From: Gilliam, Allen

To: <a href="mailto:chuck.jones@danfoss.com">chuck.jones@danfoss.com</a>; <a href="mailto:Katherine Yarberry">Katherine Yarberry</a>

Cc: <u>Burrow, Kealey; Peltier, Hannah; Arkadelphia - Brenda Gills; Irotenberry@harborenv.com</u>

Subject: AR0020605\_Danfoss ARP001040 July 2015 TOMP submittal and ADEQ approval\_20150721

**Date:** Tuesday, July 21, 2015 10:42:09 AM

Attachments: <u>image002.png</u>

Final Danfoss TOMP 20150721.pdf

#### Chuck,

Danfoss' toxic organic management plan (TOMP) was electronically received, reviewed, adequately meets the requirements in 40 CFR 433.12(b) and approved by this office.

In its quarterly reports Danfoss may now certify, "Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to ADEQ" per 40 CFR 433.12(a).

According to the records on file, it was only after this office's directive Danfoss begin submitting lab analytical data (check your records for an email from this office to Chuck Jones dated 4/1/14).

An addendum report was sent by Danfoss with the lab's analytical results (sample date 1/8/14) and responded to by this office via another email on 4/14/14. Detectable toxic organics found were Chloroform (can be used as a component in a solvent or even a pesticide) and Bis (2-ethylhexyl) phthalate (commonly found in most plastics or plasticizers – lab contamination?).

Samples taken on 4/2/14 also detected Bis (2-ethylhexyl) phthalate, Di-n-butyl phthalate and Endosulfan sulfate (an insecticide). Danfoss may want to determine if Chloroform or Endosulfan sulfate is in its wastestream, lab contamination or pesticide treatments by further testing these toxic organics not identified in its TOMP. The Endosulfan sulfate may have shown up just from Danfoss' quarterly(?) pest treatments although literature research shows its ban was effective in mid-2012.

Bottom line, these few toxic organics were detectable in the single digit  $\mu g/l$  range except for one Bis (2-ethylhexyl) phthalate result at 15  $\mu g/l$  and Danfoss' TOMP is deemed approvable.

Thank you for your efforts in this endeavor.

Sincerely,

Allen Gilliam
ADEQ State Pretreatment Coordinator
501.682.0625

Ec: Brenda Gills, Arkadelphia Utilities Manager Katherin Yarberry, P.E., Harbor Consultant Engineer to Danfoss

#### E/NPDES/NPDES/Pretreatment/Reports

**From:** Katherine Yarberry [mailto:kyarberry@harborenv.com]

Sent: Tuesday, July 21, 2015 8:36 AM

To: Gilliam, Allen

**Cc:** Jones Chuck; Lisa Rotenberry **Subject:** Danfoss, LLC TOMP

Allen-

Attached you will find the Toxic Organic Management Plan (TOMP) for the Danfoss, LLC facility, submitted by Harbor on their behalf. With this submittal, Danfoss requests to be allowed to implement this TOMP in lieu of Total Toxic Organic monitoring.

If you have any questions or need any changes, please let me know.

#### Thanks!

Katherine Yarberry, P.E., Professional Engineer

 $\textit{Harbor} \cdot \textit{C} \; \textit{479.445.8787} \cdot \underline{\textit{kyarberry@harborenv.com}}$ 



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# TOXIC ORGANIC MANAGEMENT PLAN

AFIN 10-00102



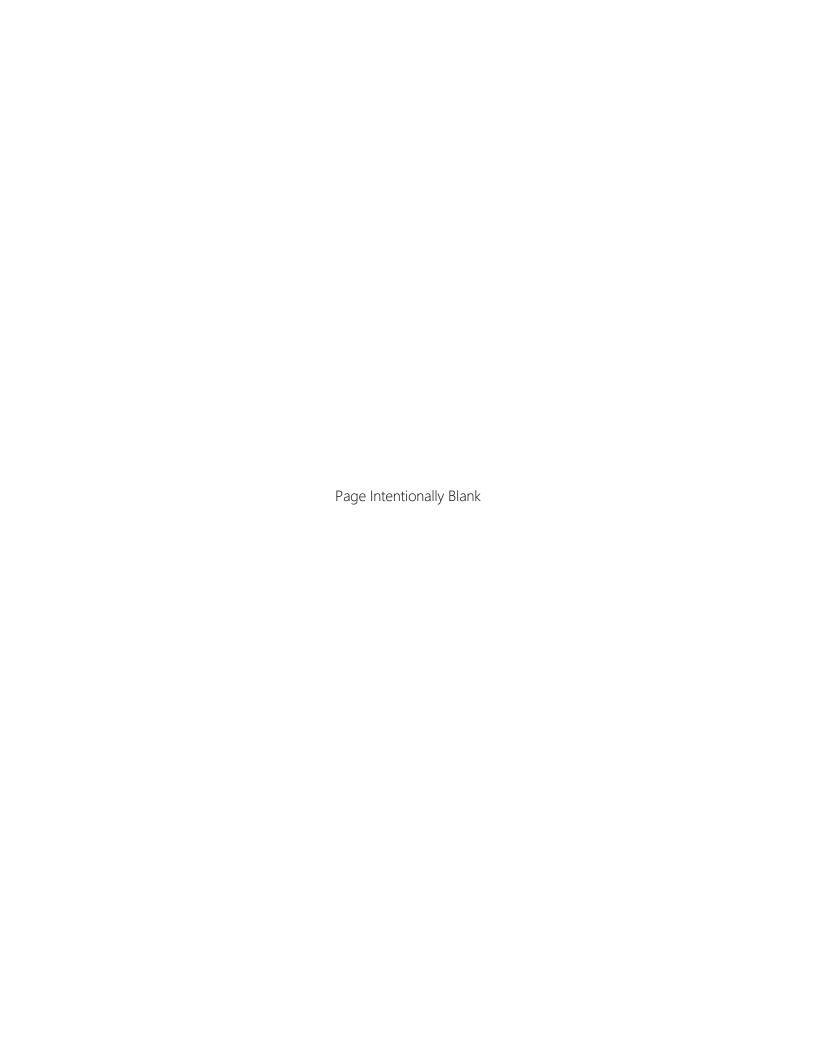
**July 2015** 

Prepared for:

Danfoss, LLC One Scroll Drive Arkadelphia, AR 71923 Prepared by:

#### Harbor

Environmental | Safety | Engineering 8114 Cantrell Road Suite 350 Little Rock, AR 72227 P: 501.663.8800 F: 501.588.0123 www.harborenv.com





July 21, 2015

Mr. Allen Gilliam
Pretreatment Coordinator
Water Division, ADEQ
5301 Northshore Drive
North Little Rock, AR 72118-5317

Re: Toxic Organic Management Plan Danfoss, LLC – AFIN 10-00102

Dear Mr. Gilliam:

Harbor Environmental and Safety is submitting the attached Toxic Organic Management Plan (TOMP) on behalf of the Danfoss, LLC facility (Danfoss) in Arkadelphia, AR. We request that Danfoss be allowed to implement this TOMP in lieu of Total Toxic Organic monitoring.

Should you have any questions or require additional information, please do not hesitate to contact me at 501.663.8800 or kyarberry@harborenv.com.

