Environmental Consultants

10401 Holmes Road
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Kansas City, Missouri 64131-3406

816 941-7510
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SCS ENGINEERS

January 8, 2004
File No. 02200070.24

Mr. David L. Hartshorn
Property Management Division
U.S. General Services Administration
1500 E. Bannister Road, Room 2101
Kansas City, MO 64131-3088

RE: Electrical Oil Pot Sample Collection and Analysis in Building 1 and Summary of PCB Remediation Activities in Building 10 at the Hardesty Federal Center.

At the request of the U.S. General Services Administration (GSA), SCS Engineers (SCS) coordinated field activities necessary for the collection of dielectric oil from an oil pot in Building 1 and for PCB remediation clean-up activities of electrical equipment in Building 10. It was determined by SCS and its subcontractors, that a termination of power to the entire Hardesty Federal Center complex would be required to safely access these areas and to complete the proposed field work.

A coordinated effort was required by SCS, Capital Electric, Hulcher Services Inc., Kansas City Power and Light, and A Space Bank Mini Storage (tenant located in Building 1 and 2) to complete the sampling and remediation activities. Additionally, it was requested by A Space Bank Mini Storage that power termination be scheduled for completion after normal business hours.

Termination of Power

Field activities were scheduled and completed on the evening of December 30, 2003. Mr. Richard Vorce, Manager of A Space Bank Mini Storage was contacted and informed of proposed schedules and sampling activities. Representatives from SCS, Capital Electric, Hulcher Services Inc., Kansas City Power and Light arrived at the site and met with employees associated with A Space Bank Mini Storage. Electrical power was terminated by Kansas City Power and Light in Building 13 at approximately 6:30 pm. The primary feeder line (13,800 v., 2,800 kva capacity) for the complex was cut and grounding of all lines was completed for safety purposes.

Sampling Activities

The transformer vault room is located on the main level of Building 1 and is accessible through a series of locked security doors. Inside the vault room, three 150 kva transformers (previously sampled) receive high voltage 13,800 v power from Building

13 and distribute power to energize Building 1 and 2. The oil pot is located at the end of the high voltage line in the northeast corner of the transformer vault room. The doors to the transformer vault room were unlocked by representatives of A Space Bank Mini Storage and temporary lighting was established. Capital Electric checked all exposed conducting busses and lines and verified that no electrical current was present prior to sampling activities. Contents within the electrical oil pot were accessed through a one-inch port located at the base of the assembly. Dielectric oil within the pot was highly viscous and minimal sample quantity of approximately 20 grams was recovered. The sample was labeled (Building #1 Oil Pot) and was packed on ice for shipment under chain-of-custody to Keystone Laboratories Inc. The sample was analyzed for PCBs by USEPA Method 8082. Laboratory analysis indicated PCB Aroclors were not detected above Method Reporting Limits (MRL). Laboratory analytical results for PCB Aroclor concentration can be found in the attached Keystone Analytical Report (Work Order: 33L0239).

Remediation Activities

PCB remediation activities were required on the surface of an oil pot and associated supporting brace within the transformer vault room in Building 10. The transformer vault room is located in the basement level of Building 10 and contains three 150 kva transformers (previously sampled), one oil pot, and a system of electrical switch gear. Temporary lighting was established in the room and it was verified by Capital Electric that all exposed conducting bussed and lines did not contain electrical current. Hulcher Services Inc. was retained by SCS to complete the remediation. Remediation activities included construction of containment, cleaning the impacted surface of the oil pot and supporting brace, and providing proper personal protective equipment. Disposable spill pads saturated with degreasing solution were utilized to repeatedly wipe impacted surfaces and to remove solidified material.

Sampling and PCB remediation activities were completed at approximately 8:00 pm. Kansas City Power and Light returned to the site and re-energized the complex at approximately 8:45 pm. A Space Bank Mini Storage was contacted immediately following reconnection to confirm electrical power had been restored to Building 1 and 2.

Purpose of Sampling and Analysis

The primary purpose for sampling and analysis of the contents within the oil pot was to further delineate possible PCB containing electrical components (i.e., three primary transformers, one oil pot, and high voltage cable) within the electrical service between Building 13 and Building 1. Laboratory analysis of oil samples collected from the three primary transformers in Building #1 indicated a maximum Aroclor concentration of 3.1 mg/kg. Analytical results of the oil pot in Building 1 indicated PCB Aroclors were below MRL.

