APPENDIX E: KENTUCKY DIVISON OF WATER (KDOW) ENVIRONMENTAL SERVICES BRANCH (ESB) 2016–2018 FISH TISSUE ANALYTICAL DATA

Appendix E1: 2016 KDOW ESB Fish Tissue Analytical Reports

Appendix E2: Table E1- Calculation of Phase I and Phase II Adult and Young-of-the-Year Bluegill Selenium Whole-Body Fish Tissue Concentrations

Appendix E3: Table E2- Comparison of Kentucky Environmental Services Branch and Phase I and II Adult and Young-of-the-Year (YOY) Bluegill Tissue Sample Results

Appendix E4: 2018 KDOW ESB Fish Tissue Analytical Reports

APPENDIX E: KENTUCKY DIVISON OF WATER (KDOW) ENVIRONMENTAL SERVICES BRANCH (ESB) 2016–2018 FISH TISSUE ANALYTICAL DATA

Appendix E1: 2016 KDOW ESB Fish Tissue Analytical Reports

* Aging Method: Otolith Scale Fin Spine

A Prise 1-12 Selenium Study

		22	FISH T	ISSUE	DATA	SHEET				
Waterbo	•			Date/Time:						
He	Mington	Lake		0	51161	16				
Location:	Down					Basin	Kentu	·le .		
Site ID:	UCLM					County	inent-0	CKY	· · · · · · · · · · · · · · · · · · ·	
1	OPOWOC	30007)				Merces			
Lat. /Lon	g.		41.4			Coll. M	ethod:			sureno mois otneeded ight analysis
Resection of	57. /07)	8 -	84,70	451	inatia	15	ont Elec	tratis	rev	
Field	Lab	C Suit	tes: Afre	Al A	. 1,	7, 24.13E	ary cycle i	Las Con	eto en:	otneeded
		(7. 011)	1.05	(1/1, 1/1)	GAIN	1 1	WIRmen	401	W/Bas	ight analysis
							Fillet	Bag	Fillet	
Field ID	Fish	Length	Weight	Sex	Age	Fillet	Wet	Wt.	Dry	%
. ICIG ID	Species	(mm)	(g)	Jen	*	type:	Wt.	(g)	Wt.	Moisture
6-001	Blues, 11		- 4		370	Wh de Bro	/ (g)		(g)	
BG7		166	95				96.11	6.64	31.72	71.97
BG7 6-001 BG2	- ()	138	50				54.87	6.69	19.35	73.72
BG3	11	150	70				73.13	6.67	24.51	73.16
BG4	ur .	150	70				75.16	6.72	2 4.35	74.24
16-001 BG5	11	150	70				75.06	6.68	25.53	72.43
6-002	Bass	227	150				152.91	6.67	47.66	71.95
16-007(1) LMB	232	405	F			166.68	6.66	49.41	73.28
16-003/2	1.1	_1'_	411	11			237.1	6.69	67.01	73.82
6-004(1)	LMB	320	505	F			168.7	6.64	23.10	71.33
6-004(2)							212.4	6.65	71.10	68.68
6-0046					ļ		131.1	6.63	41.14	72.27
6-00 S(j) LMB	32.7	505	E			223,0	6.68	62.06	74.40
6-005(2)							175,5	6.69	52.62	72.79
6-005(3)		,					111.8	6.68	37.48	70.70
	esection of fill		Date: 5//6//6							
	nization of fill							ate: 6/	8116	
o. S4:11:	Placed in free:	Martin	RP	iere	e_		Т	me:		
			1					ate:		
	Freezer Tei	mp °C:					T	me:		

Page 2 of 3 Selenium Study

EICH	TICCI	IF DATA	A CHEET

Waterbody: Lerington Lake	Date/Time: S (6/16				
Location:	Basin				
Site ID:	County				
D0V0403007	Mercer				
Lat. /Long.	Coll. Method:				
37.78478 -84.70451	Bont Electrotisher				
Resection of fillets Collectors/Notes:					
Field TLab G Stilling S. M. Norfin, R. Pierce					

Field ID	Fish Species	Length (mm)	Weight (g)	Sex	Age *	Fillet type: (RF,LF,BF)	Fillet Wet Wt.	Bag Wt. (g)	Fillet Dry Wt. (g)	Moisture Not need
6-006(1)	LMB	380	870	F	1 2		228,6	6.66	, i	
6-006(2)							223.8	6.66		
5-006(3)							216.4	6.62		
6-006(4)							193.5	6.66		
00004							15.09	6.68		
6-007(1)		4118	1035	M	ļ		208,4	6.62		
6-007(2)							234,5	6.59		
6 -007(3) 6 -∞7(4)				_			235.4	6-66		
6-007(4)		-					218.0	6.65		
6-007(3)							139,4	6.64		
6-013	LMB					OVary	59.48	6,65		
01007 16-014 01004	LMB					150014				

Resection of fillets by:		Date: 5/16/1C
6. Stillings, M. Martin, R. Pierce Homogenization of fillets by:		Time:
Homogenization of fillets by:		Date: 6/8//6
Placed in freezer by: G Stillings Pierce		Time:
Placed in freezer by: G Stillings		Date: 5 1/6/16
Freezer Temp °C: -20	76	Time:

* Aging Method: Otolith Scale Fin Spine

\$ 3 ot 3

Selenium Study

Waterboo	dy:			Date/Time:						
Her	rington L			2116116						
Location:	rington L ential (Basin	Kontu	l.,		
Site ID:		ON 6				County	DONALO	IC Y		
Do	W						levce/			
Lat./Long	g.					Coll. M	ethod:			
Resection o	of fillets Colle	ectors/No	toc			1 1200	+ Flect	roticl	01	
Field [MS M	·Ma	Hin	R. Pi	erce			
			2-1				WI Boa			
Field ID	Fish Species	Length (mm)	Weight (g)	Sex	Age *	Fillet type: (RF,LF,BF)	Fillet Wet Wt. (g)	Bag Wt. (g)	Fillet Dry Wt. (g)	% Moisture
-008	Plues: 1	190	155			- 1				
ſι	11	191	150		<					
rt.	11	185	160			1 9 1				
0-009	LMB	240	170	1/1		BF	64.39	6.67		
5-010	LMB	269	240	M		RF	50.73	6.68	4	
5-011	LMB	312	530	М		RF	90.76	6.58		
0-012	LMB	347	605	M		RF	111.57	6.65		
6-013	LMB	428	1115	F		Rt	184.62	6.68		
0-014	LMB	490	1630	F	- la	RP	131.58	6.68		
						2	131.33	6.69		
	100									
6-013										
16-014 16-014	LMB			W	_	Overy	59.48	6.65		
4-014	1 112					Dure	90.00	6.72		

Resection of fillets by:	Date: 60/13(16		
G. Stillings Walley De Proces	Time:		
Homogenization of fillets by:	Date: Time:		
Placed in freezer by: G. Stilling 5 Freezer Temp °C: -20	Date: /0/12// F Time:		

* Aging Method: Otolith Scale Fin Spine



CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02053

Station/Project ID:

To: Division of Water 300 Sower Blvd

Re: Fish Tissue Monitoring

Frankfort, KY 40601

Program Code: A20

ATTN: Garrett Stillings

AKGWA:

County: Mercer

Facility: Date: 05/16/2016

Time: 0:00 Time: . 09:04

Collected By: Delivered By: Garrett Stillings Garrett Stillings

Date: 07/12/2016

Time: +09:04

Received By:

Eric Scott

Date: 07/12/2016 **Collection Method:**

Grab

Sample Matrix: TISSUE

Sample Description: DOW04030007 L. macrochirus Herrington L

Sample Type: Field Sample

Sample ID: 16-001BG!