Sincerely,

HARBOR ENVIRONMENTAL AND SAFETY

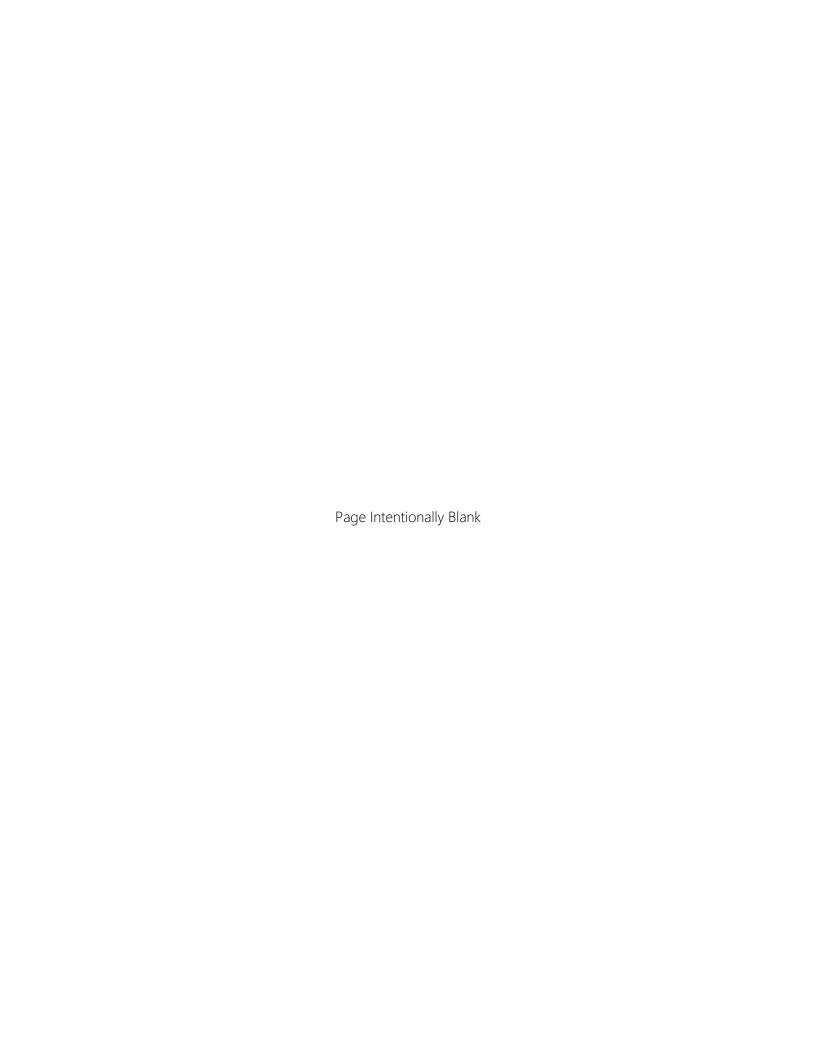
Katherine Yarberry, P.E.

Matherice Yarberry

Professional Engineer

Lisa Rotenberry

Regional Director, Environmental Services



#### Contents

1.0	Introduction & Certification	1
1.1.	Certification Statement	1
2.0	Inventory of Toxic Organic Chemicals	2
2.1.	Chemicals in Use	2
2.2.	Sampling and Analysis of Wastewater	2
3.0	Controlling Regulated Toxic Organic Pollutants	3
	Estimate of Approximate Quantities Discharged	

#### **List of Tables**

Table 1 – Products Containing TTO Chemicals

Table 2 – Control Measures for TTO-listed Containing Products

#### **List of Appendices**

Appendix 1 – Danfoss, LLC Effluent TTO Analyses



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#### 1.0 Introduction & Certification

Certain regulated industrial users that discharge their wastewaters to municipal wastewater treatment plants must perform routine analyses for total toxic organic (TTO) compounds. The development of a Toxic Organic Management Plan (TOMP) is an alternative to routine TTO monitoring by regulated industrial users in the Electroplating, Metal Finishing, and Electrical and Electronic Components categories.

The Danfoss, LLC facility is regulated under the Metal Finishing Point Source category in 40 CFR Part 433. This category of industrial user is allowed to implement a TOMP in lieu of TTO monitoring in accordance with 40 CFR §433.17(d). The TOMP is required to be approved by the Control Authority, and the facility must submit a certification in accordance with 40 CFR §§433.12 (a) and (b) that the TOMP is being implemented at each routine monitoring period.

The City of Arkadelphia does not have approval from USEPA and the Arkansas Department of Environmental Quality (ADEQ) to implement their own industrial pretreatment program. Therefore, the Control Authority for the Danfoss facility is ADEQ. ADEQ has issued Danfoss the Arkansas Facility Identification Number 10-00102 for ease of matching submittals to the facility.

Danfoss is electing at this time to implement an ongoing TOMP in lieu of TTO monitoring. The initial certification is below, and a certification will be submitted with each required report due to ADEQ (i.e., semi-annual compliance reporting).

#### 1.1. Certification Statement

"Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the control authority."

Sean Kurtz, General Manager

7.20.2015

Date

#### 2.0 Inventory of Toxic Organic Chemicals

#### 2.1. Chemicals in Use

In developing the TOMP, an analysis of the chemicals in use at the facility was made from a current orders list. The Safety Data Sheets (SDS) for each compound used in the process were used to determine which products contained chemicals on the TTO monitoring list from 40 CFR §433.11(e). Five products were found to contain one or more chemicals on the TTO list, they are listed in Table 1 below.

Table 1 – Products Containing TTO Chemicals

Material Identifier	Material Description	TTO-Listed Chemical	CAS No.
DST15459	Xylene One (1) Quart Can	ethylbenzene	100-41-4
DST18730	Paint Rustoleum Spray Can	ethylbenzene	100-41-4
DST8209	Paint Safety Yellow	ethylbenzene	100-41-4
	Paint Salety Fellow	toluene	108-88-3
DST13201	Paint Compress GL ED Black Spray	ethylbenzene	100-41-4
		ethylbenzene	100-41-4
DST15257	Paint Flat White	toluene	108-88-3
		benzene	71-43-2

#### 2.2. Sampling and Analysis of Wastewater

Samples of the effluent from the Danfoss facility have been taken periodically and analyzed for the TTO compounds listed in 40 CFR §433.11(e). No listed toxic organic compounds were found in the previous two analyses, taken December 17, 2014 and May 21, 2015. The laboratory reports are available in Appendix 1.



#### 3.0 Controlling Regulated Toxic Organic Pollutants

Controls must be implemented to ensure products containing the regulated TTO-listed compounds do not reach sanitary sewer. The Danfoss facility controls the materials that contain regulated TTO-listed chemicals in the following manners, listed in Table 2 below.

Table 2 - Control Measures for TTO-listed Containing Products

Material Identifier	Material Description	Control Measures				
		Kept in containment area				
DST15459	Xylene One (1) Quart Can	Nothing is washed down drain to sanitary sewer				
		No floor drains lead to sanitary sewer				
		Kept in cabinet in containment area				
DST18730	Paint Rustoleum Spray Can	Nothing is washed down drain to sanitary sewer				
		No floor drains lead to sanitary sewer				
		Kept in cabinet in containment area				
DST8209	Paint Safety Yellow	Nothing is washed down drain to sanitary sewer				
		No floor drains lead to sanitary sewer				
	Paint Compress GL ED	Kept in cabinet in containment area				
DST13201	Black Spray	Nothing is washed down drain to sanitary sewer				
	Black Spray	No floor drains lead to sanitary sewer				
		Kept in cabinet in containment area				
DST15257	Paint Flat White	Nothing is washed down drain to sanitary sewer				
		No floor drains lead to sanitary sewer				



#### 4.0 Estimate of Approximate Quantities Discharged

The Danfoss facility does not allow the products that contain regulated TTO-listed chemicals to reach the sanitary sewer. Wastewater samples taken confirm that the controls in place at the Danfoss facility do not allow TTO-listed chemicals to be discharged to the City of Arkadelphia's Wastewater Treatment Plant.



### Appendix 1

Danfoss, LLC Effluent TTO Analyses







8100 National Drive Little Rock, Arkansas 72209

Phone 501-562-8139 Fax 501-562-7025 Toli Free 1-800-331-8139

#### LABORATORY ANALYSIS

Date of Report: January 13, 2015 Date Received : December 17, 2014

For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job:INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034

