AKTPEERLESS

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October 6, 2020

Mr. Timothy Palazzolo
City of Detroit
Detroit Demolition Department
1301 Third Street
Detroit, Michigan 48226

Subject: **Topsoil Composite Soil Sampling Report**
6408 Burns
Detroit, Michigan
AKT Peerless Project No. 8997f5-5-10.4

Mr. Palazzolo:

The City of Detroit, Detroit Demolition Department retained AKT Peerless to conduct soil sampling at a residential demolition site located at 6408 Burns in Detroit, Wayne County, Michigan.

This scope of work was conducted in accordance with AKT Peerless' Work Order Request dated July 29, 2020 (approved July 29, 2020).

AKT Peerless understands that a residential structure was demolished at this location and the former basement excavation was filled with engineered fill (crushed residential hardfill consisting of broken concrete foundations and slabs, hard paved surfaces, brick and block, along with soil overburden) from the basement floor to approximately 12-inches below grade. An imported topsoil material was placed in the top 12-inches to grade.

Field Investigation

On August 19, 2020, Mr. Sean Brick and Mr. Antonio Morsette with AKT Peerless collected (1) composite sample, which consisted of three (3) discrete soil samples from the topsoil (top 12") combined into one (1) composite sample identified as "6408 Burns-TS-Composite" in the former area of the residential structure.

AKT Peerless used a shovel to collect the samples.

During sample collection, AKT Peerless adhered to proper decontamination procedures. Sampling equipment was decontaminated using the following methods to minimize potential cross-contamination of soil samples:

- Washing and scrubbing the equipment with non-phosphate detergent
- Rinsing the equipment
- Air-drying the equipment

AKT Peerless collected samples according to USEPA Publication SW-846, Testing Methods for Evaluating Solid Waste. Soil samples were collected in laboratory-supplied containers, stored on ice at approximately 4 degrees Celsius, and submitted under chain-of-custody documentation. Soil samples collected for volatile analyses (VOCs) were field preserved with methanol in accordance with U.S. EPA

Method 5035. Soil samples collected for additional analyses were stored in unpreserved, 8-ounce wide-mouth jars.

Photographs taken during sampling activities are included in Attachment I. A site map depicting the sample locations is included in Attachment II.

Laboratory Analysis and Methods

The soil samples were delivered to ALS Group, USA, an independent National Voluntary Laboratory Accreditation Program (NVLAP) laboratory in Holland, Michigan, under chain-of-custody documentation for analysis of:

- Volatile Organic Compounds (VOCs) in accordance with USEPA Method 8260C;
- Semi-Volatile Organic Compounds (SVOCs) in accordance with USEPA Method 8270D;
- Polychlorinated biphenyls (PCBs) in accordance with USEPA Method 8082;
- Michigan 10 Metals (arsenic, barium, cadmium, total chromium, copper, lead, mercury, selenium, silver, and zinc) in accordance with USEPA Method 6020B or 7471B;
- Chloride in accordance with USEPA Method 325.3;
- Herbicides in accordance with USEPA Method 8151; and
- Pesticides in accordance with USEPA Method 8081A.

Analytical Results

AKT Peerless compared the laboratory analytical results to Michigan Department of Environment, Great Lakes and Energy (EGLE) Part 201 Residential Cleanup Criterion (RCC) provided in Michigan Administrative Rules 299.1 through 299.50 and the requirements outlined in the Detroit Land Bank Authority (DLBA) Scope of Services, revised September 13, 2018 (which were the applicable Scope of Work standards at the time backfill was placed at the subject property).

The results of the investigation indicate the following:

- VOCs were not detected in the topsoil composite sample above laboratory method detection limits (MDLs).
- Select SVOCs were detected in the topsoil composite sample at concentrations exceeding laboratory MDLs but below EGLE Part 201 RCC. Remaining SVOCs were not detected above laboratory MDLs.
- PCBs were not detected in the topsoil composite sample above laboratory MDLs
- Arsenic, barium, cadmium, chromium (total), and copper, lead, and zinc were detected in the topsoil composite sample above laboratory MDLs but below EGLE Part 201 RCC. Selenium and silver were not detected in the topsoil composite sample above laboratory MDLs.
- Mercury was detected in the topsoil composite sample exceeding EGLE Part 201 Groundwater to Surfacewater Interface Protection (GSIP) criteria.
- Chloride was detected in the topsoil composite sample above laboratory MDLs but below EGLE Part 201 RCC.
- Herbicides were not detected in the topsoil composite sample above laboratory MDLs.
- Select pesticides were detected in the topsoil composite sample at concentrations above laboratory MDLs but below EGLE Part 201 RCC. Remaining pesticides were not detected in the topsoil composite sample above laboratory MDLs.

A table summarizing the soil sampling results is included in Attachment III. The laboratory analytical results and chain of custody documentation are also provided in Attachment III.

Conclusions and Recommendations

AKT Peerless collected one (1) composite sample, which consisted of three (3) discrete soil samples from the topsoil (top 12") combined into one (1) composite sample in the former area of the residential structure located at 6408 Burns in Detroit, Wayne County, Michigan. The soil samples were submitted for laboratory analysis of VOCs, SVOCs, PCBs, MI Metals, chloride, herbicides, and pesticides.

Laboratory analytical results from the topsoil composite sample depth did not identify the presence of target compounds above laboratory MDLs and/or EGLE Part 201 RCC, except for mercury. Mercury was identified at a concentration exceeding EGLE Part 201 GSIP criteria.

According to the DLBA Scope of Services, backfill that is contaminated above an EGLE Part 201 RCC or with detectable concentrations of VOCs is not suitable for the Detroit backfill program. Based on the sampling results from the topsoil composite sample, the topsoil material does not meet the DLBA Scope of Services requirements.

Limitations

The information and opinions obtained in this report are for the exclusive use of the City of Detroit. No distribution to or reliance by other parties may occur without the express written permission of AKT Peerless. AKT Peerless will not distribute this report without your written consent or as required by law or by a Court order. The information and opinions contained in the report are given in light of that assignment. The report must be reviewed and relied upon only in conjunction with the terms and conditions expressly agreed upon by the parties and as limited therein. Any third parties who have been extended the right to rely on the contents of this report by AKT Peerless (which is expressly required prior to any third-party release), expressly agrees to be bound by the original terms and conditions entered into by AKT Peerless and the City of Detroit.

Subject to the above and the terms and conditions, AKT Peerless accepts responsibility for the competent performance of its duties in executing the assignment and preparing reports in accordance with the normal standards of the profession but disclaims any responsibility for consequential damages. Although AKT Peerless believes that results contained herein are reliable, AKT Peerless cannot warrant or guarantee that the information provided is exhaustive or that the information provided by the City of Detroit or third parties is complete or accurate.

Signatures of Environmental Professionals

The following individuals contributed to the completion of this report.

DRAFT

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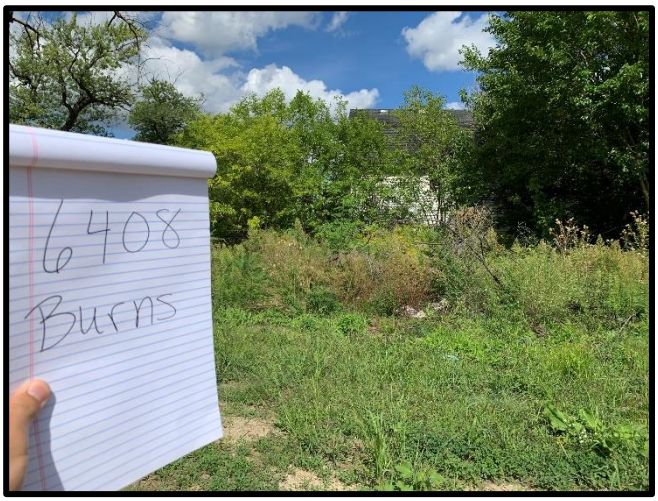
Attachment I

Site Photographs



View of the property looking north.

View of the property looking east.

View of the property looking south.

View of the property looking west.

View of sample locations.

View of typical top fill material.

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Property Photographs
6408 Burns
Detroit, Michigan

Taken by: S. Brick
Date: 08.19.2020

Project No: 8997F5-5-10.4

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Attachment II

Site Map

Notes:

[ ] – Approximate location of excavation area

X – Approximate location of AKT Peerless discrete sample locations

Map not to scale.

Map/aerial courtesy of Detroit Parcel Viewer at https://cityofdetroit.github.io/parcel-viewer/

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Sample Location Map
6408 Burns
Detroit, Michigan

Project No: 8997F5-5-10.4

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Attachment III

Soil Results Table and Laboratory Analytical Results

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Table 1: Summary of Soil Analytical Results
6408 Burns, Detroit, Michigan
AKT Peerless Project No. 8997F5-5-10.4

Parameters* *(Refer to detailed laboratory report for method reference data)*	Chemical Abstract Service Number	Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Residential Soil Volatilization to Indoor Air Inhalation Criteria	Residential Infinite Source Volatile Soil Inhalation Criteria	Residential Particulate Soil Inhalation Criteria	Residential Direct Contact Criteria	Soil Saturation Concentration Screening Levels	Sample Name / Collection Date	6408 Burns-TS-Composite / 8/19/2020
Metals (µg/kg)											
Arsenic	7440-38-2	5,800	4,600	4,600	NLV	NLV	7.2E+5	7,600	NA		4,700
Barium (B)	7440-39-3	75,000	1.3E+6	(G)	NLV	NLV	3.3E+8	3.7E+7	NA		45,000
Cadmium (B)	7440-43-9	1,200	6,000	(G,X)	NLV	NLV	1.7E+6	5.5E+5	NA		260
Chromium, Total	7440-47-3	18,000 (total)	30,000	3,300	NLV	NLV	2.6E+5	2.5E+6	NA		11,000
Copper (B)	7440-50-8	32,000	5.8E+6	(G)	NLV	NLV	1.3E+8	2.0E+7	NA		15,000
Lead (B)	7439-92-1	21,000	7.0E+5	(G,X)	NLV	NLV	1.0E+8	4.0E+5	NA		160,000
Mercury, Total	7439-97-6	130	1,700	50 (M); 1.2	48,000	52,000	2.0E+7	1.6E+5	NA		**290**
Selenium (B)	7782-49-2	410	4,000	400	NLV	NLV	1.3E+8	2.6E+6	NA		<360
Silver (B)	7440-22-4	1,000	4,500	100 (M); 27	NLV	NLV	6.7E+6	2.5E+6	NA		<360
Zinc (B)	7440-66-6	47,000	2.4E+6	(G)	NLV	NLV	ID	1.7E+8	NA		100,000
Chloride (ug/kg)											
Chloride	16887-00-6	NA	5.0E+6	(X)	NLV	NLV	ID	5.0E+5 (F)	NA		13,000
Polychlorinated biphenyls (PCBs, µg/kg)											
PCBs (J,T)	1336-36-3	NA	NLL	NLL	3.0E+6	2.4E+5	5.2E+6	(T)	NA		<69
Herbicides (µg/kg)											
Silvex (2,4,5-TP)	93-72-1	NA	3,600	2,200	NLV	NLV	ID	1.7E+6	NA		<5.3
2,4-Dichlorophenoxyacetic acid	94-75-7	NA	1,400	4,400	NLV	NLV	6.7E+9	2.5E+6	NA		<11
Pesticides (µg/kg)											
Chlordane (J)	57-74-9	NA	NLL	NLL	1.1E+7	1.2E+6	3.1E+7	31,000	NA		12
4-4'-DDE	72-55-9	NA	NLL	NLL	NLV	NLV	3.2E+7	45,000	NA		59
4-4'-DDT	50-29-3	NA	NLL	NLL	NLV	NLV	3.2E+7	57,000	NA		19
Remaining Pesticides	Varies	-	-	-	-	-	-	-	-		BDL
Semivolatile Organic Compounds (SVOCs, µg/kg)											
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLV	NLV	ID	20,000	NA		240
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLV	NLV	1.5E+6	2,000	NA		210
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	ID	ID	ID	20,000	NA		330
Benzo(k)fluoranthene (Q)	207-08-9	NA	NLL	NLL	NLV	NLV	ID	2.0E+5	NA		150
Chrysene (Q)	218-01-9	NA	NLL	NLL	ID	ID	ID	2.0E+6	NA		180
Fluoranthene	206-44-0	NA	7.3E+5	5,500	1.0E+9 (D)	7.4E+8	9.3E+9	4.6E+7	NA		350
Indeno(1,2,3-cd)pyrene (Q)	193-39-5	NA	NLL	NLL	NLV	NLV	ID	20,000	NA		150
Pyrene	129-00-0	NA	4.8E+5	ID	1.0E+9 (D)	6.5E+8	6.7E+9	2.9E+7	NA		310
Remaining SVOCs	Varies	-	-	-	-	-	-	-	-		BDL
Volatile Organic Compounds (VOCs, µg/kg)											
All VOCs	Varies	-	-	-	-	-	-	-	-		BDL

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R 299.49 FOOTNOTES FOR GENERIC CLEANUP CRITERIA TABLES (as last revised on December 30, 2013)

Cleanup Criteria Requirements for Response Activity (formerly the Part 201 Generic Cleanup Criteria and Screening Levels)

(A) Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005.

(B) Background, as defined in R 299.1(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.

