HAZARDOUS WASTE SECTION - COMPLIANCE BRANCH
FILE TRANSMITTAL & DATA ENTRY FORM

Your Name: Heather Goldman

Facility ID Number: NCR000137612

Facility Name: Brayton International Steelcase

Document Group: Inspection/Investigation (I)

Document Type: I - Compliance Evaluation Inspection (CEI)

File Description/Comments: LQG Closure inspection. No violations found. HWSA wash water analytical results attached.

Date of Document: 06142016

Author(s) of Document: Heather Goldman

Inspector ID #: NC111

Suborganization: Western Region

County (if not on report): Guilford

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WASTE MANAGEMENT
HAZARDOUS WASTE SECTION

LARGE QUANTITY GENERATOR (LQG) COMPLIANCE EVALUATION INSPECTION (CEI) REPORT

1. FACILITY INFORMATION:

Name:	Brayton International/ Steelcase
EPA ID Number:	NCR000137612
Type of Facility:	Large Quantity Generator (LQG)
Facility Location:	250 Swathmore Avenue, High Point, NC 27263
Facility Address:	250 Swathmore Avenue, High Point, NC 27263
Telephone Number:	616-246-0152
County:	Guilford

2. AUTHOR OF REPORT:

Heather Goldman, Environmental Senior Specialist, NCDEQ
980-224-9858 heather.goldman@ncdenr.gov
Date of Report: August 16, 2016; Prepared by Heather Goldman

3. FACILITY CONTACT:

Sean Fahey, Associate Environmental Engineer
Office: 616-502-8624, sfahey@steelcase.com

4. SURVEY PARTICIPANTS:

Sean Fahey – Associate Environmental Engineer; Heather Goldman - ESS NCDEQ

5. DATE OF INSPECTION: June 14, 2016

6. PURPOSE OF EVALUATION:

A LQG closure evaluation to determine compliance with hazardous waste management regulations (also known as the Resource Conservation & Recovery Act, or RCRA) which are described at Chapter 40 of the Code of Federal Regulations (40 CFR), Parts 260 – 270, 273, and 279; and Title 15 Chapter 13A Hazardous Waste Management Rules (Rules) of the North Carolina Administrative Code (NCAC).

Brayton International (Steelcase) is a manufacturer of components used in the furniture industry. Steelcase has closed this location and moved all on-site operations to a different location. The facility was notified as a LQG (*operating as a SQG*) in Guilford County, since April 2002 and re-notified as Not a Generator on July 7, 2016. The inspection included a walkthrough of the facility to ensure all hazardous waste had been removed from the property and properly disposed. The building consists of an office area, where office related furniture and office supplies were still present. The remaining part of the building was industrial processing areas that were empty. Included in the walkthrough was the hazardous waste storage area, which was empty. The facility conducted a final rinse, upon the request of the Hazardous Waste Section, of the hazardous waste storage area room and sent 110 gallons of F003, F005 rinse water to Clean Harbors El Dorado (ARD069748192) as hazardous waste on July 21, 2016. Analytical results of the final rinse water were reviewed by the Hazardous Waste Section.

There were no waste chemicals observed onsite.

Heather Goldman 8/16/2016
INSPECTOR (DATE)

By E-Mail
FACILITY CONTACT

cc: Sean Fahey, Associate Environmental Engineer Steelcase
Sean Morris, Western Section Supervisor
Central Office Files

Research & Analytical Laboratories, Inc.
Analytical/Process Consultations

RESEARCH & ANALYTICAL LABS SIDNEY L. CHAMPION NC #34 DIRECTOR CERTIFIED ANALYSTS

Chemical Analysis for Selected Parameters and Sampling Location Identified as Pump Room
(A Steelcase, Inc. Project, collected 20 May 2016)

