:05	04/28/10 21:46	N
S10V000674	SOLID	SW846-9056A	WATER DIGEST	05/04/10 10:02	05/04/10 12:15	05/17/10 11:15	05/17/10 19:39	N
S10V000683	SOLID	SW846-9056A	WATER DIGEST	05/05/10 10:30	05/06/10 11:30	05/17/10 11:15	05/17/10 21:15	N
S10V000692	SOLID	SW846-9056A	WATER DIGEST	05/07/10 12:15	05/07/10 13:00	05/17/10 11:15	05/17/10 21:47	N
S10V000419	SOLID	SW846-9056A	WATER DIGEST	04/15/10 10:10	04/20/10 09:03	10/05/10 17:00	10/06/10 03:07	N
S10V000577	SOLID	SW846-9056A	WATER DIGEST	04/15/10 10:10	04/15/10 14:10	10/05/10 17:00	10/06/10 03:39	N

Hold Time Report: Metals ICP/AES, ICP/MS

Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Prep Date	Analysis Date	Missed Holding Time
S10V000420	SOLID	SW846-6010C	SW846-3050B	04/15/10 10:10	04/15/10 14:10	04/27/10 09:48	06/03/10 17:59	N
S10V000420	SOLID	SW846-6010C	SW846-3050B	04/15/10 10:10	04/15/10 14:10	04/27/10 09:48	06/10/10 10:07	N
S10V000578	SOLID	SW846-6010C	SW846-3050B	04/15/10 10:10	04/15/10 14:10	04/27/10 09:48	06/03/10 20:36	N
S10V000578	SOLID	SW846-6010C	SW846-3050B	04/15/10 10:10	04/15/10 14:10	04/27/10 09:48	06/10/10 10:44	N
S10V000630	SOLID	SW846-6010C	SW846-3050B	04/20/10 12:45	04/20/10 13:50	04/27/10 09:48	06/03/10 20:51	N
S10V000630	SOLID	SW846-6010C	SW846-3050B	04/20/10 12:45	04/20/10 13:50	04/27/10 09:48	06/10/10 11:00	N
S10V000639	SOLID	SW846-6010C	SW846-3050B	04/22/10 09:15	04/22/10 12:00	04/27/10 09:48	06/03/10 20:53	N
S10V000639	SOLID	SW846-6010C	SW846-3050B	04/22/10 09:15	04/22/10 12:00	04/27/10 09:48	06/10/10 11:02	N
S10V000657	SOLID	SW846-6010C	SW846-3050B	04/22/10 10:55	04/23/10 12:00	04/27/10 09:48	06/03/10 20:56	N
S10V000657	SOLID	SW846-6010C	SW846-3050B	04/22/10 10:55	04/23/10 12:00	04/27/10 09:48	06/10/10 11:20	N
S10V000666	SOLID	SW846-6010C	SW846-3050B	04/23/10 09:43	04/23/10 11:50	07/14/10 14:52	07/20/10 13:38	N
S10V000675	SOLID	SW846-6010C	SW846-3050B	05/04/10 10:02	05/04/10 12:15	07/14/10 14:52	07/20/10 14:26	N
S10V000684	SOLID	SW846-6010C	SW846-3050B	05/05/10 10:30	05/06/10 11:30	07/14/10 14:52	07/20/10 14:29	N
S10V000693	SOLID	SW846-6010C	SW846-3050B	05/07/10 12:15	05/07/10 13:00	07/14/10 14:52	07/20/10 14:31	N
S10V000420	SOLID	SW846-6020A	SW846-3050B	04/15/10 10:10	04/15/10 14:10	04/27/10 09:48	06/02/10 19:18	N
S10V000420	SOLID	SW846-6020A	SW846-3050B	04/15/10 10:10	04/15/10 14:10	04/27/10 09:48	06/15/10 12:25	N
S10V000578	SOLID	SW846-6020A	SW846-3050B	04/15/10 10:10	04/15/10 14:10	04/27/10 09:48	06/03/10 19:53	N
S10V000578	SOLID	SW846-6020A	SW846-3050B	04/15/10 10:10	04/15/10 14:10	04/27/10 09:48	06/15/10 12:39	N
S10V000630	SOLID	SW846-6020A	SW846-3050B	04/20/10 12:45	04/20/10 13:50	04/27/10 09:48	06/03/10 19:59	N
S10V000630	SOLID	SW846-6020A	SW846-3050B	04/20/10 12:45	04/20/10 13:50	04/27/10 09:48	06/15/10 14:42	N
S10V000639	SOLID	SW846-6020A	SW846-3050B	04/22/10 09:15	04/22/10 12:00	04/27/10 09:48	06/03/10 20:06	N
S10V000639	SOLID	SW846-6020A	SW846-3050B	04/22/10 09:15	04/22/10 12:00	04/27/10 09:48	06/15/10 14:48	N
S10V000657	SOLID	SW846-6020A	SW846-3050B	04/22/10 10:55	04/23/10 12:00	04/27/10 09:48	06/03/10 20:13	N
S10V000657	SOLID	SW846-6020A	SW846-3050B	04/22/10 10:55	04/23/10 12:00	04/27/10 09:48	06/15/10 14:55	N
S10V000666	SOLID	SW846-6020A	SW846-3050B	04/23/10 09:43	04/23/10 11:50	05/25/10 22:40	06/29/10 13:39	N
S10V000666	SOLID	SW846-6020A	SW846-3050B	04/23/10 09:43	04/23/10 11:50	05/25/10 22:40	06/29/10 15:43	N
S10V000675	SOLID	SW846-6020A	SW846-3050B	05/04/10 10:02	05/04/10 12:15	05/25/10 22:40	06/29/10 13:52	N
S10V000675	SOLID	SW846-6020A	SW846-3050B	05/04/10 10:02	05/04/10 12:15	05/25/10 22:40	06/29/10 15:56	N
S10V000684	SOLID	SW846-6020A	SW846-3050B	05/05/10 10:30	05/06/10 11:30	05/25/10 22:40	06/29/10 13:59	N
S10V000684	SOLID	SW846-6020A	SW846-3050B	05/05/10 10:30	05/06/10 11:30	05/25/10 22:40	06/29/10 16:03	N
S10V000693	SOLID	SW846-6020A	SW846-3050B	05/07/10 12:15	05/07/10 13:00	05/25/10 22:40	06/29/10 14:05	N

Hold Time Report: Metals ICP/AES, ICP/MS

Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Prep Date	Analysis Date	Missed Holding Time
S10V000693	SOLID	SW846-6020A	SW846-3050B	05/07/10 12:15	05/07/10 13:00	05/25/10 22:40	06/29/10 16:09	N
S10V001213	SOLID	SW846-6020A	SW846-3050B	04/20/10 12:45	04/20/10 13:50	07/09/10 14:33	07/12/10 21:15	N
S10V001214	SOLID	SW846-6020A	SW846-3050B	04/15/10 10:10	04/15/10 14:10	07/09/10 14:33	07/12/10 21:22	N
S10V001215	SOLID	SW846-6020A	SW846-3050B	04/22/10 10:55	04/23/10 12:00	07/09/10 14:33	07/12/10 21:30	N
S10V001216	SOLID	SW846-6020A	SW846-3050B	04/23/10 09:43	04/23/10 11:50	07/09/10 14:33	07/12/10 21:38	N
S10V001217	SOLID	SW846-6020A	SW846-3050B	05/04/10 10:02	05/04/10 12:15	07/09/10 14:33	07/12/10 21:45	N
S10V001218	SOLID	SW846-6020A	SW846-3050B	05/05/10 10:30	05/06/10 11:30	07/09/10 14:33	07/12/10 21:53	N
S10V001219	SOLID	SW846-6020A	SW846-3050B	04/15/10 10:10	04/15/10 14:10	07/09/10 14:33	07/12/10 22:37	N
S10V001220	SOLID	SW846-6020A	SW846-3050B	04/22/10 09:15	04/22/10 12:00	07/09/10 14:33	07/12/10 22:00	N
S10V001221	SOLID	SW846-6020A	SW846-3050B	05/07/10 12:15	05/07/10 13:00	07/09/10 14:33	07/12/10 22:08	N
S10V003308	SOLID	SW846-6020A	SW846-3050B	04/23/10 09:43	04/23/10 11:50	10/19/10 17:30		?
S10V003308	SOLID	SW846-6020A	SW846-3050B	04/23/10 09:43	04/23/10 11:50	10/19/10 17:30	10/21/10 19:22	N
S10V003309	SOLID	SW846-6020A	SW846-3050B	05/04/10 10:02	05/04/10 12:15	10/19/10 17:30		?
S10V003309	SOLID	SW846-6020A	SW846-3050B	05/04/10 10:02	05/04/10 12:15	10/19/10 17:30	10/21/10 19:35	N
S10V003310	SOLID	SW846-6020A	SW846-3050B	05/05/10 10:30	05/06/10 11:30	10/19/10 17:30		?
S10V003310	SOLID	SW846-6020A	SW846-3050B	05/05/10 10:30	05/06/10 11:30	10/19/10 17:30	10/21/10 19:41	N
S10V003311	SOLID	SW846-6020A	SW846-3050B	05/07/10 12:15	05/07/10 13:00	10/19/10 17:30		N
S10V003311	SOLID	SW846-6020A	SW846-3050B	05/07/10 12:15	05/07/10 13:00	10/19/10 17:30	10/21/10 19:47	N

Hold Time Report: ICP/MS Actinides

Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Prep Date	Analysis Date	Missed Holding Time
S10V000420	SOLID	LA-506-102	SW846-3050B	04/15/10 10:10	04/15/10 14:10	04/27/10 09:48	05/26/10 18:35	N
S10V000578	SOLID	LA-506-102	SW846-3050B	04/15/10 10:10	04/15/10 14:10	04/27/10 09:48	05/26/10 18:49	N
S10V000630	SOLID	LA-506-102	SW846-3050B	04/20/10 12:45	04/20/10 13:50	04/27/10 09:48	05/26/10 18:56	N
S10V000639	SOLID	LA-506-102	SW846-3050B	04/22/10 09:15	04/22/10 12:00	04/27/10 09:48	05/26/10 19:03	N
S10V000657	SOLID	LA-506-102	SW846-3050B	04/22/10 10:55	04/23/10 12:00	04/27/10 09:48	05/26/10 19:10	N
S10V000666	SOLID	LA-506-102	SW846-3050B	04/23/10 09:43	04/23/10 11:50	05/25/10 22:40	06/22/10 18:17	N
S10V000675	SOLID	LA-506-102	SW846-3050B	05/04/10 10:02	05/04/10 12:15	05/25/10 22:40	06/22/10 18:31	N
S10V000684	SOLID	LA-506-102	SW846-3050B	05/05/10 10:30	05/06/10 11:30	05/25/10 22:40	06/22/10 18:38	N
S10V000693	SOLID	LA-506-102	SW846-3050B	05/07/10 12:15	05/07/10 13:00	05/25/10 22:40	06/22/10 18:44	N

Holding Time Report: Isotopic ICP/MS Tc-99 & Sn-126

Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Prep Date	Analysis Date	Missed Holding Time
S10V000422	SOLID	LA-506-102	SW846-3050B	04/15/10 10:10	04/20/10 09:08	04/27/10 16:55	06/04/10 19:20	N
S10V000422	SOLID	LA-506-102	SW846-3050B	04/15/10 10:10	04/20/10 09:08	06/11/10 14:00	06/14/10 13:03	N
S10V000624	SOLID	LA-506-102	SW846-3050B	04/15/10 10:10	04/15/10 14:10	04/27/10 16:55	06/04/10 20:08	N
S10V000624	SOLID	LA-506-102	SW846-3050B	04/15/10 10:10	04/15/10 14:10	06/11/10 14:00	06/14/10 13:19	N
S10V000632	SOLID	LA-506-102	SW846-3050B	04/20/10 12:45	04/20/10 13:50	04/27/10 16:55	06/04/10 20:49	N
S10V000632	SOLID	LA-506-102	SW846-3050B	04/20/10 12:45	04/20/10 13:50	06/11/10 14:00	06/14/10 13:49	N
S10V000641	SOLID	LA-506-102	SW846-3050B	04/22/10 09:15	04/22/10 12:00	04/27/10 16:55	06/04/10 20:57	N
S10V000641	SOLID	LA-506-102	SW846-3050B	04/22/10 09:15	04/22/10 12:00	06/11/10 14:00	06/14/10 13:57	N
S10V000659	SOLID	LA-506-102	SW846-3050B	04/22/10 10:55	04/23/10 12:00	04/27/10 16:55	06/04/10 21:06	N
S10V000659	SOLID	LA-506-102	SW846-3050B	04/22/10 10:55	04/23/10 12:00	06/11/10 14:00	06/14/10 14:28	N
S10V000668	SOLID	LA-506-102	SW846-3050B	04/23/10 09:43	04/23/10 11:50	05/25/10 22:33	07/02/10 14:06	N
S10V000677	SOLID	LA-506-102	SW846-3050B	05/04/10 10:02	05/04/10 12:15	05/25/10 22:33	07/02/10 14:23	N
S10V000686	SOLID	LA-506-102	SW846-3050B	05/05/10 10:30	05/06/10 11:30	05/25/10 22:33	07/02/10 14:55	N
S10V000695	SOLID	LA-506-102	SW846-3050B	05/07/10 12:15	05/07/10 13:00	05/25/10 22:33	07/02/10 15:03	N

Holding Time Report: Isotopic ICP/MS Tc-99

Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Prep Date	Analysis Date	Missed Holding Time
S10V001729	SOLID	LA-506-102	Vadose Water Digest	04/15/10 10:10	04/15/10 14:10	08/18/10 11:17	08/19/10 20:15	N
S10V001730	SOLID	LA-506-102	Vadose Water Digest	04/15/10 10:10	04/15/10 14:10	08/18/10 11:17	08/19/10 20:27	N
S10V001731	SOLID	LA-506-102	Vadose Water Digest	04/20/10 12:45	04/20/10 13:50	08/18/10 11:17	08/19/10 20:33	N
S10V001732	SOLID	LA-506-102	Vadose Water Digest	04/22/10 09:15	04/22/10 12:00	08/18/10 11:17	08/19/10 20:39	N
S10V001733	SOLID	LA-506-102	Vadose Water Digest	04/22/10 10:55	04/23/10 12:00	08/18/10 11:17	08/19/10 20:45	N
S10V001734	SOLID	LA-506-102	Vadose Water Digest	04/23/10 09:43	04/23/10 11:50	08/18/10 11:17	08/19/10 20:51	N
S10V001735	SOLID	LA-506-102	Vadose Water Digest	05/04/10 10:02	05/04/10 12:15	08/18/10 11:17	08/19/10 21:14	N
S10V001736	SOLID	LA-506-102	Vadose Water Digest	05/05/10 10:30	05/06/10 11:30	08/18/10 11:17	08/19/10 21:20	N
S10V001737	SOLID	LA-506-102	Vadose Water Digest	05/07/10 12:15	05/07/10 13:00	08/18/10 11:17	08/19/10 21:26	N

Holding Time Report: Radiochemistry

Sample	Method	Sample Date Time	Received Date	Analysis Date	Misse Holding Time
S10V000572	AMERICIUM	04/15/2010 10:10	04/15/2010 14:10	06/10/2010 14:20	N
S10V000625	AMERICIUM	04/15/2010 10:10	04/15/2010 14:10	06/10/2010 14:20	N
S10V000633	AMERICIUM	04/20/2010 12:45	04/20/2010 13:50	06/10/2010 14:20	N
S10V000642	AMERICIUM	04/22/2010 09:15	04/22/2010 12:00	06/10/2010 14:20	N
S10V000660	AMERICIUM	04/22/2010 10:55	04/23/2010 12:00	06/10/2010 14:20	N
S10V000669	AMERICIUM	04/23/2010 09:43	04/23/2010 11:50	06/10/2010 14:20	N
S10V000678	AMERICIUM	05/04/2010 10:02	05/04/2010 12:15	06/10/2010 14:20	N
S10V000687	AMERICIUM	05/05/2010 10:30	05/06/2010 11:30	06/10/2010 14:20	N
S10V000696	AMERICIUM	05/07/2010 12:15	05/12/2010 08:51	06/10/2010 14:20	N
S10V000577	CARBON-14	04/15/2010 10:10	04/15/2010 14:10	08/22/2010 14:00	N
S10V000629	CARBON-14	04/20/2010 12:45	04/20/2010 13:50	08/22/2010 14:00	N
S10V001175	CARBON-14	04/15/2010 10:10	04/15/2010 14:10	08/22/2010 14:00	N
S10V001178	CARBON-14	04/22/2010 09:15	04/22/2010 12:00	08/22/2010 14:00	N
S10V001179	CARBON-14	04/22/2010 10:55	04/23/2010 12:00	08/22/2010 14:00	N
S10V001180	CARBON-14	04/23/2010 09:43	04/23/2010 11:50	08/22/2010 14:00	N
S10V001181	CARBON-14	05/04/2010 10:02	05/04/2010 12:15	08/22/2010 14:00	N
S10V001182	CARBON-14	05/05/2010 10:30	05/06/2010 11:30	08/22/2010 14:00	N
S10V001183	CARBON-14	05/07/2010 12:15	05/07/2010 13:00	08/22/2010 14:00	N
S10V000571	GEA	04/15/2010 10:10	04/15/2010 14:10	05/26/2010 21:33	N
S10V000575	GEA	04/15/2010 10:10	04/15/2010 14:10	05/27/2010 03:07	N
S10V000623	GEA	04/20/2010 12:45	04/20/2010 13:50	05/27/2010 06:05	N
S10V000636	GEA	04/22/2010 09:15	04/22/2010 12:00	05/27/2010 08:52	N
S10V000654	GEA	04/22/2010 10:55	04/23/2010 12:00	05/27/2010 11:34	N
S10V000663	GEA	04/23/2010 09:43	04/23/2010 11:50	05/27/2010 14:51	N
S10V000672	GEA	05/04/2010 10:02	05/04/2010 12:15	05/27/2010 18:04	N
S10V000681	GEA	05/05/2010 10:30	05/06/2010 11:30	05/28/2010 00:19	N
S10V000690	GEA	05/07/2010 12:15	05/12/2010 08:51	05/28/2010 03:10	N
S10V000571	IODINE-129 in SOIL	04/15/2010 10:10	04/15/2010 14:10	06/10/2010 14:30	N
S10V000575	IODINE-129 in SOIL	04/15/2010 10:10	04/15/2010 14:10	06/10/2010 14:30	N
S10V000623	IODINE-129 in SOIL	04/20/2010 12:45	04/20/2010 13:50	06/10/2010 14:30	N
S10V000636	IODINE-129 in SOIL	04/22/2010 09:15	04/22/2010 12:00	06/10/2010 14:30	N
S10V000654	IODINE-129 in SOIL	04/22/2010 10:55	04/23/2010 12:00	06/10/2010 14:30	N
S10V000663	IODINE-129 in SOIL	04/23/2010 09:43	04/23/2010 11:50	06/10/2010 14:30	N
S10V000672	IODINE-129 in SOIL	05/04/2010 10:02	05/04/2010 12:15	06/10/2010 14:30	N
S10V000681	IODINE-129 in SOIL	05/05/2010 10:30	05/06/2010 11:30	06/10/2010 14:30	N

Holding Time Report: Radiochemistry

Sample	Method	Sample Date Time	Received Date	Analysis Date	Misse Holding Time
S10V000690	IODINE-129 in SOIL	05/07/2010 12:15	05/12/2010 08:51	06/10/2010 14:30	N
S10V000574	NICKEL-63	04/15/2010 10:10	04/15/2010 14:10	06/30/2010 15:15	N
S10V000627	NICKEL-63	04/15/2010 10:10	04/15/2010 14:10	06/30/2010 15:15	N
S10V000635	NICKEL-63	04/20/2010 12:45	04/20/2010 13:50	06/30/2010 15:15	N
S10V000644	NICKEL-63	04/22/2010 09:15	04/22/2010 12:00	06/30/2010 15:15	N
S10V000662	NICKEL-63	04/22/2010 10:55	04/23/2010 12:00	06/30/2010 15:15	N
S10V000671	NICKEL-63	04/23/2010 09:43	04/23/2010 11:50	06/30/2010 15:15	N
S10V000680	NICKEL-63	05/04/2010 10:02	05/04/2010 12:15	06/30/2010 15:15	N
S10V000689	NICKEL-63	05/05/2010 10:30	05/06/2010 11:30	06/30/2010 15:15	N
S10V000698	NICKEL-63	05/07/2010 12:15	05/12/2010 08:51	06/30/2010 15:15	N
S10V000572	PLUTONIUM	04/15/2010 10:10	04/15/2010 14:10	06/30/2010 11:00	N
S10V000625	PLUTONIUM	04/15/2010 10:10	04/15/2010 14:10	06/30/2010 11:00	N
S10V000633	PLUTONIUM	04/20/2010 12:45	04/20/2010 13:50	06/30/2010 11:00	N
S10V000642	PLUTONIUM	04/22/2010 09:15	04/22/2010 12:00	06/30/2010 11:00	N
S10V000660	PLUTONIUM	04/22/2010 10:55	04/23/2010 12:00	06/30/2010 11:00	N
S10V000669	PLUTONIUM	04/23/2010 09:43	04/23/2010 11:50	06/30/2010 11:00	N
S10V000678	PLUTONIUM	05/04/2010 10:02	05/04/2010 12:15	06/30/2010 11:00	N
S10V000687	PLUTONIUM	05/05/2010 10:30	05/06/2010 11:30	06/30/2010 11:00	N
S10V000696	PLUTONIUM	05/07/2010 12:15	05/12/2010 08:51	06/30/2010 11:00	N
S10V000574	SELENIUM-79	04/15/2010 10:10	04/15/2010 14:10	07/13/2010 11:50	N
S10V000627	SELENIUM-79	04/15/2010 10:10	04/15/2010 14:10	07/13/2010 11:50	N
S10V000635	SELENIUM-79	04/20/2010 12:45	04/20/2010 13:50	07/13/2010 11:50	N
S10V000644	SELENIUM-79	04/22/2010 09:15	04/22/2010 12:00	07/13/2010 11:50	N
S10V000662	SELENIUM-79	04/22/2010 10:55	04/23/2010 12:00	07/13/2010 11:50	N
S10V000671	SELENIUM-79	04/23/2010 09:43	04/23/2010 11:50	07/13/2010 11:50	N
S10V000680	SELENIUM-79	05/04/2010 10:02	05/04/2010 12:15	07/13/2010 11:50	N
S10V000689	SELENIUM-79	05/05/2010 10:30	05/06/2010 11:30	07/13/2010 11:50	N
S10V000698	SELENIUM-79	05/07/2010 12:15	05/12/2010 08:51	07/13/2010 11:50	N
S10V000573	STRONTIUM-90	04/15/2010 10:10	04/15/2010 14:10	06/16/2010 15:15	N
S10V000626	STRONTIUM-90	04/15/2010 10:10	04/15/2010 14:10	06/16/2010 15:15	N
S10V000634	STRONTIUM-90	04/20/2010 12:45	04/20/2010 13:50	06/16/2010 15:15	N
S10V000643	STRONTIUM-90	04/22/2010 09:15	04/22/2010 12:00	06/16/2010 15:15	N
S10V000661	STRONTIUM-90	04/22/2010 10:55	04/23/2010 12:00	06/16/2010 15:15	N
S10V000670	STRONTIUM-90	04/23/2010 09:43	04/23/2010 11:50	06/16/2010 15:15	N
S10V000679	STRONTIUM-90	05/04/2010 10:02	05/04/2010 12:15	06/16/2010 15:15	N