(C) The criterion developed under R 299.20 to R 299.26 exceeds the chemical-specific soil saturation screening level (C_{sat}). The person proposing or implementing response activity shall document whether additional response activity is required to control free-phase liquids or NAPL to protect against risks associated with free-phase liquids by using methods appropriate for the free-phase liquids present. Development of a site-specific C_{sat} or methods presented in R 299.22, R 299.24(5), and R 299.26(8) may be conducted for the relevant exposure pathways.

(D) Calculated criterion exceeds 10%, hence it is reduced to 100 percent or 1.0E+9 parts per billion (ppb).

(E) Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). A notice of aesthetic impact may be employed as an institutional control mechanism if groundwater concentrations exceed the aesthetic drinking water criterion, but do not exceed the applicable health-based drinking water value [as provided in the table in Footnote (E) in R 299.49].

(F) Criterion is based on adverse impacts to plant life and phytotoxicity.

(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water. Where water hardness exceeds 400 mg $CaCO_3$/L, use 400 mg $CaCO_3$/L for the FCV calculation. The FCV formula provides values in units of ug/L or ppb. The generic GSI criterion is the lesser of the calculated FCV, the wildlife value (WV), and the surface water human non-drinking water value (HNDV). The soil GSI protection criteria for these hazardous substances are the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote. [See table in Footnote (G) in R 299.49].

(H) Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria. If both Cr III and Cr VI are present in groundwater, the total concentration of both cannot exceed the drinking water criterion of 100 ug/L. If analytical data are provided for total chromium only, they shall be compared to the cleanup criteria for Cr VI. Cr III soil cleanup criterion for protection of drinking water can only be used at sites where groundwater is prevented from being used as a public water supply, currently and in the future, through an approved land or resource use restriction.

(I) Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001), which is adopted by reference in these rules.

(J) Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.

(K) Hazardous substance may be flammable or explosive, or both.

(L) Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(9) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules. The generic residential drinking water criterion of 4 ug/L is linked to the generic residential soil direct contact criterion of 400 mg/kg. A higher concentration in the drinking water, up to the state action level of 15 ug/L, may be allowed as a site-specific remedy and still allow for drinking water use, under Section 20120a(2) of the NREPA if soil concentrations are appropriately lower than 400 mg/kg. If a site-specific criterion is approved based on this subdivision, a notice shall be filed on the deed for all property where the groundwater concentrations will exceed 4 ug/L to provide notice of the potential for unacceptable risk if soil or groundwater concentrations increase. Acceptable concentrations of site-specific soil and drinking water concentrations are presented in the [table in Footnote (L) in R 299.49].

(M) Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

(N) The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 ug/kg.

(O) The concentration of all polychlorinated and polybrominated dibenzodioxin and dibenzofuran isomers present at a facility, expressed as an equivalent concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon their relative potency, shall be added together and compared to the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin. The generic cleanup criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin are not calculated according to the algorithms presented in R 299.14 to R 299.26. The generic cleanup criteria are being held at the values that the DEQ has used since August 1998, in recognition of the fact that national efforts to reassess risks posed by dioxin are not yet complete. Until these studies are complete, it is premature to select a revised slope factor and/or reference dose for calculation of generic cleanup criteria.

(P) Amenable cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with all groundwater criteria. Total cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with soil criteria. Nonresidential direct contact criteria may not be protective of the potential for release of hydrogen cyanide gas. Additional land or resource use restrictions may be necessary to protect for the acute inhalation concerns associated with hydrogen cyanide gas.

(Q) Criteria for carcinogenic polycyclic aromatic hydrocarbons were developed using relative potential potencies to benzo(a)pyrene.

(R) Hazardous substance may exhibit the characteristic of reactivity as defined in 40 C.F.R. §261.23 (revised as of July 1, 2001), which is adopted by reference in these rules.

(S) Criterion defaults to the hazardous substance-specific water solubility limit.

(T) Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, subpart D and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart D and subpart G of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules. Alternatives to compliance with the TSCA standards listed below are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable. [See table in Footnote (T) in R 299.49].

(U) Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 C.F.R. §261.22 (revised as of July 1, 2001), which is adopted by reference in these rules.

(V) Criterion is the aesthetic drinking water value as required by Section 20120(a)(5) of the NREPA. Concentrations up to 200 ug/L may be acceptable, and still allow for drinking water use, as part of a site-specific cleanup under Section 20120a(2) and 20120b of the NREPA.

(W) Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 ug/L. Concentrations of trihalomethanes in soil shall be added together to determine compliance with the drinking water protection criterion of 1,600 ug/kg.

(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the [table in Footnote (X) in R 299.49], except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. See formulas in [the table in Footnote (G) in R 299.49]. Soil protection criteria based on the HDV shall be as listed in the [table in Footnote (X) in R 299.49], except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the [table in Footnote (X) in R 299.49], except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

(Y) Source size modifiers shown in the [table in Footnote (Y) in R 299.49] shall be used to determine soil inhalation criteria for ambient air when the source size is not one-half acre. The modifier shall be multiplied by the generic soil inhalation criteria shown in the table of generic cleanup criteria to determine the applicable criterion. See Footnote (C) [in R 299.49].

(Z) Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.

(AA) Use 10,000 ug/L where groundwater enters a structure through the use of a water well, sump or other device. Use 28,000 ug/L for all other uses.

(BB) The state drinking water standard for asbestos (fibers greater than 10 micrometers in length) is in units of a million fibers per liter of water (MFL). Soil concentrations of asbestos are determined by polarized light microscopy.

(CC) Groundwater: The generic GSI criteria are based on the toxicity of unionized ammonia (NH_3); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH_3 in the surface water. This percent NH_3 is a function of the pH and temperature of the receiving surface water and can be estimated using the [table in Footnote (CC) in R 299.49], taken from Emerson, et al., (Journal of the Fisheries Research Board of Canada, Volume 32(12):2382, 1975). The generic approach for estimating NH_3 assumes a default pH of 8 and default temperatures of 68 °F and 85 °F for cold water and warm water surface water, respectively. The resulting NH_3 is 3.8 percent and 7.2 percent for cold water and warm water, respectively. This default percentage shall be multiplied by the total ammonia-nitrogen (NH_3-N) concentration in the groundwater and the resulting NH_3 concentration compared to the applicable GSI criterion. As an alternative, the maximum pH and temperature data from the specific receiving surface water can be used to estimate, from the [table in Footnote (CC) in R 299.49], a lower percent unionized ammonia concentration for comparison to the generic GSI.
Soil: The generic soil GSI protection criteria for unionized ammonia are 580 ug/kg and 1,100 ug/kg for cold water and warm water surface water, respectively.

(DD) Hazardous substance causes developmental effects. Residential direct contact criteria are protective of both prenatal and postnatal exposure. Nonresidential direct contact criteria are protective for a pregnant adult receptor.

(EE) The [values listed in the table in Footnote (EE) in 299.49] are applicable generic GSI criteria as required by Section 20120e of the NREPA.

(FF) The chloride GSI criterion shall be 125 mg/L when the discharge is to surface waters of the state designated as public water supply sources or 50 mg/L when the discharge is to the Great Lakes or connecting waters. Chloride GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source; however, the total dissolved solids criterion is applicable.

(GG) Risk-based criteria are not available for methane due to insufficient toxicity data. An acceptable soil gas concentration (presented for both residential and nonresidential land uses) was derived utilizing 25 percent of the lower explosive level for methane. This equates to 1.25 percent or 8.4E+6 ug/m^3.

(HH) The residential criterion for sodium is 230,000 ug/L in accordance with the Sodium Advisory Council recommendation and revised Groundwater Discharge Standards.

ID Insufficient data to develop criterion.

NA A criterion or value is not available or, in the case of background and CAS numbers, not applicable.

NLL Hazardous substance is not likely to leach under most soil conditions.

NLV Hazardous substance is not likely to volatilize under most conditions.

ug/kg Micrograms per kilogram

ug/L Micrograms per liter

BDL Below Laboratory Method Detection Limits

BOLD Exceeds criteria.

BF Backfill

TS Topsoil

06-Oct-2020

Megan Napier
AKT Peerless
22725 Orchard Lake Road
Farmington, MI 48336

Re: **8997f5-5-10.4** Work Order: **20081685**

Dear Megan,

ALS Environmental received 1 sample on 21-Aug-2020 08:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 40.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Bill Carey

Bill Carey
Project Manager

ALS Group, USA

Date: 06-Oct-20

Client: AKT Peerless
Project: 8997f5-5-10.4
Work Order: **20081685**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
20081685-01	6408 Burns-TS-Composite	Soil		8/19/2020 09:20	8/21/2020 08:00	☐

Client: AKT Peerless
Project: 8997f5-5-10.4
WorkOrder: **20081685**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group, USA

Date: 06-Oct-20

Client: AKT Peerless
Project: 8997f5-5-10.4
Work Order: 20081685

Case Narrative

Samples for the above noted Work Order were received on 8/21/2020. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
No other deviations or anomalies were noted.

Extractable Organics:
Batch 163029, Method SVO_8270_S, Sample 20081685-01B: The reporting limit is elevated due to dilution needed to eliminate matrix-related interference.

Metals:
No other deviations or anomalies were noted.

Wet Chemistry:
No other deviations or anomalies were noted.

ALS Group, USA

Date: *06-Oct-20*

Client:	AKT Peerless	**Client Sample ID:**	6408 Burns-TS-Composite
Work Order:	20081685	**Collection Date:**	8/19/2020 9:20:00 AM
Project:	8997f5-5-10.4		
Lab ID:	20081685-01	**Matrix:**	SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
HERBICIDES			**SW8151**		Prep Date: **8/26/2020**		Analyst: **KYM**
2,4,5-TP (Silvex)	ND	300	300		µg/Kg-dry	1	8/29/2020
2,4-D	ND	200	200		µg/Kg-dry	1	8/29/2020
Surr: DCAA	*48.0*	*10-150*			*%REC*	1	8/29/2020
PCBS			**SW8082**		Prep Date: **8/24/2020**		Analyst: **RM**
Aroclor 1016	ND	330	330		µg/Kg-dry	1	8/24/2020
Aroclor 1221	ND	330	330		µg/Kg-dry	1	8/24/2020
Aroclor 1232	ND	330	330		µg/Kg-dry	1	8/24/2020
Aroclor 1242	ND	330	330		µg/Kg-dry	1	8/24/2020
Aroclor 1248	ND	330	330		µg/Kg-dry	1	8/24/2020
Aroclor 1254	ND	330	330		µg/Kg-dry	1	8/24/2020
Aroclor 1260	ND	330	330		µg/Kg-dry	1	8/24/2020
Aroclor 1262	ND	330	330		µg/Kg-dry	1	8/24/2020
Aroclor 1268	ND	330	330		µg/Kg-dry	1	8/24/2020
Surr: Decachlorobiphenyl	*87.6*	*40-140*			*%REC*	1	8/24/2020
Surr: Tetrachloro-m-xylene	*96.4*	*45-124*			*%REC*	1	8/24/2020
PESTICIDES			**SW8081A**		Prep Date: **8/24/2020**		Analyst: **RM**
4,4´-DDD	ND	20	20		µg/Kg-dry	1	8/25/2020
4,4´-DDE	**59**	**20**	**20**		**µg/Kg-dry**	1	8/25/2020
4,4´-DDT	ND	20	20		µg/Kg-dry	1	8/25/2020
Aldrin	ND	20	20		µg/Kg-dry	1	8/25/2020
alpha-BHC	ND	10	10		µg/Kg-dry	1	8/25/2020
alpha-Chlordane	ND	30	30		µg/Kg-dry	1	8/25/2020
beta-BHC	ND	20	20		µg/Kg-dry	1	8/25/2020
Chlordane, Technical	ND	30	30		µg/Kg-dry	1	8/25/2020
delta-BHC	ND	20	20		µg/Kg-dry	1	8/25/2020
Dieldrin	ND	20	20		µg/Kg-dry	1	8/25/2020
Endosulfan I	ND	20	20		µg/Kg-dry	1	8/25/2020
Endosulfan II	ND	20	20		µg/Kg-dry	1	8/25/2020
Endosulfan sulfate	ND	20	20		µg/Kg-dry	1	8/25/2020
Endrin	ND	20	20		µg/Kg-dry	1	8/25/2020
Endrin aldehyde	ND	20	20		µg/Kg-dry	1	8/25/2020
Endrin ketone	ND	20	20		µg/Kg-dry	1	8/25/2020
gamma-BHC (Lindane)	ND	20	20		µg/Kg-dry	1	8/25/2020
gamma-Chlordane	ND	30	30		µg/Kg-dry	1	8/25/2020
Heptachlor	ND	20	20		µg/Kg-dry	1	8/25/2020
Heptachlor epoxide	ND	20	20		µg/Kg-dry	1	8/25/2020
Methoxychlor	ND	50	50		µg/Kg-dry	1	8/25/2020
Toxaphene	ND	170	170		µg/Kg-dry	1	8/25/2020