I. Volatile Organics EPA Method 8260 B Parameter	Quantitation Limit (ppb)	Pump Room (ppb)
Acetone	25	124
Acrolein	100	BQL
Acrylonitrile	100	BQL
Benzene	0.5	BQL
Bromobenzene	0.5	BQL
Bromochloromethane	0.5	BQL
Bromodichloromethane	0.5	0.66
Bromoform	1.0	BQL
Bromomethane	1.0	BQL
2-Butanone	25	44.7
Carbon Disulfide	5.0	BQL
Carbon Tetrachloride	0.5	BQL
Chlorobenzene	0.5	BQL
Chloroethane	1.0	BQL
2-Chloroethyl vinyl ether	5.0	BQL
Chloroform	0.5	6.10
Chloromethane	1.0	BQL
2-Chlorotoluene	0.5	BQL
4-Chlorotoluene	0.5	BQL
Cis-1,2-Dichloroethene	0.5	BQL
Cis-1,3-Dichloropropene	0.5	BQL
1,2-Dibromo-3-Chloropropane(DBCP)	5.0	BQL
1,2-Dibromoethane (EDB)	0.5	BQL
Dibromochloromethane	0.5	BQL
Dibromomethane	0.5	BQL
1,2-Dichlorobenzene	0.5	BQL
1,3-Dichlorobenzene	0.5	BQL
1,4-Dichlorobenzene	0.5	BQL
1,1-Dichloroethane	0.5	BQL
1,2-Dichloroethane	0.5	BQL
1,1-Dichloroethene	0.5	BQL
Dichloroflouromethane	0.5	BQL
1,2-Dichloropropane	0.5	BQL
1,3-Dichloropropane	0.5	BQL
2,2-Dichloropropane	0.5	BQL
1,1-Dichloropropene	0.5	BQL
Ethyl Benzene	0.5	2.22
2-Hexanone	5.0	BQL
IPE	0.5	BQL
I-Propylbenzene	0.5	BQL
4-Methyl-2-Pentanone	5.0	5.71
Methyl Iodide	1.0	BQL
Methylene Chloride	5.0	BQL
MTBE	0.5	BQL
Naphthalene	0.5	8.17
N-Butylbenzene	0.5	BQL
N-Propylbenzene	0.5	BQL
p-Isopropyltoluene	0.5	BQL
Sec-Butylbenzene	0.5	BQL
Styrene	0.5	BQL
Tert-Butylbenzene	0.5	BQL
1,1,1,2-Tetrachloroethane	0.5	BQL
1,1,2,2-Tetrachloroethane	0.5	BQL
Tetrachloroethene	0.5	BQL
Toluene	0.5	3.24
Trans-1,2-Dichloroethene	0.5	BQL
Trans-1,3-Dichloropropene	0.5	BQL
Trans-1,4-Dichloro-2-butene	5.0	BQL
1,2,3-Trichlorobenzene	0.5	BQL
1,2,4-Trichlorobenzene	0.5	BQL
1,1,1-Trichloroethane	0.5	BQL
1,1,2-Trichloroethane	0.5	BQL
Trichloroethene	0.5	BQL
Trichlorofluoromethane	0.5	BQL
1,2,3-Trichloropropane	0.5	BQL
1,2,4-Trimethylbenzene	0.5	2.30
1,3,5-Trimethylbenzene	0.5	1.18
Vinyl Acetate	1.0	BQL
Vinyl Chloride	0.5	BQL
Total Xylenes	1.0	15.3
Ethanol	100	41,100
Dilution Factor		1
Sample Number		19516-01
Sample Date		05/20/16
Sample Time (hrs)		0900
Date Analyzed		05/23/16
Time Analyzed		1549
Surrogate Recovery (DBFM)	Range (70-130%)	115%
Surrogate Recovery (Toluene-d8)	Range (70-130%)	96%
Surrogate Recovery (4-BFB)	Range (70-130%)	86%

BQL = Below Quantitation Limit

Quantitation limits must be multiplied by dilution factor

ppb = parts per billion

Research & Analytical Laboratories, Inc.

Analytical/Process Consultations

RESEARCH & ANALYTICAL LABS. SIDNEY L. CHAMPION NC #34 DIRECTOR CERTIFIED ANALYSIS

Chemical Analysis for Selected Parameters and Sampling Location Identified as Pump Room
(A Steelcase, Inc. Project, collected 20 May 2016)

II. Semi-Volatile Organics EPA Method 8270 BNA Parameter	Quantitation Limit (ppb)	Pump Room (ppb)
4-Chloro-3-methylphenol	50.0	BQL
2-Chlorophenol	50.0	BQL
2,4-Dichlorophenol	50.0	BQL
2,4-Dimethylphenol	50.0	BQL
2,4-Dinitrophenol	250	BQL
2-Methyl-4,6-dinitrophenol	250	BQL
2-Nitrophenol	50.0	BQL
4-Nitrophenol	250	BQL
Pentachlorophenol	250	BQL
Phenol	50.0	BQL
2,4,6-Trichlorophenol	50.0	BQL
Acenaphthene	50.0	BQL
Acenaphthylene	50.0	BQL
Anthracene	50.0	BQL
Benzidine	250	BQL
Benzo(a)anthracene	50.0	BQL
Benzo(a)pyrene	50.0	BQL
Benzo(b)fluoranthene	50.0	BQL
Benzo(ghi)perylene	50.0	BQL
Benzo(k)fluoranthene	50.0	BQL
Benzyl butyl phthalate	50.0	BQL
Bis(2-chloroethoxy)methane	50.0	BQL
Bis(2-chloroethyl)ether	50.0	BQL
Bis(2-chloroisopropyl)ether	50.0	BQL
Bis(2-ethyl-hexyl)phthalate	50.0	181
4-Bromophenyl phenyl ether	50.0	BQL
2-Chloronaphthalene	50.0	BQL
4-Chlorophenyl phenyl ether	50.0	BQL
Chrysene	50.0	BQL
Dibenzo(a,h)anthracene	50.0	BQL
1,2-Dichlorobenzene	50.0	BQL
1,3-Dichlorobenzene	50.0	BQL
1,4-Dichlorobenzene	50.0	BQL
3,3-Dichlorobenzidine	100	BQL
Diethyl phthalate	50.0	BQL
Dimethyl phthalate	50.0	BQL
Di-N-Butyl phthalate	50.0	BQL
2,4-Dinitrotoluene	50.0	BQL
2,6-Dinitrotoluene	50.0	BQL
Di-N-Octyl phthalate	50.0	BQL
1,2-Diphenylhydrazine	250	BQL
Fluoranthene	50.0	BQL
Fluorene	50.0	BQL
Hexachlorobenzene	50.0	BQL
Hexachlorobutadiene	50.0	BQL
Hexachlorocyclopentadiene	50.0	BQL
Hexachloroethane	50.0	BQL
Indeno(1,2,3-cd) pyrene	50.0	BQL
Isophorone	50.0	BQL
Naphthalene	50.0	BQL
Nitrobenzene	50.0	BQL
N-Nitrosodimethylamine	50.0	BQL
N-nitrosodi-n-propylamine	50.0	BQL
N-Nitrosodiphenylamine	50.0	BQL
Phenanthrene	50.0	BQL
Pyrene	50.0	BQL
1,2,4-Trichlorobenzene	50.0	BQL
2-Methylnaphthalene	50.0	BQL
1-Methylnaphthalene	50.0	BQL
Dilution Factor		1
Sample Number		19516-01
Sample Date		05/20/16
Sample Time (hrs)		0900
Date Extracted		05/20/16
Date Analyzed		05/23/16
Time Analyzed		0008
Surrogate Recovery	**Range**	
(2-Fluorophenol)	(21-110%)	36%
(Phenol-d6)	(10-110%)	34%
(Nitrobenzene-d5)	(35-114%)	76%
(2,4,6-Tribromophenol)	(10-123%)	41%
(2-Fluorobiphenyl)	(43-116%)	129%
(4-Terphenyl-d14)	(33-141%)	68%

