# PREPARED FOR

Attn: Mr. Brian Peters Heraeus Precious Metals North AmericaLLC 1975 Knoxville Highway Wartburg, Tennessee 37887

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# JOB DESCRIPTION

Sewer Discharge Permit

# **JOB NUMBER**

680-244320-1

Eurofins Savannah 5102 LaRoche Avenue Savannah GA 31404

# **Eurofins Savannah**

#### **Job Notes**

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# **Authorization**

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Authorized for release by Sheila Hoffman, Project Manager II Sheila.Hoffman@et.eurofinsus.com (912)250-0279

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# **Sample Summary**

Client: Heraeus Precious Metals North AmericaLLC

Project/Site: Sewer Discharge Permit

Job ID: 680-244320-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-244320-1	Dec Monthly	Water	12/12/23 08:00	12/13/23 10:15
680-244320-2	Dec Monthly	Water	12/12/23 08:00	12/13/23 10:15

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# **Method Summary**

Client: Heraeus Precious Metals North AmericaLLC

Project/Site: Sewer Discharge Permit

Job ID: 680-244320-1

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	EET SAV
200.8-1994 R5.4	Metals (ICP/MS)	EPA	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SL
335.4	Cyanide, Total	EPA	EET SAV
350.1	Nitrogen, Ammonia	EPA	EET SAV
SM 4500 H+ B	рН	SM	EET SAV
200.7-1994 R4.4	Preparation, Total Recoverable Metals	EPA	EET SAV
200.8-1994 R5.4	Preparation, Total Recoverable Metals	EPA	EET SAV
3010A	Preparation, Total Metals	SW846	EET SL
Distill/CN	Distillation, Cyanide	None	EET SAV

#### **Protocol References:**

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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#### **Definitions/Glossary**

Client: Heraeus Precious Metals North AmericaLLC

Job ID: 680-244320-1 Project/Site: Sewer Discharge Permit

#### **Qualifiers**

М	e	ta	ls
••••	•	•••	•

Qualifier **Qualifier Description** Ε Result exceeded calibration range. Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **General Chemistry**

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### Glossarv

LOQ

MCL

MDA

Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)

Minimum Detectable Concentration (Radiochemistry) MDC MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level"

Minimum Detectable Activity (Radiochemistry)

NEG Negative / Absent POS Positive / Present **PQL** Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

**RPD** Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF **TEQ** Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: Heraeus Precious Metals North AmericaLLC

Project: Sewer Discharge Permit

Job ID: 680-244320-1 Eurofins Savannah

Job Narrative 680-244320-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

#### Receipt

The samples were received on 12/13/2023 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.9°C

#### Metals

Method 6020A: The following sample was diluted due to the nature of the sample matrix: Dec Monthly (680-244320-1). Elevated reporting limits (RLs) are provided. 160-641450

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### **General Chemistry**

Method 335.4: Sample tested positive for nitrate/nitrite prior to analysis. Sulfamic acid was added to 25ml of sample.

Dec Monthly (680-244320-2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Job ID: 680-244320-1

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# **Client Sample Results**

Client: Heraeus Precious Metals North AmericaLLC

Project/Site: Sewer Discharge Permit

**Client Sample ID: Dec Monthly** 

Lab Sample ID: 680-244320-1

Date Collected: 12/12/23 08:00 Matrix: Water

Date Received: 12/13/23 10:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	9200		500	170	ug/L		12/14/23 08:13	12/14/23 18:58	1
Iron	53	J	100	20	ug/L		12/14/23 08:13	12/14/23 18:58	1
Potassium	120000		100000	6700	ug/L		12/14/23 08:13	12/15/23 11:39	100
Sodium	8800000		200000	48000	ug/L		12/14/23 08:13	12/15/23 11:39	100

Method: EPA 200.8-1994 R5.4 - Metals (ICP/MS) - Total Recoverable									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	510		5.0	0.90	ug/L		12/14/23 08:13	12/15/23 14:25	1
Magnesium	39000		250	23	ug/L		12/14/23 08:13	12/15/23 14:25	1
Zinc	65		20	10	ug/L		12/14/23 08:13	12/15/23 14:25	1

