February 29, 2024

Shawna Burkhart, City Manager
1501 Fifth St.
Bay City, TX 78614
Email: sburkhart@cityofbaycity.org

Re: Summary Report – Site Inspection and Limited Water and Surface Soil Sample Analysis
Agricultural Operation - Swine Farm - Ben Flores Property
2500 Hamman Rd., Bay City, Tx. 77414

Dear Ms. Burkhart:

CRG Texas Environmental Services, Inc. (CRG Texas) is pleased to provide this summary report detailing the findings of a site assessment to evaluate potential impacts associated with the above referenced agricultural operation (subject site). The assessment included the collection of limited soil and water samples and presentation of those samples for analysis. The work was conducted at the request of the City of Bay City, Texas.

Background

The subject site is an agricultural property where both specialty swine and pot belly pigs were being maintained. According to documentation provided to CRG Texas, several violations of state and local laws related to the operations at the property could pose a risk to human health and the environment. The sample collection and laboratory analysis were conducted to screen for common bacteria that may be present in drinking water, surface water, and soil to evaluate potential impacts resulting from the operations at the subject site.

Site Evaluation and Sampling

On February 8, 2024, CRG Texas employee John Hogue conducted a preliminary visual inspection of the subject site and south adjoining properties to see where potential exposure pathways and receptors exist. Mr. Hogue was accompanied by Leigh Brown with the Bay City Fire Marshal's Office. Sample locations were selected for additional assessment activities.

On February 15, 2024, CRG Texas employees Camilo Cardenas and John Hogue returned to collect samples from the project area. The CRG Texas employees were accompanied by Dan Shook, Fire Marshal with the City of Bay City. Mr. Shook facilitated an introduction to Mr. Ben Flores, owner of the 2500 Hamman Property. Mr. Flores accompanied Mr. Cardenas during the sample collection activities on the subject site.

Surface soil samples were collected from the three pig paddock areas on the subject site. The sample locations are illustrated on the attached figure (Figure 1 – Sample Location Map). The samples, designated SS-1, SS-2 and SS-3, were representative of the 0 – 6" soil horizon at each location.

Three additional soil samples were collected from surface drainage conveyances on the south-adjacent property owned by Kimberly Brown and Jason Morrison (Brown-Morrison). Samples SS-4 and SS-5 were collected at the drainage junction from the pig paddocks to the north and the east-west trending drainage swale located along the northern property line of the Brown-Morrison property. Sample SS-6 was collected immediately prior to the surface discharge into Cottonwood Creek which is located west of the subject site.

Two (2) water samples were collected from Cottonwood Creek. Sample WU (water upstream) was collected from an upstream location, southwest of pig paddocks. Sample WD (water downstream) was collected immediately downstream of the surface drainage conveyance discharge point into Cottonwood Creek.

Two (2) water samples were collected from water well / pond sources on the Brown-Morrison property. Sample Well North was collected from the domestic water well servicing the Brown-Morrison property. Sample Well South was a commingled (well and pond water) sample collected from beneath the pond well discharge.

Soil samples were initially collected in discrete re-sealable baggies and later transferred into laboratory supplied containers. Surface water and the south well water samples were collected via grab sampling device and transferred into laboratory supplied containers. The north well water samples were collected directly into laboratory supplied containers. All samples were immediately placed on ice in a cooler then transported under strict chain of custody to the selected analytical laboratories. qPCR samples were shipped via overnight courier to EMSL Analytical North located in Cinnaminson, NJ. The remaining samples were transported to Eurofins Analytical Laboratory in Stafford, TX. Samples offered for bacterial analyses (total and fecal coliform, e-coli), were then transferred from the Eurofins facility to the Envirodyne Laboratory in Houston, TX.

Analytical Results

Swine Bacteroidales

Swine Bacteroidales were reported as "positive qPCR result below Limit of Quantification (LOQ)" in Sample SS-3. Sample SS-3 was collected in the "active" North Paddock area where pigs were present.

Swine Bacteroidales were not detected in the remaining paddock, drainage conveyance or water samples.

Coliform Analyses

e-Coli

e-Coli bacteria were reported in all soil samples at values ranging from 1 to >2,400. E-coli were also reported as "Present" in the two Cottonwood Creek water samples and "Absent" in the 2 water well samples.

Fecal Coliform

Fecal coliforms were reported in soil samples SS-1 through SS-4 at values <1,000. Samples SS-5 and SS-6 contained fecal coliform bacteria at values of 36,000 and >61,000 units, respectively.

Total Coliforms

Total coliforms were reported in all soil samples at values ranging from 10,000 to 6,870,000. Total coliforms were also reported as "Present" in the two Cottonwood Creek water samples and the Well South / Pond water sample.

Metals

Various metals were reported at concentrations exceeding the compound specific laboratory detection limits in both soil and water samples; however, there were no metals detections exceeding compound specific protective concentrations levels (PCLs) or risk-based exposure levels (RBELs) established by the TCEQ (includes soil, surface water and groundwater PCLs).

pH

The laboratory reported pH values ranged from 5.5 to 6.6 in soil and 7 - 7.8 in water. These values are consistent with "normal" soil and water concentrations.

Discussion

Swine-associated PCR-based methods targeting members of the "*Bacteroidales*" order (i.e., *Prevotella* species) and methanogen populations have been proposed as one method to discriminate swine fecal pollution events from other potential fecal contributions (i.e., human, bovine, and wildlife) to environmental media. As no Swine Bacteroidales were detected in samples beyond the active pig paddock, CRG Texas is unable to definitively connect the pig operation to potential off-site migration of the assessed constituents of potential concern.

The presence of Total Coliforms in soil is not unexpected given the largely agricultural nature of the area. These do not necessarily represent a significant health concern as the potential routes of exposure (i.e., ingestion, inhalation, etc.) are incomplete.

In water however, total coliform bacteria is the most common test used to check the sanitary quality of drinking water in private wells and springs. “Coliforms” are a group of bacteria made up of primarily 18 different bacteria. While coliform bacteria are not harmful in most cases, if they are present in your water supply, it is an indicator that other harmful and disease-causing bacteria may have also entered your drinking water supply. The presence of coliform bacteria in water does not guarantee that drinking the water will cause an illness. Rather, their presence indicates that a contamination pathway exists between a source of bacteria (surface water, septic system, animal waste, etc.) and the water supply. Typically, when coliform bacteria are present in a water supply, the supply is classified as unsafe for human consumption without further treatment. Coliform bacteria are present in Cottonwood Creek and the south-adjacent property pond. Consumption of water from either source should be avoided.

E.Coli is one of the members of the Coliform group. It is a fecal bacteria which comes from the intestines of warm-blooded animals. The test shows the difference between E. Coli and other Coliforms. Drinking water is considered to be an “Extreme Health Hazard” when E. Coli is present. If E.Coli and/or disease-causing bacteria are present, the most common symptoms are gastrointestinal upset and general flu-like symptoms such as fever, abdominal cramps, and diarrhea. Symptoms are most likely in children, the elderly or individuals that are immunocompromised. In some cases, household residents acquire immunity to waterborne bacteria that are common in their drinking water. In this case, guests to the home that have not acquired immunity may become ill after drinking the water. Since the symptoms of drinking water with coliform bacteria are common to many human illnesses, knowing that water is the source of the problem is difficult without having the water tested.

The laboratory results for the water samples are reported as Coliform Absent or Coliform Present. Absent means that Coliforms were not present in the sample. Present means that Coliforms were present in the sample. E. Coli Absent or E. Coli Present is also reported. If the sample is Absent for Coliform, it will also be Absent for E. Coli. If Coliforms are present and E. Coli is absent, then the water is considered unsafe and a potential health hazard as in the case of the South Well sample (which was mixed with pond water). When both Coliforms and E. Coli are present, the water is deemed to be an extreme health hazard. The presence of E. Coli bacteria in the soil and Cottonwood Creek samples is not unexpected given the largely agricultural nature of the area. These do not necessarily represent a significant health concern as the potential routes of exposure (i.e., ingestion, inhalation, etc.) are incomplete. E. Coli was not detected in the North or South Well Water samples. The North Well sample was free from both bacterial suites and, as such, is considered of potable quality at this time.

Thank you for the opportunity to provide environmental assessment services for this project.

Respectfully Submitted by,

CRG Texas Environmental Services, Inc.

John I. Hogue, P.G., CHMM, LPST-PM

Attachments
Figure 1 – Sample Location Map
Project Photographs
Summary Analytical Table
Analytical Laboratory Data Packages

Attachments

Figure 1 – Sample Location Map

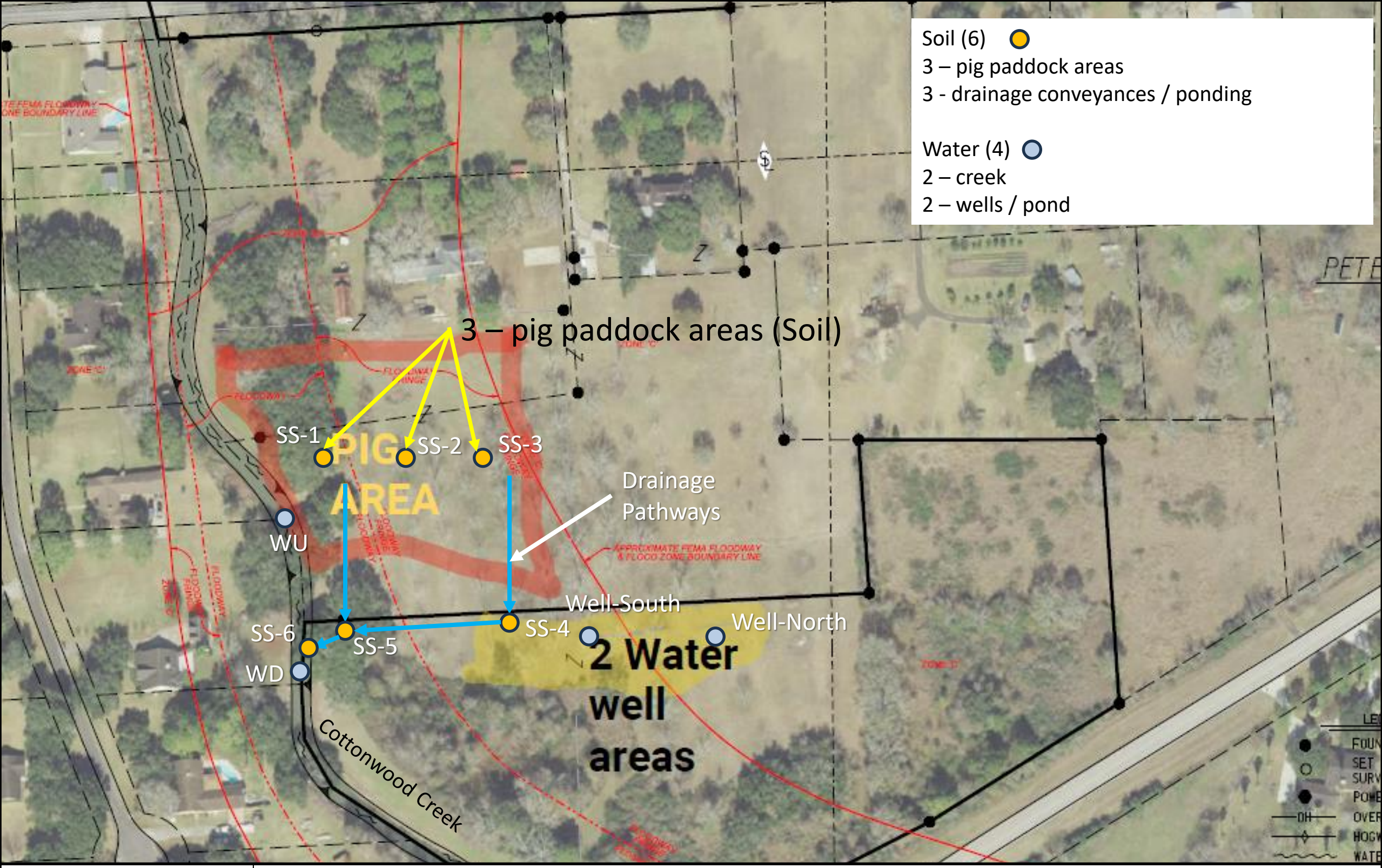

Figure 1- Sample Location Map

Agricultural Operation- Swine Farm- Ben Flores Property
2500 Hamman Rd., Bay City, Tx. 77414