Sampling and analysis of the high voltage cable has not been attempted due to a concern of potentially damaging the line during sample collection activities. Based on the analytical results for the oil pot (connected to the high voltage cable) and continued investigation of this type of high voltage cable, it is not anticipated that the high voltage cable contains PCBs. Furthermore, after inspection of the high voltage cable by Capital and SCS, SCS believes that the high voltage cable may not be oil-filled as previously suspected and simply consists of paper wrapped cable inside a metal sheath. This would appear to be consistent with the high voltage cable that was removed between the basement and 2nd floor transformer vaults in Building 11. The source of the oil spilled at the Hardesty complex appears to be the oil pots related to the switches, not the cable itself.

Based on this assumption and analytical data obtained from sampling of the oil pot and primary transformers, the electrical service between building 13 and Building 1 should not contain PCBs at concentrations exceeding regulatory standards. Confirmation of the high voltage cable construction can be made when electrical service between Buildings 13, 1, and 3 is modified.

If you have any questions or need further assistance please contact SCS at (816) 941-7510.

Sincerely,

Jerrett Domling
Staff Professional
SCS ENGINEERS

David E. Brewer, P.G.
Project Manager
SCS ENGINEERS

Attachment: Keystone Laboratories Inc. Analytical Report

Keystone LABORATORIES, INC.

ACCREDITED IN ACCORDANCE WITH nelac

MEMBER ACIL

ANALYTICAL REPORT

Work Order: 33L0239

January 08, 2004
Page 1 of 3

Report To

Jerrett Domling
SCS Engineers
10401 Holmes Rd Suite 400
Kansas City, MO 64131

Work Order Information

Date Received: 12/31/2003 9:44AM
Collector: Jerrett Domling
Collector Phone: (816) 941-7510
PO Number: Hardesty Federal Center

Project: Routine Testing

Project Number: Hardesty Federal Center - 601-607 Hardesty, KCMO

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier	Lab
33L0239-01 Bldg #1 Oil Pot				Matrix:Oil		Collected: 12/30/03 19:00		
Determination of Polychlorinated Biphenyls (PCB)								
Arochlor 1016	<2.6 mg/kg	2.6	1A4071	ASTM D4059-96	EPP	01/07/04 13:10		NT
Arochlor 1221	<2.6 mg/kg	2.6	1A4071	ASTM D4059-96	EPP	01/07/04 13:10		NT
Arochlor 1232	<2.6 mg/kg	2.6	1A4071	ASTM D4059-96	EPP	01/07/04 13:10		NT
Arochlor 1242	<2.6 mg/kg	2.6	1A4071	ASTM D4059-96	EPP	01/07/04 13:10		NT
Arochlor 1248	<2.6 mg/kg	2.6	1A4071	ASTM D4059-96	EPP	01/07/04 13:10		NT
Arochlor 1254	<2.6 mg/kg	2.6	1A4071	ASTM D4059-96	EPP	01/07/04 13:10		NT
Arochlor 1260	<2.6 mg/kg	2.6	1A4071	ASTM D4059-96	EPP	01/07/04 13:10		NT
Total PCB's	<2.6 mg/kg	2.6	1A4071	ASTM D4059-96	EPP	01/07/04 13:10		NT
Surrogate: Decachlorobiphenyl	*50.5 %*			*58-138*	EPP	01/07/04 13:10	S-LOW	NT

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL= Method Reporting Limit.

Keystone
LABORATORIES, INC.

ACCREDITED IN ACCORDANCE WITH nelac

MEMBER ACIL

SCS Engineers
10401 Holmes Rd Suite 400
Kansas City, MO 64131

Work Order: 33L0239

January 08, 2004

Determination of Polychlorinated Biphenyls (PCB) - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1A40715 - PCB Oil										
Blank (1A40715-BLK1)				Prepared & Analyzed: 01/07/04						
Arochlor 1016	ND	2.0	mg/kg							
Arochlor 1221	ND	2.0	"							
Arochlor 1232	ND	2.0	"							
Arochlor 1242	ND	2.0	"							
Arochlor 1248	ND	2.0	"							
Arochlor 1254	ND	2.0	"							
Arochlor 1260	ND	2.0	"							
Total PCB's	ND	2.0	"							
Surrogate: Decachlorobiphenyl	*3.68*		"	*5.00*		*73.6*	*58-138*			
LCS (1A40715-BS1)				Prepared & Analyzed: 01/07/04						
Arochlor 1016	10.7	2.0	mg/kg	14.0		76.4	70-130			
Arochlor 1260	12.5	2.0	"	14.0		89.3	79-143			
Surrogate: Decachlorobiphenyl	*3.78*		"	*5.00*		*75.6*	*58-138*			
Calibration Check (1A40715-CCV1)				Prepared & Analyzed: 01/07/04						
Arochlor 1016	0.98		mg/kg	1.12		87.5	75-125			
Arochlor 1260	0.93		"	1.12		83.0	75-125			
Matrix Spike (1A40715-MS1)		Source: 33L0239-01		Prepared & Analyzed: 01/07/04						
Arochlor 1016	10.7	2.0	mg/kg	14.0	ND	76.4	70-130			
Arochlor 1260	9.65	2.0	"	14.0	ND	68.9	83-135			QM-05
Surrogate: Decachlorobiphenyl	*2.30*		"	*5.00*		*46.0*	*58-138*			*S-LOW*
Matrix Spike Dup (1A40715-MSD1)		Source: 33L0239-01		Prepared & Analyzed: 01/07/04						
Arochlor 1016	10.6	2.0	mg/kg	14.0	ND	75.7	70-130	0.939	20	
Arochlor 1260	9.78	2.0	"	14.0	ND	69.9	83-135	1.34	25	QM-05
Surrogate: Decachlorobiphenyl	*2.18*		"	*5.00*		*43.6*	*58-138*			*S-LOW*