REPORT OF ANALYSIS

Container ID: Shipment Temp: 23.5C

LAB ACODE CAS NUM CONSTITUENTS RESULT UNIT

LOO

LOD FLAG

\$3130T SECAL 7782-49-2 Selenium

10.5 mg/Kg DW 0.050

0.020

Container Preservation Status at Sample Login

@PG

Container -no pres.

pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number: KentuckyUnbridledSpirit.com





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT COMMISSIONER

100 SOWER BOULEVARD, STE 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02054

Station/Project ID:

Division of Water

Re: Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 ATTN: Garrett Stillings

Program Code: A20

County:

AKGWA: Facility:

Mercer

Date: 05/16/2016

Time: 0:00

Collected By: Delivered By:

Garrett Stillings Garrett Stillings Date: 07/12/2016

Time: 09:04

Received By: Eric Scott Date: 07/12/2016

Time: 09:04

Sample Matrix: TISSUE

Collection Method:

Sample Type: Field Sample

Sample Description: DOW04030007 L. macrochirus Herrington L **Sample ID:** 16-001BG2

Container ID:

REPORT OF ANALYSIS

Shipment Temp: 23.5C

LAB ACODE CAS NUM CONSTITUENTS RESULT UNIT

LOO LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium

9.73 mg/Kg DW 0.048

0.019

Container Preservation Status at Sample Login

@PG

Container -no pres.

pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number: KentuckyUnbridledSpirit.com





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02055

Station/Project ID:

To: Division of Water

Re: Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 ATTN: Garrett Stillings

Program Code: A20

County: Mercer AKGWA: Facility:

Collected By: Garrett Stillings

Date: 05/16/2016

Time: 0:00

Delivered By:

Date: 07/12/2016

Time: 09:04

Received By: Eric Scott Date: 07/12/2016

Time: 109:04

Sample Matrix: TISSUE

Collection Method:

Sample Type: Field Sample

Sample Description: DOW04030007 L. macrochirus Herrington L

Garrett Stillings

Container ID:

Sample ID: 16-001BG3

Shipment Temp: 23.5C

REPORT OF ANALYSIS **CAS NUM CONSTITUENTS**

LOD RESULT UNIT LOO

\$3130T SECAL 7782-49-2 Selenium

11.5 mg/Kg DW 0.046

0.019

FLAG

LAB ACODE

Container Preservation Status at Sample Login

@PG

Container -no pres.

pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number: KentuckyUnbridledSpirit.com AN02055



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Page 1 of 1

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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT COMMISSIONER

100 SOWER BOULEVARD, STE, 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02056

Station/Project ID:

Division of Water

Re: Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601

Program Code: A20

ATTN: Garrett Stillings County: Mercer

AKGWA: Facility:

Collected By: Garrett Stillings **Date:** 05/16/2016

Time: 0:00 Time: 09:04

Delivered By: **Garrett Stillings** Received By: Eric Scott

Date: 07/12/2016 Date: 07/12/2016

Time: 09:04

Sample Matrix: TISSUE

Collection Method:

Grab

Sample Description: DOW04030007 L. macrochirus Herrington L

Sample Type: Field Sample Container ID:

Sample ID: 16-001BG4

REPORT OF ANALYSIS

Shipment Temp: 23.5C

LAB ACODE CAS NUM CONSTITUENTS

RESULT UNIT

LOO LOD

FLAG

\$3130T SECAL 7782-49-2 Selenium

9.77 mg/Kg DW 0.048

0.019

@PG

Container Preservation Status at Sample Login

Container -no pres.

pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number: KentuckyUnbridledSpirit.com AN02056



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Page 1 of 1

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ENERGY AND ENVIRONMENT CABINET **DEPARTMENT FOR ENVIRONMENTAL PROTECTION**

R. BRUCE SCOTT COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02057

Station/Project ID:

To: Division of Water

Re: Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 ATTN: Garrett Stillings

Program Code: A20

County: Mercer AKGWA: Facility:

Collected By: **Garrett Stillings**

Date: 05/16/2016

Time: 0:00

Delivered By: **Garrett Stillings** Received By: Eric Scott

Date: 07/12/2016

Time: 109:04 Time: 109:04

Sample Matrix: TISSUE

Date: 07/12/2016 **Collection Method:**

Grab

Sample Description: DOW04030007 L. macrochirus Herrington L

Sample Type: Field Sample

Sample ID: 16-001BG5

Container ID:

REPORT OF ANALYSIS

Shipment Temp: 23.5C

CAS NUM CONSTITUENTS \$3130T SECAL 7782-49-2 Selenium

RESULT UNIT LOO <u>LOD</u> **FLAG**

10.2 mg/Kg DW 0.048

0.019

@PG

Container Preservation Status at Sample Login Container -no pres.

pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

LAB ACODE

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number: KentuckyUnbridledSpirit.com





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02058

Station/Project ID:

To: Division of Water

Re: Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 ATTN: Garrett Stillings

Program Code: A20

County: Mercer AKGWA: Facility:

Collected By: **Garrett Stillings** Delivered By: Garrett Stillings Date: 05/16/2016 Date: 07/12/2016 Time: 0:00 Time: 09:04

Received By: Eric Scott

Date: 07/12/2016

Time: 109:04

Sample Matrix: TISSUE

Collection Method:

Sample Description: DOW04030007 M. punctulatus Herrington L

Sample Type: Field Sample

Sample ID: 16-002

Container ID:

REPORT OF ANALYSIS

Shipment Temp: 23.5C

LAB ACODE CAS NUM CONSTITUENTS

RESULT UNIT LOO

LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium

10.7 mg/Kg DW 0.045

0.018

Container Preservation Status at Sample Login

@PG

Container -no pres.

pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number:

KentuckyUnbridledSpirit.com





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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT COMMISSIONER

FLAG

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02059

Station/Project ID:

To: Division of Water

Re: Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 ATTN: Garrett Stillings

Program Code: A20

County:

AKGWA:

Mercer

Facility:

Collected By: Garrett Stillings Delivered By: **Garrett Stillings**

Date: 05/16/2016 Date: 07/12/2016 Time: 0:00 Time: .09:04

Received By: Eric Scott

Date: 07/12/2016

Time: : 09:04

Sample Matrix: TISSUE

Collection Method:

Grab Sample Type: Field Sample

Sample Description: DOW04030007 M. salmoides Herrington L

Container ID:

Sample ID: 16-003

REPORT OF ANALYSIS Shipment Temp: 23.5C

LAB ACODE CAS NUM CONSTITUENTS RESULT UNIT LOO LOD

\$3130T SECAL 7782-49-2 Selenium **Container Preservation Status at Sample Login**

9.45 mg/Kg DW 0.048 0.019

@PG

Container -no pres.

pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number:

KentuckyUnbridledSpirit.com





MATTHEW G. BEVIN

CHARLES G. SNAVELY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02060

Lab Sample Number. ANO200

Station/Project ID:

To: Division of Water 300 Sower Blvd

Re: Fish Tissue Monitoring

Frankfort, KY 40601

Program Code: A20

ATTN: Garrett Stillings

AKGWA:

County: Mercer

Facility:

Collected By: Garrett Stillings
Delivered By: Garrett Stillings

Date: 05/16/2016

Time: 0:00 Time: 09:04

Delivered By: Garrett Sti Received By: Eric Scott Date: 07/12/2016 Date: 07/12/2016

Time: 09:04

Sample Matrix: TISSUE

Collection Method:

Grab

Sample Description: DOW04030007 M. salmoides Herrington L

Sample Type: Field Sample **Container ID:**

Sample ID: 16-004

REPORT OF ANALYSIS

Shipment Temp: 23.5C

LAB ACODE CAS NUM CONSTITUENTS

RESULT UNIT

LOO LOD FLAG

\$3130T SECAL 7782-49-2 Selenium

4.89 mg/Kg DW 0.046

0.019

Container Preservation Status at Sample Login

@PG

Container -no pres.

pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number: KentuckyUnbridledSpirit.com





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02061

Station/Project ID:

To: Division of Water

Re: Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 ATTN: Garrett Stillings

Program Code: A20

County:

AKGWA:

Mercer

Facility:

Collected By: **Garrett Stillings** Delivered By: Garrett Stillings

Date: 05/16/2016 Date: 07/12/2016 Time: 0:00 Time: 09:04

Received By: Eric Scott

Date: 07/12/2016

Time: 09:04

Sample Matrix: TISSUE

Collection Method:

Sample Description: DOW04030007 M. salmoides Herrington L

Sample Type: Field Sample

Sample ID: 16-005

Container ID:

REPORT OF ANALYSIS Shipment Temp: 23.5C

LOO **LOD FLAG**

LAB ACODE CAS NUM CONSTITUENTS

RESULT UNIT

11.7 mg/Kg DW 0.047 0.019

\$3130T SECAL 7782-49-2 Selenium

Container Preservation Status at Sample Login

@PG

Container -no pres.

pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number:

KentuckyUnbridledSpirit.com





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT COMMISSIONER

100 SOWER BOULEVARD, STE, 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02062

Division of Water 300 Sower Blvd

Frankfort, KY 40601

ATTN: Garrett Stillings

County:

Mercer

Garrett Stillings Delivered By: **Garrett Stillings**

Received By: Eric Scott

Sample Matrix: TISSUE

Collected By:

Sample Description: DOW04030007 M. salmoides Herrington L

Sample ID: 16-006

Station/Project ID:

Re: Fish Tissue Monitoring

Program Code: A20

AKGWA: Facility:

Date: 05/16/2016 Date: 07/12/2016

Date: 07/12/2016

Collection Method:

Grab

Sample Type: Field Sample

Time: 0:00

Time: 09:04

Time: : 09:04

Container ID:

10.7 mg/Kg DW 0.046

REPORT OF ANALYSIS Shipment Temp: 23.5C

LAB ACODE CAS NUM CONSTITUENTS RESULT UNIT

LOD LOO

0.018

FLAG

\$3130T SECAL 7782-49-2 Selenium

Container Preservation Status at Sample Login

@PG

Container -no pres.

pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release. Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number: KentuckyUnbridledSpirit.com AN02062



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Page 1 of 1

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CHARLES G. SNAVELY **SECRETARY**

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02063

To: Division of Water 300 Sower Blvd

Frankfort, KY 40601

ATTN: Garrett Stillings

County:

Mercer

Collected By: Garrett Stillings Delivered By: Garrett Stillings

Sample Matrix: TISSUE

Received By: Eric Scott

Sample Description: DOW04030007 M. salmoides Herrington L

Sample ID: 16-006Ovary

\$3130T SECAL 7782-49-2 Selenium

REPORT OF ANALYSIS

LAB ACODE CAS NUM CONSTITUENTS

RESULT UNIT

Station/Project ID:

Program Code: A20

Date: 05/16/2016

Date: 07/12/2016

Date: 07/12/2016

Collection Method:

AKGWA:

Facility:

Re: Fish Tissue Monitoring

7.93 mg/Kg DW 0.050

Container ID:

0.020

LOD

Time: 0:00

Time: 09:04

Time: 109:04

Sample Type: Field Sample

LOO

Shipment Temp: 23.5C

FLAG

Container Preservation Status at Sample Login

@PG

Container -no pres.

pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number: KentuckyUnbridledSpirit.com





CHARLES G. SNAVELY **SECRETARY**

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02064

Station/Project ID:

To: Division of Water

Re: Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 ATTN: Garrett Stillings

Program Code: A20

County: Mercer AKGWA:

Collected By:

Facility:

Date: 05/16/2016

Time: 0:00

Delivered By:

Garrett Stillings **Garrett Stillings**

Date: 07/12/2016

Time: 09:04 Time: 09:04

Received By: Sample Matrix: TISSUE

Eric Scott

Date: 07/12/2016

Grab

Sample Description: DOW04030007 M. salmoides Herrington L

Collection Method:

Sample Type: Field Sample

Sample ID: 16-013Ovary

REPORT OF ANALYSIS

Container ID: Shipment Temp: 23.5C

CAS NUM CONSTITUENTS LAB ACODE

RESULT UNIT

LOO LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium

11.0 mg/Kg DW 0.049 0.020

Container Preservation Status at Sample Login

@PG

Container -no pres.

pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number: KentuckyUnbridledSpirit.com





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT COMMISSIONER

100 SOWER BOULEVARD, STE, 104 FRANKFORT, KENTUCKY 40601

Tuesday, August 02, 2016

Lab Sample Number: AN02065

Station/Project ID:

To: Division of Water

Re: Fish Tissue Monitoring

300 Sower Blvd Frankfort, KY 40601

Program Code: A20

ATTN: Garrett Stillings

AKGWA:

County: Мегсег

Facility:

Collected By: Garrett Stillings Garrett Stillings

Date: 05/16/2016

Time: 0:00 Time: 09:04

Delivered By: Received By:

Date: 07/12/2016 Date: 07/12/2016

Time: 09:04

Eric Scott Sample Matrix: TISSUE

Collection Method:

Grab

Sample Description: DOW04030007 M. salmoides Herrington L

Sample Type: Field Sample

Sample ID: 16-014Ovary

REPORT OF ANALYSIS

Container ID: Shipment Temp: 23.5C

CAS NUM CONSTITUENTS LAB ACODE

RESULT UNIT

LOO LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium

11.3 mg/Kg DW 0.048

0.019

Container Preservation Status at Sample Login pH not tested

Unit Description

@PG

Container -no pres.

DW = Analyzed on a Dry Weight Basis

Case Narrative

Freeze Dried

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Report Format: DESFinal

Michael Goss, Branch Manager

Sample Number: KentuckyUnbridledSpirit.com

APPENDIX E: KENTUCKY DIVISON OF WATER (KDOW) ENVIRONMENTAL SERVICES BRANCH (ESB) 2016–2018 FISH TISSUE ANALYTICAL DATA

Appendix E2: Table E1- Calculation of Phase I and Phase II Adult and Young-of-the-Year Bluegill Selenium Whole-Body Fish Tissue Concentrations

Table E1: Calculation of Phase I and II Adult and Young-of-the-Year Bluegill Selenium Whole-Body Fish Tissue Concentrations Corrective Action Site Investigation, Source Assessment, and Risk Assessment Report E.W. Brown Station, Herrington Lake, Mercer County, Kentucky

Sampling Phase	Source	Basis	Sample ID	Portion	Percent Moisture (Ramboll/KU)	Selenium (C _F and C _R) in mg/kg	Weight of portion (W _F and W _R in grams)	Weight (W _{wB}) in grams	Selenium Whole-Body Fish Concentration (WBFC) Using Equation 1	
			FF-001(BG)-CI-171004	Fillet	79.2	1.85	75.991	209.753	1.74	
	Ramboll/		FWB-001(BG)-CI-171004	Carcass	66.9	1.68	133.762			
	KU	Wet	FF-001(BG)-CI-171004-FD	Fillet	78.8	2.15	75.991	209.753	2.00	
			FWB-001(BG)-CI-171004-FD	Carcass	66.9	1.91	133.762			
ы	KESB		FF-001(BG)-CI-171004	Fillet	79.2	2.19	75.991	209.753	2.08	
se	KLSB		FWB-001(BG)-CI-171004	Carcass	66.9	2.01	133.762		2.00	
Phase			FF-001(BG)-CI-171004	Fillet	79.2	8.91	75.991	209.753	6.47	
<u> </u>	Ramboll/		FWB-001(BG)-CI-171004	Carcass	66.9	5.08	133.762	209.755	0.47	
	KU	Dry	FF-001(BG)-CI-171004-FD	Fillet	78.8	10.2	75.991	209.753	7.38	
			FWB-001(BG)-CI-171004-FD	Carcass	66.9	5.78	133.762		7.38	
	KESB		FF-001(BG)-CI-171004	Fillet	79.2	10.53	75.991	209.753	7.69	
	KLSD		FWB-001(BG)-CI-171004	Carcass	66.9	6.07	133.762	209.733	7.09	
	D 1 11/		FWB001(BG)-CI-180615		76.2			219.22	1.26	
	Ramboll/ KU		YOY-001-UCI	1	83.3			5.164	4.14	
	KO	Wet	YOY-002-UCI	1	82.9			11.279	3.72	
		wet	FWB001(BG)-CI-180615	1	76.2					
	KESB		YOY-001-UCI	1	83.3			Pending	Pending	
II			YOY-002-UCI	1	82.9	Phase II	Phase II			
ase			FWB001(BG)-CI-180615	Whole-Body	76.2	Analysed as	Analysed as	52.2	5.28	
Phase II	Ramboll/		YOY-001-UCI		83.3	Whole-Body	Whole-Body	0.864	24.8	
	KU		YOY-002-UCI		82.9			1.93	21.8	
		Dry	YOY-001-UCIDUP		76.2			1.13	24.5	
		,	FWB001(BG)-CI-180615		76.2				•	
	KESB		YOY-001-UCI		83.3			Pending	Pending	
			YOY-002-UCI		82.9				J	