CRG Texas
ENVIRONMENTAL SERVICES

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Project Photographs

Photo No. 1: Sample SS-3 – north paddock

Photo No. 2: : Sample SS-1

Photo No. 3: Sample SS-2 – center paddock

Photo No. 4: Sample SS-1 – south paddock

Photo No. 5: Sample SS-4 – drainage north (south adjacent property, pigs are in background)

Photo No. 6: Sample SS-5 – drainage south (south adjacent property)

Photo No. 7: Sample SS-6 (south adjacent property)

Photo No. 8: Sample WD (water downstream) location

Photo No. 9: Sample WU (water upstream) location.

Photo No. 10: North Well Sample from tap.

Photo No. 11: Well North pump / filter house

Photo No. 12: Well South sample collection at discharge.

Summary Analytical Table

Analytical Summary Table

Site Inspection and Limited Water and Surface Soil Sample Analysis

Agricultural Operation- Swine Farm

2500 Hamman Rd., Bay City, Tx. 77414

		Sample ID	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6		WU	WD		Well North	Well South
		Matrix	Soil	Soil	Soil	Soil	Soil	Soil		Water	Water		Water	Water
Analyte		Sample Location	Paddock South	Paddock Center	Paddock North	Adj. North	Adj. South	Drainage Conv.		Stream-Up	Stream-Down		Adj Well N	Adj Well S
(EMSL)		Lab ID	0581-1	0581-2	0581-3	0581-4	0581-5	0581-6		0581-7	0581-8		0581-9	0581-10
qPCR Bacteriodales		Result	ND	ND	Below LOQ*	ND	ND	ND		ND	ND		ND	ND
(Eurofens/Envirodyne)	**Soil PCLs**		860-68086-1	860-68086-2	860-68086-3	860-68086-4	860-68086-5	860-68086-6	**Surface Water RBELs****	860-68086-7	860-68086-8	**Groundwater PCLs**	860-68086-9	860-68086-10
	$^{Tot}Soil_{Comb}$	**$^{GW}Soil$**										**$^{Gw}Gw_{Ing}$**		
Aluminum	65,000	170,000	5970	9190	5620	4300	5540	4340		0.583	0.265	24	<0.0343 U	0.0441 J
Arsenic	24	5.9	2.06	2.58	2.47	1.93	1.67	1.94	0.01	<0.00918 U	0.0106	0.01	<0.00918 U	<0.00918 U
Calcium	-	-	1140	716	348	648	2540	1640		30.9	33.6	-	19.3	82.1
Copper	1,300	1,000	4.04	4.56	3.33	3.33	5.2	5.51	1.3	<0.00386 U	<0.00386 U	1.3	0.00553 J	<0.00386 U
Iron	-	-	4930	7050	4840	4980	5030	4570		0.555	0.262	-	0.0227 J	0.647
Lead	500	15	16.7	10.2	8.71	8.77	8.15	8.81	0.00115	<0.00420 U	<0.00420 U	0.015	<0.00420 U	<0.00420 U
Manganese	3,900	1,200	201	155	200	544	214	216	0.05	0.0379	0.0186 J	1.10	0.0197 J	0.126
Sodium	-	-	85.8	97.5	58.7	82.2	104	77.5		166	173	-	104	104
Zinc	9,900	2,400	20.4	14.2	7.84	7.8	18.8	28.6	7.4	0.0167 J	0.0117 J	7.3	0.202	<0.0117 U
Mercury	8.30	2.10	0.0343	0.0140 J	0.0146 J	0.0134 J	0.0283	0.0207	0.000122	<0.0000525 U	<0.0000525 U	0.002	<0.0000525 U	<0.0000525 U
pH			6.1	5.5	6.4	5.8	6.1	6.6		7.5	7.8		7.8	7.0
Total Coliforms			10000	670000	180000	500000	250000	6870000		Present	Present		Absent	**Present***
Fecal Coliforms			<1000	<1000	<1000	<1000	36000	>61000						
E. Coli			1	9	4	>2420	816	86		Present	Present		Absent	Absent

Notes:

*Positive qPCR - results below limit of quantification (LOQ)

qPCR - quantitative polymerase chain reactions

* Sample mixed with pond water

$^{Tot}Soil_{Comb}$ Total Soil Combined - All Pathways

$^{GW}Soil$ Soil to Groundwater Transfer Pathway

$^{Gw}Gw_{Ing}$ Groundwater Ingestion Pathway

March 2023 PCL Tables - Soil and Groundwater

**March 2018 Human Health RBELs - Surface Water

PCL - Protective Concentration Level

RBELs - Risk Based Exposure Levels

Analytical Laboratory Data Packages

LYTICAL, INC.
North,
NJ 08077
sl.com | www.emsl.com

EMSL ORDER ID: 612400581
EMSL CUSTOMER ID: CRGT42

Attention: John Hogne
CRG Texas
2504 Avenue I
Rosenberg, TX 77471
(713) 818-2758
Phone: (713) 818-2758
Email:

Customer PO:
LIMS Project ID:
Project ID: City of Bay City - Swine Farm

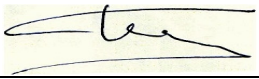
Date Received: 2/16/2024
Date Analyzed: 2/19/2024
Date Reported: 2/21/2024
Date Amended:

Test Report: qPCR Analysis for Swine Specific Bacteroidales

EMSL Test Code: M412

Lab Sample Number	Client Sample ID	Description	Amount Received	Amount Sampled	Swine Bacteroidales per sample
0581-1	SS-1	Paddock South	Bulk	0.31 g	Not Detected
0581-2	SS-2	Paddock Center	Bulk	0.3 g	Not Detected
0581-3	SS-3	Paddock North	Bulk	0.2 g	Below LOQ*
0581-4	SS-4	Adj. North	Bulk	0.27 g	Not Detected
0581-5	SS-5	Adj.South	Bulk	0.2 g	Not Detected
0581-6	SS-6	Drainage Conv.	Bulk	0.2 g	Not Detected
0581-7	WU	Stream-Up	1 L	250 ml	Not Detected
0581-8	WD	Stream-Down	1 L	250 ml	Not Detected
0581-9	Well North	Adj. N Well	250 ml	250 ml	Not Detected
0581-10	Well South	Adj S Well	250 ml	250 ml	Not Detected

*Positive qPCR result below Limit of Quantification (LOQ)



Sergey Balashov, Ph.D.
PCR Laboratory Director

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kevin Casler
CRG Texas Environmental Services Inc
2504 Avenue I
Rosenberg, Texas 77471

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JOB DESCRIPTION

City of Bay City Swine Farm Investigation
24-006

JOB NUMBER

860-68086-1

Eurofins Houston
4145 Greenbriar Dr
Stafford TX 77477

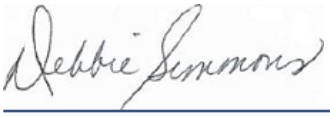
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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2/26/2024 5:47:50 PM

Authorized for release by
Debbie Simmons, Project Manager
Debbie.Simmons@et.eurofinsus.com
(832)986-6768

Table of Contents

Definitions/Glossary

Client: CRG Texas Environmental Services Inc
Project/Site: City of Bay City Swine Farm Investigation

Job ID: 860-68086-1
SDG: 24-006

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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.

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)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
SDL	Sample Detection Limit
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 860-68086-1 Eurofins Houston

Job Narrative
860-68086-1

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.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Comments
per Kevin the list of Metals needed the same for soils and waters (Al,As,Ca,Cu,Fe,Pb,Mn,Na,Zn)

Receipt
The samples were received on 2/15/2024 4:41 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice.

Subcontract Work
Methods Fecal coliform, Total Coliform + E coli (P/A), Total coliform and E-Coli (soil): These methods were subcontracted to Envirodyne Laboratories. The subcontract laboratory certifications are different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

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

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

Detection Summary

Client: CRG Texas Environmental Services Inc
Project/Site: City of Bay City Swine Farm Investigation

Job ID: 860-68086-1
SDG: 24-006

Client Sample ID: SS-1 — Lab Sample ID: 860-68086-1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	5970		16.7	1.80	mg/Kg	1		6010D	Total/NA
Arsenic	2.06		1.25	0.882	mg/Kg	1		6010D	Total/NA
Calcium	1140		16.7	7.50	mg/Kg	1		6010D	Total/NA
Copper	4.04		1.67	0.341	mg/Kg	1		6010D	Total/NA
Iron	4930		16.7	2.92	mg/Kg	1		6010D	Total/NA
Lead	16.7		0.833	0.251	mg/Kg	1		6010D	Total/NA
Manganese	201		1.67	0.375	mg/Kg	1		6010D	Total/NA
Sodium	85.8		41.7	10.3	mg/Kg	1		6010D	Total/NA
Zinc	20.4		2.50	0.877	mg/Kg	1		6010D	Total/NA
Mercury	0.0343		0.0196	0.00877	mg/Kg	1		7471B	Total/NA
pH	6.1	HF			SU	1		9045D	Soluble
Temperature	19.9	HF			Deg. C	1		9045D	Soluble
Corrosivity	6.1	HF			SU	1		9045D	Soluble

Client Sample ID: SS-2 — Lab Sample ID: 860-68086-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	9190		847	91.6	mg/Kg	50		6010D	Total/NA
Arsenic	2.58		1.27	0.897	mg/Kg	1		6010D	Total/NA
Calcium	716		16.9	7.63	mg/Kg	1		6010D	Total/NA
Copper	4.56		1.69	0.347	mg/Kg	1		6010D	Total/NA
Iron	7050		16.9	2.96	mg/Kg	1		6010D	Total/NA
Lead	10.2		0.847	0.255	mg/Kg	1		6010D	Total/NA
Manganese	155		1.69	0.382	mg/Kg	1		6010D	Total/NA
Sodium	97.5		42.4	10.5	mg/Kg	1		6010D	Total/NA
Zinc	14.2		2.54	0.892	mg/Kg	1		6010D	Total/NA
Mercury	0.0140	J	0.0196	0.00877	mg/Kg	1		7471B	Total/NA
pH	5.5	HF			SU	1		9045D	Soluble
Temperature	20.3	HF			Deg. C	1		9045D	Soluble
Corrosivity	5.5	HF			SU	1		9045D	Soluble