BQL = Below Quantitation Limit

Quantitation limits must be multiplied by dilution factor

ppb = parts per billion

Research & Analytical Laboratories, Inc.

Report of Analysis

5/24/2016

For: **Steelcase Inc**
250 Swathmore Avenue
High Point, NC 27263

Attn: John Garrett

RESEARCH & ANALYTICAL LABS. SIDNEY L. CHAMPION NC #34 NC #37701 DIRECTOR CERTIFIED ANALYSIS

Client Sample ID: Pump Room
Site: Steelcase, Inc

Lab Sample ID: 19516-01
Collection Date: 5/20/2016 9:00

Parameter	Method	Result	Units	Rep Limit	Analyst	Analysis Date/Time
Arsenic, Total	EPA 200.7	<0.005	mg/L	0.005	KL	5/23/2016
Barium, Total	EPA 200.7	0.092	mg/L	0.005	KL	5/23/2016
Cadmium, Total	EPA 200.7	0.002	mg/L	0.002	KL	5/23/2016
Chromium, Total	EPA 200.7	0.196	mg/L	0.005	KL	5/23/2016
Ignitability - RCRA	EPA 1010	>140	°F		DW	5/20/2016
Lead, Total	EPA 200.7	0.035	mg/L	0.005	KL	5/23/2016
Mercury, Total	EPA 245.1	<0.0002	mg/L	0.0002	KL	5/23/2016
pH	SM 4500 H+B-2000	9.37	Std. Units		AP	5/20/2016
Selenium, Total	EPA 200.7	<0.005	mg/L	0.005	KL	5/23/2016
Silver, Total	EPA 200.7	0.071	mg/L	0.005	KL	5/23/2016

NA = not analyzed

Research & Analytical Laboratories, Inc.

Analytical / Process Consultations
Phone (336) 996-2841

RUSH

CHAIN OF CUSTODY RECORD

COMPANY: STEELCASE, INC.	JOB NO.
STREET ADDRESS: 250 SWATHMORE AVE.	PROJECT
CITY, STATE, ZIP: HIGH POINT NC 27263	SAMPLER NAME (PLEASE PRINT): JOHN GARRETT
CONTACT: JOHN GARRETT — PHONE: 336-689-8617	SAMPLER SIGNATURE: [signature]

SAMPLE NUMBER (LAB USE ONLY)	DATE	TIME	COMP	GRAB	TEMP °C	RES Cl (mg/L)	CHLORINE REMOVED (Y or N)	SAMPLE MATRIX (S or W)	SAMPLE LOCATION / I.D.	NO. OF CONTAINERS	2L G (BNA, Herb. / Pest.)	2 40ml Vials (VOA) HCL	250ml G (TOX)	250ml P (TOC) H_2SO_4	1L P,G (BOD, TSS, Unpreserved, etc.)	1L G (Phenol, Oil & Grease) H_2SO_4	1L P, G (COD, N, P) H_2SO_4	1L P, G (Metals, Hardness) HNO_3	Sterile P, G (CYANIDE) NaOH	Sterile P, G (Coliform)	PH / RCRA metals	Flash Point	VOC	SVOC	REQUESTED ANALYSIS
A	5/20/16	0900		X			19516-01		Pump Room	1										X	X	X	X		
B	5/20/16	0900		X					" "	1										X	X	X	X		
C	5/20/16	0900		X					" "	1										X	X	X	X		
D	5/20/16	0900		X					" "	1										X	X	X	X		
E	5/20/16	0900		X					" "	1										X	X	X	X		
F	5/20/16	0900		X					" "	1										X	X	X	X		
G	5/20/16	0900		X					" "	1										X	X	X	X		
							02		TB	2															