Method: SW846 6020A -	Method: SW846 6020A - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Palladium	75		5.0	0.26	ug/L		12/19/23 11:54	12/20/23 12:05	10	
Platinum	29		10	0.37	ug/L		12/19/23 11:54	12/20/23 12:05	10	
Gold	<8.6		50	8.6	ug/L		12/19/23 11:54	12/20/23 12:05	10	
_										

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.39		0.25	0.10	mg/L			12/14/23 12:27	1

**Client Sample ID: Dec Monthly** Lab Sample ID: 680-244320-2 Date Collected: 12/12/23 08:00 Matrix: Water

Date Received: 12/13/23 10:15

General Chemistry									
Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	8.8	HF			S.U.			12/18/23 12:27	1
Temperature (SM 4500 H+ B)	16.7	HF			Degrees C			12/18/23 12:27	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (EPA 335.4)	0.0061	J	0.020	0.0030	mg/L		12/18/23 07:53	12/18/23 11:55	1

12/20/2023

Job ID: 680-244320-1

Client: Heraeus Precious Metals North AmericaLLC

Project/Site: Sewer Discharge Permit

Job ID: 680-244320-1

### Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 680-813324/1-A

**Matrix: Water** 

Analysis Batch: 813652

Client Sample ID: Method Blank **Prep Type: Total Recoverable** 

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total Recoverable** 

Prep Batch: 813324

**Prep Batch: 813324** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<170		500	170	ug/L		12/14/23 08:13	12/14/23 18:14	1
Iron	<20		100	20	ug/L		12/14/23 08:13	12/14/23 18:14	1
Potassium	<67		1000	67	ug/L		12/14/23 08:13	12/14/23 18:14	1
Sodium	<480		2000	480	ug/L		12/14/23 08:13	12/14/23 18:14	1

Lab Sample ID: LCS 680-813324/2-A

**Matrix: Water** 

Analysis Batch: 813652

LCS LCS Spike

%Rec Added Result Qualifier Limits Analyte Unit %Rec Calcium 5000 96 85 - 115 4810 ug/L Iron 4990 4850 ug/L 97 85 - 115 7000 Potassium 6830 ug/L 98 85 - 115 5030 4420 85 - 115 Sodium ug/L 88

#### Method: 200.8-1994 R5.4 - Metals (ICP/MS)

Lab Sample ID: MB 680-813327/1-A

**Matrix: Water** 

Analysis Batch: 813816

Client Sample ID: Method Blank **Prep Type: Total Recoverable** Prep Batch: 813327 мв мв

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	<0.90		5.0	0.90	ug/L		12/14/23 08:13	12/15/23 14:01	1
Magnesium	<23		250	23	ug/L		12/14/23 08:13	12/15/23 14:01	1
Zinc	<10		20	10	ug/L		12/14/23 08:13	12/15/23 14:01	1

Lab Sample ID: LCS 680-813327/2-A

**Matrix: Water** 

Analysis Batch: 813816

**Client Sample ID: Lab Control Sample Prep Type: Total Recoverable** Prep Batch: 813327

	<b>Spike</b>	LCS	LCS			%Rec	
Analyte	Added	Result	Qualifier Un	it D	%Rec	Limits	
Copper	101	106	ug/	L	105	85 - 115	
Magnesium	5000	4870	ug/	L	97	85 - 115	
Zinc	50.5	56.1	ug/	L	111	85 - 115	

#### Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 160-641450/1-A

**Matrix: Water** 

Analysis Batch: 641664

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 641450** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Palladium	<0.026		0.50	0.026	ug/L		12/19/23 11:54	12/20/23 11:58	2
Platinum	<0.037		1.0	0.037	ug/L		12/19/23 11:54	12/20/23 11:58	2
Gold	<0.86		5.0	0.86	ua/L		12/19/23 11:54	12/20/23 11:58	2

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Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 160-641450/2-A **Client Sample ID: Lab Control Sample** 

**Matrix: Water** 

Analysis Batch: 641664

Prep Type: Total/NA Prep Batch: 641450

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Palladium	10.0	9.84		ug/L		98	59 - 120
Platinum	100	97.1	E	ug/L		97	80 - 120
Gold	100	67.5		ug/L		68	56 - 120