Client Sample ID: SS-3 — Lab Sample ID: 860-68086-3

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	5620		17.2	1.86	mg/Kg	1		6010D	Total/NA
Arsenic	2.47		1.29	0.912	mg/Kg	1		6010D	Total/NA
Calcium	348		17.2	7.76	mg/Kg	1		6010D	Total/NA
Copper	3.33		1.72	0.353	mg/Kg	1		6010D	Total/NA
Iron	4840		17.2	3.02	mg/Kg	1		6010D	Total/NA
Lead	8.71		0.862	0.260	mg/Kg	1		6010D	Total/NA
Manganese	200		1.72	0.388	mg/Kg	1		6010D	Total/NA
Sodium	58.7		43.1	10.6	mg/Kg	1		6010D	Total/NA
Zinc	7.84		2.59	0.908	mg/Kg	1		6010D	Total/NA
Mercury	0.0146	J	0.0185	0.00829	mg/Kg	1		7471B	Total/NA
pH	6.4	HF			SU	1		9045D	Soluble
Temperature	20.4	HF			Deg. C	1		9045D	Soluble
Corrosivity	6.4	HF			SU	1		9045D	Soluble

Client Sample ID: SS-4 — Lab Sample ID: 860-68086-4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	4300		17.5	1.90	mg/Kg	1		6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-4 (Continued) — Lab Sample ID: 860-68086-4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.93		1.32	0.928	mg/Kg	1		6010D	Total/NA
Calcium	648		17.5	7.89	mg/Kg	1		6010D	Total/NA
Copper	3.33		1.75	0.359	mg/Kg	1		6010D	Total/NA
Iron	4980		17.5	3.07	mg/Kg	1		6010D	Total/NA
Lead	8.77		0.877	0.264	mg/Kg	1		6010D	Total/NA
Manganese	544		1.75	0.395	mg/Kg	1		6010D	Total/NA
Sodium	82.2		43.9	10.8	mg/Kg	1		6010D	Total/NA
Zinc	7.80		2.63	0.924	mg/Kg	1		6010D	Total/NA
Mercury	0.0134	J	0.0192	0.00861	mg/Kg	1		7471B	Total/NA
pH	5.8	HF			SU	1		9045D	Soluble
Temperature	20.3	HF			Deg. C	1		9045D	Soluble
Corrosivity	5.8	HF			SU	1		9045D	Soluble

Client Sample ID: SS-5 — Lab Sample ID: 860-68086-5

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	5540		16.7	1.80	mg/Kg	1		6010D	Total/NA
Arsenic	1.67		1.25	0.882	mg/Kg	1		6010D	Total/NA
Calcium	2540		16.7	7.50	mg/Kg	1		6010D	Total/NA
Copper	5.20		1.67	0.341	mg/Kg	1		6010D	Total/NA
Iron	5030		16.7	2.92	mg/Kg	1		6010D	Total/NA
Lead	8.15		0.833	0.251	mg/Kg	1		6010D	Total/NA
Manganese	214		1.67	0.375	mg/Kg	1		6010D	Total/NA
Sodium	104		41.7	10.3	mg/Kg	1		6010D	Total/NA
Zinc	18.8		2.50	0.877	mg/Kg	1		6010D	Total/NA
Mercury	0.0283		0.0192	0.00861	mg/Kg	1		7471B	Total/NA
pH	6.1	HF			SU	1		9045D	Soluble
Temperature	20.3	HF			Deg. C	1		9045D	Soluble
Corrosivity	6.1	HF			SU	1		9045D	Soluble

Client Sample ID: SS-6 — Lab Sample ID: 860-68086-6

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	4340		16.9	1.83	mg/Kg	1		6010D	Total/NA
Arsenic	1.94		1.27	0.897	mg/Kg	1		6010D	Total/NA
Calcium	1640		16.9	7.63	mg/Kg	1		6010D	Total/NA
Copper	5.51		1.69	0.347	mg/Kg	1		6010D	Total/NA
Iron	4570		16.9	2.96	mg/Kg	1		6010D	Total/NA
Lead	8.81		0.847	0.255	mg/Kg	1		6010D	Total/NA
Manganese	216		1.69	0.382	mg/Kg	1		6010D	Total/NA
Sodium	77.5		42.4	10.5	mg/Kg	1		6010D	Total/NA
Zinc	28.6		2.54	0.892	mg/Kg	1		6010D	Total/NA
Mercury	0.0207		0.0196	0.00877	mg/Kg	1		7471B	Total/NA
pH	6.6	HF			SU	1		9045D	Soluble
Temperature	20.3	HF			Deg. C	1		9045D	Soluble
Corrosivity	6.6	HF			SU	1		9045D	Soluble

Client Sample ID: WU — Lab Sample ID: 860-68086-7

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.583		0.200	0.0343	mg/L	1		200.7 Rev 4.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: WU (Continued) — Lab Sample ID: 860-68086-7

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	30.9		0.200	0.115	mg/L	1		200.7 Rev 4.4	Total Recoverable
Iron	0.555		0.200	0.0185	mg/L	1		200.7 Rev 4.4	Total Recoverable
Manganese	0.0379		0.0200	0.00195	mg/L	1		200.7 Rev 4.4	Total Recoverable
Sodium	166		0.500	0.152	mg/L	1		200.7 Rev 4.4	Total Recoverable
Zinc	0.0167	J	0.0300	0.0117	mg/L	1		200.7 Rev 4.4	Total Recoverable
pH	7.5	HF			SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: WD — Lab Sample ID: 860-68086-8

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.265		0.200	0.0343	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0106		0.0100	0.00918	mg/L	1		200.7 Rev 4.4	Total Recoverable
Calcium	33.6		0.200	0.115	mg/L	1		200.7 Rev 4.4	Total Recoverable
Iron	0.262		0.200	0.0185	mg/L	1		200.7 Rev 4.4	Total Recoverable
Manganese	0.0186	J	0.0200	0.00195	mg/L	1		200.7 Rev 4.4	Total Recoverable
Sodium	173		0.500	0.152	mg/L	1		200.7 Rev 4.4	Total Recoverable
Zinc	0.0117	J	0.0300	0.0117	mg/L	1		200.7 Rev 4.4	Total Recoverable
pH	7.8	HF			SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: Well North — Lab Sample ID: 860-68086-9

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	19.3		0.200	0.115	mg/L	1		200.7 Rev 4.4	Total Recoverable
Copper	0.00553	J	0.0200	0.00386	mg/L	1		200.7 Rev 4.4	Total Recoverable
Iron	0.0227	J	0.200	0.0185	mg/L	1		200.7 Rev 4.4	Total Recoverable
Manganese	0.0197	J	0.0200	0.00195	mg/L	1		200.7 Rev 4.4	Total Recoverable
Sodium	104		0.500	0.152	mg/L	1		200.7 Rev 4.4	Total Recoverable
Zinc	0.202		0.0300	0.0117	mg/L	1		200.7 Rev 4.4	Total Recoverable
pH	7.8	HF			SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: Well South — Lab Sample ID: 860-68086-10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.0441	J	0.200	0.0343	mg/L	1		200.7 Rev 4.4	Total Recoverable
Calcium	82.1		0.200	0.115	mg/L	1		200.7 Rev 4.4	Total Recoverable
Iron	0.647		0.200	0.0185	mg/L	1		200.7 Rev 4.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: Well South (Continued)
Lab Sample ID: 860-68086-10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.126		0.0200	0.00195	mg/L	1		200.7 Rev 4.4	Total Recoverable
Sodium	104		0.500	0.152	mg/L	1		200.7 Rev 4.4	Total Recoverable
pH	7.0	HF			SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: CRG Texas Environmental Services Inc
Project/Site: City of Bay City Swine Farm Investigation

Job ID: 860-68086-1
SDG: 24-006

Client Sample ID: SS-1

Date Collected: 02/15/24 09:15
Date Received: 02/15/24 16:41

Lab Sample ID: 860-68086-1
Matrix: Solid

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5970		16.7	1.80	mg/Kg		02/21/24 10:09	02/22/24 13:22	1
Arsenic	2.06		1.25	0.882	mg/Kg		02/21/24 10:09	02/22/24 13:22	1
Calcium	1140		16.7	7.50	mg/Kg		02/21/24 10:09	02/22/24 13:22	1
Copper	4.04		1.67	0.341	mg/Kg		02/21/24 10:09	02/22/24 13:22	1
Iron	4930		16.7	2.92	mg/Kg		02/21/24 10:09	02/22/24 13:22	1
Lead	16.7		0.833	0.251	mg/Kg		02/21/24 10:09	02/22/24 13:22	1
Manganese	201		1.67	0.375	mg/Kg		02/21/24 10:09	02/22/24 13:22	1
Sodium	85.8		41.7	10.3	mg/Kg		02/21/24 10:09	02/22/24 13:22	1
Zinc	20.4		2.50	0.877	mg/Kg		02/21/24 10:09	02/22/24 13:22	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0343		0.0196	0.00877	mg/Kg		02/22/24 05:36	02/22/24 20:02	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	6.1	HF			SU			02/23/24 11:15	1
Temperature (SW846 9045D)	19.9	HF			Deg. C			02/23/24 11:15	1
Corrosivity (SW846 9045D)	6.1	HF			SU			02/23/24 11:15	1

Client Sample ID: SS-2

Date Collected: 02/15/24 09:25
Date Received: 02/15/24 16:41

Lab Sample ID: 860-68086-2
Matrix: Solid

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9190		847	91.6	mg/Kg		02/21/24 10:09	02/22/24 13:30	50
Arsenic	2.58		1.27	0.897	mg/Kg		02/21/24 10:09	02/22/24 13:25	1
Calcium	716		16.9	7.63	mg/Kg		02/21/24 10:09	02/22/24 13:25	1
Copper	4.56		1.69	0.347	mg/Kg		02/21/24 10:09	02/22/24 13:25	1
Iron	7050		16.9	2.96	mg/Kg		02/21/24 10:09	02/22/24 13:25	1
Lead	10.2		0.847	0.255	mg/Kg		02/21/24 10:09	02/22/24 13:25	1
Manganese	155		1.69	0.382	mg/Kg		02/21/24 10:09	02/22/24 13:25	1
Sodium	97.5		42.4	10.5	mg/Kg		02/21/24 10:09	02/22/24 13:25	1
Zinc	14.2		2.54	0.892	mg/Kg		02/21/24 10:09	02/22/24 13:25	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0140	J	0.0196	0.00877	mg/Kg		02/22/24 05:36	02/22/24 20:03	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	5.5	HF			SU			02/23/24 11:15	1
Temperature (SW846 9045D)	20.3	HF			Deg. C			02/23/24 11:15	1
Corrosivity (SW846 9045D)	5.5	HF			SU			02/23/24 11:15	1