Sample From: EFFLUENT COMP 12/16-17/14 1000-1001

ANALYTE		RESULT	UNITS	METHOD
Biochemical oxygen demand		5.880	mg/Liter	5210 B
Total suspended solids		28,500	mg/Liter	2540D
Oil and grease - Gravimetric	<	3.000	mg/Liter	1664A
Phenolics, total			mg/Liter	420.1
Cyanide, total	<		mg/Liter	4500cn
Acrolein	<		ug/Liter	624
Acrylonitrile	<		ug/Liter	624
Benzene	<		ug/Liter	624
Bromodichloromethane	<		ug/Liter	624
Bromoform	<		ug/Liter	624
Bromomethane (Methyl bromide)	<		ug/Liter	624
Carbon tetrachloride	<		ug/Liter	624
Chlorobenzene	<		ug/Liter	624
Chloroethane	<		ug/Liter	624
Chloroform	<		ug/Liter	624
Chloroethylvinyl ether, 2-	<		ug/Liter	624
Chloromethane (Methyl chloride)	<		ug/Liter	624
Chlorodibromomethane	<		ug/Liter	624
Dichloroethane, 1,1-	<		ug/Liter	624
Dichloroethylene, cis-1,2-	<		ug/Liter	624
Dichloroethane, 1,2-	<	10.000	ug/Liter	624
Dichloroethylene, trans-1,2-	<		ug/Liter	624
Dichloroethylene, 1,1- (1,1-dichloroethene)	<		ug/Liter	624
Dichloropropane, 1,2-	<		ug/Liter	624
Dichloropropylene, cis-1,3-	<		ug/Liter	624
Dichloropropylene, trans-1,3-	<		ug/Liter	624
Ethylbenzene	<		ug/Liter	624
Methylene chloride	<		ug/Liter	624
Tetrachloroethane, 1, 1, 2, 2	<	10.000	ug/Liter	624
Tetrachloroethylene	<		ug/Liter	624
Toluene	<		ug/Liter	624
Trichloroethane, 1, 1, 1-	<	10.000	ug/Liter	624









8100 National Drive Little Rock, Arkansas 72209

Phone 501-562-8139 Fax 501-562-7025 Toll Free 1-800-331-8139

#### LABORATORY ANALYSIS

Date of Report: January 13, 2015 Date Received: December 17, 2014

For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job: INDUSTRIAL WASTEWATER ANALYSIS / P.O. #8585034

Sample From: EFFLUENT COMP 12/16-17/14 1000-1001

ANALYTE		RESULT	UNITS	METHOD
Trichloroethane, 1, 1, 2-	<	10.000	ug/Liter	624
Trichloroethylene	<		ug/Liter	624
Vinyl chloride	<		ug/Liter	624
Acenaphthene	<		ug/Liter	625mod
Acenaphthylene	<	10.000	ug/Liter	625mod
Anthracene	<	10.000	ug/Liter	625mod
Benzidine	<	50.000	ug/Liter	625mod
Benzo (a) anthracene	<	5.000	ug/Liter	625mod
Benzo (a) pyrene	<	5.000	ug/Liter	625mod
Benzo (b) fluoranthene	<	5.000	ug/Liter	625mod
Benzo (g,h,i) perylene	<		ug/Liter	625mod
Benzo (k) fluoranthene	<		ug/Liter	625mod
bis (2-chloroethoxy) methane	<		ug/Liter	625mod
bis (2-chloroethyl) ether	<		ug/Liter	625mod
bis (2-chloroisopropyl) ether	<		ug/Liter	625mod
bis (2-ethylhexyl) phthalate	<		ug/Liter	625mod
Bromophenyl phenyl ether, 4-	<		ug/Liter	625mod
Butylbenzyl phthalate	<		ug/Liter	625mod
Chloronaphthalene, 2-	<		ug/Liter	625mod
Chlorophenol, 2-	<		ug/Liter	625mod
Chlorophenyl phenyl ether, 4-	<		ug/Liter	625mod
Chrysene	<		ug/Liter	625mod
Dibenzo (a,h) anthracene	<		ug/Liter	625mod
Dichlorobenzene, 1,2-	<		ug/Liter	625mod
Dichlorobenzene, 1,3-	<		ug/Liter	625mod
Dichlorobenzene, 1,4-	<		ug/Liter	625mod
Dichlorobenzidine, 3,3-	<		ug/Liter	625mod
Dichlorophenol, 2,4-	<		ug/Liter	625mod
Diethylphthalate	<		ug/Liter	625mod
Dimethylphenol, 2,4-	<		ug/Liter	625mod
Dimethylphthalate	<		ug/Liter	625mod
Di-n-butyl phthalate	<	10.000	ug/Liter	625mod







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#### LABORATORY ANALYSIS

Date of Report: January 13, 2015 Date Received: December 17, 2014

For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job: INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034

Sample From: EFFLUENT COMP 12/16-17/14 1000-1001

ANALYTE		RESULT UNITS METHO	D
			-
Dinitro-o-cresol, 4, 6-	<	10.000 ug/Liter 625mo	d
Dinitrophenol, 2,4-	<	50.000 ug/Liter 625moo	d
Dinitrotoluene, 2,4-	<	10.000 ug/Liter 625mo	đ
Dinitrotoluene, 2,6-	<	10.000 ug/Liter 625moo	d
Di-n-octyl phthalate	<	10.000 ug/Liter 625moo	d
Diphenylhydrazine, 1,2-	<	20.000 ug/Liter 625mo	d
Fluoranthene	<	10.000 ug/Liter 625mo	d
Fluorene	<	10.000 ug/Liter 625mo	d
Hexachlorobenzene	<	5.000 ug/Liter 625mod	d
Hexachlorobutadiene	<	10.000 ug/Liter 625mod	d
Hexachlorocyclopentadiene	<	10.000 ug/Liter 625mod	d
Hexachloroethane	<	20.000 ug/Liter 625mod	d
Indeno (1,2,3-Cd) pyrene	<	5.000 ug/Liter 625mod	d
Isophorone	<	10.000 ug/Liter 625mod	d
Naphthalene	<	10.000 ug/Liter 625mod	d
Nitrobenzene	<	10.000 ug/Liter 625mod	d
Nitrophenol, 2-	<	20.000 ug/Liter 625mod	d
Nitrophenol, 4-	<	50.000 ug/Liter 625mod	d
N-Nitrosodimethylamine	<	50.000 ug/Liter 625mod	d
N-nitrosodi-n-propylamine	<	20.000 ug/Liter 625mod	d
N-Nitrosodiphenylamine	<	20.000 ug/Liter 625mod	d
p-Chloro-m-cresol	<	10.000 ug/Liter 625mod	d
Pentachlorophenol	<	5.000 ug/Liter 625mod	d
Phenanthrene	<	10.000 ug/Liter 625mod	đ
Phenol	<	10.000 ug/Liter 625mod	d
Pyrene	<	10.000 ug/Liter 625mod	d
Trichlorobenzene, 1, 2, 4-	<	10.000 ug/Liter 625mod	d
Trichlorophenol, 2, 4, 6-	<	10.000 ug/Liter 625mod	d
Aldrin	<	0.010 ug/Liter 608	
BHC, Alpha	<	0.050 ug/Liter 608	
BHC, Beta	<	0.050 ug/Liter 608	
BHC, Delta	<	0.050 ug/Liter 608	









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Phone 501-562-8139 Fax 501-562-7025 Toll Free 1-800-331-8139

#### LABORATORY ANALYSIS

Date of Report: January 13, 2015 Date Received: December 17, 2014

For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job:INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034

Sample From: EFFLUENT COMP 12/16-17/14 1000-1001

ANALYTE		RESULT	UNITS	METHOD
BHC, Gamma (Lindane)	<	0.050	ug/Liter	608
Chlordane	<	0.200	ug/Liter	608
4, 4'-DDD	<	0.100	ug/Liter	608
4, 4'-DDE	<		ug/Liter	608
4, 4'-DDT	<		ug/Liter	608
Dieldrin	<		ug/Liter	608
Endosulfan, Alpha-	<		ug/Liter	608
Endosulfan, Beta-	<		ug/Liter	608
Endosulfan sulfate	<		ug/Liter	608
Endrin endring	<		ug/Liter	608
Endrin aldehyde	<		ug/Liter	608
Heptachlor	<		ug/Liter	608
Heptachlor epoxide (beta)	<		ug/Liter	608
2, 3, 7, 8- TCDD	<		ug/Liter	625mod
Toxaphene	<		ug/Liter	608
PCB-1016	<		ug/Liter	608
PCB-1221	<		ug/Liter	608
PCB-1232	<		ug/Liter	608
PCB-1242	=	0.000		608
PCB-1248	<		ug/Liter	608
PCB-1254	=	0.000		8270Da
PCB-1260	<		ug/Liter	608
TTO, Total Toxic Organics	<	0.020	mg/Liter	Calc.
Extraction, Base-Neutrals, Acids	=	1.000	ea	3510
Extraction, Pesticides, PCB's	=	1.000		3510
pH <-H+>		7.380	units	4500 B









8100 National Drive Little Rock, Arkansas 72209

Phone 501-562-8139 Fax 501-562-7025 Toll Free 1-800-331-8139

#### LABORATORY ANALYSIS

Date of Report: January 13, 2015 Date Received: December 17, 2014

For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job: INDUSTRIAL WASTEWATER ANALYSIS / P.O. #8585034

Sample From: EFFLUENT COMP 12/16-17/14 1000-1001

ANALYTE

RESULT UNITS

METHOR

STANDARD METHODS, 20TH ED.; EPA METHODS, 3RD ED.

