MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

**MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY**

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

23 November 2020

Work Order: 2011136

Price: $260.00

Dan Hamel
EGLE-RRD-JACKSON
301 E. Louis Glick Highway
Jackson, MI 49201-1556

RE: GELMAN SCIENCES, INC

This is the official environmental laboratory report for testing conducted by the Michigan Department of Environment, Great Lakes, and Energy. Analyses performed by the laboratory were conducted using methods published by the U.S. Environmental Protection Agency, Standard Methods for the Examination of Water and Wastewater, ASTM, or other published or approved reference methods.

Kirby Shane
Laboratory Director

part 201, dioxin, dioxane, rr

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EGLE-RRD-JACKSON	Project: GELMAN SCIENCES, INC	
301 E. Louis Glick Highway	Site Code: 81000018	**Reported:**
Jackson MI, 49201-1556	Project Manager: Dan Hamel	11/23/2020

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
MW-103s	2011136-01	Water	11/12/2020	11/13/2020	
MW-103s dup	2011136-02	Water	11/12/2020	11/13/2020	

Notes and Definitions

ND	Indicates compound analyzed for but not detected at or above the reporting limit (RL).
RL	Reporting Limit
NA	Not Applicable

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Client ID: MW-103s

Lab ID: 2011136-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Dioxane									
123-91-1	**1,4-dioxane**	**85**	5.0	ug/L	5	11/17/20	B0K1712	8260 Modified	

Lab Work Order # 2011136

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Client ID: MW-103s dup

Lab ID: 2011136-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Dioxane									
123-91-1	**1,4-dioxane**	**92**	5.0	ug/L	5	11/17/20	B0K1712	8260 Modified	

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Organics-Dioxane - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B0K1712 - Method: 5030				**Prepared: 11/17/2020**							
Blank (B0K1712-BLK1)											
1,4-dioxane	ND	1.0	ug/L							11/17/2020	
LCS (B0K1712-BS1)											
1,4-dioxane	9.92	1.0	ug/L	10.00		99.2	70-130			11/17/2020	
Matrix Spike (B0K1712-MS1)	**Source: 2011136-01**										
1,4-dioxane	129	5.0	ug/L	50.00	84.6	89.5	70-130			11/17/2020	
Matrix Spike Dup (B0K1712-MSD1)	**Source: 2011136-01**										
1,4-dioxane	143	5.0	ug/L	50.00	84.6	117	70-130	10.3	30	11/17/2020	

Department of Environment, Great Lakes, and Energy
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
211136	Gelman Sciences	WATER

Location ID	Program	CC Email 1	Project TAT Days	Sample Collector
81000018/Location 6130				Dan Hamel
Dept-Division-District	**Activity**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
EGLE-RRD-Jackson				(517) 745-6595
	Funding Source	**CC Email 3**		**Contract Firm**
State Project Manager				
Dan Hamel			**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
State Project Manager Email	**Location Code**	**Overflow Lab Choice 1**		
hameld@michigan.gov	6130			**Primary Contact Phone**
State Project Manager Phone	**SUD Location Code**	**Overflow Lab Choice 2**		
(517) 745-6595				

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1	01	MW-103S	11/12/20	1416	2	Please include QA/QC with lab Data Reports
2	02	MW-103S dup	11/12/20	1416	2	↓ ↓
3						
4						
5						
6						
7						
8						
9						
10						

ORGANIC CHEMISTRY

	1	2	3	4	5	6	7	8	9	10
VOA - Volatile Organic Acidic										
Volatiles - Full List										
BTEX/MTBE/TMB only										
Chlorinated only										
GRO										
1,4 Dioxane	(1)	(2)								
METH - Methane, Ethane, Ethene										
Methane, Ethane, Ethene										
ON - Pesticides, PCBs										
Pesticides & PCBs										
Pesticides only										
PCBs only										
Toxaphene										
Chlordane										
BNA - Base Neutral Acids										
BNAs										
Benzidines										
PNAs only										
BNs only										
Acids only										
Organic Specialty Requests										
Library search - Volatiles										
Library search - SemiVols										
Finger Print										
DRO / ORO										
METALS CHEMISTRY PACKAGES										
OpMemo2 - Total										
OpMemo2 - Dissolved										
(Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Tl,V,Zn)										
Michigan10 - Total										
Michigan10 - Dissolved										
(As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)										