Client Sample ID: SS-3

Lab Sample ID: 860-68086-3

Date Collected: 02/15/24 09:35
Matrix: Solid
Date Received: 02/15/24 16:41

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5620		17.2	1.86	mg/Kg		02/21/24 10:09	02/22/24 13:41	1
Arsenic	2.47		1.29	0.912	mg/Kg		02/21/24 10:09	02/22/24 13:41	1
Calcium	348		17.2	7.76	mg/Kg		02/21/24 10:09	02/22/24 13:41	1
Copper	3.33		1.72	0.353	mg/Kg		02/21/24 10:09	02/22/24 13:41	1
Iron	4840		17.2	3.02	mg/Kg		02/21/24 10:09	02/22/24 13:41	1
Lead	8.71		0.862	0.260	mg/Kg		02/21/24 10:09	02/22/24 13:41	1
Manganese	200		1.72	0.388	mg/Kg		02/21/24 10:09	02/22/24 13:41	1
Sodium	58.7		43.1	10.6	mg/Kg		02/21/24 10:09	02/22/24 13:41	1
Zinc	7.84		2.59	0.908	mg/Kg		02/21/24 10:09	02/22/24 13:41	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0146	J	0.0185	0.00829	mg/Kg		02/22/24 05:36	02/22/24 20:05	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	6.4	HF			SU			02/23/24 11:15	1
Temperature (SW846 9045D)	20.4	HF			Deg. C			02/23/24 11:15	1
Corrosivity (SW846 9045D)	6.4	HF			SU			02/23/24 11:15	1

Client Sample ID: SS-4

Lab Sample ID: 860-68086-4

Date Collected: 02/15/24 09:50
Matrix: Solid
Date Received: 02/15/24 16:41

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4300		17.5	1.90	mg/Kg		02/21/24 10:09	02/22/24 13:43	1
Arsenic	1.93		1.32	0.928	mg/Kg		02/21/24 10:09	02/22/24 13:43	1
Calcium	648		17.5	7.89	mg/Kg		02/21/24 10:09	02/22/24 13:43	1
Copper	3.33		1.75	0.359	mg/Kg		02/21/24 10:09	02/22/24 13:43	1
Iron	4980		17.5	3.07	mg/Kg		02/21/24 10:09	02/22/24 13:43	1
Lead	8.77		0.877	0.264	mg/Kg		02/21/24 10:09	02/22/24 13:43	1
Manganese	544		1.75	0.395	mg/Kg		02/21/24 10:09	02/22/24 13:43	1
Sodium	82.2		43.9	10.8	mg/Kg		02/21/24 10:09	02/22/24 13:43	1
Zinc	7.80		2.63	0.924	mg/Kg		02/21/24 10:09	02/22/24 13:43	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0134	J	0.0192	0.00861	mg/Kg		02/22/24 05:36	02/22/24 20:06	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	5.8	HF			SU			02/23/24 11:15	1
Temperature (SW846 9045D)	20.3	HF			Deg. C			02/23/24 11:15	1
Corrosivity (SW846 9045D)	5.8	HF			SU			02/23/24 11:15	1

Client Sample ID: SS-5
Date Collected: 02/15/24 10:00
Date Received: 02/15/24 16:41

Lab Sample ID: 860-68086-5
Matrix: Solid

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5540		16.7	1.80	mg/Kg		02/21/24 10:09	02/22/24 13:46	1
Arsenic	1.67		1.25	0.882	mg/Kg		02/21/24 10:09	02/22/24 13:46	1
Calcium	2540		16.7	7.50	mg/Kg		02/21/24 10:09	02/22/24 13:46	1
Copper	5.20		1.67	0.341	mg/Kg		02/21/24 10:09	02/22/24 13:46	1
Iron	5030		16.7	2.92	mg/Kg		02/21/24 10:09	02/22/24 13:46	1
Lead	8.15		0.833	0.251	mg/Kg		02/21/24 10:09	02/22/24 13:46	1
Manganese	214		1.67	0.375	mg/Kg		02/21/24 10:09	02/22/24 13:46	1
Sodium	104		41.7	10.3	mg/Kg		02/21/24 10:09	02/22/24 13:46	1
Zinc	18.8		2.50	0.877	mg/Kg		02/21/24 10:09	02/22/24 13:46	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0283		0.0192	0.00861	mg/Kg		02/22/24 05:36	02/22/24 20:08	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	6.1	HF			SU			02/23/24 11:15	1
Temperature (SW846 9045D)	20.3	HF			Deg. C			02/23/24 11:15	1
Corrosivity (SW846 9045D)	6.1	HF			SU			02/23/24 11:15	1

Client Sample ID: SS-6
Date Collected: 02/15/24 10:05
Date Received: 02/15/24 16:41

Lab Sample ID: 860-68086-6
Matrix: Solid

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4340		16.9	1.83	mg/Kg		02/21/24 10:09	02/22/24 13:49	1
Arsenic	1.94		1.27	0.897	mg/Kg		02/21/24 10:09	02/22/24 13:49	1
Calcium	1640		16.9	7.63	mg/Kg		02/21/24 10:09	02/22/24 13:49	1
Copper	5.51		1.69	0.347	mg/Kg		02/21/24 10:09	02/22/24 13:49	1
Iron	4570		16.9	2.96	mg/Kg		02/21/24 10:09	02/22/24 13:49	1
Lead	8.81		0.847	0.255	mg/Kg		02/21/24 10:09	02/22/24 13:49	1
Manganese	216		1.69	0.382	mg/Kg		02/21/24 10:09	02/22/24 13:49	1
Sodium	77.5		42.4	10.5	mg/Kg		02/21/24 10:09	02/22/24 13:49	1
Zinc	28.6		2.54	0.892	mg/Kg		02/21/24 10:09	02/22/24 13:49	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0207		0.0196	0.00877	mg/Kg		02/22/24 05:36	02/22/24 20:09	1

General Chemistry - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	6.6	HF			SU			02/23/24 11:15	1
Temperature (SW846 9045D)	20.3	HF			Deg. C			02/23/24 11:15	1
Corrosivity (SW846 9045D)	6.6	HF			SU			02/23/24 11:15	1

Client Sample ID: WU
Lab Sample ID: 860-68086-7
Date Collected: 02/15/24 10:20
Matrix: Water
Date Received: 02/15/24 16:41

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.583**		0.200	0.0343	mg/L		02/22/24 09:30	02/22/24 17:17	1
Arsenic	<0.00918	U	0.0100	0.00918	mg/L		02/22/24 09:30	02/22/24 17:17	1
Calcium	**30.9**		0.200	0.115	mg/L		02/22/24 09:30	02/22/24 17:17	1
Copper	<0.00386	U	0.0200	0.00386	mg/L		02/22/24 09:30	02/22/24 17:17	1
Iron	**0.555**		0.200	0.0185	mg/L		02/22/24 09:30	02/22/24 17:17	1
Lead	<0.00420	U	0.0100	0.00420	mg/L		02/22/24 09:30	02/22/24 17:17	1
Manganese	**0.0379**		0.0200	0.00195	mg/L		02/22/24 09:30	02/22/24 17:17	1
Sodium	**166**		0.500	0.152	mg/L		02/22/24 09:30	02/22/24 19:34	1
Zinc	**0.0167**	**J**	0.0300	0.0117	mg/L		02/22/24 09:30	02/22/24 17:17	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000525	U	0.000200	0.0000525	mg/L		02/19/24 12:05	02/19/24 19:12	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.5**	**HF**			SU			02/16/24 16:06	1

Client Sample ID: WD
Lab Sample ID: 860-68086-8
Date Collected: 02/15/24 10:15
Matrix: Water
Date Received: 02/15/24 16:41

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.265**		0.200	0.0343	mg/L		02/22/24 09:30	02/22/24 17:20	1
Arsenic	**0.0106**		0.0100	0.00918	mg/L		02/22/24 09:30	02/22/24 17:20	1
Calcium	**33.6**		0.200	0.115	mg/L		02/22/24 09:30	02/22/24 17:20	1
Copper	<0.00386	U	0.0200	0.00386	mg/L		02/22/24 09:30	02/22/24 17:20	1
Iron	**0.262**		0.200	0.0185	mg/L		02/22/24 09:30	02/22/24 17:20	1
Lead	<0.00420	U	0.0100	0.00420	mg/L		02/22/24 09:30	02/22/24 17:20	1
Manganese	**0.0186**	**J**	0.0200	0.00195	mg/L		02/22/24 09:30	02/22/24 17:20	1
Sodium	**173**		0.500	0.152	mg/L		02/22/24 09:30	02/22/24 19:37	1
Zinc	**0.0117**	**J**	0.0300	0.0117	mg/L		02/22/24 09:30	02/22/24 17:20	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000525	U	0.000200	0.0000525	mg/L		02/19/24 12:05	02/19/24 19:21	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.8**	**HF**			SU			02/16/24 16:23	1

Client Sample ID: Well North
Lab Sample ID: 860-68086-9
Date Collected: 02/15/24 10:30
Matrix: Water
Date Received: 02/15/24 16:41

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0343	U	0.200	0.0343	mg/L		02/22/24 09:30	02/22/24 17:28	1
Arsenic	<0.00918	U	0.0100	0.00918	mg/L		02/22/24 09:30	02/22/24 17:28	1
Calcium	**19.3**		0.200	0.115	mg/L		02/22/24 09:30	02/22/24 17:28	1

Client Sample ID: Well North

Lab Sample ID: 860-68086-9
Date Collected: 02/15/24 10:30
Matrix: Water
Date Received: 02/15/24 16:41

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.00553	J	0.0200	0.00386	mg/L		02/22/24 09:30	02/22/24 17:28	1
Iron	0.0227	J	0.200	0.0185	mg/L		02/22/24 09:30	02/22/24 17:28	1
Lead	<0.00420	U	0.0100	0.00420	mg/L		02/22/24 09:30	02/22/24 17:28	1
Manganese	0.0197	J	0.0200	0.00195	mg/L		02/22/24 09:30	02/22/24 17:28	1
Sodium	104		0.500	0.152	mg/L		02/22/24 09:30	02/22/24 19:45	1
Zinc	0.202		0.0300	0.0117	mg/L		02/22/24 09:30	02/22/24 17:28	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000525	U	0.000200	0.0000525	mg/L		02/19/24 12:05	02/19/24 19:13	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.8	HF			SU			02/16/24 16:08	1

Client Sample ID: Well South

Lab Sample ID: 860-68086-10
Date Collected: 02/15/24 10:35
Matrix: Water
Date Received: 02/15/24 16:41

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0441	J	0.200	0.0343	mg/L		02/22/24 09:30	02/22/24 17:31	1
Arsenic	<0.00918	U	0.0100	0.00918	mg/L		02/22/24 09:30	02/22/24 17:31	1
Calcium	82.1		0.200	0.115	mg/L		02/22/24 09:30	02/22/24 17:31	1
Copper	<0.00386	U	0.0200	0.00386	mg/L		02/22/24 09:30	02/22/24 17:31	1
Iron	0.647		0.200	0.0185	mg/L		02/22/24 09:30	02/22/24 17:31	1
Lead	<0.00420	U	0.0100	0.00420	mg/L		02/22/24 09:30	02/22/24 17:31	1
Manganese	0.126		0.0200	0.00195	mg/L		02/22/24 09:30	02/22/24 17:31	1
Sodium	104		0.500	0.152	mg/L		02/22/24 09:30	02/22/24 19:48	1
Zinc	<0.0117	U	0.0300	0.0117	mg/L		02/22/24 09:30	02/22/24 17:31	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000525	U	0.000200	0.0000525	mg/L		02/19/24 12:05	02/19/24 19:16	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.0	HF			SU			02/16/24 16:04	1