RELINQUISHED BY	DATE/TIME	RECEIVED BY
[signature]	05/20/16 11:00 Am	[signature]
RELINQUISHED BY	DATE/TIME	RECEIVED BY
[signature]	5/20/16 1515	[signature]

REMARKS: omit

SAMPLE TEMPERATURE AT RECEIPT 3.0 °C

Research & Analytical Laboratories, Inc.
Analytical/Process Consultations

Chemical Analysis for Selected Parameters and Sampling Location Identified as 4th Wash
(A Steelcase, Inc. Project, collected 21 June 2016)

I. Volatile Organics EPA Method 8260 B Parameter	Quantitation Limit (ppb)	4th Wash (ppb)
Acetone	25	BQL
Acrolein	100	BQL
Acrylonitrile	100	BQL
Benzene	0.5	BQL
Bromobenzene	0.5	BQL
Bromochloromethane	0.5	BQL
Bromodichloromethane	0.5	BQL
Bromoform	1.0	BQL
Bromomethane	1.0	BQL
2-Butanone	25	BQL
Carbon Disulfide	5.0	BQL
Carbon Tetrachloride	0.5	BQL
Chlorobenzene	0.5	BQL
Chloroethane	1.0	BQL
2-Chloroethyl vinyl ether	5.0	BQL
Chloroform	0.5	1.70
Chloromethane	1.0	BQL
2-Chlorotoluene	0.5	BQL
4-Chlorotoluene	0.5	BQL
Cis-1,2-Dichloroethene	0.5	BQL
Cis-1,3-Dichloropropene	0.5	BQL
1,2-Dibromo-3-Chloropropane(DBCP)	5.0	BQL
1,2-Dibromoethane (EDB)	0.5	BQL
Dibromochloromethane	0.5	BQL
Dibromomethane	0.5	BQL
1,2-Dichlorobenzene	0.5	BQL
1,3-Dichlorobenzene	0.5	BQL
1,4-Dichlorobenzene	0.5	BQL
1,1-Dichloroethane	0.5	BQL
1,2-Dichloroethane	0.5	BQL
1,1-Dichloroethene	0.5	BQL
Dichloroflouromethane	0.5	BQL
1,2-Dichloropropane	0.5	BQL
1,3-Dichloropropane	0.5	BQL
2,2-Dichloropropane	0.5	BQL
1,1-Dichloropropene	0.5	BQL
Ethyl Benzene	0.5	BQL
2-Hexanone	5.0	BQL
IPE	0.5	BQL
I-Propylbenzene	0.5	BQL
4-Methyl-2-Pentanone	5.0	BQL
Methyl Iodide	1.0	BQL
Methylene Chloride	5.0	BQL
MTBE	0.5	BQL
Naphthalene	0.5	BQL
N-Butylbenzene	0.5	BQL
N-Propylbenzene	0.5	BQL
p-Isopropyltoluene	0.5	BQL
Sec-Butylbenzene	0.5	BQL
Styrene	0.5	BQL
Tert-Butylbenzene	0.5	BQL
1,1,1,2-Tetrachloroethane	0.5	BQL
1,1,2,2-Tetrachloroethane	0.5	BQL
Tetrachloroethene	0.5	BQL
Toluene	0.5	BQL
Trans-1,2-Dichloroethene	0.5	BQL
Trans-1,3-Dichloropropene	0.5	BQL
Trans-1,4-Dichloro-2-butene	5.0	BQL
1,2,3-Trichlorobenzene	0.5	BQL
1,2,4-Trichlorobenzene	0.5	BQL
1,1,1-Trichloroethane	0.5	BQL
1,1,2-Trichloroethane	0.5	BQL
Trichloroethene	0.5	BQL
Trichlorofluoromethane	0.5	BQL
1,2,3-Trichloropropane	0.5	BQL
1,2,4-Trimethylbenzene	0.5	BQL
1,3,5-Trimethylbenzene	0.5	BQL
Vinyl Acetate	1.0	BQL
Vinyl Chloride	0.5	BQL
Total Xylenes	1.0	BQL
Ethanol	100	BQL
Dilution Factor		1
Sample Number		20779-01
Sample Date		06/21/16
Sample Time (hrs)		0900
Date Analyzed		06/23/16
Time Analyzed		2003
Surrogate Recovery (DBFM)	Range (70-130%)	108%
Surrogate Recovery (Toluene-d8)	Range (70-130%)	118%
Surrogate Recovery (4-BFB)	Range (70-130%)	97%

BQL = Below Quantitation Limit Quantitation limits must be multiplied by dilution factor ppb = parts per billion

Research & Analytical Laboratories, Inc.