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless **Client Sample ID:** 6408 Burns-TS-Composite
Work Order: 20081685 **Collection Date:** 8/19/2020 9:20:00 AM
Project: 8997f5-5-10.4
Lab ID: 20081685-01 **Matrix:** SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Surr: Decachlorobiphenyl	*79.6*	*50-150*			*%REC*	1	8/25/2020
Surr: Tetrachloro-m-xylene	*82.8*	*50-150*			*%REC*	1	8/25/2020
MERCURY BY CVAA			**SW7471B**		Prep Date: **8/27/2020**		Analyst: **ABL**
Mercury	**290**	**50**	**50**		**µg/Kg-dry**	1	8/27/2020
METALS BY ICP-MS			**SW6020B**		Prep Date: **8/26/2020**		Analyst: **STP**
Arsenic	**4,700**	**2,000**	**2,000**		**µg/Kg-dry**	1	8/26/2020
Barium	**45,000**	**1,000**	**1,000**		**µg/Kg-dry**	1	8/26/2020
Cadmium	**260**	**200**	**200**		**µg/Kg-dry**	1	8/26/2020
Chromium	**11,000**	**2,000**	**2,000**		**µg/Kg-dry**	1	8/26/2020
Copper	**15,000**	**3,600**	**1,000**		**µg/Kg-dry**	10	8/28/2020
Lead	**160,000**	**10,000**	**10,000**		**µg/Kg-dry**	10	8/28/2020
Selenium	ND	360	200		µg/Kg-dry	1	8/27/2020
Silver	ND	360	100		µg/Kg-dry	1	8/26/2020
Zinc	**100,000**	**7,200**	**1,000**		**µg/Kg-dry**	10	8/28/2020
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep Date: **8/24/2020**		Analyst: **EEW**
1,2,4-Trichlorobenzene	ND	690	330		µg/Kg-dry	20	8/25/2020
1,2-Dichlorobenzene	ND	690	330		µg/Kg-dry	20	8/25/2020
1,3-Dichlorobenzene	ND	690	330		µg/Kg-dry	20	8/25/2020
1,4-Dichlorobenzene	ND	690	330		µg/Kg-dry	20	8/25/2020
2,4,5-Trichlorophenol	ND	690	300		µg/Kg-dry	20	8/25/2020
2,4,6-Trichlorophenol	ND	690	330		µg/Kg-dry	20	8/25/2020
2,4-Dichlorophenol	ND	690	330		µg/Kg-dry	20	8/25/2020
2,4-Dimethylphenol	ND	690	330		µg/Kg-dry	20	8/25/2020
2,4-Dinitrophenol	ND	830	830		µg/Kg-dry	20	8/25/2020
2,4-Dinitrotoluene	ND	690	330		µg/Kg-dry	20	8/25/2020
2,6-Dinitrotoluene	ND	690	330		µg/Kg-dry	20	8/25/2020
2-Chloronaphthalene	ND	330	330		µg/Kg-dry	20	8/25/2020
2-Chlorophenol	ND	690	330		µg/Kg-dry	20	8/25/2020
2-Methylnaphthalene	ND	330	330		µg/Kg-dry	20	8/25/2020
2-Methylphenol	ND	690	330		µg/Kg-dry	20	8/25/2020
2-Nitroaniline	ND	830	830		µg/Kg-dry	20	8/25/2020
2-Nitrophenol	ND	690	330		µg/Kg-dry	20	8/25/2020
3&4-Methylphenol	ND	690	330		µg/Kg-dry	20	8/25/2020
3,3´-Dichlorobenzidine	ND	3,500	2,000		µg/Kg-dry	20	8/25/2020
3-Nitroaniline	ND	830	830		µg/Kg-dry	20	8/25/2020
4,6-Dinitro-2-methylphenol	ND	830	830		µg/Kg-dry	20	8/25/2020
4-Bromophenyl phenyl ether	ND	690	330		µg/Kg-dry	20	8/25/2020
4-Chloro-3-methylphenol	ND	690	280		µg/Kg-dry	20	8/25/2020
4-Chloroaniline	ND	1,400	330		µg/Kg-dry	20	8/25/2020

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AKT Peerless **Client Sample ID:** 6408 Burns-TS-Composite
Work Order: 20081685 **Collection Date:** 8/19/2020 9:20:00 AM
Project: 8997f5-5-10.4
Lab ID: 20081685-01 **Matrix:** SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
4-Chlorophenyl phenyl ether	ND	690	330		µg/Kg-dry	20	8/25/2020
4-Nitroaniline	ND	3,500	830		µg/Kg-dry	20	8/25/2020
4-Nitrophenol	ND	830	830		µg/Kg-dry	20	8/25/2020
Acenaphthene	ND	330	330		µg/Kg-dry	20	8/25/2020
Acenaphthylene	ND	330	330		µg/Kg-dry	20	8/25/2020
Anthracene	ND	330	330		µg/Kg-dry	20	8/25/2020
Benzo(a)anthracene	ND	330	330		µg/Kg-dry	20	8/25/2020
Benzo(a)pyrene	ND	330	330		µg/Kg-dry	20	8/25/2020
Benzo(b)fluoranthene	**330**	**330**	**330**		**µg/Kg-dry**	20	8/25/2020
Benzo(g,h,i)perylene	ND	330	330		µg/Kg-dry	20	8/25/2020
Benzo(k)fluoranthene	ND	330	330		µg/Kg-dry	20	8/25/2020
Bis(2-chloroethoxy)methane	ND	690	330		µg/Kg-dry	20	8/25/2020
Bis(2-chloroethyl)ether	ND	690	100		µg/Kg-dry	20	8/25/2020
Bis(2-chloroisopropyl)ether	ND	690	330		µg/Kg-dry	20	8/25/2020
Bis(2-ethylhexyl)phthalate	ND	690	330		µg/Kg-dry	20	8/25/2020
Butyl benzyl phthalate	ND	690	330		µg/Kg-dry	20	8/25/2020
Carbazole	ND	690	330		µg/Kg-dry	20	8/25/2020
Chrysene	ND	330	330		µg/Kg-dry	20	8/25/2020
Dibenzo(a,h)anthracene	ND	330	330		µg/Kg-dry	20	8/25/2020
Dibenzofuran	ND	690	330		µg/Kg-dry	20	8/25/2020
Diethyl phthalate	ND	690	330		µg/Kg-dry	20	8/25/2020
Dimethyl phthalate	ND	690	330		µg/Kg-dry	20	8/25/2020
Di-n-butyl phthalate	ND	690	330		µg/Kg-dry	20	8/25/2020
Di-n-octyl phthalate	ND	690	330		µg/Kg-dry	20	8/25/2020
Fluoranthene	**350**	**330**	**330**		**µg/Kg-dry**	20	8/25/2020
Fluorene	ND	330	330		µg/Kg-dry	20	8/25/2020
Hexachlorobenzene	ND	690	330		µg/Kg-dry	20	8/25/2020
Hexachlorobutadiene	ND	690	50		µg/Kg-dry	20	8/25/2020
Hexachlorocyclopentadiene	ND	690	330		µg/Kg-dry	20	8/25/2020
Hexachloroethane	ND	690	300		µg/Kg-dry	20	8/25/2020
Indeno(1,2,3-cd)pyrene	ND	330	330		µg/Kg-dry	20	8/25/2020
Isophorone	ND	3,500	330		µg/Kg-dry	20	8/25/2020
Naphthalene	ND	330	330		µg/Kg-dry	20	8/25/2020
Nitrobenzene	ND	3,500	330		µg/Kg-dry	20	8/25/2020
N-Nitrosodi-n-propylamine	ND	690	330		µg/Kg-dry	20	8/25/2020
N-Nitrosodiphenylamine	ND	690	330		µg/Kg-dry	20	8/25/2020
Pentachlorophenol	ND	690	20		µg/Kg-dry	20	8/25/2020
Phenanthrene	ND	330	330		µg/Kg-dry	20	8/25/2020
Phenol	ND	690	330		µg/Kg-dry	20	8/25/2020
Pyrene	ND	330	330		µg/Kg-dry	20	8/25/2020
Surr: 2,4,6-Tribromophenol	*64.4*	*38-92*			*%REC*	20	8/25/2020

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	AKT Peerless	**Client Sample ID:**	6408 Burns-TS-Composite
Work Order:	20081685	**Collection Date:**	8/19/2020 9:20:00 AM
Project:	8997f5-5-10.4		
Lab ID:	20081685-01	**Matrix:**	SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
Surr: 2-Fluorobiphenyl	*70.8*	*44-107*			*%REC*	20	8/25/2020
Surr: 2-Fluorophenol	*62.0*	*37-109*			*%REC*	20	8/25/2020
Surr: 4-Terphenyl-d14	*78.0*	*52-123*			*%REC*	20	8/25/2020
Surr: Nitrobenzene-d5	*63.6*	*41-94*			*%REC*	20	8/25/2020
Surr: Phenol-d6	*63.2*	*28-111*			*%REC*	20	8/25/2020
VOLATILE ORGANIC COMPOUNDS			**SW8260C**		Prep Date: **8/25/2020**		Analyst: **MF**
1,1,1,2-Tetrachloroethane	ND	100	100		µg/Kg-dry	1	8/25/2020
1,1,1-Trichloroethane	ND	50	50		µg/Kg-dry	1	8/25/2020
1,1,2,2-Tetrachloroethane	ND	50	50		µg/Kg-dry	1	8/25/2020
1,1,2-Trichloroethane	ND	50	50		µg/Kg-dry	1	8/25/2020
1,1,2-Trichlorotrifluoroethane	ND	100	100		µg/Kg-dry	1	8/25/2020
1,1-Dichloroethane	ND	50	50		µg/Kg-dry	1	8/25/2020
1,1-Dichloroethene	ND	50	50		µg/Kg-dry	1	8/25/2020
1,2,3-Trichloropropane	ND	100	100		µg/Kg-dry	1	8/25/2020
1,2,4-Trichlorobenzene	ND	250	250		µg/Kg-dry	1	8/25/2020
1,2,4-Trimethylbenzene	ND	100	100		µg/Kg-dry	1	8/25/2020
1,2-Dibromo-3-chloropropane	ND	130	10		µg/Kg-dry	1	8/25/2020
1,2-Dibromoethane	ND	38	20		µg/Kg-dry	1	8/25/2020
1,2-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	8/25/2020
1,2-Dichloroethane	ND	130	50		µg/Kg-dry	1	8/25/2020
1,2-Dichloropropane	ND	50	50		µg/Kg-dry	1	8/25/2020
1,3,5-Trimethylbenzene	ND	130	100		µg/Kg-dry	1	8/25/2020
1,3-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	8/25/2020
1,4-Dichlorobenzene	ND	100	100		µg/Kg-dry	1	8/25/2020
2-Butanone	ND	750	750		µg/Kg-dry	1	8/25/2020
2-Hexanone	ND	2,500	2,500		µg/Kg-dry	1	8/25/2020
2-Methylnaphthalene	ND	330	330		µg/Kg-dry	1	8/25/2020
4-Methyl-2-pentanone	ND	2,500	2,500		µg/Kg-dry	1	8/25/2020
Acetone	ND	1,000	1,000		µg/Kg-dry	1	8/25/2020
Acrylonitrile	ND	130	100		µg/Kg-dry	1	8/25/2020
Benzene	ND	50	50		µg/Kg-dry	1	8/25/2020
Bromodichloromethane	ND	100	100		µg/Kg-dry	1	8/25/2020
Bromoform	ND	100	100		µg/Kg-dry	1	8/25/2020
Bromomethane	ND	200	200		µg/Kg-dry	1	8/25/2020
Carbon disulfide	ND	250	250		µg/Kg-dry	1	8/25/2020
Carbon tetrachloride	ND	50	50		µg/Kg-dry	1	8/25/2020
Chlorobenzene	ND	50	50		µg/Kg-dry	1	8/25/2020
Chloroethane	ND	250	250		µg/Kg-dry	1	8/25/2020
Chloroform	ND	50	50		µg/Kg-dry	1	8/25/2020
Chloromethane	ND	250	250		µg/Kg-dry	1	8/25/2020

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *06-Oct-20*

Client:	AKT Peerless	**Client Sample ID:**	6408 Burns-TS-Composite
Work Order:	20081685	**Collection Date:**	8/19/2020 9:20:00 AM
Project:	8997f5-5-10.4		
Lab ID:	20081685-01	**Matrix:**	SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	ND	50	50		µg/Kg-dry	1	8/25/2020
cis-1,3-Dichloropropene	ND	50	50		µg/Kg-dry	1	8/25/2020
Dibromochloromethane	ND	100	100		µg/Kg-dry	1	8/25/2020
Dibromomethane	ND	250	250		µg/Kg-dry	1	8/25/2020
Dichlorodifluoromethane	ND	250	250		µg/Kg-dry	1	8/25/2020
Diethyl ether	ND	200	200		µg/Kg-dry	1	8/25/2020
Ethylbenzene	ND	50	50		µg/Kg-dry	1	8/25/2020
Hexachloroethane	ND	300	300		µg/Kg-dry	1	8/25/2020
Isopropylbenzene	ND	250	250		µg/Kg-dry	1	8/25/2020
m,p-Xylene	ND	100	100		µg/Kg-dry	1	8/25/2020
Methyl tert-butyl ether	ND	250	250		µg/Kg-dry	1	8/25/2020
Methylene chloride	ND	310	100		µg/Kg-dry	1	8/25/2020
Naphthalene	ND	330	330		µg/Kg-dry	1	8/25/2020
n-Propylbenzene	ND	100	100		µg/Kg-dry	1	8/25/2020
o-Xylene	ND	50	50		µg/Kg-dry	1	8/25/2020
Styrene	ND	50	50		µg/Kg-dry	1	8/25/2020
Tetrachloroethene	ND	50	50		µg/Kg-dry	1	8/25/2020
Toluene	ND	100	100		µg/Kg-dry	1	8/25/2020
trans-1,2-Dichloroethene	ND	50	50		µg/Kg-dry	1	8/25/2020
trans-1,3-Dichloropropene	ND	50	50		µg/Kg-dry	1	8/25/2020
Trichloroethene	ND	50	50		µg/Kg-dry	1	8/25/2020
Trichlorofluoromethane	ND	100	100		µg/Kg-dry	1	8/25/2020
Vinyl acetate	ND	5,000	5,000		µg/Kg-dry	1	8/25/2020
Vinyl chloride	ND	40	40		µg/Kg-dry	1	8/25/2020
Xylenes, Total	ND	150	150		µg/Kg-dry	1	8/25/2020
Surr: 1,2-Dichloroethane-d4	*97.7*	*70-130*			*%REC*	1	8/25/2020
Surr: 4-Bromofluorobenzene	*101*	*70-130*			*%REC*	1	8/25/2020
Surr: Dibromofluoromethane	*96.7*	*70-130*			*%REC*	1	8/25/2020
Surr: Toluene-d8	*100*	*70-130*			*%REC*	1	8/25/2020
CHLORIDE			**A4500-CL E-11**		Prep Date: **8/25/2020**		Analyst: **JDR**
Chloride	ND	200	200		mg/Kg-dry	1	8/26/2020
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**8.6**	**0.10**	**0**		**% of sample**	1	8/26/2020

Note: See Qualifiers page for a list of qualifiers and their definitions.