Holding Time Report: Radiochemistry

Sample	Method	Sample Date Time	Received Date	Analysis Date	Misse Holding Time
S10V000688	STRONTIUM-90	05/05/2010 10:30	05/06/2010 11:30	06/16/2010 15:15	N
S10V000697	STRONTIUM-90	05/07/2010 12:15	05/12/2010 08:51	06/16/2010 15:15	N
S10V001175	TRITIUM	04/15/2010 10:10	04/15/2010 14:10	07/08/2010 11:05	N
S10V001176	TRITIUM	04/15/2010 10:10	04/15/2010 14:10	07/08/2010 11:05	N
S10V001177	TRITIUM	04/20/2010 12:45	04/20/2010 13:50	07/08/2010 11:05	N
S10V001178	TRITIUM	04/22/2010 09:15	04/22/2010 12:00	07/08/2010 11:05	N
S10V001179	TRITIUM	04/22/2010 10:55	04/23/2010 12:00	07/08/2010 11:05	N
S10V001180	TRITIUM	04/23/2010 09:43	04/23/2010 11:50	07/08/2010 11:05	N
S10V001181	TRITIUM	05/04/2010 10:02	05/04/2010 12:15	07/08/2010 11:05	N
S10V001182	TRITIUM	05/05/2010 10:30	05/06/2010 11:30	07/08/2010 11:05	N
S10V001183	TRITIUM	05/07/2010 12:15	05/07/2010 13:00	07/08/2010 11:05	N

Holding Time Report: GC/MS VOA

Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Analysis Date	Missed Holding Time
S10V000320	LIQUID	SW846-8260C	SW846-5030C	04/15/10 09:25	04/15/10 14:10	04/23/10 17:28	N
S10V000310	LIQUID	SW846-8260C	SW846-5030C	04/15/10 10:10	04/15/10 14:10	04/23/10 15:07	N
S10V000311	LIQUID	SW846-8260C	SW846-5030C	04/20/10 12:14	04/20/10 13:50	04/26/10 16:55	N
S10V000321	LIQUID	SW846-8260C	SW846-5030C	04/20/10 12:14	04/20/10 13:50	04/23/10 17:56	N
S10V000322	LIQUID	SW846-8260C	SW846-5030C	04/22/10 08:20	04/22/10 12:00	04/26/10 18:48	N
S10V000312	LIQUID	SW846-8260C	SW846-5030C	04/22/10 08:30	04/22/10 11:46	04/23/10 17:00	N
S10V000313	LIQUID	SW846-8260C	SW846-5030C	04/23/10 08:55	04/23/10 11:50	04/28/10 17:38	N
S10V000323	LIQUID	SW846-8260C	SW846-5030C	04/23/10 08:55	04/23/10 11:50	04/26/10 19:16	N
S10V000314	LIQUID	SW846-8260C	SW846-5030C	05/04/10 09:25	05/04/10 12:15	05/17/10 14:57	N
S10V000324	LIQUID	SW846-8260C	SW846-5030C	05/04/10 09:25	05/04/10 12:15	05/18/10 16:38	N
S10V000315	LIQUID	SW846-8260C	SW846-5030C	05/05/10 08:56	05/05/10 11:30	05/18/10 14:38	N
S10V000325	LIQUID	SW846-8260C	SW846-5030C	05/05/10 08:56	05/05/10 11:30	05/18/10 17:08	N
S10V000316	LIQUID	SW846-8260C	SW846-5030C	05/07/10 11:30	05/07/10 13:00	05/18/10 16:08	N
S10V000326	LIQUID	SW846-8260C	SW846-5030C	05/07/10 11:30	05/07/10 13:00	05/18/10 17:38	N
S10V000317	LIQUID	SW846-8260C	SW846-5030C	05/11/10 12:55	05/11/10 14:20	05/24/10 19:46	N
S10V000327	LIQUID	SW846-8260C	SW846-5030C	05/11/10 12:55	05/11/10 14:20	05/24/10 20:18	N
S10V000368	SOLID	SW846-8260C	SW846-5035A	04/15/10 10:10	04/15/10 14:10	04/22/10 21:28	Y*
S10V000369	SOLID	SW846-8260C	SW846-5035A	04/15/10 10:10	04/15/10 14:10	04/22/10 22:53	Y*
S10V000370	SOLID	SW846-8260C	SW846-5035A	04/20/10 12:45	04/20/10 14:41	04/22/10 23:21	N
S10V000371	SOLID	SW846-8260C	SW846-5035A	04/22/10 09:15	04/22/10 12:00	04/28/10 15:16	N
S10V000373	SOLID	SW846-8260C	SW846-5035A	04/22/10 10:55	04/22/10 12:00	04/28/10 16:41	N
S10V000374	SOLID	SW846-8260C	SW846-5035A	04/23/10 09:43	04/23/10 11:50	04/29/10 15:16	N
S10V000375	SOLID	SW846-8260C	SW846-5035A	05/04/10 10:02	05/04/10 12:15	05/18/10 19:39	N
S10V000376	SOLID	SW846-8260C	SW846-5035A	05/05/10 10:30	05/05/10 11:30	05/18/10 18:09	N
S10V000378	SOLID	SW846-8260C	SW846-5035A	05/11/10 13:55	05/11/10 14:20	05/24/10 15:59	N

* Due to improper storage the holding time for this sample was reduced to 48Hr

Holding Time Report: GC/MS SVOA

Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Prep Date	Analysis Date	Missed Holding Time
S10V000418	SOLID	SW846-8270D	SW846-3520C	04/15/10 10:10	04/15/10 14:10	04/21/10 17:05	04/27/10 13:08	N
S10V000576	SOLID	SW846-8270D	SW846-3520C	04/15/10 10:10	04/15/10 14:10	04/21/10 17:05	04/27/10 15:36	N
S10V000628	SOLID	SW846-8270D	SW846-3520C	04/20/10 12:45	04/20/10 13:50	04/21/10 17:05	04/27/10 16:28	N
S10V000637	SOLID	SW846-8270D	SW846-3520C	04/22/10 09:15	04/22/10 12:00	04/28/10 15:55	05/05/10 15:51	N
S10V000655	SOLID	SW846-8270D	SW846-3520C	04/22/10 10:55	04/23/10 12:00	04/28/10 15:55	05/05/10 16:39	N
S10V000664	SOLID	SW846-8270D	SW846-3520C	04/23/10 09:43	04/23/10 11:50	04/28/10 15:55	05/05/10 17:27	N
S10V000673	SOLID	SW846-8270D	SW846-3520C	05/04/10 10:02	05/04/10 12:15	05/10/10 15:33	05/18/10 16:35	N
S10V000682	SOLID	SW846-8270D	SW846-3520C	05/05/10 10:30	05/06/10 11:30	05/10/10 15:33	05/18/10 19:02	N
S10V000691	SOLID	SW846-8270D	SW846-3520C	05/07/10 12:15	05/07/10 13:00	05/20/10 15:43	06/24/10 14:41	N

Attachment 4

ADDITIONAL QC RESULTS

HG Analysis Matrix Spike/Matrix Spike Duplicate Summary for C Farm WMC 2010-1

Client Sample Id	Sample Id	Analyte	MS Recovery %	MSD Recovery %	Lower Limit	Upper Limit	RPD %	RPD Limit
B23KR2	S10V000408	Mercury	98.8	99.8	75	125	1.07	20

VOA 222S #2 Analysis Matrix Spike/Matrix Spike Duplicate Summary for C Farm WMC 2010-1

Client Sample Id	Sample Id	Analyte	MS Recovery %	MSD Recovery %	Lower Limit	Upper Limit	RPD %	RPD Limit
B23KN6	S10V000368	1,1-Dichloroethene	102	110	70	130	7.07	30
		1-Butanol	111	103	70	130	7.29	30
		2-Butanone	122	127	70	130	4.13	30
		4-Methyl-2-pentanone	140	146	70	130	4.16	30
		Acetone	122	131	70	130	6.89	30
		Benzene	94.5	99.0	70	130	4.70	30
		Chlorobenzene	96.9	99.2	70	130	2.30	30
		Toluene	97.5	99.7	70	130	2.22	30
		Trichloroethene	88.2	92.9	70	130	5.18	30
B23KP2	S10V000371	1,1-Dichloroethene	95.1	95.4	70	130	0.361	30
		1-Butanol	140	130	70	130	8.04	30
		2-Butanone	136	125	70	130	8.64	30
		4-Methyl-2-pentanone	156	147	70	130	5.62	30
		Acetone	175	185	70	130	5.55	30
		Benzene	92.1	90.5	70	130	1.78	30
		Chlorobenzene	95.2	95.9	70	130	0.721	30
		Toluene	94.7	97.7	70	130	3.11	30
		Trichloroethene	86.4	86.4	70	130	0.0833	30
B23KR1	S10V000374	1,1-Dichloroethene	96.7	95.1	67	129	1.69	30
		1-Butanol	120	122	68	143	1.03	30
		2-Butanone	117	125	56	143	6.69	30
		4-Methyl-2-pentanone	138	144	59	151	3.95	30
		Acetone	95.7	66.6	66	134	35.9	30
		Benzene	94.2	94.6	78	122	0.416	30
		Chlorobenzene	98.0	96.3	80	121	1.83	30
		Toluene	97.7	95.6	88	124	2.13	30
		Trichloroethene	90.8	90.1	77	119	0.794	30
B23KR7	S10V000376	1,1-Dichloroethene	111	112	67	129	0.780	30
		1-Butanol	102	90.6	68	143	11.4	30
		2-Butanone	120	112	56	143	7.03	30
		4-Methyl-2-pentanone	139	131	59	151	6.18	30
		Acetone	150	140	66	134	6.79	30
		Benzene	105	103	78	122	1.25	30
		Chlorobenzene	100	98.5	80	121	1.81	30
		Toluene	102	103	88	124	0.499	30
		Trichloroethene	95.5	95.3	77	119	0.203	30
B23KT3	S10V000378	1,1-Dichloroethene	110	120	67	129	9.16	30
		1-Butanol	115	119	68	143	4.00	30
		2-Butanone	156	160	56	143	2.71	30
		4-Methyl-2-pentanone	213	215	59	151	0.635	30
		Acetone	175	187	66	134	6.63	30
		Benzene	98.0	104	78	122	5.70	30

VOA 222S #2 Analysis Matrix Spike/Matrix Spike Duplicate Summary for C Farm WMC 2010-1

Client Sample Id	Sample Id	Analyte	MS Recovery %	MSD Recovery %	Lower Limit	Upper Limit	RPD %	RPD Limit
B23KT3	S10V000378	Chlorobenzene	98.0	100	80	121	2.03	30
		Toluene	103	107	88	124	4.10	30
		Trichloroethene	83.1	86.8	77	119	4.41	30
B23MR0	S10V000310	1,1-Dichloroethene	101	105	62	151	3.99	30
		1-Butanol	94.5	120	73	140	23.7	30
		2-Butanone	88.9	107	60	146	18.2	30
		4-Methyl-2-pentanone	97.6	117	75	137	18.5	30
		Acetone	90.9	111	55	139	20.2	30
		Benzene	93.5	94.4	86	120	0.920	30
		Chlorobenzene	94.0	93.7	88	113	0.230	30
		Toluene	96.3	96.3	83	118	0.0187	30
		Trichloroethene	91.4	90.7	71	128	0.771	30
B23MR3	S10V000313	1,1-Dichloroethene	88.2	96.0	62	151	8.46	30
		1-Butanol	85.8	100	73	140	15.3	30
		2-Butanone	87.5	96.0	60	146	9.21	30
		4-Methyl-2-pentanone	103	113	75	137	9.72	30
		Acetone	90.4	95.6	55	139	5.58	30
		Benzene	87.2	92.4	86	120	5.82	30
		Chlorobenzene	89.5	94.1	88	113	5.08	30
		Toluene	93.1	97.6	83	118	4.67	30
		Trichloroethene	80.9	85.0	71	128	4.95	30
B23MR4	S10V000314	1,1-Dichloroethene	107	116	62	151	8.60	30
		1-Butanol	80.7	79.4	73	140	1.64	30
		2-Butanone	87.2	91.1	60	146	4.41	30
		4-Methyl-2-pentanone	99.0	107	75	137	8.02	30
		Acetone	98.2	101	55	139	3.10	30
		Benzene	92.1	97.7	86	120	5.92	30
		Chlorobenzene	94.2	100	88	113	5.91	30
		Toluene	97.0	105	83	118	8.24	30
		Trichloroethene	88.0	93.9	71	128	6.48	30
B23MR5	S10V000315	1,1-Dichloroethene	105	108	62	151	3.02	30
		1-Butanol	68.7	78.2	73	140	13.0	30
		2-Butanone	83.4	91.1	60	146	8.82	30
		4-Methyl-2-pentanone	93.6	102	75	137	8.24	30
		Acetone	97.9	105	55	139	7.05	30
		Benzene	95.0	99.0	86	120	4.15	30
		Chlorobenzene	95.1	94.2	88	113	0.970	30
		Toluene	99.9	101	83	118	1.48	30
		Trichloroethene	93.6	96.4	71	128	2.97	30

11/1/10 11:03

SVOA 222S #2 Analysis Matrix Spike/Matrix Spike Duplicate Summary for C Farm WMC 2010-1

Client Sample Id	Sample Id	Analyte	MS Recovery %	MSD Recovery %	Lower Limit	Upper Limit	RPD %	RPD Limit
B23KP9	S10V000664	1,2,4-Trichlorobenzene	65.9	66.6	2	128	1.02	30
		2,4-Dinitrotoluene	90.8	91.0	55	111	0.242	30
		2-Chlorophenol	72.0	73.7	28	111	2.33	30
		4-Chloro-3-methylphenol	82.4	84.3	42	103	2.30	30
		Acenaphthene	74.8	76.2	36	114	1.78	30
		N-Nitrosodipropylamine	65.7	68.2	18	108	3.65	30
		Pyrene	92.9	90.1	64	113	3.07	30
B23KR2	S10V000673	1,2,4-Trichlorobenzene	66.7	60.5	2	128	9.79	30
		2,4-Dinitrotoluene	80.7	79.2	55	111	1.91	30
		2-Chlorophenol	68.3	64.9	28	111	5.10	30
		4-Chloro-3-methylphenol	75.1	71.6	42	103	4.76	30
		Acenaphthene	70.7	65.7	36	114	7.30	30
		N-Nitrosodipropylamine	67.2	60.1	18	108	11.1	30
		Pyrene	81.8	77.6	64	113	5.33	30
B23R25	S10V000418	1,2,4-Trichlorobenzene	77.7	71.3	2	128	8.66	30
		2,4-Dinitrotoluene	97.2	97.8	55	111	0.619	30
		2-Chlorophenol	81.5	74.0	28	111	9.61	30
		4-Chloro-3-methylphenol	84.5	86.6	42	103	2.45	30
		Acenaphthene	84.3	81.3	36	114	3.61	30
		N-Nitrosodipropylamine	75.4	71.5	18	108	5.30	30
		Pyrene	95.8	96.4	64	113	0.600	30
B25ND7	S10V000691	1,2,4-Trichlorobenzene	79.3	81.1	2	128	2.15	30
		2,4-Dinitrotoluene	106	107	55	111	1.15	30
		2-Chlorophenol	84.0	87.6	28	111	4.18	30
		4-Chloro-3-methylphenol	108	114	42	103	5.03	30
		Acenaphthene	94.3	97.7	36	114	3.52	30
		N-Nitrosodipropylamine	73.7	74.9	18	108	1.62	30
		Pyrene	101	103	64	113	1.84	30

17960

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100422_CFARM2

Level:(low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER (BFB)#	TOT OUT
01	CCB	109	120	121	113	0
02	LCS	105	116	116	112	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(77-129)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(73-140)
SMC3 (TOL)	= Toluene-d8	(70-126)
OTHER(BFB)	= Bromofluorobenzene	(79-125)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100422_CFARM2

Level:(low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	S09V000368	96	108	104	97	0
02	S09V000368MS	100	110	106	96	0
03	S09V000368MS	107	117	108	100	0
04	S09V000369	96	106	104	94	0
05	S09V000370	97	111	104	93	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(74-126)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(78-133)
SMC3 (TOL)	= Toluene-d8	(74-128)
OTHER(BFB)	= Bromofluorobenzene	(64-144)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Data File: 10042205LCS.D
Report Date: 08-Jun-2010 19:31

WSCF/222-S

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: LCS
Level: LOW
Data Type: MS DATA
SpikeList File: 2009LCS_SOL.spk
Sublist File: 2009QC.sub
Method File: \\APWSCF02\SLab\chem\Ohura.i\data\V100422CFRM213.b\8260S100407.
Misc Info: C Farm WMC 2010-1

Client SDG: 100422_CFarm2
Fraction: VOA
Client Smp ID: LCS
Operator: awg
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
14 1,1-Dichloroethene	20.000	23.008	115.04	66-141
19 Acetone	100.00	100.78	100.78	58-135
38 2-Butanone	100.00	108.38	108.38	50-149
41 Benzene	20.000	20.583	102.92	70-126
47 Trichloroethene	20.000	19.737	98.69	71-127
49 n-Butanol	200.00	203.90	101.95	53-148
59 Toluene	20.000	21.381	106.90	71-125
60 Methyl Isobutyl Ke	100.00	126.19	126.19	61-145
68 2-Hexanone	100.00	126.54	126.54	59-148
72 Chlorobenzene	20.000	21.348	106.74	81-120

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	20.000	20.971	104.85	77-129
$ 43 1,2-Dichloroethane	20.000	23.272	116.36	73-140
$ 57 Toluene-d8	20.000	23.121	115.61	70-126
$ 79 Bromofluorobenzene	20.000	22.439	112.20	79-125

19080

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100423_CFARM

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	CCB_LIQ	95	101	101	91	0
02	LCS_LIQ	99	104	110	100	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(85-123)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(83-123)
SMC3 (TOL)	= Toluene-d8	(82-121)
OTHER(BFB)	= Bromofluorobenzene	(82-126)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100423_CFARM

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	S10V000310	92	96	104	89	0
02	S10V000310MS	92	101	105	94	0
03	S10V000310MS	96	101	106	94	0
04	S10V000312	93	98	104	95	0
05	S10V000320	90	89	98	88	0
06	S10V000321	92	94	103	91	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(73-136)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(77-132)
SMC3 (TOL)	= Toluene-d8	(86-119)
OTHER(BFB)	= Bromofluorobenzene	(82-128)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Data File: 10042306LCS.D
Report Date: 23-Jun-2010 14:57

WSCF/222-S

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: LCS_Liq
Level: LOW
Data Type: MS DATA
SpikeList File: 2009LCS_LIQ.spk
Sublist File: 2009QC.sub
Method File: \\APWSCF02\slab\chem\Ohura.i\data\V100423CFRMLIQ.b\8260S100407.m
Misc Info: VOA

Client SDG: 100423_CFarm
Fraction: VOA
Client Smp ID: LCS_Liq
Operator: awg
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
14 1,1-Dichloroethene	10.000	10.802	108.02	77-136
19 Acetone	50.000	42.576	85.15	61-136
38 2-Butanone	50.000	48.631	97.26	70-130
41 Benzene	10.000	9.900	99.00	87-120
47 Trichloroethene	10.000	9.562	95.62	82-122
49 n-Butanol	100.00	89.354	89.35	61-143
59 Toluene	10.000	10.242	102.42	87-119
60 Methyl Isobutyl Ke	50.000	55.888	111.78	81-127
68 2-Hexanone	50.000	54.369	108.74	76-134
72 Chlorobenzene	10.000	10.093	100.93	88-119

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	10.000	9.910	99.10	85-123
$ 43 1,2-Dichloroethane	10.000	10.381	103.81	83-123
$ 57 Toluene-d8	10.000	11.059	110.59	82-121
$ 79 Bromofluorobenzene	10.000	10.004	100.04	82-126

19081

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100426_CFARM

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	CCB_LIQ	95	98	103	90	0
02	LCS_LIQ	103	106	114	98	0
03						
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		QC LIMITS
SMC1	= Dibromofluoromethane	(85-123)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(83-123)
SMC3 (TOL)	= Toluene-d8	(82-121)
OTHER(BFB)	= Bromofluorobenzene	(82-126)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100426_CFARM

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER (BFB)#	TOT OUT
01	S10V000311	91	98	105	88	0
02	S10V000322	92	92	102	83	0
03	S10V000323	97	97	106	91	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(73-136)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(77-132)
SMC3 (TOL)	= Toluene-d8	(86-119)
OTHER(BFB)	= Bromofluorobenzene	(82-128)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

page 1 of 1 FORM II VOA

Data File: 10042605LCS.D
Report Date: 27-Jun-2010 14:24

WSCF/222-S

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: LCS_Liq
Level: LOW
Data Type: MS DATA
SpikeList File: 2009LCS_LIQ.spk
Sublist File: 2009QC.sub
Method File: \\apwscf02\slab\chem\Ohura.i\data\V100426CFRMRERUN.b\8260S10040
Misc Info: VOA

Client SDG: 100426_CFarm
Fraction: VOA
Client Smp ID: LCS_Liq
Operator: awg
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
14 1,1-Dichloroethene	10.000	11.137	111.37	77-136
19 Acetone	50.000	61.551	123.10	61-136
38 2-Butanone	50.000	51.286	102.57	70-130
41 Benzene	10.000	10.054	100.54	87-120
47 Trichloroethene	10.000	9.852	98.52	82-122
49 n-Butanol	100.00	106.11	106.11	61-143
59 Toluene	10.000	10.500	105.00	87-119
60 Methyl Isobutyl Ke	50.000	56.852	113.70	81-127
68 2-Hexanone	50.000	55.497	110.99	76-134
72 Chlorobenzene	10.000	10.006	100.06	88-119

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	10.000	10.260	102.60	85-123
$ 43 1,2-Dichloroethane	10.000	10.587	105.87	83-123
$ 57 Toluene-d8	10.000	11.417	114.17	82-121
$ 79 Bromofluorobenzene	10.000	9.780	97.80	82-126