*The Phase II YOY bluegill samples were analyzed as whole-body only. Notes:

The sample ID includes the sample date, for example "180615" refers to June 15th, 2018 (Phase FWB = Fish Whole-Body

Percent Solids = 100 - Percent (%) Moisture

BG = Bluegill

Cf = Chemical concentration in fish fillet composite sample (mg/kg)

CI = Curds Inlet

Cr = Chemical concentration in remains composite sample (mg/kg)

DUP = Duplicate sample

(DW) Dry Weight = Concentration in Wet Weight/(1-% solids)

ESB = Kentucky Environmental Services Branch

FD = Field Duplicate

FF = Fish Fillet

mg/kg (DW) = Milligrams per kilogram dry weight

mg/kg (WW) = Milligrams per kilogram wet weight

Pending = Pending the delivery of laboratory results

YOY = Young-of-the-Year

UCI = Upper Curds Inlet WBFC = Whole body fish chemical concentration (mg/kg)

WBFC Equation 1: WBFC = ([WF/(WF + WR)] * CF) + ([WR/(WF + WR)] * CR)

Wf = Weight of fish fillet (g)

Wr = Weight of fish remains or carcass (g)

 $W_{WB} = Weight of Whole-Body (Wf+Wr)$

APPENDIX E: KENTUCKY DIVISON OF WATER (KDOW) ENVIRONMENTAL SERVICES BRANCH (ESB) 2016–2018 FISH TISSUE ANALYTICAL DATA

Appendix E3: Table E2- Comparison of Kentucky Environmental Services Branch and Phase I and II Adult and Young-of-the-Year (YOY) Bluegill Tissue Sample Results

Table E2: Comparison of Kentucky Environmental Services Branch and Phase I and II Adult and Young-of-the-Year (YOY) Bluegill Tissue Sample Results

Corrective Action Site Investigation, Source Assessment, and Risk Assessment Report

E.W. Brown Station, Herrington Lake, Mercer County, Kentucky

Species	Project Phase	Sample Identifier	Portion	CAS Number	Constituent	Basis	KY ESB Result (mg/kg)	CAP Sample Result (mg/kg)	Percent Difference
				7440 20 2	Arconic (total)	Wet	0.103	0.08	22
				7440-38-2	Arsenic (total)	Dry		0.39	
				7440-43-9	Cadmium	Wet	<0.0186	0.0084	NA
		FF-001(BG)-CI-171004	Fillet	7440-43-9	Caumum	Dry		0.04	
		11-001(BG)-C1-171004	rillet	7782-49-2	Selenium	Wet	2.19	1.85	16
				7702-49-2	Selemani	Dry		8.91	
	н			7440-66-6	Zinc	Wet	9.76	7.45	24
	Se			7440-00-0	ZIIIC	Dry		35.8	
Bluegill (<i>Lepomis sp.</i>)	Phase		Carcass	7440-38-2	Arsenic (total)	Wet	0.302	0.24	21
is sin						Dry		0.71	
noc		FWB-001(BG)-CI-171004		7440-43-9	Cadmium Selenium	Wet	0.125	0.105	16
/Jet						Dry		0.316	
l ≣		1 WB 001(BG) CI 171004				Wet	2.01	1.68	16
on				7440-66-6	Zinc	Dry		5.08	
圖						Wet	40.2	27.9	31
				7440 00 0	Ziric	Dry		84.4	
						Wet		1.26	
		FWB001(BG)-CI-180615		7782-49-2		Dry		5.28	
						Wet	Pending	4.14	
	Phase	YOY-001-UCI	Whole-Body	7782-49-2	Selenium	Dry		24.8	Pending
	F					Wet	1	3.72	
		YOY-002-UCI		7782-49-2		Dry	1	21.8	

Notes:

KY ESB

The Phase II YOY bluegill samples were analyzed as whole-body only.

Kentucky Environmental Services Branch

The sample ID includes the sample date, for example "180615" refers to June 15th, 2018 (Phase II).

BG	Bluegill	mg/kg	Milligrams per kilogram
CAP	Ramboll's Corrective Action Plan	Pending	Pending the delivery of laboratory results
CI	Curds Inlet	UCI	Upper Curds Inlet
dry	dry weight results	wet	wet weight results
FF	Fish Fillet	YOY	Young-of-the-Year
FWB	Fish whole Body		Results from KY ESB were wet weight only

APPENDIX E: KENTUCKY DIVISON OF WATER (KDOW) ENVIRONMENTAL SERVICES BRANCH (ESB) 2016–2018 FISH TISSUE ANALYTICAL DATA

Appendix E4: 2018 KDOW ESB Fish Tissue Analytical Reports



CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Friday, January 11, 2019

Lab Sample Number: AP04359 Station/Project ID: 6021 131

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: David Cravens Date: 07/19/2018 **Time:** 0:05 **Delivered By: David Cravens Date:** 12/03/2018 **Time:** 15:20 **Received By:** Jennifer Clark Time: 15:20 **Date:** 12/03/2018 **Sample Matrix:** FISH-WHOLE **Collection Method:** Composite

Sample Description: DOW04030014 Curds Inlet L macrochirus Sample Type: Field Sample

Sample ID: FT18-129A **Container ID:**

> **Shipment Temp:** 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 4.70 mg/Kg DW 0.0465 0.0186

9540 % Moisture 75.2 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Michael Goss, Branch Manager Report Format: DESFinal





MATTHEW G. BEVIN

CHARLES G. SNAVELY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Friday, January 11, 2019

Lab Sample Number: AP04360 Station/Project ID: 6021 131

To: Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold

County: Mercer

AKGWA:
Facility:

Collected By:David CravensDate:07/19/2018Time:0:05Delivered By:David CravensDate:12/03/2018Time:15:20Received By:Jennifer ClarkDate:12/03/2018Time:15:20Sample Matrix:FISH-WHOLECollection Method:Composite

Sample Description: DOW04030014 Curds Inlet L macrochirus Sample Type: Field Split

Sample ID: FT18-129B Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>
<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T_SECAL 7782-49-2 Selenium 3.77 mg/Kg DW 0.0470 0.0188

9540 % Moisture 75.2 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and

has been approved for release.

Original report is on file at ESB

Report Format: DESFinal Michael Goss, Branch Manager





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Friday, January 11, 2019

Lab Sample Number: AP04361 Station/Project ID: 6021 131

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: David Cravens Date: 07/19/2018 **Time:** 0:05 **Delivered By: David Cravens Date:** 12/03/2018 **Time:** 15:20 **Received By:** Jennifer Clark Time: 15:20 **Date:** 12/03/2018 **Sample Matrix:** FISH-WHOLE **Collection Method:** Composite

Sample Description: DOW04030014 Curds Inlet L macrochirus Sample Type: Field Sample

Sample ID: FT18-130A **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 7.14 mg/Kg DW 0.0442 0.0177

9540 % Moisture 75.4 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release. Original report is on file at ESB

Michael Goss, Branch Manager Report Format: DESFinal





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Friday, January 11, 2019

Lab Sample Number: AP04362 Station/Project ID: 6021 131

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: David Cravens Date: 07/19/2018 **Time:** 0:05 **Delivered By: David Cravens Date:** 12/03/2018 **Time:** 15:20 **Received By:** Jennifer Clark Time: 15:20 **Date:** 12/03/2018 **Sample Matrix:** FISH-WHOLE **Collection Method:** Composite

Sample Description: DOW04030014 Curds Inlet L macrochirus Sample Type: Field Split

Sample ID: FT18-130B **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 7.16 mg/Kg DW 0.0455 0.0182

9540 % Moisture 75.4 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Michael Goss, Branch Manager Report Format: DESFinal