Unadjusted Detection Limits

Client: CRG Texas Environmental Services Inc
Job ID: 860-68086-1
Project/Site: City of Bay City Swine Farm Investigation
SDG: 24-006

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Prep: 200.7

Analyte	MQL	MDL	Units
Aluminum	0.200	0.0343	mg/L
Arsenic	0.0100	0.00918	mg/L
Calcium	0.200	0.115	mg/L
Copper	0.0200	0.00386	mg/L
Iron	0.200	0.0185	mg/L
Lead	0.0100	0.00420	mg/L
Manganese	0.0200	0.00195	mg/L
Sodium	0.500	0.152	mg/L
Zinc	0.0300	0.0117	mg/L

Method: 245.1 - Mercury (CVAA)

Prep: 245.1

Analyte	MQL	MDL	Units
Mercury	0.000200	0.0000525	mg/L

Method: 6010D - Metals (ICP)

Prep: 3051A

Analyte	MQL	MDL	Units
Aluminum	20.0	2.16	mg/Kg
Arsenic	1.50	1.06	mg/Kg
Calcium	20.0	9.00	mg/Kg
Copper	2.00	0.409	mg/Kg
Iron	20.0	3.50	mg/Kg
Lead	1.00	0.301	mg/Kg
Manganese	2.00	0.450	mg/Kg
Sodium	50.0	12.3	mg/Kg
Zinc	3.00	1.05	mg/Kg

Method: 7471B - Mercury (CVAA)

Prep: 7471B

Analyte	MQL	MDL	Units
Mercury	0.0200	0.00895	mg/Kg

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 860-146465/1-A
Matrix: Water
Analysis Batch: 146645

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 146465

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0343	U	0.200	0.0343	mg/L		02/22/24 09:30	02/22/24 16:31	1
Arsenic	<0.00918	U	0.0100	0.00918	mg/L		02/22/24 09:30	02/22/24 16:31	1
Calcium	<0.115	U	0.200	0.115	mg/L		02/22/24 09:30	02/22/24 16:31	1
Copper	<0.00386	U	0.0200	0.00386	mg/L		02/22/24 09:30	02/22/24 16:31	1
Iron	<0.0185	U	0.200	0.0185	mg/L		02/22/24 09:30	02/22/24 16:31	1
Lead	<0.00420	U	0.0100	0.00420	mg/L		02/22/24 09:30	02/22/24 16:31	1
Manganese	<0.00195	U	0.0200	0.00195	mg/L		02/22/24 09:30	02/22/24 16:31	1
Zinc	<0.0117	U	0.0300	0.0117	mg/L		02/22/24 09:30	02/22/24 16:31	1

Lab Sample ID: MB 860-146465/1-A
Matrix: Water
Analysis Batch: 146645

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 146465

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<0.152	U	0.500	0.152	mg/L		02/22/24 09:30	02/22/24 19:16	1

Lab Sample ID: LCS 860-146465/2-A
Matrix: Water
Analysis Batch: 146645

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 146465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.00	5.240		mg/L		105	85 - 115
Arsenic	1.00	1.020		mg/L		102	85 - 115
Calcium	25.0	26.00		mg/L		104	85 - 115
Copper	1.00	1.050		mg/L		105	85 - 115
Iron	5.00	5.340		mg/L		107	85 - 115
Lead	1.00	1.060		mg/L		106	85 - 115
Manganese	1.00	1.040		mg/L		104	85 - 115
Zinc	1.00	1.050		mg/L		105	85 - 115

Lab Sample ID: LCS 860-146465/2-A
Matrix: Water
Analysis Batch: 146645

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 146465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25.0	26.20		mg/L		105	85 - 115

Lab Sample ID: LCSD 860-146465/3-A
Matrix: Water
Analysis Batch: 146645

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 146465

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	5.00	5.230		mg/L		105	85 - 115	0	20
Arsenic	1.00	1.030		mg/L		103	85 - 115	1	20
Calcium	25.0	26.00		mg/L		104	85 - 115	0	20
Copper	1.00	1.050		mg/L		105	85 - 115	0	20
Iron	5.00	5.340		mg/L		107	85 - 115	0	20
Lead	1.00	1.070		mg/L		107	85 - 115	1	20
Manganese	1.00	1.040		mg/L		104	85 - 115	0	20

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

Lab Sample ID: LCSD 860-146465/3-A
Matrix: Water
Analysis Batch: 146645

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 146465

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Zinc	1.00	1.050		mg/L		105	85 - 115	0	20

Lab Sample ID: LCSD 860-146465/3-A
Matrix: Water
Analysis Batch: 146645

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 146465

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	25.0	26.60		mg/L		106	85 - 115	2	20

Lab Sample ID: LLCS 860-146465/4-A
Matrix: Water
Analysis Batch: 146645

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 146465

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.200	0.1980	J	mg/L		99	50 - 150
Arsenic	0.0100	0.01390		mg/L		139	50 - 150
Calcium	0.200	0.2180		mg/L		109	50 - 150
Copper	0.0200	0.01900	J	mg/L		95	50 - 150
Iron	0.200	0.2160		mg/L		108	50 - 150
Lead	0.0100	0.01110		mg/L		111	50 - 150
Manganese	0.0200	0.02090		mg/L		105	50 - 150
Zinc	0.0300	0.03100		mg/L		103	50 - 150

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 860-145935/1-A
Matrix: Water
Analysis Batch: 146012

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 145935

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000525	U	0.000200	0.0000525	mg/L		02/19/24 12:05	02/19/24 18:55	1

Lab Sample ID: LCS 860-145935/2-A
Matrix: Water
Analysis Batch: 146012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145935

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.001963		mg/L		98	85 - 115

Lab Sample ID: LCSD 860-145935/3-A
Matrix: Water
Analysis Batch: 146012

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 145935

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00200	0.002081		mg/L		104	85 - 115	6	20

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LLCS 860-145935/4-A
Matrix: Water
Analysis Batch: 146012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145935

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.000200	0.0001920	J	mg/L		96	50 - 150

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 860-146278/1-A
Matrix: Solid
Analysis Batch: 146523

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 146278

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<2.16	U	20.0	2.16	mg/Kg		02/21/24 10:09	02/22/24 12:21	1
Arsenic	<1.06	U	1.50	1.06	mg/Kg		02/21/24 10:09	02/22/24 12:21	1
Calcium	<9.00	U	20.0	9.00	mg/Kg		02/21/24 10:09	02/22/24 12:21	1
Copper	<0.409	U	2.00	0.409	mg/Kg		02/21/24 10:09	02/22/24 12:21	1
Iron	<3.50	U	20.0	3.50	mg/Kg		02/21/24 10:09	02/22/24 12:21	1
Lead	<0.301	U	1.00	0.301	mg/Kg		02/21/24 10:09	02/22/24 12:21	1
Manganese	<0.450	U	2.00	0.450	mg/Kg		02/21/24 10:09	02/22/24 12:21	1
Sodium	<12.3	U	50.0	12.3	mg/Kg		02/21/24 10:09	02/22/24 12:21	1
Zinc	<1.05	U	3.00	1.05	mg/Kg		02/21/24 10:09	02/22/24 12:21	1

Lab Sample ID: LCS 860-146278/2-A
Matrix: Solid
Analysis Batch: 146523

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 146278

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	500	523.0		mg/Kg		105	80 - 120
Arsenic	100	105.0		mg/Kg		105	80 - 120
Calcium	2500	2610		mg/Kg		104	80 - 120
Copper	100	106.0		mg/Kg		106	80 - 120
Iron	500	542.0		mg/Kg		108	80 - 120
Lead	100	107.0		mg/Kg		107	80 - 120
Manganese	100	111.0		mg/Kg		111	80 - 120
Sodium	2500	2680		mg/Kg		107	80 - 120
Zinc	100	107.0		mg/Kg		107	80 - 120

Lab Sample ID: LCSD 860-146278/3-A
Matrix: Solid
Analysis Batch: 146523

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 146278

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	500	523.0		mg/Kg		105	80 - 120	0	20
Arsenic	100	105.0		mg/Kg		105	80 - 120	0	20
Calcium	2500	2620		mg/Kg		105	80 - 120	0	20
Copper	100	106.0		mg/Kg		106	80 - 120	0	20
Iron	500	543.0		mg/Kg		109	80 - 120	0	20
Lead	100	107.0		mg/Kg		107	80 - 120	0	20
Manganese	100	111.0		mg/Kg		111	80 - 120	0	20
Sodium	2500	2690		mg/Kg		108	80 - 120	0	20
Zinc	100	107.0		mg/Kg		107	80 - 120	0	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 860-146418/1-A
Matrix: Solid
Analysis Batch: 146581

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 146418

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00895	U	0.0200	0.00895	mg/Kg		02/22/24 05:36	02/22/24 19:26	1

Lab Sample ID: LCS 860-146418/2-A
Matrix: Solid
Analysis Batch: 146581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 146418

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.200	0.1802		mg/Kg		90	80 - 120		

Lab Sample ID: LCSD 860-146418/3-A
Matrix: Solid
Analysis Batch: 146581

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 146418

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.200	0.1790		mg/Kg		90	80 - 120	1	20

Method: SM 4500 H+ B - pH

Lab Sample ID: 860-68086-7 DU
Matrix: Water
Analysis Batch: 145768

Client Sample ID: WU
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.5	HF		7.6		SU				0.4	20

Metals

Prep Batch: 145935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-68086-7	WU	Total/NA	Water	245.1	
860-68086-8	WD	Total/NA	Water	245.1	
860-68086-9	Well North	Total/NA	Water	245.1	
860-68086-10	Well South	Total/NA	Water	245.1	
MB 860-145935/1-A	Method Blank	Total/NA	Water	245.1	
LCS 860-145935/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 860-145935/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
LLCS 860-145935/4-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 146012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-68086-7	WU	Total/NA	Water	245.1	145935
860-68086-8	WD	Total/NA	Water	245.1	145935
860-68086-9	Well North	Total/NA	Water	245.1	145935
860-68086-10	Well South	Total/NA	Water	245.1	145935
MB 860-145935/1-A	Method Blank	Total/NA	Water	245.1	145935
LCS 860-145935/2-A	Lab Control Sample	Total/NA	Water	245.1	145935
LCSD 860-145935/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	145935
LLCS 860-145935/4-A	Lab Control Sample	Total/NA	Water	245.1	145935

Prep Batch: 146278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-68086-1	SS-1	Total/NA	Solid	3051A	
860-68086-2	SS-2	Total/NA	Solid	3051A	
860-68086-3	SS-3	Total/NA	Solid	3051A	
860-68086-4	SS-4	Total/NA	Solid	3051A	
860-68086-5	SS-5	Total/NA	Solid	3051A	
860-68086-6	SS-6	Total/NA	Solid	3051A	
MB 860-146278/1-A	Method Blank	Total/NA	Solid	3051A	
LCS 860-146278/2-A	Lab Control Sample	Total/NA	Solid	3051A	
LCSD 860-146278/3-A	Lab Control Sample Dup	Total/NA	Solid	3051A	

