CRAWFORD HYDROLOGY LAB * CENTER FOR CAVE AND KARST STUDIES

Western Kentucky University

* *Hydrogeologists, Geologists, Environmental Scientists* *

* *Karst Groundwater Investigations* * *Fluorescent Dye Analysis*

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LABORATORY REPORT SHEET

FLUORIMETRIC ANALYSIS RESULTS

Harley Davidson

Analysis requested by:

Jennifer Reese - GSC

TINOPAL CBS-X	FLUORESCEIN	EOSINE	D&C RED #28	RHODAMINE WT	SULPHORHODAMINE B
Fabric Brightening Agent 351	Color Index: Acid Yellow 73	Color Index: Acid Red 87	Color Index: Acid Red 92	Color Index:	Color Index: Acid Red 52
Dye Receptor: Activated Charcoal	Dye Receptor: Activated Charcoal	Dye Receptor: Activated Charcoal	Dye Receptor: Activated Charcoal	Dye Receptor: Activated Charcoal	Dye Receptor: Activated Charcoal
Analysis by: Spectrofluorophotometer	Analysis by: Spectrofluorophotometer	Analysis by: Spectrofluorophotometer	Analysis by: Spectrofluorophotometer	Analysis by: Spectrofluorophotometer	Analysis by: Spectrofluorophotometer

MATRIX SAMPLES

						TINOPAL CBS-X			FLUORESCEIN			EOSINE			D&C RED #28			RHODAMINE WT			SULPHORHODAMINE B			
						PQL in Eluent: 0.100 ppb			PQL in Eluent: 0.005 ppb			PQL in Eluent: 0.005 ppb			PQL in Eluent: 0.005 ppb			PQL in Eluent: 0.005 ppb			PQL in Eluent: 0.005 ppb			
						PQL in Water: 0.100 ppb			PQL in Water: 0.010 ppb			PQL in Water: 0.010 ppb			PQL in Water: 0.010 ppb			PQL in Water: 0.010 ppb			PQL in Water: 0.010 ppb			
						λ in Eluent: 396.0 nm			λ in Eluent: 516.1 nm			λ in Eluent: 540.2 nm			λ in Eluent: 564.2 nm			λ in Eluent: 567.5 nm			λ in Eluent: 577.1 nm			
						λ in Water: 395.4 nm			λ in Water: 510.0 nm			λ in Water: 534.9 nm			λ in Water: 556.6 nm			λ in Water: 574.7 nm			λ in Water: 581.9 nm			
Lab ID	Event	Date Collected	Feature Name	TIME	Peakfit	Results	Conc in ppb	Peak Center (nm)	Results	Conc in ppb	Peak Center (nm)	Results	Conc in ppb	Peak Center (nm)	Results	Conc in ppb	Peak Center (nm)	Results	Conc in ppb	Peak Center (nm)	Results	Conc in ppb	Peak Center (nm)	Comments
Eluent-1			QA-ELUENT			ND			ND			ND			ND			ND			ND			CONTROL
EL-OB-1			QA-TINOPAL CBS-X			+	0.080		ND			ND			ND			ND			ND			.1ppb
EL-OB-1a			QA-TINOPAL CBS-X			+	0.959		ND			ND			ND			ND			ND			1ppb
EL-FL-1			QA-FLUORESCEIN			ND			+	0.005		ND			ND			ND			ND			0.005PPB
EL-FL-1a			QA-FLUORESCEIN			ND			+	0.108		ND			ND			ND			ND			.1 ppb
EL-EO-1			QA-EOSINE			ND			ND			+	0.005		ND			ND			ND			0.005PPB
EL-EO-1a			QA-EOSINE			ND			ND			+	0.094		ND			ND			ND			.1 ppb
EL-R3-1			QA-RED 3			ND			ND			ND			+	0.006		ND			ND			0.005PPB
EL-R3-1a			QA-RED 3			ND			ND			ND			+	0.105		ND			ND			.1 ppb
EL-R28-1			QA-D&C RED #28			ND			ND			ND			ND			+	0.005		ND			0.005PPB
EL-R28-1a			QA-D&C RED #28			ND			ND			ND			ND			+	0.098		ND			.1 ppb
EL-SRB-1			QA-SULPHORHODAMINE B			ND			ND			ND			ND			ND			+	0.007		0.005PPB
EL-SRB-1a			QA-SULPHORHODAMINE B			ND			ND			ND			ND			ND			+	0.092		.1 ppb
EL-001-0	BG1	10/31/13	HDMW22	1530		ND			B	0.030	510.4,POR	ND			IB	0.030	563.0	IB	0.037	568.4	ND			R28 OR RWT, PEAKS WITHIN 5NM
EL-001-Q	BG1	10/31/13	HDMW22	1530		ND			B	0.035	509.0,POR	ND			IB	0.045	566.2	IB	0.056	566.2	ND	0.012	NPI	R28 OR RWT, PEAKS WITHIN 5NM/LAB DUPLICATE
WL-002-0	BG1	10/31/13	HDMW92	1000		ND			ND			ND			IB	0.040	564.2	IB	0.046	564.2	ND			R28 OR RWT, PEAKS WITHIN 5NM
ELUENT-2			QA-ELUENT			ND			ND			ND			ND			ND			ND			DI Water
EL-OB-2			QA-TINOPAL CBS-X			+	0.083		ND			ND			ND			ND			ND			.1ppb
EL-OB-2a			QA-TINOPAL CBS-X			+	0.962		ND			ND			ND			ND			ND			1ppb
EL-FL-2			QA-FLUORESCEIN			ND			+	0.005		ND			ND			ND			ND			.01 ppb
EL-FL-2a			QA-FLUORESCEIN			ND			+	0.106		ND			ND			ND			ND			.1 ppb
EL-EO-2			QA-EOSINE			ND			ND			+	0.003		ND			ND			ND			.01ppb
EL-EO-2a			QA-EOSINE			ND			ND			+	0.095		ND			ND			ND			.1ppb
EL-R3-2			QA-RED 3			ND			ND			ND			+	0.006		ND			ND			.1PPB
EL-R3-a			QA-RED 3			ND			ND			ND			+	0.104		ND			ND			1PPB
EL-R28-2a			QA-D&C RED #28			ND			ND			ND			ND			+	0.003		ND			.01ppb
EL-R28-2			QA-D&C RED #28			ND			ND			ND			ND			+	0.101		ND			.1ppb
EL-SRB-2			QA-SULPHORHODAMINE B			ND			ND			ND			ND			ND			+	0.007		.01ppb
EL-SRB-2a			QA-SULPHORHODAMINE B			ND			ND			ND			ND			ND			+	0.091		.1ppb

Analyzed by: L. Osterhoudt **on** 11/07/13

Entered by: L.Bledsoe **on** 11/11/13

Comments:

DUP = Field Duplicate | NS = No Sample Recovered | Q = Lab Duplicate | IB = Initial Background

B = Background | GS = Grab Sample | + = Positive | ?+ = Questionable Positive, needs two hits in a row to equal +

ND Below Quantitation Limit

B Background

NS No Sample

\+ Positive

++ Very Positive

+++ Extremely Positive

Created 6/11/2015

						MATRIX SAMPLES																	
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ND = No Detection **NPI = No Peak Identified** **POR = Peak Out of Range**

ND Below Quantitation Limit
B Background
NS No Sample

\+ Positive
++ Very Positive
+++ Extremely Positive

Created 6/11/2015

ND Below Quantitation Limit
B Background
NS No Sample

\+ Positive
++ Very Positive
+++ Extremely Positive

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B Background
NS No Sample

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