Batch ID: **163030** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-163030-163030** Units: **µg/Kg** Analysis Date: **8/24/2020 03:38 PM**
Client ID: Run ID: **GC14_200824A** SeqNo: **6658680** Prep Date: **8/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	67								
Aroclor 1221	ND	67								
Aroclor 1232	ND	67								
Aroclor 1242	ND	67								
Aroclor 1248	ND	67								
Aroclor 1254	ND	67								
Aroclor 1260	ND	67								
Aroclor 1262	ND	67								
Aroclor 1268	ND	67								
Surr: Decachlorobiphenyl	*35.8*	0	*33.3*	0	*108*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*36.1*	0	*33.3*	0	*108*	*45-124*	0			

LCS Sample ID: **PLCSS1-163030-163030** Units: **µg/Kg** Analysis Date: **8/24/2020 03:53 PM**
Client ID: Run ID: **GC14_200824A** SeqNo: **6658681** Prep Date: **8/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	758.8	67	833	0	91.1	50-130	0			
Aroclor 1260	768.3	67	833	0	92.2	50-130	0			
Surr: Decachlorobiphenyl	*34.43*	0	*33.3*	0	*103*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*32.78*	0	*33.3*	0	*98.4*	*45-124*	0			

MS Sample ID: **20081688-01B MS** Units: **µg/Kg** Analysis Date: **8/24/2020 04:09 PM**
Client ID: Run ID: **GC14_200824A** SeqNo: **6658682** Prep Date: **8/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	766.4	66	828.3	0	92.5	40-140	0			
Aroclor 1260	762.2	66	828.3	0	92	40-140	0			
Surr: Decachlorobiphenyl	*33.28*	0	*33.11*	0	*101*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*32.63*	0	*33.11*	0	*98.5*	*45-124*	0			

MSD Sample ID: **20081688-01B MSD** Units: **µg/Kg** Analysis Date: **8/24/2020 04:24 PM**
Client ID: Run ID: **GC14_200824A** SeqNo: **6658683** Prep Date: **8/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	747.5	66	819.8	0	91.2	40-140	766.4	2.49	50	
Aroclor 1260	725.1	66	819.8	0	88.5	40-140	762.2	4.98	50	
Surr: Decachlorobiphenyl	*32.53*	0	*32.77*	0	*99.2*	*40-140*	33.28	*2.29*	*50*	
Surr: Tetrachloro-m-xylene	*32.61*	0	*32.77*	0	*99.5*	*45-124*	32.63	*0.0754*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163030** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:	20081685-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **163031** Instrument ID **GC12** Method: **SW8081A**

MBLK Sample ID: **PBLKS1-163031-163031** Units: **µg/Kg** Analysis Date: **8/25/2020 02:47 PM**

Client ID: Run ID: **GC12_200825A** SeqNo: **6660261** Prep Date: **8/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	ND	10								
4,4´-DDE	ND	10								
4,4´-DDT	ND	10								
Aldrin	ND	10								
alpha-BHC	ND	10								
alpha-Chlordane	ND	10								
beta-BHC	ND	10								
Chlordane, Technical	ND	25								
delta-BHC	ND	10								
Dieldrin	ND	10								
Endosulfan I	ND	10								
Endosulfan II	ND	10								
Endosulfan sulfate	ND	10								
Endrin	ND	10								
Endrin aldehyde	ND	10								
Endrin ketone	ND	10								
gamma-BHC (Lindane)	ND	10								
gamma-Chlordane	ND	10								
Heptachlor	ND	10								
Heptachlor epoxide	ND	10								
Methoxychlor	ND	10								
Toxaphene	ND	60								
Surr: Decachlorobiphenyl	*32.67*	0	*33.3*	0	*98.1*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*32.08*	0	*33.3*	0	*96.3*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163031** Instrument ID **GC12** Method: **SW8081A**

LCS Sample ID: **PLCSS1-163031-163031** Units: **µg/Kg** Analysis Date: **8/25/2020 03:01 PM**
Client ID: Run ID: **GC12_200825A** SeqNo: **6660262** Prep Date: **8/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	29.52	10	33.33	0	88.6	50-150	0			
4,4´-DDE	30.3	10	33.33	0	90.9	50-150	0			
4,4´-DDT	28.23	10	33.33	0	84.7	50-150	0			
Aldrin	30.53	10	33.33	0	91.6	50-150	0			
alpha-BHC	30.78	10	33.33	0	92.4	50-150	0			
alpha-Chlordane	30.9	10	33.33	0	92.7	50-150	0			
beta-BHC	30.13	10	33.33	0	90.4	50-150	0			
delta-BHC	30.33	10	33.33	0	91	50-150	0			
Dieldrin	31	10	33.33	0	93	50-150	0			
Endosulfan I	30.55	10	33.33	0	91.7	50-150	0			
Endosulfan II	30.27	10	33.33	0	90.8	50-150	0			
Endosulfan sulfate	31.07	10	33.33	0	93.2	50-150	0			
Endrin	32.82	10	33.33	0	98.5	50-150	0			
Endrin aldehyde	29.48	10	33.33	0	88.5	50-150	0			
Endrin ketone	29.65	10	33.33	0	89	50-150	0			
gamma-BHC (Lindane)	29.92	10	33.33	0	89.8	50-150	0			
gamma-Chlordane	30.72	10	33.33	0	92.2	50-150	0			
Heptachlor	22.57	10	33.33	0	67.7	50-150	0			
Heptachlor epoxide	30.9	10	33.33	0	92.7	50-150	0			
Methoxychlor	28.38	10	33.33	0	85.2	50-150	0			
Surr: Decachlorobiphenyl	*31.45*	0	*33.3*	0	*94.4*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*30.45*	0	*33.3*	0	*91.4*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163031** Instrument ID **GC12** Method: **SW8081A**

MS Sample ID: **20081688-01B MS** Units: **µg/Kg** Analysis Date: **8/25/2020 03:15 PM**

Client ID: Run ID: **GC12_200825A** SeqNo: **6660263** Prep Date: **8/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	22.37	9.7	32.18	2.774	60.9	50-150	0			
4,4´-DDE	37.01	9.7	32.18	26.79	31.8	50-150	0			S
4,4´-DDT	31.51	9.7	32.18	13.41	56.2	50-150	0			
Aldrin	20.29	9.7	32.18	0	63.1	50-150	0			
alpha-BHC	20.57	9.7	32.18	0	63.9	50-150	0			
alpha-Chlordane	25.17	9.7	32.18	7.304	55.5	50-150	0			
beta-BHC	19.28	9.7	32.18	0	59.9	50-150	0			
delta-BHC	20.21	9.7	32.18	0	62.8	50-150	0			
Dieldrin	21.71	9.7	32.18	1.97	61.3	50-150	0			
Endosulfan I	20.63	9.7	32.18	0	64.1	50-150	0			
Endosulfan II	19.57	9.7	32.18	0	60.8	50-150	0			
Endosulfan sulfate	20.74	9.7	32.18	0	64.5	50-150	0			
Endrin	22.3	9.7	32.18	0	69.3	50-150	0			
Endrin aldehyde	17.81	9.7	32.18	0	55.4	50-150	0			
Endrin ketone	19.95	9.7	32.18	0	62	50-150	0			
gamma-BHC (Lindane)	20.57	9.7	32.18	0	63.9	50-150	0			
gamma-Chlordane	22.19	9.7	32.18	4.645	54.5	50-150	0			
Heptachlor	19.71	9.7	32.18	0	61.3	50-150	0			
Heptachlor epoxide	21.15	9.7	32.18	2.101	59.2	50-150	0			
Methoxychlor	23.59	9.7	32.18	0	73.3	50-150	0			
Surr: Decachlorobiphenyl	*22.59*	0	*32.15*	0	*70.3*	*50-150*	0			
Surr: Tetrachloro-m-xylene	*20.61*	0	*32.15*	0	*64.1*	*50-150*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163031** Instrument ID **GC12** Method: **SW8081A**

MSD Sample ID: **20081688-01B MSD** Units: **µg/Kg** Analysis Date: **8/25/2020 03:28 PM**
Client ID: Run ID: **GC12_200825A** SeqNo: **6660264** Prep Date: **8/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	25.52	10	33.29	2.774	68.3	50-150	22.37	13.2	35	
4,4´-DDE	49.22	10	33.29	26.79	67.4	50-150	37.01	28.3	35	
4,4´-DDT	39.1	10	33.29	13.41	77.2	50-150	31.51	21.5	35	
Aldrin	22.95	10	33.29	0	69	50-150	20.29	12.3	35	
alpha-BHC	23.57	10	33.29	0	70.8	50-150	20.57	13.6	35	
alpha-Chlordane	29.43	10	33.29	7.304	66.5	50-150	25.17	15.6	35	
beta-BHC	22.02	10	33.29	0	66.2	50-150	19.28	13.3	35	
delta-BHC	22.7	10	33.29	0	68.2	50-150	20.21	11.6	35	
Dieldrin	25	10	33.29	1.97	69.2	50-150	21.71	14.1	35	
Endosulfan I	23.3	10	33.29	0	70	50-150	20.63	12.2	35	
Endosulfan II	21.46	10	33.29	0	64.5	50-150	19.57	9.2	35	
Endosulfan sulfate	22.44	10	33.29	0	67.4	50-150	20.74	7.85	35	
Endrin	24.8	10	33.29	0	74.5	50-150	22.3	10.6	35	
Endrin aldehyde	18.46	10	33.29	0	55.5	50-150	17.81	3.56	35	
Endrin ketone	21.87	10	33.29	0	65.7	50-150	19.95	9.17	35	
gamma-BHC (Lindane)	23.69	10	33.29	0	71.2	50-150	20.57	14.1	35	
gamma-Chlordane	25.4	10	33.29	4.645	62.4	50-150	22.19	13.5	35	
Heptachlor	23.05	10	33.29	0	69.3	50-150	19.71	15.6	35	
Heptachlor epoxide	24.19	10	33.29	2.101	66.3	50-150	21.15	13.4	35	
Methoxychlor	24.6	10	33.29	0	73.9	50-150	23.59	4.19	35	
Surr: Decachlorobiphenyl	*25.12*	0	*33.26*	0	*75.5*	*50-150*	22.59	*10.6*	*35*	
Surr: Tetrachloro-m-xylene	*24.24*	0	*33.26*	0	*72.9*	*50-150*	20.61	*16.1*	*35*	

The following samples were analyzed in this batch: 20081685-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163179** Instrument ID **GC7** Method: **SW8151**

MBLK Sample ID: **HBLKS1-163179-163179** Units: **µg/Kg** Analysis Date: **8/29/2020 04:15 AM**
Client ID: Run ID: **GC7_200828A** SeqNo: **6671170** Prep Date: **8/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	ND	5.0								
2,4-D	ND	10								
Surr: DCAA	*12*	0	*50*	0	*24*	*10-150*	0			

LCS Sample ID: **HLCSS1-163179-163179** Units: **µg/Kg** Analysis Date: **8/29/2020 04:43 AM**
Client ID: Run ID: **GC7_200828A** SeqNo: **6671172** Prep Date: **8/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	6	5.0	50	0	12	10-150	0			
2,4-D	23	10	50	0	46	10-130	0			
Surr: DCAA	*8*	0	*50*	0	*16*	*10-150*	0			

MS Sample ID: **20081661-01B MS** Units: **µg/Kg** Analysis Date: **8/29/2020 04:57 AM**
Client ID: Run ID: **GC7_200828A** SeqNo: **6671173** Prep Date: **8/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	27.79	5.0	49.63	0	56	10-150	0			
2,4-D	77.43	9.9	49.63	0	156	10-130	0			S
Surr: DCAA	*23.82*	0	*49.63*	0	*48*	*10-150*	0			