19123

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100428_CFARM

Level:(low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER (BFB)#	TOT OUT
01	CCB_SOL	92	95	99	95	0
02	LCS_SOL	102	107	110	103	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(77-129)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(73-140)
SMC3 (TOL)	= Toluene-d8	(70-126)
OTHER(BFB)	= Bromofluorobenzene	(79-125)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100428_CFARM

Level:(low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER (BFB)#	TOT OUT
01	S10V000371	90	101	96	85	0
02	S10V000371MS	97	110	103	92	0
03	S10V000371MS	94	108	106	94	0
04	S10V000373	95	102	96	90	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(74-126)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(78-133)
SMC3 (TOL)	= Toluene-d8	(74-128)
OTHER(BFB)	= Bromofluorobenzene	(64-144)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Data File: 10042805LCS_SOL.D
Report Date: 15-Jun-2010 14:16

WSCF/222-S

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: LCS_Sol
Level: LOW
Data Type: MS DATA
SpikeList File: 2009LCS_SOL.spk
Sublist File: 2009QC.sub
Method File: \\Apwscf02\slab\chem\Ohura.i\data\V100428CFARMSOL.b\8260S100407.
Misc Info: VOA

Client SDG: 100428_CFarm
Fraction: VOA
Client Smp ID: LCS_Sol
Operator: awg
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
14 1,1-Dichloroethene	20.000	20.450	102.25	66-141
19 Acetone	100.00	95.089	95.09	58-135
38 2-Butanone	100.00	115.25	115.25	50-149
41 Benzene	20.000	19.292	96.46	70-126
47 Trichloroethene	20.000	18.409	92.04	71-127
49 n-Butanol	200.00	227.48	113.74	53-148
59 Toluene	20.000	20.288	101.44	71-125
60 Methyl Isobutyl Ke	100.00	132.23	132.23	61-145
68 2-Hexanone	100.00	128.90	128.90	59-148
72 Chlorobenzene	20.000	20.134	100.67	81-120

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	20.000	20.373	101.86	77-129
$ 43 1,2-Dichloroethane	20.000	21.398	106.99	73-140
$ 57 Toluene-d8	20.000	21.912	109.56	70-126
$ 79 Bromofluorobenzene	20.000	20.522	102.61	79-125

19447

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100517_LIQ

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	CCB_LIQ	97	96	107	98	0
02	LCS_LIQ	98	103	106	101	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(85-123)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(83-123)
SMC3 (TOL)	= Toluene-d8	(82-121)
OTHER (BFB)	= Bromofluorobenzene	(82-126)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100517_LIQ

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	S10V000314	88	86	102	92	0
02	S10V000314MS	91	100	102	97	0
03	S10V000314MS	97	99	109	101	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(73-136)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(77-132)
SMC3 (TOL)	= Toluene-d8	(86-119)
OTHER(BFB)	= Bromofluorobenzene	(82-128)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Data File: 10051708LCS_LIQ.D
Report Date: 29-Jun-2010 16:02

WSCF/222-S

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: LCS_LIQ
Level: LOW
Data Type: MS DATA
SpikeList File: 2009SPK_LIQ.spk
Sublist File: 2009QC.sub
Method File: \\apwscf02\slab\chem\Ohura.i\data\V100517CFm314.b\8260S100516.m
Misc Info: VOA

Client SDG: 100517_LIQ
Fraction: VOA
Client Smp ID: LCS_LIQ
Operator: awg
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
14 1,1-Dichloroethene	10.000	11.877	118.77	62-151
19 Acetone	50.000	75.781	151.56*	55-139
38 2-Butanone	50.000	47.887	95.77	60-146
41 Benzene	10.000	10.096	100.96	86-120
47 Trichloroethene	10.000	9.874	98.74	71-128
49 n-Butanol	100.00	89.062	89.06	73-140
59 Toluene	10.000	10.308	103.08	83-118
60 Methyl Isobutyl Ke	50.000	55.885	111.77	75-137
68 2-Hexanone	50.000	60.314	120.63	71-141
72 Chlorobenzene	10.000	10.198	101.99	88-113

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	10.000	9.788	97.89	85-123
$ 43 1,2-Dichloroethane	10.000	10.335	103.35	83-123
$ 57 Toluene-d8	10.000	10.645	106.45	82-121
$ 79 Bromofluorobenzene	10.000	10.150	101.50	82-126

19485

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100518_CFARM

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	CCB	97	97	107	98	0
02	LCS	97	100	102	96	0
03						
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		QC LIMITS
SMC1	= Dibromofluoromethane	(85-123)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(83-123)
SMC3 (TOL)	= Toluene-d8	(82-121)
OTHER(BFB)	= Bromofluorobenzene	(82-126)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100518_CFARM

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	S10V000315	96	96	105	100	0
02	S10V000315MS	94	95	104	94	0
03	S10V000315MS	96	98	105	96	0
04	S10V000316_S	90	100	100	93	0
05	S10V000324_S	96	95	104	96	0
06	S10V000325_S	104	106	114	103	0
07	S10V000326_S	99	97	108	100	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(73-136)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(77-132)
SMC3 (TOL)	= Toluene-d8	(86-119)
OTHER(BFB)	= Bromofluorobenzene	(82-128)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Data File: 10051807LCSL.D
Report Date: 30-Jun-2010 15:31

WSCF/222-S

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: LCS
Level: LOW
Data Type: MS DATA
SpikeList File: 2009SPK_LIQ.spk
Sublist File: 2009QC.sub
Method File: \\APWSCF02\SLab\chem\Ohura.i\data\V100518_CFARML.b\8260S100516.
Misc Info: VOA

Client SDG: 100518_CFarm
Fraction: VOA
Client Smp ID: LCS
Operator: awg
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
14 1,1-Dichloroethene	10.000	10.909	109.09	62-151
19 Acetone	50.000	79.923	159.85*	55-139
38 2-Butanone	50.000	47.171	94.34	60-146
41 Benzene	10.000	9.776	97.76	86-120
47 Trichloroethene	10.000	9.369	93.69	71-128
49 n-Butanol	100.00	77.123	77.12	73-140
59 Toluene	10.000	9.934	99.34	83-118
60 Methyl Isobutyl Ke	50.000	54.414	108.83	75-137
68 2-Hexanone	50.000	56.366	112.73	71-141
72 Chlorobenzene	10.000	9.654	96.54	88-113

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	10.000	9.723	97.23	85-123
$ 43 1,2-Dichloroethane	10.000	10.000	100.00	83-123
$ 57 Toluene-d8	10.000	10.168	101.68	82-121
$ 79 Bromofluorobenzene	10.000	9.563	95.63	82-126

19486

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100518_CFARMSOIL

Level:(low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER (BFB)#	TOT OUT
01	CCB	108	110	117	116	0
02	LCS	108	113	113	117	0
03						
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		QC LIMITS
SMC1	= Dibromofluoromethane	(77-129)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(73-140)
SMC3 (TOL)	= Toluene-d8	(70-126)
OTHER(BFB)	= Bromofluorobenzene	(79-125)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100518_CFARMSOIL

Level: (low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	S10V000376	102	112	102	98	0
02	S10V000376MS	105	116	104	101	0
03	S10V000376MS	105	111	106	100	0
04	S10V000375_S	105	114	106	104	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(74-126)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(78-133)
SMC3 (TOL)	= Toluene-d8	(74-128)
OTHER (BFB)	= Bromofluorobenzene	(64-144)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Data File: 10051809LCSS.D
Report Date: 29-Jun-2010 15:10

WSCF/222-S

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: LCS
Level: LOW
Data Type: MS DATA
SpikeList File: 2009LCS_SOL.spk
Sublist File: 2009QC.sub
Method File: \\apwscf02\slab\chem\Ohura.i\data\V100518_CFARMsol.b\8260S100516
Misc Info: VOA

Client SDG: 100518_CFarmSoil
Fraction: VOA
Client Smp ID: LCS
Operator: awg
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
14 1,1-Dichloroethene	20.000	23.275	116.38	66-141
19 Acetone	100.00	125.74	125.74	58-135
38 2-Butanone	100.00	105.19	105.19	50-149
41 Benzene	20.000	21.606	108.03	70-126
47 Trichloroethene	20.000	20.292	101.46	71-127
49 n-Butanol	200.00	167.93	83.96	53-148
59 Toluene	20.000	21.852	109.26	71-125
60 Methyl Isobutyl Ke	100.00	126.02	126.02	61-145
68 2-Hexanone	100.00	130.68	130.68	59-148
72 Chlorobenzene	20.000	21.612	108.06	81-120

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	20.000	21.588	107.94	77-129
$ 43 1,2-Dichloroethane	20.000	22.591	112.95	73-140
$ 57 Toluene-d8	20.000	22.606	113.03	70-126
$ 79 Bromofluorobenzene	20.000	23.364	116.82	79-125

19566

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100524_CFARM

Level:(low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER (BFB)#	TOT OUT
01	S10V000378	96	97	102	106	0
02	S10V000128	103	112	98	103	0
03	S10V000142	100	114	106	106	0
04	S10V000378MS	108	127	105	111	0
05	S10V000378MS	110	129	109	116	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(74-126)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(78-133)
SMC3 (TOL)	= Toluene-d8	(74-128)
OTHER(BFB)	= Bromofluorobenzene	(64-144)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100524_CFARM

Level:(low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	CCB	96	100	111	107	0
02	LCS	98	105	105	102	0
03	CCB	93	98	96	92	0
04	LCS	101	104	100	98	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(77-129)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(73-140)
SMC3 (TOL)	= Toluene-d8	(70-126)
OTHER(BFB)	= Bromofluorobenzene	(79-125)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Data File: 10052424LCSs.D
Report Date: 06-Jul-2010 14:32

WSCF/222-S

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: LCS
Level: LOW
Data Type: MS DATA
SpikeList File: 2009LCS_SOL.spk
Sublist File: 2009QC.sub
Method File: \\Apwscf02\slab\chem\Ohura.i\data\V100524CFARM.b\8260S100516.m
Misc Info: VOA

Client SDG: 100524_CFARM
Fraction: VOA
Client Smp ID: LCS
Operator: tam
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
14 1,1-Dichloroethene	20.000	18.929	94.65	66-141
19 Acetone	100.00	140.22	140.22*	58-135
38 2-Butanone	100.00	112.41	112.41	50-149
41 Benzene	20.000	19.149	95.75	70-126
47 Trichloroethene	20.000	17.992	89.96	71-127
49 n-Butanol	200.00	178.79	89.40	53-148
59 Toluene	20.000	19.334	96.67	71-125
60 Methyl Isobutyl Ke	100.00	128.18	128.19	61-145
68 2-Hexanone	100.00	135.01	135.01	59-148
72 Chlorobenzene	20.000	19.261	96.30	81-120

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	20.000	20.271	101.35	77-129
$ 43 1,2-Dichloroethane	20.000	20.876	104.38	73-140
$ 57 Toluene-d8	20.000	20.000	100.00	70-126
$ 79 Bromofluorobenzene	20.000	19.677	98.38	79-125

19680

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100524_CFARM

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	CCB	98	100	110	102	0
02	LCS	96	96	109	101	0
03						
04						
05						
06						
07						
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		QC LIMITS
SMC1	= Dibromofluoromethane	(85-123)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(83-123)
SMC3 (TOL)	= Toluene-d8	(82-121)
OTHER(BFB)	= Bromofluorobenzene	(82-126)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100524_CFARM

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER (BFB)#	TOT OUT
01	S10V000105	98	98	112	101	0
02	S10V000105MS	100	103	107	100	0
03	S10V000105MS	100	106	107	103	0
04	S10V000317	93	99	105	100	0
05	S10V000327	98	100	106	101	0
06	S10V000106	101	105	109	101	0
07	S10V000095	95	98	101	95	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(73-136)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(77-132)
SMC3 (TOL)	= Toluene-d8	(86-119)
OTHER(BFB)	= Bromofluorobenzene	(82-128)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Data File: 10052407LCSL.D
Report Date: 01-Jul-2010 15:44

WSCF/222-S

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: LCS
Level: LOW
Data Type: MS DATA
SpikeList File: 2009LCS_LIQ.spk
Sublist File: 2009QC.sub
Method File: \\apwscf02\slab\chem\Ohura.i\data\V100524CFARM_LIQ.b\8260S100516
Misc Info: VOA

Client SDG: 100524_CFARM
Fraction: VOA
Client Smp ID: LCS
Operator: tam
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
14 1,1-Dichloroethene	10.000	10.135	101.35	77-136
19 Acetone	50.000	85.948	171.90*	61-136
38 2-Butanone	50.000	48.570	97.14	70-130
41 Benzene	10.000	9.509	95.09	87-120
47 Trichloroethene	10.000	9.060	90.60	82-122
49 n-Butanol	100.00	81.747	81.75	61-143
59 Toluene	10.000	10.356	103.56	87-119
60 Methyl Isobutyl Ke	50.000	61.369	122.74	81-127
68 2-Hexanone	50.000	62.439	124.88	76-134
72 Chlorobenzene	10.000	10.213	102.13	88-119

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	10.000	9.618	96.18	85-123
$ 43 1,2-Dichloroethane	10.000	9.644	96.44	83-123
$ 57 Toluene-d8	10.000	10.874	108.74	82-121
$ 79 Bromofluorobenzene	10.000	10.142	101.42	82-126

20082

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100429_CFARM

Level:(low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	CCB_SOL	93	98	100	90	0
02	LCS_SOL	96	100	103	93	0
03						
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		QC LIMITS
SMC1	= Dibromofluoromethane	(77-129)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(73-140)
SMC3 (TOL)	= Toluene-d8	(70-126)
OTHER(BFB)	= Bromofluorobenzene	(79-125)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100429_CFARM

Level:(low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER (BFB)#	TOT OUT
01	S10V000374	92	96	97	87	0
02	S10V000374MS	99	108	106	92	0
03	S10V000374MS	100	107	103	90	0
04						
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		QC LIMITS
SMC1	= Dibromofluoromethane	(74-126)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(78-133)
SMC3 (TOL)	= Toluene-d8	(74-128)
OTHER(BFB)	= Bromofluorobenzene	(64-144)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Data File: 10042906LCS_SOL.D
Report Date: 21-Jun-2010 15:06

WSCF/222-S

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: LCS_Sol
Level: LOW
Data Type: MS DATA
SpikeList File: 2009LCS_SOL.spk
Sublist File: 2009QC.sub
Method File: \\apwscf02\slab\chem\Ohura.i\data\V100429CFRMSOL.b\8260S100407.m
Misc Info: VOA

Client SDG: 100429_CFarm
Fraction: VOA
Client Smp ID: LCS_Sol
Operator: awg
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
14 1,1-Dichloroethene	20.000	18.460	92.30	66-141
19 Acetone	100.00	85.963	85.96	58-135
38 2-Butanone	100.00	106.72	106.73	50-149
41 Benzene	20.000	18.169	90.84	70-126
47 Trichloroethene	20.000	17.362	86.81	71-127
49 n-Butanol	200.00	198.05	99.02	53-148
59 Toluene	20.000	18.896	94.48	71-125
60 Methyl Isobutyl Ke	100.00	125.54	125.54	61-145
68 2-Hexanone	100.00	123.08	123.08	59-148
72 Chlorobenzene	20.000	18.816	94.08	81-120

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	20.000	19.257	96.29	77-129
$ 43 1,2-Dichloroethane	20.000	19.978	99.89	73-140
$ 57 Toluene-d8	20.000	20.689	103.44	70-126
$ 79 Bromofluorobenzene	20.000	18.529	92.65	79-125

20256

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100428_CFARM

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	CCB_LIQ	89	90	97	88	0
02	LCS_LIQ	89	94	103	91	0
03						
04						
05						
06						
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		QC LIMITS
SMC1	= Dibromofluoromethane	(85-123)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(83-123)
SMC3 (TOL)	= Toluene-d8	(82-121)
OTHER(BFB)	= Bromofluorobenzene	(82-126)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 100428_CFARM

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	S10V000313	85	85	99	87	0
02	S10V000313MS	89	92	100	90	0
03	S10V000313MS	96	101	109	97	0
04						
05						
06						
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		QC LIMITS
SMC1	= Dibromofluoromethane	(73-136)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(77-132)
SMC3 (TOL)	= Toluene-d8	(86-119)
OTHER(BFB)	= Bromofluorobenzene	(82-128)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Data File: 10042807LCS_LIQ.D
Report Date: 27-Jun-2010 16:02

WSCF/222-S

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: LCS_Liq
Level: LOW
Data Type: MS DATA
SpikeList File: 2009LCS_LIQ.spk
Sublist File: 2009QC.sub
Method File: \\Apwscf02\slab\chem\Ohura.i\data\V100428CFRMLIQ.b\8260S100407.
Misc Info: VOA

Client SDG: 100428_CFarm
Fraction: VOA
Client Smp ID: LCS_Liq
Operator: awg
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
14 1,1-Dichloroethene	10.000	9.556	95.56	77-136
19 Acetone	50.000	41.166	82.33	61-136
38 2-Butanone	50.000	41.613	83.23	70-130
41 Benzene	10.000	8.750	87.50	87-120
47 Trichloroethene	10.000	8.565	85.65	82-122
49 n-Butanol	100.00	77.150	77.15	61-143
59 Toluene	10.000	9.538	95.38	87-119
60 Methyl Isobutyl Ke	50.000	49.172	98.34	81-127
68 2-Hexanone	50.000	46.600	93.20	76-134
72 Chlorobenzene	10.000	9.282	92.82	88-119

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	10.000	8.935	89.35	85-123
$ 43 1,2-Dichloroethane	10.000	9.362	93.62	83-123
$ 57 Toluene-d8	10.000	10.281	102.81	82-121
$ 79 Bromofluorobenzene	10.000	9.065	90.65	82-126

FORM 2

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: CFARMWMC2010-1

Level: (low/med) LOW

	CHG SAMPLE NO.	S1 (FBP) #	S2 (2FP) #	S3 (NBZ) #	S4 #	S5 (TBP) #	S6 (TPH) #	S7 #	S8 #	TOT OUT
01	BLANK	72	67	67	72	74	93			0
02	LCS	72	66	68	70	79	91			0
03	S09V000418	77	72	70	77	84	95			0
04	S09V000418MS	79	78	76	83	91	95			0
05	S09V000418MS	73	68	66	74	92	94			0
06	S09V000576	77	76	71	81	88	92			0
07	S09V000628	72	68	63	71	85	88			0
08	S09V001616	79	77	72	82	91	92			0
09	S09V001628	81	75	69	81	93	92			0
10										
11										
12										
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		QC LIMITS
S1 (FBP)	= 2-Fluorobiphenyl	(10-147)
S2 (2FP)	= 2-Fluorophenol	(0-127)
S3 (NBZ)	= Nitrobenzene-d5	(0-125)
S4	= Phenol-d6	(37-125)
S5 (TBP)	= 2,4,6-Tribromophenol	(40-176)
S6 (TPH)	= Terphenyl-d14	(71-175)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 3
SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: CFARMWMC2010-1

Matrix Spike - CHG Sample No.: LCS Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
1,2,4-Trichlorobenzene	2000.0		1332.5	67	2-128
2,4-Dinitrotoluene	2000.0		1745.5	87	55-111
Acenaphthene	2000.0		1443.4	72	36-114
4-Chloro-3-Methylphenol	4000.0		2900.5	72	42-103
2-Chlorophenol	4000.0		2745.4	69	28-111
N-Nitroso-di-n-prop.(1)	2000.0		1342.5	67	18-108
Pyrene	2000.0		1878.6	94	64-113

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 7 outside limits

COMMENTS:

FORM III SV

19296

FORM 2
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: CFARMWMC2010_1

Level:(low/med) LOW

	CHG SAMPLE NO.	S1 (FBP)#	S2 (2FP)#	S3 (NBZ)#	S4 #	S5 (TBP)#	S6 (TPH)#	S7 #	S8 #	TOT OUT
01	BLANK	74	70	74	75	76	93			0
02	LCS	76	72	77	76	81	98			0
03	S10V000637	76	68	71	74	86	92			0
04	S09V000655	73	60	63	66	83	90			0
05	S09V000664	66	59	60	63	78	94			0
06	S09V000664MS	71	67	69	72	85	90			0
07	S09V000664MS	73	70	70	76	87	90			0
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09										
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		QC LIMITS
S1 (FBP)	= 2-Fluorobiphenyl	(10-147)
S2 (2FP)	= 2-Fluorophenol	(0-127)
S3 (NBZ)	= Nitrobenzene-d5	(0-125)
S4	= Phenol-d6	(37-125)
S5 (TBP)	= 2,4,6-Tribromophenol	(40-176)
S6 (TPH)	= Terphenyl-d14	(71-175)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 3
SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: CFARMWMC2010_1

Matrix Spike - CHG Sample No.: LCS Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
1,2,4-Trichlorobenzene	20000		14482	72	2-128
2,4-Dinitrotoluene	20000		17712	88	55-111
Acenaphthene	20000		15204	76	36-114
4-Chloro-3-Methylphenol	40000		30255	76	42-103
2-Chlorophenol	40000		29605	74	28-111
N-Nitroso-di-n-prop.(1)	20000		14596	73	18-108
Pyrene	20000		19938	100	64-113

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 7 outside limits

COMMENTS: _____

FORM III SV

19488

FORM 2
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: CFARMWMC

Level:(low/med) LOW

	CHG SAMPLE NO.	S1 (FBP)#	S2 (2FP)#	S3 (NBZ)#	S4 #	S5 (TBP)#	S6 (TPH)#	S7 #	S8 #	TOT OUT
01	BLANK	70	67	67	68	73	86			0
02	LCS	66	62	63	64	73	80			0
03	S10V000673	64	61	60	63	73	80			0
04	S10V000673MS	68	64	65	66	75	82			0
05	S10V000673MS	61	61	62	65	74	78			0
06	S10V000682	62	60	58	63	73	75			0
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		QC LIMITS
S1 (FBP)	= 2-Fluorobiphenyl	(10-147)
S2 (2FP)	= 2-Fluorophenol	(0-127)
S3 (NBZ)	= Nitrobenzene-d5	(0-125)
S4	= Phenol-d6	(37-125)
S5 (TBP)	= 2,4,6-Tribromophenol	(40-176)
S6 (TPH)	= Terphenyl-d14	(71-175)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 3
SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: CFARMWMC

Matrix Spike - CHG Sample No.: LCS Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
1,2,4-Trichlorobenzene	2000.0		1275.2	64	2-128
2,4-Dinitrotoluene	2000.0		1605.3	80	55-111
Acenaphthene	2000.0		1358.2	68	36-114
4-Chloro-3-Methylphenol	4000.0		2711.0	68	42-103
2-Chlorophenol	4000.0		2650.4	66	28-111
N-Nitroso-di-n-prop.(1)	2000.0		1231.8	62	18-108
Pyrene	2000.0		1581.9	79	64-113