Collected by:

CLIENT on 12/17/14 at 10:00

Analysis by :

SEE ATTACHED QUALITY ASSURANCE PAGE.

Sample preservation and Laboratory Analysis conducted according to EPA 40 CFR Part 136. Test/Analyst/Time/Coeff./Var./ QA plan filed with ADPC&E. Includes 10 % replication and 10 % recovery studies by random selection. Instruments maintained and calibrated and records kept. See Attached.

Copies to:

MR. CHUCK JONES

ENV. HEALTH & SAFETY MGR

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-

Laboratory Number: 17733.0001 TKR Reviewed By: K. E. Sorrells, M.S. [











8100 National Drive Little Rock, Arkansas 72209

Phone 501-562-8139 Fax 501-562-7025 Toll Free 1-800-331-8139

#### QUALITY ASSURANCE

December 17, 2014 The following QA represents SRA's Quality Assurance values for this report.

ANALYTE	ANALYST	BEG. DATE	BEG. TIME	•	FIN. TIME	S.D. %		
Arkansas Analytical Inc. pH <-H+>	QA OF EAS 1	/ / L2/17/14	0 1350	/ / 12/17/14	0 1350	0.00	0.0	0 1

Field PH/TEMP/D.O. Sampler or Courier/ at time of sampling or pick up Sample preservation and laboratory analysis conducted according to EPA 40 CFR Part 136 TEST/ANALYST/TIME/COEF. VAR.\* QA PLAN filed with ADPC&E. Include replication.

KES = K. E. Sorrells

JBS = James B. Sorrells

CAS = Cecil A. Sorrells

MKM = Mark Kyle McKenzie

KESII = K. E. Sorrells, II

TJS = Todd J. Sanders

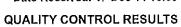
JHD = J. Henry Dodson

Laboratory Number: 17733.0001 TKR

Chuck Jones
Danfoss - Scroll Technologies

1 Scroll Drive

Arkadelphia, AR 71923-8813 Project: Effluent Sample Project Number: 17733.0001 Date Received: 17-Dec-14 16:35





	Wet	C	ner	ni	stry		Ba	tch:	A41	12252	١)	Nater	')	
						_		_	_			_		 

<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS/MSD	<u>Dup</u>	RPD	<b>Qualifiers</b>
Phenolics	<0.005 ma/L	94.7% / NA	97.8% / 102%		4.11%	

#### Wet Chemistry -- Batch: A412270 (Water)

Prepared: 19-Dec-14 08:00 By: WL -- Analyzed: 19-Dec-14 08:00 By: WL

	· · · · · · · · · · · · · · · · · · ·	-				_
<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD Qualifiers	<u>s</u>
TSS	<1.0 mg/L	89.0% / 95.0%	NA / NA		6.52%	

#### Volatiles -- Batch: A412281 (Water)

Prepared: 19-Dec-14 12:11 By: CT -- Analyzed: 19-Dec-14 18:43 By: ct

Analyte	BLK	LCS	/LCS	SD	MS	/ MS	SD	<u>Dup</u>	RPD	<u>Qualifiers</u>
1,1,1-Trichloroethane	<10.0 ug/L	98.0%	1	NA	106%	1	108%		1.47%	
1,1,2,2-Tetrachloroethane	<10.0 ug/L	72.6%	1	NA	100%	1	95.1%		5.38%	
1,1,2-Trichloroethane	<10.0 ug/L	91.4%	1	NA	98.4%	1	102%		3.20%	
1,1-Dichloroethane	<10.0 ug/L	98.8%	1	NA	105%	1	105%		0.214%	
1,1-Dichloroethene	<10.0 ug/L	90.2%	1	NA	101%	1	97.3%		3.93%	
1,2-Dichloroethane	<10.0 ug/l.	96.6%	1	NA	103%	1	102%		1.49%	
1,2-Dichloropropane	<10.0 ug/L	98.5%	1	NA	103%	- /	105%		1.83%	
2-Chloroethyl vinyl ether	<10.0 ug/L	100%	1	NA	103%	- /	108%		4.06%	
Acrolein	<50.0 ug/L	84.2%	1	NA	MBI	1	MBI		NA	E5, MBI
Acrylonitrile	<20.0 ug/L	93.0%	1	NA	93.0%	1	96.1%		3.35%	
Benzene	<10.0 ug/L	95.9%	1	NA	108%	- /	103%		4.05%	
Bromodichloromethane	<10.0 ug/L	99.1%	1	NA	95.3%	1	106%		10.7%	
Bromoform	<10.0 ug/L	94.5%	1	NA	104%	1	101%		2.91%	
Bromomethane	<50.0 ug/L	79.6%	1	NA	75.3%	- /	77.6%		3.03%	
Carbon tetrachloride	<2.00 ug/L	91.9%	1	NA	103%	1	98.3%		4.69%	
Chlorobenzene	<10.0 ug/L	87.4%	1	NA	93.1%	- /	94.5%		1.53%	
Chlorodibromomethane	<10.0 ug/L	87.4%	1	NA	98.8%	/	96.8%		2.15%	
Chloroethane	<50.0 ug/L	70.0%	1	NA	76.7%	/	75.0%		2.27%	
Chloroform	<10.0 ug/L	95.8%	1	NA	105%	1	97.7%		6.67%	
Chloromethane	<50.0 ug/L	94.5%	1	NA	95.0%	1	96.6%		1.75%	
cis-1,3-Dichloropropene	<10.0 ug/L	97.0%	1	NA	97.0%	- /	102%		4.59%	
Ethylbenzene	<10.0 ug/L	94.4%	1	NA	101%	1	100%		1.32%	
Methylene chloride	<20.0 ug/L	84,7%	1	NA	96.2%	1	96.7%		0.498%	
Tetrachloroethene	<10.0 ug/L	97.3%	1	NA	98.8%	1	105%		6.24%	
Toluene	<10.0 ug/L	93.9%	1	NA	99.3%	- /	103%		3.88%	
trans-1,2-Dichloroethene	<10.0 ug/L	94.2%	1	NA	98.0%	- /	102%		4.19%	
trans-1,3-Dichloropropene	<10.0 ug/l.	85.3%	1	NA	94.2%	1	97.2%		3.15%	
Trichloroethene	<10.0 ug/L	98.7%	1	NA	93.8%	1	104%		10.7%	D
Vinyl chloride	<10.0 ug/L	95.8%	1	NA	101%	- /	101%		0.277%	
1,2-Dichloroethane-d4 [surr]	96.5 %	96.0%	1	NA	96.3%	1	95.1%		NA	
4-Bromofluorobenzene [surr]	109 %	101%	1	NA	109%	1	101%		NA	
Toluene-d8 [surr]	90.2 %	95.3%		NA	93.8%	1	91.8%		NA	

Chuck Jones Danfoss - Scroll Technologies 1 Scroll Drive Arkadelphia, AR 71923-8813

Project: Effluent Sample
Project Number: 17733.0001
Date Received: 17-Dec-14 16:35





	Prepared: 18	Wet Chemistry Bate 3-Dec-14 15:45 By: KP	ch: A412300 (Water) Analyzed: 18-Dec-14 15:45	By: KP		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
BOD-5	<2.00 mg/L	102% / 103%	NA / NA		1.48%	
5 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1		Wet Chemistry Bate				
	Prepared: 22	-Dec-14 11:51 By: WL	Analyzed: 23-Dec-14 15:05	By: WL		
Analyte	<u>BLK</u>	LCS / LCSD	MS / MSD	Dup	<u>RPD</u>	<b>Qualifiers</b>
Oil and Grease	<2.5 mg/L	83.7% / 83.4%	80.8% / NA		0.297%	

Chuck Jones Danfoss - Scroll Technologies

1 Scroll Drive

Arkadelphia, AR 71923-8813 Project: Effluent Sample Project Number: 17733.0001 Date Received: 17-Dec-14 16:35