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Friday, January 11, 2019

Lab Sample Number: AP04363 Station/Project ID: 6024 131

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Garrard **Facility:**

Collected By: David Cravens Date: 07/19/2018 **Time:** 2:45 **Delivered By: David Cravens Date:** 12/03/2018 Time: 15:20 **Received By:** Jennifer Clark Time: 15:20 **Date:** 12/03/2018 **Sample Matrix:** FISH-WHOLE **Collection Method:** Composite

Sample Description: DOW04030017 Rocky Fk (Run) L macrochirus Sample Type: Field Sample

Sample ID: FT18-138A **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 3.01 mg/Kg DW 0.0452 0.0181

9540 % Moisture 74.5 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release. Original report is on file at ESB

Michael Goss, Branch Manager Report Format: DESFinal





MATTHEW G. BEVIN

CHARLES G. SNAVELY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Friday, January 11, 2019

Lab Sample Number: AP04364 Station/Project ID: 6024 131

To: Division of Water Re: Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold

County: Garrard

AKGWA:
Facility:

Collected By:David CravensDate:07/19/2018Time:2:45Delivered By:David CravensDate:12/03/2018Time:15:20Received By:Jennifer ClarkDate:12/03/2018Time:15:20Sample Matrix:FISH-WHOLECollection Method:Composite

Sample Description: DOW04030017 Rocky Fk (Run) L macrochirus Sample Type: Field Split

Sample ID: FT18-138B Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>

<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T_SECAL 7782-49-2 Selenium 3.04 mg/Kg DW 0.0480 0.0192

9540 % Moisture 74.5 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and

has been approved for release.

Original report is on file at ESB

Report Format: DESFinal Michael Goss, Branch Manager





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

FLAG

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Monday, January 14, 2019

Lab Sample Number: AQ00001 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: David Cravens Date: 07/19/2018 **Time:** 1:30 **Delivered By: David Cravens Date:** 01/03/2019 Time: 14:39 **Received By:** Jennifer Clark **Time:** 14:39 **Date:** 01/03/2019 **Sample Matrix:** FISH-WHOLE **Collection Method:** Composite

Sample Description: DOW04030007 Herrington nr Dam L macrochi Sample Type: Field Sample

Sample ID: FT18-113A **Container ID:**

> REPORT OF ANALYSIS **Shipment Temp:** 0C

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD

\$3130T SECAL 7782-49-2 Selenium 2.77 mg/Kg DW 0.0322 0.0129

9540 % Moisture 75.4 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Michael Goss, Branch Manager Report Format: DESFinal





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Monday, January 14, 2019

Lab Sample Number: AQ00002 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: David Cravens Date: 07/19/2018 **Time:** 1:30 **Delivered By: David Cravens Date:** 01/03/2019 Time: 14:39 **Received By:** Jennifer Clark **Time:** 14:39 **Date:** 01/03/2019 **Sample Matrix:** FISH-WHOLE **Collection Method:** Composite

Sample Description: DOW04030007 Herrington nr Dam L macrochi Sample Type: Field Split

Sample ID: FT18-113B **Container ID:**

REPORT OF ANALYSIS **Shipment Temp:** 0C

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 3.99 mg/Kg DW 0.0380 0.0152

9540 % Moisture 75.4 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Michael Goss, Branch Manager Report Format: DESFinal





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Monday, January 14, 2019

Lab Sample Number: AQ00003 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: David Cravens Date: 07/18/2018 **Time:** 19:55 **Delivered By: David Cravens Date:** 01/03/2019 Time: 14:39 **Received By:** Jennifer Clark **Time:** 14:39 **Date:** 01/03/2019 **Sample Matrix:** FISH-WHOLE **Collection Method:** Composite

Sample Description: DOW04030015 Herrington HQ Inlet L macroc Sample Type: Field Sample

Sample ID: FT18-119A **Container ID:**

> REPORT OF ANALYSIS **Shipment Temp:** 0C

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.20 mg/Kg DW 0.0460 0.0184

9540 % Moisture 73.4 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Michael Goss, Branch Manager Report Format: DESFinal





MATTHEW G. BEVIN

CHARLES G. SNAVELY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Monday, January 14, 2019

Lab Sample Number: AQ00004 Station/Project ID:

To: Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold

County: Mercer

AKGWA:
Facility:

Collected By:David CravensDate:07/18/2018Time:19:55Delivered By:David CravensDate:01/03/2019Time:14:39Received By:Jennifer ClarkDate:01/03/2019Time:14:39Sample Matrix:FISH-WHOLECollection Method:Composite

Sample Description: DOW04030015 Herrington HQ Inlet L macroc
Sample Type: Field Split

Sample ID: FT18-119B Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>

<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T_SECAL 7782-49-2 Selenium 2.63 mg/Kg DW 0.0422 0.0169

9540 % Moisture 73.4 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and

has been approved for release.

Original report is on file at ESB

Report Format: DESFinal Michael Goss, Branch Manager





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Monday, January 14, 2019

Lab Sample Number: AQ00005 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: David Cravens Date: 07/18/2018 **Time:** 21:00 **Delivered By: David Cravens Date:** 01/03/2019 Time: 14:39 **Received By:** Jennifer Clark **Time:** 14:39 **Date:** 01/03/2019 **Sample Matrix:** FISH-WHOLE **Collection Method:** Composite

Sample Description: DOW04030019 Lower Herrington Lk L macroc Sample Type: Field Sample

Sample ID: FT18-122A **Container ID:**

> **Shipment Temp:** 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.55 mg/Kg DW 0.0465 0.0186

9540 % Moisture 75.1 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Environmental Services Branch (ESB) and has been approved for release.

Original report is on file at ESB

Michael Goss, Branch Manager Report Format: DESFinal



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CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Monday, January 14, 2019

Lab Sample Number: AQ00006 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: David Cravens Date: 07/18/2018 **Time:** 21:00 **Delivered By: David Cravens Date:** 01/03/2019 Time: 14:39 **Received By:** Jennifer Clark **Time:** 14:39 **Date:** 01/03/2019 **Sample Matrix:** FISH-WHOLE **Collection Method:** Composite

Sample Description: DOW04030019 Lower Herrington Lk L macroc Sample Type: Field Split

Sample ID: FT18-122B **Container ID:**

> **Shipment Temp:** 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.55 mg/Kg DW 0.0422 0.0169

9540 % Moisture 75.1 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Michael Goss, Branch Manager Report Format: DESFinal





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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Monday, January 14, 2019

Lab Sample Number: AQ00007 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: David Cravens Date: 07/18/2018 **Time:** 21:00 **Delivered By: David Cravens Date:** 01/03/2019 Time: 14:39 **Received By:** Jennifer Clark **Time:** 14:39 **Date:** 01/03/2019 **Sample Matrix:** FISH-WHOLE **Collection Method:** Composite

Sample Description: DOW04030019 Lower Herrington Lk L macroc Sample Type: Field Sample

Sample ID: FT18-123A **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.48 mg/Kg DW 0.0375 0.0150

9540 % Moisture 75.0 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Monday, January 14, 2019

Lab Sample Number: AQ00008 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: David Cravens Date: 07/18/2018 **Time:** 21:00 **Delivered By: David Cravens Date:** 01/03/2019 Time: 14:39 **Received By:** Jennifer Clark **Time:** 14:39 **Date:** 01/03/2019 **Sample Matrix:** FISH-WHOLE **Collection Method:** Composite

Sample Description: DOW04030019 Lower Herrington Lk L macroc Sample Type: Field Split

Sample ID: FT18-123B **Container ID:**

> **Shipment Temp:** 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.00 mg/Kg DW 0.0430 0.0172

9540 % Moisture 75.0 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, February 19, 2019

Lab Sample Number: AQ00266 Station/Project ID: 860 131

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: David Cravens Date: 07/19/2018 **Time:** 1:30 **Delivered By: David Cravens Date:** 01/22/2019 Time: 13:22 **Received By:** Jennifer Clark Time: 13:22 **Date:** 01/22/2019 **Collection Method: Sample Matrix:** FISH-WHOLE Composite

Sample Description: DOW04030007 Herrington nr dam Lepomis ma Sample Type: Field Sample

Sample ID: FT18-114A **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOO LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.02 mg/Kg DW 0.0488 0.0195

9540 % Moisture 74.2 % 0.0100

Container Preservation Status at Sample Login

@PG pH not tested Container -no pres.