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 7 outside limits

COMMENTS: _____

FORM III SV

FORM 2
SOIL SEMIVOLATILE SURROGATE RECOVERY

Batch # 19779

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: CFARMG

Level:(low/med) LOW

	CHG SAMPLE NO.	S1 (FBP)#	S2 (2FP)#	S3 (NBZ)#	S4 #	S5 (TBP)#	S6 (TPH)#	S7 #	S8 #	TOT OUT
01	BLANK	80	78	77	84	92	102			0
02	LCS	84	84	81	89	105	113			0
03	S10V000691	97	86	84	97	109	106			0
04	S10V000691MS	94	84	81	96	110	106			0
05	S10V000691MS	96	89	86	99	119	110			0
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		QC LIMITS
S1 (FBP)	= 2-Fluorobiphenyl	(10-147)
S2 (2FP)	= 2-Fluorophenol	(0-127)
S3 (NBZ)	= Nitrobenzene-d5	(0-125)
S4	= Phenol-d6	(37-125)
S5 (TBP)	= 2,4,6-Tribromophenol	(40-176)
S6 (TPH)	= Terphenyl-d14	(71-175)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 3
SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: CFARMG

Matrix Spike - CHG Sample No.: LCS Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
1,2,4-Trichlorobenzene	2000.0		1523.0	76	2-128
2,4-Dinitrotoluene	2000.0		2033.3	102	55-111
Acenaphthene	2000.0		1674.2	84	36-114
4-Chloro-3-Methylphenol	4000.0		3836.7	96	42-103
2-Chlorophenol	4000.0		3173.5	79	28-111
N-Nitroso-di-n-prop.(1)	2000.0		1407.5	70	18-108
Pyrene	2000.0		2197.2	110	64-113

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 7 outside limits

COMMENTS: _____

FORM III SV

Attachment 5

TICs FOR ORGANIC ANALYSES

11-Mar-2011 13:3310
DSRTICHardcopy 2.7.26a
DSR.Jar v. 2.7.27

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B238F5

Sample Depth: Trip Blank-1

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000320				Unknown-1		15.32	ug/L	6.0	BJ
S10V000320				Unknown-2		17.04	ug/L	3.6	J
S10V000320			BLNK	Chlorodifluoromethane	75-45-6	5.03	ug/L	1.8	
S10V000320			BLNK	Unknown-1		15.32	ug/L	1.0	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

11-Mar-2011 13:3310
DSRTICHardcopy 2.7.26a
DSR.Jar v. 2.7.27

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B238F6

Sample Depth: Trip Blank-2

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000321				Isopropyl Alcohol	67-63-0	8.19	ug/L	2.5	JN
S10V000321				Unknown-1		15.32	ug/L	5.7	BJ
S10V000321				Unknown-2		17.04	ug/L	4.4	J
S10V000321			BLNK	Chlorodifluoromethane	75-45-6	5.03	ug/L	1.8	
S10V000321			BLNK	Unknown-1		15.32	ug/L	1.0	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

11-Mar-2011 13:3310
DSRTICHardcopy 2.7.26a
DSR.Jar v. 2.7.27

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MP2

Sample Depth: Trip Blank-3

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000322				Unknown-1		15.32	ug/L	5.2	BJ
S10V000322				Unknown-2		17.04	ug/L	2.8	J
S10V000322			BLNK	Chlorodifluoromethane	75-45-6	5.04	ug/L	2.4	
S10V000322			BLNK	Unknown-1		15.32	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MP3

Sample Depth: Trip Blank-4

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000323				Unknown-1		15.32	ug/L	9.7	BJ
S10V000323				Unknown-2		17.04	ug/L	5.8	J
S10V000323			BLNK	Chlorodifluoromethane	75-45-6	5.04	ug/L	2.4	
S10V000323			BLNK	Unknown-1		15.32	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

11-Mar-2011 13:3310
DSRTICHardcopy 2.7.26a
DSR.Jar v. 2.7.27

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MP4

Sample Depth: Trip Blank-5

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000324				Unknown-1		15.32	ug/L	3.3	BJ
S10V000324				Unknown-2		17.04	ug/L	3.4	J
S10V000324			BLNK	Unknown-1		15.32	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MP5

Sample Depth: Trip Blank-6

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000325				Unknown-1		15.32	ug/L	4.7	BJ
S10V000325				Unknown-2		17.04	ug/L	2.8	J
S10V000325			BLNK	Unknown-1		15.32	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MP6

Sample Depth: Trip Blank-7

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000326				Unknown-1		15.32	ug/L	12	BJ
S10V000326				Unknown-2		17.04	ug/L	8.1	J
S10V000326			BLNK	Unknown-1		15.32	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MP7

Sample Depth: Trip Blank-8

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000327			BLNK	Unknown-1		8.20	ug/L	0.65	
S10V000327			BLNK	Unknown-2		8.56	ug/L	0.32	
S10V000327			BLNK	Unknown-3		10.08	ug/L	0.49	
S10V000327			BLNK	Unknown-4		15.32	ug/L	2.3	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR0

Sample Depth: Field Blank-1

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000310				Unknown-1		6.23	ug/L	1.7	J
S10V000310				Unknown-2		15.32	ug/L	4.7	BJ
S10V000310				Unknown-3		17.04	ug/L	2.8	J
S10V000310			BLNK	Chlorodifluoromethane	75-45-6	5.03	ug/L	1.8	
S10V000310			BLNK	Unknown-1		15.32	ug/L	1.0	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR1

Sample Depth: Field Blank-2

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000311				Unknown-1		17.04	ug/L	5.0	J
S10V000311			BLNK	Chlorodifluoromethane	75-45-6	5.04	ug/L	2.4	
S10V000311			BLNK	Unknown-1		15.32	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR2

Sample Depth: Field Blank-3

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000312				Unknown-1		15.32	ug/L	3.3	BJ
S10V000312				Unknown-2		17.04	ug/L	1.6	J
S10V000312			BLNK	Chlorodifluoromethane	75-45-6	5.03	ug/L	1.8	
S10V000312			BLNK	Unknown-1		15.32	ug/L	1.0	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR3

Sample Depth: Field Blank-4

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000313				Unknown-1		15.32	ug/L	7.4	J
S10V000313				Unknown-2		17.04	ug/L	4.4	J
S10V000313			BLNK	Unknown-1		15.32	ug/L	1.8	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR4

Sample Depth: Field Blank-5

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000314				Trimethylsilanol	1066-40-6	10.08	ug/L	1.6	BJN
S10V000314				Unknown-1		15.32	ug/L	1.7	BJ
S10V000314			BLNK	Silanol, trimethyl-	1066-40-6	10.08	ug/L	1.6	
S10V000314			BLNK	Unknown-1		15.32	ug/L	2.9	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR5

Sample Depth: Field Blank-6

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000315				Unknown-1		9.13	ug/L	2.1	J
S10V000315				Unknown-2		15.32	ug/L	2.2	BJ
S10V000315				Unknown-3		17.04	ug/L	1.4	J
S10V000315			BLNK	Unknown-1		15.32	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR6

Sample Depth: Field Blank-7

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000316				Unknown-1		15.32	ug/L	3.6	BJ
S10V000316				Unknown-2		17.04	ug/L	2.5	J
S10V000316			BLNK	Unknown-1		15.32	ug/L	1.3	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100160

Core Number: C7670

Customer Sample ID: B23MR7

Sample Depth: Field Blank-8

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000317			BLNK	Unknown-1		8.20	ug/L	0.65	
S10V000317			BLNK	Unknown-2		8.56	ug/L	0.32	
S10V000317			BLNK	Unknown-3		10.08	ug/L	0.49	
S10V000317			BLNK	Unknown-4		15.32	ug/L	2.3	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B238J9

Sample Depth: 5-7

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000628		O		Unknown-1		12.34	ug/kg	310	BJ
S10V000628		O		Unknown-2		12.38	ug/kg	270	BJ
S10V000628		O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	300	BJN
S10V000628		O	BLNK	Unknown-1		12.34	ug/kg	510	
S10V000628		O	BLNK	Unknown-2		12.38	ug/kg	430	
S10V000628		O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.03	ug/kg	430	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KN7

Sample Depth: Surface Dup

Sample# R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000576	O		Unknown-1		12.34	ug/kg	850	BJ
S10V000576	O		Unknown-2		12.38	ug/kg	610	BJ
S10V000576	O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	250	BJN
S10V000576	O		Bromacil	314-40-9	15.70	ug/kg	290	JN
S10V000576	O	BLNK	Unknown-1		12.34	ug/kg	510	
S10V000576	O	BLNK	Unknown-2		12.38	ug/kg	430	
S10V000576	O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.03	ug/kg	430	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

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Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KP6

Sample Depth: 14-16

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000655		O		Unknown-1		12.33	ug/kg	700	BJ
S10V000655		O		Unknown-2		19.99	ug/kg	640	J
S10V000655		O		Unknown-3		20.19	ug/kg	1.5E+03	J
S10V000655		O		Unknown-4		20.27	ug/kg	520	J
S10V000655		O		Unknown-5		20.39	ug/kg	2.6E+03	J
S10V000655		O		Unknown-6		20.43	ug/kg	1.6E+03	J
S10V000655		O		Unknown-7		20.47	ug/kg	550	J
S10V000655		O		Unknown-8		20.58	ug/kg	2.5E+03	J
S10V000655		O		Unknown-9		20.65	ug/kg	3.4E+03	J
S10V000655		O		Unknown-10		20.73	ug/kg	1.6E+03	J
S10V000655		O		Unknown-11		20.77	ug/kg	4.4E+03	J
S10V000655		O		Unknown-12		20.81	ug/kg	1000	J
S10V000655		O		Unknown-13		20.86	ug/kg	3.1E+03	J
S10V000655		O		Unknown-14		20.90	ug/kg	1.5E+03	J
S10V000655		O		Unknown-15		20.96	ug/kg	2.8E+03	J
S10V000655		O		Unknown-16		21.04	ug/kg	3.5E+03	J
S10V000655		O		Unknown-17		21.12	ug/kg	2.3E+03	J
S10V000655		O		Unknown-18		21.14	ug/kg	2.3E+03	J
S10V000655		O		Unknown-19		21.24	ug/kg	2.0E+03	J
S10V000655		O		Unknown-20		21.35	ug/kg	1.1E+03	J
S10V000655		O	BLNK	Unknown-1		12.34	ug/kg	2.9E+03	
S10V000655		O	BLNK	Unknown-2		12.38	ug/kg	2.3E+03	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KP8

Sample Depth: 14-16

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000373				Unknown-1		8.48	ug/kg	2.1	J

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KP9

Sample Depth: 39-41

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000664		O		Unknown-1		12.32	ug/kg	400	BJ
S10V000664		O		Unknown-2		12.37	ug/kg	230	BJ
S10V000664		O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	620	JN
S10V000664		O		Trichloroacetic acid,	74339-54-1	18.89	ug/kg	200	JN
S10V000664		O	BLNK	Unknown-1		12.34	ug/kg	2.9E+03	
S10V000664		O	BLNK	Unknown-2		12.38	ug/kg	2.3E+03	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KR1

Sample Depth: 39-41

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000374				Unknown-1		17.04	ug/kg	2.9	J

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KR2

Sample Depth: 139-141

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000673		O		Unknown-1		12.34	ug/kg	1.4E+03	BJ
S10V000673		O		Unknown-2		12.38	ug/kg	920	BJ
S10V000673		O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	460	BJN
S10V000673		O	BLNK	Unknown-1		12.34	ug/kg	360	
S10V000673		O	BLNK	Unknown-2		12.38	ug/kg	270	
S10V000673		O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	380	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KR4

Sample Depth: 139-141

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000375				Unknown-1		5.54	ug/kg	2.3	J
S10V000375			BLNK	p-Terphenyl	92-94-4	19.76	ug/kg	30	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KR5

Sample Depth: 163-165

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000682		O		Unknown-1		12.33	ug/kg	600	BJ
S10V000682		O		Unknown-2		12.38	ug/kg	400	BJ
S10V000682		O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	200	BJN
S10V000682		O	BLNK	Unknown-1		12.34	ug/kg	360	
S10V000682		O	BLNK	Unknown-2		12.38	ug/kg	270	
S10V000682		O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	380	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KR7

Sample Depth: 163-165

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000376				Heptane, 2,4-dimethyl-	2213-23-2	13.33	ug/kg	2.4	JN
S10V000376				Unknown-1		16.35	ug/kg	2.4	J
S10V000376				Unknown Hydrocarbon-2		18.71	ug/kg	2.0	J
S10V000376			BLNK	p-Terphenyl	92-94-4	19.76	ug/kg	30	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23KT3

Sample Depth: 222-224

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000378				Unknown-1		7.43	ug/kg	7.0	J
S10V000378				Unknown-2		10.08	ug/kg	1.9	BJ
S10V000378				Unknown-3		15.62	ug/kg	2.2	J
S10V000378				m-Terphenyl	92-06-8	19.75	ug/kg	24	JN
S10V000378			BLNK	Unknown-1		10.08	ug/kg	0.91	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B23R25

Sample Depth: Surface

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000418		O		Ethanol, 2-(2-butoxyet	112-34-5	9.21	ug/kg	230	JN
S10V000418		O		Unknown-1		12.34	ug/kg	1.1E+03	BJ
S10V000418		O		Unknown-2		12.38	ug/kg	720	BJ
S10V000418		O		Bromacil	314-40-9	15.70	ug/kg	300	JN
S10V000418		O	BLNK	Unknown-1		12.34	ug/kg	510	
S10V000418		O	BLNK	Unknown-2		12.38	ug/kg	430	
S10V000418		O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.03	ug/kg	430	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B25CN2

Sample Depth: 10-14

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000637		O		Unknown-1		12.34	ug/kg	1.1E+03	BJ
S10V000637		O		Unknown-2		12.38	ug/kg	720	BJ
S10V000637		O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	400	JN
S10V000637		O		1-Nonadecene	18435-45-5	18.89	ug/kg	260	JN
S10V000637		O	BLNK	Unknown-1		12.34	ug/kg	2.9E+03	
S10V000637		O	BLNK	Unknown-2		12.38	ug/kg	2.3E+03	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Data Summary and Opportunistic Analyte Results

Sample Group: 20100213

Core Number: C7670

Customer Sample ID: B25ND7

Sample Depth: 220-224

Sample#	R	A#	QC Type	Analyte	CAS No.	Retention Time (Minutes)	Unit	Result	Qual Flags
S10V000691		O		Unknown-1		12.34	ug/kg	1.7E+03	BJ
S10V000691		O		Unknown-2		12.38	ug/kg	1.5E+03	BJ
S10V000691		O		1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	920	BJN
S10V000691		O		Hexadecanoic acid (9Cl)	57-10-3	15.62	ug/kg	1.9E+03	JN
S10V000691		O		Ricinoleic acid	141-22-0	18.00	ug/kg	2.8E+03	JN
S10V000691		O		Unknown-3		19.99	ug/kg	1000	J
S10V000691		O		Unknown-4		20.12	ug/kg	1.2E+03	J
S10V000691		O		Unknown-5		20.18	ug/kg	1.3E+03	J
S10V000691		O		1,2 -Benzenedicarboxyl	84-76-4	20.38	ug/kg	1.8E+03	JN
S10V000691		O		Unknown-6		20.42	ug/kg	1.3E+03	J
S10V000691		O		Unknown-7		20.57	ug/kg	2.0E+03	J
S10V000691		O		Unknown-8		20.64	ug/kg	2.7E+03	J
S10V000691		O		Unknown-9		20.73	ug/kg	1.3E+03	J
S10V000691		O		Unknown-10		20.76	ug/kg	3.8E+03	J
S10V000691		O		Unknown-11		20.84	ug/kg	2.5E+03	J
S10V000691		O		Unknown-12		20.95	ug/kg	1.8E+03	J
S10V000691		O		Unknown-13		21.03	ug/kg	2.7E+03	J
S10V000691		O		Unknown-14		21.11	ug/kg	1.6E+03	J
S10V000691		O		Unknown-15		21.15	ug/kg	1.9E+03	J
S10V000691		O		Unknown-16		21.23	ug/kg	1.6E+03	J
S10V000691		O	BLNK	Unknown-1		12.33	ug/kg	620	
S10V000691		O	BLNK	Unknown-2		12.37	ug/kg	450	
S10V000691		O	BLNK	1,2-Benzenedicarboxyli	84-69-5	15.02	ug/kg	320	

NA = Not Analyzed, ND = Not Detectec

B - Blank Contamination
T - MS/MSD Outside Range
U - Less Than Detection Limit
J - Estimated
N - Named TIC

Attachment 6

ANALYTICAL BATCH AND LABORATORY SAMPLE ID INDEX

Batch/Sample Index

Project: C Farm WMC 2010-1
Groups: 20100213, 20100160

METHOD	BATCH	SAMPLE	MATRIX
%WATER-APD	00022597	S10V000401	SOLID
%WATER-APD	00022597	S10V000402	SOLID
%WATER-APD	00022597	S10V000403	SOLID
%WATER-APD	00022597	S10V000404	SOLID
%WATER-APD	00022597	S10V000406	SOLID
%WATER-APD	00022597	S10V000407	SOLID
%WATER-APD	00022597	S10V000408	SOLID
%WATER-APD	00022597	S10V000409	SOLID
%WATER-APD	00022597	S10V000410	SOLID
AMERICIUM	00019965	S10V000572	SOLID
AMERICIUM	00019965	S10V000625	SOLID
AMERICIUM	00019965	S10V000633	SOLID
AMERICIUM	00019965	S10V000642	SOLID
AMERICIUM	00019965	S10V000660	SOLID
AMERICIUM	00019965	S10V000669	SOLID
AMERICIUM	00019965	S10V000678	SOLID
AMERICIUM	00019965	S10V000687	SOLID
AMERICIUM	00019965	S10V000696	SOLID
BULK DENSITY	00024009	S10V000412	SOLID
BULK DENSITY	00024009	S10V000821	SOLID
BULK DENSITY	00024009	S10V000824	SOLID
BULK DENSITY	00024009	S10V000827	SOLID
BULK DENSITY	00024009	S10V000828	SOLID
BULK DENSITY	00024009	S10V000829	SOLID
BULK DENSITY	00024009	S10V000831	SOLID
BULK DENSITY	00024009	S10V000837	SOLID
CARBON-14	00021356	S10V000577	SOLID
CARBON-14	00021356	S10V000629	SOLID
CARBON-14	00021356	S10V001175	SOLID
CARBON-14	00021356	S10V001178	SOLID
CARBON-14	00021356	S10V001179	SOLID
CARBON-14	00021356	S10V001180	SOLID
CARBON-14	00021356	S10V001181	SOLID
CARBON-14	00021356	S10V001182	SOLID
CARBON-14	00021356	S10V001183	SOLID
CN - EDTA	00019042	S10V000401	SOLID
CN - EDTA	00019042	S10V000402	SOLID
CN - EDTA	00019042	S10V000403	SOLID
CN - EDTA	00019150	S10V000404	SOLID
CN - EDTA	00019150	S10V000406	SOLID
CN - EDTA	00019150	S10V000407	SOLID
CN - EDTA	00019456	S10V000408	SOLID
CN - EDTA	00019456	S10V000409	SOLID
CN - EDTA	00019456	S10V000410	SOLID
GEA	00019658	S10V000571	SOLID
GEA	00019658	S10V000575	SOLID
GEA	00019658	S10V000623	SOLID
GEA	00019658	S10V000636	SOLID
GEA	00019658	S10V000654	SOLID
GEA	00019658	S10V000663	SOLID
GEA	00019658	S10V000672	SOLID
GEA	00019658	S10V000681	SOLID
GEA	00019658	S10V000690	SOLID

METHOD	BATCH	SAMPLE	MATRIX
HG	00019066	S10V000401	SOLID
HG	00019066	S10V000402	SOLID
HG	00019066	S10V000403	SOLID
HG	00019066	S10V000404	SOLID
HG	00019066	S10V000406	SOLID
HG	00019066	S10V000407	SOLID
HG	00019426	S10V000408	SOLID
HG	00019426	S10V000409	SOLID
HG	00019426	S10V000410	SOLID
IC - ANIONS	00019058	S10V000629	SOLID
IC - ANIONS	00019147	S10V000638	SOLID
IC - ANIONS	00019147	S10V000656	SOLID
IC - ANIONS	00019147	S10V000665	SOLID
IC - ANIONS	00019446	S10V000674	SOLID
IC - ANIONS	00019446	S10V000683	SOLID
IC - ANIONS	00019446	S10V000692	SOLID
IC - ANIONS	00022897	S10V000419	SOLID
IC - ANIONS	00022897	S10V000577	SOLID
IC - NH4	00019029	S10V000421	SOLID
IC - NH4	00019029	S10V000579	SOLID
IC - NH4	00019029	S10V000631	SOLID
IC - NH4	00019076	S10V000640	SOLID
IC - NH4	00019076	S10V000658	SOLID
IC - NH4	00019076	S10V000667	SOLID
IC - NH4	00019246	S10V000676	SOLID
IC - NH4	00019420	S10V000685	SOLID
IC - NH4	00019420	S10V000694	SOLID
ICP/AES METALS	00019876	S10V000420	SOLID
ICP/AES METALS	00019876	S10V000578	SOLID
ICP/AES METALS	00019876	S10V000630	SOLID
ICP/AES METALS	00019876	S10V000639	SOLID
ICP/AES METALS	00019876	S10V000657	SOLID
ICP/AES METALS	00020066	S10V000420	SOLID
ICP/AES METALS	00020066	S10V000578	SOLID
ICP/AES METALS	00020066	S10V000630	SOLID
ICP/AES METALS	00020066	S10V000639	SOLID
ICP/AES METALS	00020066	S10V000657	SOLID
ICP/AES METALS	00020874	S10V000666	SOLID
ICP/AES METALS	00020874	S10V000675	SOLID
ICP/AES METALS	00020874	S10V000684	SOLID
ICP/AES METALS	00020874	S10V000693	SOLID
IODINE-129 in SOIL	00019900	S10V000571	SOLID
IODINE-129 in SOIL	00019900	S10V000575	SOLID
IODINE-129 in SOIL	00019900	S10V000623	SOLID
IODINE-129 in SOIL	00019900	S10V000636	SOLID
IODINE-129 in SOIL	00019900	S10V000654	SOLID
IODINE-129 in SOIL	00019900	S10V000663	SOLID
IODINE-129 in SOIL	00019900	S10V000672	SOLID
IODINE-129 in SOIL	00019900	S10V000681	SOLID
IODINE-129 in SOIL	00019900	S10V000690	SOLID
ICP/MS ACTINIDES	00019661	S10V000420	SOLID
ICP/MS ACTINIDES	00019661	S10V000578	SOLID
ICP/MS ACTINIDES	00019661	S10V000639	SOLID
ICP/MS ACTINIDES	00019661	S10V000657	SOLID
ICP/MS ACTINIDES	00020266	S10V000666	SOLID
ICP/MS ACTINIDES	00020266	S10V000675	SOLID
ICP/MS ACTINIDES	00020266	S10V000684	SOLID
ICP/MS ACTINIDES	00020266	S10V000693	SOLID
ICP/MS ACTINIDES	00023864	S10V000630	SOLID