MSD Sample ID: **20081661-01B MSD** Units: **µg/Kg** Analysis Date: **8/29/2020 05:10 AM**
Client ID: Run ID: **GC7_200828A** SeqNo: **6671174** Prep Date: **8/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	17.73	4.9	49.24	0	36	10-150	27.79	44.2	50	
2,4-D	80.75	9.8	49.24	0	164	10-130	77.43	4.2	50	S
Surr: DCAA	*13.79*	0	*49.24*	0	*28*	*10-150*	23.82	*53.4*	*50*	*R*

The following samples were analyzed in this batch: 20081685-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163255** Instrument ID **HG4** Method: **SW7471B**

MBLK Sample ID: **MBLK-163255-163255** Units: **mg/Kg** Analysis Date: **8/27/2020 12:48 PM**
Client ID: Run ID: **HG4_200827A** SeqNo: **6665593** Prep Date: **8/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

LCS Sample ID: **LCS-163255-163255** Units: **mg/Kg** Analysis Date: **8/27/2020 12:49 PM**
Client ID: Run ID: **HG4_200827A** SeqNo: **6665594** Prep Date: **8/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1792	0.020	0.1665	0	108	80-120	0			

MS Sample ID: **20081682-01BMS** Units: **mg/Kg** Analysis Date: **8/27/2020 12:53 PM**
Client ID: Run ID: **HG4_200827A** SeqNo: **6665596** Prep Date: **8/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.3041	0.018	0.1471	0.1392	112	75-125	0			E

MSD Sample ID: **20081682-01BMSD** Units: **mg/Kg** Analysis Date: **8/27/2020 12:55 PM**
Client ID: Run ID: **HG4_200827A** SeqNo: **6665597** Prep Date: **8/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.3139	0.018	0.153	0.1392	114	75-125	0.3041	3.18	35	E

The following samples were analyzed in this batch: 20081685-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163147** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-163147-163147** Units: **mg/Kg** Analysis Date: **8/26/2020 10:11 PM**
Client ID: Run ID: **ICPMS3_200826B** SeqNo: **6663848** Prep Date: **8/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS Sample ID: **LCS-163147-163147** Units: **mg/Kg** Analysis Date: **8/26/2020 10:12 PM**
Client ID: Run ID: **ICPMS3_200826B** SeqNo: **6663849** Prep Date: **8/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.095	0.25	5	0	102	80-120	0			
Barium	5.164	0.25	5	0	103	80-120	0			
Cadmium	5.22	0.10	5	0	104	80-120	0			
Chromium	5.221	0.25	5	0	104	80-120	0			
Copper	5.268	0.25	5	0	105	80-120	0			
Lead	5.219	0.25	5	0	104	80-120	0			
Selenium	5.088	0.25	5	0	102	80-120	0			
Silver	5.219	0.25	5	0	104	80-120	0			
Zinc	5.218	0.50	5	0	104	80-120	0			

MS Sample ID: **20081696-01BMS** Units: **mg/Kg** Analysis Date: **8/26/2020 10:59 PM**
Client ID: Run ID: **ICPMS3_200826B** SeqNo: **6663876** Prep Date: **8/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.983	0.36	7.257	4.389	77.1	75-125	0			
Barium	44.42	0.36	7.257	38.81	77.3	75-125	0			O
Cadmium	5.809	0.15	7.257	0.1727	77.7	75-125	0			
Chromium	15.75	0.36	7.257	12.96	38.4	75-125	0			S
Copper	15.02	0.36	7.257	10.36	64.2	75-125	0			S
Lead	24.39	0.36	7.257	24.15	3.34	75-125	0			S
Selenium	6.217	0.36	7.257	0.2891	81.7	75-125	0			
Silver	5.663	0.36	7.257	0.0318	77.6	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163147** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **20081696-01BMS** Units: **mg/Kg** Analysis Date: **8/27/2020 04:56 PM**
Client ID: Run ID: **ICPMS3_200827B** SeqNo: **6666585** Prep Date: **8/26/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	51.01	7.3	7.257	52.02	-14	75-125	0			SO

MSD Sample ID: **20081696-01BMSD** Units: **mg/Kg** Analysis Date: **8/26/2020 11:01 PM**
Client ID: Run ID: **ICPMS3_200826B** SeqNo: **6663877** Prep Date: **8/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.5	0.39	7.716	4.389	92.2	75-125	9.983	14.1	20	
Barium	47.57	0.39	7.716	38.81	113	75-125	44.42	6.84	20	O
Cadmium	6.742	0.15	7.716	0.1727	85.1	75-125	5.809	14.9	20	
Chromium	20.49	0.39	7.716	12.96	97.6	75-125	15.75	26.2	20	R
Copper	16.78	0.39	7.716	10.36	83.3	75-125	15.02	11.1	20	
Lead	29.41	0.39	7.716	24.15	68.2	75-125	24.39	18.7	20	S
Selenium	6.876	0.39	7.716	0.2891	85.4	75-125	6.217	10.1	20	
Silver	6.551	0.39	7.716	0.0318	84.5	75-125	5.663	14.5	20	

MSD Sample ID: **20081696-01BMSD** Units: **mg/Kg** Analysis Date: **8/27/2020 04:58 PM**
Client ID: Run ID: **ICPMS3_200827B** SeqNo: **6666586** Prep Date: **8/26/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	55.8	7.7	7.716	52.02	49	75-125	51.01	8.98	20	SO

The following samples were analyzed in this batch: 20081685-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163029** Instrument ID **SVMS10** Method: **SW846 8270D**

MBLK	Sample ID: **SBLKS1-163029-163029**				Units: **µg/Kg**			Analysis Date: **8/25/2020 01:27 PM**		
Client ID:		Run ID: **SVMS10_200825A**			SeqNo: **6657857**			Prep Date: **8/24/2020**		DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	33								
1,2-Dichlorobenzene	ND	33								
1,3-Dichlorobenzene	ND	33								
1,4-Dichlorobenzene	ND	33								
2,4,5-Trichlorophenol	ND	33								
2,4,6-Trichlorophenol	ND	33								
2,4-Dichlorophenol	ND	33								
2,4-Dimethylphenol	ND	33								
2,4-Dinitrophenol	ND	33								
2,4-Dinitrotoluene	ND	33								
2,6-Dinitrotoluene	ND	33								
2-Chloronaphthalene	ND	6.7								
2-Chlorophenol	ND	33								
2-Methylnaphthalene	ND	6.7								
2-Methylphenol	ND	33								
2-Nitroaniline	ND	33								
2-Nitrophenol	ND	33								
3&4-Methylphenol	ND	33								
3,3´-Dichlorobenzidine	ND	170								
3-Nitroaniline	ND	33								
4,6-Dinitro-2-methylphenol	ND	33								
4-Bromophenyl phenyl ether	ND	33								
4-Chloro-3-methylphenol	ND	33								
4-Chloroaniline	ND	67								
4-Chlorophenyl phenyl ether	ND	33								
4-Nitroaniline	ND	170								
4-Nitrophenol	ND	33								
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Bis(2-chloroethoxy)methane	ND	33								
Bis(2-chloroethyl)ether	ND	33								
Bis(2-chloroisopropyl)ether	ND	33								
Bis(2-ethylhexyl)phthalate	ND	33								
Butyl benzyl phthalate	ND	33								
Carbazole	ND	33								
Chrysene	ND	6.7								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **163029** Instrument ID **SVMS10** Method: **SW846 8270D**

Dibenzo(a,h)anthracene	ND	6.7					
Dibenzofuran	ND	33					
Diethyl phthalate	ND	33					
Dimethyl phthalate	ND	33					
Di-n-butyl phthalate	ND	33					
Di-n-octyl phthalate	ND	33					
Fluoranthene	ND	6.7					
Fluorene	ND	6.7					
Hexachlorobenzene	ND	33					
Hexachlorobutadiene	ND	33					
Hexachlorocyclopentadiene	ND	33					
Hexachloroethane	ND	33					
Indeno(1,2,3-cd)pyrene	ND	6.7					
Isophorone	ND	170					
Naphthalene	ND	6.7					
Nitrobenzene	ND	170					
N-Nitrosodi-n-propylamine	ND	33					
N-Nitrosodiphenylamine	ND	33					
Pentachlorophenol	ND	33					
Phenanthrene	ND	6.7					
Phenol	ND	33					
Pyrene	ND	6.7					
Surr: 2,4,6-Tribromophenol	*2385*	0	*3333*	0	*71.5*	*38-92*	0
Surr: 2-Fluorobiphenyl	*2602*	0	*3333*	0	*78.1*	*44-107*	0
Surr: 2-Fluorophenol	*2534*	0	*3333*	0	*76*	*37-109*	0
Surr: 4-Terphenyl-d14	*2889*	0	*3333*	0	*86.7*	*52-123*	0
Surr: Nitrobenzene-d5	*2472*	0	*3333*	0	*74.2*	*41-94*	0
Surr: Phenol-d6	*2640*	0	*3333*	0	*79.2*	*28-111*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163029** Instrument ID **SVMS10** Method: **SW846 8270D**

LCS	Sample ID: **SLCSS1-163029-163029**				Units: **µg/Kg**			Analysis Date: **8/24/2020 08:53 PM**			
Client ID:		Run ID: **SVMS10_200824A**			SeqNo: **6657879**			Prep Date: **8/24/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	1058	33	1333	0	79.4	40-93	0			
1,2-Dichlorobenzene	1044	33	1333	0	78.3	42-94	0			
1,3-Dichlorobenzene	1022	33	1333	0	76.7	41-94	0			
1,4-Dichlorobenzene	1052	33	1333	0	78.9	42-94	0			
2,4,5-Trichlorophenol	1059	33	1333	0	79.5	52-111	0			
2,4,6-Trichlorophenol	1067	33	1333	0	80	46-105	0			
2,4-Dichlorophenol	1072	33	1333	0	80.4	47-96	0			
2,4-Dimethylphenol	1184	33	1333	0	88.8	49-97	0			
2,4-Dinitrophenol	674	33	1333	0	50.6	10-106	0			
2,4-Dinitrotoluene	1120	33	1333	0	84	58-110	0			
2,6-Dinitrotoluene	1120	33	1333	0	84	59-108	0			
2-Chloronaphthalene	1105	6.7	1333	0	82.9	56-104	0			
2-Chlorophenol	1034	33	1333	0	77.6	50-104	0			
2-Methylnaphthalene	1136	6.7	1333	0	85.2	54-96	0			
2-Methylphenol	1113	33	1333	0	83.5	49-105	0			
2-Nitroaniline	1146	33	1333	0	86	54-107	0			
2-Nitrophenol	1032	33	1333	0	77.4	51-94	0			
3&4-Methylphenol	1073	33	1333	0	80.5	48-105	0			
3,3´-Dichlorobenzidine	891.3	170	1333	0	66.9	39-99	0			
3-Nitroaniline	912	33	1333	0	68.4	17-92	0			
4,6-Dinitro-2-methylphenol	1004	33	1333	0	75.3	32-103	0			
4-Bromophenyl phenyl ether	1169	33	1333	0	87.7	60-106	0			
4-Chloro-3-methylphenol	1134	33	1333	0	85.1	51-101	0			
4-Chloroaniline	1159	67	1333	0	87	27-110	0			
4-Chlorophenyl phenyl ether	1136	33	1333	0	85.2	58-106	0			
4-Nitroaniline	698	170	1333	0	52.4	21-100	0			
4-Nitrophenol	1060	33	1333	0	79.5	29-120	0			
Acenaphthene	1151	6.7	1333	0	86.3	55-101	0			
Acenaphthylene	1187	6.7	1333	0	89	59-106	0			
Anthracene	1186	6.7	1333	0	89	67-105	0			
Benzo(a)anthracene	1204	6.7	1333	0	90.3	68-105	0			
Benzo(a)pyrene	1161	6.7	1333	0	87.1	68-110	0			
Benzo(b)fluoranthene	1186	6.7	1333	0	89	65-110	0			
Benzo(g,h,i)perylene	1305	6.7	1333	0	97.9	60-120	0			
Benzo(k)fluoranthene	1162	6.7	1333	0	87.2	66-113	0			
Bis(2-chloroethoxy)methane	1093	33	1333	0	82	53-96	0			
Bis(2-chloroethyl)ether	1085	33	1333	0	81.4	47-108	0			
Bis(2-chloroisopropyl)ether	1077	33	1333	0	80.8	47-107	0			
Bis(2-ethylhexyl)phthalate	1258	33	1333	0	94.4	59-117	0			
Butyl benzyl phthalate	1205	33	1333	0	90.4	59-106	0			
Carbazole	1187	33	1333	0	89	67-108	0			
Chrysene	1204	6.7	1333	0	90.3	68-108	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **163029** Instrument ID **SVMS10** Method: **SW846 8270D**