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Methyl Mercury Analysis (3350T) has been cancelled.

This report has been prepared and reviewed by personnel within the Department for Environmental Protection Laboratory (DEPLAB) and has been approved for release.

Original report is on file at DEPLAB

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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, February 19, 2019

Lab Sample Number: AQ00267 Station/Project ID: 860 131

To: Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold

County: Mercer

AKGWA:
Facility:

Collected By:David CravensDate:07/19/2018Time:1:30Delivered By:David CravensDate:01/22/2019Time:13:22Received By:Jennifer ClarkDate:01/22/2019Time:13:22Sample Matrix:FISH-WHOLECollection Method:Composite

Sample Description: DOW04030007 Herrington nr dam Lepomis ma **Sample Type:** Field Split

Sample ID: FT18-114B Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>
<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T_SECAL 7782-49-2 Selenium 2.02 mg/Kg DW 0.0472 0.0189

9540 % Moisture 74.2 % 0.0100

Container Preservation Status at Sample Login

@PG Container -no pres. pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Methyl Mercury Analysis (3350T) has been cancelled.

This report has been prepared and reviewed by personnel within the Department for Environmental Protection

Laboratory (DEPLAB) and has been approved for release.

Original report is on file at DEPLAB

Report Format: DESFinal Michael Goss, Laboratory Technical Director





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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, February 19, 2019

Lab Sample Number: AQ00268 Station/Project ID: 6022 131

To: Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 Program Code: A20

ATTN: Melanie Arnold

County: Mercer

AKGWA:
Facility:

Collected By:David CravensDate:07/18/2018Time:19:55Delivered By:David CravensDate:01/22/2019Time:13:22Received By:Jennifer ClarkDate:01/22/2019Time:13:22Sample Matrix:FISH-WHOLECollection Method:Composite

Sample Description: DOW04030015 Herringon HQ Inlet Lepomis m **Sample Type:** Field Sample

Sample ID: FT18-118A Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>

<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T_SECAL 7782-49-2 Selenium 4.15 mg/Kg DW 0.0495 0.0198

9540 % Moisture 74.0 % 0.0100

Container Preservation Status at Sample Login

@PG Container -no pres. pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Methyl Mercury Analysis (3350T) has been cancelled.

This report has been prepared and reviewed by personnel within the Department for Environmental Protection

Laboratory (DEPLAB) and has been approved for release.

Original report is on file at DEPLAB

Report Format: DESFinal Michael Goss, Laboratory Technical Director





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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, February 19, 2019

Lab Sample Number: AQ00269 Station/Project ID: 6022 131

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: David Cravens Date: 07/18/2018 **Time:** 19:55 **Delivered By: David Cravens Date:** 01/22/2019 Time: 13:22 **Received By:** Jennifer Clark Time: 13:22 **Date:** 01/22/2019 **Collection Method: Sample Matrix:** FISH-WHOLE Composite

Sample Description: DOW04030015 Herringon HQ Inlet Lepomis m Sample Type: Field Split

Sample ID: FT18-118B **Container ID:**

> **Shipment Temp:** 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 4.12 mg/Kg DW 0.0465 0.0186

9540 % Moisture 74.0 % 0.0100

Container Preservation Status at Sample Login

@PG pH not tested Container -no pres.

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Methyl Mercury Analysis (3350T) has been cancelled.

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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, February 19, 2019

Lab Sample Number: AQ00270 Station/Project ID: 6024 131

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Garrard **Facility:**

Collected By: David Cravens Date: 07/19/2018 **Time:** 2:45 **Delivered By: David Cravens Date:** 01/22/2019 Time: 13:22 **Received By:** Jennifer Clark Time: 13:22 **Date:** 01/22/2019 **Sample Matrix:** FISH-WHOLE **Collection Method:** Composite

Sample Description: DOW04030017 Herrington Rocky Fk Lepomis Sample Type: Field Sample

Sample ID: FT18-139A **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOO LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.78 mg/Kg DW 0.0482 0.0193

9540 % Moisture 73.9 % 0.0100

Container Preservation Status at Sample Login

@PG pH not tested Container -no pres.

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

Methyl Mercury Analysis (3350T) has been cancelled.

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Original report is on file at DEPLAB

Michael Goss, Laboratory Technical Director Report Format: DESFinal





CHARLES G. SNAVELY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Thursday, February 28, 2019

Lab Sample Number: AQ00271 Station/Project ID: 6024 131

To: Division of Water Re: Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold

County: Garrard

AKGWA:
Facility:

Collected By:David CravensDate:07/19/2018Time:2:45Delivered By:David CravensDate:01/22/2019Time:13:22Received By:Jennifer ClarkDate:01/22/2019Time:13:22Sample Matrix:FISH-WHOLECollection Method:Composite

Sample Description: DOW04030017 Herrington Rocky Fk Lepomis Sample Type: Field Split

Sample ID: FT18-139B Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>

<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T_SECAL 7782-49-2 Selenium 2.85 mg/Kg DW 0.0460 0.0184

9540 % Moisture 73.9 % 0.0100

Container Preservation Status at Sample Login

@PG Container -no pres. pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Laboratory (DEPLAB) and has been approved for release.

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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, March 26, 2019

Lab Sample Number: AQ00936 Station/Project ID:

To: Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 Program Code: A20

ATTN: Melanie Arnold

County: Mercer

AKGWA:
Facility:

 Collected By:
 Rodney Pierce
 Date:
 07/19/2018
 Time:
 0:45

 Delivered By:
 Rodney Pierce
 Date:
 03/15/2019
 Time:
 14:45

 Received By:
 Jennifer Clark
 Date:
 03/15/2019
 Time:
 14:45

Sample Matrix: FISH-WHOLE Collection Method: Grab

Sample Description: DOW04030014 Herrington M salmoides **Sample Type:** Field Sample

Sample ID: FT18-131 Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>

<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T SECAL 7782-49-2 Selenium 4.16 mg/Kg DW 0.0460 0.0184

9540 % Moisture 69.2 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Laboratory (DEPLAB) and has been approved for release.

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Report Format: DESFinal Michael Goss, Laboratory Technical Director



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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, March 26, 2019

Lab Sample Number: AQ00937 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: Rodney Pierce **Date:** 07/19/2018 **Time:** 0:45 **Delivered By:** Rodney Pierce **Date:** 03/15/2019 Time: 14:45 **Received By:** Jennifer Clark **Date:** 03/15/2019 **Time:** 14:45

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030014 Herrington M salmoides Sample Type: Field Sample

Sample ID: FT18-132 **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 5.97 mg/Kg DW 0.0460 0.0184

9540 % Moisture 69.8 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Original report is on file at DEPLAB

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CHARLES G. SNAVELY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, March 26, 2019

Lab Sample Number: AQ00938 Station/Project ID:

To: Division of Water Re: Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 Program Code: A20

ATTN: Melanie Arnold

County: Mercer

AKGWA:
Facility:

 Collected By:
 Rodney Pierce
 Date:
 07/19/2018
 Time:
 0:45

 Delivered By:
 Rodney Pierce
 Date:
 03/15/2019
 Time:
 14:45

 Received By:
 Jennifer Clark
 Date:
 03/15/2019
 Time:
 14:45

Sample Matrix: FISH-WHOLE Collection Method: Grab

Sample Description: DOW04030014 Herrington M salmoides **Sample Type:** Field Sample

Sample ID: FT18-133 Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>
<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T_SECAL 7782-49-2 Selenium 3.50 mg/Kg DW 0.0490 0.0196

9540 % Moisture 70.4 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Laboratory (DEPLAB) and has been approved for release.