METHOD	BATCH	SAMPLE	MATRIX
ICP/MS TC99, SN126	00019814	S10V000422	SOLID
ICP/MS TC99, SN126	00019814	S10V000624	SOLID
ICP/MS TC99, SN126	00019814	S10V000632	SOLID
ICP/MS TC99, SN126	00019814	S10V000641	SOLID
ICP/MS TC99, SN126	00019814	S10V000659	SOLID
ICP/MS TC99, SN126	00020169	S10V000422	SOLID
ICP/MS TC99, SN126	00020169	S10V000624	SOLID
ICP/MS TC99, SN126	00020169	S10V000632	SOLID
ICP/MS TC99, SN126	00020169	S10V000641	SOLID
ICP/MS TC99, SN126	00020169	S10V000659	SOLID
ICP/MS TC99, SN126	00020677	S10V000668	SOLID
ICP/MS TC99, SN126	00020677	S10V000677	SOLID
ICP/MS TC99, SN126	00020677	S10V000686	SOLID
ICP/MS TC99, SN126	00020677	S10V000695	SOLID
ICP/MS METALS	00019915	S10V000420	SOLID
ICP/MS METALS	00019915	S10V000578	SOLID
ICP/MS METALS	00019915	S10V000630	SOLID
ICP/MS METALS	00019915	S10V000639	SOLID
ICP/MS METALS	00019915	S10V000657	SOLID
ICP/MS METALS	00020171	S10V000420	SOLID
ICP/MS METALS	00020171	S10V000578	SOLID
ICP/MS METALS	00020171	S10V000630	SOLID
ICP/MS METALS	00020171	S10V000639	SOLID
ICP/MS METALS	00020171	S10V000657	SOLID
ICP/MS METALS	00020363	S10V000666	SOLID
ICP/MS METALS	00020363	S10V000675	SOLID
ICP/MS METALS	00020363	S10V000684	SOLID
ICP/MS METALS	00020363	S10V000693	SOLID
ICP/MS METALS	00020590	S10V001213	SOLID
ICP/MS METALS	00020590	S10V001214	SOLID
ICP/MS METALS	00020590	S10V001215	SOLID
ICP/MS METALS	00020590	S10V001216	SOLID
ICP/MS METALS	00020590	S10V001217	SOLID
ICP/MS METALS	00020590	S10V001218	SOLID
ICP/MS METALS	00020590	S10V001219	SOLID
ICP/MS METALS	00020590	S10V001220	SOLID
ICP/MS METALS	00020590	S10V001221	SOLID
ICP/MS METALS	00023628	S10V003308	SOLID
ICP/MS METALS	00023628	S10V003309	SOLID
ICP/MS METALS	00023628	S10V003310	SOLID
ICP/MS METALS	00023628	S10V003311	SOLID
ICP/MS METALS	00023807	S10V003308	SOLID
ICP/MS METALS	00023807	S10V003309	SOLID
ICP/MS METALS	00023807	S10V003310	SOLID
ICP/MS METALS	00023807	S10V003311	SOLID
ICP/MS TC-99	00021532	S10V001729	SOLID
ICP/MS TC-99	00021532	S10V001730	SOLID
ICP/MS TC-99	00021532	S10V001731	SOLID
ICP/MS TC-99	00021532	S10V001732	SOLID
ICP/MS TC-99	00021532	S10V001733	SOLID
ICP/MS TC-99	00021532	S10V001734	SOLID
ICP/MS TC-99	00021532	S10V001735	SOLID
ICP/MS TC-99	00021532	S10V001736	SOLID
ICP/MS TC-99	00021532	S10V001737	SOLID

METHOD	BATCH	SAMPLE	MATRIX
NICKEL-63	00019961	S10V000574	SOLID
NICKEL-63	00019961	S10V000627	SOLID
NICKEL-63	00019961	S10V000635	SOLID
NICKEL-63	00019961	S10V000644	SOLID
NICKEL-63	00019961	S10V000662	SOLID
NICKEL-63	00019961	S10V000671	SOLID
NICKEL-63	00019961	S10V000680	SOLID
NICKEL-63	00019961	S10V000689	SOLID
NICKEL-63	00019961	S10V000698	SOLID
PH SOLID	00018971	S10V000401	SOLID
PH SOLID	00018971	S10V000402	SOLID
PH SOLID	00019001	S10V000403	SOLID
PH SOLID	00019129	S10V000404	SOLID
PH SOLID	00019129	S10V000406	SOLID
PH SOLID	00019129	S10V000407	SOLID
PH SOLID	00019430	S10V000408	SOLID
PH SOLID	00019430	S10V000409	SOLID
PH SOLID	00019430	S10V000410	SOLID
PLUTONIUM	00020319	S10V000572	SOLID
PLUTONIUM	00020319	S10V000625	SOLID
PLUTONIUM	00020319	S10V000633	SOLID
PLUTONIUM	00020319	S10V000642	SOLID
PLUTONIUM	00020319	S10V000660	SOLID
PLUTONIUM	00020319	S10V000669	SOLID
PLUTONIUM	00020319	S10V000678	SOLID
PLUTONIUM	00020319	S10V000687	SOLID
PLUTONIUM	00020319	S10V000696	SOLID
SELENIUM-79	00020585	S10V000574	SOLID
SELENIUM-79	00020585	S10V000627	SOLID
SELENIUM-79	00020585	S10V000635	SOLID
SELENIUM-79	00020585	S10V000644	SOLID
SELENIUM-79	00020585	S10V000662	SOLID
SELENIUM-79	00020585	S10V000671	SOLID
SELENIUM-79	00020585	S10V000680	SOLID
SELENIUM-79	00020585	S10V000689	SOLID
SELENIUM-79	00020585	S10V000698	SOLID
STRONTIUM-90	00019982	S10V000573	SOLID
STRONTIUM-90	00019982	S10V000626	SOLID
STRONTIUM-90	00019982	S10V000634	SOLID
STRONTIUM-90	00019982	S10V000643	SOLID
STRONTIUM-90	00019982	S10V000661	SOLID
STRONTIUM-90	00019982	S10V000670	SOLID
STRONTIUM-90	00019982	S10V000679	SOLID
STRONTIUM-90	00019982	S10V000688	SOLID
STRONTIUM-90	00019982	S10V000697	SOLID
SULFIDE	00018963	S10V000401	SOLID
SULFIDE	00018963	S10V000402	SOLID
SULFIDE	00019013	S10V000403	SOLID
SULFIDE	00019085	S10V000404	SOLID
SULFIDE	00019085	S10V000406	SOLID
SULFIDE	00019085	S10V000407	SOLID
SULFIDE	00019253	S10V000408	SOLID
SULFIDE	00019380	S10V000409	SOLID
SULFIDE	00019380	S10V000410	SOLID

METHOD	BATCH	SAMPLE	MATRIX
SVOA 222S #2	00019182	S10V000418	SOLID
SVOA 222S #2	00019182	S10V000576	SOLID
SVOA 222S #2	00019182	S10V000628	SOLID
SVOA 222S #2	00019296	S10V000637	SOLID
SVOA 222S #2	00019296	S10V000655	SOLID
SVOA 222S #2	00019296	S10V000664	SOLID
SVOA 222S #2	00019488	S10V000673	SOLID
SVOA 222S #2	00019488	S10V000682	SOLID
SVOA 222S #2	00019779	S10V000691	SOLID
TRITIUM	00020359	S10V001175	SOLID
TRITIUM	00020359	S10V001176	SOLID
TRITIUM	00020359	S10V001177	SOLID
TRITIUM	00020359	S10V001178	SOLID
TRITIUM	00020359	S10V001179	SOLID
TRITIUM	00020359	S10V001180	SOLID
TRITIUM	00020359	S10V001181	SOLID
TRITIUM	00020359	S10V001182	SOLID
TRITIUM	00020359	S10V001183	SOLID
VOA 222S #2	00018960	S10V000368	SOLID
VOA 222S #2	00018960	S10V000369	SOLID
VOA 222S #2	00018960	S10V000370	SOLID
VOA 222S #2	00019123	S10V000371	SOLID
VOA 222S #2	00019123	S10V000373	SOLID
VOA 222S #2	00019486	S10V000375	SOLID
VOA 222S #2	00019486	S10V000376	SOLID
VOA 222S #2	00019566	S10V000378	SOLID
VOA 222S #2	00020082	S10V000374	SOLID
VOA 222S #2	00019080	S10V000310	LIQUID
VOA 222S #2	00019080	S10V000312	LIQUID
VOA 222S #2	00019080	S10V000320	LIQUID
VOA 222S #2	00019080	S10V000321	LIQUID
VOA 222S #2	00019081	S10V000311	LIQUID
VOA 222S #2	00019081	S10V000322	LIQUID
VOA 222S #2	00019081	S10V000323	LIQUID
VOA 222S #2	00019447	S10V000314	LIQUID
VOA 222S #2	00019485	S10V000315	LIQUID
VOA 222S #2	00019485	S10V000316	LIQUID
VOA 222S #2	00019485	S10V000324	LIQUID
VOA 222S #2	00019485	S10V000325	LIQUID
VOA 222S #2	00019485	S10V000326	LIQUID
VOA 222S #2	00019680	S10V000317	LIQUID
VOA 222S #2	00019680	S10V000327	LIQUID
VOA 222S #2	00020256	S10V000313	LIQUID

Attachment 7

GEOLOGICAL REPORT

Table A-1. Geologic descriptions of C Farm Core 7670 samples. Described during sample breakdown by Gary A. Cooke, WA State Professional Geologist, #2785.

Sample ID	Date examined	Description
B23R25 Surface S10V000401	04-19-10	(m)S, slightly muddy sand. Very slightly moist. Trace gravel, largest particle ~5mm, rounded to sub-rounded, uniform color and texture, trace mica. Color: 2.5Y4/3. Acid reactivity: vigorous. Bulk Density: Could not estimate Bulk Density.
B23KN7 Duplicate S10V000402	04-19-10	(m)S, slightly muddy sand. Very slightly moist. Uniform texture and color, some clasts break easily, trace gravel, largest particle ~5mm rounded to sub-round, trace mica. Color: 2.5Y4/3. Acid reactivity: vigorous. Bulk Density: Could not estimate Bulk Density.
B238J9-A 5-7' S10V000412	04-21-10	Tube is full. (g)S, slightly gravelly sand. Slightly moist. Coarse sand, salt and pepper texture, some orange/reddish stains, sub-angular to sub-rounded, largest particle 14mm (excluded), trace mica. Color: 2.5Y5/2. Acid reactivity: slight. Bulk Density: 2.052 g/mL.
B238J9-B 5-7' S10V000413	04-21-10	Tube missing ~20mm of sample. Sample slid from tube. (g)S slightly gravelly sand. Slightly moist. Slightly more gravelly then previous sample. Salt and pepper texture, largest fragment 18mm, fragments are angular to sub-rounded, some orange/reddish grains, trace mica, mixture of basalt and quartz. Color: 2.5Y4/2. Acid reactivity: slight. Bulk Density: Could not estimate Bulk Density.
B23KP0-A 10-14' S10V000415	04-23-10	Top had 10mm gap, bottom full. gS, gravelly sand. Very slightly moist. Poorly sorted, medium to coarse sand, largest particle 9mm, salt and pepper texture, angular to sub-rounded, trace mica. Color: 2.5Y5/3. Acid reactivity: slight. Bulk Density: Could not estimate Bulk Density.
B23KP3-A 12-14' S10V000416	04-23-10	Top had 8mm gap, bottom full. gS, gravelly sand. Very slightly moist. Scattered clay clasts, easily broken, angular to sub-rounded, medium sand to fine gravel, largest particle 7mm, salt and pepper texture, trace mica. Color: 2.5Y5/2. Acid reactivity: slight. Bulk Density: Could not estimate Bulk Density.
B23KP3Shoe 12-14' S10V000417	04-23-10	gS, gravelly sand. Slightly moist. One large chert fragment 25mm long excluded, mix of light and dark fragments, mostly dark, angular to sub-rounded, medium to fine sand, mostly fine gravel, trace mica. Color: 2.5Y4/2. Acid reactivity: slight to moderate. Bulk Density: Could not estimate Bulk Density.

Table A-1. Geologic descriptions of C Farm Core 7670 samples. Described during sample breakdown by Gary A. Cooke, WA State Professional Geologist, #2785.

Sample ID	Date examined	Description
B23KP6-A 14-16' S10V000821	04-23-10	Tube is full. (g)S, slightly gravelly sand. Slightly moist. Largest particle 18mm long, 15mm long, both excluded, sub-angular to sub-rounded, medium sand to mostly fine gravel, mixture of light and dark, mostly dark, poorly sorted. Color: 2.5Y5/2. Acid reactivity: slight. Bulk Density: 2.132 g/mL.
B23KP6-B 14-16' S10V000822	04-23-10	Top had 20mm gap, soil is loose. (g)S, slightly gravelly sand. Very slightly moist. Mix of light and dark medium sand to fine gravel, many chert fragments in fine gravel one organic fragment (possible O-ring excluded), trace mica, gravel and coarse sand is angular to sub-angular. Most chert is broken pieces from one large grain. Color: 2.5Y5/2. Acid reactivity: slight to moderate. Bulk Density: Could not estimate Bulk Density.
B23KP9-A 39-41' S10V000824	04-26-10	Tube is full. Bottom 40mm sand, top is damp and mud rich. sM, sandy mud. Moist. Sand at bottom is slightly muddy, medium to coarse grained. Bulk of sample is sandy mud uniform color and texture, sand is fine grained, clasts are slightly cohesive, easily broken, trace mica, coarser sand shows salt and pepper texture, some white grains are caliche. Color: 2.5Y4/3. Acid reactivity: slight. Bulk Density: 2.197 g/mL.
B23KP9-B 39-41' S10V000825	04-26-10	Bottom irregular depression up to 10mm deep. sM sandy mud. Slightly moist. Slightly cohesive clasts, break easily, mix of silt and fine sand, trace mica. At 50mm changes to medium to coarse grained sand, most of sample, S, sand. Medium to coarse grained, no mud. Some gravel present, 7mm largest particles, salt and pepper texture. Top color: 2.5Y5/6 Bottom 50mm color: 2.5Y5/3 Acid reactivity: top and bottom slight. Bulk Density: Could not estimate Bulk Density.
B23KP9-C 39-41' S10V000826	04-26-10	Irregular depressions both ends ~10mm deep. S, sand. Very slightly moist. Medium to coarse sand, minor gravel, largest grain 12mm (excluded), gravel mostly fine, salt and pepper texture, some reddish orange grains, angular to sub-rounded, trace mica, some white fragments (caliche). Color: 2.5Y5/1. Acid reactivity: slight. Bulk Density: Could not estimate Bulk Density.

Table A-1. Geologic descriptions of C Farm Core 7670 samples. Described during sample breakdown by Gary A. Cooke, WA State Professional Geologist, #2785.

Sample ID	Date examined	Description
B23KR2-A 139-141' S10V000827	05-05-10	Tube is full. S, sand. Dry. No gravel, trace mud, moderate to well sorted, medium to fine grained sand, largest grains <1mm, slight salt and pepper texture, trace mica. Color: 2.5Y7/2. Acid reactivity: slight to moderate. Bulk Density: 1.984 g/mL.
B23KR2-B 139-141' S10V000828	05-05-10	Tube is full. S, sand. Very slightly moist. No gravel, trace mud, trace very coarse 2mm sand, angular to sub-angular, trace mica, slight uniform salt and pepper texture, moderately well sorted. Color: 2.5Y7/2. Acid reactivity: slight to moderate. Bulk Density: 2.027 g/mL.
B23KR2-C 139-141' S10V000829	05-05-10	Tube is full. (m)S, slightly muddy sand. Very slightly moist. Fine to very fine sand, some silt, uniform color and texture, largest grains <1mm, trace mica, moderately well sorted. Color: 2.5Y6/2. Acid reactivity: slight to moderate. Bulk Density: 1.954 g/mL.
B23KR5-A 163-165' S10V000830	05-06-10	Top is full, bottom ~4mm very irregular gap. gS, gravelly sand. Very slightly moist. Sand, medium to coarse grained with mostly fine to very fine gravel. Largest particle 17mm excluded, sub-angular to sub-round, coarse pieces mostly basalt, quartz present, trace silt, minor fine sand, poorly sorted, trace mica, somewhat mottled. Color: 2.5Y6/2. Acid reactivity: slight. Bulk Density: Could not estimate Bulk Density.
B23KR5-B 163-165' S10V000831	05-06-10	Tube is full. gS, gravelly sand. Very slightly moist. Poorly sorted, fine gravel, several larger pieces, 12mm, 14mm and 21mm all excluded (pebbles). Coarse grains angular to sub-round, larger fragments are basalt, some quartz fragments, trace silt and minor sand. Color: 2.5Y6/2. Acid reactivity: slight. Bulk Density: 2.310 g/mL.
B23KR5-C 163-165' S10V000832	05-06-10	Top full, bottom slight depression ~3mm deep at center. (g)S, slightly gravelly sand. Very slightly moist. Poorly sorted, fine to coarse sand, fine gravel, trace silt, largest fragment 8mm, trace mica, sub-angular to sub-round coarser fragments, largest fragments basalt, quartz also present. Color: 2.5Y5/2. Acid reactivity: slight to moderate. Bulk Density: Could not estimate Bulk Density.

Table A-1. Geologic descriptions of C Farm Core 7670 samples. Described during sample breakdown by Gary A. Cooke, WA State Professional Geologist, #2785.

Sample ID	Date examined	Description
B23KR8-B 220-222' S10V000834	05-11-10	Top gaping hole 100mm deep, bottom full. gS, gravelly sand. Slightly moist. Largest particle 15mm (excluded), poorly sorted, gravel is sub-rounded to sub-angular, trace silt, several dark black clasts, break easily, organic? Sand: medium to coarse grained, trace mica. Color: variegated, dominant: 2.5Y4/2. Acid reactivity: slight. *Liner B23KR8-A missing. Bulk Density: Could not estimate Bulk Density.
B23KR8-C 220-222' S10V000835	05-11-10	Top gaping hole 85mm deep, bottom irregular ~5mm gap. (gm)S, slightly gravelly, slightly muddy sand. Moist. Largest fragment ~13mm, fragment of O ring excluded. Very poorly sorted, moist clasts of dark gray, clay throughout, break easily, some black clasts, trace white salt/caliche. Color: 2.5Y4/1. Acid reactivity: slight. White grains not affected by acid. Bulk Density: Could not estimate Bulk Density.
B23KT1-B 222-224' S10V000837	05-11-10	Slight gap top ~3mm, bulge on bottom ~3mm, Tube is full. gS, gravelly sand. Dry. Poorly sorted, exclude six (6) pieces of gravel, largest 22mm, angular, appears to be freshly broken, minor silt, fine to coarse sand, white fragments caliche/quartz, sub-round to angular. Color: 2.5Y7/1. Acid reactivity: very slight. (All numbers taken from labels will be checked with breakdown diagram: Per verbal instructions compositing B23KT1-B and C into jar S10V000410.) Bulk Density: 2.135 g/mL.
B23KT1-C 222-224' S10V000838	05-11-10	Gaps both ends ~50mm deep. gS, gravelly sand. Slightly moist. Bottom starts slightly moist, top has a damp plug. Largest fragments 24mm and 20mm excluded. Grades from bottom to top, slightly moist to moist, poorly sorted sand, minor clay clasts easily broken, coarser material angular to sub-round. Color ranges: 2.5Y5/2 to 4/2 depending on moisture content. Acid reactivity: slight. Bulk Density: Could not estimate Bulk Density.

Munsell colors were determined using the 2.5Y color card

C Farm 2010-1, Photographic Log and Scanned Geologic Descriptions 10/19/2010

Figure A-1 Sample B23R25 Surface.

Figure A-2 Sample B23KN7 Surface Duplicate.

Figure A-3 Sample B238J9 Core A.

Figure A-4 Sample B238J9 Core B.

Figure A-5 Sample B23KP0 Core A.

Figure A-6 Sample B23KP3 Core A.

Figure A-7 Sample B23KP3 Shoe.

Figure A-8 Sample B23KP6 Core A.

Figure A-9 Sample B23KP6 Core B.

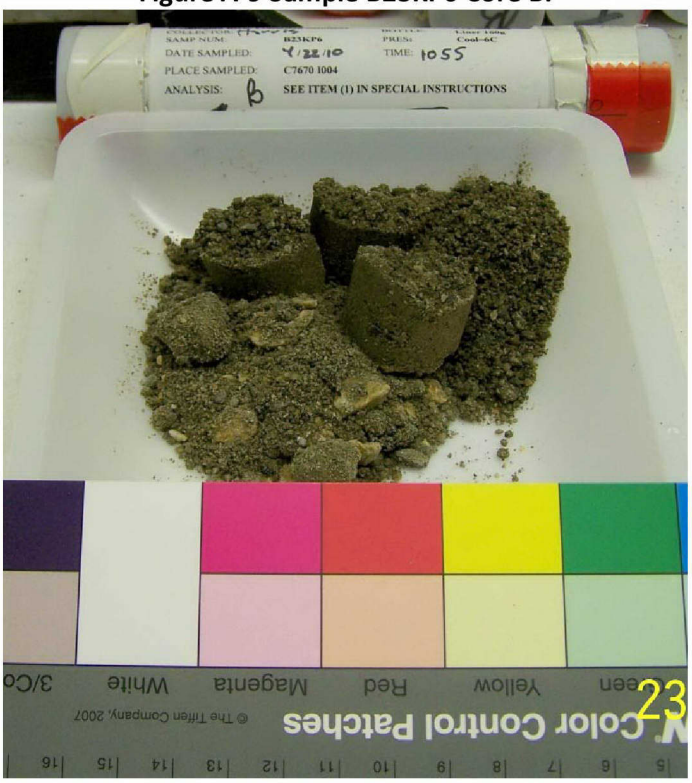

Figure A-10 Sample B23KP9 Core A.