MAD - DISSOLVED METALS

	1	2	3	4	5	6	7	8	9	10
Diss - Silver - Ag										
Diss - Aluminum - Al										
Diss - Arsenic - As										
Diss - Boron - B										
Diss - Barium - Ba										
Diss - Beryllium - Be										
Diss - Cadmium - Cd										
Diss - Cobalt - Co										
Diss - Chromium - Cr										
Diss - Copper - Cu										
Diss - Iron - Fe										
Diss - Mercury - Hg										
Diss - Lithium - Li										
Diss - Manganese - Mn										
Diss - Molybdenum - Mo										
Diss - Nickel - Ni										
Diss - Lead - Pb										
Diss - Antimony - Sb										
Diss - Selenium - Se										
Diss - Strontium - Sr										
Diss - Titanium - Ti										
Diss - Thallium - Tl										
Diss - Uranium - U										
Diss - Vanadium - V										
Diss - Zinc - Zn										
Diss - Calcium - Ca										
Diss - Potassium - K										
Diss - Magnesium - Mg										
Diss - Sodium - Na										
Diss - Hardness - Ca, Mg										
MD - Metals Dissolved										
Lab Filtration										

MA - TOTAL METALS

	1	2	3	4	5	6	7	8	9	10
Silver - Ag										
Aluminum - Al										
Arsenic - As										
Boron - B										
Barium - Ba										
Beryllium - Be										
Cadmium - Cd										
Cobalt - Co										
Chromium - Cr										
Copper - Cu										
Iron - Fe										
Mercury - Hg										
Lithium - Li										
Manganese - Mn										
Molybdenum - Mo										
Nickel - Ni										
Lead - Pb										
Antimony - Sb										
Selenium - Se										
Strontium - Sr										
Titanium - Ti										
Thallium - Ti										
Uranium - U										
Vanadium - V										
Zinc - Zn										
Calcium - Ca										
Potassium - K										
Magnesium - Mg										
Sodium - Na										
Hardness - Ca, Mg										
LHG - Low Level Mercury										
Mercury Low Level - Hg										

GENERAL CHEMISTRY

		1	2	3	4	5	6	7	8	9	10
GB	Total Cyanide - CN										
GCN	Available Cyanide - CN (Amenable / Weak Acid Dissociable)										
CA	Chlorophyll										
GN	Ortho Phosphate - OP										
GN	Diss Ortho Phosphate - *FF										
GN	Nitrite - NO_2										
GN	Nitrate - NO_3 (Calc.)										
GN	Suspended Solids - SS										
GN	Dissolved Solids - TDS										
MN	Diss Solids - TDS (Calc.)										
GN	Turbidity										
MN	Total Alkalinity										
MN	Bicarb/Carb Alkalinity (Includes Total Alkalinity)										
MN	Chloride - Cl										
MN	Fluoride - F										
MN	Sulfate - SO4										
MN	Diss Chromium 6 - *FF										
MN	Conductivity										
MN	pH										
GA	Chem Oxyg Dem - COD										
GA	Diss Org Carbon - DOC-*FF										
GN	Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved)										
GA	Total Org Carbon - TOC										
GA	Ammonia - NH3										
GA	Nitrate+Nitrite - NO3+NO2										
GA	Kjeldahl Nitrogen - KN										
GA	Total Phosphorus - TP										

* (FF)-Field Filtered

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	DAN HAMEL EGLE-RRD	Lab bay	
Signature:	Dan Hamel		
Print Name & Org.	Lab bay	Melissa Smith	11/13/20 1505
Signature:			
Print Name & Org.			
Signature:			