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Keystone
LABORATORIES, INC.

ACCREDITED IN ACCORDANCE WITH nelac

MEMBER ACIL

SCS Engineers
10401 Holmes Rd Suite 400
Kansas City, MO 64131

Work Order: 33L0239

January 08, 2004

Determination of Polychlorinated Biphenyls (PCB) - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1A40715 - PCB Oil										
Reference (1A40715-SRM1)				Prepared & Analyzed: 01/07/04						
Arochlor 1016	13.6	2.0	mg/kg	14.0		97.1	70-130			
Arochlor 1260	12.3	2.0	"	14.0		87.9	70-130			
Surrogate: Decachlorobiphenyl	*3.50*		"	*5.00*		*70.0*	*58-138*			

REC= Recovery; RPD= Relative Percent Difference

Notes and Definitions

Laboratory Location and Certifications

NT: Newton, IA: Kansas E-10287; Iowa 095; New Jersey (NELAC) 53001
KC: Kansas City, KS: Kansas (NELAC) E-10110; Missouri 00140
WL: Waterloo, IA: Iowa 051

QM-05 The spike recovery and/or RPD was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

S-LOW Low surrogate recovery confirmed as a matrix effect by a second analysis.

S-LOW Low surrogate recovery confirmed as a matrix effect by a second analysis.

End of Report

Trudy Gipson

Keystone Laboratories, Inc.

Trudy Gipson
Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL= Method Reporting Limit.

CHAIN OF CUSTODY RECORD

Keystone LABORATORIES, INC.

☐ 600 E. 17th St. S.
Newton, IA 50208
Phone: 641-792-8451
Fax: 641-792-7989

☐ 3012 Ansborough Ave.
Waterloo, IA 50701
Phone: 319-235-4440
Fax: 319-235-2480

☐ 1304 Adams
Kansas City, KS 66103
Phone: 913-321-7856
Fax: 913-321-7937

PAGE ____ OF ____

PRINT OR TYPE INFORMATION BELOW
SAMPLER: Jerrett Dowling
SITE NAME: Hardesty Federal Center
ADDRESS: 601-607 Hardesty
CITY/ST/ZIP: Kansas City, MO
PHONE:

REPORT TO:
NAME: Jerrett Dowling
COMPANY NAME: SCS Engineers
ADDRESS: 10401 Holmes Rd Ste 450
CITY/ST/ZIP: Kansas City, MO 64131
PHONE: 816-941-7510
FAX: 816-94-8025

BILL TO:
NAME: Sandy Weeks
COMPANY NAME: SCS Engineers
ADDRESS:
CITY/ST/ZIP: (Same)
PHONE:

Keystone Quote No.: (If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED: PCBs								LAB USE ONLY: LABORATORY WORK ORDER NO. 3310239 / SAMPLE TEMPERATURE UPON RECEIPT: No ICE °C / SAMPLE CONDITION/COMMENTS	LABORATORY SAMPLE NUMBER
Bldg #1 Oil Pit	12/30/03	7:00 Am	Bldg #1 Oil Pit	2	OI	G	X									3310239-01

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Turn-Around: ☐ Standard ☑ Rush 01/08/03 50% Surcharge Contact Lab Prior to Submission
[signature]	12/31/03 9:45			
Relinquished by: (Signature)	Date / Time	Received for Lab by: (Signature)	Date 12/31/03 Time 9:44	Remarks: Please Email Results

Original - Return with Report • Yellow - Lab Copy • Pink - Sampler Copy

FORM: CCR 7-97