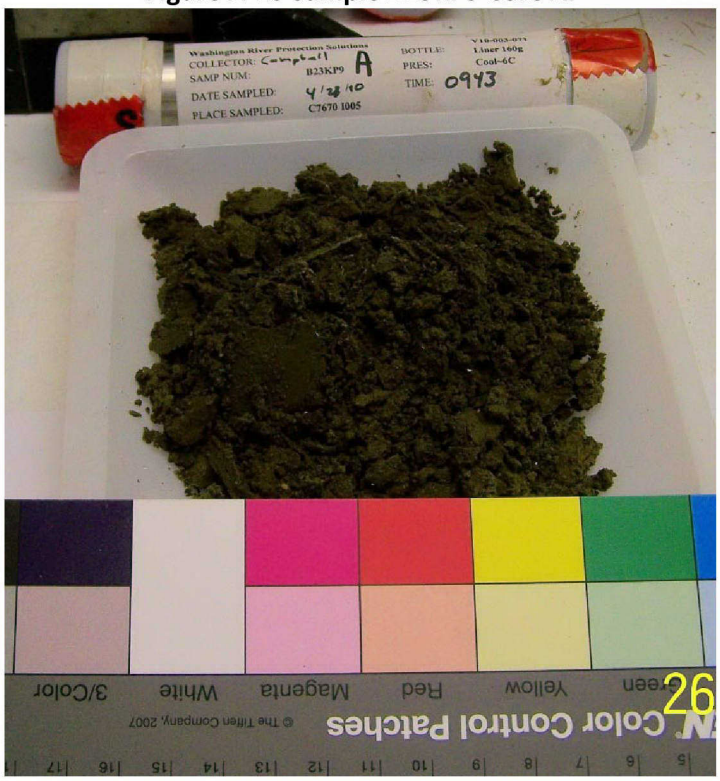

Figure A-11 Sample B23KP9 Core B.

Figure A-12 Sample B23KP9 Core C.

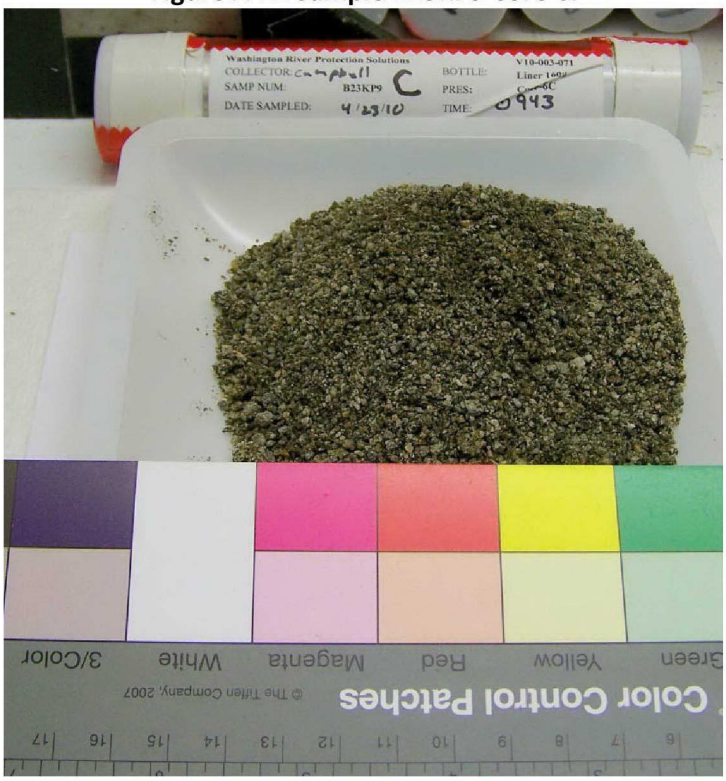

Figure A-13 Sample B23KR2 Core A.

Figure A-14 Sample B23KR2 Core B.

Figure A-15 Sample B23KR2 Core C.

Figure A-16 Sample B23KR5 Core A.

Figure A-17 Sample B23KR5 Core B.

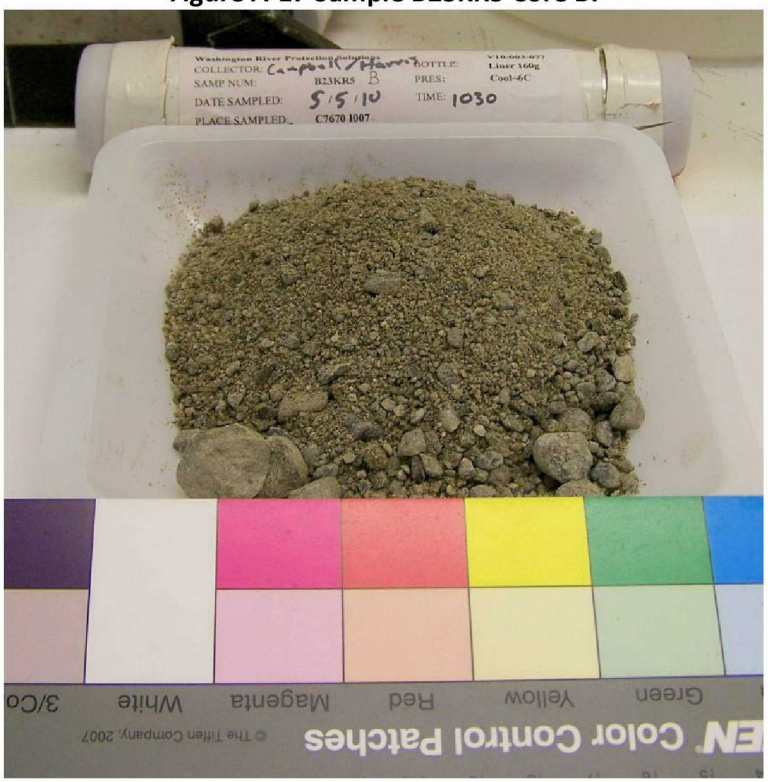

Figure A-18 Sample B23KR5 Core C.

Figure A-19 Sample B23KR8 Core B.

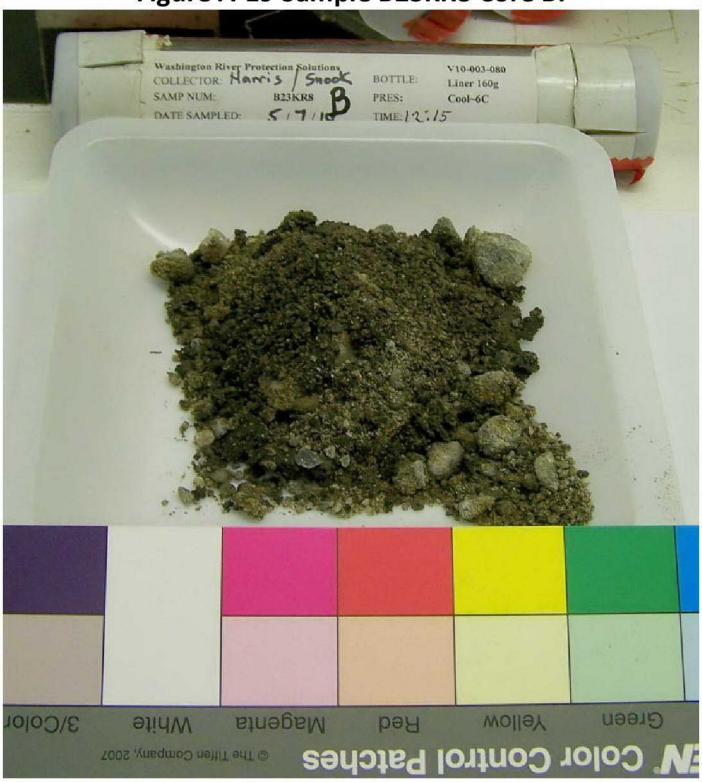

Figure A-20 Sample B23KR8 Core C.

Figure A-21 Sample B23KT1 Core B.

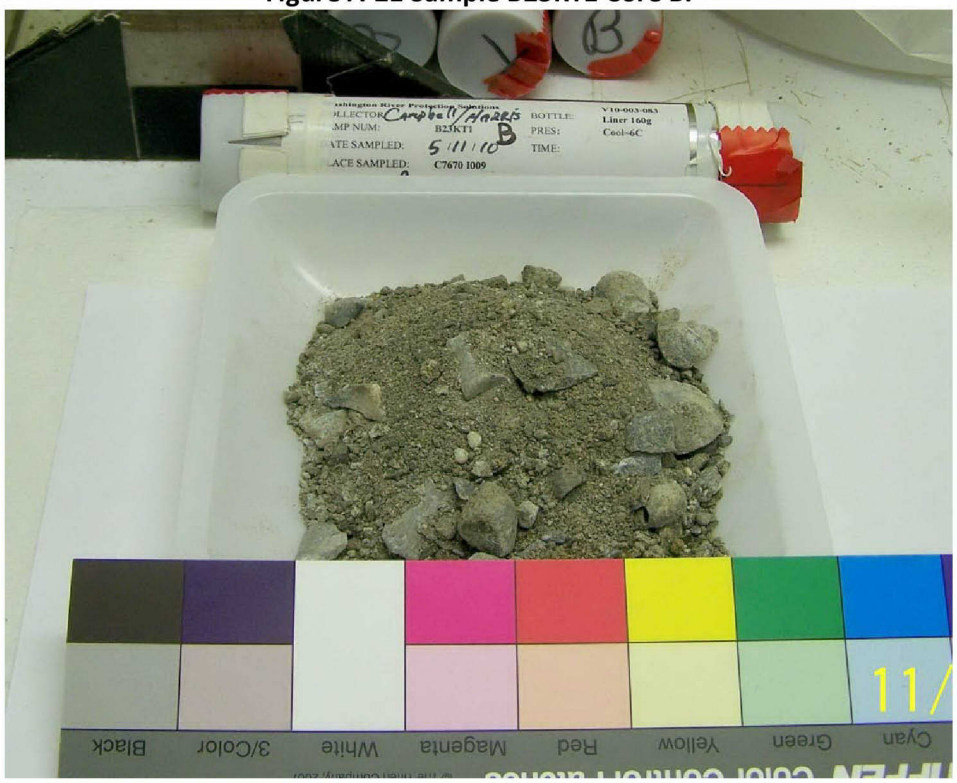

Figure A-22 Sample B23KT1 Core C.

Attachment 8

CHARACTERIZATION CHANGE NOTICES
AND CORRESPONDENCE

REVIEW COMMENT RECORD (RCR)	1. Date 2/8/2011	2. Review No.
	3. Project No.	Page 1 of 2

5. Document Number(s)/Title(s)	6. Program/Project/Building Number	7. Reviewer	8. Organization/Group	9. Location/Phone
ATL#20100213 Rev.0 **Final Analytical Report for Samples from Waste Management Area C for Core Hole C7670, in Support of RCRA Soil Characterization**	WRPS	HL Anastos	Closure and Corrective Measures	1200 Jadwin/ Rm. 301 373-2616

17. Comment Submittal Approval	10. Agreement With Indicated Comment Disposition(s)	11. CLOSED
Date / Organization Manager (optional) (print and sign)	Date / HL Anastos Reviewer/Point of Contact (print and sign) / GP Ritenour Author/Originator (print and sign)	Date / HL Anastos Reviewer/Point of Contact (print and sign) / GP Ritenour Author/Originator (print and sign)

12. Item	13a. Comments	13b. Basis	13c. Recommendation	14. Reviewer Concurrence Required (Y or N)	15. Disposition (provide justification if **NOT** accepted)	16. Status
1	p. 3: Qualifiers in hard copy report (Tank Farms) do not match qualifiers in electronic data (HEIS).	ATL#20100213 Rev. 0; FEAD CP-15383 Version 8	Revise report using HEIS qualifiers.	Y	Changed to HEIS Flags	
2	p. 5: States mercury analysis was performed using "graphic furnace/atomic absorption".	Professional Judgment	It appears this should be "graphite furnace/atomic absorption;" however, stating simply "cold-vapor atomic absorption" would be more accurate. (Graphite furnace is not used).	Y	Fixed Section 3.2.4	
3	p.105: SVOA results are reported under HEIS# B23KR7; however, SBD shows B23KR5.	Sample Breakdown Diagram	Correct Sample number, or provide explanation and documentation of change.	Y	Fix log-in error	
4	No sample data was reported for the following samples: B23KP0, B23KP3, and B23KR8	ATL#20100213 Rev. 0; COC Review	Report data or annotate why analyses were not performed.	Y	I008 (B23KR8) had incomplete recovery and was composited with I009, which is described in section 2.2 of the data report. Data was correctly reported under B25ND7. (No change to the data package is needed).	
5	DSR and Breakdown Diagram: Bulk Densities are not reported with unique HEIS Ids.	DSR & Geological Report	Unique HEIS Ids (A, B, C appended) have been generated for reporting bulk densities both electronically and in the DSR. Ensure all analyses performed on individual liners use A, B, C appended or unique numbers and	Y	A,B,C add to liner HEIS ID	

A-6400-090.1 (REV 1)

REVIEW COMMENT RECORD (RCR)	1. Date 2/8/2011	2. Review No.
	3. Project No.	Page 2 of 2

12. Item	13a. Comments	13b. Basis	13c. Recommendation	14. Reviewer Concurrence Required (Y or N)	15. Disposition (provide justification if **NOT** accepted)	16. Status
			unappended HEIS numbers are used for composite sample results.			
6	DSR: Glycolate and Formate are being reported with incorrect HEIS CON_IDs.	ATL#20100213 Rev. 0; and HEIS	Report with the pseudo-CAS #s: Glycolate = GLYCOLATE and Formate = FORMATE	Y	Fixed	
7	DSR: The laboratory is reporting 3&4 Methylphenol with an incorrect CAS#.	CAS registry; HEIS	Replace 108-39-4a with the correct CAS# 65794-96-9	Y	Fixed	
8	DSR: The laboratory is reporting Sulfide with an incorrect CAS#.	CAS registry; HEIS	Replace 18496-25-8 with the correct CAS# 12597-04-5	Y	Fixed	
9	COC V10-003-076 relinquished times listed do not match.	COC Review	Document discrepancy on RCR.	N	N/A	CLOSED

A-6400-090.1 (REV 1)

VADOSE ZONE
CHARACTERIZATION CHANGE NOTICE

Document: RPP-PLAN-40564 Rev 2 **Change Number:** WMAC-005 **ECN to TSAP Required?** Y / N

Requestor: Andrew M. Templeton **Date:** 4-22-10

Original Requirement: At each sample depth, three liner samples and one shoe sample are targeted to be taken. Good recovery is required to allow analysis of all requested analyses.

Samples Impacted: Samples collected in C Farm at site L2, location 7670, 10-12 ft bgs.

Proposed Change: Due to poor sample recovery from the 10-12 ft. bgs interval in C-Farm at the L2 location, an additional sample was collected from 12-14 ft. bgs. To ensure that we have enough material to do all the analysis, a composite will be prepared from Liner A from the 10-12 ft. bgs interval, the shoe from the 12-14 ft. bgs interval and Liner A from the 12-14 ft. bgs interval. The samples for volatile organic compound (VOC) analysis were collected from the shoe at the 10-12 ft. bgs interval.

Reason for Change: Poor sample recovery.

Date Change Effective: 4-22-10

Schedule Impact: None

Authorization:

Vadose Zone POC (Print/Sign): A.M. Templeton **Date:** 5-11-10

Vadose Zone Quality Assurance (Print/Sign): K.J. Dunbar **Date:** 5-11-10

222-S Project Coordinator (Print/Sign): S.G. Mckinney **Date:** 5-17-10

ATL Project Coordinator (Print/Sign): G.P. Ritenour **Date:** 5-17-10

Other (Optional, Print/Sign): **Date:**

cc: S. J. Eberlein, K. M. Hall, Dana Stewart, Dave Myers, Penny Berlin, Eric Wyse

VADOSE ZONE
CHARACTERIZATION CHANGE NOTICE

Document: RPP-PLAN-40564 Rev 2 **Change Number:** WMAC-006 **ECN to TSAP Required?** Y / N

Requestor: Andrew M. Templeton **Date:** 5-11-10

Original Requirement: At each sample depth, three liner samples and one shoe sample are targeted to be taken. Good recovery is required to perform all of the requested analyses.

Samples Impacted: Samples collected in C Farm at site L2, location C7670, 220-222 ft bgs.

Proposed Change: Due to poor sample recovery from the 220-222 ft. bgs interval (0% in shoe, 0% in Liner A, 30% in Liner B and 30% in Liner C) , an additional sample was collected from 222-224 ft. bgs.

To ensure that we have enough material to do all the analyses, a composite will be prepared from Liner B at the 220-222 ft. bgs interval, Liner C at the 220-222 ft. bgs, Liner B at the 222-224 ft. bgs interval and Liner C at the 222-224 ft. bgs interval.

The samples for volatile organic compound (VOC) analysis were collected from Liner A at the 222-224 ft. bgs interval. No high level VOC samples (methanol) were collected but a methanol blank was collected by mistake at the 220-222 ft. bgs.

Reason for Change: Poor sample recovery.

Date Change Effective: 5-11-10

Schedule Impact: None

Authorization:

Vadose Zone POC (Print/Sign): A.M. Templeton **Date:** 5-17-10

Vadose Zone Quality Assurance (Print/Sign): K.J. Dunbar **Date:** 5-18-10

222-S Project Coordinator (Print/Sign): S.G. Mckinney **Date:** 5-25-10

ATL Project Coordinator (Print/Sign): G.P. Ritenour **Date:** 5-24-10

Other (Optional, Print/Sign): **Date:**

cc: S. J. Eberlein, K. M. Hall, Dana Stewart, Dave Myers, Penny Berlin, Eric Wyse, Mike Connelly

VADOSE ZONE
CHARACTERIZATION CHANGE NOTICE

Document: RPP-PLAN-40564 Rev 2 **Change Number:** WMAC-007 **ECN to TSAP Required?** Y / N

Requestor: Andrew M. Templeton **Date:** 5-11-10

Original Requirement: Analyze for Tc-99 using an acid digestion.

Samples Impacted: Samples collected in C Farm in FY10.

Proposed Change: In addition to the acid digestion used for ICPMS Tc-99 analysis a vadose water digestion will be prepared and analyzed for ICPMS Tc-99 for all C Farm FY10 samples not previously designated for this water digestion analysis (C7472 I007-I010).

Reason for Change: Both preparation methods for technetium-99 are being requested in order to have consistent data analyses (i.e., previous technetium-99 analysis by PNNL was performed on both preparation methods). Both methods allow for calculating various factors such as the K_d coefficient, which can be used to help determine vertical migration.

Date Change Effective: 4-23-10

Schedule Impact: None

Authorization:

Vadose Zone POC (Print/Sign): A.M. Templeton **Date:** 5-20-10

Vadose Zone Quality Assurance (Print/Sign): K.J. Dunbar **Date:** 5-20-10

222-S Project Coordinator (Print/Sign): S.G. Mckinney **Date:** 5-24-10

ATL Project Coordinator (Print/Sign): G.P. Ritenour **Date:** 5-24-10

Other (Optional, Print/Sign): **Date:**

cc: S. J. Eberlein, K. M. Hall, Dana Stewart, Dave Myers, Penny Berlin, Eric Wyse, Mike Connelly, Harold Sydnor

VADOSE ZONE
CHARACTERIZATION CHANGE NOTICE

Document: RPP-PLAN-40564 Rev 2 **Change Number:** WMAC-009 **ECN to TSAP Required?** Y / N

Requestor: Andrew M. Templeton **Date:** 07-16-10

Original Requirement: There is no original requirement in the project documents on what to analyze for if we encounter free liquids.

Samples Impacted: Samples collected in C Farm at Site R (C7668), depth 39-41 ft. bgs. This location is adjacent to the 241-C-301 Catch Tank.

Proposed Change: During sampling at the 39-41 ft. bgs depth, standing water/liquid was encountered on top of the sampler. Since this was unexpected and the work package does not cover sampling for water/liquid, work was suspended until modifications were made to the work package to sample the water/liquid. After changes were made to the work package a sample of the water/liquid in the sampler was collected in a 500 ml glass container. After filtration approximately 4 ml of liquid/water was recovered. The laboratory is directed to analyze water/liquid for Tc-99.

Reason for Change: Encountered water in sampler.

Date Change Effective: 6-1-10

Schedule Impact: None

Authorization:

Vadose Zone POC (Print/Sign): A.M. Templeton **Date:** 10-11-10

Vadose Zone Quality Assurance (Print/Sign): K.J. Dunbar **Date:** 10-11-10

222-S Project Coordinator (Print/Sign): S.G. Mckinney **Date:** 10-14-10

ATL Project Coordinator (Print/Sign): G.P. Ritenour **Date:** 10-14-10

Lab Interface Lead (, Print/Sign): **H.L. Anastos** **Date:** 10-11-2010

cc: S. J. Eberlein, K. M. Hall, Dana Stewart, Dave Myers, Penny Berlin, Eric Wyse, Mike Connelly, Harold Sydnor, Cindy Tabor

Ritenour, Gerald P

From: McKinney, Steve G
Sent: Wednesday, July 07, 2010 12:10 PM
To: Tabor, Cynthia L
Cc: Templeton, Andrew M; Ritenour, Gerald P; Berlin, Penelope C
Subject: FW: Confirming our Telephone Conversation

From: McKinney, Steve G
Sent: Wednesday, February 18, 2009 9:11 AM
To: Hansen, Daniel R; Baker, Harold L
Cc: Ritenour, Gerald P
Subject: FW: Confirming our Telephone Conversation

We will still have the secondary's in omni, just not reported in the HEISS upload if they are a less than....

From: Connelly, Michael
Sent: Wednesday, February 18, 2009 9:08 AM
To: McKinney, Steve G
Subject: FW: Confirming our Telephone Conversation

From: Barnes, Michael (ECY) [mailto:miba461@ecy.wa.gov]
Sent: Tuesday, February 17, 2009 2:31 PM
To: Connelly, Michael
Subject: RE: Confirming our Telephone Conversation

Both are correct…….

Mike

From: Connelly, Michael [mailto:Michael_Connelly@RL.gov]
Sent: Tuesday, February 17, 2009 2:21 PM
To: Barnes, Michael (ECY)
Subject: Confirming our Telephone Conversation

Mike

I just want to confirm our discussion earlier today

1) With regard to secondary constituents/compounds, they will only be reported if the results are above detection limits.
2) With regard to methanol, because this is analyte is often found due to laboratory contamination, it will be dropped from the analysis

Let me know if this is the correct or if you need me to say something else.

Ritenour, Gerald P

From: McKinney, Steve G
Sent: Thursday, June 11, 2009 12:07 PM
To: Ritenour, Gerald P
Cc: Dunbar, Kathryn J
Subject: FW: QA interpretation

We need a set of QC on a "per hole" basis – QC for C6400, and QC for C6392.

Thanks.

From: Dunbar, Kathryn J
Sent: Thursday, June 11, 2009 11:51 AM
To: McKinney, Steve G
Subject: RE: QA interpretation

Kathi Dunbar
Quality Assurance
(509) 376-2002 Office (S7-66)
(509) 438-7887 Cell
Office (2704HV-200E)
Kathryn_J_Dunbar@rl.gov
washington river protection solutions

Please consider the environment before printing this email

the requirement is for 1 spike/dup or spike/spike dup per 20 samples- does it meet that?

From: McKinney, Steve G
Sent: Thursday, June 11, 2009 11:05 AM
To: Dunbar, Kathryn J
Cc: Connelly, Michael
Subject: QA interpretation

Hi Kathy.