Prep Batch: 146418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-68086-1	SS-1	Total/NA	Solid	7471B	
860-68086-2	SS-2	Total/NA	Solid	7471B	
860-68086-3	SS-3	Total/NA	Solid	7471B	
860-68086-4	SS-4	Total/NA	Solid	7471B	
860-68086-5	SS-5	Total/NA	Solid	7471B	
860-68086-6	SS-6	Total/NA	Solid	7471B	
MB 860-146418/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 860-146418/2-A	Lab Control Sample	Total/NA	Solid	7471B	
LCSD 860-146418/3-A	Lab Control Sample Dup	Total/NA	Solid	7471B	

Prep Batch: 146465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-68086-7	WU	Total Recoverable	Water	200.7	
860-68086-8	WD	Total Recoverable	Water	200.7	
860-68086-9	Well North	Total Recoverable	Water	200.7	
860-68086-10	Well South	Total Recoverable	Water	200.7	
MB 860-146465/1-A	Method Blank	Total Recoverable	Water	200.7	

Metals (Continued)

Prep Batch: 146465 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-146465/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 860-146465/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
LLCS 860-146465/4-A	Lab Control Sample	Total Recoverable	Water	200.7	

Analysis Batch: 146523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-68086-1	SS-1	Total/NA	Solid	6010D	146278
860-68086-2	SS-2	Total/NA	Solid	6010D	146278
860-68086-2	SS-2	Total/NA	Solid	6010D	146278
860-68086-3	SS-3	Total/NA	Solid	6010D	146278
860-68086-4	SS-4	Total/NA	Solid	6010D	146278
860-68086-5	SS-5	Total/NA	Solid	6010D	146278
860-68086-6	SS-6	Total/NA	Solid	6010D	146278
MB 860-146278/1-A	Method Blank	Total/NA	Solid	6010D	146278
LCS 860-146278/2-A	Lab Control Sample	Total/NA	Solid	6010D	146278
LCSD 860-146278/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	146278

Analysis Batch: 146581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-68086-1	SS-1	Total/NA	Solid	7471B	146418
860-68086-2	SS-2	Total/NA	Solid	7471B	146418
860-68086-3	SS-3	Total/NA	Solid	7471B	146418
860-68086-4	SS-4	Total/NA	Solid	7471B	146418
860-68086-5	SS-5	Total/NA	Solid	7471B	146418
860-68086-6	SS-6	Total/NA	Solid	7471B	146418
MB 860-146418/1-A	Method Blank	Total/NA	Solid	7471B	146418
LCS 860-146418/2-A	Lab Control Sample	Total/NA	Solid	7471B	146418
LCSD 860-146418/3-A	Lab Control Sample Dup	Total/NA	Solid	7471B	146418

Analysis Batch: 146645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-68086-7	WU	Total Recoverable	Water	200.7 Rev 4.4	146465
860-68086-7	WU	Total Recoverable	Water	200.7 Rev 4.4	146465
860-68086-8	WD	Total Recoverable	Water	200.7 Rev 4.4	146465
860-68086-8	WD	Total Recoverable	Water	200.7 Rev 4.4	146465
860-68086-9	Well North	Total Recoverable	Water	200.7 Rev 4.4	146465
860-68086-9	Well North	Total Recoverable	Water	200.7 Rev 4.4	146465
860-68086-10	Well South	Total Recoverable	Water	200.7 Rev 4.4	146465
860-68086-10	Well South	Total Recoverable	Water	200.7 Rev 4.4	146465
MB 860-146465/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	146465
MB 860-146465/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	146465
LCS 860-146465/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	146465
LCS 860-146465/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	146465
LCSD 860-146465/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	146465
LCSD 860-146465/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	146465
LLCS 860-146465/4-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	146465

General Chemistry

Analysis Batch: 145768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-68086-7	WU	Total/NA	Water	SM 4500 H+ B	
860-68086-8	WD	Total/NA	Water	SM 4500 H+ B	
860-68086-9	Well North	Total/NA	Water	SM 4500 H+ B	
860-68086-10	Well South	Total/NA	Water	SM 4500 H+ B	
860-68086-7 DU	WU	Total/NA	Water	SM 4500 H+ B	

Leach Batch: 146673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-68086-1	SS-1	Soluble	Solid	DI Leach	
860-68086-2	SS-2	Soluble	Solid	DI Leach	
860-68086-3	SS-3	Soluble	Solid	DI Leach	
860-68086-4	SS-4	Soluble	Solid	DI Leach	
860-68086-5	SS-5	Soluble	Solid	DI Leach	
860-68086-6	SS-6	Soluble	Solid	DI Leach	

Analysis Batch: 146676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-68086-1	SS-1	Soluble	Solid	9045D	146673
860-68086-2	SS-2	Soluble	Solid	9045D	146673
860-68086-3	SS-3	Soluble	Solid	9045D	146673
860-68086-4	SS-4	Soluble	Solid	9045D	146673
860-68086-5	SS-5	Soluble	Solid	9045D	146673
860-68086-6	SS-6	Soluble	Solid	9045D	146673

Client Sample ID: SS-1
Lab Sample ID: 860-68086-1
Date Collected: 02/15/24 09:15
Matrix: Solid
Date Received: 02/15/24 16:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.6 g	50 mL	146278	02/21/24 10:09	PB	EET HOU
Total/NA	Analysis	6010D		1			146523	02/22/24 13:22	JDM	EET HOU
Total/NA	Prep	7471B			.51 g	50 mL	146418	02/22/24 05:36	AGR	EET HOU
Total/NA	Analysis	7471B		1			146581	02/22/24 20:02	SHZ	EET HOU
Soluble	Leach	DI Leach			20 g	20 mL	146673	02/23/24 11:08	SCI	EET HOU
Soluble	Analysis	9045D		1	20 g	20 mL	146676	02/23/24 11:15	SCI	EET HOU

Client Sample ID: SS-2
Lab Sample ID: 860-68086-2
Date Collected: 02/15/24 09:25
Matrix: Solid
Date Received: 02/15/24 16:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.59 g	50 mL	146278	02/21/24 10:09	PB	EET HOU
Total/NA	Analysis	6010D		1			146523	02/22/24 13:25	JDM	EET HOU
Total/NA	Prep	3051A			.59 g	50 mL	146278	02/21/24 10:09	PB	EET HOU
Total/NA	Analysis	6010D		50			146523	02/22/24 13:30	JDM	EET HOU
Total/NA	Prep	7471B			.51 g	50 mL	146418	02/22/24 05:36	AGR	EET HOU
Total/NA	Analysis	7471B		1			146581	02/22/24 20:03	SHZ	EET HOU
Soluble	Leach	DI Leach			20 g	20 mL	146673	02/23/24 11:08	SCI	EET HOU
Soluble	Analysis	9045D		1	20 g	20 mL	146676	02/23/24 11:15	SCI	EET HOU

Client Sample ID: SS-3
Lab Sample ID: 860-68086-3
Date Collected: 02/15/24 09:35
Matrix: Solid
Date Received: 02/15/24 16:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.58 g	50 mL	146278	02/21/24 10:09	PB	EET HOU
Total/NA	Analysis	6010D		1			146523	02/22/24 13:41	JDM	EET HOU
Total/NA	Prep	7471B			.54 g	50 mL	146418	02/22/24 05:36	AGR	EET HOU
Total/NA	Analysis	7471B		1			146581	02/22/24 20:05	SHZ	EET HOU
Soluble	Leach	DI Leach			20 g	20 mL	146673	02/23/24 11:08	SCI	EET HOU
Soluble	Analysis	9045D		1	20 g	20 mL	146676	02/23/24 11:15	SCI	EET HOU

Client Sample ID: SS-4
Lab Sample ID: 860-68086-4
Date Collected: 02/15/24 09:50
Matrix: Solid
Date Received: 02/15/24 16:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.57 g	50 mL	146278	02/21/24 10:09	PB	EET HOU
Total/NA	Analysis	6010D		1			146523	02/22/24 13:43	JDM	EET HOU
Total/NA	Prep	7471B			.52 g	50 mL	146418	02/22/24 05:36	AGR	EET HOU
Total/NA	Analysis	7471B		1			146581	02/22/24 20:06	SHZ	EET HOU
Soluble	Leach	DI Leach			20 g	20 mL	146673	02/23/24 11:08	SCI	EET HOU
Soluble	Analysis	9045D		1	20 g	20 mL	146676	02/23/24 11:15	SCI	EET HOU

Lab Chronicle

Client: CRG Texas Environmental Services Inc
Project/Site: City of Bay City Swine Farm Investigation

Job ID: 860-68086-1
SDG: 24-006

Client Sample ID: SS-5
Date Collected: 02/15/24 10:00
Date Received: 02/15/24 16:41

Lab Sample ID: 860-68086-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.6 g	50 mL	146278	02/21/24 10:09	PB	EET HOU
Total/NA	Analysis	6010D		1			146523	02/22/24 13:46	JDM	EET HOU
Total/NA	Prep	7471B			.52 g	50 mL	146418	02/22/24 05:36	AGR	EET HOU
Total/NA	Analysis	7471B		1			146581	02/22/24 20:08	SHZ	EET HOU
Soluble	Leach	DI Leach			20 g	20 mL	146673	02/23/24 11:08	SCI	EET HOU
Soluble	Analysis	9045D		1	20 g	20 mL	146676	02/23/24 11:15	SCI	EET HOU

Client Sample ID: SS-6
Date Collected: 02/15/24 10:05
Date Received: 02/15/24 16:41

Lab Sample ID: 860-68086-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.59 g	50 mL	146278	02/21/24 10:09	PB	EET HOU
Total/NA	Analysis	6010D		1			146523	02/22/24 13:49	JDM	EET HOU
Total/NA	Prep	7471B			.51 g	50 mL	146418	02/22/24 05:36	AGR	EET HOU
Total/NA	Analysis	7471B		1			146581	02/22/24 20:09	SHZ	EET HOU
Soluble	Leach	DI Leach			20 g	20 mL	146673	02/23/24 11:08	SCI	EET HOU
Soluble	Analysis	9045D		1	20 g	20 mL	146676	02/23/24 11:15	SCI	EET HOU

Client Sample ID: WU
Date Collected: 02/15/24 10:20
Date Received: 02/15/24 16:41

Lab Sample ID: 860-68086-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			50 mL	50 mL	146465	02/22/24 09:30	MD	EET HOU
Total Recoverable	Analysis	200.7 Rev 4.4		1			146645	02/22/24 17:17	JDM	EET HOU
Total Recoverable	Prep	200.7			50 mL	50 mL	146465	02/22/24 09:30	MD	EET HOU
Total Recoverable	Analysis	200.7 Rev 4.4		1			146645	02/22/24 19:34	JDM	EET HOU
Total/NA	Prep	245.1			50 mL	50 mL	145935	02/19/24 12:05	PB	EET HOU
Total/NA	Analysis	245.1		1			146012	02/19/24 19:12	SHZ	EET HOU
Total/NA	Analysis	SM 4500 H+ B		1			145768	02/16/24 16:06	SC	EET HOU

Client Sample ID: WD
Date Collected: 02/15/24 10:15
Date Received: 02/15/24 16:41