Analytical/Process Consultations

RESEARCH & ANALYTICAL LABS SIDNEY L. CHAMPION NC #34 DIRECTOR CERTIFIED ANALYSIS

Chemical Analysis for Selected Parameters and Sampling Location Identified as 4th Wash
(A Steelcase, Inc. Project, collected 21 June 2016)

II. Semi-Volatile Organics EPA Method 8270 BNA Parameter	Quantitation Limit (ppb)	4th Wash (ppb)
4-Chloro-3-methylphenol	10.0	BQL
2-Chlorophenol	10.0	BQL
2,4-Dichlorophenol	10.0	BQL
2,4-Dimethylphenol	10.0	BQL
2,4-Dinitrophenol	50.0	BQL
2-Methyl-4,6-dinitrophenol	50.0	BQL
2-Nitrophenol	10.0	BQL
4-Nitrophenol	50.0	BQL
Pentachlorophenol	50.0	BQL
Phenol	10.0	BQL
2,4,6-Trichlorophenol	10.0	BQL
Acenaphthene	10.0	BQL
Acenaphthylene	10.0	BQL
Anthracene	10.0	21.6
Benzidine	50.0	BQL
Benzo(a)anthracene	10.0	BQL
Benzo(a)pyrene	10.0	BQL
Benzo(b)fluoranthene	10.0	BQL
Benzo(ghi)perylene	10.0	BQL
Benzo(k)fluoranthene	10.0	BQL
Benzyl butyl phthalate	10.0	BQL
Bis(2-chloroethoxy)methane	10.0	BQL
Bis(2-chloroethyl)ether	10.0	BQL
Bis(2-chloroisopropyl)ether	10.0	BQL
Bis(2-ethyl-hexyl)phthalate	10.0	BQL
4-Bromophenyl phenyl ether	10.0	BQL
2-Chloronaphthalene	10.0	BQL
4-Chlorophenyl phenyl ether	10.0	BQL
Chrysene	10.0	BQL
Dibenzo(a,h)anthracene	10.0	BQL
1,2-Dichlorobenzene	10.0	BQL
1,3-Dichlorobenzene	10.0	BQL
1,4-Dichlorobenzene	10.0	BQL
3,3-Dichlorobenzidine	20.0	BQL
Diethyl phthalate	10.0	BQL
Dimethyl phthalate	10.0	BQL
Di-N-Butyl phthalate	10.0	BQL
2,4-Dinitrotoluene	10.0	BQL
2,6-Dinitrotoluene	10.0	BQL
Di-N-Octyl phthalate	10.0	BQL
1,2-Diphenylhydrazine	50.0	BQL
Fluoranthene	10.0	BQL
Fluorene	10.0	BQL
Hexachlorobenzene	10.0	BQL
Hexachlorobutadiene	10.0	BQL
Hexachlorocyclopentadiene	10.0	BQL
Hexachloroethane	10.0	BQL
Indeno(1,2,3-cd) pyrene	10.0	BQL
Isophorone	10.0	BQL
Naphthalene	10.0	BQL
Nitrobenzene	10.0	BQL
N-Nitrosodimethylamine	10.0	BQL
N-nitrosodi-n-propylamine	10.0	BQL
N-Nitrosodiphenylamine	10.0	BQL
Phenanthrene	10.0	BQL
Pyrene	10.0	BQL
1,2,4-Trichlorobenzene	10.0	BQL
2-Methylnaphthalene	10.0	BQL
1-Methylnaphthalene	10.0	BQL
Dilution Factor		1
Sample Number		20779-01
Sample Date		06/21/16
Sample Time (hrs)		0900
Date Extracted		06/23/16
Date Analyzed		06/24/16
Time Analyzed		1712
Surrogate Recovery	**Range**	
(2-Fluorophenol)	(21-110%)	54%
(Phenol-d6)	(10-110%)	38%
(Nitrobenzene-d5)	(35-114%)	96%
(2,4,6-Tribromophenol)	(10-123%)	76%
(2-Fluorobiphenyl)	(43-116%)	71%
(4-Terphenyl-d14)	(33-141%)	82%

BQL = Below Quantitation Limit

Quantitation limits must be multiplied by dilution factor

ppb = parts per billion

Research & Analytical Laboratories, Inc.

Report of Analysis

6/30/2016

For: **Steelcase Inc**
250 Swathmore Avenue
High Point, NC 27263

Attn: John Garrett

RESEARCH & ANALYTICAL LABS. SIDNEY L. CHAMPION NC #34 NC #37701 DIRECTOR CERTIFIED ANALYSIS

Client Sample ID: Pump room
Site: Steelcase, Inc

Lab Sample ID: 20779-01
Collection Date: 6/21/2016 9:00

Parameter	Method	Result	Units	Rep Limit	Analyst	Analysis Date/Time
Arsenic, Total	EPA 200.7	<0.005	mg/L	0.005	KL	6/23/2016
Barium, Total	EPA 200.7	0.017	mg/L	0.005	KL	6/23/2016
Cadmium, Total	EPA 200.7	<0.002	mg/L	0.002	KL	6/23/2016
Chromium, Total	EPA 200.7	0.034	mg/L	0.005	KL	6/23/2016
Ignitability - RCRA	EPA 1010	>140	°F		DW	6/22/2016
Lead, Total	EPA 200.7	<0.005	mg/L	0.005	KL	6/23/2016
Mercury, Total	EPA 245.1	<0.0002	mg/L	0.0002	KL	6/29/2016
pH	SM 4500 H+B-2000	9.34	Std. Units		AP	6/21/2016
Selenium, Total	EPA 200.7	<0.005	mg/L	0.005	KL	6/23/2016
Silver, Total	EPA 200.7	<0.005	mg/L	0.005	KL	6/23/2016

NA = not analyzed

RESEARCH & ANALYTICAL LABORATORIES, INC.