**QUALITY CONTROL RESULTS** 



#### Base/Neutral Compounds -- Batch: A412312 (Water)

Prepared: 22-Dec-14 12:04 By: TB -- Analyzed: 22-Dec-14 14:10 By: TB

<u>Analyte</u>	<u>BLK</u>	LCS / LCSD	MS / MSD	<u>Dup</u>	<u>RPD</u>	<u>Qualifiers</u>
1,2,4-Trichlorobenzene	<10.0 ug/L	57.8% / NA	54.0% / 49.9%		7.92%	
1,2-Dichlorobenzene	<10.0 ug/L	63.5% / NA	52.4% / 54.1%		3.24%	
1,2-Diphenyl Hydrazine	<20.0 ug/L	76.0% / NA	76.8% / 77.9%		1.44%	
1,3-Dichlorobenzene	<10.0 ug/L	60.2% / NA	51.0% / 51.1%		0.264%	
1,4-Dichlorobenzene	<10.0 ug/L	60.1% / NA	50.2% / 52.8%		5.02%	
2,3,7,8-TCDD Screen	<10.0 ug/L	NA / NA	NA / NA		NA	
2,4,6-Trichlorophenol	<10.0 ug/L	59.9% / NA	69.6% / 69.6%		0.0719%	
2,4-Dichlorophenol	<10.0 ug/L	78.0% / NA	75.7% / 72.8%		3.84%	
2,4-Dimethylphenol	<10.0 ug/L	77.9% / NA	72.4% / 64.8%		11.0%	D
2,4-Dinitrophenol	<50.0 ug/L	68.0% / NA	73.7% / 70.4%		4.53%	
2,4-Dinitrotoluene	<10.0 ug/L	81.1% / NA	83.7% / 81.6%		2.55%	
2,6-Dinitrotoluene	<10.0 ug/L	73.8% / NA	77.3% / 81.6%		5.49%	
2-Chloronaphthalene	<10.0 ug/L	65.5% / NA	63.8% / 59.1%		7.69%	
2-Chlorophenol	<10.0 ug/L	79.5% / NA	64.8% / 62.5%		3.56%	
2-Nitrophenol	<20.0 ug/L	73.7% / NA	59.8% / 56.5%		5.80%	
3,3'-Dichlorobenzidine	<5,00 ug/L	NA / NA	NA / NA		8.78%	D, E-01
4,6-Dinitro-2-methylphenol	<10.0 ug/L	77.2% / NA	76.8% / 76.6%		0.372%	5,25.
4-Bromophenyl-phenylether	<10.0 ug/L	80.2% / NA	83.0% / 81.7%		1.68%	
4-Chloro-3-methylphenol	<10.0 ug/L	81.9% / NA	83.4% / 85.3%		2.32%	
4-Chlorophenyl-phenylether	<10.0 ug/L	65,8% / NA	56.1% / 56.0%		0.214%	
4-Nitrophenol	<50.0 ug/L	54.4% / NA	52.7% / 52.4%		0.634%	
Acenaphthene	<10.0 ug/L	69.8% / NA	71.7% / 67.8%		5.66%	
Acenaphthylene	<10.0 ug/L	66.8% / NA	70.5% / 68.3%		3.13%	
Anthracene	<10.0 ug/L	83.9% / NA	78.4% / 79.5%		1.35%	
Benzidine	<50.0 ug/L	NA / NA	NA / NA		6.46%	
	_	68.4% / NA	88.8% / 80.4%		9.91%	D
Benzo (a) anthracene	<5.00 ug/L	89.6% / NA	81.4% / 92.8%		13.1%	В
Benzo[a]pyrene	<5.00 ug/L	82.9% / NA	78.5% / 83.7%		6.51%	
Benzo[b]fluoranthene	<10.0 ug/L		85.8% / 94.0%		9.14%	
Benzo[g,h,i]perylene	<20.0 ug/L	80.9% / NA			9.14%	
Benzo[k]fluoranthene	<5.00 ug/L	88.5% / NA				
Bis(2-chloroethoxy)methane	<10.0 ug/L	81.5% / NA	64.7% / 56.7%		13.2% 10.3%	
Bis(2-chloroethyl)ether	<10.0 ug/L	80.5% / NA	60.5% / 67.0%		9.20%	
Bis(2-chloroisopropyl)ether	<10.0 ug/L	79.0% / NA	63.8% / 70.0%			
Bis(2-ethylhexyl)phthalate	<10.0 ug/L	85.6% / NA	88.6% / 87.8%		0.794%	
Butylbenzylphthalate	<10.0 ug/L	85.8% / NA	85.9% / 85.0%		0.994%	
Chrysene	<5,00 ug/L	68.9% / NA	65.2% / 70.6%		7.95%	
Dibenz[a,h]anthracene	<5.00 ug/L	44.2% / NA	44.7% / 46.5%		3.84%	
Diethylphthalate	<10.0 ug/L	80.5% / NA	87.4% / 85.2%		2.58%	
Dimethylphthalate	<10.0 ug/L	80.0% / NA	83.0% / 83.1%		0.0596%	
Di-n-butylphthalate	<10.0 ug/L	82.2% / NA	76.3% / 76.9%		0.803%	
Di-n-octylphthalate	<10.0 ug/L	84.8% / NA	77.6% / 79.7%		2.60%	
Fluorene	<10.0 ug/L	77.4% / NA	73.4% / 72.7%		0.985%	
Hexachlorobenzene	<5.00 ug/L	80.8% / NA	78.1% / 74.0%		5.34%	
Hexachlorobutadiene	<10.0 ug/L	59.2% / NA	49.8% / 47.4%		4.89%	
Hexachlorocyclopentadiene	<10.0 ug/L	53.0% / NA	50.7% / 46.2%		9.28%	
Hexachloroethane	<20.0 ug/L	51.2% / NA	54.3% / 5 <b>4.</b> 8%		0.994%	_
indeno[1,2,3-cd]pyrene	<5.00 ug/L	94.1% / NA	95.6% / 106%		10.2%	D
Isophorone	<10.0 ug/L	82.0% / NA	62.6% / 56.2%		10.6%	

Chuck Jones Danfoss - Scroll Technologies

1 Scroll Drive

Arkadelphia, AR 71923-8813 Project: Effluent Sample Project Number: 17733.0001 Date Received: 17-Dec-14 16:35

**QUALITY CONTROL RESULTS** 



#### Base/Neutral Compounds -- Batch: A412312 (Water)

Prepared: 22-Dec-14 12:04 By: TB -- Analyzed: 22-Dec-14 14:10 By: TB

<u>Analyte</u>	BLK	LCS/L	CSD	MS	/ MS	<u>SD</u>	<u>Dup</u>	RPD	Qualifiers
Naphthalene	<10.0 ug/L	66.2% /	NA	60.5%	1	55.8%		8.10%	
Nitrobenzene	<10.0 ug/L	78.9% /	NA	64.1%	1	59.5%		7.49%	
N-Nitrosodimethylamine	<50.0 ug/L	57.5% /	NA	40.7%	1	44.4%		8.83%	
N-Nitroso-di-n-propylamine	<20.0 ug/L	86.0% /	NA	62.4%	1	69.3%		10.6%	
N-Nitrosodiphenylamine/diphenylamine	<20.0 ug/L	83.1% /	NA	85.6%	1	86.8%		1.31%	
Pentachlorophenol	<5.00 ug/L	86.8% /	NA	86.1%	1	82.7%		4.07%	
Phenanthrene	<10.0 ug/L	83.9% /	NA	85.4%	1	85.4%		0.0351%	
Phenol	<10.0 ug/L	46.6% /	NA	42.3%	1	41.5%		1.92%	
Pyrene	<10.0 ug/l.	96.7% /	NA	88.4%	1	91.2%		3.08%	
2,4,6-Tribromophenol [surr]	99.0 %	90.1% /	NA	97.9%	1	94.3%		NA	
2-Fluorobiphenyl [surr]	76.3 %	66.0% /	NA	61.0%	1	58.6%		NA	
2-Fluorophenol [surr]	59.8 %	56.9% /	NA	31.7%	1	27.8%		NA	
Nitrobenzene-d5 [surr]	83,3 %	80,2% /	NA	61.4%	1	63.0%		NA	
Phenol-d5 [surr]	38.3 %	40,3% /	NA	33.3%	1	33.3%		NA	
Terphenyl-d14 [surr]	110 %	103% /	NA	103%	1	108%		NA	