Lab Sample ID: 860-68086-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			50 mL	50 mL	146465	02/22/24 09:30	MD	EET HOU
Total Recoverable	Analysis	200.7 Rev 4.4		1			146645	02/22/24 17:20	JDM	EET HOU
Total Recoverable	Prep	200.7			50 mL	50 mL	146465	02/22/24 09:30	MD	EET HOU
Total Recoverable	Analysis	200.7 Rev 4.4		1			146645	02/22/24 19:37	JDM	EET HOU
Total/NA	Prep	245.1			50 mL	50 mL	145935	02/19/24 12:05	PB	EET HOU
Total/NA	Analysis	245.1		1			146012	02/19/24 19:21	SHZ	EET HOU
Total/NA	Analysis	SM 4500 H+ B		1			145768	02/16/24 16:23	SC	EET HOU

Lab Chronicle

Client: CRG Texas Environmental Services Inc
Job ID: 860-68086-1
Project/Site: City of Bay City Swine Farm Investigation
SDG: 24-006

Client Sample ID: Well North
Lab Sample ID: 860-68086-9

Date Collected: 02/15/24 10:30
Matrix: Water
Date Received: 02/15/24 16:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			50 mL	50 mL	146465	02/22/24 09:30	MD	EET HOU
Total Recoverable	Analysis	200.7 Rev 4.4		1			146645	02/22/24 17:28	JDM	EET HOU
Total Recoverable	Prep	200.7			50 mL	50 mL	146465	02/22/24 09:30	MD	EET HOU
Total Recoverable	Analysis	200.7 Rev 4.4		1			146645	02/22/24 19:45	JDM	EET HOU
Total/NA	Prep	245.1			50 mL	50 mL	145935	02/19/24 12:05	PB	EET HOU
Total/NA	Analysis	245.1		1			146012	02/19/24 19:13	SHZ	EET HOU
Total/NA	Analysis	SM 4500 H+ B		1			145768	02/16/24 16:08	SC	EET HOU

Client Sample ID: Well South
Lab Sample ID: 860-68086-10

Date Collected: 02/15/24 10:35
Matrix: Water
Date Received: 02/15/24 16:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			50 mL	50 mL	146465	02/22/24 09:30	MD	EET HOU
Total Recoverable	Analysis	200.7 Rev 4.4		1			146645	02/22/24 17:31	JDM	EET HOU
Total Recoverable	Prep	200.7			50 mL	50 mL	146465	02/22/24 09:30	MD	EET HOU
Total Recoverable	Analysis	200.7 Rev 4.4		1			146645	02/22/24 19:48	JDM	EET HOU
Total/NA	Prep	245.1			50 mL	50 mL	145935	02/19/24 12:05	PB	EET HOU
Total/NA	Analysis	245.1		1			146012	02/19/24 19:16	SHZ	EET HOU
Total/NA	Analysis	SM 4500 H+ B		1			145768	02/16/24 16:04	SC	EET HOU

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Envirodyne = Envirodyne Laboratories, 11011 Brooklet Street Suite 230, Houston, TX 77099

Accreditation/Certification Summary

Client: CRG Texas Environmental Services Inc
Job ID: 860-68086-1
Project/Site: City of Bay City Swine Farm Investigation
SDG: 24-006

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	Calcium
9045D		Solid	Temperature
SM 4500 H+ B		Water	pH

Method Summary

Client: CRG Texas Environmental Services Inc
Project/Site: City of Bay City Swine Farm Investigation

Job ID: 860-68086-1
SDG: 24-006

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	EET HOU
245.1	Mercury (CVAA)	EPA	EET HOU
6010D	Metals (ICP)	SW846	EET HOU
7471B	Mercury (CVAA)	SW846	EET HOU
9045D	pH	SW846	EET HOU
SM 4500 H+ B	pH	SM	EET HOU
9223B	Total Coliforms and Escherichia coli by Colilert Presence/Absence	SM	Envirodyne
Subcontract	Fecal coliform	None	Envirodyne
Subcontract	Total coliform and E-Coli (soil)	None	Envirodyne
200.7	Preparation, Total Recoverable Metals	EPA	EET HOU
245.1	Preparation, Mercury	EPA	EET HOU
3051A	Preparation, Metals, Microwave Assisted	SW846	EET HOU
7471B	Preparation, Mercury	SW846	EET HOU
DI Leach	Deionized Water Leaching Procedure	ASTM	EET HOU

Protocol References:

ASTM = ASTM International
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 HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200
Envirodyne = Envirodyne Laboratories, 11011 Brooklet Street Suite 230, Houston, TX 77099

Sample Summary

Client: CRG Texas Environmental Services Inc
Project/Site: City of Bay City Swine Farm Investigation

Job ID: 860-68086-1
SDG: 24-006

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-68086-1	SS-1	Solid	02/15/24 09:15	02/15/24 16:41
860-68086-2	SS-2	Solid	02/15/24 09:25	02/15/24 16:41
860-68086-3	SS-3	Solid	02/15/24 09:35	02/15/24 16:41
860-68086-4	SS-4	Solid	02/15/24 09:50	02/15/24 16:41
860-68086-5	SS-5	Solid	02/15/24 10:00	02/15/24 16:41
860-68086-6	SS-6	Solid	02/15/24 10:05	02/15/24 16:41
860-68086-7	WU	Water	02/15/24 10:20	02/15/24 16:41
860-68086-8	WD	Water	02/15/24 10:15	02/15/24 16:41
860-68086-9	Well North	Water	02/15/24 10:30	02/15/24 16:41
860-68086-10	Well South	Water	02/15/24 10:35	02/15/24 16:41

Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

26 February 2024

Eurofins Houston
Anita Patel
11381 Meadowglen, Suite L
Houston, TX 77082

Eurofins

Enclosed are the results of analyses for samples received by the laboratory on 16-Feb-24 08:10. The analytical data provided relates only to the samples as received in this laboratory report.

ELI certifies that all results are NELAP compliant and performed in accordance with the referenced method except as noted in the Case Narrative or as noted with a qualifier. Any reproductions of this laboratory report should be in full and only with the written authorization from the client.

The total number of pages in this report is 13

Thank you for selecting ELI for your analytical needs. If you have any questions regarding this report, please contact us.

Sincerely,

Julie Peterson
Client Services Representative

Certificate No: T104704265-22-20

Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

Client: Eurofins Houston
Project: Eurofins
Work Order: 24B2211

Reported:
26-Feb-24 16:38

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-1 (860-68086-1)	24B2211-01	Solids	15-Feb-24 00:00	16-Feb-24 08:10
SS-2 (860-68086-2)	24B2211-02	Solids	15-Feb-24 00:00	16-Feb-24 08:10
SS-3 (860-68086-3)	24B2211-03	Solids	15-Feb-24 00:00	16-Feb-24 08:10
SS-4 (860-68086-4)	24B2211-04	Solids	15-Feb-24 00:00	16-Feb-24 08:10
SS-5 (860-68086-5)	24B2211-05	Solids	15-Feb-24 00:00	16-Feb-24 08:10
SS-6 (860-68086-6)	24B2211-06	Solids	15-Feb-24 00:00	16-Feb-24 08:10
WU (860-68086-7)	24B2211-07	Water	15-Feb-24 10:20	16-Feb-24 08:10
WU (860-68086-8)	24B2211-08	Water	15-Feb-24 10:15	16-Feb-24 08:10
Well North (860-68086-9)	24B2211-09	Water	15-Feb-24 10:30	16-Feb-24 08:10

Envirodyne Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Julie Peterson, Client Services Representative

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Client: Eurofins Houston
Project: Eurofins
Work Order: 24B2211

Reported:
26-Feb-24 16:38

SS-1 (860-68086-1)

24B2211-01 (Solids) Sampled: 15-Feb-24 00:00

Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
Microbiology										
E.coli	**1**	1	MPN/100 mL	1	B4B4804	16-Feb-24	16-Feb-24 15:49	SM9223 B	LN	
Fecal Coliform	<1000	1000	CFU/g	1	B4B5233	23-Feb-24	23-Feb-24 17:06	SM9222 D	LTB	H
Total Coliform	**10000**	10000	MPN/g	10000	B4B5235	23-Feb-24	23-Feb-24 17:30	SM9223 B	LN	H

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Client: Eurofins Houston
Project: Eurofins
Work Order: 24B2211

Reported:
26-Feb-24 16:38

SS-2 (860-68086-2)

24B2211-02 (Solids) Sampled: 15-Feb-24 00:00

Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
Microbiology										
E.coli	**9**	1	MPN/100 mL	1	B4B4804	16-Feb-24	16-Feb-24 15:49	SM9223 B	LN	
Fecal Coliform	<1000	1000	CFU/g	1	B4B5233	23-Feb-24	23-Feb-24 17:06	SM9222 D	LTB	H
Total Coliform	**670000**	10000	MPN/g	10000	B4B5235	23-Feb-24	23-Feb-24 17:30	SM9223 B	LN	H

Envirodyne Laboratories, Inc.

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Client: Eurofins Houston
Project: Eurofins
Work Order: 24B2211

Reported:
26-Feb-24 16:38

SS-3 (860-68086-3)

24B2211-03 (Solids) Sampled: 15-Feb-24 00:00

Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
Microbiology										
E.coli	**4**	1	MPN/100 mL	1	B4B4804	16-Feb-24	16-Feb-24 15:49	SM9223 B	LN	
Fecal Coliform	<1000	1000	CFU/g	1	B4B5233	23-Feb-24	23-Feb-24 17:06	SM9222 D	LTB	H
Total Coliform	**180000**	10000	MPN/g	10000	B4B5235	23-Feb-24	23-Feb-24 17:30	SM9223 B	LN	H

Envirodyne Laboratories, Inc.

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Client: Eurofins Houston
Project: Eurofins
Work Order: 24B2211

Reported:
26-Feb-24 16:38

SS-4 (860-68086-4)

24B2211-04 (Solids) Sampled: 15-Feb-24 00:00

Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
Microbiology										
E.coli	> 2420	1	MPN/100 mL	1	B4B4804	16-Feb-24	16-Feb-24 15:49	SM9223 B	LN	
Fecal Coliform	<1000	1000	CFU/g	1	B4B5233	23-Feb-24	23-Feb-24 17:06	SM9222 D	LTB	H
Total Coliform	**500000**	10000	MPN/g	10000	B4B5235	23-Feb-24	23-Feb-24 17:30	SM9223 B	LN	H

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Project:	Eurofins
Work Order:	24B2211

Reported:
26-Feb-24 16:38

SS-5 (860-68086-5)

24B2211-05 (Solids) Sampled: 15-Feb-24 00:00

Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
Microbiology										
E.coli	**816**	1	MPN/100 mL	1	B4B4804	16-Feb-24	16-Feb-24 15:49	SM9223 B	LN	
Fecal Coliform	**36000**	1000	CFU/g	1	B4B5233	23-Feb-24	23-Feb-24 17:06	SM9222 D	LTB	H
Total Coliform	**250000**	10000	MPN/g	10000	B4B5235	23-Feb-24	23-Feb-24 17:30	SM9223 B	LN	H

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Client: Eurofins Houston
Project: Eurofins
Work Order: 24B2211

Reported:
26-Feb-24 16:38

SS-6 (860-68086-6)

24B2211-06 (Solids) Sampled: 15-Feb-24 00:00

Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
Microbiology										
E.coli	**86**	1	MPN/100 mL	1	B4B4804	16-Feb-24	16-Feb-24 15:49	SM9223 B	LN	
Fecal Coliform	> 61000	1000	CFU/g	1	B4B5233	23-Feb-24	23-Feb-24 17:06	SM9222 D	LTB	H
Total Coliform	**6870000**	10000	MPN/g	10000	B4B5235	23-Feb-24	23-Feb-24 17:30	SM9223 B	LN	H

Envirodyne Laboratories, Inc.