Analytical / Process Consultations
Phone (336) 996-2841

CHAIN OF CUSTODY RECORD

COMPANY: STEELCASE, INC.	JOB NO.: 4TH WASH
STREET ADDRESS: 250 SWATHMORE AVE	PROJECT:
CITY, STATE, ZIP: HIGH POINT, NC 27263	SAMPLER NAME (PLEASE PRINT): JOHN GARRETT
CONTACT: JOHN GARRETT	PHONE: 336-689-8617
	SAMPLER SIGNATURE:

SAMPLE NUMBER (LAB USE ONLY)	DATE	TIME	COMP	GRAB	TEMP °C	RES Cl (mg/L)	CHLORINE REMOVED (Y or N)	SAMPLE MATRIX (S or W)	SAMPLE LOCATION / I.D.	NO. OF CONTAINERS	2L G (BNA, Herb. / Pest.)	2 40ml Vials (VOA) HCL	250ml G (TOX)	250ml P (TOC) H_2SO_4	1L P, G (BOD, TSS, Unpreserved, etc.)	1L G (Phenol, Oil & Grease) H_2SO_4	1L P, G (COD, N, P) H_2SO_4	1L P, G (Metals, Hardness) HNO_3	Sterile P, G (CYANIDE) NaOH	Sterile P, G (Coliform)	WATER / WASTEWATER: PH/RCRA METALS	WATER / WASTEWATER: FLASH POINT	WATER / WASTEWATER: VOC 8260	WATER / WASTEWATER: SVOC	MISC.	REQUESTED ANALYSIS
20779-01	6-21-16	0900		X				WW	PUMPROOM	1											X	X	X	X		
	6-21-16	0900		X					PUMPROOM	1											X	X	X	X		
	6-21-16	0900		X					PUMPROOM	1											X	X	X	X		
	6-21-16	0900		X					PUMPROOM	1											X	X	X	X		
	6-21-16	0900		X					PUMPROOM	1											X	X	X	X		
	6-21-16	0900		X					PUMP ROOM	1											X	X	X	X		
	6-21-16	0900		X					PUMP ROOM	1	(7)										X	X	X	X		
02									TB	2																

RELINQUISHED BY	DATE/TIME	RECEIVED BY
	06/21/16	1400
RELINQUISHED BY	DATE/TIME	RECEIVED BY

REMARKS: email: jgarrett@steelcase.com

online

SAMPLE TEMPERATURE AT RECEIPT 3.1 °C

RESEARCH & ANALYTICAL LABORATORIES, INC.

Analytical/Process Consultations

CASE NARRATIVE

One (1) water sample was received in good condition on 20 June 2016. The sample was analyzed without difficulties unless noted below.

07/01/16

Sidney L. Champion **Date**
Director of Laboratory Services

P.O. Box 473 • 106 Short Street • Kernersville, North Carolina 27284 • 336-996-2841 • Fax 336-996-0326
www.randalabs.com

QA/QC Summary

Method: 8260/6200B(5/10/20/50/500/1000 PPB QC) | **FILE NAME: WLC0623**

CLIENT: STEELCASE INC. (PROJECT: 4th WASH)

Sample ID:	**20779 – 01**				**INSTUMENT: MS-2**			**Page 1 of 2**	
Extraction Method	N/A								
Date Extracted	N/A								
Weight Extracted	25ML								
Final Extract Volume	25ML								
Date Analyzed	06/23/16								
% Surrogate Recovery	93	98	97						
Acceptance Range	(70-130)	(70-130)	(70-130)						
Compound	**MDL ug/L**	**Method Blank**	**LCS % Recovery**	**LCS Acceptance Range**	**MS % Rec.**	**MSD % Rec.**	**RPD**	**QC LIMITS RPD**	**QC LIMITS % REC**
DICHLORODIFLUOROMETHANE	0.12	ND	76	70-130					
CHLOROMETHANE	0.07	ND	77	70-130					
VINYL CHLORIDE	0.11	ND	87	70-130					
BROMOMETHANE	0.18	ND	106	70-130					
CHLOROETHANE	0.11	ND	93	70-130					
TRICHLOROFLUOROMETHANE	0.09	ND	89	70-130					
ACETONE	1.18	ND	94	70-130					
ACRYLONITRILE	12.38	ND	99	70-130					
2-BUTANONE	0.88	ND	90	70-130					
1,1-DICHLOROETHENE	0.09	ND	91	70-130	89	92	3	14	70-130
METHYL IODIDE	0.19	ND	106	70-130					
CARBON DISULFIDE	0.45	ND	100	70-130					
METHYLENE CHLORIDE	0.57	ND	97	70-130					
TRANS-1,2-DICHLOROETHENE	0.10	ND	98	70-130					
1,1-DICHLOROETHANE	0.17	ND	97	70-130					
ISOPROPYL ETHER(IPE)	0.12	ND	90	70-130					
METHYL-TERT-BUTYL ETHER(MTBE)	0.16	ND	85	70-130					
VINYL ACETATE	0.24	ND	90	70-130					
CIS-1,2-DICHLOROETHENE	0.09	ND	99	70-130					
2,2-DICHLOROPROPANE	0.09	ND	97	70-130					
BROMOCHLOROMETHANE	0.12	ND	93	70-130					
CHLOROFORM	0.05	ND	96	70-130					
1,1,1-TRICHLOROETHANE	0.12	ND	93	70-130					
CARBON TETRACHLORIDE	0.10	ND	94	70-130					
1,1-DICHLOROPROPENE	0.12	ND	99	70-130					
BENZENE	0.05	ND	96	70-130	89	94	5	11	70-130
ETHYL ACETATE	0.35	ND	88	70-130					
1,2-DICHLOROETHANE	0.09	ND	89	70-130					
TRICHLOROETHENE(TCE)	0.12	ND	99	70-130	96	94	1	14	70-130
1,2-DICHLOROPROPANE	0.10	ND	96	70-130					
DIBROMOETHANE	0.25	ND	91	70-130					