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Report Format: DESFinal Michael Goss, Laboratory Technical Director



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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, March 26, 2019

Lab Sample Number: AQ00939 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: Rodney Pierce **Date:** 07/19/2018 **Time:** 0:45 **Delivered By:** Rodney Pierce **Date:** 03/15/2019 Time: 14:45 **Received By:** Jennifer Clark **Date:** 03/15/2019 **Time:** 14:45

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030014 Herrington M salmoides Sample Type: Field Sample

Sample ID: FT18-134 **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 4.03 mg/Kg DW 0.0462 0.0185

9540 % Moisture 73.6 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, March 26, 2019

Lab Sample Number: AQ00940 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: Rodney Pierce **Date:** 07/19/2018 **Time:** 0:45 **Delivered By:** Rodney Pierce **Date:** 03/15/2019 Time: 14:45 **Received By:** Jennifer Clark **Date:** 03/15/2019 **Time:** 14:45

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030014 Herrington M salmoides Sample Type: Field Sample

Sample ID: FT18-135 **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 5.26 mg/Kg DW 0.0482 0.0193

9540 % Moisture 71.6 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Michael Goss, Laboratory Technical Director Report Format: DESFinal





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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, March 26, 2019

Lab Sample Number: AQ00941 Station/Project ID:

To: Division of Water Re: Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 Program Code: A20

ATTN: Melanie Arnold

County: Mercer

AKGWA:
Facility:

 Collected By:
 Rodney Pierce
 Date:
 07/19/2018
 Time:
 0:45

 Delivered By:
 Rodney Pierce
 Date:
 03/15/2019
 Time:
 14:45

 Received By:
 Jennifer Clark
 Date:
 03/15/2019
 Time:
 14:45

Sample Matrix: FISH-WHOLE Collection Method: Grab

Sample Description: DOW04030014 Herrington M chrysops Sample Type: Field Sample

Sample ID: FT18-136 Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>
<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T SECAL 7782-49-2 Selenium 5.65 mg/Kg DW 0.0480 0.0192

9540 % Moisture 66.4 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Laboratory (DEPLAB) and has been approved for release.

Original report is on file at DEPLAB

Report Format: DESFinal Michael Goss, Laboratory Technical Director





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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, April 02, 2019

Lab Sample Number: AQ01167 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: Rodney Pierce **Date:** 07/19/2018 **Time:** 1:30 **Delivered By:** Rodney Pierce **Date:** 03/25/2019 Time: 12:55 **Received By:** Jennifer Clark **Date:** 03/25/2019 Time: 12:55

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030007 Herrington nr dam M salmoide Sample Type: Field Sample

Sample ID: FT18-115 **Container ID:**

> **Shipment Temp:** 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.62 mg/Kg DW 0.0475 0.0190

9540 % Moisture 69.0 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Department for Environmental Protection Laboratory (DEPLAB) and has been approved for release.

Original report is on file at DEPLAB

Michael Goss, Laboratory Technical Director Report Format: DESFinal





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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, April 02, 2019

Lab Sample Number: AQ01168 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: Rodney Pierce **Date:** 07/19/2018 **Time:** 1:30 **Delivered By:** Rodney Pierce **Date:** 03/25/2019 Time: 12:55 **Received By:** Jennifer Clark **Date:** 03/25/2019 Time: 12:55

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030007 Herrington nr dam M salmoide Sample Type: Field Sample

Sample ID: FT18-116 **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.94 mg/Kg DW 0.0495 0.0198

9540 % Moisture 69.5 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Department for Environmental Protection Laboratory (DEPLAB) and has been approved for release.

Original report is on file at DEPLAB

Michael Goss, Laboratory Technical Director Report Format: DESFinal





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, April 02, 2019

Lab Sample Number: AQ01169 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: Rodney Pierce **Date:** 07/18/2018 **Time:** 19:55 **Delivered By:** Rodney Pierce **Date:** 03/25/2019 Time: 12:55 **Received By:** Jennifer Clark **Date:** 03/25/2019 Time: 12:55

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030015 Herrington@ HQ In M salmoide Sample Type: Field Sample

Sample ID: FT18-120 **Container ID:**

REPORT OF ANALYSIS **Shipment Temp:** 0C

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOO LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 4.58 mg/Kg DW 0.0480 0.0192

9540 % Moisture 70.1 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Department for Environmental Protection Laboratory (DEPLAB) and has been approved for release.

Original report is on file at DEPLAB

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CHARLES G. SNAVELY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, April 02, 2019

Lab Sample Number: AQ01170 Station/Project ID:

To: Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold

County: Mercer

AKGWA:
Facility:

 Collected By:
 Rodney Pierce
 Date:
 07/18/2018
 Time:
 19:55

 Delivered By:
 Rodney Pierce
 Date:
 03/25/2019
 Time:
 12:55

 Received By:
 Jennifer Clark
 Date:
 03/25/2019
 Time:
 12:55

Sample Matrix: FISH-WHOLE Collection Method: Grab

Sample Description: DOW04030015 Herrington @ HQ In I punctat **Sample Type:** Field Sample

Sample ID: FT18-121 Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>

<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T_SECAL 7782-49-2 Selenium 2.75 mg/Kg DW 0.0468 0.0187

9540 % Moisture 73.8 % 0.0100

Container Preservation Status at Sample Login

@G-4OZF Glass 4 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Laboratory (DEPLAB) and has been approved for release.

Original report is on file at DEPLAB

Report Format: DESFinal Michael Goss, Laboratory Technical Director





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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, April 02, 2019

Lab Sample Number: AQ01171 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: Rodney Pierce **Date:** 07/18/2018 **Time:** 21:00 **Delivered By:** Rodney Pierce **Date:** 03/25/2019 Time: 12:55 **Received By:** Jennifer Clark **Date:** 03/25/2019 Time: 12:55

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030019 Herrington RM 6.1 M salmoide Sample Type: Field Sample

Sample ID: FT18-127 **Container ID:**

REPORT OF ANALYSIS **Shipment Temp:** 0C

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.89 mg/Kg DW 0.0485 0.0194

9540 % Moisture 70.1 % 0.0100

Container Preservation Status at Sample Login

@G-8OZF Glass 8 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Original report is on file at DEPLAB

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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, April 02, 2019

Lab Sample Number: AQ01172 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Garrard **Facility:**

Collected By: Rodney Pierce **Date:** 07/19/2018 **Time:** 2:45 **Delivered By:** Rodney Pierce **Date:** 03/25/2019 Time: 12:55 **Received By:** Jennifer Clark **Date:** 03/25/2019 Time: 12:55

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030017 Herrington Rocky M salmoide Sample Type: Field Sample

Sample ID: FT18-140 **Container ID:**

REPORT OF ANALYSIS **Shipment Temp:** 0C

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOO LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 3.81 mg/Kg DW 0.0490 0.0196

9540 % Moisture 70.7 % 0.0100

Container Preservation Status at Sample Login

@G-8OZF Glass 8 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Department for Environmental Protection Laboratory (DEPLAB) and has been approved for release.

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CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, April 02, 2019

Lab Sample Number: AQ01173 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Garrard **Facility:**

Collected By: Rodney Pierce **Date:** 07/19/2018 **Time:** 2:45 **Delivered By:** Rodney Pierce **Date:** 03/25/2019 Time: 12:55 **Received By:** Jennifer Clark **Date:** 03/25/2019 Time: 12:55

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030017 Herrington Rocky M salmoide Sample Type: Field Sample

Sample ID: FT18-141 **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOO LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.30 mg/Kg DW 0.0462 0.0185

9540 % Moisture 68.4 % 0.0100

Container Preservation Status at Sample Login

@G-8OZF Glass 8 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Department for Environmental Protection Laboratory (DEPLAB) and has been approved for release.

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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, April 02, 2019

Lab Sample Number: AQ01174 Station/Project ID:

To: Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold

County: Garrard

AKGWA:
Facility:

 Collected By:
 Rodney Pierce
 Date:
 07/19/2018
 Time:
 2:45

 Delivered By:
 Rodney Pierce
 Date:
 03/25/2019
 Time:
 12:55

 Received By:
 Jennifer Clark
 Date:
 03/25/2019
 Time:
 12:55

Sample Matrix: FISH-WHOLE Collection Method: Grab

Sample Description: DOW04030017 Herrington Rocky M salmoide Sample Type: Field Sample

Sample ID: FT18-142 Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>

<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T SECAL 7782-49-2 Selenium 2.69 mg/Kg DW 0.0485 0.0194

9540 % Moisture 69.3 % 0.0100

Container Preservation Status at Sample Login

@G-8OZF Glass 8 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Department for Environmental Protection

Laboratory (DEPLAB) and has been approved for release.