Dibenzo(a,h)anthracene	1203	6.7	1333	0	90.2	62-119	0
Dibenzofuran	1139	33	1333	0	85.5	60-104	0
Diethyl phthalate	1123	33	1333	0	84.2	62-111	0
Dimethyl phthalate	1132	33	1333	0	84.9	62-106	0
Di-n-butyl phthalate	1228	33	1333	0	92.1	59-105	0
Di-n-octyl phthalate	1249	33	1333	0	93.7	51-123	0
Fluoranthene	1180	6.7	1333	0	88.5	67-106	0
Fluorene	1160	6.7	1333	0	87	59-107	0
Hexachlorobenzene	1150	33	1333	0	86.3	62-103	0
Hexachlorobutadiene	1052	33	1333	0	78.9	51-94	0
Hexachlorocyclopentadiene	1314	33	1333	0	98.6	25-120	0
Hexachloroethane	1049	33	1333	0	78.7	55-93	0
Indeno(1,2,3-cd)pyrene	1217	6.7	1333	0	91.3	56-120	0
Isophorone	1125	170	1333	0	84.4	52-99	0
Naphthalene	1091	6.7	1333	0	81.9	46-98	0
Nitrobenzene	1091	170	1333	0	81.9	53-95	0
N-Nitrosodi-n-propylamine	1084	33	1333	0	81.3	50-104	0
N-Nitrosodiphenylamine	1181	33	1333	0	88.6	63-107	0
Pentachlorophenol	1063	33	1333	0	79.7	34-106	0
Phenanthrene	1150	6.7	1333	0	86.3	66-101	0
Phenol	1058	33	1333	0	79.4	44-109	0
Pyrene	1228	6.7	1333	0	92.1	60-119	0
Surr: 2,4,6-Tribromophenol	*2769*	0	*3333*	0	*83.1*	*38-92*	0
Surr: 2-Fluorobiphenyl	*2651*	0	*3333*	0	*79.5*	*44-107*	0
Surr: 2-Fluorophenol	*2608*	0	*3333*	0	*78.2*	*37-109*	0
Surr: 4-Terphenyl-d14	*3013*	0	*3333*	0	*90.4*	*52-123*	0
Surr: Nitrobenzene-d5	*2713*	0	*3333*	0	*81.4*	*41-94*	0
Surr: Phenol-d6	*2811*	0	*3333*	0	*84.3*	*28-111*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163029** Instrument ID **SVMS10** Method: **SW846 8270D**

MS	Sample ID: **20081677-01B MS**				Units: **µg/Kg**			Analysis Date: **8/25/2020 04:37 PM**		
Client ID:		Run ID: **SVMS10_200825A**			SeqNo: **6661796**		Prep Date: **8/24/2020**		DF: **10**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	1002	320	1302	0	77	40-93	0			
1,2-Dichlorobenzene	995.9	320	1302	0	76.5	42-94	0			
1,3-Dichlorobenzene	1028	320	1302	0	79	41-94	0			
1,4-Dichlorobenzene	1048	320	1302	0	80.5	42-94	0			
2,4,5-Trichlorophenol	1081	320	1302	0	83	52-111	0			
2,4,6-Trichlorophenol	1094	320	1302	0	84	46-105	0			
2,4-Dichlorophenol	1009	320	1302	0	77.5	47-96	0			
2,4-Dimethylphenol	1113	320	1302	0	85.5	49-97	0			
2,4-Dinitrophenol	ND	320	1302	0	0	10-106	0			S
2,4-Dinitrotoluene	1035	320	1302	0	79.5	58-110	0			
2,6-Dinitrotoluene	1035	320	1302	0	79.5	59-108	0			
2-Chloronaphthalene	1028	65	1302	0	79	56-104	0			
2-Chlorophenol	1074	320	1302	0	82.5	50-104	0			
2-Methylnaphthalene	1002	65	1302	0	77	54-96	0			
2-Methylphenol	1074	320	1302	0	82.5	49-105	0			
2-Nitroaniline	1068	320	1302	0	82	54-107	0			
2-Nitrophenol	995.9	320	1302	0	76.5	51-94	0			
3&4-Methylphenol	1028	320	1302	0	79	48-105	0			
3,3´-Dichlorobenzidine	1068	1,600	1302	0	82	39-99	0			J
3-Nitroaniline	807.1	320	1302	0	62	17-92	0			
4,6-Dinitro-2-methylphenol	260.4	320	1302	0	20	32-103	0			JS
4-Bromophenyl phenyl ether	1113	320	1302	0	85.5	60-106	0			
4-Chloro-3-methylphenol	1035	320	1302	0	79.5	51-101	0			
4-Chloroaniline	813.6	650	1302	0	62.5	27-110	0			
4-Chlorophenyl phenyl ether	1041	320	1302	0	80	58-106	0			
4-Nitroaniline	943.8	1,600	1302	0	72.5	21-100	0			J
4-Nitrophenol	ND	320	1302	0	0	29-120	0			S
Acenaphthene	1068	65	1302	0	82	55-101	0			
Acenaphthylene	1107	65	1302	0	85	59-106	0			
Anthracene	1081	65	1302	0	83	67-105	0			
Benzo(a)anthracene	1373	65	1302	199.4	90.2	68-105	0			
Benzo(a)pyrene	1302	65	1302	173.6	86.7	68-110	0			
Benzo(b)fluoranthene	1426	65	1302	276.5	88.3	65-110	0			
Benzo(g,h,i)perylene	1634	65	1302	77.18	120	60-120	0			
Benzo(k)fluoranthene	1211	65	1302	109.3	84.6	66-113	0			
Bis(2-chloroethoxy)methane	930.8	320	1302	0	71.5	53-96	0			
Bis(2-chloroethyl)ether	1087	320	1302	0	83.5	47-108	0			
Bis(2-chloroisopropyl)ether	982.9	320	1302	0	75.5	47-107	0			
Bis(2-ethylhexyl)phthalate	1198	320	1302	0	92	59-117	0			
Butyl benzyl phthalate	1204	320	1302	0	92.5	59-106	0			
Carbazole	1087	320	1302	0	83.5	67-108	0			
Chrysene	1334	65	1302	173.6	89.2	68-108	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **163029** Instrument ID **SVMS10** Method: **SW846 8270D**

Dibenzo(a,h)anthracene	1243	65	1302	0	95.5	62-119	0	
Dibenzofuran	1126	320	1302	0	86.5	60-104	0	
Diethyl phthalate	1028	320	1302	0	79	62-111	0	
Dimethyl phthalate	982.9	320	1302	0	75.5	62-106	0	
Di-n-butyl phthalate	1126	320	1302	0	86.5	59-105	0	
Di-n-octyl phthalate	1191	320	1302	0	91.5	51-123	0	
Fluoranthene	1406	65	1302	289.4	85.8	67-106	0	
Fluorene	1081	65	1302	0	83	59-107	0	
Hexachlorobenzene	1035	320	1302	0	79.5	62-103	0	
Hexachlorobutadiene	1009	320	1302	0	77.5	51-94	0	
Hexachlorocyclopentadiene	318.9	320	1302	0	24.5	25-120	0	JS
Hexachloroethane	716	320	1302	0	55	55-93	0	
Indeno(1,2,3-cd)pyrene	1478	65	1302	141.5	103	56-120	0	
Isophorone	937.3	1,600	1302	0	72	52-99	0	J
Naphthalene	995.9	65	1302	0	76.5	46-98	0	
Nitrobenzene	976.4	1,600	1302	0	75	53-95	0	J
N-Nitrosodi-n-propylamine	956.8	320	1302	0	73.5	50-104	0	
N-Nitrosodiphenylamine	1107	320	1302	0	85	63-107	0	
Pentachlorophenol	533.8	320	1302	0	41	34-106	0	
Phenanthrene	1224	65	1302	96.47	86.6	66-101	0	
Phenol	1100	320	1302	0	84.5	44-109	0	
Pyrene	1478	65	1302	276.5	92.3	60-119	0	
Surr: 2,4,6-Tribromophenol	*2441*	0	*3254*	0	*75*	*38-92*	0	
Surr: 2-Fluorobiphenyl	*2493*	0	*3254*	0	*76.6*	*44-107*	0	
Surr: 2-Fluorophenol	*2467*	0	*3254*	0	*75.8*	*37-109*	0	
Surr: 4-Terphenyl-d14	*2955*	0	*3254*	0	*90.8*	*52-123*	0	
Surr: Nitrobenzene-d5	*2298*	0	*3254*	0	*70.6*	*41-94*	0	
Surr: Phenol-d6	*2526*	0	*3254*	0	*77.6*	*28-111*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163029** Instrument ID **SVMS10** Method: **SW846 8270D**

MSD Sample ID: **20081677-01B MSD** Units: **µg/Kg** Analysis Date: **8/25/2020 05:04 PM**

Client ID: Run ID: **SVMS10_200825A** SeqNo: **6661797** Prep Date: **8/24/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	921.7	330	1316	0	70	40-93	1002	8.39	30	
1,2-Dichlorobenzene	888.8	330	1316	0	67.5	42-94	995.9	11.4	30	
1,3-Dichlorobenzene	948.1	330	1316	0	72	41-94	1028	8.14	30	
1,4-Dichlorobenzene	961.2	330	1316	0	73	42-94	1048	8.64	30	
2,4,5-Trichlorophenol	987.6	330	1316	0	75	52-111	1081	8.99	30	
2,4,6-Trichlorophenol	954.6	330	1316	0	72.5	46-105	1094	13.6	30	
2,4-Dichlorophenol	948.1	330	1316	0	72	47-96	1009	6.22	30	
2,4-Dimethylphenol	1014	330	1316	0	77	49-97	1113	9.33	30	
2,4-Dinitrophenol	ND	330	1316	0	0	10-106	0	0	30	S
2,4-Dinitrotoluene	915.1	330	1316	0	69.5	58-110	1035	12.3	30	
2,6-Dinitrotoluene	915.1	330	1316	0	69.5	59-108	1035	12.3	30	
2-Chloronaphthalene	981	66	1316	0	74.5	56-104	1028	4.73	30	
2-Chlorophenol	915.1	330	1316	0	69.5	50-104	1074	16	30	
2-Methylnaphthalene	954.6	66	1316	0	72.5	54-96	1002	4.88	30	
2-Methylphenol	921.7	330	1316	0	70	49-105	1074	15.3	30	
2-Nitroaniline	967.8	330	1316	0	73.5	54-107	1068	9.8	30	
2-Nitrophenol	902	330	1316	0	68.5	51-94	995.9	9.9	30	
3&4-Methylphenol	895.4	330	1316	0	68	48-105	1028	13.8	30	
3,3´-Dichlorobenzidine	961.2	1,600	1316	0	73	39-99	1068	0	30	J
3-Nitroaniline	697.9	330	1316	0	53	17-92	807.1	14.5	30	
4,6-Dinitro-2-methylphenol	171.2	330	1316	0	13	32-103	260.4	0	30	JS
4-Bromophenyl phenyl ether	1007	330	1316	0	76.5	60-106	1113	9.97	30	
4-Chloro-3-methylphenol	941.5	330	1316	0	71.5	51-101	1035	9.46	30	
4-Chloroaniline	691.3	660	1316	0	52.5	27-110	813.6	16.3	30	
4-Chlorophenyl phenyl ether	961.2	330	1316	0	73	58-106	1041	8.01	30	
4-Nitroaniline	875.6	1,600	1316	0	66.5	21-100	943.8	0	30	J
4-Nitrophenol	ND	330	1316	0	0	29-120	0	0	30	S
Acenaphthene	994.1	66	1316	0	75.5	55-101	1068	7.12	30	
Acenaphthylene	1067	66	1316	0	81	59-106	1107	3.68	30	
Anthracene	974.4	66	1316	0	74	67-105	1081	10.3	30	
Benzo(a)anthracene	1264	66	1316	199.4	80.9	68-105	1373	8.29	30	
Benzo(a)pyrene	1192	66	1316	173.6	77.3	68-110	1302	8.84	30	
Benzo(b)fluoranthene	1317	66	1316	276.5	79	65-110	1426	7.93	30	
Benzo(g,h,i)perylene	1541	66	1316	77.18	111	60-120	1634	5.87	30	
Benzo(k)fluoranthene	1106	66	1316	109.3	75.7	66-113	1211	9.03	30	
Bis(2-chloroethoxy)methane	849.3	330	1316	0	64.5	53-96	930.8	9.16	30	
Bis(2-chloroethyl)ether	888.8	330	1316	0	67.5	47-108	1087	20.1	30	
Bis(2-chloroisopropyl)ether	862.5	330	1316	0	65.5	47-107	982.9	13.1	30	
Bis(2-ethylhexyl)phthalate	1106	330	1316	0	84	59-117	1198	7.95	30	
Butyl benzyl phthalate	1132	330	1316	0	86	59-106	1204	6.14	30	
Carbazole	1027	330	1316	0	78	67-108	1087	5.67	30	
Chrysene	1211	66	1316	173.6	78.8	68-108	1334	9.66	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **163029** Instrument ID **SVMS10** Method: **SW846 8270D**