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 680-813937/12-A Client Sample ID: Method Blank

**Matrix: Water** 

Analysis Batch: 814059

Prep Type: Total/NA

**Prep Batch: 813937** 

MB MB Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Cyanide, Total <0.0030 0.020 0.0030 mg/L 12/18/23 07:53 12/18/23 11:48

Lab Sample ID: LCS 680-813937/13-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 814059

%Rec

**Prep Batch: 813937** 

Spike LCS LCS Result Qualifier Analyte Added Limits Unit %Rec Cyanide, Total 0.0500 0.0489 mg/L 98 90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-813478/73 Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 813478

MB MB

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.10	0.25	0.10	mg/L			12/14/23 13:29	1

Lab Sample ID: LCS 680-813478/72 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 813478

		Spike	LCS	LCS			%Rec	
	Analyte	Added	Result	Qualifier	Unit D	%Rec	Limits	
l	Ammonia	1.00	1.05		mg/L	105	90 - 110	

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 680-814063/1 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 814063

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
pH	7.01	7.1		S.U.		101	63 - 158	 

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# **QC Association Summary**

Client: Heraeus Precious Metals North AmericaLLC

Project/Site: Sewer Discharge Permit

Job ID: 680-244320-1

#### **Metals**

#### **Prep Batch: 641450**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-244320-1	Dec Monthly	Total/NA	Water	3010A	
MB 160-641450/1-A	Method Blank	Total/NA	Water	3010A	
LCS 160-641450/2-A	Lab Control Sample	Total/NA	Water	3010A	

#### Analysis Batch: 641664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-244320-1	Dec Monthly	Total/NA	Water	6020A	641450
MB 160-641450/1-A	Method Blank	Total/NA	Water	6020A	641450
LCS 160-641450/2-A	Lab Control Sample	Total/NA	Water	6020A	641450

#### Prep Batch: 813324

<b>Lab Sample ID</b> 680-244320-1	Client Sample ID  Dec Monthly	Prep Type  Total Recoverable	Matrix Water	Method 200.7-1994 R4.4	Prep Batch
MB 680-813324/1-A	Method Blank	Total Recoverable	Water	200.7-1994 R4.4	
LCS 680-813324/2-A	Lab Control Sample	Total Recoverable	Water	200.7-1994 R4.4	

#### **Prep Batch: 813327**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-244320-1	Dec Monthly	Total Recoverable	Water	200.7-1994 R4.4	
MB 680-813327/1-A	Method Blank	Total Recoverable	Water	200.7-1994 R4.4	
LCS 680-813327/2-A	Lab Control Sample	Total Recoverable	Water	200.7-1994 R4.4	

#### Analysis Batch: 813652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-244320-1	Dec Monthly	Total Recoverable	Water	200.7 Rev 4.4	813324
MB 680-813324/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	813324
LCS 680-813324/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	813324

#### Analysis Batch: 813751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-244320-1	Dec Monthly	Total Recoverable	Water	200.7 Rev 4.4	813324

#### Analysis Batch: 813816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-244320-1	Dec Monthly	Total Recoverable	Water	200.8-1994 R5.4	813327
MB 680-813327/1-A	Method Blank	Total Recoverable	Water	200.8-1994 R5.4	813327
LCS 680-813327/2-A	Lab Control Sample	Total Recoverable	Water	200.8-1994 R5.4	813327

#### **General Chemistry**

#### Analysis Batch: 813478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-244320-1	Dec Monthly	Total/NA	Water	350.1	
MB 680-813478/73	Method Blank	Total/NA	Water	350.1	
LCS 680-813478/72	Lab Control Sample	Total/NA	Water	350.1	

#### Prep Batch: 813937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-244320-2	Dec Monthly	Total/NA	Water	Distill/CN	
MB 680-813937/12-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 680-813937/13-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Eurofins Savannah