ATL has asked for a clarification on QC frequency. Initially, for C Farm, we planned on doing a set of QC on a per location basis. This more than met the requirement for 1 spike/dup or spike/spike dup per 20 samples. However, as an example, with the re-sampling we have to do based on poor recovery during initial sampling, C6400 is the resample for C6392. Can we consider C6400 and C6392 the same location, as least for QC…?

Let me know.

Thanks.

Ritenour, Gerald P

From: Ritenour, Gerald P
Sent: Tuesday, April 27, 2010 8:51 AM
To: McKinney, Steve G
Cc: Wyse, Eric J; Hansen, Daniel R
Subject: C Farm VOA samples missed holding times

Steve,
We missed the holding times for 3 of the 4 C Farm Surface samples received on 4/15/2010. This was due to the samples bring improperly stored in a refrigerator instead of a freezer for approximately 72 hours. Per SW846 5035A, this reduced the holding time to 48 hr. Sample analysis was completed on 4/22/2010. Additional details will be provide in Lessons Learned. If you have any questions or need additional information please let me know.
Thanks, JR

Gerald "JR" Ritenour
Project Manager
ATL International, Inc.
(509) 372-2742 office
(509) 438-8837 cell
gerald_p_ritenour@rl.gov

Ritenour, Gerald P

From: Ritenour, Gerald P
Sent: Tuesday, May 04, 2010 12:02 PM
To: Bushaw, Thomas H
Subject: C Farm WMC 2010-1 VOA Excursion

Tom,
Below are the 3 samples that exceed the HT for 48
Group 20090877: S09V001662 approx 90hrs
Group 20100213: S10V00368 & 369 approx 55hrs

Gerald "JR" Ritenour
Project Manager
ATL International, Inc.
(509) 372-2742 office
(509) 438-8837 cell
gerald_p_ritenour@rl.gov

From: Anastos, Heather L
To: Ritenour, Gerald P; McKinney, Steve G
Subject: RE: C Farm C7670 SDG 20100213
Date: Thursday, October 28, 2010 2:12:51 PM

JR –

Report the failed low level spike with a notation in the narrative that when calculated from the duplicate result the MS passes.

Thank you,

Heather Anastos
Chemist, Closure & Corrective Measures
(509) 373-2616
1200 Jadwin/301

washington river protection solutions
contractor to the United States Department of Energy

From: Ritenour, Gerald P
Sent: Wednesday, October 27, 2010 1:34 PM
To: Anastos, Heather L; McKinney, Steve G
Subject: C Farm C7670 SDG 20100213

Steve, Heather,
I have an unusually situation with Th-232. The low level MS (1ppm) fails (see below). This appears to be a homogeneity issue. If you compare this spike to the dup instead for the sample the Low spike recovery is 109% vs 62% for the sample. The RPD for the sample is only 17.5 %, but because the sample result is nearly 4X the spike, it's to high for the spike to pass. I would like to report this data with a narration. Also the high spike (50ppm) passes. If you agree to reporting this data which MS should we report. We normally report the low spike, but it this case it's not really appropriate.

Core Number	Customer Sample ID	Sample Depth	Lab ID	ANALYTE	Units	LCS	BLANK	RESULT	DUP	AVERAGE	RPD	MS High	MS Low	MDL	Flag
C7670	B23R25	Surface	S10V000420	Thorium-232	ug/g	106	<6.80E-05	3.77	3.17	3.47	17.5	99.7	62	7.44E-04	?

Currently at 509-375-4200, Ext 247

Ritenour, Gerald P

From: Anastos, Heather L
Sent: Thursday, October 28, 2010 11:22 AM
To: Ritenour, Gerald P; McKinney, Steve G
Subject: RE: C Farm SDG 20100213

JR -

Agreed. Report the data below with the QC failure noted in the narrative.

Heather Anastos
Chemist, Closure & Corrective Measures
(509) 373-2616
1200 Jadwin/301

washington river protection solutions
contractor to the United States Department of Energy

From: Ritenour, Gerald P
Sent: Wednesday, October 27, 2010 10:38 AM
To: Anastos, Heather L; McKinney, Steve G
Subject: RE: C Farm SDG 20100213

Heather, Steve
One of the ICP/AES batches failed the dup for Ni(see below). I would like to report this result. The failure appears to be a result of a inhomogenus sample not a lab error. A full 5g sample was digested. It's the only dup that failed. Ni is failing more than other elements in these sample, but mostly it's ok.
Thanks, JR

Batch 20874

Core Number	Customer Sample ID	Sample Depth	Lab ID	ANALYTE	Units	LCS	BLANK	RESULT	DUP	AVERAGE	RPD	MS	MDL	Flag
C7670	B23KP9	39-41	S10V000666	Nickel	ug/g	91.8	<0.0200	20.2	12.0	16.1	50.7	93.8	1.99	c
C7670	B23KR2	139-141	S10V000675	Nickel	ug/g	91.8	<0.0200	10.9	n/a	n/a	n/a	n/a	2.00	Jc
C7670	B23KR5	163-165	S10V000684	Nickel	ug/g	91.8	<0.0200	14.7	n/a	n/a	n/a	n/a	1.99	Jc
C7670	B25ND7	220-224	S10V000693	Nickel	ug/g	91.8	<0.0200	12.9	n/a	n/a	n/a	n/a	2.00	Jc

From: Anastos, Heather L
To: Ritenour, Gerald P; McKinney, Steve G
Subject: RE: C Farm C7670 SDG 20100213
Date: Thursday, October 28, 2010 2:12:51 PM

JR –

Report the failed low level spike with a notation in the narrative that when calculated from the duplicate result the MS passes.

Thank you,

Heather Anastos
Chemist, Closure & Corrective Measures
(509) 373-2616
1200 Jadwin/301

washington river protection solutions
contractor to the United States Department of Energy

From: Ritenour, Gerald P
Sent: Wednesday, October 27, 2010 1:34 PM
To: Anastos, Heather L; McKinney, Steve G
Subject: C Farm C7670 SDG 20100213

Steve, Heather,
I have an unusually situation with Th-232. The low level MS (1ppm) fails (see below). This appears to be a homogeneity issue. If you compare this spike to the dup instead for the sample the Low spike recovery is 109% vs 62% for the sample. The RPD for the sample is only 17.5 %, but because the sample result is nearly 4X the spike, it's to high for the spike to pass. I would like to report this data with a narration. Also the high spike (50ppm) passes. If you agree to reporting this data which MS should we report. We normally report the low spike, but it this case it's not really appropriate.

Core Number	Customer Sample ID	Sample Depth	Lab ID	ANALYTE	Units	LCS	BLANK	RESULT	DUP	AVERAGE	RPD	MS High	MS Low	MDL	Flag
C7670	B23R25	Surface	S10V000420	Thorium-232	ug/g	106	<6.80E-05	3.77	3.17	3.47	17.5	99.7	62	7.44E-04	?

Currently at 509-375-4200, Ext 247

Attachment 9

RECEIPT PAPERWORK

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev ~~BE~~-Ø

Date Samples Received: 4/15/10 VA Dose
Number of Samples:
Sample Custodian: TM Stoel

Group #: 20100160
20100213

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete		✓	
Check that outer custody seal is intact, if present	✓		
Record cooler temperature in centigrade, as appropriate	✓	-11	*17 ☐ Check if no cooler and/or no ice
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling	✓		
• Sampling location or origin	✓		
• Container type, size, and number	✓		
• Analysis request is clear	✓		
• Signature of persons relinquishing and receiving samples	✓		
• Date and/or time of sample custody exchange	✓		
Verify that sample numbers on containers match the COC and/or RSA	✓		
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? yes PM Initials DPN Date 4/15/10

If No, comment on communication and resolution:

*

Other Comments:

* 17°C- Temp Blank not measured, this is temp of sample

A-6005-342 (REV 0)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-032	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Field Blank 1	WMA C Sampling for CMS - QC Sampling		V10-002		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFVZ-09-003	TFVZ-09-000001	surface	n/A	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	n/A		n/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23MR0	WATER	4-15-10	1010	✓
S10V000310				

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-15-10 1410	[illegible]	4/15/10 @1410

SPECIAL INSTRUCTIONS
Cooler 1 L

22252010016O

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-022	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Trip Blank 1	WMA C Sampling for CMS - QC Sampling		V10-002		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	Surface	N/A	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B238F5	WATER	4-15-10	0925
5104000320			

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell		[illegible]	4/15/10 @1410

SPECIAL INSTRUCTIONS
11c cooler

222S20100160

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-055	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Surface	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	Surface	n/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	n/A		n/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C	
TYPE OF CONTAINER	Gs	Gs	
NO. OF CONTAINER(S)	5	3	
VOLUME	40mL	40mL	
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B23KN6	SOIL	4-15-10	1010	✓	✓	
S10V000368	Lo					
S10V000369	Hi					
DPR 379						
4-20-10						

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-15-10 1410	B Tillotsock	4/15/10 @ 1410

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

Freezer - 11c
Cooler 11c

22225201 0213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-054	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Surface	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFVZ-09-003	TFVZ-09-000001	Surface	n/a	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	n/a		n/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23K87	SOIL	4-15-10	1010	✓
S10V00390				

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-15-10 1410	D Tuttle	4/15/10 @ 1410

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

Cooler ICE
Freezer -ICE

222S20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-053	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Surface	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	Surface	n/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	n/A		n/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B23R25	SOIL	4-15-10	1010
S10V000401			

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-15-10 1410	TM Gollock	4/15/10 @1400

SPECIAL INSTRUCTIONS

(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

cooler 11c

22252010021 3

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-058	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Surface Dup	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-000001	TFV2-09-00000	Surface Dup	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C
TYPE OF CONTAINER	Gs	Gs
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B23KN9	SOIL	4-15-10	1010	✓	✓
S10V000369	Lo				
S10V000380	Hi				

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-15-10 1410	D McCollock	4/15/10 @ 1410

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

Freezer -11c
Cooler 11c

222S20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-057	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Surface Dup	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA** B-4-15-10 ~~B~~C N/9	**METHOD OF SHIPMENT**	
TFVZ-09-003	TFVZ-09-000001	Surface Dup		Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KN8	SOIL	4-15-10	1010	✓
S10V000391				

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-15-10 1410	TM Estbek	4/15/10 @ 1410

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

Cooler - ice
Freezer ice

222S20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-056	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Surface Dup	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFVZ-09-003	TFVZ-09-000001	Surface Dup	n/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	n/A		n/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KN7	SOIL	4-15-10	1010	✓
S10V000402				

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell BCampbell	4-15-10 1410	D McCollock	4/15/10 @1410

SPECIAL INSTRUCTIONS

(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

cooler 11 c

222S20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

4/6/2010 10:15 AM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C farm, Surface 7670		
Sampler Initials:	OH, BC	**Date:**	4-15-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-9-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23KN6	K	N/A	N/A	25.99	31.55	5.56	No Methanol
B23KN6	L	N/A	N/A	25.94	32.02	6.08	No Methanol
B23KN6	M	N/A	N/A	25.93	31.57	5.64	No Methanol
B23KN6	N	N/A	N/A	25.98	31.79	5.81	No Methanol
	P	N/A	N/A	26.11	31.61	5.50	No Methanol
B23KN6	W	38.551	38.42	38.82	44.60	5.78	10 ml.
B23KN6	X	38.377	38.26	38.65	44.54	5.89	10 ml.
B23KN6	Y	38.403	38.27	38.67	44.29	5.62	10 ml.
B23K87	*	38.377	38.25	38.64	~~N/A~~ 38.64	N/A	10 ml.

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev 6GD

Date Samples Received: 4/20/10 Group #: 20100213, 160

Number of Samples: VA Lose Set

Sample Custodian: TMcCollock

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete		✓	
Check that outer custody seal is intact, if present	✓		
Record cooler temperature in centigrade, as appropriate	✓		☐ Check if no cooler and/or no ice — Frz: -4 / Cool: 0
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling	✓		
• Sampling location or origin	✓		
• Container type, size, and number	✓		
• Analysis request is clear	✓		
• Signature of persons relinquishing and receiving samples	✓		
• Date and/or time of sample custody exchange	✓		
Verify that sample numbers on containers match the COC and/or RSA	✓		
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? yes PM Initials GPR Date 4-20-2010

If No, comment on communication and resolution:

Other Comments:

A-6005-342 (REV 0)

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-033	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Field Blank 2	WMA C Sampling for CMS - QC Sampling		V10-002		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	5-7	n/a	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	n/a				

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B23MR1	WATER	4-20-10	1214 ✓
510V000311			

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-20-10 1350	M Collock	4/20/10 @1350

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

2225 2010060

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-023	PAGE 1 OF 1
COLLECTOR: Campbell / Harris	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 7P	DATA TURNAROUND: 75 Days / 75 Days
SAMPLING LOCATION: C7670 Trip Blank 2	PROJECT DESIGNATION: WMA C Sampling for CMS - QC Sampling		SAF NO.: V10-002	AIR QUALITY ☐	
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFV2-09-000001	ACTUAL SAMPLE DEPTH: 5-7	COA: n/a	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: n/a		BILL OF LADING/AIR BILL NO.: n/a		

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B238F6	WATER	4-20-10	1214	✓
S10V000321				

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-20-10 1350	[illegible]	4/20/10 @ 1350

SPECIAL INSTRUCTIONS: 22262010016 0

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-060	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 I001	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	5-7	n/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	n/A		n/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KN5	SOIL	4-20-10	1245	✓
510V000392				

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell BC-pbell	4-20-10 1350	M McCollock	4/20/10 @ 1350

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

22252010021 3

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-061	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 I001	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	5-7	n/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	n/A		n/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C
TYPE OF CONTAINER	Gs	Gs
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B23KN4	SOIL	4-20-10	1245	✓	✓								
S10V000370	Lo												
S10V000381	Hi												

CHAIN OF POSSESSION		SIGN/PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-20-10 1350	B Tuteback	4/20/10 @ 1350
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

222S20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-059	PAGE 1 OF 1
COLLECTOR: Campbell / Harvig	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7670 I001	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFV2-09-00000	ACTUAL SAMPLE DEPTH: 5-7	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	Liner
NO. OF CONTAINER(S)	2 BC 4-20-10
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B238J9	SOIL	4-20-10	1245	✓
S10V000412				
S10V000413				

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-20-10 1350	Tretoffock	4/20/10 @ 1350
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

22252010 6213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

4/6/2010 10:15 AM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C 7670 / I001		
Sampler Initials:	DH, BC	**Date:**	4-20-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-9-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23KN4	K	N/A	N/A	26.05	30.94	4.89	No Methanol
B23KN4	L	N/A	N/A	26.18	31.42	5.24	No Methanol
B23KN4	M	N/A	N/A	25.88	31.38	5.50	No Methanol
B23KN4	N	N/A	N/A	25.98	31.05	5.07	No Methanol
B23KN4	P	N/A	N/A	26.03	31.30	5.27	No Methanol
B23KN4	W	38.190	38.09	38.47	43.10	4.63	10 ml.
B23KN4	X	38.579	38.52	38.82	42.89	4.07	10 ml.
B23KN4	Y	38.555	38.43	38.88	42.60	3.72	10 ml.
B23KN5	*	37.785	37.63	38.02	38.02	n/A	10 ml.

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev E.E.0

Date Samples Received: 4-22.10 Group #: 2060213, 160

Number of Samples: 3 sets VADOSE

Sample Custodian: [illegible]

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete		✓	on File
Check that outer custody seal is intact, if present		✓	
Record cooler temperature in centigrade, as appropriate	0°C / -12°C		☐ Check if no cooler and/or no ice
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling			
• Sampling location or origin			
• Container type, size, and number			
• Analysis request is clear			
• Signature of persons relinquishing and receiving samples			
• Date and/or time of sample custody exchange			
Verify that sample numbers on containers match the COC and/or RSA			
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? yes PM Initials MPR Date 3-25-11

If No, comment on communication and resolution:

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-034	PAGE 1 OF 1
COLLECTOR: HARRIS	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 7P	DATA TURNAROUND
SAMPLING LOCATION: C7670 Field Blank 3	PROJECT DESIGNATION: WMA C Sampling for CMS - QC Sampling		SAF NO.: V10-002	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: ~~TFVZ~~ TFVZ-09-003	FIELD LOGBOOK NO.: TFVZ-09-000001	ACTUAL SAMPLE DEPTH: 10-12	COA: N/A	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO BRC 4/22/10: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B23MR2	WATER	4/22/10	0830
S10V000312			

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harris Dan Harris	4-22-10 1200	RHSteele RHSteele	4-22-10 1200

SPECIAL INSTRUCTIONS

-0 C +B
RHS

222S20100160

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-024	PAGE 1 OF 1
COLLECTOR: Harris	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 7P	DATA TURNAROUND
SAMPLING LOCATION: C7670 Trip Blank 3	PROJECT DESIGNATION: WMA C Sampling for CMS - QC Sampling		SAF NO.: V10-002	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFV2-09-000001	ACTUAL SAMPLE DEPTH: 10-12	COA: n/A	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: n/A		BILL OF LADING/AIR BILL NO.: n/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23MP2	WATER	4-22-10	0820	✓
S10V000322				

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dawn Dawn Harris	4-22-10 1200	RKSteele RKSteele	4-22-10 1200

SPECIAL INSTRUCTIONS
-0°C TB
RK

222S20100160

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-064	PAGE 1 OF 1
COLLECTOR: HARRIS	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7670 I002	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFVZ-09-003	FIELD LOGBOOK NO.: TFVZ-09-000001	ACTUAL SAMPLE DEPTH: 10-12	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C	
TYPE OF CONTAINER	Gs	Gs	
NO. OF CONTAINER(S)	5	3	
VOLUME	40mL	40mL	
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B23KP2	SOIL	4/22/10	0915	✓	✓	
S10V000371	Low Level VOA					
S10V000382	High Level VOA					

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harris Dan Harris	4-22-10 1200	RHBook RHBook	4-22-10 1200

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

-12°C TB
RH

222S 20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-063	PAGE 1 OF 1
COLLECTOR: HARRIS	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7670 I002	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFVS-09-003	FIELD LOGBOOK NO.: TFVZ-09-000001	ACTUAL SAMPLE DEPTH: 10-12	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KP1	SOIL	4/22/10	0915	✓
S10V000393	MeOH Blank			

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harris Dan Harris	4-22-10 1200	RHtal RHtal	4-22-10 1200

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

-0C TB
RHL

222S20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-062	PAGE 1 OF 1
COLLECTOR: HARRIS	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7670 I002	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFV2-09-000001	ACTUAL SAMPLE DEPTH: 10-12	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	Liner
NO. OF CONTAINER(S)	~~2~~ 4-22-10 1
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KP0	SOIL	4/22/10	0915	✓
S10V000415				

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harris Dan Harris	4-22-10 1200	R Rist RRistelle	4-22-10 1200

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;
-0°C TO RK

222S 20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-065	PAGE 1 OF 1
COLLECTOR: HARRIS	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7670 I003	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFV2-09-000001	ACTUAL SAMPLE DEPTH: 12-14	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	Liner/Jars 500 ml
NO. OF CONTAINER(S)	3 BC 4-22-10 2
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KP3	SOIL	4/22/10	945	✓
S10V000416	Liner A			
S10V000417	Shoe			

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harris Dan Harris	4-22-10 1200	RKSteele RKSteele	4-22-10 1200
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

or TB
RKSteele

222S 20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

4/6/2010 10:15 AM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

SAS 4-22-09

Location:	C-7670 ~~I0002~~ I002		
Sampler Initials:	SAS	**Date:**	4-22-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-09-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23KP2	K	N/A	N/A	26.29	31.53	5.24	No Methanol
B23KP2	L	N/A	N/A	26.10	31.18	5.08	No Methanol
B23KP2	M	N/A	N/A	26.22	31.82	5.60	No Methanol
B23KP2	N	N/A	N/A	26.18	31.10	4.92	No Methanol
B23KP2	P	N/A	N/A	26.21	30.52	4.31	No Methanol
B23KP2	W	38.054	37.88	38.29	41.79	3.50	10ml
B23KP2	X	38.051	38.02	38.42	43.16	4.74	10ml
~~B~~ SAS 4-22-10	~~Y~~	~~38.138~~ SAS 4-22-10					SAS 4-22-10 ~~10ml~~
B23KP2	Y	38.197	38.03	38.42	42.97	4.55	10ml
B23KP1	*	38.252	38.16	38.56	N/A	N/A	10ml

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-070	PAGE 1 OF 1
COLLECTOR: HARRIS	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7670 I004	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFVZ-09-003	FIELD LOGBOOK NO.: TFVZ-09-00000	ACTUAL SAMPLE DEPTH: 14-16	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C
TYPE OF CONTAINER	Gs	Gs
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B23KP8	SOIL	4/22/10	1055	✓	✓
S10V000373	Low Level VOA				
S10V000384	High Level VOA				

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[illegible]	4-22-10 1200	[illegible]	4-22-10 1200

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

0°C TB RK
-12°C TB RK

222S20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-069	PAGE 1 OF 1
COLLECTOR: Harris	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7670 I004	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFV2-09-000001	ACTUAL SAMPLE DEPTH: 14-16	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KP7	SOIL	4-22-10	1055	✓
S10V000395	MeOH Blank			

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harris	4-22-10 1200	RHSteele	4-22-10 1200
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

0°CTB
RA

222S20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-068	PAGE 1 OF 1
COLLECTOR: Harris	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7670 I004	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFV2-09-000001	ACTUAL SAMPLE DEPTH: 14-16	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	Liner
NO. OF CONTAINER(S)	~~3~~ 2 BC 4-22-10
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KP6	SOIL	4-22-10	1055	J
S10V000821	Liner A			
S10V000822	Liner B			

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[illegible]	4-22-10 1200	RHSteele	4-22-10 1200
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

DOCTB
RKB

222S 20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

4/6/2010 10:15 AM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C 7670 I 004		
Sampler Initials:	SAS	**Date:**	4-22-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-09-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23KP8	K	N/A	N/A	25.91	32.11	6.20	No Methanol
B23KP8	L	N/A	N/A	26.22	31.87	5.65	No Methanol
B23KP8	M	N/A	N/A	25.94	32.32	6.38	No Methanol
B23KP8	N	N/A	N/A	26.11	32.13	6.02	No Methanol
B23KP8	P	N/A	N/A	26.11	32.25	6.14	No Methanol
B23KP8	W	38.530	38.46	38.84	43.49	4.65	10 ml.
B23KP8	X	38.521	38.33	38.73	43.73	5.00	10 ml.
B23KP8	Y	38.223	38.08	38.47	40.52 ①	2.05 ①	10 ml.
B23KP7	*	37.975	37.83	38.23	N/A	N/A	10 ml.