Dibenzo(a,h)anthracene	1146	66	1316	0	87	62-119	1243	8.18	30	
Dibenzofuran	1040	330	1316	0	79	60-104	1126	7.93	30	
Diethyl phthalate	948.1	330	1316	0	72	62-111	1028	8.14	30	
Dimethyl phthalate	915.1	330	1316	0	69.5	62-106	982.9	7.14	30	
Di-n-butyl phthalate	1047	330	1316	0	79.5	59-105	1126	7.3	30	
Di-n-octyl phthalate	1086	330	1316	0	82.5	51-123	1191	9.21	30	
Fluoranthene	1238	66	1316	289.4	72	67-106	1406	12.7	30	
Fluorene	967.8	66	1316	0	73.5	59-107	1081	11	30	
Hexachlorobenzene	954.6	330	1316	0	72.5	62-103	1035	8.07	30	
Hexachlorobutadiene	961.2	330	1316	0	73	51-94	1009	4.84	30	
Hexachlorocyclopentadiene	289.7	330	1316	0	22	25-120	318.9	0	30	JS
Hexachloroethane	612.3	330	1316	0	46.5	55-93	716	15.6	30	S
Indeno(1,2,3-cd)pyrene	1343	66	1316	141.5	91.3	56-120	1478	9.54	30	
Isophorone	895.4	1,600	1316	0	68	52-99	937.3	0	30	J
Naphthalene	934.9	66	1316	0	71	46-98	995.9	6.32	30	
Nitrobenzene	902	1,600	1316	0	68.5	53-95	976.4	0	30	J
N-Nitrosodi-n-propylamine	816.4	330	1316	0	62	50-104	956.8	15.8	30	
N-Nitrosodiphenylamine	1020	330	1316	0	77.5	63-107	1107	8.09	30	
Pentachlorophenol	401.6	330	1316	0	30.5	34-106	533.8	28.3	30	S
Phenanthrene	1099	66	1316	96.47	76.2	66-101	1224	10.7	30	
Phenol	915.1	330	1316	0	69.5	44-109	1100	18.4	30	
Pyrene	1323	66	1316	276.5	79.5	60-119	1478	11	30	
Surr: 2,4,6-Tribromophenol	*2173*	0	*3292*	0	*66*	*38-92*	2441	*11.6*	*40*	
Surr: 2-Fluorobiphenyl	*2396*	0	*3292*	0	*72.8*	*44-107*	2493	*3.95*	*40*	
Surr: 2-Fluorophenol	*2153*	0	*3292*	0	*65.4*	*37-109*	2467	*13.6*	*40*	
Surr: 4-Terphenyl-d14	*2732*	0	*3292*	0	*83*	*52-123*	2955	*7.84*	*40*	
Surr: Nitrobenzene-d5	*2166*	0	*3292*	0	*65.8*	*41-94*	2298	*5.9*	*40*	
Surr: Phenol-d6	*2140*	0	*3292*	0	*65*	*28-111*	2526	*16.5*	*40*	

The following samples were analyzed in this batch: 20081685-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163119** Instrument ID **VMS8** Method: **SW8260C**

MBLK	Sample ID: **MBLK-163119-163119**				Units: **µg/Kg-dry**		Analysis Date: **8/25/2020 06:18 PM**			
Client ID:		Run ID: **VMS8_200825B**			SeqNo: **6659628**		Prep Date: **8/25/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	30								
1,1,1-Trichloroethane	ND	30								
1,1,2,2-Tetrachloroethane	ND	30								
1,1,2-Trichloroethane	ND	30								
1,1,2-Trichlorotrifluoroethane	ND	30								
1,1-Dichloroethane	ND	30								
1,1-Dichloroethene	ND	30								
1,2,3-Trichloropropane	ND	30								
1,2,4-Trichlorobenzene	ND	100								
1,2,4-Trimethylbenzene	ND	30								
1,2-Dibromo-3-chloropropane	ND	100								
1,2-Dibromoethane	ND	30								
1,2-Dichlorobenzene	ND	30								
1,2-Dichloroethane	ND	100								
1,2-Dichloropropane	ND	30								
1,3,5-Trimethylbenzene	ND	100								
1,3-Dichlorobenzene	ND	30								
1,4-Dichlorobenzene	ND	30								
2-Butanone	ND	200								
2-Hexanone	ND	30								
2-Methylnaphthalene	ND	100								
4-Methyl-2-pentanone	ND	30								
Acetone	ND	100								
Acrylonitrile	ND	100								
Benzene	ND	30								
Bromodichloromethane	ND	30								
Bromoform	ND	30								
Bromomethane	ND	100								
Carbon disulfide	ND	30								
Carbon tetrachloride	ND	30								
Chlorobenzene	ND	30								
Chloroethane	ND	100								
Chloroform	ND	30								
Chloromethane	ND	100								
cis-1,2-Dichloroethene	ND	30								
cis-1,3-Dichloropropene	ND	30								
Dibromochloromethane	ND	30								
Dibromomethane	ND	30								
Dichlorodifluoromethane	ND	100								
Diethyl ether	ND	30								
Ethylbenzene	ND	30								
Hexachloroethane	ND	100								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **163119** Instrument ID **VMS8** Method: **SW8260C**

Isopropylbenzene	ND	30					
m,p-Xylene	ND	60					
Methyl tert-butyl ether	ND	30					
Methylene chloride	ND	250					
Naphthalene	ND	100					
n-Propylbenzene	ND	30					
o-Xylene	ND	30					
Styrene	ND	30					
Tetrachloroethene	ND	30					
Toluene	ND	30					
trans-1,2-Dichloroethene	ND	30					
trans-1,3-Dichloropropene	ND	30					
Trichloroethene	ND	30					
Trichlorofluoromethane	ND	30					
Vinyl acetate	ND	250					
Vinyl chloride	ND	30					
Xylenes, Total	ND	90					
Surr: 1,2-Dichloroethane-d4	*1018*	0	*1000*	0	*102*	*70-130*	0
Surr: 4-Bromofluorobenzene	*992.5*	0	*1000*	0	*99.2*	*70-130*	0
Surr: Dibromofluoromethane	*975*	0	*1000*	0	*97.5*	*70-130*	0
Surr: Toluene-d8	*977*	0	*1000*	0	*97.7*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163119** Instrument ID **VMS8** Method: **SW8260C**

LCS	Sample ID: **LCS-163119-163119**				Units: **µg/Kg-dry**		Analysis Date: **8/25/2020 05:28 PM**			
Client ID:		Run ID: **VMS8_200825B**			SeqNo: **6659626**		Prep Date: **8/25/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	853	30	1000	0	85.3	75-125	0			
1,1,1-Trichloroethane	895.5	30	1000	0	89.6	70-135	0			
1,1,2,2-Tetrachloroethane	872.5	30	1000	0	87.2	55-130	0			
1,1,2-Trichloroethane	861.5	30	1000	0	86.2	60-125	0			
1,1-Dichloroethane	852.5	30	1000	0	85.2	75-125	0			
1,1-Dichloroethene	984	30	1000	0	98.4	76-148	0			
1,2,3-Trichloropropane	860	30	1000	0	86	65-130	0			
1,2,4-Trichlorobenzene	979.5	100	1000	0	98	65-130	0			
1,2,4-Trimethylbenzene	815	30	1000	0	81.5	65-135	0			
1,2-Dibromo-3-chloropropane	791	100	1000	0	79.1	40-135	0			
1,2-Dibromoethane	856.5	30	1000	0	85.6	80-195	0			
1,2-Dichlorobenzene	857	30	1000	0	85.7	75-120	0			
1,2-Dichloroethane	874	100	1000	0	87.4	70-135	0			
1,2-Dichloropropane	870	30	1000	0	87	70-120	0			
1,3,5-Trimethylbenzene	834	100	1000	0	83.4	65-135	0			
1,3-Dichlorobenzene	875.5	30	1000	0	87.6	70-125	0			
1,4-Dichlorobenzene	875.5	30	1000	0	87.6	70-125	0			
2-Butanone	918.5	200	1000	0	91.8	30-160	0			
2-Hexanone	1038	30	1000	0	104	45-145	0			
4-Methyl-2-pentanone	1522	30	1000	0	152	74-176	0			
Acetone	965.5	100	1000	0	96.6	20-160	0			
Acrylonitrile	965.5	100	1000	0	96.6	70-135	0			
Benzene	957	30	1000	0	95.7	75-125	0			
Bromodichloromethane	905	30	1000	0	90.5	70-130	0			
Bromoform	839.5	30	1000	0	84	55-135	0			
Bromomethane	1594	100	1000	0	159	50-170	0			
Carbon disulfide	1006	30	1000	0	101	45-160	0			
Carbon tetrachloride	800	30	1000	0	80	65-135	0			
Chlorobenzene	859	30	1000	0	85.9	75-125	0			
Chloroethane	808	100	1000	0	80.8	40-155	0			
Chloroform	844.5	30	1000	0	84.4	66-140	0			
Chloromethane	577.5	100	1000	0	57.8	50-144	0			
cis-1,2-Dichloroethene	846.5	30	1000	0	84.6	65-125	0			
cis-1,3-Dichloropropene	921	30	1000	0	92.1	70-125	0			
Dibromochloromethane	796	30	1000	0	79.6	65-135	0			
Dibromomethane	883.5	30	1000	0	88.4	75-130	0			
Dichlorodifluoromethane	912	100	1000	0	91.2	35-135	0			
Diethyl ether	865.5	30	1000	0	86.6	67-150	0			
Ethylbenzene	878	30	1000	0	87.8	75-125	0			
Hexachloroethane	772.5	100	1000	0	77.2	51-122	0			
Isopropylbenzene	883	30	1000	0	88.3	75-130	0			
m,p-Xylene	1946	60	2000	0	97.3	80-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **163119** Instrument ID **VMS8** Method: **SW8260C**

Methyl tert-butyl ether	980.5	30	1000	0	98	75-125	0
Methylene chloride	747.5	250	1000	0	74.8	55-145	0
Naphthalene	853	100	1000	0	85.3	40-140	0
n-Propylbenzene	858	30	1000	0	85.8	65-135	0
o-Xylene	862	30	1000	0	86.2	75-125	0
Styrene	869.5	30	1000	0	87	80-138	0
Tetrachloroethene	1004	30	1000	0	100	67-167	0
Toluene	844.5	30	1000	0	84.4	70-125	0
trans-1,2-Dichloroethene	872.5	30	1000	0	87.2	65-135	0
trans-1,3-Dichloropropene	824.5	30	1000	0	82.4	59-129	0
Trichloroethene	888	30	1000	0	88.8	75-125	0
Trichlorofluoromethane	760	30	1000	0	76	25-185	0
Vinyl chloride	900.5	30	1000	0	90	60-125	0
Xylenes, Total	2808	90	3000	0	93.6	75-125	0
Surr: 1,2-Dichloroethane-d4	*1006*	0	*1000*	0	*101*	*70-130*	0
Surr: 4-Bromofluorobenzene	*991.5*	0	*1000*	0	*99.2*	*70-130*	0
Surr: Dibromofluoromethane	*998.5*	0	*1000*	0	*99.8*	*70-130*	0
Surr: Toluene-d8	*1010*	0	*1000*	0	*101*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163119** Instrument ID **VMS8** Method: **SW8260C**

MS	Sample ID: **20081676-01A MS**				Units: **µg/Kg-dry**		Analysis Date: **8/26/2020 12:02 AM**			
Client ID:		Run ID: **VMS8_200825B**			SeqNo: **6659653**		Prep Date: **8/25/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1001	36	1200	0	83.5	75-125	0			
1,1,1-Trichloroethane	1082	36	1200	0	90.2	70-135	0			
1,1,2,2-Tetrachloroethane	826.2	36	1200	0	68.9	55-130	0			
1,1,2-Trichloroethane	1033	36	1200	0	86.1	60-125	0			
1,1-Dichloroethane	929.4	36	1200	0	77.5	75-125	0			
1,1-Dichloroethene	1212	36	1200	0	101	76-148	0			
1,2,3-Trichloropropane	1059	36	1200	0	88.3	65-130	0			
1,2,4-Trichlorobenzene	1093	120	1200	0	91.1	65-130	0			
1,2,4-Trimethylbenzene	990	36	1200	0	82.5	65-135	0			
1,2-Dibromo-3-chloropropane	795	120	1200	0	66.3	40-135	0			
1,2-Dibromoethane	1012	36	1200	0	84.4	80-195	0			
1,2-Dichlorobenzene	1003	36	1200	0	83.6	75-120	0			
1,2-Dichloroethane	1016	120	1200	0	84.7	70-135	0			
1,2-Dichloropropane	1059	36	1200	0	88.3	70-120	0			
1,3,5-Trimethylbenzene	1023	120	1200	0	85.3	65-135	0			
1,3-Dichlorobenzene	1020	36	1200	0	85	70-125	0			
1,4-Dichlorobenzene	1020	36	1200	0	85	70-125	0			
2-Butanone	1064	240	1200	0	88.7	30-160	0			
2-Hexanone	1430	36	1200	0	119	45-145	0			
4-Methyl-2-pentanone	1576	36	1200	0	131	74-176	0			
Acetone	1692	120	1200	0	141	20-160	0			
Acrylonitrile	985.2	120	1200	0	82.1	70-135	0			
Benzene	1170	36	1200	0	97.5	75-125	0			
Bromodichloromethane	999.6	36	1200	0	83.3	70-130	0			
Bromoform	953.4	36	1200	0	79.5	55-135	0			
Bromomethane	1438	120	1200	0	120	50-170	0			
Carbon disulfide	1111	36	1200	0	92.6	45-160	0			
Carbon tetrachloride	959.4	36	1200	0	80	65-135	0			
Chlorobenzene	1009	36	1200	0	84.1	75-125	0			
Chloroethane	545.4	120	1200	0	45.5	40-155	0			
Chloroform	1019	36	1200	0	84.9	66-140	0			
Chloromethane	695.4	120	1200	0	58	50-144	0			
cis-1,2-Dichloroethene	1009	36	1200	0	84.1	65-125	0			
cis-1,3-Dichloropropene	1065	36	1200	0	88.8	70-125	0			
Dibromochloromethane	873	36	1200	0	72.8	65-135	0			
Dibromomethane	1024	36	1200	0	85.3	75-130	0			
Dichlorodifluoromethane	1043	120	1200	0	86.9	35-135	0			
Diethyl ether	951.6	36	1200	0	79.3	67-150	0			
Ethylbenzene	1048	36	1200	0	87.3	75-125	0			
Hexachloroethane	940.2	120	1200	0	78.4	51-122	0			
Isopropylbenzene	1066	36	1200	0	88.9	75-130	0			
m,p-Xylene	2306	72	2400	0	96.1	80-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **163119** Instrument ID **VMS8** Method: **SW8260C**