#### Wet Chemistry -- Batch: A412326 (Water)

Prepared: 22-Dec-14 08:45 By: KP -- Analyzed: 23-Dec-14 13:08 By: KP

<u>Analyte</u>	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Cyanide (total)	<0.010 mg/L	93.0% / 93.0%	93,7% / NA		0.00%	

#### Pesticides/PCBs -- Batch: A412349 (Water)

Prepared: 22-Dec-14 13:08 By: MB -- Analyzed: 22-Dec-14 17:44 By: MB

Analyte_	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
4,4'-DDD	<0.100 ug/L	102% / 90.0%	53,3% / NA		12.4%	E-01
4,4´-DDE	<0.100 ug/L	77.2% / 66.1%	49.1% / NA		15.6%	
4,4'-DDT	<0.020 ug/L	95.3% / 84.8%	48.5% / NA		11.7%	
Aldrin	<0.010 ug/L	48.2% / 39.5%	49.6% / NA		19.8%	
alpha-BHC	<0.050 ug/L	70.6% / 62.4%	56.6% / NA		12.3%	
beta-BHC	<0.050 ug/L	86.8% / 71.6%	29.4% / NA		19.3%	
delta-BHC	<0.050 ug/L	93.5% / 91.3%	MBI / NA		2.39%	E-01, MBI
Dieldrin	<0.020 ug/L	77.9% / 68.4%	52.3% / NA		12.9%	
Endosulfan I	<0.010 ug/L	62.3% / 53.5%	44.3% / NA		15.1%	
Endosulfan II	<0.020 ug/l.	93.3% / 83.2%	46.7% / NA		11.5%	
Endosulfan sulfate	<0.100 ug/L	85.3% / 75.9%	37.6% / NA		11.6%	
Endrin	<0.020 ug/L	81.3% / 70.2%	55.1% / NA		14.6%	
Endrin aldehyde	<0.100 ug/L	124% / 87.2%	51.8% / NA		34.8%	
gamma-BHC (Lindane)	<0.050 ug/L	70.9% / 63.4%	MBI / NA		11.2%	MBI
Heptachlor	<0.010 ug/L	65.9% / 77.9%	82.2% / NA		16.7%	
Heptachlor epoxide	<0.010 ug/L	60.4% / 60.5%	45.6% / NA		0.167%	
DCBP [surr]	95,3 %	89.0% / 80.2%	57.0% / NA		NA	
TCMX [surr]	59.2 %	57.7% / 53.7%	38.8% / NA		NA	

Chuck Jones Danfoss - Scroll Technologies

1 Scroll Drive

Arkadelphia, AR 71923-8813 Project: Effluent Sample

Project Number: 17733.0001 Date Received: 17-Dec-14 16:35



#### QUALIFIER(S)

\*D: RPD Value Does Not Meet Laboratory Acceptance Criteria

\*E-01: Estimated Result; This Analyte Failed "High" in the CCV; If the sample is non-detect for this analyte, the CCV

demonstrated the analyte would have been detected were it present.

\*E3: Estimated Result Due to Incorrect Sample Preservation or Container

\*E5: Estimated Result Due to Quality Control Failure

\*EDL: Elevated Detection Limit Due to one or more of the following: Sample Matrix, Sample Dilution, or Limited Sample

Volume

\*MBI: Masked By Interference

All Analysis performed according to EPA approved methodology when available:

SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.

Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Deresa Coins

Reviewed by:

Norma James and/or Teresa Coins

Technical Director and/or QA Officer

# SORRELLS RESEARCH ASSOCIATES, INC

8100 NATIONAL DRIVE, LITTLE ROCK, AR 72209 501-562-8139 800-331-8139

FAX 501-562-7025

# **CHAIN OF CUSTODY RECORD**

1		CHAI	AIN OF CUS	N OF CUSTODY RECORD	CORD		
2	TURN AROUND TIME	FOR LAB/O	FOR LAB/OFFICE USE ONLY			STANDARD METHODS PRESERVATION PER EPA 40 CFR	RVATION PER EPA 40 CFR
o s	S DAY REG	LAB#	133.00)			C 4= COOL TO 4.C	
Ь	ОТНЕК					S <z= acid="" n<z="NITRIC" ph<2<="" ph<z="" sulfuric="" td="" to=""><td></td></z=>	
		CLIENT#		ı		T= THIOSULFATE FOR DECHLORINATION	ILORINATION
		# C Q				W= WINKLER AZIDE MODIFICATION	CATION
:						P= MEMBRANE ELECTRODE NaOH= pH >12	
NAME OF (	NAME OF COMPANY, CITY, OR PROJECT	PROJECT NO:					11091342
Da	Dan Foss Industrial wastewater				/ / PRINT)	(	
SAMPLE	SAMPLE ID	START END	COMP FIELD ANALYSIS	AIVSIS	2007	/ <u>そ</u> の そり そう	30
ÖN	AND/ OR COLLECTION LOCATION	DATE/TIME DATE/TIME		TEMP FLOW	272	(P) PRESERVATIVE	ANALYSIS REQUIRED
	Effluent Grab	12.14.4 12.17.14	50			1/2 plastic C<4	BOD TCC
	n .	1000 Am 1001 Am	2			1 🕆	
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	ll little and the second and the sec	<b>*</b>	9			1000 ml glass s<2	Phenois
	"		0	1		50 ml vial P HNO3	AS,Ca,Cr,Cu,Pb,Mh,Ni,Ag,Zn
		7	9			500 P NaOH	CN-
			<b>9</b>			1L ATC C4, 3(40ml)	TTO
			724			oncito	4
			0 ( )			מוסונים	pH, temp,
	(CIRCLE)	FIELD CALIBRATION RECORD	1	NOTES/COMMEN	NOTES/COMMENTS/OBSERVATIONS		
	FED EX WALK IN SRA / UPS OTHER	- 7- 00.7 THQ	30	All containers at C4	rs at C4		
		رچک 4.01					
		.0 10.00					
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	WATER SOIL (W/W SLUDGE OTHER			CICIO ANA LYCIC			
				CICLD AIVALTSIS C	CILLED MINALISIS CONDOCIED BY (CIRCLE)	SRA CLIENT	
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,					X		DATE/TIME: 1 4.1 1.19



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#### SORRELLS RESEARCH LABORATORY AND FIELD SERVICES





8100 National Drive Little Rock, Arkansas 72209

Phone 501-562-8139 Fax 501-562-7025 Toll Free 1-800-331-8139

#### LABORATORY ANALYSIS

Date of Report: June 17, 2015 Date Received: May 21, 2015

For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job:INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034 Sample From: EFFLUENT COMP 05/21/15 0700-1000 / GRAB 1110

ANALYTE		RESULT	UNITS	METHOD
	_			
Acrolein	*	0.000	see report	
Acrylonitrile	*	0.000		
Benzene	*	0.000		
Bromodichloromethane	*	0.000		
Bromoform	*	0.000		
Bromomethane (Methyl bromide)	*	0.000		
Carbon tetrachloride	*	0.000		
Chlorobenzene	*	0.000		
Chloroethane	*	0.000		
Chloroform	*	0.000		
Chloroethylvinyl ether, 2-	*	0.000		
Chloromethane (Methyl chloride)	*	0.000		
Chlorodibromomethane	*	0.000		
Dichloroethane, 1,1-	*	0.000		
Dichloroethylene, cis-1,2-	*	0.000		
Dichloroethane, 1,2-	*	0.000		
Dichloroethylene, trans-1,2-	*	0.000		
Dichloroethylene, 1,1- (1,1-dichloroethene)	*	0.000		
Dichloropropane, 1,2-	*	0.000		
Dichloropropylene, cis-1,3-	*	0.000		
Dichloropropylene, trans-1,3-	*	0.000		
Ethylbenzene	*	0.000	•	
Methylene chloride	*	0.000		
Tetrachloroethane, 1, 1, 2, 2	*	0.000		
Tetrachloroethylene	*	0.000		
Toluene	*	0.000		
Trichloroethane, 1, 1, 1-	*	0.000	•	
Trichloroethane, 1, 1, 2-	*	0.000		
Trichloroethylene	*	0.000		
Vinyl chloride	*	0.000		
Acenaphthene	*	0.000	•	
Acenaphthylene	*	0.000		