COMMENTS:

QA/QC Summary

Method: 8260/6200B(5/10/20/50/500/1000 PPB QC) | **FILE NAME: WLC0623** |

CLIENT: STEELCASE INC. (PROJECT: 4th WASH)

SAMPLE ID:	20779 – 01			LCS Acceptr ange	MS	MSD	RPD	QC LIMITS	
Compound	MDL ug/L	Method Blank	LCS % Recovery		% Rec.	% Rec.		RPD	% REC
BROMODICHLOROMETHANE	0.07	ND	96	70-130					
4-METHYL-2-PENTANONE	1.01	ND	89	70-130					
CIS-1,3-DICHLOROPROPENE	0.10	ND	96	70-130					
TOLUENE	0.26	ND	99	70-130	106	102	4	13	70-130
TRANS-1,3-DICHLOROPROPENE	0.12	ND	91	70-130					
1,1,2-TRICHLOROETHANE	0.20	ND	90	70-130					
TETRACHLOROETHENE(PCE)	0.17	ND	100	70-130					
2-HEXANONE	1.42	ND	94	70-130					
DIBROMOCHLOROMETHANE	0.07	ND	91	70-130					
1,3-DICHLOROPROPANE	0.13	ND	94	70-130					
1,2-DIBROMOETHANE(EDB)	0.15	ND	94	70-130					
CHLOROBENZENE	0.10	ND	101	70-130	94	91	3	13	70-130
1,1,1,2-TETRACHLOROETHANE	0.10	ND	96	70-130					
ETHYLBENZENE	0.07	ND	103	70-130					
TOTAL XYLENES(M&P, O)	0.29	ND	99	70-130					
STYRENE	0.04	ND	96	70-130					
BROMOFORM	0.29	ND	92	70-130					
ISOPROPYLBENZENE	0.08	ND	106	70-130					
BROMOBENZENE	0.07	ND	95	70-130					
1,2,3-TRICHLOROPROPANE	0.11	ND	92	70-130					
TRANS-1,4-DICHLORO-2-BUTENE	0.52	ND	93	70-130					
N-PROPYLBENZENE	0.08	ND	98	70-130					
2-CHLOROTOLUENE	0.10	ND	100	70-130					
4-CHLOROTOLUENE	0.09	ND	95	70-130					
1,3,5-TRIMETHYLBENZENE	0.07	ND	101	70-130					
TERT-BUTYLBENZENE	0.08	ND	100	70-130					
1,2,4-TRIMETHYLBENZENE	0.07	ND	102	70-130					
SEC-BUTYLBENZENE	0.12	ND	102	70-130					
1,3-DICHLOROBENZENE	0.12	ND	97	70-130					
1,1,2,2-TETRACHLOROETHANE	0.08	ND	89	70-130					
P-ISOPROPYLTOLUENE	0.09	ND	106	70-130					
1,4-DICHLOROBENZENE	0.08	ND	99	70-130					
1,2-DICHLOROBENZENE	0.09	ND	95	70-130					
N-BUTYLBENZENE	0.10	ND	105	70-130					
1,2-DIBROMO-3-CHLOROPROPANE(DPCP)	0.49	ND	98	70-130					
1,2,4-TRICHLOROBENZENE	0.47	ND	101	70-130					
NAPHTHALENE	0.18	ND	95	70-130					
1,2,3-TRICHLOROBENZENE	0.18	ND	99	70-130					

COMMENTS:

QA/QC Summary

Method: 625 (100/200 PPB QC)	FILE NAME: WLC0624-MS1	Page 1 of 2

CLIENT:STEELCASE,INC (PROJECT:4TH WASH)

SAMPLE ID:	20779-01				INSTRUMENT:MS-1			
Extraction Method	3510							
Date Extracted	06/23/16							
Weight Extracted	1L							
Final Extract Volume	1ML							
Date Analyzed	06/24/16							
% Surrogate Recovery	58	40	71	74	78		87	
Acceptance Range	(5 - 77)	(7 - 64)	(29 - 149)	(12 - 123)	(10 - 133)		(20 - 133)	