# **QC Association Summary**

Client: Heraeus Precious Metals North AmericaLLC

Project/Site: Sewer Discharge Permit

Job ID: 680-244320-1

# **General Chemistry**

#### Analysis Batch: 814059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-244320-2	Dec Monthly	Total/NA	Water	335.4	813937
MB 680-813937/12-A	Method Blank	Total/NA	Water	335.4	813937
LCS 680-813937/13-A	Lab Control Sample	Total/NA	Water	335.4	813937

#### Analysis Batch: 814063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-244320-2	Dec Monthly	Total/NA	Water	SM 4500 H+ B	
LCS 680-814063/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

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#### **Lab Chronicle**

Client: Heraeus Precious Metals North AmericaLLC

Project/Site: Sewer Discharge Permit

**Client Sample ID: Dec Monthly** 

Date Collected: 12/12/23 08:00

Date Received: 12/13/23 10:15

Lab Sample ID: 680-244320-1

Joannpie 15. 000-244320-1

Matrix: Water

Job ID: 680-244320-1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7-1994 R4.4			25 mL	25 mL	813324	12/14/23 08:13	RR	EET SAV
Total Recoverable	Analysis Instrume	200.7 Rev 4.4 ent ID: ICPH		1			813652	12/14/23 18:58	BJB	EET SAV
Total Recoverable	Prep	200.7-1994 R4.4			25 mL	25 mL	813324	12/14/23 08:13	RR	EET SAV
Total Recoverable	Analysis Instrume	200.7 Rev 4.4 ent ID: ICPH		100			813751	12/15/23 11:39	BJB	EET SAV
Total Recoverable	Prep	200.7-1994 R4.4			25 mL	125 mL	813327	12/14/23 08:13	RR	EET SAV
Total Recoverable	Analysis Instrume	200.8-1994 R5.4 ent ID: ICPMSC		1			813816	12/15/23 14:25	BWR	EET SAV
Total/NA	Prep	3010A			25 mL	50 mL	641450	12/19/23 11:54	LKP	EET SL
Total/NA	Analysis Instrume	6020A ent ID: ICPMS7700		10			641664	12/20/23 12:05	CGB	EET SL
Total/NA	Analysis Instrume	350.1 ent ID: KONELAB1		1	2 mL	2 mL	813478	12/14/23 12:27	TD	EET SAV

**Client Sample ID: Dec Monthly** 

Date Collected: 12/12/23 08:00

Date Received: 12/13/23 10:15

Lab Sample ID: 680-244320-2

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	Distill/CN			6 mL	6 mL	813937	12/18/23 07:53	JAS	EET SAV
Total/NA	Analysis	335.4		1			814059	12/18/23 11:55	JAS	EET SAV
	Instrume	nt ID: KONELAB4								
Total/NA	Analysis	SM 4500 H+ B		1			814063	12/18/23 12:27	PG	EET SAV
	Instrume	nt ID: MANTECH 2								

#### Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

**Eurofins Savannah** 

#### **Eurofins Savannah**

5102 LaRoche Avenue

Savannah, GA 31404

Chain of Custody Record

	eurofins	
-	euromis	

Environment Testing

ent Information	Sampler:	in .	rete	Lab F Hoff	м: man, S	Sheila	В					Carrier T	racking	INO(S):		13	COC No: 680-149861-3436	61.1
t Contact: Brian Peters	Phone: 473	- 346	-1049	3 E-Ma She	il: ila.Hof	fman(	@et.e	eurofir	nsus	com	ā	State of (	Origin:				Page: Page 1 of 1	
pany:	1 / 47	210	PWSID:	/			<u>@</u> 0										Job #:	
aeus Precious Metals North AmericaLLC	In., no., no.								An	alysi	s Req	ueste	d		-		D	
ess: 5 Knoxville Highway	Due Date Request	ea:			18												Preservation Code	es: M - Hexane
	TAT Requested (d	ays):			100												A - HCL B - NaOH	N - None O - AsNaO2
ourg Zip:					- 13	<u>ه</u>					1					1	C - Zn Acetate D - Nitric Acid	P - Na2O4S
7887	Compliance Project	ct: A Yes	A No		100	St, Louis)										13	E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2O3
46-1049(Tel)	PO #: 4000709404((V	/M/T Sample	es Only)					1	-								G - Amchlor	S - H2SO4 T - TSP Dodecahydrat
10-10-10-10-10-10-10-10-10-10-10-10-10-1	WO#:	VV. Campi	3 Only /		2	PalladiumTA	l										I - Ice	U - Acetone V - MCAA
peters@heraeus.com					Yes or	ladi										STS	J - DI Water K - EDTA	W - pH 4-5
Name: Discharge Permit - Monthly	Project #: 68010396					& Pa				1						containers	L - EDA	Y - Trizma Z - other (specify)
- Δ ( )	SSOW#:		-		ered Sample ( MS/MSD (Yes	plog		200.8_CWA	Total								Other:	
UWT Process Controls					d Sa MSI	- Platinum, Gold	nia	8.00	le, T	핊						Number of		
			Sample	Matrix	AS Fe	lag:	om n	/A, 2	Cyanide,	±						ğ E		
		Sample	Type (C=comp,	(W=water, S=solid,		₹	1-A	1 -1 1	0-1	200						ž		
ole Identification	Sample Date	Time		O=waste/oil, BT≃Tissue, A¤Air)	Field Filt	6020A	350.	200.	335.4	SM4500						Total	Special Ins	structions/Note:
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rable Requested: I, II, III, IV, Other (specify)	roison B Unkr	iown i	Radiological		Sc						irement		By La	В		Arcni	ve ror	Months
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ished by:	Date/Time:			Company		Rece	ived b	y:	20	1	_			Date/Tigh	e:	23	1015	Company
stody Seals Intact: Custody Seal No.:			1 1 1 2	1111		Coole	er Ten	peratur	re(s) °	C and C	Other Rem	arks:		17	2	. (	1/3.9	
Δ Yes Δ No																		

Cooler Temperature(s) °C and Other Remarks

# Chain of Custody Record

Environment Testing

5102 LaRoche Avenue Savannah, GA 31404 Phone: 912-354-7858 Fax: 912-352-0165	Chai	n of Custo	Chain of Custody Record		######################################	💸 eurofins	Environment Testing
Client Information (Sub Contract Lab)	Sampler:		Lab PM Hoffman, Sheila B	Carrie	Carrier Tracking No(s):	COC No 680-758783.1	
Client Contact: Shipping/Receiving	Phone		E-Mail Sheila Hoffman@et eurofinsus.com		State of Origin Tennessee	Page Page 1 of 1	
Company TestAmerica Laboratories, Inc			Accreditations Required (See note) NELAP - Louisiana (All): Sta	Progran	nnessee	Job # 680-244320-1	
Address 13715 Rider Trail North,	Due Date Requested: 12/19/2023	:		Analysis Requested	ted	Preservation Codes	
City Earth City	TAT Requested (days):		English			A - HCL B - NaOH C - Zn Acetate	M - Hexane N - None O - AsNaO2
State, 2/p MO, 63045			L			D - Nitric Acid E - NaHSO4	P - Na2048 Q - Na2SO3 R - Na2S2O3
Phone 314-298-8566(Tel) 314-298-8757(Fax)	# Od		57	-		G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
Email	#OM		(0)				U - Acetone V - MCAA
Project Name. Sewer Discharge Permit	Project #: 68010396		10 28			tainer: L - EDTA L - EDA	vv - pri 4-5 Y - Trizma Z - other (specify)
Site	\$SOW#		SD (Y			ot con	
	Sample	Sample Type (C=comp.	Matrix (W=water S=solid Commonwell Commonwel			o 1edmul/ le	
Sample Identification - Client ID (Lab ID)	Sample Date Time	G=grab)	Fiel				Special Instructions/Note:
	X	Preservation Code:	Code:				V
Dec Monthly (680-244320-1)	12/12/23 08:00		Water			1	
		5					
						588	
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratores. This sample shipment is forwarded under chain-of-custody. If the laboratore does not currently maintain accreditation in the State of Origin listed above for analysis/lests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC	onment Testing Southeast, LLC place for analysis/tests/matrix being analyzi attention immediately. If all requested	s the ownership of methed. The samples must be accreditations are curre	od, analyte & accreditation con shipped back to the Eurofins in to date, return the signed Cl	LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory and analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.	tories. This sample shipm laboratory or other instruc pliance to Eurofins Enviro	ent is forwarded under chain tions will be provided. Any cl iment Testing Southeast, LL	of-custody. If the laboraton nanges to accreditation
Possible Hazard Identification			Sample Dis	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month	sed if samples are r	etained longer than 1	month)
Unconfirmed Deliverable Requested: I. III. IV. Other (specify)	Primary Deliverable Rank	2 ye 2	Special Inst	Special Instructions/OC Beninsmont	Disposal By Lab	Archive For	Months
Empty Kit Relinquished by.	Date		Time	г	Method of Shinment		
Relinquished by	Date/Time	Сол	Company Received by	190	Date/Time:		Company
Relinquished by:		V Co	Company	A Pinat	OEC	15 202300 In	Company
Reinquished by		) 3	Company Received by	by A LLAAL		212 0 1414	Company