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#### LABORATORY ANALYSIS

Date of Report: June 17, 2015 Date Received: May 21, 2015

For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job:INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034 Sample From: EFFLUENT COMP 05/21/15 0700-1000 / GRAB 1110

ANALYTE		RESULT	UNITS	METHOD
	-			
Anthracene	*	0.000		
Benzidine	*	0.000		
Benzo (a) anthracene	*	0.000		
Benzo (a) pyrene	*	0.000		
Benzo (b) fluoranthene	*	0.000		
Benzo (g,h,i) perylene	*	0.000		
Benzo (k) fluoranthene	*	0.000		
bis (2-chloroethoxy) methane	*	0.000		
bis (2-chloroethyl) ether	*	0.000		
bis (2-chloroisopropyl) ether	*	0.000		
bis (2-ethylhexyl) phthalate	*	0.000		
Bromophenyl phenyl ether, 4-	*	0.000		
Butylbenzyl phthalate	*	0.000		
Chloronaphthalene, 2-	*	0.000		
Chlorophenol, 2-	*	0.000		
Chlorophenyl phenyl ether, 4-	*	0.000		
Chrysene	*	0.000		
Dibenzo (a,h) anthracene	*	0.000		
Dichlorobenzene, 1,2-	*	0.000		
Dichlorobenzene, 1,3-	*	0.000		
Dichlorobenzene, 1,4-	*			
Dichlorobenzidine, 3,3-	*	0.000		
Dichlorophenol, 2,4-	*	0.000		
Diethylphthalate	*	0.000		
Dimethylphenol, 2,4-	*	0.000		
Dimethylphthalate	*	0.000		
Di-n-butyl phthalate	*	0.000		
Dinitro-o-cresol,4,6-	*	0.000		
Dinitrophenol, 2,4-	*	0.000		
Dinitrotoluene, 2,4-	*	0.000		
Dinitrotoluene, 2,6-	*	0.000		
Di-n-octyl phthalate	*	0.000		









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#### LABORATORY ANALYSIS

Date of Report: June 17, 2015 Date Received: May 21, 2015

For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job:INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034 Sample From: EFFLUENT COMP 05/21/15 0700-1000 / GRAB 1110

ANALYTE		RESULT UNITS	METHOD
Diphenylhydrazine, 1,2-	*	0.000	
Fluoranthene	*	0.000	
Fluorene	*	0.000	
Hexachlorobenzene	*	0.000	
Hexachlorobutadiene	*	0.000	
Hexachlorocyclopentadiene	*	0.000	
Hexachloroethane	*	0.000	
Indeno (1,2,3-Cd) pyrene	*	0.000	
Isophorone	*	0.000	
Naphthalene	*	0.000	
Nitrobenzene	*	0.000	
Nitrophenol, 2-	*	0.000	
Nitrophenol, 4-	*	0.000	
N-Nitrosodimethylamine	*	0.000	
N-nitrosodi-n-propylamine	*	0.000	
N-Nitrosodiphenylamine	*	0.000	
p-Chloro-m-cresol	*	0.000	
Pentachlorophenol	*	0.000	
Phenanthrene	*	0.000	
Phenol	*	0.000	
Pyrene		0.000	
Trichlorobenzene, 1, 2, 4-	*	0.000	
Trichlorophenol, 2, 4, 6-	*	0.000	
Aldrin	*	0.000	
BHC, Alpha	*	0.000	
BHC, Beta	*	0.000	
BHC, Delta	*	0.000	•
BHC, Gamma (Lindane)	*	0.000	
Chlordane	*	0.000	
4, 4'-DDD	*	0.000	
4, 4'-DDE	*	0.000	
4, 4'-DDT	*	0.000	







8100 National Drive Little Rock, Arkansas 72209

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#### LABORATORY ANALYSIS

Date of Report: June 17, 2015 Date Received: May 21, 2015

For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job: INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034 Sample From: EFFLUENT COMP 05/21/15 0700-1000 / GRAB 1110

ANALYTE		RESULT	UNITS	METHOD
				*** *** *** *** ***
Dieldrin	*	0.000		
Endosulfan, Alpha-	*	0.000		
Endosulfan, Beta-	*	0.000		
Endosulfan sulfate	*	0.000		
Endrin	*	0.000		
Endrin aldehyde	*	0.000		
Heptachlor	*	0.000		
Heptachlor epoxide (beta)	*	0.000		
2, 3, 7, 8- TCDD	*	0.000		
Toxaphene	*	0.000		
PCB-1016	*	0.000		
PCB-1221	*	0.000		
PCB-1232	*	0.000		
PCB-1242	*	0.000		
PCB-1248	*	0.000		
PCB-1254	*	0.000		
PCB-1260	*	0.000		
TTO, Total Toxic Organics	*	0.000		
Extraction, Base-Neutrals, Acids	=	1.000		3510
Extraction, Pesticides, PCB's	=	1.000		3510
Biochemical oxygen demand			mg/Liter	
Total suspended solids			mg/Liter	2540D
Oil and grease - Gravimetric			mg/Liter	1664
Cyanide, total	<		mg/Liter	4500CN
рн (-H+)			units	4500 B
Temperature		23.000		2550 B
Arsenic, As	<		mg/Liter	200.7
Cadmium, Cd	<		ug/Liter	200.7
Chromium, Cr	<		mg/Liter	200.7
Copper, Cu			mg/Liter	200.7
Lead, Pb	<		mg/Liter	200.7
Manganese, Mn		2.000	mg/Liter	200.7

Laboratory Number: 18169.0001









8100 National Drive Little Rock, Arkansas 72209

Phone 501-562-8139 Fax 501-562-7025 Toll Free 1-800-331-8139

#### LABORATORY ANALYSIS

Date of Report: June 17, 2015 Date Received: May 21, 2015

For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job:INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034 Sample From: EFFLUENT COMP 05/21/15 0700-1000 / GRAB 1110

ANALYTE	٠	RESULT	UNITS	METHOD
	-			
Nickel, Ni Silver, Ag Zinc, Zn Metals, Digestion for	<	0.021 0.055	mg/Liter mg/Liter mg/Liter ea sample	200.7 200.7 200.7

STANDARD METHODS, 20TH ED.; EPA METHODS, 3RD ED.

Collected by:

CLIENT on 05/21/15 at 11:15

Analysis by :

\*ALL TESTS PERFORMED BY ARKANSAS ANALYTICAL INC., EXCEPT WHERE NOTED BY (\*)
Sample preservation and Laboratory Analysis conducted according to EPA
40 CFR Part 136. Test/Analyst/Time/Coeff./Var./ QA plan filed with ADPC&E.
Includes 10 % replication and 10 % recovery studies by random selection.
Instruments maintained and calibrated and records kept.
See Attached.

Copies to:

MR. CHUCK JONES

ENV. HEALTH & SAFETY MGR

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-

Laboratory Number: 18169.0001 TKR Reviewed By: K. E. Sorrells, M.S.





**PLANNERS** 



#### SORRELLS RESEARCH LABORATORY AND FIELD SERVICES



8100 National Drive Little Rock, Arkansas 72209

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#### **QUALITY ASSURANCE**

May 21, 2015 The following QA represents SRA's Quality Assurance values for this report.

ANALYTE	ANALYST	BEG. DATE	BEG. TIME	FIN. DATE	FIN. TIME		SPK. REC.	•••
Arkansas Analytical Inc. *pH <-H+> *Temperature	RP	05/21/15	1110	/ / 05/21/15 05/21/15	1115	0.00	0.0 0.0 0.0	1

Field PH/TEMP/D.O. Sampler or Courier/ at time of sampling or pick up Sample preservation and laboratory analysis conducted according to EPA 40 CFR Part 136 TEST/ANALYST/TIME/COEF. VAR. \* QA PLAN filed with ADPC&E. Include replication.