Compound	MDL UG/L	Method Blank	LCS % Recovery	LCS Accept. Range	MS % Rec.	MSD % Rec.	RPD	QC LIMITS RPD	QC LIMITS % REC
N-Nitrosodimethylamine	0.970	ND	66	8-104					
Bis(2-chloroethyl)ether	0.430	ND	79	45-111					
Phenol	0.460	ND	45	D-76	33	33	1	42	12-110
2-Chlorophenol	0.300	ND	75	30-107	78	76	2	40	27-123
1,3-Dichlorobenzene	0.250	ND	77	48-90					
1,4-Dichlorobenzene	0.200	ND	74	50-90	58	55	6	28	36-97
1,2-Dichlorobenzene	0.100	ND	75	50-93					
Bis(2-chloroisopropyl)ether	0.380	ND	67	50-107					
N-nitrosodi-n-propylamine	0.500	ND	77	47-111	91	92	1	38	41-116
Hexachloroethane	0.220	ND	72	36-90					
2-Nitrophenol	0.670	ND	79	33-110					
2,4-Dimethylphenol	1.550	ND	65	43-100					
Nitrobenzene	0.500	ND	77	46-112					
Isophorone	0.510	ND	70	50-104					
Bis(2-chloroethoxy)methane	0.420	ND	71	49-105					
2,4-Dichlorophenol	0.540	ND	72	33-108					
1,2,4-Trichlorobenzene	0.560	ND	69	47-95	92	92	0	28	39-98
4-Chloro-3-methylphenol	1.830	ND	75	44-107	89	86	4	42	23-97
Naphthalene	0.710	ND	61	50-96					
Hexachlorobutadiene	0.770	ND	62	24-100					
2,4,6-Trichlorophenol	0.540	ND	67	22-124					
2-Methyl-4,6-Dinitrophenol	3.250	ND	78	16-115					
4-Nitrophenol	6.670	ND	37	1-69	36	36	1	50	10-80
Hexachlorocyclopentadiene	0.970	ND	59	16-85					

N/A = Data Not Available * = FAILED

QA/QC Summary

Method: 625 (100/200 PPB QC) | **FILE NAME: WLC0624-MS1** |

CLIENT:STEELCASE,INC (PROJECT:4TH WASH)

Compound	MDL UG/L	Method Blank	LCS % Recovery	LCS Acceptr ange	MS % Rec.	MSD % Rec.	RPD	QC LIMITS RPD	QC LIMITS %REC
2-Chloronaphthalene	0.420	ND	67	51-100					
Dimethyl phthalate	0.400	ND	78	47-107					
Acenaphthylene	0.150	ND	66	49-100					
2,6-Dinitrotoluene	0.670	ND	73	49-106					
Acenaphthene	0.280	ND	76	48-102	65	65	1	31	46-118
2,4-Dinitrotoluene	0.670	ND	71	50-106	70	74	6	38	24-96
Diethyl phthalate	0.820	ND	80	49-107					
4-Chlorophenyl phenyl ether	0.730	ND	71	43-112					
2,4-Dinitrophenol	4.190	ND	75	D-118					
Pentachlorophenol	5.220	ND	72	15-123	81	75	7	50	9-103
N-Nitrosodiphenylamine	1.150	ND	71	35-121					
4-Bromophenyl phenyl ether	0.670	ND	78	48-107					
Hexachlorobenzene	0.390	ND	75	50-102					
Phenanthrene	0.280	ND	79	42-105					
Anthracene	0.200	ND	79	44-104					
Di-N-Butyl phthalate	0.650	ND	74	44-111					
Benzidine	3.370	ND	28	D-48					
Pyrene	1.920	ND	74	39-107	65	67	3	31	26-127
Benzyl butyl phthalate	1.220	ND	75	39-116					
Benzo(a)anthracene	0.380	ND	80	36-114					
3,3-Dichlorobenzidine	5.050	ND	28	6-52					
Chrysene	0.700	ND	72	45-99					
Bis(2-ethyl-hexyl)phthalate	1.140	ND	78	30-134					
Di-N-Octyl phthalate	0.740	ND	75	37-131					
Benzo(b)fluoranthene	0.770	ND	80	49-107					
Benzo(k)fluoranthene	0.600	ND	75	37-112					
Benzo(a)pyrene	0.430	ND	77	49-105					
Indeno(1,2,3-cd) pyrene	1.210	ND	81	38-122					
Dibenzo(a,h)anthracene	1.680	ND	77	43-118					
Benzo(g,h,i)perylene	1.780	ND	77	42-119					

N/A = Data Not Available *** = FAILED**

RESEARCH & ANALYTICAL LABORATORIES, INC.
Analytical/Process Consultations

Quality Control Summary Results for Project Identified as 4th Wash
(A Steelcase Project)

Parameter	Prep Blank	ICV % Recovery	Spike % Recovery	Spike Duplicate % Recovery
Arsenic, Total	BDL	100	90	2
Barium, Total	BDL	102	96	1
Cadmium, Total	BDL	99	86	2
Chromium, Total	BDL	96	90	<1
Lead, Total	BDL	105	86	2
Mercury, Total	BDL	106	103	<1
Selenium, Total	BDL	99	88	2
Silver, Total	BDL	98	82	<1

COMMENTS:

Corresponding Sample Number: 20779-01
ICV = Initial Calibration Verification

% = Percent

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