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Julie Peterson, Client Services Representative

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Client: Eurofins Houston
Project: Eurofins
Work Order: 24B2211

Reported:
26-Feb-24 16:38

WU (860-68086-7)

24B2211-07 (Water) Sampled: 15-Feb-24 10:20

Envirodyne Laboratories, Inc.

Microbiology

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
E.coli	Present	1	MPN/100 mL	1	B4B4910	16-Feb-24	16-Feb-24 14:27	SM9223	LN	
Total Coliform	Present	1	MPN/100 mL	1	B4B4910	16-Feb-24	16-Feb-24 14:27	SM9223	LN	

Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

Client: Eurofins Houston
Project: Eurofins
Work Order: 24B2211

Reported:
26-Feb-24 16:38

WU (860-68086-8)

24B2211-08 (Water) Sampled: 15-Feb-24 10:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
Envirodyne Laboratories, Inc.										
Microbiology										
E.coli	Present	1	MPN/100 mL	1	B4B4910	16-Feb-24	16-Feb-24 14:27	SM9223	LN	
Total Coliform	Present	1	MPN/100 mL	1	B4B4910	16-Feb-24	16-Feb-24 14:27	SM9223	LN	

Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

Client: Eurofins Houston
Project: Eurofins
Work Order: 24B2211

Reported:
26-Feb-24 16:38

Well North (860-68086-9)

24B2211-09 (Water) Sampled: 15-Feb-24 10:30

Envirodyne Laboratories, Inc.

Microbiology

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
E.coli	Absent	1	MPN/100 mL	1	B4B4910	16-Feb-24	16-Feb-24 14:27	SM9223	LN	
Total Coliform	Absent	1	MPN/100 mL	1	B4B4910	16-Feb-24	16-Feb-24 14:27	SM9223	LN	

Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

Client: Eurofins Houston
Project: Eurofins
Work Order: 24B2211

Reported:
26-Feb-24 16:38

Microbiology - Quality Control

Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4B4804 - Microbiology										
Blank (B4B4804-BLK1)				Prepared & Analyzed: 16-Feb-24						
E.coli	<1	1	MPN/100 mL							
Duplicate (B4B4804-DUP1)	**Source: 24B1866-01**			Prepared & Analyzed: 16-Feb-24						
E.coli	56.0	2	MPN/100 mL		56.0			0.00	0.402	
Batch B4B5233 - Microbiology										
Blank (B4B5233-BLK1)				Prepared & Analyzed: 23-Feb-24						
Fecal Coliform	<2	2	CFU/g							
Duplicate (B4B5233-DUP1)	**Source: 24B2211-01**			Prepared & Analyzed: 23-Feb-24						
Fecal Coliform	<1000	1000	CFU/g		<1000			0	0.44	
Batch B4B5235 - Microbiology										
Blank (B4B5235-BLK1)				Prepared & Analyzed: 23-Feb-24						
Total Coliform	<1	1	MPN/g							

Envirodyne Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Julie Peterson, Client Services Representative

Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

Client:	Eurofins Houston
Project:	Eurofins
Work Order:	24B2211

Reported:
26-Feb-24 16:38

Notes and Definitions

H	Hold time exceeded
>a	> 61000
>	> 2420
ND	Analyte NOT DETECTED at or above the reporting limit
<	Result is less than the RL
a	Analyte not available for TNI/NELAP accreditation
n	Not accredited

Eurofins Houston
4145 Greenbriar Dr
Stafford, TX 77477
Phone: 281-240-4200

24B22211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Simmons, Debbie	Carrier Tracking No(s):	COC No: 860-96567.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Debbie.Simmons@et.eurofinsus.com	State of Origin: Texas	Page: Page 1 of 2
Company: Envirodyne Laboratories		Accreditations Required (See note): NELAP - Texas		Job #: 860-68086-1
Address: 11011 Brooklet Street Suite 230, ,	Due Date Requested: 2/22/2024			
City: Houston	TAT Requested (days):			
State, Zip: TX, 77099				
Phone:	PO #:			
Email:	WO #:			
Project Name: Swine Farm	Project #: 86006559			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Total coliform and E-Coli (soil))/ Total coliform and E-Coli (soil)	SUB (Fecal coliform)/ Fecal coliform	SUB (Total Coliform + E coli (P/A))	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
SS-1 (860-68086-1)	2/15/24	09:15 Central		Solid			X	X		2	
SS-2 (860-68086-2)	2/15/24	09:25 Central		Solid			X	X		2	
SS-3 (860-68086-3)	2/15/24	09:35 Central		Solid			X	X		2	
SS-4 (860-68086-4)	2/15/24	09:50 Central		Solid			X	X		2	
SS-5 (860-68086-5)	2/15/24	10:00 Central		Solid			X	X		2	
SS-6 (860-68086-6)	2/15/24	10:05 Central		Solid			X	X		2	
WU (860-68086-7)	2/15/24	10:20 Central		Water					X	2	
WD (860-68086-8)	2/15/24	10:15 Central		Water					X	2	
Well North (860-68086-9)	2/15/24	10:30 Central		Water					X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, 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 does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, 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 South Central, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2/15/24	Eurofins	CG	2.15.24 1900	
Relinquished by: CG	Date/Time: 2.16.24 0810	Company E	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 2/16/24 810	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.2/2.8 IR#4

Ver: 06/08/2021

Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

23 February 2024

Eurofins Houston
Anita Patel
11381 Meadowglen, Suite L
Houston, TX 77082

Eurofins

Enclosed are the results of analyses for samples received by the laboratory on 16-Feb-24 08:10. The analytical data provided relates only to the samples as received in this laboratory report.

ELI certifies that all results are NELAP compliant and performed in accordance with the referenced method except as noted in the Case Narrative or as noted with a qualifier. Any reproductions of this laboratory report should be in full and only with the written authorization from the client.

The total number of pages in this report is 5

Thank you for selecting ELI for your analytical needs. If you have any questions regarding this report, please contact us.

Sincerely,

Julie Peterson
Client Services Representative

Certificate No: T104704265-22-20

Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

Client: Eurofins Houston
Project: Eurofins
Work Order: 24B2210

Reported:
23-Feb-24 13:33

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Well South (860-68086-10)	24B2210-01	Water	15-Feb-24 10:35	16-Feb-24 08:10

Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

Client:	Eurofins Houston
Project:	Eurofins
Work Order:	24B2210

Reported:
23-Feb-24 13:33

Well South (860-68086-10)

24B2210-01 (Water) Sampled: 15-Feb-24 10:35

Envirodyne Laboratories, Inc.

Microbiology

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
E.coli	Absent	1	MPN/100 mL	1	B4B4910	16-Feb-24	16-Feb-24 14:27	SM9223	LN	
Total Coliform	Present	1	MPN/100 mL	1	B4B4910	16-Feb-24	16-Feb-24 14:27	SM9223	LN	

Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

Client:	Eurofins Houston
Project:	Eurofins
Work Order:	24B2210

Reported:
23-Feb-24 13:33

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Julie Peterson, Client Services Representative

Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

Client:	Eurofins Houston
Project:	Eurofins
Work Order:	24B2210

Reported:
23-Feb-24 13:33

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
<	Result is less than the RL
a	Analyte not available for TNI/NELAP accreditation
n	Not accredited

Eurofins Houston
4145 Greenbriar Dr
Stafford, TX 77477
Phone: 281-240-4200

24B2210

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Simmons, Debbie	Carrier Tracking No(s):	COC No: 860-96567.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Debbie.Simmons@et.eurofinsus.com	State of Origin: Texas	Page: Page 2 of 2
Company: Envirodyne Laboratories		Accreditations Required (See note): NELAP - Texas		Job #: 860-68086-1
Address: 11011 Brooklet Street Suite 230, ,	Due Date Requested: 2/22/2024			
City: Houston	TAT Requested (days):			
State, Zip: TX, 77099				
Phone:	PO #:			
Email:	WO #:			
Project Name: Swine Farm	Project #: 86006559			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Total coliform and E-Coli (soil))/ Total coliform and E-Coli (soil)	SUB (Fecal coliform)/ Fecal coliform	SUB (Total Coliform + E coli (P/A))	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
Well South (860-68086-10)	2/15/24	10:35 Central		Water					X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, 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 does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, 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 South Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2/15/24	Eurofins	CH	2-14-24 1400	
Relinquished by: CH	Date/Time: 2.16.24 0810	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 2/16/24 820	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.2/2.8 IR#4

Ver: 06/08/2021

Eurofins Houston
4145 Greenbriar Dr
Stafford, TX 77477
Phone (281) 240-4200

Chain of Custody Record

860-68086 Chain of Custody

eurofins | Environment Testing

Client Information	Sampler: CARDENAS / Hogue	Lab PM: Simmons, Debbie	No: 0-26813-9338.1
Client Contact: Kevin Casler	Phone: 713-818-2758	E-Mail: Debbie.Simmons@et.eurofinsus.com	Page: Page 1 of 1
Company: CRG Texas Environmental Services Inc	PWSID:		Job #:
Address: 2504 Avenue I	Due Date Requested: STD		
City: Rosenberg	TAT Requested (days): 5-7 d		
State, Zip: TX, 77471	Compliance Project: Δ Yes Δ No		
Phone: 713-474-1570(Tel)	PO #: Purchase Order Requested		
Email: kevin@crgtexas.com / johne@crgtexas.com	WO #: 24-006		
Project Name: City of Bay City Swine Farm Investigation	Project #: 86006559		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:
A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	pH	ICP Metals+ Mercury	Total Coliform + E coli (P/A)	Fecal coliform bacteria	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N	N		
SS-1	2/15/24	0915	G	S			X*	X	X	X	1	
SS-2		0925		S			X	X	X	X	1	
SS-3		0935		S			X	X	X	X	1	
SS-4		0950		S			X	X	X	X	1	
SS-5		1000		S			X	X	X	X	1	
SS-6		1005		S			X	X	X	X	1	
WW		1020		W			X	X	X	X	4	
WD		1015		W			X	X	X	X	4	
Well North		1030		W			X	X	X	X	4	
Well South		1035		W			X	X	X	X	4	

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are reta
☐ Return To Client ☐ Disposal By Lab ☐ A

Temp 5.6 IR ID HOU-369
C/F:-0 0 5.6
Corrected Temp: 5.6

Deliverable Requested: I, II, III IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 2/15/24 1641	Company: CRG	Received by: / Date/Time: / Company:
Relinquished by:	Date/Time:	Company:	Received by: CG / Date/Time: 2/15/24 1641 / Company: C
Relinquished by:	Date/Time:	Company:	Received by: / Date/Time: / Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.		Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

2/26/2024

Login Sample Receipt Checklist

Client: CRG Texas Environmental Services Inc

Job Number: 860-68086-1
SDG Number: 24-006

Login Number: 68086
List Number: 1
Creator: Torres, Sandra

List Source: Eurofins Houston

Question	Answer	Comment
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	5.6
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.	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 <6mm (1/4").	True	