Custody Seals Intact: Custody Seal No.

# **Login Sample Receipt Checklist**

Client: Heraeus Precious Metals North AmericaLLC

Job Number: 680-244320-1

Login Number: 244320 List Source: Eurofins Savannah

List Number: 1

**Eurofins Savannah** 

Creator: Stewart, Rendaisha

Creator. Stewart, Remaisma	
Question	Answer Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td>	N/A
The cooler's custody seal, if present, is intact.	True
Sample custody seals, if present, are intact.	True
The cooler or samples do not appear to have been compromised or tampered with.	True
Samples were received on ice.	True
Cooler Temperature is acceptable.	True
Cooler Temperature is recorded.	True
COC is present.	True
COC is filled out in ink and legible.	True
COC is filled out with all pertinent information.	True
Is the Field Sampler's name present on COC?	True
There are no discrepancies between the containers received and the COC.	True
Samples are received within Holding Time (excluding tests with immediate HTs)	True
Sample containers have legible labels.	True
Containers are not broken or leaking.	True
Sample collection date/times are provided.	True
Appropriate sample containers are used.	True
Sample bottles are completely filled.	True
Sample Preservation Verified.	N/A
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A
Multiphasic samples are not present.	True
Samples do not require splitting or compositing.	True
Residual Chlorine Checked.	N/A

12/20/2023

Page 16 of 18

# **Login Sample Receipt Checklist**

Client: Heraeus Precious Metals North AmericaLLC Job Number: 680-244320-1

List Source: Eurofins St. Louis
List Number: 2
List Creation: 12/15/23 12:44 PM

Creator: Pinette, Meadow L

Creator: Pinette, Meadow L					
Question	Answer	Comment			
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True				
The cooler's custody seal, if present, is intact.	True				
Sample custody seals, if present, are intact.	True				
The cooler or samples do not appear to have been compromised or ampered with.	True				
Samples were received on ice.	True				
Cooler Temperature is acceptable.	True				
Cooler Temperature is recorded.	True				
COC is present.	True				
COC is filled out in ink and legible.	True				
COC is filled out with all pertinent information.	True				
s the Field Sampler's name present on COC?	True				
There are no discrepancies between the containers received and the COC.	True				
Samples are received within Holding Time (excluding tests with immediate HTs)	True				
Sample containers have legible labels.	True				
Containers are not broken or leaking.	True				
Sample collection date/times are provided.	True				
Appropriate sample containers are used.	True				
Sample bottles are completely filled.	True				
Sample Preservation Verified.	True				
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True				
Containers requiring zero headspace have no headspace or bubble is <a href="mailto:smm">&lt;6mm (1/4").</a>	True				
Multiphasic samples are not present.	True				
Samples do not require splitting or compositing.	True				
Residual Chlorine Checked.	N/A				

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# **Accreditation/Certification Summary**

Client: Heraeus Precious Metals North AmericaLLC

Project/Site: Sewer Discharge Permit

Job ID: 680-244320-1

#### **Laboratory: Eurofins Savannah**

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Tennessee	State	TN02961	06-30-24

#### **Laboratory: Eurofins St. Louis**

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>
Louisiana (All)	NELAP	04080	06-30-24

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