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Report Format: DESFinal Michael Goss, Laboratory Technical Director





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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, April 02, 2019

Lab Sample Number: AQ01175 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: Rodney Pierce **Date:** 07/19/2018 **Time:** 1:30 **Delivered By:** Rodney Pierce **Date:** 03/25/2019 Time: 12:55 **Received By:** Jennifer Clark **Date:** 03/25/2019 Time: 12:55

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030007 Herrington nr dam M salmoide Sample Type: Field Sample

Sample ID: FT18-117 **Container ID:**

> **Shipment Temp:** 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.12 mg/Kg DW 0.0485 0.0194

9540 % Moisture 70.1 % 0.0100

Container Preservation Status at Sample Login

@G-8OZF Glass 8 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, April 02, 2019

Lab Sample Number: AQ01176 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Garrard **Facility:**

Collected By: Rodney Pierce **Date:** 07/19/2018 **Time:** 2:45 **Delivered By:** Rodney Pierce **Date:** 03/25/2019 Time: 12:55 **Received By:** Jennifer Clark **Date:** 03/25/2019 Time: 12:55

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030017 Herrington Rocky M salmoide Sample Type: Field Sample

Sample ID: FT18-143 **Container ID:**

REPORT OF ANALYSIS **Shipment Temp:** 0C

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOO LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 3.48 mg/Kg DW 0.0470 0.0188

9540 % Moisture 70.7 % 0.0100

Container Preservation Status at Sample Login

@G-8OZF Glass 8 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Department for Environmental Protection Laboratory (DEPLAB) and has been approved for release.

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CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Tuesday, April 02, 2019

Lab Sample Number: AQ01177 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Garrard **Facility:**

Collected By: Rodney Pierce **Date:** 07/19/2018 **Time:** 2:45 **Delivered By:** Rodney Pierce **Date:** 03/25/2019 Time: 12:55 **Received By:** Jennifer Clark **Date:** 03/25/2019 Time: 12:55

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030017 Herrington Rocky M salmoide Sample Type: Field Sample

Sample ID: FT18-144 **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 5.85 mg/Kg DW 0.0485 0.0194

9540 % Moisture 68.4 % 0.0100

Container Preservation Status at Sample Login

@G-8OZF Glass 8 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Wednesday, April 10, 2019

Lab Sample Number: AQ01343 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: Rodney Pierce **Date:** 07/19/2018 **Time:** 0:05 **Delivered By:** Rodney Pierce **Date:** 03/29/2019 Time: 10:20 **Received By:** Jennifer Clark **Date:** 03/29/2019 Time: 10:20

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030014 Herrington M chrysops x saxa Sample Type: Field Sample

Sample ID: FT18-137 **Container ID:**

> **Shipment Temp:** 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.90 mg/Kg DW 0.0472 0.0189

9540 % Moisture 66.2 % 0.0100

Container Preservation Status at Sample Login

@G-8OZF Glass 8 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Michael Goss, Laboratory Technical Director Report Format: DESFinal





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ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Wednesday, April 10, 2019

Lab Sample Number: AQ01344 Station/Project ID:

To: Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 Program Code: A20

ATTN: Melanie Arnold

County: Mercer

AKGWA:
Facility:

 Collected By:
 Rodney Pierce
 Date:
 07/18/2018
 Time:
 21:00

 Delivered By:
 Rodney Pierce
 Date:
 03/29/2019
 Time:
 10:20

 Received By:
 Jennifer Clark
 Date:
 03/29/2019
 Time:
 10:20

Sample Matrix: FISH-WHOLE Collection Method: Grab

Sample Description: DOW04030019 Herrington M salmoides **Sample Type:** Field Sample

Sample ID: FT18-124 Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>

<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T_SECAL 7782-49-2 Selenium 1.95 mg/Kg DW 0.0475 0.0190

9540 % Moisture 70.7 % 0.0100

Container Preservation Status at Sample Login

@G-8OZF Glass 8 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Laboratory (DEPLAB) and has been approved for release.

Original report is on file at DEPLAB

Report Format: DESFinal Michael Goss, Laboratory Technical Director





CHARLES G. SNAVELY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

FLAG

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Wednesday, April 10, 2019

Lab Sample Number: AQ01345 Station/Project ID:

To: Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 Program Code: A20

ATTN: Melanie Arnold

County: Mercer

AKGWA:
Facility:

 Collected By:
 Rodney Pierce
 Date:
 07/18/2018
 Time:
 21:00

 Delivered By:
 Rodney Pierce
 Date:
 03/29/2019
 Time:
 10:20

 Received By:
 Jennifer Clark
 Date:
 03/29/2019
 Time:
 10:20

Sample Matrix: FISH-WHOLE Collection Method: Grab

Sample Description: DOW04030019 Herrington M salmoides **Sample Type:** Field Sample

Sample ID: FT18-125 Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>
<u>RESULT UNIT LOQ LOD</u>

\$3130T_SECAL 7782-49-2 Selenium 3.06 mg/Kg DW 0.0490 0.0196

9540 % Moisture 70.5 % 0.0100

Container Preservation Status at Sample Login

@G-8OZF Glass 8 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Laboratory (DEPLAB) and has been approved for release.

Original report is on file at DEPLAB

Report Format: DESFinal Michael Goss, Laboratory Technical Director





CHARLES G. SNAVELY SECRETARY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Wednesday, April 10, 2019

Lab Sample Number: AQ01346 **Station/Project ID:**

Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold **AKGWA: County:** Mercer **Facility:**

Collected By: Rodney Pierce **Date:** 07/18/2018 **Time:** 21:00 **Delivered By:** Rodney Pierce **Date:** 03/29/2019 Time: 10:20 **Received By:** Jennifer Clark **Date:** 03/29/2019 Time: 10:20

Sample Matrix: FISH-WHOLE **Collection Method:**

Sample Description: DOW04030019 Herrington M salmoides Sample Type: Field Sample

Sample ID: FT18-126 **Container ID:**

Shipment Temp: 0C REPORT OF ANALYSIS

LAB ACODE **CAS NUM CONSTITUENTS RESULT UNIT** LOQ LOD **FLAG**

\$3130T SECAL 7782-49-2 Selenium 2.33 mg/Kg DW 0.0488 0.0195

9540 % Moisture 69.8 % 0.0100

Container Preservation Status at Sample Login

@G-8OZF Glass 8 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

This report has been prepared and reviewed by personnel within the Department for Environmental Protection Laboratory (DEPLAB) and has been approved for release.

Original report is on file at DEPLAB

Michael Goss, Laboratory Technical Director Report Format: DESFinal





CHARLES G. SNAVELY

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON COMMISSIONER

100 SOWER BOULEVARD, STE. 104 FRANKFORT, KENTUCKY 40601

Wednesday, April 10, 2019

Lab Sample Number: AQ01347 Station/Project ID:

To: Division of Water **Re:** Fish Tissue Monitoring

300 Sower Blvd

Frankfort, KY 40601 **Program Code:** A20

ATTN: Melanie Arnold

County: Mercer

AKGWA:
Facility:

 Collected By:
 Rodney Pierce
 Date:
 07/18/2018
 Time:
 21:00

 Delivered By:
 Rodney Pierce
 Date:
 03/29/2019
 Time:
 10:20

 Received By:
 Jennifer Clark
 Date:
 03/29/2019
 Time:
 10:20

Sample Matrix: FISH-WHOLE Collection Method: Grab

Sample Description: DOW04030019 Herrington M salmoides **Sample Type:** Field Sample

Sample ID: FT18-128 Container ID:

REPORT OF ANALYSIS Shipment Temp: 0C

<u>LAB ACODE CAS NUM CONSTITUENTS</u>

<u>RESULT UNIT LOQ LOD FLAG</u>

\$3130T_SECAL 7782-49-2 Selenium 3.19 mg/Kg DW 0.0480 0.0192

9540 % Moisture 70.2 % 0.0100

Container Preservation Status at Sample Login

@G-80ZF Glass 8 oz widemouth jar -frozen pH not tested

Unit Description

DW = Analyzed on a Dry Weight Basis

Case Narrative

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Laboratory (DEPLAB) and has been approved for release.

Original report is on file at DEPLAB

Report Format: DESFinal Michael Goss, Laboratory Technical Director