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

① Sample bottle cap had grain of sand in threads therefore did not seal properly & methanol leaked out of bottle. [illegible]

Type	Document No.	Rev/Mod	Release Date	Page
CONTINUOUS	TO-080-901	A-2	04/06/2010	18 of 18

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev EE.0

Date Samples Received: 4-23-10 Group #: 20100213,160

Number of Samples: (1 set) CFARM vadose (1 set) SSX Barrier

Sample Custodian: [illegible]

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete		✓	on File
Check that outer custody seal is intact, if present		✓	
Record cooler temperature in centigrade, as appropriate	0°C 1°C		☐ Check if no cooler and/or no ice
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling	✓		
• Sampling location or origin	✓		
• Container type, size, and number	✓		
• Analysis request is clear	✓		
• Signature of persons relinquishing and receiving samples	✓		
• Date and/or time of sample custody exchange	✓		
Verify that sample numbers on containers match the COC and/or RSA	✓		
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? yes PM Initials DPR Date 3-25-1,

If No, comment on communication and resolution:

Other Comments:

A-6005-342 (REV 0)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-035	PAGE 1 OF 1
COLLECTOR: Campbell	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 7P	DATA TURNAROUND
SAMPLING LOCATION: C7670 Field Blank 4	PROJECT DESIGNATION: WMA C Sampling for CMS - QC Sampling		SAF NO.: V10-002	AIR QUALITY: ☐	75 Days / 75 Days
ICE CHEST NO.: TFVZ-09-003	FIELD LOGBOOK NO.: TFVZ-09-000001	ACTUAL SAMPLE DEPTH: 39' - 41'	COA: N/A	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23MR3	WATER	4-23-10	0855	✓
SOV000313				

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-23-10 1150	RTSteele RTSteele	4-23-10 1150

SPECIAL INSTRUCTIONS

0°C TD RA

222S 20100160

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-025	PAGE 1 OF 1
COLLECTOR: Campbell	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 7P	DATA TURNAROUND
SAMPLING LOCATION: C7670 Trip Blank 4	PROJECT DESIGNATION: WMA C Sampling for CMS - QC Sampling		SAF NO.: V10-002	AIR QUALITY: ☐	75 Days / 75 Days
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFVZ-09-000001	ACTUAL SAMPLE DEPTH: 39' - 41'	COA: N/A	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23MP3	WATER	4-23-10	0855	✓
S10V000323				

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-23-10 1150	R Stegle R Stegle	4-23-10 1150
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
-0°C TS
RS

222S 20100160

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-073	PAGE 1 OF 1
COLLECTOR: Campbell	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7670 I005	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFV2-09-~~000002~~ 000001	ACTUAL SAMPLE DEPTH: 39-41	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO. REC 4/23/10 N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C
TYPE OF CONTAINER	Gs	Gs
NO. OF CONTAINER(S)	5	3 ✓
VOLUME	40mL	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B23KR1	SOIL	4/23/10	0943	✓	✓
S10V000374	Low level				
S10V000385	High level				

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	4-23-10 1150	RHSteele RHSteele	4-23-10 1150

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

0°C TB RB / -7°C RB RB

222S 20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-072	PAGE 1 OF 1
COLLECTOR: Campbell	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7670 I005	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFV2-09-000001	ACTUAL SAMPLE DEPTH: 39-41	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KR0	~~SOIL~~ BC 4-23-10 Liquid	4-23-10	0943	✓
S10V000396	MeOH			

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
BCampbell BC-Campbell	4-23-10 1150	RLSteele RLSteele	4-23-10 1150
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

OCTB
RK

222S 20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-071	PAGE 1 OF 1
COLLECTOR: Campbell	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7670 I005	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFV2-09-003	FIELD LOGBOOK NO.: TFV2-09-000001	ACTUAL SAMPLE DEPTH: 39-41	COA: n/a	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: n/a		BILL OF LADING/AIR BILL NO.: n/a		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	Liner
NO. OF CONTAINER(S)	3
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KP9	SOIL	4-23-10	0943	✓
S10V000 824	Liner A			
825	Liner B			
826	Liner C			

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: B Campbell	DATE/TIME: 4-23-10 1150	RECEIVED BY/STORED IN: RKSteele	DATE/TIME: 4-23-10 1150
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

OC + B
-0
RK

222S 20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

4/6/2010 10:15 AM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C 7670 I 005		
Sampler Initials:	BC	**Date:**	4-23-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-09-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weight[5] (grams)[5]	Methanol in sample bottle (ml)
B23KR1	K	N/A	N/A	26.13	31.60	5.47	No Methanol
B23KR1	L	N/A	N/A	26.01	31.54	5.53	No Methanol
B23KR1	M	N/A	N/A	26.00	31.04	5.04	No Methanol
B23KR1	N	N/A	N/A	26.31	31.71	5.40	No Methanol
B23KR1	P	N/A	N/A	26.23	31.56	5.33	No Methanol
B23KR1	W	38.334	38.22	38.61	43.24	4.63	10 ml
B23KR1	X	38.410	38.24	38.65	42.93	4.32	10 ml
B23KR1	Y	38.626	38.43	38.83	43.99	5.16	10 ml
B23KR0	*	38.202	38.08	38.48	N/A	N/A	10 ml

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev EG.0

Date Samples Received: 5-4-16 Group #: 2010213, 160

Number of Samples: 2 sets vadose

Sample Custodian: [illegible]

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete		✓	On File
Check that outer custody seal is intact, if present		✓	
Record cooler temperature in centigrade, as appropriate	0°/-1°		☐ Check if no cooler and/or no ice
Samples are intact and in good condition			If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling	✓		
• Sampling location or origin	✓		
• Container type, size, and number	✓		
• Analysis request is clear	✓		
• Signature of persons relinquishing and receiving samples	✓		
• Date and/or time of sample custody exchange	✓		
Verify that sample numbers on containers match the COC and/or RSA	✓		
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? Yes PM Initials GPR Date 3-25-11

If No, comment on communication and resolution:

Other Comments:

A-6005-342 (REV 0)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-036	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Field Blank 5	WMA C Sampling for CMS - QC Sampling		V10-002		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	139-141	n/a	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	n/a		n/a		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23MR4	WATER	5-4-10	0925	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	5-4-10 1215	R Steele R Steele	5-4-10 1215
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

0°C TB

GRP# 222S0100160

Sample# S10V000314

omni pb

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-026	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Trip Blank 5	WMA C Sampling for CMS - QC Sampling		V10-002		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	139-141	N/A	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B23MP4	WATER	5-4 ~~4-5~~ 10	0925
		B: 5-4-10	

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell / B Campbell	5-4-10 1215	[illegible]	5-4-10 1215
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

0 C/B

222S20100160
S10V000324

omni
RCV

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-076	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 I006	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	139-141	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C	
TYPE OF CONTAINER	Gs	Gs	
NO. OF CONTAINER(S)	5	3	
VOLUME	40mL	40mL	
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B23KR4	SOIL	5-4-10	1002	✓	✓	
S10V000375	Lo					
386	Hi					

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RL Campbell DC-Campbell	5-4-10 1215	RL Steele RL Steele/6	5-4-10 1215

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

-0°C TB / 7°C TB
222S20100213
S10V000375
S10V000386

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-075	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 I006	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	139-141	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KR3	SOIL	5-4-10	1002	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	5-4-10 1215	RHHart RJSteele	5-4-10 12:15
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

-0 °C TB

222S20100213
S10V000397

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-074	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell/Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 I006	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	139'- 141'	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	Liner
NO. OF CONTAINER(S)	3
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KR2	SOIL	5-4-10	1002	✓
S10V000 827	A			
828	B			
829	C			

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	5-4-10 1215	RAHarris RASteele	5-4-10 1215
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

0°C TB 222S20100213
S10V000 827 → 829 omit MV

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

4/6/2010 10:15 AM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C-7670 I 006		
Sampler Initials:	BC	**Date:**	5-4-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-09-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23KR4	K	N/A	N/A	26.17	31.17	5.00	No Methanol
B23KR4	L	N/A	N/A	26.00	31.07	5.07	No Methanol
B23KR4	M	N/A	N/A	25.99	31.20	5.21	No Methanol
B23KR4	N	N/A	N/A	25.99	31.16	5.17	No Methanol
B23KR4	P	N/A	N/A	26.16	30.85	4.69	No Methanol
B23KR4	W	37.718	37.59	38.00	42.08	4.08	10 ml.
B23KR4	X	36.815	36.68	37.09	42.17	5.08	10 ml.
B23KR4	Y	37.563	37.39	37.81	42.98	5.17	10 ml.
B23KR3	*	37.296	37.15	37.56	37.56	n/A	10 ml.

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev 66.0

Date Samples Received: 5-5-10 Group #: 20100213

Number of Samples: 1 set uAdose " 160

Sample Custodian: Rt Steel

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete		✓	on File
Check that outer custody seal is intact, if present	✓		
Record cooler temperature in centigrade, as appropriate	1°C / 8°C		☐ Check if no cooler and/or no ice
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling	✓		
• Sampling location or origin	✓		
• Container type, size, and number	✓		
• Analysis request is clear	✓		
• Signature of persons relinquishing and receiving samples	✓		
• Date and/or time of sample custody exchange	✓		
Verify that sample numbers on containers match the COC and/or RSA	✓		
Samples stored properly (e.g., refrigeration)	✓		RtSteel

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? yes PM Initials RK Date 5.5.10

If No, comment on communication and resolution: Per J.R. Ritenour

Other Comments:

A-6005-342 (REV 0)

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-037	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Field Blank 6	WMA C Sampling for CMS - QC Sampling		V10-002		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	163-165	N/A	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23MR5	WATER	5-5-10	08:56	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	5-5-10 1130	RHSteele RHSteele	5-5-10 1130

SPECIAL INSTRUCTIONS

-1°C TB
RHSteele

~~2225201021 3~~
~~510V000 830 831, 832~~
RHSteele 5.5.10
2225201001 60
510V000315

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-027	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
Harris / Campbell	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Trip Blank 6	WMA C Sampling for CMS - QC Sampling		V10-002		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFVZ-09-003	TFVZ-09-000001	163' - 165'	n/A	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	n/A		n/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23MP5	WATER	5-5-10	08:56	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	5-5-10 1130	RHSteele RHSteele	5-5-10 1130
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
-1°C TB
RHS
22252010016O
S10V000325

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-079	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 I007	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	163 – 165	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION				Cool <-7C and >-20C	MEOH/Cool~4 C								
TYPE OF CONTAINER				Gs	Gs								
NO. OF CONTAINER(S)				5	3								
VOLUME				40mL	40mL								
SAMPLE ANALYSIS				VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);								
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**										
B23KR7	SOIL	5-5-10	1030	✓	✓								

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
BCampbell BCampbell	5.5.10 1130	RtSteele RtSteele	5.5.10 1130
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

-1°C TB
-8°C TB

222S20100213
510V000376-LO
510V000387-Hi

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-078	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 I007	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	163-165	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KR6	SOIL	5-5-10	1030	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell BC-pbell	5-5-10 1130	RHHall RHSteele	5-5-10 1130
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

-1°C TB
2225 20100 ~~214~~ 213 RHHall 5-5-10
510V000398

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-077	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Campbell / Harris	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 I007	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFV2-09-003	TFV2-09-000001	163-165	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	Liner
NO. OF CONTAINER(S)	3
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KR5	SOIL	5-5-10	1030	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
B Campbell B Campbell	5.5.10 1130	RtSteele RtSteele	5.5.10 1130

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

-1°C FB
RK

222SC0100213
510V000 830, 831, 832
A B C

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

4/6/2010 10:15 AM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C7470 / I007		
Sampler Initials:	~~OH~~, BC	**Date:**	5-5-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-9-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23KR7	K	N/A	N/A	26.03	31.81	5.78	No Methanol
B23KR7	L	N/A	N/A	26.05	31.61	5.56	No Methanol
B23KR7	M	N/A	N/A	26.14	31.32	5.18	No Methanol
B23KR7	N	N/A	N/A	26.03	30.37	4.34	No Methanol
B23KR7	P	N/A	N/A	25.84	30.78	4.94	No Methanol
B23KR7	W	37.868	37.70	38.15	43.17	5.02	10 ml.
B23KR7	X	37.766	37.60	38.04	42.33	4.29	10 ml.
B23KR7	Y	37.065	36.92	37.36	41.54	4.18	10 ml.
B23KR6	*	37.146	36.99	37.44	37.44	n/A	10 ml.

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev G.0

Date Samples Received: 5-7-10 Group #: 00100213, 160

Number of Samples: 1 set C-Fam vadosy

Sample Custodian: RHtul

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete		✓	on File
Check that outer custody seal is intact, if present	✓	✗	RH 5-7-10
Record cooler temperature in centigrade, as appropriate	10°C		☐ Check if no cooler and/or no ice
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling	✓		
• Sampling location or origin	✓		
• Container type, size, and number	✓		
• Analysis request is clear	✓		
• Signature of persons relinquishing and receiving samples	✓		
• Date and/or time of sample custody exchange	✓		
Verify that sample numbers on containers match the COC and/or RSA	✓		
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? yes PM Initials DPR Date 5-12-10

If No, comment on communication and resolution:

Other Comments:

A-6005-342 (REV 0)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-002-038	PAGE 1 OF 1
COLLECTOR: Harris / Snook	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 7P	DATA TURNAROUND
SAMPLING LOCATION: C7670 Field Blank 7	PROJECT DESIGNATION: WMA C Sampling for CMS - QC Sampling		SAF NO.: V10-002	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFVZ-09-003	FIELD LOGBOOK NO.: TFVZ-09-000001	ACTUAL SAMPLE DEPTH: 220' - 222'	COA: N/A	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23MR6	WATER	5-7-10	11:30	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harm Dantkoots	5-7-10 1300	R.R. Steele R.R. Steele	5-7-10 1300

SPECIAL INSTRUCTIONS
1°C TB
RK
GRP# 222S2010160
SAM# S10V000316

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-028	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
Harris / Snook	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
C7670 Trip Blank 7	WMA C Sampling for CMS - QC Sampling	V10-002

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
TFVZ-09-003	TFVZ-09-000001	220'-222'	N/A	GOVERNMENT VEHICLE

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
222-S Lab Operations	N/A	N/A

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B23MP6	WATER	5-7-10	11:30
S10V000326			

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harris Dan Harris	5-7-10 1300	RKSteele RKSteele	5-7-10 1300

SPECIAL INSTRUCTIONS
1 °C TB
RK

20100160

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-081	PAGE 1 OF 1

COLLECTOR: Harris / Snook	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P; DATA TURNAROUND
SAMPLING LOCATION: C7670 I008	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐; 75 Days / 75 Days
ICE CHEST NO.: TFVZ-09-003	FIELD LOGBOOK NO.: TFVZ-09-000001	ACTUAL SAMPLE DEPTH: 3/30 ~~250'~~ 220' - 222'	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	Gs
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KR9	SOIL	5-7-10	1215	✓
S10V000399	Methanol blk			

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harris Dan Harris	5-7-10 1300	R.Stool R.Stool 6	5.7.10 1300

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

1°C TB OK 20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-080	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8P	DATA TURNAROUND
Harris / Snook	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 I008	WMA C Sampling for CMS		V10-003		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFVZ-09-003	TFVZ-09-000001	220' - 222'	N/A	Govt. Vehicle	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	Liner
NO. OF CONTAINER(S)	~~1~~ 2 SJS 5-7-10
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KR8	SOIL	5-7-10	1215	✓
S10V000834	B			
835	C			

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Dan Harry, Dan Harris	5-7-10 1500	RHstel RHSteele	5-7-10 1300

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

1 °C TB RK 20100213

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

4/6/2010 10:15 AM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C 7670 / I008		
Sampler Initials:	CAA	**Date:**	5-7-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-9-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
N/A	K	N/A	N/A				No Methanol
	L	N/A	N/A				No Methanol
	M	N/A	N/A		N/A		No Methanol
	N	N/A	N/A				No Methanol
	P	N/A	N/A				No Methanol
	W						
	X						
	Y			N/A			
B23KR9	*	37.530	37.53	37.92	37.92	N/A	10 ml.

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev EG. 0

Date Samples Received: 5-11-10 Group #: 20100213, 160

Number of Samples: 1 set C-VADOSE

Sample Custodian: [illegible]

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	✓		
RSR provided?	✓		
Verify GKI is complete			on file
Check that outer custody seal is intact, if present		✓	
Record cooler temperature in centigrade, as appropriate	1 ice / 8 ice		☐ Check if no cooler and/or no ice
Samples are intact and in good condition	✓		If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:			
• Client name and client sample number	✓		
• Date and time of sampling			
• Sampling location or origin			
• Container type, size, and number			
• Analysis request is clear			
• Signature of persons relinquishing and receiving samples			
• Date and/or time of sample custody exchange			
Verify that sample numbers on containers match the COC and/or RSA			
Samples stored properly (e.g., refrigeration)	✓		

Notify the PM immediately if any problems are noted. (A "No" answer requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? yes PM Initials DPR Date 3-25-11

If No, comment on communication and resolution:

Other Comments:

A-6005-342 (REV 0)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-039	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
B. Campbell	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Field Blank 8	WMA C Sampling for CMS - QC Sampling		V10-002 N/A		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFVZ-09-003	TFVZ-09-000001	222-224	N/A	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A				

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23MR7	WATER	5-11-10	1255	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
BCampbell BC-Campbell	5-11-10 1420	Rbstacle Rbstacle	5/11/10 1420

SPECIAL INSTRUCTIONS

λ^oc

Grp# 20100160
Sam# S10V000317

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-002-029	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 7P	DATA TURNAROUND
Campbell	SYDNOR, HA	373-3967	BERLIN, PC	AIR QUALITY ☐	75 Days / 75 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7670 Trip Blank 8	WMA C Sampling for CMS - QC Sampling		V10-002		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
TFVZ-09-003	TFVZ-09-000001	222-224	N/A	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
222-S Lab Operations	N/A		N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	3
VOLUME	40mL
SAMPLE ANALYSIS	VOA - 8260 (TCL) (TF);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23MP7	WATER	5-11-10	1255	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell Campbell	5-11-10 1420	Stodg RFSteelG	5-11-10 1420
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
λ °C TB
QK
GRP # 20100160
SAM # S10V000327

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	V10-003-085	PAGE 1 OF 1

COLLECTOR: Campbell / HARRIS	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC
PRICE CODE: 8P	DATA TURNAROUND: 75 Days / 75 Days	AIR QUALITY: ☐	
SAMPLING LOCATION: C7670 I009	PROJECT DESIGNATION: WMA C Sampling for CMS	SAF NO.: V10-003	
ICE CHEST NO.: TFVZ-09-003	FIELD LOGBOOK NO.: TFVZ-09-00000	ACTUAL SAMPLE DEPTH: 222-224	COA: N/A
METHOD OF SHIPMENT: Govt. Vehicle			
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A	BILL OF LADING/AIR BILL NO.: N/A	

MATRIX*
A=Air
DL=Drum
Liquids
DS=Drum
Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C
TYPE OF CONTAINER	Gs	Gs
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	VOA - 5035/8260 (LOW LEVEL) (TF);	VOA - 5035/8260 (HIGH LEVEL) (TF);

No sample Attached 5-11-10

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B23KT3	SOIL	5-11-10	1335	✓	

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell Campbell	5-11-10 1420	RSteele RSteele	5-11-10 1420

SPECIAL INSTRUCTIONS

** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.

1°C TD
-8°C RK

GRP# ~~20100213~~ RK
20100213
Sam# S10V000378

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Washington River Protection Solutions	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			V10-003-083	PAGE 1 OF 1
COLLECTOR: CAMPBELL/HARRIS	COMPANY CONTACT: SYDNOR, HA	TELEPHONE NO.: 373-3967	PROJECT COORDINATOR: BERLIN, PC	PRICE CODE: 8P	DATA TURNAROUND
SAMPLING LOCATION: C7670 I009	PROJECT DESIGNATION: WMA C Sampling for CMS		SAF NO.: V10-003	AIR QUALITY ☐	75 Days / 75 Days
ICE CHEST NO.: TFVZ-09-003	FIELD LOGBOOK NO.: TFVZ-09-00001	ACTUAL SAMPLE DEPTH: 222-224	COA: N/A	METHOD OF SHIPMENT: Govt. Vehicle	
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~6C
TYPE OF CONTAINER	Liner
NO. OF CONTAINER(S)	1 SVS 2 TFHD
VOLUME	160g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B23KT1	SOIL	5-11-10	1335	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Campbell C-pbell	5-11-10 1420	RtHeade RtHeade	5-11-10 1420

SPECIAL INSTRUCTIONS

** After VOA bottles for the direct pushes are filled, the sampler will cap remaining liners for shipment to 222-S. Where capping is not possible, the sample shall be put into 500 mL or 250 mL glass bottles with Teflon-lined lids.
(1)Semi-VOA - 8270 Complete (TF); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D; PCBs - 8082; Pesticides - 8081 (TF); ICP Metals - 6010 (SW-846) (TF); Mercury - 7471 - (CV) (TF); 300.7_AMMONIUM (TF); IC Anions - 9056; Sulfide - 9215; Total Cyanide - 9014 (TF); pH (Soil) - 9045; Americium-241 (TF); C-14; CURIUM; GAMMA ENERGY ANALYSIS (TF); H3 - TRITIUM; I129_SEP_GEA (TF); Isotopic Plutonium {Plutonium-239/240, Plutonium-238} Nickel-63 (TF); RADISO_ICPMS (TF); Selenium-79 (TF); Strontium-89,90 -- Sr-90;

-1°C TB

GRP# 20100213
SAM# S10V000 8368 DPL 3-25-11
" 837

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

5/10/2010 1:54 PM	WORKING COPY

VOC Soil and Sediment Sampling

Data Sheet 1 – Sample Record Sheet

SAMPLE RECORD SHEET

Location:	C farm / C7670 - I009		
Sampler Initials:	OA / BC	**Date:**	5-11-10
Scale Number:	820-66-06-002	**Cal. Due Date:**	11-9-10

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weights (grams)[5]	Methanol in sample bottle (ml)
B23KT3	K	N/A	N/A	26.02	30.82	4.80	No Methanol
B23KT3	L	N/A	N/A	26.27	32.28	6.01	No Methanol
B23KT3	M	N/A	N/A	26.15	31.58	5.43	No Methanol
B23KT3	N	N/A	N/A	26.08	30.34	4.26	No Methanol
B23KT3	P	N/A	N/A	26.13	31.51	5.38	No Methanol
B23KT3	W	37.074	37.00	37.41			10 ml.
B23KT3	X	37.408	37.36	37.77			10 ml.
B23KT3	Y	37.120	37.06	37.48			10 ml.
		not Enough material for methanol					
B23KT2	*	37.375	37.32	37.74	N/A	N/A	10 ml.

1 Sample suffix of K, L, M, N, and P will not have Methanol in the bottle, freeze these samples to between -7 °C (19.4 °F) and -20 °C (-4 °F)

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool W, X, Y, and * samples to between - 4 °C ± 2 °C (39.2 °F ± 3.6 °F).

2 Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

3 Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

4 Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

5 Soil weight is the vial with sample minus Initial Weight.