KES = K. E. Sorrells

JBS = James B. Sorrells

CAS = Cecil A. Sorrells

MKM = Mark Kyle McKenzie

KESII = K. E. Sorrells, II TJS = Todd J. Sanders

JHD = J. Henry Dodson

Laboratory Number: 18169.0001 TKR









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#### LABORATORY ANALYSIS

Date of Report: June 17, 2015 Date Received: May 21, 2015

For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job: INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034

Sample From: WASH TANK / GRAB 05/21/15 1110-1115

ANALYTE		RESULT	UNITS	METHOD	
7 7	*	0 000	ace werent		
Acrolein	*		see report		
Acrylonitrile	<b>^</b> . *	0.000			
Benzene	· ^ *	0.000			
Bromodichloromethane	*	0.000			
Bromoform  Bromomathana (Mathyl bromida)	*	0.000			
Bromomethane (Methyl bromide) Carbon tetrachloride	*	0.000			
	*		*		
Chlorobenzene	*	0.000			
Chloroethane	*	0.000			
Chloroform Chlorosthulwinul ather 2	*	0.000			
Chloroethylvinyl ether, 2-	*	0.000			
Chloromethane (Methyl chloride)	*	0.000			
Chlorodibromomethane	*	0.000			
Dichloroethane, 1,1-	*	0.000			
Dichloroethylene, cis-1,2-	•	0.000			
Dichloroethane, 1,2-	*	0.000			
Dichloroethylene, trans-1,2-		0.000			
Dichloroethylene, 1,1- (1,1-dichloroethene)	*	0.000			
Dichloropropane, 1,2-	*	0.000			
Dichloropropylene, cis-1,3-	*	0.000			
Dichloropropylene, trans-1,3-	*	0.000			
Ethylbenzene	*	0.000			
Methylene chloride	*	0.000			
Tetrachloroethane, 1, 1, 2, 2	*	0.000			
Tetrachloroethylene	*	0.000			
Toluene	*	0.000			
Trichloroethane, 1, 1, 1-	· <b>*</b>	0.000			
Trichloroethane, 1, 1, 2-	*	0.000			
Trichloroethylene	*	0.000			
Vinyl chloride	*	0.000			
Acenaphthene	*	0.000			
Acenaphthylene	*	0.000			







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For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job: INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034

Sample From: WASH TANK / GRAB 05/21/15 1110-1115

ANALYTE		RESULT UNITS	METHOD
Anthracene	*	0.000	
Benzidine	*	0.000	
Benzo (a) anthracene	*	0.000	
Benzo (a) pyrene	*	0.000	
Benzo (b) fluoranthene	*	0.000	
Benzo (g,h,i) perylene	*	0.000	
Benzo (k) fluoranthene	*	0.000	
bis (2-chloroethoxy) methane	*	0.000	
bis (2-chloroethyl) ether	*	0.000	
bis (2-chloroisopropyl) ether	*	0.000	
bis (2-ethylhexyl) phthalate	*	0.000	
Bromophenyl phenyl ether, 4-	*	0.000	
Butylbenzyl phthalate	*	0.000	
Chloronaphthalene, 2-	*	0.000	
Chlorophenol, 2-	*	0.000	
Chlorophenyl phenyl ether, 4-	*	0.000	
Chrysene	*	0.000	
Dibenzo (a,h) anthracene	*	0.000	
Dichlorobenzene, 1,2-	*	0.000	
Dichlorobenzene, 1,3-	*	0.000	•
Dichlorobenzene, 1,4-	*	0.000	
Dichlorobenzidine, 3,3-	*	0.000	
Dichlorophenol, 2,4-	*	0.000	
Diethylphthalate	*	0.000	
Dimethylphenol, 2,4-	*	0.000	
Dimethylphthalate	*	0.000	
Di-n-butyl phthalate	*	0.000	
Dinitro-o-cresol,4,6-	*	0.000	
Dinitrophenol, 2,4-	*	0.000	
Dinitrotoluene, 2,4-	*	0.000	
Dinitrotoluene, 2,6-	*	0.000	•
Di-n-octyl phthalate	*	0.000	









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For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job:INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034

Sample From: WASH TANK / GRAB 05/21/15 1110-1115

ANALYTE		RESULT UNITS	METHOD
Diphenylhydrazine, 1,2-	*	0.000	
Fluoranthene	*	0.000	
Fluorene	*	0.000	
Hexachlorobenzene	*	0.000	
Hexachlorobutadiene	*	0.000	
Hexachlorocyclopentadiene	*	0.000	
Hexachloroethane	*	0.000	•
Indeno (1,2,3-Cd) pyrene	*	0.000	
Isophorone	*	0.000	
Naphthalene	*	0.000	
Nitrobenzene	*	0.000	
Nitrophenol, 2-	*	0.000	
Nitrophenol, 4-	*	0.000	
N-Nitrosodimethylamine	*	0.000	
N-nitrosodi-n-propylamine	*	0.000	
N-Nitrosodiphenylamine	*	0.000	
p-Chloro-m-cresol	*	0.000	
Pentachlorophenol	*	0.000	
Phenanthrene	*	0.000	
Phenol	*	0.000	
Pyrene	*	0.000	
Trichlorobenzene, 1, 2, 4-	*	0.000	
Trichlorophenol, 2, 4, 6-	*	0.000	
Aldrin	*	0.000	
BHC, Alpha	*	0.000	•
BHC, Beta	*	0.000	
BHC, Delta	*	0.000	
BHC, Gamma (Lindane)	*	0.000	
Chlordane	*	0.000	
4, 4'-DDD	*	0.000	
4, 4'-DDE	*	0.000	
4, 4'-DDT	*	0.000	







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For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job:INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034

Sample From: WASH TANK / GRAB 05/21/15 1110-1115

ANALYTE		RESULT	UNITS	METHOD
Dieldrin	*	0.000		
Endosulfan, Alpha-	*	0.000		
Endosulfan, Beta-	*	0.000		
Endosulfan sulfate	*	0.000		
Endrin	*	0.000		
Endrin aldehyde	*	0.000		
Heptachlor	*	0.000		
Heptachlor epoxide (beta)	*	0.000		
2, 3, 7, 8- TCDD	*	0.000		
Toxaphene	*	0.000		
PCB-1016	*	0.000		
PCB-1221	*	0.000		
PCB-1232	*	0.000		
PCB-1242	*	0.000		
PCB-1248	*	0.000		
PCB-1254	*	0.000		
PCB-1260	*	0.000		
TTO, Total Toxic Organics	*	0.000		
Extraction, Base-Neutrals, Acids	-	1.000	ea	3510
Extraction, Pesticides, PCB's	-	1.000	ea	3510
Arsenic, As	<	0.011	mg/Liter	200.7
Cadmium, Cd	<	0.520	mg/Liter	200.7
Chromium, Cr	<	0.011	mg/Liter	200.7
Copper, Cu		0.030	mg/Liter	200.7
Lead, Pb	<	0.016	mg/Liter	200.7
Manganese, Mn		1.970	mg/Liter	200.7
Nickel, Ni		0.128	mg/Liter	200.7
Silver, Ag	<		mg/Liter	200.7
Zinc, Zn		0.058	mg/Liter	200.7
Metals, Digestion for	= .	1.000	ea sample	3030 D









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For: DANFOSS - SCROLL TECHNOLOGIES

ONE SCROLL DRIVE

ARKADELPHIA, AR 71923-8813

Job: INDUSTRIAL WASTEWATER ANALYSIS / P.O.#8585034

Sample From: WASH TANK / GRAB 05/21/15 1110-1115

ANALYTE

RESULT UNITS

METHOI

STANDARD METHODS, 20TH ED.; EPA METHODS, 3RD ED.

Collected by:

CLIENT on 05/21/15 at 11:10

Analysis by :

\*ALL TESTS PERFORMED BY ARKANSAS ANALYTICAL INC., EXCEPT WHERE NOTED BY (\*)
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Includes 10 % replication and 10 % recovery studies by random selection.
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See Attached.

Copies to:
MR. CHUCK JONES
ENV. HEALTH & SAFETY MGR

ONE SCROLL DRIVE ARKADELPHIA, AR 71923-

Laboratory Number: 18169.0002 TKR Reviewed By: K. E. Sorrells, M.S.











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#### QUALITY ASSURANCE

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ANALYTE	ANALYST	BEG. DATE	BEG. TIME		FIN. TIME		SPK. #IN REC. BAT
Arkansas Analytical Inc.	QA OF	/ /	0	/ /	0	0.00	0.0 0

Field PH/TEMP/D.O. Sampler or Courier/ at time of sampling or pick up Sample preservation and laboratory analysis conducted according to EPA 40 CFR Part 136 TEST/ANALYST/TIME/COEF. VAR.\* QA PLAN filed with ADPC&E. Include replication.

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Laboratory Number: 18169.0002 TKR