Methyl tert-butyl ether	1144	36	1200	0	95.4	75-125	0
Methylene chloride	891.6	300	1200	0	74.3	55-145	0
Naphthalene	943.2	120	1200	0	78.6	40-140	0
n-Propylbenzene	1016	36	1200	0	84.7	65-135	0
o-Xylene	1043	36	1200	0	86.9	75-125	0
Styrene	1042	36	1200	0	86.8	80-138	0
Tetrachloroethene	1994	36	1200	0	166	67-167	0
Toluene	1013	36	1200	0	84.4	70-125	0
trans-1,2-Dichloroethene	1062	36	1200	0	88.5	65-135	0
trans-1,3-Dichloropropene	927	36	1200	0	77.3	59-129	0
Trichloroethene	1240	36	1200	0	103	75-125	0
Trichlorofluoromethane	774.6	36	1200	0	64.6	25-185	0
Vinyl chloride	1139	36	1200	0	94.9	60-125	0
Xylenes, Total	3349	110	3600	0	93	75-125	0
Surr: 1,2-Dichloroethane-d4	*1212*	0	*1200*	0	*101*	*70-130*	0
Surr: 4-Bromofluorobenzene	*1215*	0	*1200*	0	*101*	*70-130*	0
Surr: Dibromofluoromethane	*1201*	0	*1200*	0	*100*	*70-130*	0
Surr: Toluene-d8	*1196*	0	*1200*	0	*99.7*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163119** Instrument ID **VMS8** Method: **SW8260C**

MSD	Sample ID: **20081676-01A MSD**				Units: **µg/Kg-dry**		Analysis Date: **8/26/2020 12:19 AM**			
Client ID:		Run ID: **VMS8_200825B**			SeqNo: **6659654**		Prep Date: **8/25/2020**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	946.5	36	1201	0	78.8	75-125	1001	5.64	30	
1,1,1-Trichloroethane	1055	36	1201	0	87.8	70-135	1082	2.6	30	
1,1,2,2-Tetrachloroethane	789.2	36	1201	0	65.7	55-130	826.2	4.59	30	
1,1,2-Trichloroethane	1002	36	1201	0	83.5	60-125	1033	3.03	30	
1,1-Dichloroethane	904.5	36	1201	0	75.3	75-125	929.4	2.72	30	
1,1-Dichloroethene	1104	36	1201	0	91.9	76-148	1212	9.29	30	
1,2,3-Trichloropropane	1018	36	1201	0	84.7	65-130	1059	3.95	30	
1,2,4-Trichlorobenzene	1050	120	1201	0	87.4	65-130	1093	4	30	
1,2,4-Trimethylbenzene	944.7	36	1201	0	78.6	65-135	990	4.68	30	
1,2-Dibromo-3-chloropropane	798.8	120	1201	0	66.5	40-135	795	0.47	30	
1,2-Dibromoethane	971.7	36	1201	0	80.9	80-195	1012	4.08	30	
1,2-Dichlorobenzene	970.5	36	1201	0	80.8	75-120	1003	3.25	30	
1,2-Dichloroethane	980.1	120	1201	0	81.6	70-135	1016	3.63	30	
1,2-Dichloropropane	1019	36	1201	0	84.8	70-120	1059	3.84	30	
1,3,5-Trimethylbenzene	956.7	120	1201	0	79.6	65-135	1023	6.7	30	
1,3-Dichlorobenzene	956.7	36	1201	0	79.6	70-125	1020	6.41	30	
1,4-Dichlorobenzene	956.7	36	1201	0	79.6	70-125	1020	6.41	30	
2-Butanone	1069	240	1201	0	89	30-160	1064	0.488	30	
2-Hexanone	1395	36	1201	0	116	45-145	1430	2.5	30	
4-Methyl-2-pentanone	1504	36	1201	0	125	74-176	1576	4.66	30	
Acetone	1671	120	1201	0	139	20-160	1692	1.26	30	
Acrylonitrile	997	120	1201	0	83	70-135	985.2	1.18	30	
Benzene	1119	36	1201	0	93.1	75-125	1170	4.47	30	
Bromodichloromethane	991	36	1201	0	82.5	70-130	999.6	0.871	30	
Bromoform	924.3	36	1201	0	76.9	55-135	953.4	3.1	30	
Bromomethane	1360	120	1201	0	113	50-170	1438	5.57	30	
Carbon disulfide	1052	36	1201	0	87.5	45-160	1111	5.51	30	
Carbon tetrachloride	915.9	36	1201	0	76.2	65-135	959.4	4.64	30	
Chlorobenzene	966.9	36	1201	0	80.5	75-125	1009	4.22	30	
Chloroethane	519.5	120	1201	0	43.2	40-155	545.4	4.87	30	
Chloroform	967.5	36	1201	0	80.5	66-140	1019	5.17	30	
Chloromethane	654	120	1201	0	54.4	50-144	695.4	6.13	30	
cis-1,2-Dichloroethene	954.9	36	1201	0	79.5	65-125	1009	5.47	30	
cis-1,3-Dichloropropene	994	36	1201	0	82.7	70-125	1065	6.9	30	
Dibromochloromethane	845.6	36	1201	0	70.4	65-135	873	3.19	30	
Dibromomethane	984.9	36	1201	0	82	75-130	1024	3.85	30	
Dichlorodifluoromethane	951.3	120	1201	0	79.2	35-135	1043	9.18	30	
Diethyl ether	920.1	36	1201	0	76.6	67-150	951.6	3.37	30	
Ethylbenzene	977.1	36	1201	0	81.3	75-125	1048	6.96	30	
Hexachloroethane	882.2	120	1201	0	73.4	51-122	940.2	6.36	30	
Isopropylbenzene	1011	36	1201	0	84.2	75-130	1066	5.28	30	
m,p-Xylene	2182	72	2402	0	90.8	80-125	2306	5.52	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163119** Instrument ID **VMS8** Method: **SW8260C**

Methyl tert-butyl ether	1130	36	1201	0	94.1	75-125	1144	1.23	30
Methylene chloride	839	300	1201	0	69.8	55-145	891.6	6.08	30
Naphthalene	930.9	120	1201	0	77.5	40-140	943.2	1.32	30
n-Propylbenzene	1000	36	1201	0	83.2	65-135	1016	1.63	30
o-Xylene	977.1	36	1201	0	81.3	75-125	1043	6.5	30
Styrene	986.8	36	1201	0	82.1	80-138	1042	5.41	30
Tetrachloroethene	1855	36	1201	0	154	67-167	1994	7.2	30
Toluene	948.3	36	1201	0	78.9	70-125	1013	6.58	30
trans-1,2-Dichloroethene	1040	36	1201	0	86.6	65-135	1062	2.08	30
trans-1,3-Dichloropropene	886.5	36	1201	0	73.8	59-129	927	4.47	30
Trichloroethene	1213	36	1201	0	101	75-125	1240	2.26	30
Trichlorofluoromethane	741.1	36	1201	0	61.7	25-185	774.6	4.42	30
Vinyl chloride	1043	36	1201	0	86.8	60-125	1139	8.82	30
Xylenes, Total	3159	110	3603	0	87.7	75-125	3349	5.83	30
Surr: 1,2-Dichloroethane-d4	*1190*	0	*1201*	0	*99.1*	*70-130*	1212	*1.86*	*30*
Surr: 4-Bromofluorobenzene	*1210*	0	*1201*	0	*101*	*70-130*	1215	*0.45*	*30*
Surr: Dibromofluoromethane	*1202*	0	*1201*	0	*100*	*70-130*	1201	*0.0441*	*30*
Surr: Toluene-d8	*1194*	0	*1201*	0	*99.4*	*70-130*	1196	*0.157*	*30*

The following samples were analyzed in this batch: 20081685-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **163167** Instrument ID **GALLERY** Method: **A4500-Cl E-11**

MBLK Sample ID: **MBLK-163167-163167** Units: **mg/Kg** Analysis Date: **8/26/2020 05:35 PM**
Client ID: Run ID: **GALLERY_200826B** SeqNo: **6664349** Prep Date: **8/25/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	10								

MS Sample ID: **20081942-01AMS** Units: **mg/Kg** Analysis Date: **8/26/2020 05:35 PM**
Client ID: Run ID: **GALLERY_200826B** SeqNo: **6664365** Prep Date: **8/25/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	477.6	9.8	491.2	0.9423	97	86-114	0			

MSD Sample ID: **20081942-01AMSD** Units: **mg/Kg** Analysis Date: **8/26/2020 05:35 PM**
Client ID: Run ID: **GALLERY_200826B** SeqNo: **6664366** Prep Date: **8/25/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	477.2	9.8	491.2	0.9423	97	86-114	477.6	0.0823	10	

LCS1 Sample ID: **LCS1-163167-163167** Units: **mg/Kg** Analysis Date: **8/26/2020 05:35 PM**
Client ID: Run ID: **GALLERY_200826B** SeqNo: **6664367** Prep Date: **8/25/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	94.82	10	100	0	94.8	86-114	0			

LCS2 Sample ID: **LCS2-163167-163167** Units: **mg/Kg** Analysis Date: **8/26/2020 05:35 PM**
Client ID: Run ID: **GALLERY_200826B** SeqNo: **6664368** Prep Date: **8/25/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	488.4	10	500	0	97.7	88-112	0			

The following samples were analyzed in this batch: 20081685-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AKT Peerless
Work Order: 20081685
Project: 8997f5-5-10.4

QC BATCH REPORT

Batch ID: **R296833** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R296833** Units: **% of sample** Analysis Date: **8/26/2020 12:00 PM**
Client ID: Run ID: **MOIST_200826A** SeqNo: **6663457** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.10								

LCS Sample ID: **LCS-R296833** Units: **% of sample** Analysis Date: **8/26/2020 12:00 PM**
Client ID: Run ID: **MOIST_200826A** SeqNo: **6663456** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

DUP Sample ID: **20081696-01B DUP** Units: **% of sample** Analysis Date: **8/26/2020 12:00 PM**
Client ID: Run ID: **MOIST_200826A** SeqNo: **6663453** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	8.79	0.10	0	0	0	0-0	8.97	2.03	10	

DUP Sample ID: **20081699-01B DUP** Units: **% of sample** Analysis Date: **8/26/2020 12:00 PM**
Client ID: Run ID: **MOIST_200826A** SeqNo: **6663455** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	10.02	0.10	0	0	0	0-0	9.87	1.51	10	

The following samples were analyzed in this batch: 20081685-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Cincinnati, OH +1 513 733 5336
Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Spring City, PA +1 610 948 4903
South Charleston, WV +1 304 356 3168
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of 1

COC ID: 223387

ALS Project Manager: | ALS Work Order #: 20081685

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number	8997F5-5-10.4	B	SVOCs
Company Name	AKT Peerless	Bill To Company	AKT Peerless	C	PCBs
Send Report To	Megan Napier	Invoice Attn	Accounts Payable	D	MI-10 metals
Address	22725 Orchard Lake Road	Address	214 Janes Avenue	E	Chloride
				F	Herbicides and Pesticides
City/State/Zip	Farmington, MI 48336	City/State/Zip	Saginaw, MI 48607	G	
Phone	(248) 615-1333	Phone	(989) 754-9896	H	
Fax	cooktr@aktpeerless.com	Fax		I	
e-Mail Address	NapierM@aktpeerless.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	6408 Burns-T5-Composite	8/19/2020	9:20 am	Soil	MeOH	3	X	X	X	X	X	X					
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Antonio Morsette

Shipment Method:

Required Turnaround Time: (Check Box) ☐ Std 10 WK Days ☒ 5 WK Days ☐ 2 WK Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by: | Date: 8/20/20 | Time: 11:10 am | Received by: | 8/20/20 | 11:10

Relinquished by: | Date: 8/20/20 | Time: 5:00 | Received by (Laboratory): | 8/20/20 | 5:00

Logged by (Laboratory): KR | Date: 8/21/20 | Time: 0925 | Checked by (Laboratory): | 8/21/20 | 0800

Notes: also send to: Bricks@aktpeerless.com

Cooler ID	Cooler Temp.
183	1.9°C

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP CheckList
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Group, USA

Sample Receipt Checklist

Client Name: **AKT PEERLESS - FARMINGTON** Date/Time Received: **21-Aug-20 08:00**

Work Order: **20081685** Received by: **KRW**

Checklist completed by Keith Wierenga eSignature 21-Aug-20 Date Reviewed by: Bill Carey eSignature 21-Aug-20 Date

Matrices: Soil

Carrier name: Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.9/2.9 C	IR3	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	8/21/2020 9:21:09 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: